

Appendix A: Structural Steel Certification Backup Data



ISO 9001: 2000  
REGISTERED

# METAL-COR 6XC

## Key Benefits:

High deposition rates, low spatter levels, smooth bead appearance.

## Approvals:

CSA/CWB W48, Class E491C-6, -6M-H4  
CSA/CWB W48, Class E492C-6, -6M-H4 (2.0 mm only)  
Lloyd's Register of Shipping, Grade 3S,3YS,H5  
ABS Grade 3Y400

## Conformances:

AWS A5.18, Class E70C-6M, -6C  
ASME SFA5.18, Class E-70C-6M, -6C

## Characteristics:

Metal-COR 6XC is a metal cored gas shielded tubular wire designed to provide the advantages of the high deposition rates of a flux cored wire with the high deposition efficiency of a solid wire. Easy to set welding parameters, low spatter levels, and excellent wire feedability are also key advantages of this product. Metal-COR 6XC main advantages over solid wire are its ability to increase productivity through increases in travel speed and its ability to handle poor fit-up conditions minimizing burn-through. When compared to conventional flux cored wire, Metal-COR 6XC produces exceptionally smooth bead appearance, no slag covering to chip off, and lower smoke and fume levels.

## Applications:

Designed for the welding of low and medium carbon steels in the flat and horizontal position. Single and multi-pass welding is possible. This wire will deposit large quantities of filler metal with minimum amounts of spatter, smoke and slag. It is ideally suited for high production and/or automated applications such as steel structures, earth moving equipment, rail car or storage vessel manufacture.

## Mechanical Properties:

Shielding Gas Used	Tensile Strength MPa (psi)	Yield Strength MPa (psi)	Elongation %	Charpy V-Notch Impact Values Joules (ft.lbs.) As welded @ -30°C (-20°F)
100% CO <sub>2</sub>	580 (84,000)	540 (78,000)	28	81 (60 ft./lb.)
95% Ar / 5% CO <sub>2</sub>	630 (91,000)	590 (86,000)	28	64 (47 ft./lb.)
95% Ar / 5% O <sub>2</sub> only	590 (85,550)	515 (74,675)	30	37 (27 ft./lb.)

Note: All values are typical.

## Chemical Composition of Weld Metal (%)

Shielding Gas Used	C	Mn	Si	Ph	S
100% CO <sub>2</sub>	0.054	1.51	0.69	0.007	0.015
95% Ar / 5% CO <sub>2</sub>	0.053	1.69	0.79	0.008	0.017
95% Ar / 5% O <sub>2</sub> only	0.040	1.5	0.56	0.007	0.011

Note: All values are typical.

MCMS-101 Rev. 12 10/07

The information contained or otherwise referenced herein is presented only as "typical" without guarantee or warranty and Hobart Brothers of Canada expressly disclaims any liability incurred from any reliance thereon. Typical data are those obtained when welded and tested in accordance with CSA specifications W48.5M. Other tests and procedures may produce different results. No data is to be construed as a recommendation or technique not controlled by Hobart Brothers of Canada.

Material Safety Data Sheets (MSDS) on any Corex product may be obtained from the Customer Service department of Hobart Brothers of Canada.

Corex is a registered trademark of Hobart Brothers of Canada

**COREX products are manufactured by:**  
Hobart Brothers of Canada - An ITW Canada Company  
P.O. Box 150, 807 Pattullo Ave.,  
Woodstock, Ontario N4S 7W8  
Phone: (877) 422-9353, Fax: (519) 421-0480



# METAL-COR 6XC

## Welding Position:

**All position**

Note: When welding out of position, short circuit transfer is used.

## Shielding Gas(es):

**100% CO<sub>2</sub> up to 95% Ar/5% CO<sub>2</sub> and 95% Ar/5% O<sub>2</sub>**

## Gas Flow Rates:

**20 l/min - 30 l/min (40ft<sup>3</sup>/hr - 60 ft<sup>3</sup>/hr)**

## Polarity:

**Direct current electrode positive (DCEP), reverse polarity**

## Recommended Operating Parameter Ranges using 95% Ar / 5% CO<sub>2</sub>:

Wire Diameter		Arc Voltage (volts)	Wire Feed Speed		Electrode Stick Out		Current (amps)	Deposition Rate	
mm	inches		cm/min	ipm	mm	inches		kg/hr	lbs/hr
1.2	0.045	25 - 29	790 - 1295	310 - 510	16	5/8	250 - 360	3.8 - 6.4	8.4 - 14.1
1.2	0.045	27	1000	395	16	5/8	290	5.0	11.0
1.4	0.052	25 - 30	890 - 1160	350 - 455	16	5/8	295 - 380	5.2 - 6.6	11.4 - 14.6
1.4	0.052	27	1000	395	16	5/8	330	5.7	12.6
1.6	1/16	25 - 29	760 - 1040	300 - 410	19	3/4	340 - 430	6.3 - 8.5	13.8 - 18.8
1.6	1/16	27	711.2	350	19	3/4	380	7.3	16.2

Note: 1) Highlighted areas are optimum values  
2) Shielding gas used: 95% Ar / 5% CO<sub>2</sub>

## Recommended Operating Parameter Ranges using 95% Ar/5% O<sub>2</sub>:

Wire Diameter		Arc Voltage (volts)	Wire Feed Speed		Electrode Stick Out		Current (amps)	Deposition Rate	
mm	inches		cm/min	ipm	mm	inches		kg/hr	lbs/hr
1.2	0.045	23	1270	500	16	5/8	300	5.9	13.0
1.4	0.052	23	1016	400	16	5/8	320	6.8	13.8
1.6	1/16	24	711.2	280	19	3/4	280	6.2	13.7

Note: 1) Highlighted areas are optimum values  
2) Shielding gas used: 95% Ar / 5% O<sub>2</sub>

## Available Packaging:

Wire Diameter		Standard Packaging	Standard Pallet	Stock Number
mm	inches			
1.2	0.045	20 kg Spool	720 kg	MC6XC1220S
1.2	0.045	25 kg Coil	500 kg	MC6XC1225C
1.4	0.052	20 kg Spool	720 kg	MC6XC1420S
1.4	0.052	25 kg Coil	500 kg	MC6XC1425C
1.6	1/16	20 kg Spool	720 kg	MC6XC1620S
1.6	1/16	25 kg Coil	500 kg	MC6XC1625C

Note: Other packaging options may be available, please consult Hobart Brothers of Canada for availability and order requirements.

MCMS-101 Rev. 12 10/07

Hobart Brothers of Canada - An ITW Canada Company is constantly improving products and reserves the right to change design, specifications and / or packaging without notice.

**Filler Metals Certificate of Compliance  
for Corex Brand Welding Consumables**

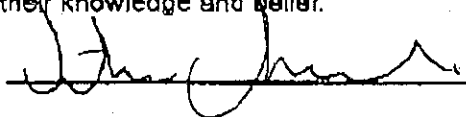
This is to certify that the product identified on this certificate of compliance supplied, is approved to and or conforms to the requirements of the classification(s) stated herein. All testing required by specification(s) were

**Product:** Metal-COR 8XC                      **Customer:** Linde  
**Approvals:** CWB W48-01                      **Attn:** Dennis  
 Lloyd's Register of Shipping                      **Date:** Sept. 10/08  
 ABS  
**Class:** E491C-8,-6M-H4                      **Product** MC8XC  
 3S,3YS,H5                      **P.O.#** N/A  
 Grade 3Y400  
**Conformances:** AWS A5.18                      **Lot(s):** N/A  
 ASME SFA6.18  
**Class:** E70C-8M,-8C                      **Diameter:** 1.2mm  
 E70C-8M,-8C (F8,A1)

Typical Mechanical Properties				Typical Chemical Analysis			
Gas Shielding	CO2	95Ar/5CO2	95Ar/5O2	Element	CO2	95Ar/5CO2	95Ar/5O2
Tensile Strength MPa	625MPa	865MPa	645MPa	Carbon	0.047	0.028	0.03
Yield Strength MPa	570MPa	815MPa	575MPa	Manganese	1.72	1.68	1.63
Elongation %	28%	26%	27%	Phosphorus	0.01	<0.01	0.01
Impact Test Temperature	-30°C (-22°F)	-30°C (-22°F)	30°C (-22°F)	Sulphur	0.01	0.013	0.01
Avg. Charpy V-Notch Joules	47joules	57joules	42joules	Silicon	0.86	0.84	0.82
X-Ray	x	x	x	Chromium	n/a	n/a	n/a
Fillet Weld	x	x	x	Nickel	n/a	n/a	n/a
Hydrogen	1.88	1.69	0.82	Molybdenum	n/a	n/a	n/a
				Vanadium	n/a	n/a	n/a
				Aluminum	n/a	n/a	n/a
				Copper	n/a	n/a	n/a

Reference: 432757-2006 438883-2006 427886-2006

The undersigned certifies that the above information is correct to the best of their knowledge and belief.

By: 

For Hobart Brothers of Canada

**Filler Metals Certificate of Compliance  
for Corex Brand Welding Consumables**

This is to certify that the product identified on this certificate of compliance supplied, is approved to and or conforms to the requirements of the classification(s) stated herein. All testing required by specification(s) were

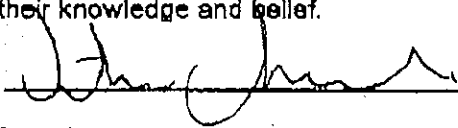
<b>Product:</b>	Metal-COR 6XC	<b>Customer:</b>	Linde
<b>Approvals:</b>	CWB W48-01 Lloyd's Register of Shipping ABS	<b>Attn:</b>	Dennis
<b>Class:</b>	E491C-8,-6M-H4 3S,3YS,H5 Grade 3Y400	<b>Date:</b>	Sept. 10/08
<b>Conformances:</b>	AWS A5.18 ASME SFA5.18	<b>Product</b>	MC6XC
		<b>P.O.#</b>	N/A
		<b>Lot(s):</b>	N/A
<b>Class:</b>	E70C-8M,-8C E70C-8M,-8C (F8,A1)	<b>Diameter:</b>	1.2mm

Typical Mechanical Properties				Typical Chemical Analysis			
Gas Shielding	CO2	95Ar/5CO2	95Ar/5O2	Element	CO2	95Ar/6CO2	95Ar/5O2
Tensile Strength MPa	625MPa	665MPa	645MPa	Carbon	0.047	0.028	0.03
Yield Strength MPa	570MPa	615MPa	575MPa	Manganese	1.72	1.68	1.63
Elongation %	28%	26%	27%	Phosphorus	0.01	<0.01	0.01
Impact Test Temperature	-30°C (-22°F)	-30°C (-22°F)	30°C (-22°F)	Sulphur	0.01	0.013	0.01
Avg. Charpy V-Notch Joules	47joules	57joules	42joules	Silicon	0.86	0.84	0.82
X-Ray	x	x	x	Chromium	n/a	n/a	n/a
Fillet Weld	x	x	x	Nickel	n/a	n/a	n/a
Hydrogen	1.88	1.89	0.82	Molybdenum	n/a	n/a	n/a
				Vanadium	n/a	n/a	n/a
				Aluminum	n/a	n/a	n/a
				Copper	n/a	n/a	n/a

Reference: 432757-2006 438993-2006 427686-2006

The undersigned certifies that the above information is correct to the best of their knowledge and belief.

By: \_\_\_\_\_



For Hobart Brothers of Canada





# Test Certificate

Form TCI: Revision 1: Date 31 Oct 2000

1051 Tapscott Road, Toronto, ON M1X 1A1

Customer:  
 SAMUEL & FILS & CIE (QUEBEC) L  
 2225 FRANCIS HUGHES  
 AVENUE  
 LAVVAL  
 PQ H7S1NS

Customer P.O. No.: C51214  
 Product Description: CSA G40.21(2004)44W/300W / ASTM A36(Q5)  
 A709(01A)36/ASME SA36(01ED)

Mill Order No.: 41-212780-06  
 Shipping Manifest: TT035172

Ship Date: 07 Apr 08  
 Cert No: 021045496  
 Cert Date: 07 Apr 08  
 (Page 1 of 1)

Size: 0.375 X 96.00 X 240.0 (IN)

Heat Id	Piece Id	Piece Dimensions	Tensiles			Charpy Impact Tests			BOWTT Temp %Shr									
			Tst Loc	YS (PSI)	UTS (PSI)	%RA	Elong % 2in 3in	Tst Dir		Average Hardness	Abs. Energy (FTLB) 1 2 3 Avg	% Shear 2 3 Avg	Tst Temp	Tst Dir	Tst Tst (mm)			
B8B674	0391	0.376 X 96.00 (T.L.C)	L	54000	70000		34											
			C	52000	67000		33											

Heat Id	Chemical Analysis											ORGN				
	C	Mn	P	S	Si	TotAl	Cu	Ni	Cr	Mo	Co		V	Ti	B	N
B8B674	.16	.84	.020	.003	.05	.036	.25	.12	.16	.04	.001	.004	.011	.00001	.0077	CAN

MERCURY IS NOT A METALLURGICAL COMPONENT OF THE STEEL AND NO MERCURY WAS INTENTIONALLY ADDED DURING THE MANUFACTURE OF THIS PRODUCT  
 MATERIAL MARKED WITH AN ASTERISK IS PRODUCED FROM COIL  
 \* B8B674 0391 PCES: 9, WGT: 22053

*HT# B8B674 is used to fab. items: P315*

60 Cust Part # :

WE HEREBY CERTIFY THAT THIS MATERIAL WAS TESTED IN ACCORDANCE WITH THE APPROPRIATE SPECIFICATION

Paul Beaudon  
 CHECKED BY





Atm



CHEMICAL AND PHYSICAL TEST REPORT

MADE IN CANADA

Shippers Number: 9-003207

MILTON DEPOT

METALLURGICAL DEPARTMENT

HWY 25 NORTH, MILTON, ON H4N 2E9

PRODUCING MILL IS KNOWN BY HEAT ID PREFIX: B=CARTERSVILLE BB, C=CHARLOTTE, G=CARTERSVILLE, J=JACKSONVILLE, K=KNOXVILLE, N=CAMBRIDGE, O=ORRVILLE BB, P=PERTH AMBOY, S=SAYREVILLE, V=JACKSON TN, W=WHITBY

SHIP TO:		INVOICE TO:		SHIP DATE		SALES ORDER		CUSTOMER P.O. NUMBER	
PACIFIQUE STEEL		PACIFIQUE STEEL INC		07/12/04		4052862			
845 MUNCK STREET CHOMEDEY		845 MUNCK ST.		CUST. ACCOUNT NO.		NB		B	
514-384-6880		LAVAL		80039832		N		MO	
LAVAL		PQ H7S 1A9		PQ H7S 1A9		AL		SN	

SHAPE AND SIZE	GRADE	SPECIFICATION																						
		C	MIN	P	S	V	SI	CR	CU	NI	SN	AL	MO	N	NB	B	ZR	TI	CA	ZN	C	EDU		
A 6 X 4 X 3/8	44W	.19	.69	.006	.019	.000	.19	.08	.32	.10	.011	.000	.029	.0115	.000	.0000	.000	.000000	.000000	.000000	.000000	.000000	.000000	.35
CSA-G40.21-98(44W);ASTM A394-01a ASTM708-01b ASME-SA36-00a YIELD PT LBS/SQ IN: 49022; TENSIL LBS/SQ IN: 73180; % ELONG 8 IN: 25.6; BEND: ; DEF: ; % LIGHT-HEAVY: METRIC EQUIVALENT: YIELD = 337.88 MPA; TENSILE = 504.42 MPA; %ELONG/200MM=25.6 DEF. = MM																								
A 6 X 4 X 3/8	44W	.19	.69	.006	.019	.000	.19	.08	.32	.10	.011	.000	.029	.0115	.000	.0000	.000	.000000	.000000	.000000	.000000	.000000	.000000	.35
CSA-G40.21-98(44W);ASTM A394-01a ASTM708-01b ASME-SA36-00a YIELD PT LBS/SQ IN: 49036; TENSIL LBS/SQ IN: 72824; % ELONG 8 IN: 26.2; BEND: ; DEF: ; % LIGHT-HEAVY: METRIC EQUIVALENT: YIELD = 339.08 MPA; TENSILE = 502.10 MPA; %ELONG/200MM=26.2 DEF. = MM																								
A 6 X 4 X 5/16	44W	.16	.82	.013	.028	.000	.22	.06	.31	.10	.013	.000	.033	.0146	.000	.0000	.000	.000000	.000000	.000000	.000000	.000000	.000000	.35
C.S.A. G40.21-98 (44W/50W); ASTM: A36 - 97a ASTM708-97b ASME: SA36 (A) YIELD PT LBS/SQ IN: 51455; TENSIL LBS/SQ IN: 74915; % ELONG 8 IN: 28.2; BEND: ; DEF: ; % LIGHT-HEAVY: METRIC EQUIVALENT: YIELD = 354.77 MPA; TENSILE = 518.52 MPA; %ELONG/200MM=28.2 DEF. = MM																								
A 6 X 4 X 5/16	44W	.16	.82	.013	.028	.000	.22	.06	.31	.10	.013	.000	.033	.0146	.000	.0000	.000	.000000	.000000	.000000	.000000	.000000	.000000	.35
C.S.A. G40.21-98 (44W/50W); ASTM: A36 - 97a ASTM708-97b ASME: SA36 (A) YIELD PT LBS/SQ IN: 52203; TENSIL LBS/SQ IN: 73692; % ELONG 8 IN: 25.6; BEND: ; DEF: ; % LIGHT-HEAVY: METRIC EQUIVALENT: YIELD = 359.83 MPA; TENSILE = 507.40 MPA; %ELONG/200MM=25.6 DEF. = MM																								

This material, including the billets, was produced and manufactured in Canada.

*A. J. Turner*  
 A. J. Turner  
 Quality Assurance Manager  
 MBI Group

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST REPORT AS CONTAINED IN THE PERMANENT RECORDS OF THE COMPANY.



Steel Tube Institute  
OF NORTH AMERICA

Steel Service Center Institute

Standards Council of Canada  
Conseil canadien des normes

Authorized by Quality Assurance:

*[Handwritten signature]*

Material:	8.0x6.0x13x37.0"(3x1).	Material No.	80060313	Made in Canada
Sales order:	157860	Purchase Order:	1379	
Heat No:	C Mn P S Si Al Cu	Mo Ni Cr V		
Yield:	0.220	0.900	0.006	0.006
Tensile:	0.006	0.006	0.018	0.038
Eln.zin:	0.000	0.000	0.000	0.000
Certification:	ASTM A500-03A GRADE C & B			
Material Note:				
Sales Or.Note:				

Material:	8.0x6.0x13x39.10"(2x2).	Material No.	80060313	Made in Canada
Sales order:	157860	Purchase Order:	1379	
Heat No:	C Mn P S Si Al Cu	Mo Ni Cr V		
Yield:	0.184	0.723	0.010	0.007
Tensile:	0.010	0.007	0.170	0.014
Eln.zin:	0.129	0.000	0.000	0.000
Certification:	ASTM A500-03A GRADE C & B			
Material Note:				
Sales Or.Note:				

Material:	6.0x6.0x13x50.0"(3x1).	Material No.	80060313	Made in Canada
Sales order:	157860	Purchase Order:	1379	
Heat No:	C Mn P S Si Al Cu	Mo Ni Cr V		
Yield:	0.184	0.723	0.010	0.007
Tensile:	0.010	0.007	0.170	0.014
Eln.zin:	0.129	0.000	0.000	0.000
Certification:	ASTM A500-03A GRADE C & B			
Material Note:				
Sales Or.Note:				

Material:	6.0x6.0x188x35.1"(4x2).	Material No.	80080188	Made in Canada
Sales order:	158111	Purchase Order:	1396	
Heat No:	C Mn P S Si Al Cu	Mo Ni Cr V		
Yield:	0.200	0.790	0.009	0.003
Tensile:	0.009	0.003	0.018	0.043
Eln.zin:	0.020	0.000	0.000	0.000
Certification:	ASTM A500-03A GRADE C & B			
Material Note:				
Sales Or.Note:				

Shipped to  
Acier Altube Inc.  
1 Rue Provost (entry on Victoria St  
LACHINE QC H8S 4H2  
CANADA

200 Clair Street, Harrow, Ontario, Canada N0R 1G0  
Tel: (519) 738-6000  
Acier Altube Inc.  
1 Rue Provost - Suite 306  
LACHINE QC H8S 4H2  
CANADA

Ref.B/L:80150352  
Date:03.23.2009  
Customer:1774



Load #: Drop

Shipping Date:

Waybill #: 898-Drop

Customer: Pizzagalli Construction Company  
 Job Title: 84 Marginal Way  
 Date Sent to Shop: X  
 Job Number: 898

Job Progress Report Sheet

SHEET: 1

Prepared By: Approved By: Date: 24-01-01  
 Bathurst Machine Shop Ltd. 1040 Route 430  
 Mandate Erectors & Welding Ltd. Big River Road  
 MQM Ltd., Tracadie E2A 6P9

Form#12 Rev. 4

\* = SEE SHOP DWG

C=COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped												
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date								
	L4X4X3/8		na	4	26																															
A	PIPE 8" XS		SKS61	1	223																															
A	TS 10X4X3/8		EP1	1	398																															
	TS 10X4X3/8		EP2	1	402																															
	TS 10X4X3/8		EP3	1	527																															
	TS 10X4X3/8		EP4	1	527																															
	TS 10X4X3/8		PB1	1	214																															
A	PIPE 6" XS		T1	1	117																															

Pieces

11

2434 Total Weight(Lbs)

( 1.2 TONS)



**Field Bolts List, 10% added in Qty.**

**Load Drop  
Sheet 7**

<u>Type</u>	<u>Description</u>	<u>Qty.</u>	<u>Weight</u>	<u>=</u>	<u>Kegs</u>	<u>±</u>	<u>Bolts</u>		
A325	3/4"X3" GALV.	85	85						
A325	3/4"X2 GALV.	65	65						
<b>Total</b>		150	150	lbs					

PART NO.

Alinc

		<b>QUALITY CERTIFICATE</b>		Ref. Nr.: 013485/2007 Pag.: 01							
Customer: ARCELOR INTERNATIONAL CANADA Products: ANGLES 43/8"X40FT 350W Purchase Order: 2007 Q1 Material		Size: 4 X 4 X 3/8 POL Order Number: 2212537 Grade: 350W									
Heat	Wt.	YIELD POINT	TENSILE STRENGTH	% ELONGATION	% C	% Mn	% Si	% P	% S	% Mb	% Cu
5773601	2	366	465	22.00	0.120	0.700	0.170	0.020	0.028	0.021	0.230
TOTAL		2	3.918								
Heat		% Cr	% Ni	% Sn	% Mo						
5773601		0.070	0.050	0.022	0.011						
Remarks: We hereby certify that the material herein listed was produced, inspected, tested and approved in accordance with the standard or the specification required.											
											
						Date: 19/MAR/2007					
						Approved by:			Belgo Siderurgia S/A.		

*HT # 5773601 is used to fab item: aa*

ANGLE 4.0 X .375 X 40 FT 350W

B

6" STD

YL

江苏玉龙钢管股份有限公司  
JIANGSU YULONG STEEL PIPE CO.,LTD.  
YUJI,WUXIJIANGSU STEEL PIPE CO.,LTD. P.R.CHINA  
**MILL CERTIFICATE**

original

TO NORTH-EAST TUBES INC.

CONTRACT NO: YLW0702021  
DESTINATION: TORONTO, CANADA  
COMMODITY: ERW STEEL PIPE  
RVN NO: YL00521

SPECIFICATION: API 5L X42  
PRODUCTION: NOV 2001  
ISSUE DATE: NOV 11 2001  
ATC NO: YL00521

LOT NO.	SIZE		QUANTITY		WEIGHT KGS/M	TOTAL WEIGHT MT	HEAT NO.	CHEMICAL COMPOSITION (%)						PHYSICAL TEST		ULTRA SONIC TEST	HYDRO TEST PSI	VISUAL DIMENSION	SIGNA- LITNESS MM
	INCH	MM	PCS	BDLS				C	Mn	P	S	Si	MS	V	Ti				
YL-100-01	6"	0.780	1	291	28.76	157.894	071024	15	40	14	1	2	1	1	413	315	453	ACCEPT	ACCEPT
YL-100-01	6"	0.780	2	1	21.25	0.363	327488	15	40	9	1	2	1	1	413	315	453	ACCEPT	ACCEPT
YL-100-01	10"	0.353	1	193	60.29	75.742	707126	11	51	19	1	6	1	1	480	315	470	ACCEPT	ACCEPT
YL-100-01	12"	0.375	1	108	33.78	50.997	078166	11	35	11	1	2	1	1	413	315	450	ACCEPT	ACCEPT
YL-100-04	14"	0.375	1	50	81.73	26.000	070833	16	30	4	1	3	2	1	413	315	453	ACCEPT	ACCEPT
YL-100-05	16"	0.375	1	42	91.11	23.044	077932	20	51	5	1	3	2	1	413	315	453	ACCEPT	ACCEPT
TOTAL:			497	1278		333.519													

SIGNATURE:

HT# 071023 is used to fab item: T1

APPROVED BY: [Signature]  
DATE: [Date]  
FOR AND ON BEHALF OF  
JIANGSU YULONG STEEL PIPE CO  
唐永清  
Authorized signat

Atlas Tube Canada ULC  
 200 Clark St  
 Harrow, Ontario Canada  
 N0P 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537

Ref.B/L: 80222052  
 Date: 01.15.2007  
 Customer: 1774



**MATERIAL TEST REPORT**

Sold to

Acier Altitude Inc.  
 1 Rue Provost - Suite 306  
 LACHINE QC H8S 4H2  
 CANADA

Shipped to

Acier Altitude Inc.  
 1 Rue Provost (Entry on Vic  
 LACHINE QC H8S 4H2  
 CANADA

Material: 6 625x500x46.0" (2x1)  
 Sales order: 271122

Material No: R06625500  
 Purchase Order: 2753

Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
9492D	0.200	0.230	0.008	0.007	0.020	0.026	0.020	0.000	0.010	0.020	0.020	0.002

Bundle No	Yield	Tensile	Eln.2in	Certification
M100564468	058236 Psi	071900 Psi	32.1 %	ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or. Note: *HY #9492D is used to fab item SKS101*

Material: 12 750x250x41.1" (2x1)  
 Sales order: 271122

Material No: R12750250  
 Purchase Order: 2753

Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
215EX	0.190	0.350	0.007	0.005	0.020	0.041	0.020	0.002	0.000	0.010	0.030	0.002

Bundle No	Yield	Tensile	Eln.2in	Certification
M200402444	059603 Psi	073680 Psi	30.9 %	ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or. Note:

Material: 12 750x250x41.1" (2x1)  
 Sales order: 271122

Material No: R12750250  
 Purchase Order: 2753

Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
215EX	0.190	0.350	0.007	0.005	0.020	0.041	0.020	0.002	0.000	0.010	0.030	0.002

Bundle No	Yield	Tensile	Eln.2in	Certification
M200402445	059603 Psi	073680 Psi	30.9 %	ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or. Note:

Authorized by Quality Assurance: \_\_\_\_\_



MATERIAL TEST REPORT  
 DATE 12/07/07  
 PAGE 1  
 BILL OF LADING: 166575

LEAVITT TUBE COMPANY, LLC

CUST

TUBING MANUFACTURED IN USA

106454 11019217

ITEM NO.	PIECES	SIZE, GAUGE, LENGTH
1	2	P3X8-313HRB 576
2 - 3	4	P3X8-313HRB 576
4	6	P10X4-375HRB 576
5	8	P10X4-250HRB 576
6 - 8	16	P10X4-250HRB 576

QTY SHIPPED	CUSTOMER P.O.	ORDER NUMBER	CUSTOMER PART NBR	ASTM SPECIFICATION	GRADE
96	33351	1009381	1.400	A500-03b	C
192	33351	1009381	1.400	A500-03b	C
288	33746	1039079	1.000	A500-03b	C
384	33746	1039078	1.000	A500-03b	C
768	33951	1035748	1.000	A500-03b	C

ITEM NO.	COIL NO.	HEAT NO	1	2	3	4	5	6
	391704	811W09390	391704	391744	391704	397605	397423	397423
	811W09390	811W09390	811W09390	811W09390	811W09390	K3991	K4002	K4002

CORRECTED COIL

CARBON	.160	.160	.190	.180	.180
MANGANESE	.980	.980	.700	.630	.630
PHOSPHORUS	.011	.011	.011	.010	.010
SULFUR	.007	.007	.007	.004	.004
ALUMINUM	.038	.038	.023	.026	.026
SILICON	.025	.025	.030	.030	.030
WELD TESTING	FLARE	FLARE	FLARE	FLARE	FLARE
YIELD STRENGTH (PSI)	53,901	53,901	55,621	53,097	53,097
TENSILE STRENGTH (PSI)	68,794	68,794	79,290	70,796	70,796
ELONGATION IN 2" (%)	33.0	33.0	30.0	29.0	29.0

Item(s): 1 2 3 4 5 6 Are

Made and Melted  
 In The U.S.A.

HT # K3991 is used to fab items: EPI to EPH, PBI

I HEREBY CERTIFY THAT THE ABOVE IS CORRECT  
 AS CONTAINED IN THE RECORDS OF THE COMPANY





SET NO. 2004-17788

## FASTENER TEST REPORT

(THIS DOCUMENT MAY BE REPRODUCED, BUT ONLY IN ITS ENTIRETY.)

DATE: 2004-04-14

DESCRIPTION	A687 A325-1+A563-DH 0/8+P436-1 3/4-10 X 3
-------------	--

## BOLT

A325 TYPE 1 STRUCTURAL BOLT H.D. GALV.  
MARKING: HOLLOW TRIANGLE & 3 RADIAL LINES (OPTIONAL) & A-325

LOT NO. 0401-50221 A201G	MANUFACTURED BY INFASCO					HARDNESS (ROCKWELL) HRC 28.0 - HRC 34.0	PROOF LOAD (LBS) MIN: 28,400	TENSILE STRENGTH (LBS) MIN: 40,100
MEAN VALUE						30.3	PASS	51,033
HEAT NO.	C%	Mn%	P%	S%	SI%			
A56437	0.39	0.72	0.008	0.009	0.20			

## NUT

A563 HEX NUT A563 (R DR DMC OVERSIZE H.D. GALV.  
MARKING: TRIANGLE & DR

LOT NO. 0401-50905 0259G	MANUFACTURED BY INFASCO					HARDNESS (ROCKWELL) HRC 24.0 - HRC 33.0	PROOF LOAD (LBS) MIN: 50,100
MEAN VALUE						29.9	PASS
HEAT NO.	C%	Mn%	P%	S%	SI%	CU%	
C48561	0.46	0.96	0.009	0.010	0.22	0.14	

## WASHER

F-434-1 STRUCTURAL WASHER H.D. GALV.  
MARKING: P436, MANUFACTURER'S I.D. AND A TRIANGLE (OPT.)

LOT NO. 0401-90018 B127C	MANUFACTURED BY TECHNICAL STAMPING INC USA					HARDNESS (ROCKWELL) HRC 28.0 - HRC 44.0
MEAN VALUE						40.3
HEAT NO.	C%	Mn%	P%	S%	SI%	
214555G	0.24	0.76	0.008	0.002	0.03	

TESTED FOR ROTATIONAL CAPACITY WITH A TENSION MEASURING DEVICE, IN ACCORDANCE WITH SECTION 10.2 OF ASTM-A-325. THE ASSEMBLY MEETS THE REQUIREMENTS OF ASTM A 325, SECTION 6.3  
-NUTS LUBRICATED.

Abdelhay B. Quedi, eng.  
ISO Coordinator



QRT NO: 2006-26221

**FASTENER TEST REPORT**  
(THIS DOCUMENT MAY BE REPRODUCED, BUT ONLY IN ITS ENTIRETY)

DATE: 2006-05-11

DESCRIPTION: A A325-1 NA+A563-LH O/S+P436-1  
3/4-10 X 2

**BOLT**

A325 TYP 1 STRUCTURAL BOLT H.D. GALV.  
MARKING: HOLLOW TRIANGLE & 3 RADIAL LINES (OPTIONAL) & A-125

LOT NO. 0604-53226 658NG	MANUFACTURED BY INFASCO			HARDNESS (ROCKWELL) HRC 21.6 - HRC 24.0		PROOF LOAD (LBS) MIN: 28,400	TENSILE STRENGTH (LBS) MIN: 40,100
MEAN VALUE				32.3		PASS	48,100
HEAT NO.	C %	Mn %	P %	S %	SI %		
492990	0.36	0.99	0.011	0.011	0.21		

**NUT**

NUT HEX FWT A563 GR DH UNC OVERSIZE H.D. GALV.  
MARKING: TRIANGLE & DH

LOT NO. 0509-58372 25210	MANUFACTURED BY INFASCO			HARDNESS (ROCKWELL) HRC 21.0 - HRC 23.0		PROOF LOAD (LBS) MIN: 56,100
MEAN VALUE				29.1		PASS
HEAT NO.	C %	Mn %	P %	S %	SI %	CU %
255044	0.54	0.92	0.006	0.027	0.22	0.27

**WASHER**

F-436-1 STRUCTURAL WASHER H.D. GALV.  
MARKING: P436, MANUFACTURER'S I.D. AND A TRIANGLE (OPT.)

LOT NO. 0508-90016 52906	MANUFACTURED BY TECHNICAL STAMPING INC OSA			HARDNESS (ROCKWELL) HRC 23.0 - HRC 44.0	
MEAN VALUE				42.7	
HEAT NO.	C %	Mn %	P %	S %	SI %
2437872	0.28	0.53	0.007	0.002	0.16

TESTED FOR ROTATIONAL CAPACITY WITH A TORQUE MEASURING DEVICE, IN ACCORDANCE WITH SECTION 19.2 OF ASTM-A-325. THE ASSEMBLY METS THE REQUIREMENTS OF ASTM A 325, SECTION 5.3 - NUTS LUBRICATED.

*Daniel Guibault*

Daniel Guibault  
Quality Assurance Foreman

Load #:

Drop

Shipping Date:

Waybill #: 898-Drop

Customer: Pizzagalli Construction Company

Job Title: 84 Marginal Way

Date Sent to Shop: X SHEET: 1

Job Number: 898 X

Prepared By: Approved By: Date: 24-01-01

Bathurst Machine Shop Ltd.	1040 Route 430 Big River Road E2A 6P9
Mandate Erectors & Welding Ltd.	
MQM Ltd., Tracadie	

Job Progress Report Sheet

Form#12 Rev. 4



\* = SEE SHOP DWG

C = COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped				
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date
	C6X8.2		NC-001	8	460																							

Pieces 8 460 Total Weight( Lbs) ( 0.2 TONS)

Attn:

		<b>QUALITY CERTIFICATE</b>										Ref. Nr.: 014262/2007 Pag.: 01		
Customer: ARCELOR INTERNATIONAL CANADA, INC												Size: 6 FOLEGADAS NA 1" ALMA		
Products: CHANNELS 6X8, 2LBS/FTX40FT CSA 350W AIC												Order Number: 2309442		
Purchase Order: P1120407 Q2-2007-C												Grade: CSA 350W		
Heat	Nr.	Weight (t)	YIELD POINT	TENSILE STRENGTH	ELONGATION	C	S	P	SI	Mo	Nb	Cu		
			MPa	MPa	%									
5934601	36	69.660	392	482	21.00	0.100	0.810	0.130	0.022	0.033	0.006	0.210		
5934801	12	23.220	394	491	23.00	0.090	0.810	0.130	0.013	0.029	0.005	0.200		
5934901	4	7.740	389	490	22.00	0.110	0.900	0.140	0.015	0.032	0.005	0.170		
TOTAL		52	100.620											
Heat		Cr	Ni	Sn	Mo									
5934601	0.050	0.050	0.024	0.009										
5934801	0.040	0.050	0.016	0.012										
5934901	0.060	0.050	0.017	0.013										
Remarks: We hereby certify that the material herein listed was produced, inspected, tested and approved in accordance with the standard or the specification required.														
 Belgo Siderurgica do Brasil Qualidade Primeiro												Date: 29/JUN/2007		
Approved by: _____												Date: _____		
HT# 5934801 is used to fab item NG001														

7/17/2007

040  
Channel 6 x 8.2 Lbs per Ft x 40 Ft

Load #: Drop Shipping Date: Waybill #: 898-Drop

Customer:	Pizzagalli Construction Company		Prepared By:	Approved By:	Date: 24-01-01
Job Title:	84 Marginal Way	Job Progress Report Sheet	Bathurst Machine Shop Ltd.		10-10 Route 430
Date Sent to Shop:	X	SHEET: 1	Mandate Erectors & Welding Ltd.		Big River Road
Job Number:	898	X	MQM Ltd., Traendie		E2A 6P9

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped				
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By
A	W14X30		BA-5	1	635																							
A	W12X19		BA-6	1	341																							
A	H.S.S. 4X4X1/4		TYPE A	7	231		X																					
A	H.S.S. 4X4X1/4		TYPE B	3	105		X																					
H	PL 3/8X5 1/2		pf	1	5		X																					
H	PL 3/4X10		pb	10	212		X																					
H	PL 3/8X4		pd	10	34		X																					
A	PL 3/4X10		TYPE C	4	102		X																					
A	PL 3/4X10		TYPE D	1	27		X																					
A	PL 3/4X10		TYPE E	3	41		X																					
	L6X4X3/8		LAD2	1	145		X																					
A	L6X6X3/8		LAD3	1	412		X																					
A	L6X6X3/8		LAD4	1	85		X																					
A	L6X6X3/8		LAD5	1	117		X																					
A	H.S.S. 6X6X5/16		TB1	1	769																							
A	H.S.S. 6X6X5/16		TB2	1	900																							
A	H.S.S. 8X8X1/4		TB3	1	725																							
A	H.S.S. 6X6X5/16		TB4	1	953																							
A	H.S.S. 8X8X1/4		TB5	1	1372																							
A	H.S.S. 6X6X5/16		TB6	1	734																							

Pieces 51 7945 Total Weight( Lbs) ( 4.0 TONS)

Load #: Drop

Customer:

Pizzagalli Construction Company

Job Title:

84 Marginal Way

Job Progress Report Sheet

Date Sent to Shop:

X

SHEET: 2

Job Number:

898

Prepared By: Approved By: Date: 24-01-01

Bathurst Machine Shop Ltd.

1040 Route 430

Mandate Erectors & Welding Ltd.

Big River Road

MQM Ltd., Tracadie

E2A 6P9

Form# 12 Rev. 4

\* = SEE SHOP DWG

C=COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped					
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date	
A	H.S.S. 6X6X5/16		TB7	1	927																								
A	H.S.S. 8X8X5/16		TB8	1	1320																								
A	H.S.S. 8X8X5/16		TB9	1	742																								
A	H.S.S. 6X6X5/16		TB10	1	901																								
A	H.S.S. 8X8X1/4		TB11	1	413																								
A	H.S.S. 6X6X5/16		TB12	1	676																								
A	H.S.S. 8X8X5/16		TB13	1	1203																								
A	H.S.S. 6X6X5/16		TB14	1	668																								
A	H.S.S. 6X6X5/16		TB15	1	546																								
A	H.S.S. 6X6X5/16		TB16	1	687																								
A	H.S.S. 6X6X5/16		TB17	1	599																								
H	L 4X3X3/8		A100	8	51																								

Pieces

19

8733 Total Weight(Lbs)

( 4.4 TONS)

Atlas Tube Canada ULC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 NOR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537



Ref.B/L: 80245919  
 Date: 07.05.2007  
 Customer: 81

**MATERIAL TEST REPORT**

**Sold to**

Infra-Metals Corporation  
 8 Pent Highway  
 WALLINGFORD CT 06492  
 USA

**Shipped to**

Infra-Metals Corporation (Rail  
 Track #953 - 8 Pent Highwa  
 WALLINGFORD CT 06492  
 USA

*HT#450479 is used to fab item: Type A, Type B,*

Material: 4.0x4.0x250x24"0"0(5x4).-D  
 Sales order: 287852

Material No: 0400402502400-D Made in: USA  
 Purchase Order: C21309MF FF AUGUST

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
450479	0.160	0.680	0.008	0.009	0.009	0.051	0.000	0.001	0.000	0.000	0.000	0.001

Bundle No	Yield	Tensile	Eln.2in	Certification
M300313029	050929 Psi	063817 Psi	35.7 %	ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or.Note:

Material: 4.0x4.0x250x24"0"0(5x4).-D  
 Sales order: 287852

Material No: 0400402502400-D Made in: USA  
 Purchase Order: C21309MF FF AUGUST

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
450479	0.160	0.680	0.008	0.009	0.009	0.051	0.000	0.001	0.000	0.000	0.000	0.001

Bundle No	Yield	Tensile	Eln.2in	Certification
M300313030	050929 Psi	063817 Psi	35.7 %	ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or.Note:

Material: 4.0x4.0x250x24"0"0(5x4).-D  
 Sales order: 287852

Material No: 0400402502400-D Made in: USA  
 Purchase Order: C21309MF FF AUGUST

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
450479	0.160	0.680	0.008	0.009	0.009	0.051	0.000	0.001	0.000	0.000	0.000	0.001

Bundle No	Yield	Tensile	Eln.2in	Certification
M300313031	050929 Psi	063817 Psi	35.7 %	ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or.Note:

Material: 4.0x4.0x250x24"0"0(5x4).-D  
 Sales order: 287852

Material No: 0400402502400-D Made in: USA  
 Purchase Order: C21309MF FF AUGUST

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
450479	0.160	0.680	0.008	0.009	0.009	0.051	0.000	0.001	0.000	0.000	0.000	0.001

Bundle No	Yield	Tensile	Eln.2in	Certification
M300313032	050929 Psi	063817 Psi	35.7 %	ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or.Note:

Authorized by Quality Assurance: 



JAN-22-2008 TUE 04:20 PM

FAX NO. 7736466128

P. 04

Atlas ABC Corp (Atlas Tube Chicago)  
1855 East 122nd Street  
Chicago, Illinois, USA  
60633  
Tel: 773-646-4600  
Fax: 773-646-6128

Ref.B/L: 80275973  
Date: 01.22.2008  
Customer: 1497



MATERIAL TEST REPORT

Sold to

Triad Metals International  
2300 Computer Avenue  
WILLOW GROVE PA 19090  
USA

Shipped to

Triad Metals International  
3480 Grand Avenue  
PITTSBURGH PA 15226  
USA

Material: 6.0x6.0x313x35'0"0(3x2)RAL

Material No: 60060313

Made in: USA

Melted & Manufactured in USA

Sales order: 346271

Purchase Order: 3193-firm thru 1/31

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
Y48045	6	0.210	0.740	0.010	0.008	0.009	0.034	0.030	0.001	0.003	0.010	0.030	0.001

Bundle No	Yield	Tensile	Eln.2in	Certification
M900156485	052320 Psi	074180 Psi	34 %	ASTM A500-03A GRADE B&C

Material Note:  
Sales Or.Note:

Material: 6.0x6.0x313x40'0"0(3x2)RAL

Material No: 60060313

Made in: USA

Melted & Manufactured in USA

Sales order: 346271

Purchase Order: 3193-firm thru 1/31

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
Y48045	6	0.210	0.740	0.010	0.010	0.008	0.046	0.030	0.001	0.003	0.010	0.030	0.001

Bundle No	Yield	Tensile	Eln.2in	Certification
M900156521	058580 Psi	075740 Psi	33 %	ASTM A500-03A GRADE B&C

Material Note:  
Sales Or.Note:

Material: 6.0x6.0x375x35'0"0(3x1)RAL

Material No: 60060375

Made in: USA

Melted & Manufactured in USA

Sales order: 346271

Purchase Order: 3193-firm thru 1/31

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
T46802	3	0.230	0.790	0.011	0.009	0.013	0.054	0.020	0.002	0.001	0.010	0.030	0.001

Bundle No	Yield	Tensile	Eln.2in	Certification
M900156818	060070 Psi	075120 Psi	33 %	ASTM A500-03A GRADE B&C

Material Note:  
Sales Or.Note:

HTA Y48045 is used to fab items: TB4 TB2 TB12 TB16  
TB6 TB7 TB14 TB17  
TB1 TB10 TB15

Authorized by Quality Assurance: *M. White*

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.





MATERIAL TEST REPORT  
 DATE: 10/23/07  
 PAGE: 1  
 BILL OF LADING: 165253

LEAVITT TUBE COMPANY, LLC

CUST: CRAWFORD METAL CORPORATION-NO YORK ONTR TUBING MANUFACTURED IN USA  
 132 SHEPPARD AVE WEST SUITE 200  
 NORTH YORK ONTR CN M2N1M5

ATTN: TEST REPORT DESK  
 106453 11019217

ITEM NO.	PIECES	SIZE, GAUGE	QTY. SHIPPED	CUSTOMER P.O.	ORDER NUMBER	CUSTOMER PART NBR	ASTM SPECIFICATION	GRADE
1	4	P8X8-313HRB	192	33351	1009381	1.200	A500-03b	C
2	4	P10X6-500HRB	192	33746	1026641	1.000	A500-03b	C
3 - 4	12	P8X8-375HRB	576	33746	1026636	1.000	A500-03b	C
5	6	P8X8-250HRB	288	33746	1026635	1.000	A500-03b	C
6	9	8X6-188HRB	360	34113	1040459	1.000	A500-03b	C

ITEM NO.	COIL NO.	HEAT NO.	1	2	3	4	5	6
			391704	396545	396537	396533	394956	391232
			811W09390	K3657	K3668	K3660	K2015	A13386

CORRECTED COIL	CARBON	MANGANESE	PHOSPHORUS	SULFUR	ALUMINUM	SILICON	WELD TESTING	YIELD STRENGTH (PSI)	TENSILE STRENGTH (PSI)	ELONGATION IN 2" (%)
	.160	.700	.011	.007	.038	.025	FLARE	53,901	68,794	33.0
	.200	.780	.014	.008	.026	.030	FLARE	59,763	73,373	29.0
	.200	.730	.011	.005	.026	.030	FLARE	63,529	79,411	29.0
	.220	.700	.008	.011	.045	.024	FLARE	55,056	77,876	27.0
	.003	.006	.003	.003	.003	.030	FLARE	55,056	70,787	27.0

*HT# K2015 is used to fab  
 item TB5  
 TB11*

Item(s)- 1 2 3 4 5 6 Are  
 Made and Melted  
 In The U.S.A.

I HEREBY CERTIFY THAT THE ABOVE IS CORRECT  
 AS CONTAINED IN THE RECORDS OF THE COMPANY.

Atlas ABC Corp (Atlas Tube Chicago)  
1855 East 122nd Street  
Chicago, Illinois, USA  
60633  
Tel: 773-846-4500  
Fax: 773-846-8128



Ref.B/L: 80277709  
Date: 01.31.2008  
Customer: 1497

Sold to

Triad Metals International  
1 Village Road  
HORSHAM PA 19044-3812  
USA

**MATERIAL TEST REPORT**

Shipped to

Triad Metals International  
3500 Neville Road  
NEVILLE ISLAND PA 15225  
USA

Material: 8.0x8.0x313x40'0"0(2x2)RAL				Material No: 80080313				Made In: USA					
Sales order: 346271				Purchase Order: 3193-frm thru 1/31				Melted & Manufactured in USA					
Heat No	Pcs	C	Mn	P	S	SI	Al	Cu	Cb	Mo	NI	Cr	V
Y48744	4	0.210	0.730	0.012	0.009	0.016	0.036	0.030	0.001	0.004	0.010	0.040	0.001
Bundle No	Yield	Tensile	Eln.:In		Certification								
M900155953	059590 Psi	076820 Psi	32 %		ASTM A500-03A GRADE B&C								
Material Note: Sales Or.Note:													

Material: 8.0x8.0x313x40'0"0(2x2)RAL				Material No: 80080313				Made In: USA					
Sales order: 346271				Purchase Order: 3193-frm thru 1/31				Melted & Manufactured in USA					
Heat No	Pcs	C	Mn	P	S	SI	Al	Cu	Cb	Mo	NI	Cr	V
Y48744	4	0.210	0.730	0.012	0.009	0.016	0.036	0.030	0.001	0.004	0.010	0.040	0.001
Bundle No	Yield	Tensile	Eln.:In		Certification								
M900155954	059590 Psi	076820 Psi	32 %		ASTM A500-03A GRADE B&C								
Material Note: Sales Or.Note:													

HT#Y48744 is used to fab item TB8  
TB9  
TB13

Authorized by Quality Assurance: *M. Wilson*

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.





WHITBY STEEL MILL  
 HOPKINS STREET SOUTH  
 WHITBY ON L1N 5T1 CAN  
 (905) 668-8811

Chemical and Physical Test Report

MADE IN CANADA

W-064592

PRODUCED IN: WHITBY

SHIP TO  
 YORK STEEL INC  
 INDUSTRIAL PARK

FREDERICTON, NB E3B 5S4

INVOICE TO  
 YORK STEEL INC (FRED  
 ACCTS PAYABLE  
 550 WILSEY ROAD  
 FREDERICTON, NB E3B 7K2

SHIP DATE  
 04/25/07  
 CUST. ACCOUNT NO  
 60125663

SHAPE & SIZE: A4 X 3 X 3/8  
 HEAT I.D.: B41688  
 MECHANICAL TEST: Yield 50894 PSI, 350.9 MPA Tensile: 73947 PSI, 509.85 MPA %EI: 25.0/8in, 25.0/200MM Red R 100  
 CUSTOMER REQUIREMENTS: SOURCE: WHITBY BILLETS CASTING: STRAND CAST

GRADE	SPECIFICATION														SALES ORDER	CUST P.O. NUMBER			
44W	C.S.A. G40 21-98 44W/50W; ASTM: A36 - 97a ASTM A709- 97b ASME: SA36 (A														6129280-46	8527-46			
	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	B	N	Sn	Al	Ti	Zr	Ca	C Eqv
B41688	.16	.99	.012	.040	.20	.25	.11	.08	.040	.000	.000	.0000	.0163	.010	.000	.00000	.000	.00000	.378

*Handwritten:* H# B41688 is used to fab items: A100

This material, including the billets, was produced and manufactured in Canada

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

*Signature: Maskey*

*Signature: B. R. ...*

Quality Director  
 Gerda Ameristeel

Mgr. Metallurg. Svcs.  
 WHITBY STEEL MILL

**GERDAU AMERISTEEL**

WHITBY STEEL MILL  
 HOPKINS STREET SOUTH  
 WHITBY ON L1N 5T1 CAN  
 (905) 668-8811

**Chemical and Physical Test Report**

MADE IN CANADA

W-063354

**PRODUCED IN: WHITBY**

SHIP TO  
 YORK STEEL INC  
 INDUSTRIAL PARK

INVOICE TO  
 YORK STEEL INC (FRED  
 ACCTS PAYABLE  
 550 WILSEY ROAD  
 FREDERICTON, NB E3B 7K2

SHIP DATE  
 03/28/07

CUST. ACCOUNT NO  
 60125663

SALES ORDER  
 6113629-07

CUST P.O. NUMBER  
 8311-07

SHAPE \* SIZE  
 A6 X 4 X 3/8

GRADE  
 44W

MECHANICAL TEST  
 Yield 49307 PSI, 339.96 MPA

SPECIFICATION													
CSA-G40.21-98(44W);ASTM A36M-01a ASTM709-01b ASME:SA36-00a													
C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	B	N	Sn
.17	.74	.011	.028	.23	.22	.10	.15	.023	.000	.000	.0000	.0161	.012
Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST													
Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST													

SALES ORDER  
 7022674-10

CUST P.O. NUMBER  
 8680-10

SHAPE \* SIZE  
 A6 X 4 X 5/16

GRADE  
 44W

MECHANICAL TEST  
 Yield 50921 PSI, 351.09 MPA

SPECIFICATION													
C.S.A. G40.21-98 44W/50W; ASTM: A36 - 97a ASTM709- 97b ASME: SA36 (A													
C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	B	N	Sn
.16	.80	.011	.025	.22	.27	.09	.12	.021	.000	.000	.0000	.0148	.013
Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST													
Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST													

SALES ORDER  
 7022674-10

CUST P.O. NUMBER  
 8680-10

SHAPE \* SIZE  
 A6 X 4 X 5/16

GRADE  
 44W

MECHANICAL TEST  
 Yield 51059 PSI, 352.04 MPA

SPECIFICATION													
C.S.A. G40.21-98 44W/50W; ASTM: A36 - 97a ASTM709- 97b ASME: SA36 (A													
C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	B	N	Sn
.16	.80	.011	.025	.22	.27	.09	.12	.021	.000	.000	.0000	.0148	.013
Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST													
Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST													

SALES ORDER  
 7022674-10

CUST P.O. NUMBER  
 8680-10

SHAPE \* SIZE  
 A6 X 4 X 5/16

GRADE  
 44W

MECHANICAL TEST  
 Yield 50921 PSI, 351.09 MPA

HT # BA1371 is used to fab item: LAD2

This material, including the billets, was produced and manufactured in Canada  
 Bhaskar Yalamanchili  
 Quality Director  
 Gerdau Ameristeel

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS  
 AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

*Shasankary*

*S. R. S. S. S.*

Mgr. Metallurg. Svcs.  
 WHITBY STEEL MILL

Alto:

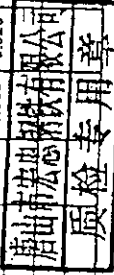
MILL TEST CERTIFICATE

订货单位: 江苏舜天汉唐贸易有限公司  
CONSIGNEE: JIANGSU SAINTY HANTANG TRADING CORP. LTD  
发货日期: 2007年3月28日  
DATE OF ISSUING: MAR 28, 2007  
合同号:  
CONTRACT NO. JSRZ001/JSHZ01-2007

产品名称: 热轧角钢  
COMMODITY: FRAME STEEL EQUAL ANGLES/UNEQUAL ANGLES  
订牌号  
P.O. NO.  
牌号 (规格代号): ASTM A572 GR50/A6-05A  
STEEL GRADE: ASTM A572 GR50/A6-05A

原产地: 中国  
ORIGIN: CHINA  
供货单位: 唐山钢铁有限公司  
MILL: TANGSHAN GRAND FAITH STEEL CO., LTD  
编号: 7032081  
NO.:

规格 IN INCH	SPEC. STANDARD	炉号 HEAT NO.	支数/捆 PIECES OF EACH BUNDLE	化 学 成 分 (%)										机 械 性 质				
				C	SI	Mn	P	S	Ni	Cr	Co	V	Mo	Nb	屈服强度 YIELD STRENGTH MPa	抗拉强度 TENSILE STRENGTH MPa	伸长率 ELONGATION % 2"	冷弯 COLD BENDING (180°) 3-4
3*2 1/4	D-5766	D-5766	67	0.16	0.30	1.28	0.032	0.022	0.09	0.12	0.20	0.012	0.021	0.005	365	560	26	OK
3*2 3/16	D-4759	D-4759	89	0.18	0.28	1.26	0.031	0.023	0.10	0.12	0.23	0.015	0.024	0.005	355	565	24	OK
4*3 1/4	H-4423	H-4423	44	0.15	0.31	1.19	0.025	0.021	0.10	0.11	0.22	0.015	0.021	0.006	359	570	24	OK
4*4 3/8	B-20714	B-20714	41	0.16	0.26	1.20	0.023	0.025	0.12	0.10	0.21	0.016	0.025	0.004	367	575	27	OK
4*4 3/8	B-19076	B-19076	28	0.19	0.25	1.23	0.022	0.026	0.10	0.13	0.26	0.020	0.022	0.006	375	560	25	OK
6*6 1/2	D-6709	D-6709	14	0.20	0.34	1.25	0.029	0.030	0.11	0.14	0.24	0.022	0.023	0.007	370	555	24	OK
6*6 3/8	D-0213	D-0213	18	0.18	0.32	1.29	0.028	0.029	0.13	0.11	0.25	0.019	0.021	0.004	369	560	28	OK
6*6 3/16	D-9816	D-9816	22	0.16	0.27	1.32	0.030	0.024	0.12	0.10	0.22	0.018	0.020	0.005	357	570	29	OK
TOTAL:																		



REMARKS: SHIPPED ON MV. FEDERAL MAAS  
 检验员: 李冲  
 INSPECTOR:  
 日期: DATED, MAR 28 2007

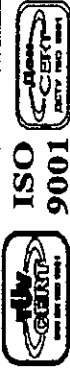
HT# D0213 is used to fab item: LAD3  
 LAD4  
 LAD5

**УКРАИНА**  
**UKRAINE**

МАРИУПОЛЬСКИЙ МЕТАЛЛУРГИЧЕСКИЙ КОМБИНАТ ИМЕНИ ИЛЬИЧА  
MARIUPOL IRON & STEEL WORKS OF MARIUPOL  
87504, г. Мариуполь, ул. Леонченко, 1. Тел: 87504, 115157 DEPO SU Levchenko str. 1, Mariupol, 87504, Telex 115157 DEPO SU

ЗАВОДСКОЙ СЕРТИФИКАТ КАЧЕСТВА № 10446 Дата 04.04.2007 Лист 1 из 1 листов  
MILL'S QUALITY CERTIFICATE № 10446 Date 04.04.2007 Sheet 1 of 1 sheets

Свидетельство о приемочных испытаниях EN 10204-3.1 B  
Inspection certificate



Контракт № 12EXR/014-07 Lot1 Заводской заказ № LF7-014013030327  
Contract № LF701401303 Sp.303LF Manufacturer's works order №

Заказчик SAMIA TRADE Inc  
Customer

Вагон № (Автомашина №) 53411724 Количество штук 28  
Freight Car № (Lotу №) Number of pieces

Наименование товара Прокат толстолистовой Стандарт ASTM A36/A36M-01 CSAG40.21-04  
Description of goods Heavy plates Standards  
Марка стали А3ТМ А36/300W(44W) ASTM A6/A6M-02  
Steel grade

Состояние поставки Горячекатаный лист  
Delivery condition Hot Rolled Plate

Маркировка  
Marking

Hard stamp

Позиция № Item №	Номер плавки Cast number	Номер партии Test number	Размеры, дюйм Product dimensions, in "			Кол-во штук Number of pieces	Теоретич. масса, м.т Theoret. mass, m.t.
			Толщина Thickness	Ширина Width	Длина Length		
272060	7547	7547	3/4	96	240	12	26,738
272069	7548	7548	19,1 3/4 19,1	2438 96 2438	6096 240 6096	16	35,648
						28	62,384

HTH 272060 is used to fab item: Type C  
Type D  
Type E  
P/B

MILL'S QUALITY CERTIFICATE № 10446  
 Test results

Номер партии Test number	Сторона образца Direction	Температура испытания Test temperature	Предел текучести Yield strength		Предел прочности Tensile strength		Относительное удлинение Elongation		Сужение Reduction of area	Размеры образца D.m. of specimen		1-Энергия удара / Impact energy (J, ft-lb). Ударная вязкость / Impact strength / Mechanical 3-Механическое старение / Mechanical aging (J/cm <sup>2</sup> ), B- количество вязкой составляющей в изломе / Number of toughness component in fracture			Кривая Bend
			Rm MPa	Rm ksi	Rm MPa	Rm ksi	A, %	Z, %		Толщина Thickness	Ширина Width	Значение Value	V, J	B, %	
7547	5)	20	403	515	23	19,1	40			1	2	3			
7548	T	20	377	484	25	19,1	40								
	T		385	483	25										
			399	490	25										

4) H - передняя кромка / edge edge;  
 B - конец полосы / end edge.

5) C - продольное направление;  
 T - поперечное / transverse.

6) a - толщина образца / thickness of specimen;  
 d - диаметр образца / diameter of the mandrel.

УЗК / Ultrasonic Examination

Выплавка / Steelmaking process: Конвертерный способ / Made by the BOS Process

№ плавки Cast №	Химическое содержание элементов / Chemical contents of elements, %																
	C	Mn	Si	S	P	Cr	Ni	Cu	Ti	Al	As	N	Mo	V	Nb	Coq	Pcm
272060	18	99	18	19	23	5	2	2	1,3	32	3	8	1	7	5	37	
272058	16	97	16	13	23	5	2	1	1,3	33	3	8	1	8	5	34	

Примечание / Note

Указанный в настоящем сертификате товар соответствует по качеству действующим стандартам и техническим условиям.

It is hereby certified that the quality of goods mentioned in this certificate is in conformity with the standards and specifications.

Подпись  
Signature

Дата  
Date

Штамп  
Stamp

ВАО "Мартини-Стил"  
 ВАО "Martini-Steel"  
 ВАО "Мартини-Стил"  
 ВАО "Martini-Steel"

Виза технического контроля  
 Technical control stamp

PART NO.

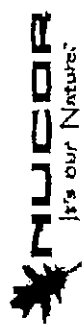
PO/Rel

Attn:

**NUCOR**  
**PLATE MILL**

P.O.Box 279  
Winton, NC 27386  
(262) 356-3700

**Mill Test Report**  
Page 3



Issuing Date : 11/04/2007  
Vehicle No: ALY 91761  
Specification : 0.3750" x 96.000" x 240.000"  
ASTM A572 50-07 ASTM A709 50-07 Type 2/CSA G40.21-50W/350W-04  
AASHTO M270-50

Lead No.: 182381  
Sold To: Novasteel (North America)  
Inc./Harris Steel Grp  
1360 Sherbrooke Street W  
Suite 1150  
MONTREAL, QC H3G 1J1

Our Order No.: 5719555  
Ship To: DANAGA TRANSPORT MONTREAL LTEE  
2566 RUE JEAN DESJ  
CN SIDING B064  
LONGUEUIL, QC H1W 3A2

Marking :

Heat No	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Alz	V	Nb	Ti	N	Ca	B	Sn	CEQ	PCM
7107746	0.16	1.19	0.015	0.005	0.21	0.27	0.10	0.12	0.02	0.025	0.039	0.001	0.001	0.001	0.0007	0.0005	0.012	0.42	0.26
7107762	0.18	1.03	0.014	0.004	0.19	0.22	0.08	0.11	0.01	0.021	0.033	0.001	0.001	0.001	0.0011	0.0005	0.011	0.40	0.28
7107850	0.18	1.26	0.011	0.001	0.17	0.25	0.10	0.08	0.00	0.023	0.036	0.001	0.001	0.001	0.0002	0.0001	0.009	0.44	0.27

Plate Serial No	Tensile Test		Elongation		Charpy Impacts							
	Pieces	Tons	Dir.	% in 2"	% in 8"	Dir.	1	2	3	Ave.	Min	
7107746-01	7	8.57	T	62,900	85,700	19.7						
7107762-01	7	8.57	T	50,100	77,500	17.1						
7107762-02	7	8.57	T	58,000	92,000	16.3						
7107762-08	7	8.57	T	59,200	82,100	17.0						
7107850-05	9	11.02	T	58,000	92,000	18.3						
			T	59,200	82,100	17.0						
			T	61,400	83,400	20.8						
			T	57,500	82,400	17.5						

HT # 713.78.50 is used to fab items:

pf  
pd

Manufactured to fully killed fine grain practice by Electric Arc Furnace. Welding or weld repair was not performed on this material. Mercury has not been used in the direct manufacturing of this material. Produced as continuous cast as-rolled discrete plate. Yield by 0.55UL method unless otherwise specified. Cert = C-146804(CM-Hot-VPS)(Cu+Vg15)  
Pen = C-18004(Mn20)(Cu20)(Hf80)(Cr20)(Mn15)(V10)+S8  
Milled and manufactured in the USA. ISO 9001-2000 certified (812443-0) by SRI Quality System Registrar (80365-09). PED 97232EC 712 Annex 1, Para. 4.3 Compliant.  
DIN 50049 3.1.B(EN 10204 3.1.B(2004) compliant. For ABS grades only. Quality Assurance certificate No. QD-MMPQA-182

T. A. Dupre, Metallurgist

11/05/2007 10:03:33 AM





CARTERSVILLE STEEL MILL  
384 OLD GRASSDALE RD NE  
CARTERSVILLE GA 30121 USA  
(770) 387-3300

Chemical and Physical Test Report

MADE IN UNITED STATES

G-103564

PRODUCED IN: CARTERSVILLE

SHIP TO  
TRIAD METAL  
1951 BESSEMER ROAD  
804-732-5000  
PETERSBURG, VA 23805

INVOICE TO  
TRIAD METALS INTERNATIONAL  
METAL TRADERS INC  
2300 COMPUTER AVE. STE-A-1  
WILLOW GROVE, PA 19090

SHIP DATE  
11/06/07  
CUST. ACCOUNT NO  
40213035

SHAPE + SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST P.O. NUMBER
W12 X 19#	A57250/992	ASTM A572 GR50-07, ASTM A992 -06A	7097022-10	2206-10
HEAT LD.	C	Mn P S Si Cu Ni Cr Mo V Nb B N Sn Al Ti Ca C Eqt		
G704838	.08 1.19 .020 .029 .25 .21 .07 .07 .019 .026 .002 .0005 .0086 .011 .001 .00100 .00030	Tensile: 70600 PSI, 486.77 MPA %E: 22.0% Mechanical Test: Yield 58400 PSI, 402.65 MPA Customer Requirements CASTING: STRAND CAST		

Mechanical Test: Yield 58400 PSI, 402.65 MPA  
Customer Requirements CASTING: STRAND CAST  
Mechanical Test: Yield 53500 PSI, 368.87 MPA  
Customer Requirements CASTING: STRAND CAST

SHAPE + SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST P.O. NUMBER
W12 X 19#	A57250/992	ASTM A572 GR50-07, ASTM A992 -06A	7097022-11	2206-11
HEAT LD.	C	Mn P S Si Cu Ni Cr Mo V Nb B N Sn Al Ti Ca C Eqt		
G705989	.09 1.15 .014 .024 .26 .24 .09 .04 .017 .026 .002 .0006 .0100 .009 .001 .00100 .00030	Tensile: 74300 PSI, 512.28 MPA %E: 25.4% Mechanical Test: Yield 59400 PSI, 409.55 MPA Customer Requirements CASTING: STRAND CAST		

Mechanical Test: Yield 59400 PSI, 409.55 MPA  
Customer Requirements CASTING: STRAND CAST  
Mechanical Test: Yield 59700 PSI, 411.62 MPA  
Customer Requirements CASTING: STRAND CAST

HT#G705989 is used to fabricate: BA-6

This material, including the billets, was produced and manufactured in the United States of America

*Shaskov*  
Shaskov Yalamanchi  
Quality Director  
Gerdau Ameristeel

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

*Jankov*  
Mgr. Metallurg. Svcs.  
CARTERSVILLE STEEL MILL

Seller warrants that all material furnished shall comply with specifications subject to standard published manufacturing variations. NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, ARE MADE BY THE SELLER, AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. In no event shall seller be liable for indirect, consequential or punitive damages arising out of or related to the materials furnished by seller. Any claim for damages for materials that do not conform to specifications must be made from buyer to seller immediately after delivery of same in order to allow the seller the opportunity to inspect the material in question.

MILL TEST REPORT  
 100% MELTED AND MANUFACTURED IN THE USA  
 All beams produced by Nucor-Berkeley are cast and rolled to a fully killed and fine grain practice.

8/19/04 15139120  
 Customer No.: 1916 - 2  
 Customer PO: 24214  
 B.O.I. No.: 396647  
 Invoice No.: 564782

MUCOR STEEL - BERKELEY  
 P.O. Box 2159  
 Mt. Pleasant, S.C. 29464  
 Phone: (843) 336-6000

Sold To: CRAWFORD METAL CORPORATION  
 132 SHEPARD AVENUE WEST  
 SUITE 200  
 TORONTO, ON M5N 1M5

Ship To: CRAWFORD METAL CORPORATION  
 ARRIMAGE IDEAL  
 SIDING # 8076  
 LONGUEUIL, PQ J4G 1E6

SPECIFICATIONS: Tested in accordance with ASTM specification A6/A6M and A370.  
 RASHIO : M270-36-00/A270-50-00  
 ASME : SA-36  
 ASTM : A992-03/A36-03/A572-03-50/A572-03-50/A709-03-36/A709-03-50/A7  
 CSR : CSA-44W/G40.21-50W

FROM: MUCOR STEEL - BUCER PAGE B03 OF B85

Description	Heath Grade(s) Test	Yield/ Tensile Ratio	Yield (PSI) (MPa)	Elong %	C	Mn	P	S	SI	Cu	Ni	CE1	CE2		
													CE1	CE2	
W12X40	240794	.79	53900	68200	27.65	.0650	.8760	.0065	.0210	.2200	.1370	.0630	.2811		
050' 00.00'	A992-03		372	470		.0420	.0180	.0082	.0007	.0036	.0303		.2838		
W10X60		.80	53700	66800	32.20	.0054	.0017	.0002	.0003	.0064	.0000	3.6050	.1341		
015.2400m			370	461		8 Piece(s)									
W14X30	2405761	.82	55200	67600	28.34	.0630	.8060	.0158	.0328	.2410	.1620	.0520	.2269		
040' 00.00'	A992-03		381	466		.0530	.0180	.0087	.0000	.0035	.0277		.2826		
W360X44		.81	55400	68700	24.68	.0041	.0015	.0024	.0005	.0062	.0000	4.1683	.1270		
012.1520m			382	474		8 Piece(s)									
W14X30	1405756	.81	54700	67500	26.60	.0600	.8800	.0120	.0295	.2610	.1360	.0490	.2369		
040' 00.00'	A992-03		377	465		.0420	.0200	.0076	.0000	.0047	.0286		.2862		
W360X44		.82	55600	67400	27.44	.0049	.0020	.0005	.0006	.0064	.0000	3.7302	.1282		
012.1520m			383	465		2 Piece(s)									
W6X25	2405168	.76	52600	69400	22.31	.0720	.8810	.0051	.0176	.2440	.1130	.0530	.2426		
050' 00.00'	A992-03		363	479		.0420	.0180	.0066	.0000	.0034	.0231		.2891		
W150X37.1		.78	54200	69800	25.08	.0004	.0014	.0035	.0016	.0062	.0000	3.1744	.1422		
015.2400m			374	481		2 Piece(s)									
W6X25	2405227	.80	52300	65500	26.10	.0560	.8070	.0086	.0284	.2260	.0860	.0410	.2092		
050' 00.00'	A992-03		361	452		.0240	.0140	.0056	.0000	.0033	.0281		.2525		
W150X37.1		.78	51400	65500	26.30	.0015	.0010	.0023	.0004	.0058	.0000	2.6342	.1152		
015.2400m			354	452		7 Piece(s)									
W8X10	2407920	.80	54300	67700	28.90	.0700	.8470	.0124	.0240	.2130	.0650	.0380	.2275		
040' 00.00'	A992-03		374	467		.0300	.0140	.0037	.0000	.0034	.0131		.2656		
W20X15.0		.81	55100	67900	29.10	.0070	.0015	.0004	.0003	.0053	.0000	2.2424	.1275		
012.1520m			380	468		36 Piece(s)									

HTH#2405761 is used to fab: BA5

15:41 08/19/2004 10:14506469639

Load #:                  Drop                  Shipping Date:                  Waybill #: 898-Drop

Customer:	Pizzagalli Construction Company	Prepared By:	Approved By:	Date: 24-01-01
Job Title:	84 Marginal Way	Bathurst Machine Shop Ltd. 1040 Route 430 Mandate Erectors & Welding Ltd. Big River Road MQM Ltd., Tracadie E2A 6P9		
Date Sent to Shop:	X			
Job Number:	898	Job Progress Report Sheet		
		SHEET: 1		

Attach.	Material	Rev.	Mark #	Qty	Weight	C=COLOR GALV.				Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped			
						Paint	Galv	Camber	Level	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date	
	PL 3/8X10			1	150																						
	PL 3/8X8			2	286																						
	1.5X5X5/16			10	679.8																						
	W10X39			10	260																						
	PL 1/2X1			2	28																						
	PL 1/2X1.5			2	42																						
	PL 1/2X2			2	55																						
	RB3/4			1	15																						
	RB1/2			1	10																						
				Pieces	31	1525.8	Total Weight( Lbs)						( 0.8 TONS)														

PART NO.

Atm:



QUALITY CERTIFICATE

Ref. Nr.: 014264/2007  
Pag.: 01

Customer: ARCELOR INTERNATIONAL CANADA, INC  
Products: ANGLES 5X5/16"X40FT CSA 350W AIC  
Purchase Order: P1140407 Q2-2007-0

Size: 5 X 5 X 5/16 POL  
Order Number: 2300864  
Grade: CSA 350W

Heat	Nr.	Weight (t)	YIELD POINT	TENSILE STRENGTH	% ELONGATION	% C	% Mn	% Si	% P	% S	% Nb	% Cu	
		Coils	MPa	MPa									
		31	63.767	404	510	22.00	0.140	0.650	0.150	0.022	0.029	0.020	0.180
TOTAL		31	63.767										

Heat	% Cr	% Ni	% Sn	% Mo
5971801	0.050	0.040	0.016	0.009

Remarks: We hereby certify that the material herein listed was produced, inspected, tested and approved in accordance with the standard or the specification required.

Date: 30/JUL/2007

Approved by:

Eduardo de Oliveira Dias  
Gerência Técnica

Belgo Siderurgia S/A.

HT#5971801 is used to Fab. item: L1



1051 Tapscott Road, Toronto, ON M1X 1A1

# Test Certificate

Form TC1: Revision 1: Date 31 Oct 2010

Customer: SAMIUEL & FILS (QUEBEC) L 2225 FRANCIS HUGHES AVENUE LAVAL PQ H7S1N5	Customer P.O. No.: C50869	MIU Order No.: 41-197677-03	Shipping Manifest: TT012748
Product Description: CSA G40.21(2004)44W/300W / ASTM A36(06) A709(01A)36/ASME SA36(01ED)		Ship Date: 19 Oct 07	Cert No: 021040713
Size: 0.500 X 96.00 X 240.0 (IN)		Cert Date: 19 Oct 07	(Page 1 of 1)

Heat Id	Tested Pieces		Tensiles				Charpy Impact Tests							
	Piece Id	Piece Dimensions	YS (PSI)	UTS (PSI)	%RA	Elong % 2in 8in	Brd Tst	Average Hardness	Abs. Energy(FTLB)	% Shear	Tst Temp	Tst Dtr	Tst Siz (mm)	RDWTT Temp %
A7F215	0308	0.502 X 96.00 (T.L.C)	L 57000 C 55000	74000 71000		29 30								
A7F215	0311	0.502 X 96.00 (T.L.C)	L 53000 C 53000	72000 71000		35 34								

Heat Id	C	Mn	P	S	Si	Total	Cu	Ni	Cr	Mo	Ch	V	Ti	B	N	ORGN
A7F215	.17	.89	.014	.001	.10	.029	.29	.17	.13	.06	.001	.004	.007	.0000	.0077	V

Chemical Analysis

MERCURY IS NOT A METALLURGICAL COMPONENT OF THE STEEL AND NO MERCURY WAS INTENTIONALLY ADDED DURING THE MANUFACTURE OF THIS PRODUCT

MATERIAL MARKED WITH AN ASTERISK IS PRODUCED FROM COIL  
\* A7F215 0309 PCES: 9, WGT: 29403

\* A7F215 0310 PCES: 8, WGT: 26136

HT # A7F215 is used to Fab. Items: P3 to P5

Cust Part #:

WE HEREBY CERTIFY THAT THIS MATERIAL WAS TESTED IN ACCORDANCE WITH THE APPROPRIATE SPECIFICATION

Paul Beaudon  
CHECKED BY

PO/Rel

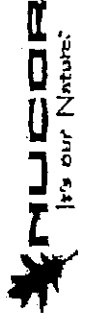
PART NO.

Attn:

**NUCOR**  
**PLATE MILL**

P.O. Box 279  
Winton, NC 27386  
(252) 358-3700

**Mill Test Report**  
Page 2



Issuing Date: 1/10/2007  
Vehicle No: ALY 91761  
Specification: 0.3750" x 96.000" x 240.000"  
ASTM A572 50-07 ASTM A709 50-07 Type 2/CSA G40.21-50W/350W-04  
AASHTO M270-50

Lead No.: 192381  
Sold To: Novosteel (North America)  
Inc./Harris Steel Gp  
1360 Sherbrooke Street W  
Suite 1150  
MONTREAL, QC H3G 1J1

Our Order No.: 579556  
Cust. Order No.: HAS0013  
Ship To: DANACA TRANSPORT MONTREAL LTÉE  
2565 RUE JEAN DESJ.  
CN SIDING B064  
LONGUEUIL, QC H1W 3A2

Marking:

Heat No	C	Mn	P	S	Si	Cr	Ni	Cu	Mo	Alz	V	Nb	Ti	N	Ca	B	Sn	CEQ	PCM
7107746	0.16	1.19	0.015	0.005	0.21	0.12	0.10	0.27	0.02	0.025	0.039	0.001	0.001	0.001	0.0007	0.0005	0.012	0.42	0.28
7107782	0.18	1.03	0.014	0.004	0.19	0.11	0.08	0.22	0.01	0.021	0.033	0.001	0.001	0.001	0.0011	0.0005	0.011	0.40	0.28
7107850	0.18	1.26	0.011	0.001	0.17	0.10	0.10	0.25	0.00	0.023	0.038	0.001	0.001	0.001	0.0002	0.0001	0.009	0.44	0.27

Plate Serial No	Tensile Test				Charpy Impacts				Min Temp Avg.				
	Pieces	Tons	Dir.	Yield	Test Tensile	Elongation % in 2"	Elongation % in 8"	Dir.		1	2	3	Avg.
7107746-01	7	8.57	T	62,900	85,700	19.7	17.1		1	2	3	Avg.	Temp
7107762-01	7	8.57	T	50,100	77,500	18.3	17.0		1	2	3	Avg.	Temp
7107762-02	7	8.57	T	58,000	92,000	18.3	17.0		1	2	3	Avg.	Temp
7107762-08	7	8.57	T	59,200	82,100	18.3	17.0		1	2	3	Avg.	Temp
7107850-05	9	11.02	T	56,000	92,000	18.3	17.0		1	2	3	Avg.	Temp
				61,400	83,400	20.8							
				57,500	82,400	17.5							

Manufactured to fully killed fine grain practice by Electric Arc Furnaces. Welding or weld repair was not performed on this material. We hereby certify that the contents of this report are accurate and correct. All test results and operations performed by the material manufacturer are in compliance with the applicable specifications.

Yield by USEUL method unless otherwise specified. CEQ = C-Mn-Si-Cu-Ni-P-S  
 Pcm = C-Mn-Si-Cu-Ni-Mo-Nb-Ti-V  
 Meltd and manufactured in the USA. ISO 9001-2000 certified (#12433-0) by SRI Quality System Registrar (90065-09). PED 97/23/EC 7/2 Annex 1, Para. 4.3 Compliant.  
 DIN 50049 3.1, EN 10204 3.1, B(2004) compliant. For ABS grades only. Quality Assurance certificate No. 03-HMPQA-182

*T. A. Desprez, Metallurgist*

11/05/2007 10:03:35 AM

HT# 7107850 is used to fab. items: P1, P2.



GERDAU AMERISTEEL

CHEMICAL AND PHYSICAL TEST REPORT

MADE IN CANADA

CAMBRIDGE STEEL MILL

METALLURGICAL DEPARTMENT

160 ORION PLACE, CAMBRIDGE, ON N1T 1R9

PRODUCING MILL IS KNOWN BY HEAT ID PREFIX B=CARTERSVILLE BB, C=CHARLOTTE, G=JACKSONVILLE, J=JACKSONVILLE, K=KNOXVILLE, N=CAMBRIDGE, O=ORRVILLE BB, P=PERTIAMBBOY, S=SAYREVILLE, V=JACKSON TN, W=WHITBY

Shippers Number: N-011582

SHIP TO:	INVOICE TO:	SHIP DATE	
YORK STEEL INC	YORK STEEL INC (FRED	10/20/03	
INDUSTRIAL PARK	ACCTS PAYABLE		
506-444-7980	550 Willsey Road		
FREDERICTON	FREDERICTON		
	NB E3B 554	NB E3B 7K2	
		CUST. ACCOUNT NO.	
		60125863	

SHAPE AND SIZE	GRADE	SPECIFICATION													SALES ORDER	CUSTOMER P.O. NUMBER										
HEAT ID NO.	ACTUAL TAG HEAT NO.	C	MIN	P	S	V	SI	CR	CU	NI	SN	AL	MO	N	NB	B	ZR	TI	CA	ZN	C	FQU				
F 1/2 X 2	44W	CSA-G40.21-44W/50W-98; ASTM A36M-01																					3058985	M5841		
N3-3954	3070917	.17	.74	.021	.042	.019	.21	.16	.31	.10	.025	.001	.044		.001	.0000	.001						.36			
YIELD PT LBS/SQ IN: 54021; TENSIL LBS/SQ IN: 75777; % ELONG 8 IN: 24.5; BEND: ; DEF: ; % LIGHT/HEAVY: ; METRIC EQUIVALENT: YIELD = 372.46 MPA; TENSILE = 522.46 MPA; %ELONG/200MM = 24.5 DEF. = MM																							REDUCTION RATIO: 26:1			
F 1/2 X 2	44W	CSA-G40.21-44W/50W-98; ASTM A36M-01																					3058985	M5841		
N3-3954	3070917	.17	.74	.021	.042	.019	.21	.16	.31	.10	.025	.001	.044		.001	.0000	.001						.36			
YIELD PT LBS/SQ IN: 53122; TENSIL LBS/SQ IN: 75504; % ELONG 8 IN: 26.0; BEND: ; DEF: ; % LIGHT/HEAVY: ; METRIC EQUIVALENT: YIELD = 366.26 MPA; TENSILE = 520.58 MPA; %ELONG/200MM = 26.0 DEF. = MM																							REDUCTION RATIO: 25:1			
R 1/2	44W	CSA-G40.21-300W-98(44W)																					3076271	M5982		
N3-5121	3090520	.15	.78	.015	.041	.003	.23	.15	.29	.10	.015	.001	.046		.002	.0000	.001						.35			
YIELD PT LBS/SQ IN: 50300; TENSIL LBS/SQ IN: 72123; % ELONG 8 IN: 25.0; BEND: ; DEF: ; % LIGHT/HEAVY: ; METRIC EQUIVALENT: YIELD = 344.74 MPA; TENSILE = 497.27 MPA; %ELONG/200MM = 25.0 DEF. = MM																							REDUCTION RATIO: 127.6:1			
R 1/2	44W	CSA-G40.21-300W-98(44W)																					3076271	M5982		
N3-5121	3090520	.15	.78	.015	.041	.003	.23	.15	.29	.10	.015	.001	.046		.002	.0000	.001						.35			
YIELD PT LBS/SQ IN: 49743; TENSIL LBS/SQ IN: 71997; % ELONG 8 IN: 24.0; BEND: ; DEF: ; % LIGHT/HEAVY: ; METRIC EQUIVALENT: YIELD = 342.97 MPA; TENSILE = 496.40 MPA; %ELONG/200MM = 24.0 DEF. = MM																							REDUCTION RATIO: 127.6:1			
R 1/2	44W	CSA-G40.21-300W-98(44W); ASTM A36/A36M-01																					3076271	M5982		
N3-5122	3090519	.16	.73	.011	.038	.003	.21	.09	.28	.08	.011	.001	.035		.002	.0000	.001						.33			
YIELD PT LBS/SQ IN: 51597; TENSIL LBS/SQ IN: 73256; % ELONG 8 IN: 27.5; BEND: ; DEF: ; % LIGHT/HEAVY: ; METRIC EQUIVALENT: YIELD = 355.08 MPA; TENSILE = 505.08 MPA; %ELONG/200MM = 27.5 DEF. = MM																							REDUCTION RATIO: 127.6:1			
R 1/2	44W	CSA-G40.21-300W-98(44W); ASTM A36/A36M-01																					3076271	M5982		
N3-5122	3090519	.16	.73	.011	.038	.003	.21	.09	.28	.08	.011	.001	.035		.002	.0000	.001						.33			
YIELD PT LBS/SQ IN: 51494; TENSIL LBS/SQ IN: 73205; % ELONG 8 IN: 27.5; BEND: ; DEF: ; % LIGHT/HEAVY: ; METRIC EQUIVALENT: YIELD = 355.04 MPA; TENSILE = 504.73 MPA; %ELONG/200MM = 27.5 DEF. = MM																							REDUCTION RATIO: 127.6:1			

This material, including the billets, was produced and manufactured in Canada.

A. J. Turner  
Quality Assurance Manager  
Mill Group

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST REPORT AS CONTAINED IN THE PERMANENT RECORDS OF THE COMPANY.

MONTREAL DEPOT  
 METALLURGICAL DEPARTMENT  
 420A STINSON, ST LAURENT, PQ H4N 2E9

PRODUCING MILL IS KNOWN BY HEAT ID PREFIX: B=CARTERSVILLE BB, C=CHARLOTTE, G=CARTERSVILLE, J=JACKSONVILLE, K=KNOXVILLE,  
 N=CAMBRIDGE, O=ORRVILLE BB, P=PERTH AMBOY, S=SAYREVILLE, V=JACKSON TN, W=WHITBY

SHIP TO:		INVOICE TO:		SHIP DATE	
LES ACIERS TRANSBEC		LES ACIERS TRANSBEC 1997 LTE		08/23/04	
396 TEMISCOUATA		ACCTS PAYABLE		CUST. ACCOUNT NO.	
418-862-3346		4054 BOUL LE CORBUSIER #201		60074655	
RIVIERE DU LOUP		LAVAL		PQ H7L 5R2	
PQ G5R 2Z2					

SHAPE AND SIZE	GRADE	SPECIFICATION														SALES ORDER	CUSTOMER P.O. NUMBER						
HEAT I.D. NO.	ACTUAL TAG HEAT NO.	C	MN	P	S	V	SI	CR	CU	NI	SN	AL	MO	N	NB	B	ZR	TI	CA	ZN	C	EQU	
R 3/4	50W																						
S4-1902	M43057	.17	.77	.011	.042	.000	.20	.11	.41	.09	.020	.000	.027	.0000	.000	.0000	.000	.0000	.0000	.0000	.0000	.0000	.36
C.S.A. G40.21-98 44W/50W; ASTM: A36 - 97a ASTM709- 97b ASME SA36 (A)																							
YIELD FT LBS/SQ IN: 51309; TENSIL LBS/SQ IN: 74286; % ELONG 8 IN: 27.0; BEND: ; DEF: ; % LIGHT/HEAVY:																							
METRIC EQUIVALENT: YIELD = 353.76 MPA; TENSILE = 512.18 MPA; %ELONG./200MM=27.0 DEF. = MM																							
R 3/4	50W																						
S4-1902	M43057	.17	.77	.011	.042	.000	.20	.11	.41	.09	.020	.000	.027	.0000	.000	.0000	.000	.0000	.0000	.0000	.0000	.0000	.36
C.S.A. G40.21-98 44W/50W; ASTM: A36 - 97a ASTM709- 97b ASME SA36 (A)																							
YIELD FT LBS/SQ IN: 51631; TENSIL LBS/SQ IN: 73762; % ELONG 8 IN: 28.0; BEND: ; DEF: ; % LIGHT/HEAVY:																							
METRIC EQUIVALENT: YIELD = 355.98 MPA; TENSILE = 508.57 MPA; %ELONG./200MM=28.0 DEF. = MM																							

HT # S4-1902 is used to Fab item: R1

This material, including the billets, w as produced and manufactured in the United States of America.  
 A. J. Turner  
 Quality Assurance Manager  
 Mill Group



THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST REPORT AS CONTAINED IN THE PERMANENT RECORDS OF THE COMPANY.



Customer Name

Customer PO#

Shipper No

Heat Number

Mandate Erectors & Welding Ltd.

31669

16868

B037472

Steel Dynamics, Inc 260 625 8950 Page 7 of 17

Fri Oct 05 2007 09:15:50 EDT

Date: 10 / 05 / 2007

# CERTIFIED MILL TEST REPORT

Customer # 000191

Ship to:

Triad Metals Intl  
1951 Bessemer Road  
CSX-Collier Yard  
Petersburg VA, 23805 US  
Attn: Rock McGovern

Bill to:  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Petersburg VA, 23805 US  
Attn: Fred White



Structural and Rail Division • Columbus, OH, USA

Quality Steel 100% Melted  
and Manufactured in the USA

### GENERAL INFORMATION

Product Wide Flange Beam  
Size W 10 X 39  
W 250 X 58  
Heat Number B037472  
Condition(s) As-Rolled  
Fine Grained

### SPECIFICATIONS

Standards  
ASTM A616M  
ASTM A992/A992M - 06a  
ASTM A709/A709M - 06a  
ASTM A572/A572M - 06  
ASTM A709/A709M - 06a

### SHIPMENT DETAILS

BOL # 0000126365  
Bundle / ASN # Length pcs Customer PO  
020978513 50' 0" 4 435  
020978511 50' 0" 4 435

### CHEMICAL ANALYSIS (weight percent)

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analysis Type
.08	1.07	.014	.019	.19	.38	.11	.09	.032	.015	.003	.016	.0102	.0003	.31	.34	.17	5.79	Heat

### MECHANICAL TESTING

Test	Yield (fy)		fy / fu ratio	% Elong. {8" gage}
	ksi / MPa	ksi / MPa		
1	59 / 408	74 / 510	.80	23
2	60 / 412	74 / 508	.81	22
3				
4				
5				
6				
7				

### Charpy Impact Tests (available only when specified at time of order)

Temp F / C	Absorbed Energy ft-lbf / J		
	Specimen 1	Specimen 2	Specimen 3
	Average	Minimum	

### Notes:

\*Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC), Corrosion Index (I)  
CE1 (IIW) = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15  
CE2 (AWS) = C+(Mn+S)/6+(Cr+Mo+V)/5+(Ni+Cu)/15  
I (ASTM G101) = 26.01(Cu)+3.88(Ni)+1.20(Cr)+1.49(Si)+17.29(P)+7.29(Cu)(Ni)-9.10(Ni)(P)-33.39(Cu)<sup>2</sup>  
Perm (AWS) = C+Si/50+Mn/20+Cu/20+Ni/60+Cr/20+mo/15+v/10+S/B

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.  
State of Indiana, County of Whitley Sworn to and subscribed before me  
this \_\_\_ day of \_\_\_\_\_  
Signed: \_\_\_\_\_ My commission expires: \_\_\_\_\_  
Notary Public

**Doug Rees-Evans**  
Manager of Technical Services

Form 5-10-002-054

ASTM A6 - 14.6: A signature is not required on the test report; however, the document shall clearly identify the organization submitting the report.

Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report



ACIER NOVA STEEL

6001, rue Irwin	330 Pinebush Road
Ville LaSalle, Qc H8N 1A1	P.O. BOX 3640
Tel: (514) 335-6692	Cambridge, Ont. N3H 5C6
	Tel: (519) 622-8162

T E S T   C E R T I F I C A T E

Sold to: YORK STEEL INC.  
 Ship to: YORK STEEL INC.  
 550 WILSEY ROAD  
 FREDERICTON, N.B.

DATE SHIPPED: 20/12/06  
 B/L #: 251729  
 P.O. #: 8511  
 SALES ORDER #: 335883

33B 7K2

Description	Dimensions	Pos	Heat Number	Specifications
HSS Tube Cold Formed	2.5x2.5x0.188x288	35	STE /890931	ASTM A 500-03 Grade C

Chemical Analysis

Heat Number	C	Mn	P	S	Si	Cu	Ni	Cr	Cb	Mo	V	Al	N	Sn	S	Ti
STE 890931	0.060	0.590	0.015	0.007	0.013	0.034	0.016	0.027	0.033	0.004	0.002	0.066	0.005			

Mechanical Test Results

Heat Number/Size	Yield Strength	Tensile Strength	Elong%-2"	Hardness
STE /890931 HSS 2.5x2.5x0.188	66,700 PSI SER#: 4035-082806	75,500 PSI	23.00	

Heat #                    Manufactured in  
 STE /890931                Canada

Authorized by Tony Lencini

Quality Control Department

Load #: 31

Shipping Date:

Waybill #: 898-31

Customer:	Pizzagalli Construction Company	Prepared By:	Approved By:	Date: 24-01-01
Job Title:	84 Marginal Way	Bathurst Machine Shop Ltd.		10-40 Route 430
Date Sent to Shop:	X	Mandate Erectors & Welding Ltd.		Big River Road
Job Number:	898	MQM Ltd., Tracadie		E2A 6P9

Job Progress Report Sheet

SHEET: 1

Form#12 Rev. 4

\* = SEE SHOP DWG C=COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped						
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date		
A	W16X26	A	B802	1	292																									
A	W12X16	A	B805	2	619																									
A	W12X16	A	B806	1	308																									
A	W16X26	A	B807	1	471																									
A	W12X19	A	B812	2	842																									
A	W14X22	A	B813	1	486																									
A	W24X55	A	B818	1	2196																									
A	W24X55	A	B819	1	1684	on hold																								
A	W12X14	A	B829	1	391																									
A	W8X10	A	B830	1	119																									
A	W12X19	A	B831	1	151	on hold																								
A	W21X57	A	B841	1	1228																									
A	W24X55	A	B843	1	1511																									
A	W21X44	A	B844	1	1734																									
A	W18X35	A	B847	1	964																									
A	W24X62	A	B851	1	2500																									
A	W24X55	A	B856	1	1173																									
A	W21X44	A	B858	1	835																									
H	W10X39	A	B864	1	360																									
H	W10X39	A	B867	1	360																									

Pieces 22 18224 Total Weight(Lbs) ( 9.1 TONS)

Load #: 31

Customer:	Pizzagalli Construction Company	Prepared By:	Approved By:	Date: 24-01-01	
Job Title:	84 Marginal Way	Bathurst Machine Shop Ltd. Mandate Erectors & Welding Ltd. MQM Ltd., Traralgon			
Date Sent to Shop:	X				Job Progress Report Sheet
Job Number:	898				SHEET: 2

1040 Route 430  
Big River Road  
E2A 6P9

Attach.	Material	Rev.	Mark #	Qty	Weight	* = SEE SHOP DWG C=COLOR GALV.				Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped			
						Paint	Galv	Camber	Level	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By
A	W12X19	A	B869	1	282																						
A	W14X22	A	B871	1	391																						
H	W27X84	A	B877	1	3619																						
A	W14X22	A	B878	1	404																						
A	HSS12X6X3/8	A	B882	1	1656																						
A	W18X50	A	B891	1	1673																						
A	HSS12X6X3/8	A	B900	1	1064																						
A	W14X22	A	B910	1	471																						
A	W14X22	A	B911	1	462																						
A	W18X50	A	B920	1	1387																						
A	W12X14	O	B928	1	298																						
A	C6X8.2	O	C1801	2	131																						
A	H.S.S. 7X7X1/2	O	D213	1	660																						
A	H.S.S. 5X5X5/16	A	D707	1	276																						
A	H.S.S. 5X5X5/16	A	D708	1	285																						
A	H.S.S. 6X6X3/8	A	D709	1	322																						
A	H.S.S. 6X6X3/8	A	D710	1	321																						
A	H.S.S. 6X6X3/8	A	D712	1	357																						
A	H.S.S. 6X6X3/8	A	D713	1	357																						

Pieces 20 14416 Total Weight(Lbs) ( 7.2 TONS)

Load #: 31

Customer:	Pizzagalli Construction Company			Prepared By:	Approved By:	Date: 24-01-01
Job Title:	S4 Marginal Way		Job Progress Report Sheet	Bathurst Machine Shop Ltd.		1040 Route 430 Big River Road E2A 6P9
Date Sent to Shop:	X		SHEET: 3	Mandate Erectors & Welding Ltd.		
Job Number:	898			MQM Ltd., Tracadie		

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped			
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By
A	H.S.S. 7X7X1/2	A	D720	1	800																						
A	H.S.S. 5X5X5/16	A	D803	1	223																						
A	H.S.S. 5X5X5/16	A	D804	1	231																						
A	L6X4X3/8	0	M301	2	127																						
A	L6X4X3/8	0	M305	1	88																						
A	L6X4X3/8	0	M306	1	182																						
A	L6X4X3/8	0	M328	1	88																						
A	L6X4X3/8	0	M330	1	72																						
A	H.S.S. 14X4X1/2	0	M808	1	702	on hold																					
	L3X3X5/16	0	M809	1	34																						
A	H.S.S. 8X6X5/16	0	M810	1	621																						
A	L6X4X5/16	0	M811	1	276																						
A	L6X4X5/16	0	M812	1	291																						
A	L6X4X5/16	0	M813	1	325																						
A	H.S.S. 18X6X3/8	0	M814	1	1543																						
A	H.S.S. 18X6X3/8	0	M815	1	1391																						
	L3X3X5/16	0	M816	1	36																						
A	H.S.S. 6X6X1/2	0	M900	1	734																						
A	H.S.S. 6X6X1/2	0	M901	1	774																						

Pieces 20 8538 Total Weight(Lbs) ( 4.3 TONS)

Load #: 31

Customer: Pizzagalli Construction Company

Pizzagalli Construction Company

Job Title: 84 Marginal Way

84 Marginal Way

Date Sent to Shop: X

X

Job Progress Report Sheet

SHEET: 4

Job Number: 898

898

Prepared By: Approved By: Date: 24-01-01

Bathurst Machine Shop Ltd.

10-10 Route 430

Mandate Erectors & Welding Ltd.

Big River Road

MQM Ltd., Traenadie

E2A 6P9

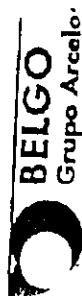
Form# 12 Rev. 4

\* = SEE SHOP DWG

C-COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped											
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date							
H	W14X53	A	RB802	1	842	on hold																													
H	W14X53	A	RB803	1	842	on hold																													
A	W27X102	A	RB804	1	4692	on hold																													
A	W27X102	A	RB805	1	4692	on hold																													
A	L5X5X5/16	0	BA-3	1	200																														
				Pieces	5	11268 Total Weight( Lbs)					( 5.6 TONS)																								

Atm:



QUALITY CERTIFICATE

Ref: 014262/007  
Pag: 01

Customer: ANCELOR INTERNATIONAL CANADA, INC  
Product: CHANNELS 6X8 2LBS/FTX40FT CSA 350W A1C  
Purchase Order: P112041 Q2-2007-C

Size: 6" X 8" X 0.130 ALMA  
Order Number: 2309412  
Grade: CSA 350W

Heat	Nr.	Weight (t)	YIELD POINT	TENSILE STRENGTH	ELONGATION	C	S	P	S	Cu
Heat	Cx	Mi	MPa	MPa	%					
5934601	36	69.660	392	482	21.00	0.100	0.013	0.130	0.072	0.033
5934801	12	23.220	394	491	23.00	0.090	0.013	0.130	0.013	0.029
5934901	4	7.740	389	490	22.00	0.110	0.000	0.140	0.015	0.032
TOTAL	52	100.620								
Heat	Cx	Mi	MPa	MPa	%					
5934601	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050
5934801	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040
5934901	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060

Remarks: We hereby certify that the material herein listed was produced, inspected, tested and approved in accordance with the standard or the specifications required.

Date: 29/JUN/2007

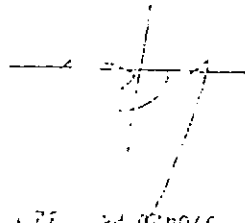
Approved by:



Belgo Siderurgica do Brasil

HT # 5934801 is used to fabricate item B898 CB801





Material 12 Cx12 Cx12 Cx12 Cx12 Cx12

Material Note: Sales Order: 27852

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
24290	0.13	0.76	0.009	0.13	0.08	0.057	0.030	0.000	0.003	0.020	0.020	0.003
Certification: ASTM A500-03A GRADE C & B												

Material No: 120120313  
 Purchase Order: 001-35204  
 Made in: Canada

Material 14 Cx14 Cx14 Cx14 Cx14 Cx14

Material Note: Sales Order: 27878

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
2076E	0.11	0.53	0.016	0.003	0.10	0.029	0.020	0.000	0.010	0.020	0.030	0.002
Certification: ASTM A500-03A GRADE C & B												

Material No: 40040500  
 Purchase Order: 2008-078-03  
 Made in: Canada

*HT# 2076E is used to fab. Item: M808*

Material 14 Cx14 Cx14 Cx14 Cx14 Cx14

Material Note: Sales Order: 27878

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
24290	0.13	0.76	0.009	0.13	0.08	0.057	0.030	0.000	0.003	0.020	0.020	0.003
Certification: ASTM A500-03A GRADE C & B												

Material No: 140040500  
 Purchase Order: 2008-078-03  
 Made in: Canada

Material 14 Cx14 Cx14 Cx14 Cx14 Cx14

Material Note: Sales Order: 27878

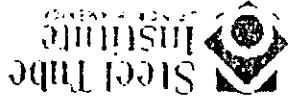
Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
24290	0.13	0.76	0.009	0.13	0.08	0.057	0.030	0.000	0.003	0.020	0.020	0.003
Certification: ASTM A500-03A GRADE C & B												

Material No: 120120313  
 Purchase Order: 001-35204  
 Made in: Canada

**MATERIAL TEST REPORT**



Atlas Tube Inc.  
 200 Clark St.  
 Huron Ontario Canada  
 N6B 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3527



Metals Service Center Institute

Page 1 of 1

Material reported in this report represents the actual structure of the material furnished and indicate all properties with all applicable...

Material No. 482248

Grade No.	Yield	Tensile	Elm. Zn	Certification
482248	0.200	0.910	0.007	0.004
	0.160	0.036	0.053	0.005
	0.022	0.006	0.022	0.043
	0.000	0.000	0.000	0.000

Material No. 482248  
Sales order: 35518  
Material No. 482248  
Purchase Order: 35518  
Material No. 482248  
Purchase Order: 35518

HT#482248 is used to fab. items: M814, M815

Grade No.	Yield	Tensile	Elm. Zn	Certification
482248	0.190	0.800	0.016	0.006
	0.150	0.50	0.035	0.008
	0.015	0.003	0.015	0.052
	0.000	0.000	0.000	0.000

Material No. 190C03752400  
Sales order: 35485  
Material No. 190C03752400  
Purchase Order: 35485  
Material No. 190C03752400  
Purchase Order: 35485

Grade No.	Yield	Tensile	Elm. Zn	Certification
72296	0.190	0.830	0.009	0.020
	0.160	0.027	0.060	0.000
	0.010	0.010	0.010	0.020
	0.000	0.000	0.000	0.000

Material No. 500503754300  
Sales order: 351092  
Material No. 500503754300  
Purchase Order: 3548  
Material No. 500503754300  
Purchase Order: 3548

Grade No.	Yield	Tensile	Elm. Zn	Certification
482248	0.190	0.830	0.009	0.020
	0.160	0.027	0.060	0.000
	0.010	0.010	0.010	0.020
	0.000	0.000	0.000	0.000

Material No. 45043752400  
Sales order: 34967  
Material No. 45043752400  
Purchase Order: 3526  
Material No. 45043752400  
Purchase Order: 3526

Acier Altitude Inc  
2555 Francis-Hugues Avenue  
Laval QC H7S 2H7  
CANADA

Acier Altitude Inc.  
2555 Francis-Hugues Avenue  
Laval QC H7S 2H7  
CANADA

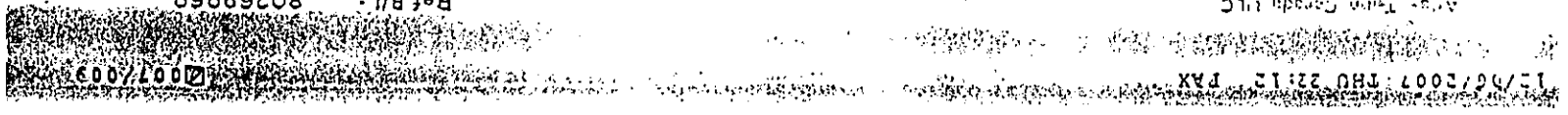
MATERIAL TEST REPORT

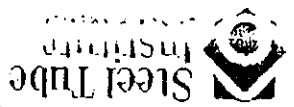


Acier Altitude Inc  
2555 Francis-Hugues Avenue  
Laval QC H7S 2H7  
CANADA

Ref.B/L: 80269969  
Date: 12.06.2007  
Customer: 1774

Shipped to





Metals Service Center Institute

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specifications and contract requirements.

Inspected by: [Signature]

Grade No.	Yield	Tensile	Elon.	SI	Al	Cu	Cb	Mo	Ni	Cr	V
10069352	0.200	0.910	0.027	0.004	0.000	0.000	0.000	0.000	0.022	0.000	0.000
Material No:	060260 PSI	079930 PSI	27.7%	ASTM A500-03A GRADE B&C							
Material No:	055720 PSI	066300 PSI	33.4%	ASTM A500-03A GRADE B&C							

Grade No.	Yield	Tensile	Elon.	SI	Al	Cu	Cb	Mo	Ni	Cr	V
10069352	0.150	0.800	0.016	0.006	0.035	0.035	0.008	0.003	0.015	0.052	0.000
Material No:	060260 PSI	072720 PSI	35.4%	ASTM A500-03A GRADE B&C							

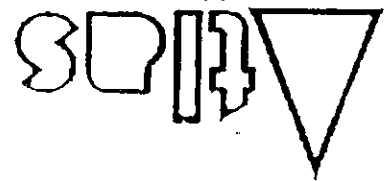
Grade No.	Yield	Tensile	Elon.	SI	Al	Cu	Cb	Mo	Ni	Cr	V
10069352	0.190	0.830	0.009	0.009	0.020	0.027	0.050	0.010	0.010	0.020	0.000
Material No:	060260 PSI	072720 PSI	35.4%	ASTM A500-03A GRADE B&C							

Grade No.	Yield	Tensile	Elon.	SI	Al	Cu	Cb	Mo	Ni	Cr	V
10069563	0.190	0.800	0.015	0.005	0.016	0.048	0.044	0.000	0.007	0.020	0.045
Material No:	061370 PSI	073630 PSI	29.9%	ASTM A500-03A GRADE B&C							

Acier Altitude Inc  
2555 Francis-Hugues Avenue  
LAVAL QC H7S 2H7  
CANADA

Acier Altitude Inc.  
2555 Francis-Hugues Avenue  
LAVAL QC H7S 2H7  
CANADA

MATERIAL TEST REPORT



Atier Tube Canada LLC  
1000 W. Ontario, Canada  
Tel: 519-732-3537

Ref./L: 80269969  
Date: 12.06.2007  
Customer: 1774

Shipped to

Sold to



Authorized by Quality Assurance

Metals Service Center Institute

*Handwritten signature*

Material: 6.0x6.0x500x48.0" (13x11)  
Sales order: 282307  
Material No: 500605004800  
Purchase Order: 2870  
Made in: USA

Element	C	Mn	P	S	SI	Al	Cu	CB	Mo	NI	Ci	V	
Yield	0.200	0.540	0.011	0.004	0.020	0.030	0.040	0.000	0.010	0.020	0.020	0.002	
Tensile	070640 Psi	084090 Psi	32 % Eln.Zn										

Material Note: M900060297  
Bundle No: 7764E  
Heat No: C

*HT# 7764E is used to fab. items: M900, M901*

Material: 6.0x6.0x500x48.0" (13x11)  
Sales order: 282377  
Material No: 600605004800  
Purchase Order: 2870  
Made in: USA

Element	C	Mn	P	S	SI	Al	Cu	CB	Mo	NI	Ci	V	
Yield	0.200	0.540	0.011	0.004	0.020	0.030	0.040	0.000	0.010	0.020	0.020	0.002	
Tensile	070640 Psi	084090 Psi	32 % Eln.Zn										

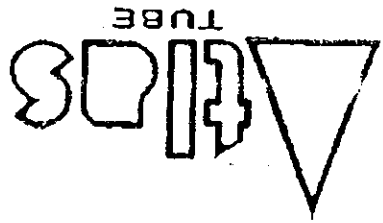
Material Note: M900060300  
Bundle No: 7764E  
Heat No: C

Material: 6.0x6.0x500x48.0" (13x11)  
Sales order: 282274  
Material No: 250151252400  
Purchase Order: 2872  
Made in: USA

Element	C	Mn	P	S	SI	Al	Cu	CB	Mo	NI	Ci	V	
Yield	0.210	0.780	0.011	0.009	0.030	0.046	0.120	0.002	0.020	0.040	0.050	0.006	
Tensile	068760 Psi	081830 Psi	25 % Eln.Zn										

Material Note: M600015747  
Bundle No: 592742  
Heat No: C

WATERIAL TEST REPORT



Acier Alttube Inc.  
1855 East 122nd Street  
Chicago, Illinois, USA  
Tel: 773-546-6128  
Fax: 773-546-6128

Shipped to  
Acier Alttube Inc  
1 Rue Provost, Entry 100  
LACHINE QC H8S 4H2  
CANADA

Ref.B/L: 80225/14-  
Date: 02.16.2007  
Customer: 1774

Authorized by Quality Assurance:

Material Note:  
 Sales Order: 31777

Heat No	C	Mn	P	S	Si	Al	Cu	Co	Mo	Ni	Cr	V
450060	0.150	0.790	0.009	0.002	0.160	0.027	0.020	0.005	0.002	0.009	0.028	0.000
Yield												
Tensile												
Elm.Zn												
ASTM A500-03A GRADE C & B												

Material Note:  
 Sales Order: 31777

Heat No	C	Mn	P	S	Si	Al	Cu	Co	Mo	Ni	Cr	V
450060	0.220	0.930	0.009	0.006	0.027	0.042	0.033	0.000	0.000	0.000	0.000	0.000
Yield												
Tensile												
Elm.Zn												
ASTM A500-03A GRADE C & B												

Material Note:  
 Sales Order: 31777

Heat No	C	Mn	P	S	Si	Al	Cu	Co	Mo	Ni	Cr	V
450060	0.150	0.790	0.009	0.002	0.160	0.027	0.020	0.005	0.002	0.009	0.028	0.000
Yield												
Tensile												
Elm.Zn												
ASTM A500-03A GRADE C & B												

Material Note:  
 Sales Order: 31777

Heat No	C	Mn	P	S	Si	Al	Cu	Co	Mo	Ni	Cr	V
450060	0.190	0.790	0.009	0.002	0.160	0.027	0.020	0.005	0.002	0.009	0.028	0.000
Yield												
Tensile												
Elm.Zn												
ASTM A500-03A GRADE C & B												

Material Note:  
 Sales Order: 31777

Sold to  
 Agier Altitude Inc.  
 2555 Francis-Hugues Avenue  
 LAVAL QC H7S 2H7  
 CANADA

**MATERIAL TEST REPORT**



3101 Eckles Road  
 Port Huron, Michigan, USA  
 48130  
 Tel 313-454-5600  
 Fax 313-454-1474

Shipped to  
 Agier Altitude Inc.  
 2555 Francis-Hugues Avenue  
 LAVAL QC H7S 2H7  
 CANADA

Ref./L: 80243954  
 Date: 06.19.2007  
 Customer: 1774

Atlas Tube Canada ULC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 NOR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537



MATERIAL TEST REPORT

Shipped to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Ref./L: 80263316  
 Date: 10.24.2007  
 Customer: 1751

Sold to  
 Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Material: 6.0x4.0x375x23.0(4x4)

Sales order: 314780

Material No: 60040375

Made in: Canada

Purchase Order: 31077

Heat No	Pcs	C	Mn	P	S	SI	Al	Cu	CB	Mo	NI	Cr	V
680291	2	0.190	0.810	0.011	0.004	0.150	0.035	0.039	0.005	0.003	0.015	0.036	0.000
Bundle No	Yield												
	Tensile												
	Eln.Zin												
	ASTM A500-03A GRADE B&C												
	Certification												

Material: 7.0x7.0x500x36.0(70x11)

Sales order: 335491

Material No: 70070500

Made in: Canada

Purchase Order: 30519-898

Heat No	Pcs	C	Mn	P	S	SI	Al	Cu	CB	Mo	NI	Cr	V
381846	2	0.190	0.800	0.011	0.002	0.150	0.042	0.017	0.006	0.001	0.009	0.036	0.000
Bundle No	Yield												
	Tensile												
	Eln.Zin												
	ASTM A500-03A GRADE B&C												
	Certification												

Material: 7.0x7.0x500x36.0(70x11)

Sales order: 335491

Material No: 70070500

Made in: Canada

Purchase Order: 30519-898

Heat No	Pcs	C	Mn	P	S	SI	Al	Cu	CB	Mo	NI	Cr	V
381840	2	0.190	0.800	0.011	0.002	0.150	0.042	0.017	0.006	0.001	0.009	0.036	0.000
Bundle No	Yield												
	Tensile												
	Eln.Zin												
	ASTM A500-03A GRADE B&C												
	Certification												

Material: 8.0x8.0x625x50.0(81x11)

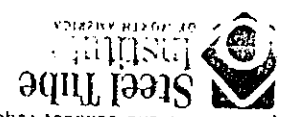
Sales order: 335491

Material No: 80080625

Made in: Canada

Purchase Order: 30519-899

Heat No	Pcs	C	Mn	P	S	SI	Al	Cu	CB	Mo	NI	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.150	0.023	0.025	0.005	0.002	0.011	0.025	0.002
Bundle No	Yield												
	Tensile												
	Eln.Zin												
	ASTM A500-03A GRADE B&C												
	Certification												



The results reported on this report represent the actual material of the material furnished and indicate full compliance with all applicable specification and contract requirements.

Page 1 of 1



The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specifications and requirements.

Authorized by Quality Assurance: *M. Clark*

HT#60856 is used to fabricate from: M810

Material No.	Yield	Tensile	Elm.Zin	Certification								
M200693437	059010 Psi	074760 Psi	34.0 %	ASTM A500-03A GRADE B&C								
Heat No.	C	Mn	P	S	Si	Al	Cu	Ca	Mo	Ni	Cr	V
0.200	0.500	0.005	0.020	0.020	0.000	0.010	0.020	0.020	0.020	0.020	0.020	0.020

Material: B 0x6.0x31x29 0.011x1REC  
 Sales Order: 351038  
 Material No.: B0060313  
 Purchase Order: 351038  
 Made in: Canada

Material No.	Yield	Tensile	Elm.Zin	Certification								
M200690237	052270 Psi	071770 Psi	35.6 %	ASTM A500-03A GRADE B&C								
Heat No.	C	Mn	P	S	Si	Al	Cu	Ca	Mo	Ni	Cr	V
0.200	0.500	0.005	0.020	0.020	0.000	0.010	0.020	0.020	0.020	0.020	0.020	0.020

Material: B 0x6.0x31x24 0.011x1REC  
 Sales Order: 351038  
 Material No.: B0060313  
 Purchase Order: 351038  
 Made in: Canada

Material No.	Yield	Tensile	Elm.Zin	Certification								
M100695442	056530 Psi	068550 Psi	35.0 %	CSA G40.21-04 50W CLASS C								
Heat No.	C	Mn	P	S	Si	Al	Cu	Ca	Mo	Ni	Cr	V
0.200	0.500	0.005	0.020	0.020	0.000	0.010	0.020	0.020	0.020	0.020	0.020	0.020

Material: B 0x3.0x15x42 0.011x3PB-CSA  
 Sales Order: 351590  
 Material No.: B0060250  
 Purchase Order: 3554  
 Made in: Canada

Material No.	Yield	Tensile	Elm.Zin	Certification								
M10068118	050610 Psi	063770 Psi	35.0 %	ASTM A500-03A GRADE B&C								
Heat No.	C	Mn	P	S	Si	Al	Cu	Ca	Mo	Ni	Cr	V
0.170	0.720	0.005	0.020	0.042	0.000	0.005	0.024	0.040	0.040	0.040	0.040	0.040

Material: B 0x2.0x25x24 0.013x61  
 Sales Order: 355532  
 Material No.: B0020125  
 Purchase Order: 355532  
 Made in: Canada

Acier Altrube Inc.  
2555 Francis-Hugues Avenue  
Laval, QC H7S 2H7  
CANADA

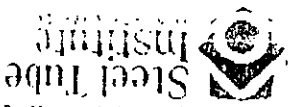
Acier Altrube Inc.  
2555 Francis-Hugues Avenue  
Laval, QC H7S 2H7

MATERIAL TEST REPORT



Altrube Canada ULC  
200 St. Jacques  
Harrow, Ontario, Canada  
N0R 1G0  
Tel: 519-288-3541  
Fax: 519-288-3537

Ref./L: 80269969  
Date: 2 06 2007  
Customer: 774



Metals Service Center Institute

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specifications and contract requirements.

HT # 680243 is used to fabricate form # B882, B900

Material No.	Yield	Tensile	Elm. Zn	C	Mn	P	S	SI	Al	Cu	CP	Mo	NI	Cr	V
M200492955	057440 Psi	068370 Psi	37.3 %	0.200	0.150	0.009	0.002	0.150	0.008	0.008	0.002	0.013	0.039	0.000	
Material No: 120060375 Purchase Order: 3545 Made in: Canada															

Material No.	Yield	Tensile	Elm. Zn	C	Mn	P	S	SI	Al	Cu	CP	Mo	NI	Cr	V
M200461358	063130 Psi	077710 Psi	31.3 %	0.190	0.190	0.005	0.005	0.015	0.049	0.004	0.002	0.014	0.019	0.000	
Material No: 120060375 Purchase Order: 3545 Made in: Canada															

Material No.	Yield	Tensile	Elm. Zn	C	Mn	P	S	SI	Al	Cu	CP	Mo	NI	Cr	V
M200492955	057280 Psi	070380 Psi	36.3 %	0.200	0.310	0.009	0.002	0.180	0.035	0.019	0.006	0.002	0.007	0.030	0.000
Material No: 120040313 Purchase Order: 3545 Made in: Canada															

Material No.	Yield	Tensile	Elm. Zn	C	Mn	P	S	SI	Al	Cu	CP	Mo	NI	Cr	V
M200493932	057060 Psi	072830 Psi	34.7 %	0.210	0.660	0.017	0.005	0.020	0.029	0.020	0.000	0.010	0.010	0.020	0.001
Material No: 80060315 Purchase Order: 3550 Made in: Canada															

2555 Francis-Hughes Avenue  
Laval, QC H7S 2H7  
CANADA

### MATERIAL TEST REPORT



Sold to  
 2555 Francis-Hughes Avenue  
 Laval, QC H7S 2H7  
 CANADA  
 Tel: 519-738-3541  
 Fax: 519-738-3537

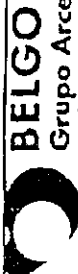
Ref./L: 80269969  
 Date: 12.05.2007  
 Customer: 1774

Shipped to

002/004  
 005/005



Attn:



QUALITY CERTIFICATE

Ref. Nr.: 014200/2007  
Pag.: 01

Customer: ARCELOR INTERNATIONAL CANADA, INC  
Products: ANGLES 3X5/16"X40FT CSA 350W A1C  
Purchase Order: P1200407 Q1-2007-0

Size: 3 X 5/16 POI.  
Order Number: 2303618  
Grade: CSA 350W

Heat	Nr.	Weight (t)	YIELD POINT	TENSILE STRENGTH	% ELONGATION	% C	% Mn	% Si	% P	% S	% Nb	% C
		MPa		MPa								
6000900	8	15.952	402	534	24.00	0.140	0.760	0.150	0.027	0.020	0.016	0.160
TOTAL		8	15.952									
Heat		% C	% Mn	% Si	% P	% S						
6000900	00	0.070	0.050	0.017	0.013							

Remarks: We hereby certify that the material herein listed was produced, inspected, tested and approved in accordance with the standard or the specification required.

Date: 27/JUL/2007

Approved by:

Sergio Torres  
General Manager

Belgo Siderurgica S/A.

HT # 6000900 is used to Fab. items: M809, M816

Alt:

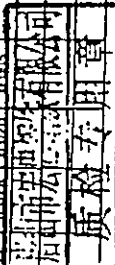
MILL TEST CERTIFICATE

客户单位: 江苏圣天汉唐贸易有限公司  
 CONSIGNEE: JIANGSU SAINT HANTANG TRADING CORP. LTD  
 发货日期: 2007年5月16日  
 DATE OF ISSUING: MAY 16, 2007  
 合同号: J5H2007/SHHT2007  
 CONTRACT NO.

产品名称: 热轧角钢  
 COMMUNITY: PRIME STEEL EQUAL ANGLES/UNEQUAL ANGLES  
 打钢号  
 P.O. NO.  
 牌号 (国际代号): ASTM A572 GR50/A-58A  
 STEEL GRADE: ASTM A572 GR50/A5-58A

原产地: 中国  
 ORIGIN: CHINA  
 制造单位: 唐山京唐钢铁有限公司  
 TANGSHAN GUANG FAITH STEEL CO., LTD  
 厂址:  
 NO.1

规格 SIZE INCH	炉号 RELAT. NO.	X-RAYS OF BUBBLES	化学成分 (%)								机械性能					
			C	Mn	P	S	NI	Cr	Y	Mg	Nb	屈服强度 YIELD STRENGTH MPa	抗拉强度 TENSILE STRENGTH MPa	伸长率 ALONGATION % 2"	冷弯 COLD BENDING (180°) 4d	
4*4*16	B-11144	33	0.16	0.30	0.032	0.022	0.09	0.12	0.20	0.012	0.021	0.005	365	560	26	OK
5*5*18	B-65726	22	0.18	0.28	0.031	0.023	0.10	0.12	0.23	0.015	0.024	0.005	355	565	24	OK
5*5*16	B-84371	26	0.15	0.31	0.025	0.021	0.10	0.11	0.22	0.015	0.021	0.006	359	570	24	OK
8*8*14	Y-3658	7	0.16	0.26	0.023	0.023	0.12	0.10	0.21	0.016	0.025	0.004	363	575	27	OK
4*3*18	H-4634	32	0.15	0.29	0.027	0.024	0.13	0.13	0.20	0.017	0.022	0.008	349	558	24	OK
3*2 1/2*1 1/4	D-8846	61	0.17	0.31	0.030	0.031	0.11	0.12	0.23	0.014	0.024	0.007	351	562	26	OK
4*3 1/2*5/16	H-4856	35	0.19	0.28	0.029	0.027	0.13	0.10	0.21	0.016	0.021	0.009	352	565	27	OK
5*3 1/2*3/8	H-4106	26	0.19	0.25	0.022	0.026	0.10	0.13	0.16	0.020	0.022	0.006	350	560	23	OK
6*4*3/8	T-5967	22	0.20	0.24	0.029	0.020	0.11	0.14	0.24	0.022	0.023	0.007	361	555	24	OK
6*4*5/16	T-7241	26	0.18	0.32	0.028	0.029	0.13	0.11	0.25	0.019	0.021	0.004	360	560	28	OK
7*4*1/2	T-0967	15	0.16	0.27	0.030	0.024	0.12	0.10	0.22	0.018	0.020	0.005	357	570	29	OK



FRAMES: SETTED ON MV. YELLOW KOTEX  
 检测员: 李林  
 INSPECTOR:  
 H 钢, DATED: MAY 16, 2007

HT# T-5947 is used to fab. items: M301, M305, M306, M308, M330

AMESI C200419

MILL EST CERTIFICATE

产单位: B-LI STEEL PLC.  
 产品名称: 热轧钢板  
 原产国: 中国  
 生产地: 中国  
 DESC OF GOODS: PRIME NEWLY PRODUCED STEEL ANGLES ORIGIN: CHINA  
 销售单位: TANGSHI GRANG FAITH STEEL CO., LTD  
 订号: C200419  
 P.O. NO. 10419  
 牌号 (规格代号): ASTM A572 GR50/A5-05A  
 编号: 019  
 STEEL GRADE: ASTM A572 GR50/A5-05A  
 NO. 019

规格 SPEC.	P 号 HEAT NO.	长度 LENGTH	PCS / BUNDLE	件数 NO. OF BUNDLES	化学成分 (%)											机械性能			
					C	SI	Mn	P	S	NI	Cr	CU	V	MO	Nb	屈服强度 YIELD STRENGTH (MPa)	抗拉强度 TENSILE STRENGTH (MPa)	延伸率 ELONGATION % 2"	冷弯 COLD BENDING (180°) d=3s
5*3 1/2*3/8	H7629	12.2	26	17	.13	0.25	1.34	0.025	0.016	0.09	0.16	0.32	0.028	0.022	0.008	365	480	27	GOOD
5*3 1/2*3/16	H7942	12.2	31	17	.13	0.26	1.35	0.025	0.028	0.11	0.14	0.27	0.028	0.024	0.007	360	475	25	GOOD
6*4*1/2	T-5788	12.2	17	12	.15	0.26	1.33	0.015	0.021	0.11	0.15	0.23	0.013	0.020	0.004	361	476	26	GOOD
6*4*3/8	T-4908	12.2	22	30	.19	0.23	1.34	0.017	0.028	0.10	0.14	0.23	0.014	0.020	0.005	363	465	24	GOOD
6*4*5/16	T-4408	12.2	26	16	0.20	0.24	1.39	0.020	0.017	0.13	0.13	0.24	0.015	0.023	0.005	373	465	23	GOOD
7*4*1/2	T-6799	12.2	15	10	0.17	0.32	1.52	0.020	0.018	0.12	0.11	0.23	0.010	0.021	0.006	364	458	24	GOOD
7*4*3/8	T-5123	12.2	20	22	0.18	0.30	1.38	0.018	0.017	0.12	0.12	0.20	0.028	0.021	0.005	365	487	25	GOOD
8*4*1/2	T-2322	12.2	14	42	0.18	0.33	1.22	0.019	0.023	0.13	0.12	0.20	0.013	0.023	0.005	365	467	26	GOOD
8*6*1/2	F7348	12.2	11	36	0.16	0.27	1.24	0.016	0.023	0.08	0.16	0.21	0.026	0.022	0.007	368	480	23	GOOD
8*6*3/4	F7629	12.2	8	11	0.13	0.23	1.34	0.075	0.026	0.09	0.15	0.31	0.013	0.020	0.01	369	461	27	GOOD

日期: 2007年2月17日  
 发货日期: 2007年2月17日  
 DATE OF ISSUING: FEB 17, 2007  
 日期: 2007年2月17日  
 发货日期: 2007年2月17日  
 DATE OF ISSUING: FEB 17, 2007

HT# T-4408 is used to Fab. items: m811 to m813

尊敬的客户: 请用此证书, 如有异议请即与我们联系

For Customers: TEST BEFORE USED. CLAIM FOR DISCREPANCIES WITH DEFAULT GOODS

**Customer Name**

Mandate Erectors & Welding Ltd.

**Customer PO#**

31710

**Shipper No**

17077

**Heat Number**

1716933

11/13/07 8:55:  
 100% MELTED AND MANUFACTURED IN THE USA  
 All beams produced by Nucor-Berkeley are cast a  
 rolled to a fully killed and fine grain practice

**MIL TEST REPORT**

NUCOR STEEL - BERKELEY  
 P.O. Box 2259  
 Mt. Pleasant, S.C. 29 64  
 Phone: (843) 336-6000

Sold To: TRIAD METALS INTERNATIONAL  
 2300 COMPETER AV.  
 SUITE A1  
 WILLOW GROVE, PA 19090

Ship To: IAD METALS INTERNATIONAL  
 80 GRAND AVE.  
 WILLOW ISLAND, PA 15223

Customer # 473 - 2  
 B.O.B. # 653248

Customer PO: 1484  
 Customer PO: 1486  
 Customer PO: 1484  
 Customer PO: 1486

Customer PO: 1484  
 Customer PO: 1486

Customer PO: 1484  
 Customer PO: 1486

Customer PO: 1484  
 Customer PO: 1486

Description	Heat#	Grade	Yield Tensile (ksi)	Tensile Ratio (%)	Elongation (%)	C	Cr	Mn	P	Sn	Al	S	Cu	Ni	CE1
M8X10	171693	A992-0	50	12	21.10	0.07	0.07	0.890	0.071	0.049	0.025	0.0328	0.020	0.280	0.290
M200X15.0	A992-0	50	12	22.63	0.02	0.02	0.270	0.018	0.005	0.007	0.007	0.0108	0.108	0.270	0.270
M12.1920m			07	487				Piece(s)					0.000	2.5036	1.115
															Inv#: 946622
M8X10	171693	A992-0	50	12	21.10	0.07	0.07	0.890	0.071	0.049	0.025	0.0328	0.020	0.280	0.290
M200X15.0	A992-0	50	12	22.63	0.02	0.02	0.270	0.018	0.005	0.007	0.007	0.0108	0.108	0.270	0.270
M12.1920m			07	487				Piece(s)					0.000	2.5036	1.115
															Inv#: 946622
M8X10	171707	A992-0	57	12	26.13	0.07	0.07	0.896	0.090	0.050	0.025	0.0239	0.740	0.270	0.2376
M200X15.0	A992-0	57	12	27.01	0.02	0.02	0.170	0.018	0.005	0.007	0.007	0.0136	0.136	0.273	0.273
M15.2400m			401	483				Piece(s)					0.000	2.1054	1.336
															Inv#: 946622
M8X10	27143	A992-0	67	12	26.26	0.07	0.07	0.892	0.075	0.058	0.025	0.0242	0.160	0.430	0.2428
M200X15.0	A992-0	67	12	25.26	0.07	0.07	0.200	0.012	0.001	0.001	0.001	0.004	0.120	0.1921	0.1397
M15.2400m			123	498				Piece(s)					0.000	3.1921	1.197
															Inv#: 946622
M8X10	27143	A992-0	67	12	26.26	0.07	0.07	0.892	0.075	0.058	0.025	0.0242	0.160	0.430	0.2428
M200X15.0	A992-0	67	12	25.26	0.07	0.07	0.200	0.012	0.001	0.001	0.001	0.004	0.120	0.1921	0.1397
M15.2400m			123	498				Piece(s)					0.000	3.1921	1.197
															Inv#: 946622

CE1 = C + (Mn/6) + (P+Mo+V)/5 + ((Ni+Cu)/15)  
 CE2 = C + ((Mn+Si)/6) + ((Cr+Mo+V+Cb)/5) + ((Ni+Cu)/15)

Hg free and no Hg during manufacture

Heat # 1716933 is used to fabricate item: B830

Bruce A. Work  
 Metallurgist

PO/Rel

PART NO.

Attn:

Bill To:  
 PACIFIC STEEL, INC.  
 845 MUNCK  
 CHOCORRY  
 LAVERGNE  
 X75-A9

Ship To: 1  
 PACIFIC STEEL, INC.  
 845 MUNCK  
 8076 LONGUEUIL  
 MONTREAL  
 H7S-1A9

Order Date: 03/01/2007  
 PO No: 18743  
 Mill Order No: 3269033  
 Load No: 1111497  
 Manifest No: 1825320

**CERTIFIED MATERIAL TEST REPORT**  
**CHAPARRAL**  
 CHAPARRAL STEEL  
 300 Ward Rd.  
 Midlothian, TX  
 76065-9651  
 (972) 775-8241

GRADE  
 972/572-50

LENGTH  
 35 FT / 10.668 M

SIZE  
 W 10 X 39# / W250 X 58

PRODUCT  
 WF BEAMS

HEZ NO: 30336020

SPECIFICATIONS  
 ASTM A6-05a, A992-06a, A572-06

CHEMICAL ANALYSIS

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Al	Mb	CR
.18	.94	.011	.034	.24	.34	.09	.10	.016	.003	.003	.021	.29

PHYSICAL PROPERTIES

Yield Strength		Tensile Strength		Elongation	
KSI	MPa	KSI	MPa	%	Gage Length
51.4	354.4	68.2	470.7	20.4	8 In 200 mm
50.5	348.2	66.7	459.9	21.1	8 In 200 mm

Specimen Area  
 Sq In 0.871  
 Sq cm 5.62

Specimen Area  
 Sq In 0.820  
 Sq cm 5.27

Head Test  
 Dia. Result  
 PWA

*IT # 30336020 is used to fab. items B864, B867*

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A.  
 CMTR complies with DIN EN 10204 3.1.B

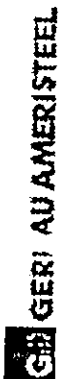
\*I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.\*

Signed: *Tom B. Harrington* Date: May 17, 2007  
 Tom B. Harrington, Quality Assurance Manager  
 signed: Notary Public (if applicable) Date: \_\_\_\_\_ Page: 1 of 1

Chemical and Physical Test Report

MADE IN UNITED STATES

G 103654



CARTERSVILLE STEEL MILL  
384 OLD GRASSDALE RD NE  
CARTERSVILLE GA 30121 USA  
(770) 387-3300

PRODUCED IN: CARTERSVILLE

SHIP TO TRIAD METAL 1951 BESSEMER ROAD 804-732-5000 PETERSBURG, VA 23805		INVOICE TO TRIAD METALS INTERNATIONAL METAL TRADERS INC 2740 COMPUTER AVE STE-A-1 WILLOW GROVE, PA 19080		SHIP DATE 11/07/07	CUST. ACCOUNT NO 40213075
SHAPE + SIZE W12 X 14#		GRADE A572-50-992		SALES ORDER 7097034-02	
HEAT I.D. G709037		RECIFICATION ASTM A572 GR50-07, ASTM A992-00A		CUST. P.O. NUMBER 2207-02	
Mechanical Test: Yield 61600 PSI, 424.72 MPA Customer Requirements CASTING: STRAND CAST		Tensile: 72500 PSI, 499.87 MPA %EL: 24.98%, 24.9200MM Std Dev: 0.17 (Norm): 297		Al Ti Ca C Sp .001 .00100 .00050 .006	
Mechanical Test: Yield 60800 PSI, 419.2 MPA Customer Requirements CASTING: STRAND CAST		Tensile: 73000 PSI, 503.0 MPA %EL: 23.17%, 23.1700MM Std Dev: 0.17 (Norm): 297			

HT # G706037 is used to Fab items: B829, B928

This material, including the billets, was produced and manufactured in the United States of America

*Maackary*  
Sheel Yalamarchi  
Quality Director  
Gerdau Ameristeel

*Zhang*  
Mfg. Mgmt. Sves.  
CARTERSVILLE STEEL MILL

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

Seller warrants that all material furnished shall conform with specifications subject to standard published manufacturing variations. NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, ARE MADE BY THE SELLER, AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. In no event shall seller be liable for indirect, consequential or punitive damages arising out of or related to the materials furnished by seller. Any claim for damages for materials that do not conform to specifications must be made by buyer to seller immediately after delivery of same in order to allow the seller the opportunity to inspect the material in question.

PO/Rel

W12 X 16

PART NO.

Atm:

Page 5 of 7

G-080330

**Gerdau Ameristeel**  
CARTERSVILLE STEEL MILL  
364 OLD GRASSDALE RD NE  
CARTERSVILLE GA 30121 USA  
(770) 387-5300

Chemical and Physical Test Report  
MADE IN UNITED STATES

PRODUCED IN: CARTERSVILLE

SHIP TO  
ARRIMAGE IDEAL CN SIDING 8076  
T/O ACIER PACIFIC  
2345 DE LA METROPOLE  
LONGUEUR, PQ J4K 1S4

INVOICE TO  
PACIFIQUE STEEL INC  
845 MUNCK ST.  
LAVAL, PQ J7S 1A9

SHIP DATE  
02/20/07

CUST. ACCOUNT N°  
60030632

SALE'S ORDER  
701044-07

CUST. P.O. NUMBER  
18236-24

SHAPE & SIZE	GRADE	SPECIFICATION
W10 X 25 IBS-BEAM	A572-50	ASTM A572 GR50, ASTM A992-04
HEAT ID.	C Mn P S C Cu Ni Cr Mo V Nb B N Sn Al Ti Ca C Eq	
G060290	18 1.05 0.14 0.00 18 24 06 05 020 018 002 0004 00088 010 001 00100 00080 306	Tensile: 80100 PSI, 542.77 MPa Yield: 56800 PSI, 391.83 MPa Customer Requirements CASTING: STRAND CAST
Mechanical Test		Tensile: 80700 PSI, 558.41 MPa Yield: 57600 PSI, 397.14 MPa Customer Requirements CASTING: STRAND CAST

SHAPE & SIZE	GRADE	SPECIFICATION
W12 X 16	A572-50	ASTM A572 GR50, ASTM A992-04
HEAT ID.	C Mn P S Cu Ni Cr Mo V Nb B N Sn Al Ti Ca C Eq	
G701058	06 1.17 0.17 0.01 23 23 14 05 021 020 002 0007 00058 008 001 00100 001 321	Tensile: 74500 PSI, 513.85 MPa Yield: 60700 PSI, 418.51 MPa Customer Requirements CASTING: STRAND CAST
Mechanical Test		Tensile: 74800 PSI, 516.73 MPa Yield: 62900 PSI, 433.88 MPa Customer Requirements CASTING: STRAND CAST

HT# G701058 is used to fab items: B805, B806.

This material, including the label, was produced and manufactured in the United States of America

Blasker Yilmazci  
Quality Director  
Gerdau Ameristeel

*Blasker Yilmazci*

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

*Blasker Yilmazci*

Myr. Hebeling, Svcs.  
CARTERSVILLE STEEL MILL

G-100608

Chemical and Physical Test Report

MADE IN UNITED STATES



CARTERSVILLE STEEL MILL  
384 OLD GRASSDALE RD NE  
CARTERSVILLE GA 30121 USA  
(770) 387-3300

PRODUCED IN: CARTERSVILLE

SHIP TO  
TRIAD METAL  
1951 BESSEMER ROAD  
804-732-5000  
PETERSBURG, VA 23805

INVOICE TO  
TRIAD METALS INTERNATIONAL  
METAL TRADERS INC  
2300 COMPUTER AVE. STE. A-1  
WILLOW GROVE, PA 19090

SHIP DATE  
09/28/07  
CUST. ACCT NO  
40213035

SHAPE + SIZE	GRADE	SPECIFICATION	CHEMICAL ANALYSIS										SALES ORDER	CUST P.O. NUMBER						
W12 X 22#	A57250/992	ASTM A572 GR50-07, A57M A992-06A	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	B	N	Sn	Al	Ti	Ca	CER
G704788	1.14	.015	.023	.27	.28	.04	.014	.028	.001	.0007	.001	.0007	.0120	.009	.002	.00100	.00060	.31	7074491-13	1110-13
Mechanical Test: Yield 55300 PSI, 361.28 MPA Tensile: 71800 PSI, 495.04 MPA %EI: 31.178%, 31.1200M#1 Std Dev:0 kld Diam: .374																				
Mechanical Test: Yield 57200 PSI, 394.38 MPA Tensile: 73700 PSI, 508.14 MPA %EI: 25.078%, 25.0200M#1 Std Dev:0 kld Diam: .374																				
Customer Requirements CASTING: STRAND CAST																				
Customer Requirements CASTING: STRAND CAST																				

SHAPE + SIZE	GRADE	SPECIFICATION	CHEMICAL ANALYSIS										SALES ORDER	CUST P.O. NUMBER						
W12 X 19#	A57250/992	ASTM A572 GR50-07, A57M A992-06A	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	B	N	Sn	Al	Ti	Ca	CER
G704824	1.18	.025	.018	.28	.24	.07	.05	.014	.027	.002	.0007	.0104	.008	.001	.00100	.00060	.32	7101722-01	2486-01	
Mechanical Test: Yield 57200 PSI, 394.38 MPA Tensile: 73700 PSI, 508.14 MPA %EI: 24.878%, 24.8200M#1 Std Dev:0 kld Diam: .39																				
Mechanical Test: Yield 60200 PSI, 415.06 MPA Tensile: 74500 PSI, 513.66 MPA %EI: 25.678%, 25.6200M#1 Std Dev:0 kld Diam: .39																				
Customer Requirements CASTING: STRAND CAST																				
Customer Requirements CASTING: STRAND CAST																				

HT # G704824 is used to Fab. rems: 6812, 6831, 6869

This material, including the billets, was produced and manufactured in the U.S.A.

*Maskary*  
Roshkar Yalamanchi  
Quality Director  
Gerdau Ameristeel

*J. J. J.*  
Mgr. Metallurg. Svcs.  
CARTERSVILLE STEEL MILL

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

Seller warrants that all material furnished shall comply with specifications subject to standard published manufacturing variations. NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, ARE MADE BY THE SELLER, AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. In no event shall seller be liable for indirect, consequential or punitive damages arising out of or related to the materials furnished by seller. Any claim for damages for materials that do not conform to specifications must be made by the buyer to seller immediately after delivery of same in order to allow the seller the opportunity to inspect the material in question.



Date: 10/12/2007

**CERTIFIED MILL TEST REPORT**

Customer # 0191

Ship to:

TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Petersburg VA, 23805 US  
Attn: Fred White

Triad Metals Inc  
1951 Bessemer Road  
CSX-Collier Y  
Petersburg VA 23805 US  
Attn: Rock Mc Govern

Quality Steel 100% Melted  
and Manufactured in the USA

GENERAL INFORMATION		SPECIFICATIONS		SHIPMENT DETAILS					
Product	Wide Flange Beam	Standards	ASTM A6 M	Grades	A992 / A992M	Bundle / ASN #	Length	pcs	Customer PO
Size	W 14 x 22					020985061	50' 0"	8	67-1780
Heat Number	B037631					020985062	50' 0"	8	67-1780
Condition(s)	As-Rolled Fine Grained					020985060	50' 0"	8	67-1780

**CHEMICAL ANALYSIS** (weight percent)

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analysis Type
.05	.74	.01	.031	.21	.26	.09	.09	.023	.012	.015	>.001	.0083	.0003	.22	.25	.11	5.27	Heat

**MECHANICAL TESTING**

Charpy Impact Tests (available only when specified at time of order)

Test	Yield Strength ksi / MPa	Tensile Strength ksi / MPa	fy / fu ratio	% Elong. {8" gage}	Charpy Absorbed Energy ft-lbf / J		
					Temp F / C	Specimen 1	Specimen 2
					Average	Minimum	
1	58 / 401	72 / 499	.80	29			
2	58 / 401	73 / 501	.80	29			
3							
4							
5							
6							
7							

Notes: \*Calculated Chemistry Values: Cr = 0.09, Mn = 0.74, P = 0.01, S = 0.031, Si = 0.21, Cu = 0.26, Ni = 0.09, Cr = 0.09, Mo = 0.023, Sn = 0.012, V = 0.015, Nb/Cb = >.001, N = .0083, B = .0003, \*C1 = .22, \*C2 = .25, \*PC = .11, \*I = 5.27  
 CE1 (fW) = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15  
 CE2 (AWS) = C+(Mn+Si)/6+(Cr+Mo+V)/5+(Ni+Cu)/15  
 Perm (AWS) = C+Si/30+Mn/20+Cu/20+Ni/60+(P+20\*me)/15+V/10

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: **Doug Rzes-Evans**  
 Manager of Technical Services

Signed: \_\_\_\_\_  
 My commission expires \_\_\_\_\_  
 Notary Public

ASTM A6 - 14.6: A signature is not required on the test report; however, the document shall clearly identify the organization submitting the report. Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report.

HT# B037631 is used to Fab item B813, B871, B878, B910, B911

Attn:

Bill To:  
PACIFIC STEEL, INC.  
845 MURCK  
CHICKADEE  
1 AVAL  
175LA

Ship To: 1  
PACIFIC STEEL, INC.  
845 MURCK  
8076 LONGUEUIL  
MONTREAL  
H7S-1A9

Order Date: 11/14/2003  
PO No: 10936  
Mill Order No: 2485583  
Load No: B19394  
Manifest No: 1187418

CHAPARRAL STEEL  
CERTIFIED MATERIAL TEST REPORT  
300 Ward Rd.  
Midlothian, TX  
76065-3651  
(972) 775-8241

PQ  
CA

PQ  
CA

SIZE  
H 14 X 53f

GRADE  
992/572-50

PRODUCT  
WF BEAMS

LENGTH  
36 FT

SPECIFICATION  
ASTM A6-02, A991-02, A572-01

HEAT NO: 0162900

Chemical Analysis

	C	Mn	P	S	Si	Cu	NI	Cr	Mo	SM	V	AL	Nb	CE
	0.10	1.02	0.010	0.040	0.26	0.32	0.09	0.07	0.016	0.015	0.000	0.001	0.019	0.31

PHYSICAL PROPERTIES

Yield strength	Tensile Strength	Elongation	Specimen Area	Elongation	
				%	in
5-5	69.2	24.3	6.35	24.3	8in : 0 mm
5-0	70.5	23.0	6.19	23.0	8in : 0 mm

Head Test  
Dia. Result

ROA  
x

HT# 30162900 is used to Fab. items: R8802, R3803

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A.

I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: *[Signature]*  
Yoon H. Harrington: Quality Assurance Manager

Date: Feb. 20, 2004

Signed: Notary Public (if applicable)

Date:

Page: 3 of 34



Structural and Rail Division • 1 • Humboldt City, Indiana  
 3480 Grand Avenue  
 Pittsburgh PA, 15225 US  
 Attn: Craig Borrelli

# CERTIFIED MILL TEST REPORT

Customer # 000191  
 Bill to:  
 TRIAD METALS INTERNATIONAL  
 A-1 230 Computer Avenue  
 Pittsburgh, PA, 15225 US  
 Attn: Fred White

Date: 08 / 30 / 2017

Quality Steel 100% Milled  
 and Manufactured in the USA

GENERAL INFORMATION		SPECIFICATIONS		ELEMENT DETAILS	
Product	Wide Flange Beam	Standard	ASTM A992M	Batch	020949884
Size	W 16 x 26			Length	50' 0"
Heat Number	A036040	* ASTM A992/A992M - 06a	A992 / A992M	pcs	6
Condition(s)	As-Rolled Fine Grained	ASTM A709/A709M - 06a	A709 gr50/gr345	Customer PO	22814
		ASTM A572/A572M - 06	A572 gr50/gr345		
		ASTM A709/A709M - 06a	A709 gr50S/gr345S		

## CHEMICAL ANALYSIS (weight percent)

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analysis Type
.08	.66	.016	.020	.19	.33	.10	.09	.028	.013	.014	>.001	.0075	.0002	.24	.28	.15	5.72	Heat

## MECHANICAL TESTING

Test	Yield (f <sub>y</sub> ) ksi / MPa	Tensile (f <sub>t</sub> ) ksi / MPa	Elong. % (8" gage)	Charpy Impact Tests (available only when specified at time of order)		
				Temp F / C	Absorbed Energy ft-lbf / J	Minimum
1	64 / 445	77 / 529	.84	Specimen 1	Specimen 2	Specimen 3
2	55 / 446	78 / 535	.83			
3						
4						
5						
6						
7						

Notes: \*Calculated Chemistry Values; Carbon Equivalents (C1, C2, PC), Corrosion Index (I)  
 CE1 (IIV) = C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15  
 CE2 (AWS) = C + (Mn + Si)/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15  
 I (ASTM G101) = 26.01(Cu) + 3.88(Ni) + 1.20(Cr) + 1.49(Si) + 17.28(P) + 7.29(Cu)(Ni) + 9.10(Ni)(P) + 33.39(Cu)

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this mill-manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: Doug Rees-Evans Manager of Technical Services  
 My commission expires: \_\_\_\_\_  
 Notary Public

ASTM A6 - 14.6: A signature is not required on the test report; however, the document shall clearly identify the organization submitting the report.  
 Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report.

HT# A036040 is used to Fab items: B802, B807



# Steel Dynamics, Inc.

Structural and Rail Division • Columbus, Indiana  
Ship to:  
Triad Metals  
3450 Gravel Ave  
Plyville, IN 47454  
Pittsburgh, PA, 15225 US  
Attn: Craig Borrelli

# CERTIFIED MILL TEST REPORT

Customer # 000191  
Bill to:  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Pittsburgh PA, 15225 US  
Attn: Fred White

Mandate Erectors & Welding Ltd.

31710

Shipper No

17377

Heat Number

B037994

Date 11/01/2007

Quality Steel 100% Melted  
and Manufactured in the USA

### GENERAL INFORMATION

Product Wide Flange Beam  
Size W 18 x 35  
W 460 x 52  
Heat Number B037994  
Condition(s) As-Rolled  
Fine Grained  
Fully Killed

### SPECIFICATION

Standard  
ASTM A992 / A992M - 06  
ASTM A709 / A709M - 06  
ASTM A572 / A572M - 06  
ASTM A709 / A709M - 06

### SHIPMENT DETAILS

Bundle / ASN #	Length	Price	Customer PO
020992284	30' 0"	0	009
020992286	30' 0"	0	009
020992287	30' 0"	0	009
020992289	30' 0"	0	009
020992283	30' 0"	0	009

### CHEMICAL ANALYSIS (weight percent)

C	Mn	P	S	Si	Cu	Ni	C	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analysis Type
.06	.98	.031	.036	.21	.35	.10	.1	.023	.014	>.001	.013	.0116	.0004	.28	.32	.15	6.08	Heat

### MECHANICAL TESTING

Test	Yield (fy)	Tensile (fu)	Strength	fy / fu	% Elong	Charpy Impact Tests (available only when specified at time of order)
1	55 / 377	68 / 471	ksi / MPa	.80	26	Absorbed Energy ft-lbf / J
2	61 / 420	74 / 508	ratio	.83	25	F / C Specimen 1 Specimen 2 Specimen 3 Average Minimum
3						
4						
5						
6						
7						

### Notes:

1. Calculated Chemistry Values: Carbon Equivalents (C1, C2)  
CE1 (IIW) = C + Mn/6 + (Cr + Mo + V) / 5  
CE2 (ASTM G101) = 26.01(Cu) + 8(Ni) + 1.20(Cr) + 1.49(Si) + 1.05(P) - 7.29(C) - 10(Nb) - 9.10(Mn) - 33.30(Cu)<sup>2</sup>  
2. Corrosion Index (I)  
I = C + (Mn + Ni) / 6 + (Cr + Mo + V) / 10 + (Ni) / 15 + (P) - 7.29(C) - 10(Nb) - 9.10(Mn) - 33.30(Cu)<sup>2</sup>  
3. All tests and operations performed by this manufacturer are in compliance with the requirements of the material specifications and applicable requirements.

Signed:

*Doug Jees-Evans*

Manager of Technical Services

ASTM A6 - 14.6: A signature is not required on the test report, however, the document shall clearly identify the organization submitting the report.

Notwithstanding to the absence of a signature, the organization submitting the report is responsible for the content of the report.

Signed: \_\_\_\_\_ My commission expires \_\_\_\_\_

Notary Public

this \_\_\_\_\_ day of \_\_\_\_\_

State of Indiana, County of Whitley Sworn to and subscribed before me

HT# B037994 is used to Fab. item: B547



**Steel Dynamics, Inc.**  
Structural and Rail Division

Ship to:  
Triad Metals Int'l

1951 Bessemer Road  
CSX-Collier Yard  
Petersburg VA, 23805 US  
Attn: Rock McGovern

**CERTIFIED MILL TEST REPORT**

Customer # 000191

Bill to:  
TRIAD METALS INTERNATIONAL  
A-1 2319 Computer Avenue  
Petersburg VA, 23805 US  
Attn: Fred White

Date: 10/31/2007

Heat Number  
B037839

Quality Steel 100% Milled  
and Manufactured in the US

**GENERAL INFORMATION**

Product Wide Flange Beam

Size W 18 X 50

W 460 X 74

Heat Number B037839

Condition(s) As-Rolled

Fine Grained

Fully Killed

**SPECIFICATIONS**

Standards

ASTM A6/A6M

ASTM A992/A992M - 06a

ASTM A709/A709M - 06a

ASTM A572/A572M - 06

ASTM A709/A709M - 06a

Grades

A992 / A992M

A709 gr50/gr345

A572 gr50/gr345

A709 gr50S/gr345S

**SHIPMENT DETAILS**

Bundle / ASN # Length Pcs Customer I/O

020990302 50' 0" 1 3065

DCI # 0000128012

**CHEMICAL ANALYSIS** (weight percent)

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analysis Type
.08	.90	.016	.018	.21	.40	.10	.08	.020	.014	.001	.015	.0094	.0004	.29	.32	.16	5.83	Heat

**MECHANICAL TESTING**

Test	Yield (fy)		Tensile Strength	Elong. ratio	Charpy Impact Temp	Absorb Energy		
	ksi / MPa	ksi / MPa				ft-lbf / J	Specimen 1	Specimen 2
1	53 / 367	73 / 505	73 / 505	.73	F / °	Specimen 1	Specimen 2	Minimum
2	54 / 371	73 / 504	73 / 504	.74				
3				28				
4				24				
5								
6								
7								

**Notes:**

\*Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC), Corrosion Index (CE1, IIW) = C + Mn/8 + (Cr + Mo + V)/5 + (Ni + Cu)/15  
CE2 (AWS) = C + (Mn + Si)/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15  
Pcm (AWS) = C + Si/30 + Mn/10 + Cu/20 + Ni/60 + Cr/20 + Mo/15 + V/10 + P

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: **Doug Rees-Evans**  
Manager of Technical Services

ASTM A6 - 14.6: A signature is not required on the test report; however, the document shall clearly identify the organization submitting the report.

Form 6-100-003-054

Signed: \_\_\_\_\_ My commission expires: \_\_\_\_\_

this \_\_\_\_\_ day of \_\_\_\_\_

State of Indiana, County of Whitley Sworn to and subscribed before me

HT # B037839 is used to fab item : 8891, B920

Mandate Erectors & Welding Ltd.

31710

17377

5006762

**Steel Dynamics, Inc.**  
 2801 S. County Road 700 East  
 Columbia City, IN 46725  
 (260) 625-8100

**Certified Mill Test Report**  
 100% Melted and Manufactured in USA

Date: 9/2007  
 Customer No: 0191  
 Bill of Lading No: 0125263  
 MTR #: 0124766

Ship to:  
 Triad Metals  
 3450 Grand Ave  
 Neville Island  
 Pittsburgh, PA 15225  
 Attn: Craig Borrelli

Bill to:  
 TRIAD METALS INTERNATIONAL  
 A-1 2300 Computer Avenue  
 Willow Grove, PA 19090  
 Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grades	Specification(s)	Customer P.C.
1†	020947355	W16X36	40' 0"	6	A036284	A992 / A992M 709 gr50/gr345 709 gr50S/gr345S 572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	128
2†	020961152	W21X44	45' 0"	4	B036782	A992 / A992M 709 gr50/gr345 709 gr50S/gr345S 572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	247
3†	020961156	W21X44	45' 0"	4	B036782	A992 / A992M 709 gr50/gr345 709 gr50S/gr345S 572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	247
4†	020962763	W21X44	45' 0"	4	A036489	A992 / A992M 709 gr50/gr345 709 gr50S/gr345S 572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	247
5†	020970212	W14X58	50' 0"	4	A037107	A992 / A992M 709 gr50/gr345 709 gr50S/gr345S 572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	246

CHEMICAL

Item	C	Min	P	S	Si	Cu	Cr	Ni	Mn	Sn	N	B	Analysis
1*	.09	.91	.011	.042	.26	.43	.080	.09	.0	.011	.008	.0004	HEAT
2*	.07	1.06	.019	.023	.18	.28	.120	.11	.0	.012	.010	.0004	HEAT
3*	.07	1.06	.019	.023	.18	.28	.120	.11	.0	.012	.010	.0004	HEAT
4*	.08	1.03	.012	.031	.21	.28	.080	.10	.0	.012	.008	.0004	HEAT
5*	.08	1.22	.019	.028	.19	.37	.110	.12	.0	.012	.010	.0004	HEAT

AT # B036782 is used to fabricate items: B844 B858

State of Indiana, County of V

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_ Notary Public

My commission expires: \_\_\_\_\_

Quality Assurance

*[Signature]*

Special Comments/Information:

**CERTIFIED MATERIAL TEST REPORT**  
**GERDAU AMERISTEEL**  
Petersburg Mill  
2580 Hoffmeyer Way  
Petersburg, VA 23803  
(804)574-2855

Order Date: 11/05/2007  
PO No: 3290  
Order No: 338830  
Load No: 1149266  
Manifest No: 1059841

Ship To: 6  
TRIADE METALS INTERNATIONAL  
2300 COMPUTER AVENUE  
SUITE A-1  
WILLOW GROVE  
19090  
PA  
US

PRODUCT  
WF BEAMS

LENGTH  
60 FT / 18 288 IN

GRADE  
992/572-01

SIZE  
W 21 X 57# / F530 X 85

**SPECIFICATIONS**

ASTM A6-05a, A992-06a, A572-06

HEAT NO: 30385560

**CHEMICAL ANALYSIS**

C	0.07	Mn	1.10	P	0.016	S	0.035	Si	0.21	Cu	0.36	Ni	0.10	Cr	0.13	Mo	0.018	Sn	0.12	V	0.003	Al	0.003	Nb	0.017	CE	0.31
---	------	----	------	---	-------	---	-------	----	------	----	------	----	------	----	------	----	-------	----	------	---	-------	----	-------	----	-------	----	------

**PHYSICAL PROPERTIES**

Yield Strength	Tensile Strength	Specimen Area		Elongation		Gage Length	ROA %
		KSI	MPa	Sq In	Sq Cm		
56.5	389.6	73.3	504	0.982	6.34	24.9	200 mm
57.9	399.2	74.2	516	1.003	6.47	27.0	200 mm

HT# 30385560 is used to fabricate item: B841

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A. CMTR complies with DIN EN 10204 3.1.B

I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: Tom L. Harrington Date: Nov. 07, 2007 Signed: Notary Public (if applicable) Date: \_\_\_\_\_  
Tom L. Harrington: Quality Assurance Manager

HT # 113448 is used to Fab items: B818, B819, B843 B856

OLA P-20044

# QUALITY CERTIFICATE

MATERIAL SIZE		COLADA		MECHANICAL PROPERTIES																	
W	H	W	H	Y	T	R	EL	Y	T	R	EL	Y	T	R	EL	Y	T	R	EL		
113516	094	1.170	1.170	025	027	002	120	140	026	360	021	047	35								
113515	098	1.190	1.190	026	029	002	100	170	031	410	027	031	35								
113514	101	1.170	1.170	026	024	002	140	180	033	430	073	051	37								
113512	073	1.180	1.170	019	033	002	110	170	038	390	022	037	34								
113509	083	1.160	1.170	023	030	039	130	150	032	390	003	033	35								
113508	082	1.150	1.180	022	026	040	130	140	030	370	003	028	35								
113507	079	1.160	1.170	022	026	039	130	160	034	390	003	021	35								

MATERIAL SIZE		COLADA		MECHANICAL PROPERTIES																
W	H	W	H	Y	T	R	EL	Y	T	R	EL	Y	T	R	EL	Y	T	R	EL	
W-10x33	113432	435	421	548	526	20.9	22													
W-10x39	113434	390	386	524	500	22.4	21.7													
W-10x39	113436	415	407	533	511	21.4	20.9													
W-10x39	113437	397	383	508	502	22.7	22.5													
W-10x45	113440	408	404	534	531	23.4	23.2													
W-10x45	113442	364	356	497	485	26.6	26.5													
W-12x40	113388	375	375	544	536	21.2	21													
W-12x40	113389	370	370	537	513	21.7	20.9													
W-12x40	113391	379	373	527	519	22.8	22.5													
W-12x40	113392	380	372	535	515	22.3	22													
W-12x45	113380	375	363	540	558	21.5	21.4													
W-12x45	113381	376	361	549	545	21.7	21.3													
W-12x53	113390	395	393	529	527	22.4	22.4													
W-14x43	113463	446	438	550	540	22.2	22													
W-14x43	113467	402	394	520	519	30.3	30.2													
W-14x48	113451	404	392	529	510	22.7	22.4													
W-14x53	113464	384	378	516	504	24.5	24.1													
W-14x53	113485	419	405	549	547	21.5	21.3													
W-21x44	113503	394	384	504	496	25.7	25.4													
W-21x44	113506	378	376	499	488	28.8	28.2													
W-21x44	113507	412	398	531	507	27.5	26.7													
W-21x44	113508	410	396	518	516	24.1	23.9													
W-21x44	113509	392	384	524	510	25	24.4													
W-21x50	113512	426	421	548	549	25.3	24.8													
W-21x50	113502	406	400	526	520	24.9	24.1													
W-21x50	113514	423	411	550	530	31.7	30.7													
W-24x55	113439	408	394	535	515	21.8	21.7													
W-24x55	113441	424	417	548	538	23.4	23													
W-24x55	113446	414	410	549	533	21.7	21.4													
W-24x55	113448	424	418	541	534	22	21.7													
W-24x55	113453	421	419	532	526	23.7	22.9													
W-24x55	113455	424	418	541	534	22	21.7													



Arceformittal

Arceformittal Olaberria, S.L.  
 Long Carbon Steel Europe  
 CARRETERA MACRID - RIVUN, KM. 419  
 20212 OLABERRIA (Guipúzcoa)  
 TEL. (943) 88.50.00 - FAX (943) 88.04.04

-2-



OLA P-20044

WF BEAMS 24x55	WF BEAMS 24x55	WF BEAMS 24x62	WF BEAMS 24x62	WF BEAMS 24x62	WF BEAMS 24x62
55	6	3	18	4116	24.696
60	4	3	12	4491	17.964
50	6	3	18	4219	25.314
55	3	3	9	4640	13.920
60	2	3	6	5062	10.124
TOTAL BUNDLES		TOTAL BUNDLES		TOTAL WEIGHT	
102		450.646 KG.			

Am EN 10204/3 1 B CSA G40.21 50W/ASTM A36-04/A572 G50-04/A992-04/A8-04 (307/502/503) A03

COMPOSITION QUIMICA (%) CHEMICAL COMPOSITION (%)

113380	113381	113388	113389	113390	113391	113392	113393	113432	113434	113436	113437	113438	113439	113440	113441	113442	113444	113446	113448	113451	113454	113455	113457	113458	113459	113460	113461	113462	113463	113464	113465	113467	113502	113503	113505			
093	091	092	089	098	094	097	080	094	092	088	092	081	087	086	103	103	087	093	101	090	092	089	081	083	090	085	095	079	104	085	098	084	087	086	085			
1,230	1,180	1,180	1,160	1,300	1,200	1,150	1,180	1,200	1,350	1,170	1,210	1,140	1,210	1,230	1,190	1,170	1,180	1,230	1,250	1,200	1,230	1,180	1,200	1,200	1,210	1,200	1,160	1,150	1,200	1,190	1,170	1,210	1,240	1,210	1,240			
180	180	190	180	170	200	190	170	200	200	180	190	180	190	180	190	190	190	190	210	220	210	200	200	200	210	200	200	180	180	200	190	180	190	170	170			
024	022	016	019	014	017	022	024	020	020	015	026	026	028	017	018	018	018	024	011	014	030	015	015	014	016	024	022	027	027	029	024	025	021	020	024	026		
032	030	021	024	015	001	002	035	040	040	048	045	041	045	040	041	045	039	042	041	044	051	040	035	035	045	044	022	049	054	039	038	041	046	043	043			
002	002	002	002	002	002	002	002	002	002	002	002	002	002	002	002	002	002	002	002	002	002	002	002	002	002	002	002	002	002	002	002	002	002	002	002	002		
180	170	190	180	170	200	190	170	200	200	180	190	180	190	180	190	190	190	210	220	210	200	200	200	200	210	200	200	180	180	200	190	180	190	170	170	170		
028	028	028	028	028	028	028	028	028	028	028	028	028	028	028	028	028	028	028	028	028	028	028	028	028	028	028	028	028	028	028	028	028	028	028	028	028	028	
030	030	030	030	030	030	030	030	030	030	030	030	030	030	030	030	030	030	030	030	030	030	030	030	030	030	030	030	030	030	030	030	030	030	030	030	030	030	
430	520	350	350	350	340	350	450	330	420	420	410	370	370	370	370	370	310	230	460	380	400	390	350	350	390	390	350	390	360	380	480	380	350	460	460	460		
027	023	021	019	018	017	018	019	022	030	030	025	026	026	026	026	026	026	029	030	030	030	030	030	030	030	030	030	030	030	030	030	030	030	030	030	030	030	030
38	38	35	35	35	36	35	39	35	40	36	37	35	37	37	38	38	36	38	39	37	37	36	35	35	36	36	35	35	37	37	37	36	36	36	36	36	36	36



ArcelorMittal

ArcelorMittal Olaberria, S.L.  
 Long Carbon Steel Europe  
 CARRETERA MAJORID - IRUN, KM. 419  
 20212 OLABERRIA (Gulpuzea)  
 TELER. (943) 80.50.00 - FAX (943) 88.04.04

**CERTIFIED MILL TEST REPORT**

100% MELTED AND MANUFACTURED IN U.S.A.  
All material produced by Nucor-Yamato Steel are cast and rolled to a fully killed and fine grain practice.

ASTM A592/A592M-02A A572/A572M Q&S-06  
ASTM A709/A709M-07 Q&S0 (3451)  
ASTM A709/A709M-07 Q&S0 (3455)  
ASTM A568-07

**NUCOR-YAMATO STEEL CO.**  
P.O. BOX 1228 • BLYTHEVILLE AR 72316

PACIFIC STEEL CO  
APPROXIMATE  
OR SIDDING B076  
LORONGVILLE, QUEBEC CANADA

PACIFIC STEEL  
845 MONCK, CROWDERY  
CANADA  
LAVALL, QC  
H7S 1A9

DATE	10/29/07
INVOICE NO.	177662
BILL OF LADING	973405
CUSTOMER NO.	7460
CUSTOMER P.O.	18984

**CHEMICAL PROPERTIES**

ITEM	DESCRIPTION	QTY	HEAT#	YIELD	TENSILE	ELONG	TEMP	CHARV IMPACT	C	Mn	P	S	SI	CU	NI	CR	MO	V	CO	CE	
1	M24 - 62.0	2	304698	.75	58000	77000	23		.07	1.26	.020	.029	.32	.30	.09	.09		.02	.00	.024	.32
	601				400	531	23											.01	.16		
	M610 X 92.0				400	531	23											.01	.16		
	18.288 M																				

ITEM	DESCRIPTION	QTY	HEAT#	YIELD	TENSILE	ELONG	TEMP	CHARV IMPACT	C	Mn	P	S	SI	CU	NI	CR	MO	V	CO	CE	
	M610 X 92.0				400	531	23											.01	.17		
	18.288 M																				

STATE OF ARKANSAS COUNTY OF MISSISSIPPI  
SWORN TO AND SUBSCRIBED BEFORE ME  
10/07  
Notary Public  
My Commission Expires 10/23/2010

CUSTOMER COPY  
QUALITY ASSURANCE

I hereby certify that the contents of this report are accurate and correct. All test results and operations performed by the material manufacturer are in compliance with the requirements of the material specifications listed in the Specifications Block above.

Mandate Erectors & Weldino Ltd.

30527

3797

30368350

Order Date: 05/15/2007  
 PO No: 263  
 Mill Order No: 3304868  
 Load No: 1120488  
 Manifest No: 1833332

Ship To: 6  
 TRIAD METALS INTERNATIONAL  
 1951 BESSEMER ROAD  
 PETERSBURG VA  
 23803 US

Bill To:  
 TRIAD METALS INTERNATIONAL  
 2300 COMPUTER AVENUE  
 SUITE A-1  
 WILLOW GROVE PA  
 19090 US

Order Date: 05/15/2007  
 PO No: 263  
 Mill Order No: 3304868  
 Load No: 1120488  
 Manifest No: 1833332

CHAPARRAL STEEL  
 300 Ward Rd.  
 Midlothian, TX  
 76065-9651  
 (972) 775-8241

GRADE: 992/572-50  
 LENGTH: 45 FT / 13.716 M

SIZE: W 27 X 84# / W690 X 125  
 PRODUCT: WF BEAMS

SPECIFICATIONS: ASTM A6-05a, A992-06a, A572-0  
 HEAT NO: 30368350

CHEMICAL ANALYSIS

C	Mn	P	Si	Cu	Ni	Mo	Sn	V	Al	Nb	CE
.08	1.12	.011	.03	.22	.09	.015	.014	.001	.002	.020	.32

PHYSICAL PROPERTIES

Yield Strength	Tensile Strength	Elongation	POA
372.3	477.8	29.0	8
379.2	486.1	25.8	8

HT # 30368350 is used to Fabricate Item B877

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A.  
 CMTR complies with DIN EN 10204 3.1.B

I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: Tom L. Harrington Date: Jun 27, 2007 Sig'd: Tom L. Harrington: Quality Assurance Manager  
 Notary Public (if applicable) \_\_\_\_\_ Date: \_\_\_\_\_  
 Page: 2 of 2

Bill To:  
 TRIAD METALS INTERNATIONAL  
 2300 COMPUTER AVE. #E  
 SUITE A-1  
 WILLOW GROVE  
 19090 PA  
 US

Ship To: 6  
 TRIAD METALS INTERNATIONAL  
 1951 BESSEMER ROAD  
 PETERSBURG  
 23803 VA  
 US

Order No: 12/06/2007  
 No: 1854  
 Mill Order No: 3402274  
 Lot No: 1155272  
 Manifest No: 1865503

CERTIFIED MATERIAL TEST REPORT  
 GERDAU AMERISTEEL  
 25801 Heidelberg Way  
 P.O. Box 111  
 Erie, PA 16510-0111

SPECIFICATIONS  
 ASTM A6-05a, A992-01, A572-06

SIZE  
 W 27 X 1024 / W 10 X 112

GRADE  
 92/572 50

LENGTH  
 45 FT / 13.716 m

HEAT NO: 30387810

CHEMICAL ANALYSIS	
C	0.08
Mn	1.18
P	0.009
S	0.012
Si	0.22
Cu	0.30
Ni	0.11
Cr	0.08
Mo	0.021
Mg	0.11
Al	0.003
Nb	0.020
As	0.012

Yield Strength		Tensile Strength	
KSI	Mpa	PSI	MPa
56.5	389.6	71.9	495.7
55.1	379.9	70.2	484.0

PHYSICAL PROPERTIES	
Specimen Area	Elongation
Sq In	%
1.196	26.8
1.197	28.4

GAGE LENGTH	
8 In	200 mm
7.72	200 mm
7.72	200 mm

Head Test  
 T.A. Result  
 8

HT#30387810 is used to Fab items: RB804, RB805

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A.  
 CMTR complies with DIN EN 10204 3.1.B

I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: *Tom L. Harrington*  
 Tom L. Harrington: Quality Assurance Manager

Date: Inc: 10, 2007  
 Signed: Notary Public (if applicable)

PART NO.

Atm:



QUALITY CERTIFICATE

Ref. Nr.: 014264/2007  
Pag.: 01

Customer: ARCELOR INTERNATIONAL CANADA, INC  
Products: ANGLES 5X5/16"X40FT CSA 350W AIC  
Purchase Order: P1140407 Q2-2007-0

Size: 5 X 5 X 5/16 POL  
Order Number: 2300864  
Grade: CSA 350W

Heat	Nr.	Weight (t)	YIELD POINT	TENSILE STRENGTH	% ELONGATION	% C	% Mn	% Si	% P	% S	% Nb	% Cu
		Coils:	MPa	MPa								
		31	63.767	404	510	22.00	0.140	0.650	0.150	0.022	0.029	0.020
TOTAL		31	63.767									

Heat % Cr % Ni % Sn % Mo  
5971801 0.050 0.040 0.016 0.009

Remarks: We hereby certify that the material herein listed was produced, inspected, tested and approved in accordance with the standard or the specification required.

Eduardo de Oliveira Leme  
Gerente Técnica

Date: 30/JUL/2007

Approved by:

Belgo Siderurgia S/A.

*HT # 5971801 is used to Fab. item: 6A-3*

Load #: 30

Shipping Date:

Waybill #: 898-30

Customer: Pizzagalli Construction Company  
 Job Title: 84 Marginal Way  
 Date Sent to Shop: X  
 Job Number: 898

Prepared By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: 24-01-01  
 Bathurst Machine Shop Ltd.  
 Mandate Erectors & Welding Ltd.  
 MOM Ltd., Tracadie

1040 Route 450  
 Big River Road  
 12A 6P9

SHEET 1

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Titted		Mk. Insp.		Punch Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped								
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date				
A	W24X68	A	B704	1	2085																											
A	W24X68	A	B706	1	2083																											
A	W12X19	A	B716	2	818																											
A	W8X15	A	B717	1	170																											
A	W12X19	A	B722	1	207																											
A	W8X15	A	B723	1	159																											
A	W16X26	A	B731	1	562																											
A	W24X44	A	B732	1	1767																											
A	W24X44	A	B733	1	1768																											
A	W24X44	A	B735	1	1770																											
A	W18X35	A	B741	1	1515																											
A	W12X19	A	B745	1	224																											
A	W24X62	A	B748	1	1695																											
A	W16X26	A	B749	1	999																											
A	W18X35	A	B751	1	734																											
A	HSS8X14	A	B757	1	158																											
H	W24X44	A	B760	1	1694																											
A	W18X50	A	B766	1	1621																											
H	W8X15	A	B767	1	225																											
A	HSS12X6X3/8	A	B772	1	1304																											

Pieces 21 21658 Total Weight (Lbs)

( 0.3 TONS)

Load #: 30

Customer:	Pizzagalli Construction Company		Prepared By:	Approved By:	Date: 21-01-01
Job Title:	E1 Marginal Way	Job Progress Report Sheet	Barthurst Machine Shop Ltd.		1010 Route 130
Date Sent to Shop:	N	SHEET: 2	Mandate Erectors & Welding Ltd.		Big River Road
Job Number:	998		MQM Ltd. Treadle		12A619

Attach.	Material	Rev.	SEE SHOP DWG		C C COLOR GALV.					Tired		MR. Insp.		Punch Drill		Welded		Weld Inspection		Surface Prep In p.		Paint Inspection		Shipped			
			Mat. #	Qty	Weight	Paint	Galv	Chamber	Level	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date	
A	W12X19	A	B773	1	516																						
B	W24X94	A	B778	1	4043																						
A	W12X19	A	B780	1	89																						
A	W18X50	A	B801	1	1110																						
A	W24X55	A	B815	1	1689																						
A	W21X41	A	B816	1	1358																						
A	W24X55	A	B820	1	1945																						
A	W21X44	A	B818	1	1935																						
A	W11X22	O	B819	1	391																						
A	W24X62	A	B852	1	2000																						
B	W21X41	A	B865	2	3794																						
A	W12X19	A	B870	2	564																						
A	W11X22	A	B896	1	391																						
A	C6X8.2	O	CF890	1	65																						
A	HSS7X7X1/2	A	D608	1	787																						
A	H.S.S. 5X5X3/16	A	D701	1	301																						
A	H.S.S. 6X6X3/8	A	D711	2	613																						
A	H.S.S. 6X6X3/8	A	D711	1	357																						
A	H.S.S. 6X6X3/8	A	D719	1	357																						
A	H.S.S. 6X6X1/4	O	M700	1	434																						

Pieces: 23 22956 Total Weight (Lbs)

( 11.5 TONS)

Load #: 30

Customer:

Pizzagalli Construction Company

Job Title:

34 Marginal Way

Job Progress Report Sheet

Date Sent to Shop:

X

SHEET 3

Job Number:

898

Prepared By: Approved By: Date: 24-01-01

Bathurst Machine Shop Ltd.

1040 Route 130

Moulton Erectors & Welding Ltd.

Big River Road

MQM Ltd, Treadle

62A 609

Form 12 Rev. 1

SEE SHOP DWG

C COLOR GALV.

Attach.	Material	Rec.	Mark.	Qty	Weight	Paint	Galv.	Camber	Level	Fitted		Mk. Insp.		Punch Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped													
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date									
	1.3X3X5/16	0	M701	5	46																																
II	1.4X1X5/16	0	M704	37	486																																
	1.3X3X5/16	0	M707	7	148																																
	1.3X3X5/16	0	M710	8	93																																
	1.3X3X5/16	0	M711	5	79																																
	1.3X3X5/16	0	M712	1	14																																
II	1.4X1X5/16	0	M713	1	77																																
	1.3X3X1/4	0	M734	1	45																																
	1.3X3X1/4	0	M735	7	95																																
V	BS.S. 8X6X1/4	0	M736	1	613																																

Pieces 73 1671 Total Weight (Lbs)

( 0.8 TONS)



Atm:



QUALITY CERTIFICATE

Ref. Nr.: 014267/ 007  
Pag.: 01

CUSTOMER: ARCELOR INTERNATIONAL CANADA, INC  
Product: CHANNELS 6X8.2LBS/FTX 40FT CSA 350M AIC  
Purchase Order: P112040/ Q2-2007-C

Size: 6 POLYFADAS NA 1" ALMA  
Order Number: 2309442  
Grade: CSA 350M

Heat	Nr.	Weight (t)	YIELD POINT	TENSILE STRENGTH	ELONGATION	C	P	S	Pb	S	Sn	Cu
Colls			MPa	MPa	%							
5934601	36	69.660	482	482	21.00	0.100	0.810	0.110	0.027	0.033	0.004	0.210
5934801	12	23.220	491	491	23.00	0.090	0.810	0.100	0.013	0.029	0.005	0.200
5934901	4	7.740	493	490	22.00	0.110	0.900	0.140	0.015	0.032	0.005	0.170
TOTAL	52	100.620										
Heat	C	NI	Sn	Mo								

5934601 0.050 0.050 0.024 0.009  
5934801 0.040 0.050 0.016 0.017  
5934901 0.060 0.050 0.017 0.013

Remarks: We hereby certify that the material herein listed was produced, inspected, tested and approved in accordance with the standard or the specification required.

Date: 29/JUN/2007

Approved by:

Belgo Siderurgica

*HT #5934801 is used to fabricate CB800*

7/17/2007

140

Channel 6 x 8 2 lbs per Ft x 40 Ft

Atlas Tube Canada LLC  
1000  
1000  
1000  
Tel: 519-738-3541  
Fax: 519-738-3537

Ref.B/L: 80269969  
Date: 12.06.2007  
Customer: 1774



### MATERIAL TEST REPORT

Sold to

Acier Altitude Inc  
2555 Francis-Hugues Avenue  
LAVAL QC H7S 2H7  
CANADA

Shipped to

Acier Altitude Inc.  
2555 Francis-Hugues Avenue  
LAVAL QC H7S 2H7  
CANADA

Material: 5.0x5.0x313x45'0" (14x2)	Material No: 450451832400	Made In: Canada											
Sales Order: 34822	Purchase Order: 3528												
Heat No: 482296	Pcs: 16	C: 0.190	Mn: 0.800	P: 0.019	S: 0.005	Si: 0.018	Al: 0.348	Cu: 0.044	Cb: 0.000	Mo: 0.007	Ni: 0.020	Cr: 0.045	V: 0.000
Bundle No:	Yield:	Tensile:	Eln.2in:	Certification: ASTM A500-03A GRADE B&C									

Material Note:  
Sales Or Note:

Material: 5.0x5.0x313x45'0" (14x2)	Material No: 500503134800	Made In: Canada											
Sales Order: 351082	Purchase Order: 3548												
Heat No: 72296	Pcs: 3	C: 0.180	Mn: 0.830	P: 0.009	S: 0.009	Si: 0.020	Al: 0.027	Cu: 0.060	Cb: 0.000	Mo: 0.010	Ni: 0.010	Cr: 0.020	V: 0.000
Bundle No:	Yield:	Tensile:	Eln.2in:	Certification: ASTM A500-03A GRADE B&C									

Sales Or Note: HT # 7.2296 is used. To Fabrication: D 704

Material: 18.0x6.0x375x24'0" (12x4)	Material No: 1800803752400	Made In: Canada											
Sales Order: 350895	Purchase Order: 3548												
Heat No: 482248	Pcs: 4	C: 0.180	Mn: 0.900	P: 0.016	S: 0.006	Si: 0.150	Al: 0.035	Cu: 0.035	Cb: 0.008	Mo: 0.003	Ni: 0.015	Cr: 0.052	V: 0.000
Bundle No:	Yield:	Tensile:	Eln.2in:	Certification: ASTM A500-03A GRADE B&C									

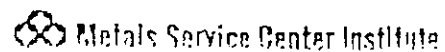
Material Note:  
Sales Or Note:

Material: 3.0x3.0x313x40'0" (16x3) -CSA	Material No: 0300303134000-CSA	Made In: Canada											
Sales Order: 343818	Purchase Order: 3521												
Heat No: 482248	Pcs: 16	C: 0.180	Mn: 0.910	P: 0.007	S: 0.004	Si: 0.150	Al: 0.035	Cu: 0.053	Cb: 0.005	Mo: 0.005	Ni: 0.022	Cr: 0.043	V: 0.000
Bundle No:	Yield:	Tensile:	Eln.2in:	Certification: CSA G40.21-04 50W CLASS C									

Material Note:  
Sales Or Note:

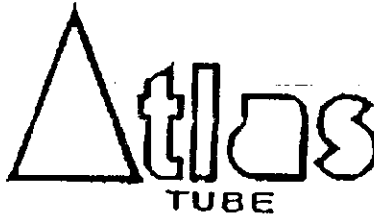
Approved by Quality Assurance: *[Signature]*

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.



Atlas Tube (U.S.) Inc.  
 1301 Eckles Road  
 Plymouth Michigan, USA  
 48170  
 Tel: 313.454.5600  
 Fax: 313.454.1474

Ref./L: 80243954  
 Date: 06.19.2007  
 Customer: 1774



**MATERIAL TEST REPORT**

Sold to

Acier Altitude Inc.  
 2555 Francis-Hugues Avenue  
 LAVAL QC H7S 2H7  
 CANADA

Shipped to

Acier Altitude Inc.  
 2555 Francis-Hugues Avenue  
 LAVAL QC H7S 2H7  
 CANADA

Material: 10.0x6.0x375x26.0"012x21.  
 Sales order: 309232

Material No: 100060375  
 Purchase Order: 3158

Made In: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
680225	0.200	0.790	0.012	0.003	0.150	0.044	0.020	0.005	0.002	0.007	0.032	0.002

Bundle No	Yield	Tensile	Eln.2in	Certification
M200450774	064210 Psi	076910 Psi	35.3 %	ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or Note:

Material: 12.0x4.0x500x42.0"012x11.  
 Sales order: 303612

Material No: 120040500  
 Purchase Order: 3124

Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
42740	0.200	0.850	0.008	0.001	0.120	0.044	0.020	0.005	0.002	0.007	0.032	0.002

Bundle No	Yield	Tensile	Eln.2in	Certification
M200450992	055580 Psi	071300 Psi	41.9 %	ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or Note:

Material: 8.0x6.0x250x48.0"014x21.  
 Sales order: 307545

Material No: 500502504800  
 Purchase Order: 3138

Made In: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
592757	0.200	0.800	0.009	0.007	0.007	0.044	0.024	0.003	0.003	0.011	0.032	0.002

Bundle No	Yield	Tensile	Eln.2in	Certification
M100639784	057080 Psi	056500 Psi	33.1 %	ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or Note:

Material: 8.0x6.0x250x46.0"013x21.  
 Sales order: 307545

Material No: 600602504800  
 Purchase Order: 3135

Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
893757	0.200	0.500	0.009	0.007	0.007	0.044	0.024	0.003	0.003	0.011	0.032	0.002

Bundle No	Yield	Tensile	Eln.2in	Certification
M100639807	057510 Psi	070760 Psi	35.8 %	ASTM A500-03A GRADE C & B

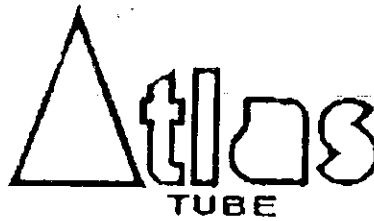
Material Note:  
 Sales Or Note: HT #893757 is used to fab. item: M700

Authorized by Quality Assurance:



Atlas Tube U.S. Inc.  
 13101 Eckles Road  
 Tel: 313-454-5600  
 Fax: 313-454-1474

Ref./L: 80243954  
 Date: 06.19.2007  
 Customer: 1774



**MATERIAL TEST REPORT**

Sold to

Acier Altube Inc  
 2555 Francis-Hugues Avenue  
 LAVAL QC H7S 2H7  
 CANADA

Shipped to

Acier Altube Inc.  
 2555 Francis-Hugues Avenue  
 LAVAL QC H7S 2H7  
 CANADA

Material: 6 0x6 0x375x48 0 0(3x2)  
 Sales order: 307346

Material No: 600603754800  
 Purchase Order: 3138  
 Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
180060	0.190	0.790	0.009	0.002	0.160	0.027	0.020	0.005	0.002	0.009	0.028	0.000

Bundle No: M100639733  
 Yield: 061820 Psi  
 Tensile: 073960 Psi  
 Eln.2in: 34.5 %  
 Certification: ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or Note:

Material: 6 0x6 0x375x48 0 0(3x2)  
 Sales order: 307546

Material No: 600603754800  
 Purchase Order: 3138  
 Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
60060	0.190	0.790	0.009	0.002	0.160	0.027	0.020	0.005	0.002	0.009	0.028	0.000

Bundle No: M100639731  
 Yield: 061820 Psi  
 Tensile: 073960 Psi  
 Eln.2in: 34.5 %  
 Certification: ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or Note:

*HT#450060 is used to fab. items: D711, D714, D719*

Material: 7 0x4 0x250x40 0 0(3x3)  
 Sales order: 310552

Material No: 700402504000  
 Purchase Order: 3177  
 Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
180580	0.310	0.930	0.009	0.006	0.027	0.042	0.020	0.000	0.000	0.000	0.000	0.000

Bundle No: M100639716  
 Yield: 059550 Psi  
 Tensile: 072640 Psi  
 Eln.2in: 35.4 %  
 Certification: ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or Note:

Material: 7 0x4 0x250x40 0 0(3x3)  
 Sales order: 310552

Material No: 700402504000  
 Purchase Order: 3177  
 Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
180580	0.310	0.930	0.009	0.006	0.027	0.042	0.020	0.000	0.000	0.010	0.000	0.000

Bundle No: M100639716  
 Yield: 059550 Psi  
 Tensile: 071140 Psi  
 Eln.2in: 30.3 %  
 Certification: ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or Note:

Authorized by Quality Assurance:



Atlas Tube (U.S.) Inc.  
13101 Eckles Road  
Plymouth, Michigan, USA  
48170  
Tel: 313 454 5600  
Fax: 313-454-1474

Ref.B/L: 80260091  
Date: 10/03/2007  
Customer: 1774



# MATERIAL TEST REPORT

Sold to

Acier Altitube Inc.  
2555 Francis-Hugues Avenue  
LAVAL QC H7S 2H7  
CANADA

Shipped to

Acier Altitube Inc.  
2555 Francis-Hugues Avenue  
LAVAL QC H7S 2H7  
CANADA

Material: 3 1/2 x 3 1/2 x 60' 0" (1x1) REC				Material No: 80060313				Made in: Canada					
Sales order: 331609				Purchase Order: 3330									
Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
		0.200	0.800	0.011	0.002	0.150	0.004	0.031	0.005	0.002	0.013	0.031	0.000
Bundle No	Yield	Tensile		Eln.2in		Certification							
M200471434	060750 Psi	073280 Psi		32.6 %		ASTM A500-03A GRADE B&C							
Material Note: Sales Or.Note:													

Material: 1 1/2 x 2 x 375x33' 0" (1x1) REC				Material No: 120650075				Made in: Canada					
Sales order: 335848				Purchase Order: 3387									
Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
		0.200	0.790	0.011	0.007	0.160	0.004	0.030	0.005	0.003	0.015	0.053	0.002
Bundle No	Yield	Tensile		Eln.2in		Certification							
M200472054	061760 Psi	075760 Psi		32.0 %		ASTM A500-03A GRADE B&C							
Material Note: Sales Or.Note:													

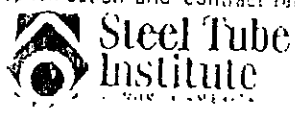
Material: 6 x 6 x 250x60' 0" (1x2)				Material No: 600602505000				Made in: Canada					
Sales order: 331632				Purchase Order: 3331									
Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
		0.190	0.820	0.010	0.007	0.014	0.004	0.025	0.004	0.003	0.009	0.028	0.000
Bundle No	Yield	Tensile		Eln.2in		Certification							
M200306807	004000 Psi	067050 Psi		32.5 %		ASTM A500-03A GRADE B&C							
Material Note: Sales Or.Note:													

Material: 8 x 6 x 250x60' 0" (1x2)				Material No: 800602506000				Made in: Canada					
Sales order: 331632				Purchase Order: 3331									
Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
751107	4	0.200	0.790	0.020	0.008	0.011	0.035	0.049	0.004	0.015	0.019	0.062	0.000
Bundle No	Yield	Tensile		Eln.2in		Certification							
M200479154	051810 Psi	075120 Psi		31.3 %		ASTM A500-03A GRADE B&C							
Material Note: Sales Or.Note:													

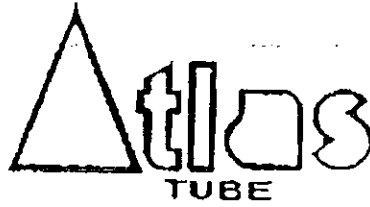
HT #751107 is used to fab. item: M736

Authorized by Quality Assurance *M. White*

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.



Atlas Tube Canada ULC  
 2555 Francis-Hugues Avenue  
 Laval, Quebec H7S 2H7  
 Canada  
 Tel: 519-738-3541  
 Fax: 519-738-3537



Ref. B/L: 80269969  
 Date: 12.06.2007  
 Customer: 1774

**MATERIAL TEST REPORT**

Sold to

Acier Altitube Inc.  
 2555 Francis-Hugues Avenue  
 Laval, QC H7S 2H7  
 CANADA

Shipped to

Acier Altitube Inc.  
 2555 Francis-Hugues Avenue  
 LAVAL QC H7S 2H7  
 CANADA

Material: 8.0x6.0x31.3x30.0(1x1)REC  
 Sales order: 351251

Material No: 80060313  
 Purchase Order: 3550

Made In: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
60260		0.210	0.860	0.011	0.005	0.020	0.029	0.020	0.000	0.010	0.010	0.020	0.001

Bundle No	Yield	Tensile	Eln.Zin
80060313	057000 Psi	072830 Psi	34.7 %

Certification  
 ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or Note:

Material: 12.1x4.0x31.3x30.0(1x1)REC  
 Sales order: 351252

Material No: 120040313  
 Purchase Order: 3546

Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
60205		0.200	0.810	0.009	0.002	0.180	0.035	0.013	0.003	0.002	0.001	0.030	0.000

Bundle No	Yield	Tensile	Eln.Zin
120040313	057290 Psi	070380 Psi	36.3 %

Certification  
 ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or Note:

Material: 12.1x4.0x31.3x30.0(1x1)REC  
 Sales order: 351253

Material No: 120040313  
 Purchase Order: 3546

Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
680243		0.190	0.790	0.005	0.005	0.015	0.049	0.034	0.004	0.002	0.014	0.019	0.000

Bundle No	Yield	Tensile	Eln.Zin
120040313	063130 Psi	077710 Psi	31.3 %

Certification  
 ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or Note:

Material: 12.1x4.0x31.3x30.0(1x1)REC  
 Sales order: 350235

Material No: 120060005  
 Purchase Order: 3545

Made In: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
680243		0.190	0.790	0.005	0.002	0.180	0.035	0.013	0.003	0.002	0.001	0.030	0.000

Bundle No	Yield	Tensile	Eln.Zin
120060005	057440 Psi	068370 Psi	37.3 %

Certification  
 ASTM A500-03A GRADE B&C

Material Note:

HT #680243 is used to fab. item: B772

Quality Assurance *[Signature]*

The data reported on this report represent the actual attributes of the material as tested and do not constitute a warranty of any kind, expressed or implied, with respect to the quality and quantity of the material.



Atlas Tube Canada ULC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 NOR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537



Ref.B/L: 80263316  
 Date: 10.24.2007  
 Customer: 1751

Sold to:

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

**MATERIAL TEST REPORT**

Shipped to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Material: 5.0x4.0x375x23'0"0(4x4).  
 Sales order: 314780

Material No: 60040375  
 Purchase Order: 31077  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
680291		0.190	0.210	0.011	0.002	0.150	0.043	0.017	0.006	0.002	0.009	0.036	0.000

Bundle No	Yield	Tensile	Eln.2in
M100647174	060930 Psi	074270 Psi	27.4 %

Certification  
 ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Material: 7.0x7.0x500x36'0"0(2x1).  
 Sales order: 335491

Material No: 70070500  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
681846	2	0.190	0.200	0.011	0.002	0.150	0.043	0.017	0.006	0.002	0.009	0.036	0.000

Bundle No	Yield	Tensile	Eln.2in
M200482870	058830 Psi	075060 Psi	31.8 %

Certification  
 ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Material: 7.0x7.0x500x36'0"0(2x1).

Material No: 70070500  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
681846	2	0.190	0.200	0.011	0.002	0.150	0.043	0.017	0.006	0.002	0.009	0.036	0.000

Bundle No	Yield	Tensile	Eln.2in
M200482871	058830 Psi	075060 Psi	31.8 %

Certification  
 ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

*HT# 681846 is used to Fab. item: D1608*

Material: 8.0x8.0x625x50'0"0(2x1).  
 Sales order: 335491

Material No: 80080625  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582765	2	0.200	0.310	0.009	0.002	0.160	0.023	0.005	0.005	0.003	0.011	0.035	0.000

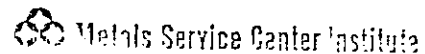
Bundle No	Yield	Tensile	Eln.2in
M200482105	063150 Psi	075060 Psi	31.8 %

Certification  
 ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Authorized by Quality Assurance: *[Signature]*

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.





**Material Test Report**

200 Clark Street, Harrow Ontario, Canada N0R 1G0  
 Tel: (519) 863-2000 Fax: (519) 738-5087

Material: 3.5x3.5x260x48"0(5x2). Material No. 350352504800 Made in Canada  
 Heat No C Mn P S Si Al Cu Sales order Purchase Order  
 864820 0.190 0.790 0.010 0.005 0.009 0.033 0.018 120231 22385  
 Bundle No Yield Tensile Elong. Certification  
 M100228300 077400 Psi 23.6 % ASTM A500 GR. B & C.  
 Material Note:  
 Sales Or. Note:

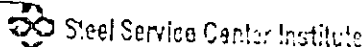
Material: 8.0x4.0x250x24"0(2x5). Material No. 800402502400 Made in Canada  
 Heat No C Mn P S Si Al Cu Sales order Purchase Order  
 664482 0.180 0.790 0.008 0.006 0.013 0.038 0.007 120231 22385  
 Bundle No Yield Tensile Elong. Certification  
 M100228428 080034 Psi 075605 Psi 33.0 % ASTM A500 GR. B & C.  
 Material Note:  
 Sales Or. Note:

Material: 8.0x4.0x250x48"0(2x3). Material No. 800402504800 Made in Canada  
 Heat No C Mn P S Si Al Cu Sales order Purchase Order  
 464610 0.200 0.810 0.012 0.007 0.012 0.032 0.012 120231 22385  
 Bundle No Yield Tensile Elong. Certification  
 M100228446 058894 Psi 058545 Psi 30.9 % ASTM A500 GR. B & C.  
 Material Note:  
 Sales Or. Note:

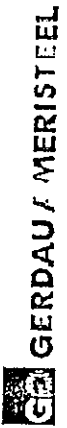
*HT# 464610 is used in Fabrication B757*

Material: 8.0x4.0x250x48"0(2x3). Material No. 800402504800 Made in Canada  
 Heat No C Mn P S Si Al Cu Sales order Purchase Order  
 0113524 0.210 0.870 0.008 0.007 0.015 0.040 0.009 120231 22385  
 Bundle No Yield Tensile Elong. Certification  
 M100228447 062971 Psi 078428 Psi 27.8 % ASTM A500 GR. B & C.  
 Material Note:  
 Sales Or. Note:

Material: 8.0x4.0x375x48"0(2x2). Material No. 800403754800 Made in Canada  
 Heat No C Mn P S Si Al Cu Sales order Purchase Order  
 120005 0.190 0.850 0.018 0.004 0.040 0.047 0.009 120231 22385  
 Bundle No Yield Tensile Elong. Certification  
 M100228662 064898 Psi 075308 Psi 26.0 % ASTM A500 GR. B & C.  
 Material Note:  
 Sales Or. Note:







WHITBY STEEL MILL  
HOPKINS STREET SOUTH  
WHITBY ON L1N 5T1 CA  
(905) 668-8811

Chemical and Physical Test Report

MADE IN CANADA

W-067313

PRODUCED IN: WHITT

SHIP TO  
YORK STEEL INC  
INDUSTRIAL PARK

INVOICE TO  
YORK STEEL INC (FRED)  
ACCTS PAYABLE  
550 WILSEY ROAD  
FREDERICTON, NB E3B 7K2

SHIP DATE  
06/21/07

FREDERICTON, NB E3B 7K2

CUST. ACCOUNT NO  
60125663

SHAPE + SIZE	GRADE	SPECIFICATION	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	B	N	Sn	Al	Ti	Zr	Ca	C Eqv	
A3 X 3 X 1/4	44W	C.S.A. G40.21-98 44W50W; ASTM: A36 - 97a ASTM A709 - 97b ASME: SA36 (A)	.16	.78	.012	.031	.19	.30	.10	.07	.026	.000	.000	.0000	.0204	.011	.000	.00000	.000	.0000	.0000	.336

SALES ORDER  
6129280-23  
CUST P.O. NUMBER  
8527-23

Mechanical Test: Yield 58940 PSI, 406.38 MPA Tensile: 79114 PSI, 545.47 MPA %EI: 30.0/6in, 30.0/200MM  
Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST

SHAPE + SIZE	GRADE	SPECIFICATION	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	B	N	Sn	Al	Ti	Zr	Ca	C Eqv
A3 X 3 X 1/4	44W	C.S.A. G40.21-98 44W50W; ASTM: A36 - 97a ASTM A709 - 97b ASME: SA36 (A)	.15	.65	.012	.043	.20	.27	.09	.05	.024	.000	.000	.0000	.0000	.010	.000	.00000	.000	.00000	.299

Mechanical Test: Yield 51691 PSI, 356.4 MPA Tensile: 71679 PSI, 494.21 MPA %EI: 30.0/6in, 30.0/200MM  
Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST

SALES ORDER  
6129280-19  
CUST P.O. NUMBER  
8527-19

Mechanical Test: Yield 52510 PSI, 362.04 MPA Tensile: 72580 PSI, 500.42 MPA %EI: 29.4/6in, 29.4/200MM  
Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST

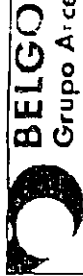
HT # B41642 is used to Fab items: M734, M735

This material, including the billets, was produced and manufactured in Canada  
Bhaskar Yalamanchili  
Quality Director  
Gardau Ameristeel

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

Mgr. Metallurg. Svcs.  
WHITBY STEEL MILL

Attn:



QUALITY CERTIFICATE

Ref. N° : 014200/2007  
Pag.: 01

Customer: ARCELOR INTERNATIONAL CANADA, IN  
Products: ANGLE 3X5/16"x40FT CSA 350H A1  
Purchase Order: 200407 Q2-2007-0

Size: 3 X 5/16 POL  
Order Number: 2303618  
Grade: CSA 350H

Heat No.	Weight	Yield Point	Tensile Strength	Elongation	C	Mn	Si	P	S	XB	CU
Coils	MPa	MPa	%	%	%	%	%	%	%	%	%
6000900	8	1.952	402	534	24.00	0.140	0.760	0.150	0.027	0.020	0.16
TOTAL	8	1.952									
Heat	% Cr	% Ni	% Sn	% Mo							
6000900	0.070	0.050	0.017	0.033							

Remarks: We hereby certify that the material herein listed as produced, inspected, tested and approved in accordance with the standard or the specification required.

*[Signature]*  
Eduardo de la Cruz, Director  
General Técnico

Date: 27/JUL/2007

Approved by: Beigo Siderurgia S/A.

HT#6000900 is used to fabricate items: M709 to M712, M701

W-072007

Chemical and Physical Test Report

MADE IN CANADA

**GERDAU AMERICA STEEL**

WHITBY STEEL MILL  
 HOPKINS STREET SOUTH  
 WHITBY ON L1N 5T1 CAN  
 (905) 668-8811

PRODUCED IN: WHITBY

INVOICE TO  
 YORK STEEL INC (FI D)  
 ACCTS PAYABLE  
 550 WILSEY ROAD  
 FREDERICTON, NB E3B 7P2

SHIP DATE  
 10/01/07

CUST. ACCOUNT NO  
 60125663

SALES ORDER : 7056075-05  
 CUST P.O. NUMBER : 9348-05  
 SALES ORDER : 7056075-05  
 CUST P.O. NUMBER : 9348-05

W50W, ASTM: A36 - 05a ASTM709: 5b ASME: SA36 (A)  
 Mo V Ni Cr Ni Ni C Mn P S Si  
 .040 .000 .01 .07 .11 .29 .17 .034 .14  
 %El: 23.6/8in, 2: 200MM  
 %El: 25.0/8in, 2: 200MM

SHAPE + SIZE : 44W  
 C Mn P S Si  
 .18 .69 .013 .024 .15  
 Mechanical Test: Yield 48871 PSI, 336.95 MPA Tensile: 72362 PSI, 498.92 MPA  
 Customer Requirements: SOURCE: WHITBY BILLETS CASTING: STRAND CAST

ASTM A36M-05a ASTM709-05b ASME SA36-00a  
 Mo V Ni Cr Ni Ni C Mn P S Si  
 .030 .000 .00 .09 .11 .29 .15 .024 .18  
 %El: 23.6/8in, 2: 200MM  
 %El: 23.6/8in, 2: 200MM

SHAPE + SIZE : 44W  
 C Mn P S Si  
 .18 .69 .013 .024 .15  
 Mechanical Test: Yield 50660 PSI, 349.43 MPA Tensile: 73735 PSI, 508.38 MPA  
 Customer Requirements: SOURCE: WHITBY BILLETS CASTING: STRAND CAST

HT# B43413 is used to Fab: items: M704, m718

This material, including billets, was produced and manufactured in Canada

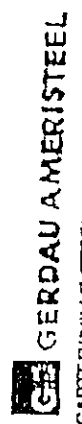
Bhaskar Yamamanchilli  
 Quality Director  
 Gerdau Ameristeel

*Shashi*

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

Mgr. Metallurgi. Svcs.  
 WHITBY STEEL MILL

Seller warrants that all material furnished shall comply with specifications subject to standard published manufacturing variations. NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, ARE MADE BY TITLE SELLER, AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. In no event shall seller be liable for indirect, consequential or punitive damages arising out of or related to the materials furnished by seller. Any claim for damages for materials that do not conform to specifications must be made from buyer to seller immediately after delivery of same in order to allow the seller the opportunity to inspect the material in question.



CARTERSVILLE STEEL MILL  
384 OLD GRASSOALE RD RE  
CARTERSVILLE GA 30114 USA  
(770) 387-1320

Chemical and Physical Test Report  
MADE IN UNITED STATES

G 10744

PRODUCED IN: CARTERSVILLE

SHIP TO: TRIAD METAL  
1951 BEYER ROAD  
804-732-5000  
PETERSBURG, VA 22904

INVOICE TO: TRIAD METALS INTERNATIONAL  
METAL TRADERS INC  
2300 COMPUTER AVE. STE-A-1  
WILLOW GROVE, PA 19090

SHIP DATE: 12/21/07  
CUST. ACCOUNT NO: 40211035

SHAPE & SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST. P.O. NUMBER
W8 X 15#	A5720392	ASTM A572 G850-07, ASTM A992, CGA	7081943-04	1491-04
HEAT L.D. G706466	Mn P S 50 013 021	Cu N Cr Mo V 20 24 08 .04 019 .001	Cu Zn 0022 10770	
Mechanical Test: Yield: 57700 PSI, 397.83 MPA Customer Requirements: CASTING STRAND CAST		Tensile: 75600 PSI, 528.14 MPA %EL: 22.0%, 22.020044 SD Dev: 14.0-21.508		
Mechanical Test: Yield: 58500 PSI, 403.34 MPA Customer Requirements: CASTING STRAND CAST		Tensile: 77900 PSI, 537.1 MPA %EL: 22.1%, 22.170044 SD Dev: 14.0-21.508		

SHAPE & SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST. P.O. NUMBER
W8 X 15#	A5720392	ASTM A572 G850-07, ASTM A992, CGA	708371-06	2520-06
HEAT L.D. G708468	Mn P S 50 013 021	Cu N Cr Mo V 20 24 08 .04 019 .001	Cu Zn 0022 10770	
Mechanical Test: Yield: 57700 PSI, 397.83 MPA Customer Requirements: CASTING STRAND CAST		Tensile: 75600 PSI, 528.14 MPA %EL: 22.0%, 22.020044 SD Dev: 14.0-21.508		
Mechanical Test: Yield: 58500 PSI, 403.34 MPA Customer Requirements: CASTING STRAND CAST		Tensile: 77900 PSI, 537.1 MPA %EL: 22.1%, 22.170044 SD Dev: 14.0-21.508		

HT# 706468 is used to Fabricate: 6 123, 6767, B17

This material, including the labels, was produced and manufactured in the United States of America

*Maackay*  
Ehsabul Yezamankil  
Quality Director  
Gerdau Ameristeel

*Zhang*  
Mgt. Metallurg. Svcs  
CARTERSVILLE STEEL MILL

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

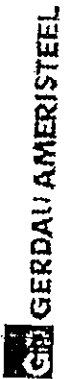
Seller warrants that all material furnished shall comply with specifications subject to a SELLER AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Any claim for damages for material that do not conform to specifications must be made immediately after delivery of same in order to allow the seller the opportunity to inspect the material in question.

Send published manufacturing variations, NO OTHER WARRANTIES, EXCEPTED OR IMPLIED, ARE MADE BY THE SELLER OR RELATED TO THE MATERIALS FURNISHED BY SELLER.

1006908

Chemical and Physical Test Report

MADE IN UNITED STATES



CARTERSVILLE STEEL MILL  
384 OLD GRASSDALE RD NE  
CARTERSVILLE GA 30121 USA  
(770) 387-3300

PRODUCED IN: CARTERSVILLE

SHIP TO  
TRIAD METAL  
1951 BESSEMER RD  
804-732-5000  
PETERSBURG, VA 23155

INVOICE TO  
TRIAD METALS INTERNATIONAL  
METAL TRADERS INC  
2700 COMPUTER AVE, STE-A-1  
WILLOW GROVE, PA 19090

SHIP DATE  
09/28/07

CUST. ACCOUNT NO  
40213035

SALES ORDER  
707491-13

CUST. P.O. NUMBER  
1110-13

SHAPE & SIZE	GRADE	SPECIFICATION	ASTM A572 C	Cu	Ni	Cr	Mo	V	Nb	B	N	Sh	Al	Ti	Ca	C Eqt
W12 X 22#	A57250/92	ASTM A572 C	.08	.04	.04	.014	.028	.001	.0007	.0120	.009	.002	.00100	.00050	.319	
HEAT ID. G704788	Mn 1.14	P .015	S .023	Si .27	Tensile: 71900 PSI, 51.66 MPA Yield: 35300 PSI, 391.28 MPA Customer Requirements C/T TING: STRAND CAST											
Mechanical Test:	Yield	37200 PSI, 394.38 MPA	Tensile: 73700 PSI, 51.14 MPA Yield: 25.06in, 25.020in MM Std Dev: 0 k8 Diam: .371													
Customer Requirements C/T	TING: STRAND CAST															

SHAPE & SIZE	GRADE	SPECIFICATION	ASTM A572 GR50-07, ASTM 992-06A	Cu	Ni	Cr	Mo	V	Nb	B	N	Sh	Al	Ti	Ca	C Eqt
W12 X 19#	A57250/92	ASTM A572 GR50-07, ASTM 992-06A	.07	.05	.05	.014	.027	.002	.0007	.0104	.008	.001	.00100	.00060	.329	
HEAT ID. G704824	Mn 1.18	P .025	S .018	Si .28	Tensile: 73700 PSI, 51.14 MPA Yield: 39438 PSI, 394.38 MPA Customer Requirements C/T TING: STRAND CAST											
Mechanical Test:	Yield	41506 PSI, 415.06 MPA	Tensile: 74500 PSI, 51.166 MPA Yield: 25.66in, 25.620in MM Std Dev: 0 k8 Diam: .39													
Customer Requirements C/T	TING: STRAND CAST															

HT #G704824 is used to Fab. items: 6716, 6722, 6745, 6773, 6780, 6870

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

*Masker*

Inspector: *J. J. [Signature]*

Mgr. Metallurgy Dept.  
CARTERSVILLE STEEL MILL

Seller warrants that all material included hereunder is subject to the standard published manufacturing variations. NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, ARE MADE BY THE SELLER. AND SPECIFICALLY, THE SELLER DOES NOT WARRANT THE MERCHANTABILITY OF THE MATERIALS HEREUNDER FOR ANY PARTICULAR PURPOSE. Any claim for damages, for no matter what cause, shall be the responsibility of the buyer. Specifications must be made from buyer to seller immediately after delivery of same in order to allow the seller the opportunity to inspect the material in question.



**Steel Dynamics, Inc.**  
Structural and Rail Division • Columbia City, Indiana

**CERTIFIED MILL TEST REPORT**

Customer # 000191  
Bill to:  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Petersburg VA, 23905 US  
Attn: Fred White

Ship to:  
Triad Metals Intl  
1951 Bessemer Road  
CSX-Collier Yard  
Petersburg VA, 23805 US  
Attn: Rock McGovern

Quality Steel 100% Melted  
and Manufactured in the USA

Date: 10 / 12 / 2007

Steel Dynamics, Inc 260 625 8950

**SHIPMENT DETAILS**  
Bundle / ASN # Length pcs Cus Order PO  
020985020 4' 0" 8 11780  
020985020 4' 0" 8 11780

**Grades**  
A992 / A992M  
A709 gr50/gr345  
A572 gr50/gr345  
A709 gr50S/gr345S

**Standards**  
ASTM A616M  
ASTM A992/A992M - 06a  
ASTM A709/A709M - 06a  
ASTM A572/A572M - 06  
ASTM A709/A709M - 06a

**SPECIFICATIONS**

**GENERAL INFORMATION**  
Product Wide Flange Beam  
Size W 14 x 22  
W 360 x 32.9  
Heat Number B037633  
Condition(s) As-Rolled  
Fine Grained

**CHEMICAL ANALYSIS** (weight percent)  
C .07 Mn .77 P .015 S .034 Si .23  
Cu .28 Ni .09 Cr .10 Mo .021 V .013 Nb/Cb .002 N .0081 B .0003  
\*C1 .25 \*C2 .29 \*P .1

**MECHANICAL TESTING**  
Yield (fy) Tensile Strength (fu)  
ksi / MPa ksi / MPa  
1 58 / 397 70 / 479  
2 60 / 412 73 / 502  
3  
4  
5  
6  
7

**Charpy Impact Tests** (available only when specified at time of order)  
Temp F / C Specimen 1 Specimen 2 Specimen 3 Average Minimum  
Absorbed Energy ft-lbf / J

**Notes:**  
\* Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC), Corrosion Index (I)  
CE1 (PW) = C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15  
CE2 (AWS) = C + (Mn + Si)/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15  
I (ASTM G10-1) = 26.01(Cu) + 3.68(Ni) + 1.20(Cr) + 1.49(Si) + 17.29(P) - 7.29(Cu)(Ni) - 9.10(Ni)(P) - 33.39(Cr)

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser design and requirements.

Signed: **Doug Rees-Evans**  
Manager of Technical Services

ASTM A6 - 14.6: A signature is not required on the test report; however, in a document that clearly identifies the organization submitting the report, notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report.

State of Indiana, County of Whitley Sworn to and subscribed before me this \_\_\_ day of \_\_\_\_\_  
Signed: \_\_\_\_\_ My commission expires: \_\_\_\_\_  
Notary Public

HT # 6037633 is used to Fab. items. B849, B896

Heat Number  
B037633

Bill To:  
TRIAD METALS INTERNATIONAL  
2300 COMPUTER AVENUE  
SUITE A-1  
WILLOW GROVE PA  
19090 US

Ship To: 6  
TRIAD METALS INTERNATIONAL  
TRIAD METALS INTERNATIONAL  
1951 BESSEMER ROAD  
PETERSBURG VA  
23803 US

Order Date: 10/27/2007  
PO No: 31140  
Order No: 3385 95  
Invt No: 1153 39  
Manifest No: 1864 14

CERTIFIED MATERIAL TEST REPORT  
GERDAU AMERISTEEL  
Petersburg Mill  
GERDAU AMERISTEEL  
25801 Hofheimer Way  
Petersburg, VA 23803  
(804) 524-2855

SIZE W 16 X 26# / W410 X 30.8 GRADE 992/572-50 LENGTH 10 FT / 15.24 M PRODUCT WF BEAMS

SPECIFICATIONS  
ASTM A6-05a, A992-06a, A572-01

HEAT NO: 30394260

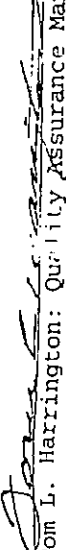
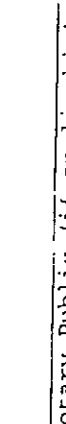
CHEMICAL ANALYSIS														
	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	S	V	Al	Nb	CE
	.07	.98	.018	.034	.23	.31	.10	.13	.024	.01	.003	.003	.010	.29

Yield Strength				Tensile Strength				Elongation					
KSI	MPa	Sq In	Sq Cm	KSI	MPa	Sq In	Sq Cm	%	8 In	4 In	200 mm	8 In	200 mm
59.8	412.3	0.344	2.2	72.3	498.5	0.344	2.2	27.3	8 In	200 mm	27.3	8 In	200 mm
60.3	415.8	0.352	2.2	72.2	497.8	0.352	2.2	26.9	8 In	200 mm	26.9	8 In	200 mm

HT# 30394260 is used to fab. item B731, B749

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A. CMTR complies with DIN EN 10204 3.1, B

"I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, where applicable, are in compliance with the requirements of the material specifications and applicable purchaser designations and requirements."

Signed:  Date: Dec. 03, 2007 Signed:  Date: \_\_\_\_\_  
Tom L. Harrington: Quality Assurance Manager Notary Public (if applicable) Page: 1 of 1



Structural and Pipe Division - Columbia City, Indiana

Ship to  
Triad Metals  
3450 Grand Ave.  
Neville Island  
Pittsburgh PA 15225 US  
Attn: Craig Brezeli

# CERTIFIED MILL TEST REPORT

Customer # 000191

Bill to:  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Pittsburgh PA, 15225 US  
Attn: Fred White

Date: 11/01/2007

Quality Steel 100% Melted  
and Manufactured in the USA

## GENERAL INFORMATION

Product Wide Flange Beam

Size W 18 x 35

W 460 x 52

Heat Number B037994

Condition(s) As-Rolled

Fine Grained

Fully Killed

## SPECIFICATIONS

Standard

ASTM A663M

ASTM A992/A992M

ASTM A709/A709M

ASTM A572/A572M

ASTM A709/A709M

## SHIPMENT DETAILS

Bundle / ASN #

Length

pcs

Customer PO

020992281

3' x 0"

6

020992286

3' x 0"

6

020992287

3' x 0"

6

020992289

3' x 0"

6

020992283

3' x 0"

6

020992281

3' x 0"

6

020992281

3' x 0"

6

020992281

3' x 0"

6

020992281

3' x 0"

6

020992281

3' x 0"

6

020992281

3' x 0"

6

020992281

3' x 0"

6

## CHEMICAL ANALYSIS (weight percent)

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analysis Type
.06	.98	.031	.036	.21	.35	.10	11	.023	.014	>.001	.013	.0116	.0004	.28	.32	.15	6.08	Heat

## MECHANICAL TESTING

Test	Yield (fy)	Tensile Strength	fy / fu ratio	% Elong. {8" gage}
1	55 / 377	68 / 471	.80	26
2	61 / 420	74 / 508	.83	25
3				
4				
5				
6				
7				

Charpy Impact Tests (available only when specified at time of order)

Temp F/C	Absorbed Energy ft-lb / J	Specimen 1	Specimen 2	Specimen 3	Average	Minimum

## Notes:

\*Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC)  
 CE1 [(Wt% C + Mn/6) + (Cr + Mo + V)/5 + (Ni + Cu)/15] - (Mn - 1)/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15  
 CE2 [(Wt% C + Mn/6) + (Cr + Mo + V)/5 + (Ni + Cu)/15] - (Mn - 1)/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15  
 I (ASTM G101) = 26.01(Cu) + 3.88(Mn) + 1.20(Cr) + 1.49(Si) + 17.29(P) - Pcm (AWS) = Si/30 + Mn/20 + Cu/20 + Ni/60 + Cr/20 + Mo/15 + V/10 + B/3

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed:

*Doug Rees-Evans*

Manager of Technical Services

Signed:

Notary Public

My commission expires

ASTM A6 - 14.6: A signature is not required on the test report, however, the document shall clearly identify the organization submitting the report. Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report.

HT# B037994 is used to Fab. items: B741, B751



# CERTIFIED MILL TEST REPORT

Date: 10/31/2007

Customer # 000191

Ship to:  
Triad Metals Intl  
1951 Bessemer Road  
CSX-Collier Yard  
Petersburg VA, 23807 US  
Attn: Rock McGover

Bill to:  
TRIAD METALS INTERNATIONAL  
A-1 2370 Computer Avenue  
Petersburg VA, 23805 US  
Attn: Fred White

Quality Steel 100% Milled  
and Manufactured in the USA

GENERAL INFORMATION		SPECIFICATIONS		SHIPMENT DETAILS	
Product	Wide Flange Beam	Standards	ASTM A992M - 06 ASTM A709M - 06 ASTM A572M - 06 ASTM A709M - 06	Grades	A992 / A992M A709 gr50/gr345 A572 gr50/gr345 A709 gr50S/gr345S
Size	W 18 x 50 W 460 x 74			Bundle / ASN #	020990302
Heat Number	B037839			Length	50' 0"
Condition(s)	As-Rolled Fine Grained Fully Killed			pcs	3
				Customer PO	3065

### CHEMICAL ANALYSIS (weight percent)

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analysis Type
.08	.90	.016	.018	.21	.40	.10	.08	.028	.014	.001	.015	.0094	.0004	.29	.32	.16	5.83	Heat

### MECHANICAL TESTING

Test	Yield (fy)		Tensile Strength		% Elong. {8" gage}
	ksi / MPa	ksi / MPa	ksi / MPa	ksi / MPa	
1	53 / 367	73 / 505	73 / 505	73 / 504	28
2	54 / 371	73 / 505	73 / 504	73 / 504	24
3					
4					
5					
6					
7					

Charpy Impact Tests (available only when specified at time of order)

Temp	Absorbed Energy ft-lbf / J	Specimen 1	Specimen 2	Specimen 3	Average	Minimum
F / C						

### Notes:

\*Calculated Chemistry Values: Carbon Equivalents (C1, C2, C): Corrosion Index (I)  
 CE1 [(W)C+Mn/6+(Cr+Mn+V)/5+(Ni+Cu)/15] CE2 [(W)S]+C+(Mn+Si)+[(Cr+Mo+V)/5+(Ni+Cu)/15] I [(ASTM G101)= 26.01(C)+3.88(Ni)+1.20(Cr)+1.49(Si)+17.29(P)+7.29(Cu)+9.10(Nb)(P)-33.39(Cu)]  
 Form (ASTM) = C+S/30+Mn/20+Cu/20+Ni/60+Cr/20+mol15+V/10+5N

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

State of Indiana, County of Whitley Sworn to and subscribed before me

this \_\_\_\_\_ day of \_\_\_\_\_

Signed: **Doug Rees-Evans**

Manager of Technical Services

Signed: \_\_\_\_\_ My commission expires: \_\_\_\_\_

Notary Public

ASTM A6 - 14.6: A signature is not required on the first report, however, the document shall clearly identify the organization submitting the report. Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report.

Handwritten: *HT# 6037839 is used to pull items from the report*

Customer Name

Customer PO#

Shipper No

Heat Number

Mandate Erectors & Welding Ltd.

31710

17377

B036782

<b>Steel Dynamics, Inc.</b> 2601 S. County Road 700 East Columbia City, IN 46725 (765) 625-8100		<b>Customer No:</b> 000191 <b>Bill of Lading No:</b> 0000125263 <b>MTR #:</b> 0000124766		<b>Date:</b> 9/21/2007 <b>Ship to:</b> Triad Metals 3450 Grand Ave Neville Island Pittsburgh, PA 15225 Attn: Craig Brnelli		<b>Bill to:</b> TRIAD METALS INTERNATIONAL A-1 2300 Computer Avenue Willow Grove, PA 19090 Attn: Fred White	
<b>Certified Mill Test Report</b> 100% Melted and Manufactured in USA		<b>Customer P.O.</b> 128		<b>Customer P.O.</b> 247		<b>Customer P.O.</b> 247	
Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)
1†	020947355	W16X36	40' 0"	6	A036284	A992 / A992M A709 gr50/gr345 A709 gr50S/gr345S A572 gr50/gr345	ASTM A992 / A992M - 06a ASTM A709 / A709M - 06a ASTM A709 / A709M - 06a ASTM A572 / A572M - 06 ASTM A6/A6M
2†	020961152	W21X44	45' 0"	4	B036782	A992 / A992M A709 gr50/gr345 A709 gr50S/gr345S A572 gr50/gr345	ASTM A992 / A992M - 06a ASTM A709 / A709M - 06a ASTM A709 / A709M - 06a ASTM A572 / A572M - 06 ASTM A6/A6M
3†	020961155	W21X44	45' 0"	4	B036782	A992 / A992M A709 gr50/gr345 A709 gr50S/gr345S A572 gr50/gr345	ASTM A992 / A992M - 06a ASTM A709 / A709M - 06a ASTM A709 / A709M - 06a ASTM A572 / A572M - 06 ASTM A6/A6M
4†	020962763	W21X44	45' 0"	4	A036489	A992 / A992M A709 gr50/gr345 A709 gr50S/gr345S A572 gr50/gr345	ASTM A992 / A992M - 06a ASTM A709 / A709M - 06a ASTM A709 / A709M - 06a ASTM A572 / A572M - 06 ASTM A6/A6M
5†	020970212	W14X68	50' 0"	4	A037107	A992 / A992M A709 gr50/gr345 A709 gr50S/gr345S A572 gr50/gr345	ASTM A992 / A992M - 06a ASTM A709 / A709M - 06a ASTM A709 / A709M - 06a ASTM A572 / A572M - 06 ASTM A6/A6M

CHEMICAL

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	Cl	C2	PC	Analysis
1*	.08	.91	.011	.042	.26	43	.001	.080	.09	.03	.011	.008	.0004	.01	.29	0.3400	0.1700	HEAT
2*	.07	1.06	.019	.023	.18	28	.024	.120	.11	.04	.012	.010	.0004	.00	.31	0.3400	0.1600	HEAT
3*	.07	1.06	.019	.023	.18	28	.024	.120	.11	.04	.012	.010	.0004	.00	.31	0.3400	0.1600	HEAT
4*	.08	1.03	.012	.031	.21	28	.022	.080	.10	.03	.012	.008	.0004	.00	.30	0.3400	0.1600	HEAT
5*	.08	1.22	.019	.028	.19	37	.032	.110	.12	.03	.012	.010	.0004	.00	.35	0.3800	0.1800	HEAT

*HT# B036782 is used to refer items: 6732, 6733, 6735, 6760, 6816, 6865, 6848*

Special Comments/Information:

State of Indiana, County of Whitley

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_ Notary Public

My commission expires \_\_\_\_\_

PART NO.

Ann:

Pg 1/1

DATE	12/17/07
INVOICE NO	112163
BILL OF LADING	883220
CUSTOMER NO	7460
CUSTOMER P.O.	112179

**NUCOR-YAMATO STEEL CO.**  
P.O. BOX 1228 • BLYTHEVILLE, AR 72318

### CERTIFIED MILL TEST REPORT

100% MELTED AND MANUFACTURED IN U.S.A.  
All shapes produced by Nucor-Yamato Steel are cast and rolled to a fully killed and fine grain practice.

S  
H  
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PACIFIC STEEL C/O  
ARRIMAGH IDRAL  
CH BIDDING B076  
LONGUEUIL, QUEBEC CANADA

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S  
ASTM A992/A992M-06a A572/A572M-05-06  
ASTM A709/A709M-07 GR50 (345)  
ASTM A709/A709M-07 GR50S (345S)  
ASTM A6/A6M-07

S  
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PACIFIC STEEL  
845 KUNCK, CHOMEDY  
CANADA  
LAVAL, QC H7B 1A9

ITEM #	ITEM DESCRIPTION	QTY	HEAT #	MECHANICAL PROPERTIES						CHEMICAL PROPERTIES													
				YIELD TO TENSILE RATIO	YIELD STRENGTH	TENSILE STRENGTH	ELONG	CHARPY IMPACT		C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Cb	CE		
					PSI	MPa		PSI	MPa													%	TEMP °F
1	W24 - 55.0 35' W610 x 82.0 10.668 M	3	310009	.74	52000	70000	23					.07	1.10	.023	.031	.25	.30	.11	.15	.03	.00	.017	.32
2	W24 - 55.0 45' W610 x 82.0 13.716 M	1	309999	.75	54000	72000	26					.08	1.10	.018	.037	.20	.27	.10	.09	.02	.00	.015	.30
3	W24 - 55.0 45' W610 x 82.0 13.716 M	5	310002	.76	55000	72000	27					.09	1.10	.022	.033	.21	.29	.12	.12	.03	.00	.018	.32
4	W24 - 55.0 45' W610 x 82.0 13.716 M	3	310004	.74	52000	70000	24					.07	1.10	.018	.037	.28	.26	.11	.10	.03	.00	.017	.30
5	W24 - 55.0 55' W610 x 82.0 16.764 M	1	309971	.74	54000	73000	24					.08	1.12	.021	.034	.30	.26	.10	.09	.02	.00	.018	.31
6	W24 - 55.0 55' W610 x 82.0 16.764 M	5	309973	.75	54000	72000	24					.08	1.10	.021	.032	.29	.27	.11	.10	.03	.00	.015	.32
7	W24 - 55.0 65' W610 x 82.0 19.812 M	7	309995	.75	53000	71000	26					.08	1.11	.015	.038	.27	.26	.10	.08	.03	.00	.017	.31
8	W24 - 55.0 65' W610 x 82.0 19.812 M	2	309997	.75	53000	71000	26					.07	1.10	.020	.034	.30	.27	.10	.12	.03	.00	.016	.30

ELONGATION BASED ON 8.00 INCH GAUGE LENGTH

I hereby certify that the contents of this report are accurate and correct. All test results and operations performed by this material manufacturer are in compliance with the requirements of the material specifications listed in the Specifications Block above.

*Ray Linnell*

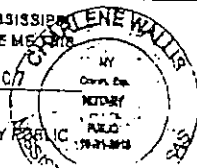
QUALITY ASSURANCE

STATE OF ARKANSAS COUNTY OF MISSISSIPPI  
SWORN TO AND SUBSCRIBED BEFORE ME

17 Day of 12/07

*Charlene Waller*

NOTARY PUBLIC



HT# 310002 is used to fab. items 0820, 0815

PART NO.

Attn:

DATE	10/19/07
INVOICE NO.	177662
BILL OF LADING	873406
CUSTOMER NO.	7460
CUSTOMER P.O.	18384

**NUCOR-YAMATO STEEL CO.**  
P.O. BOX 1228 • BLYTHEVILLE, AR 72318

**CERTIFIED MILL TEST REPORT**

100% MELTED AND MANUFACTURED IN U.S.A.  
All shapes produced by Nucor-Yamato Steel are cast and rolled to a fully killed and fine grain practice.

S  
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PACIFIC STEEL C/O  
ARRIMAGE IDEAL  
CH SIDING B076  
LONGUEUIL, QUEBEC CANADA

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ASTM A992/A992M-06a A572/A572M GR50-06  
ASTM A709/A709M-07 GR50 (345)  
ASTM A709/A709M-07 GR50B (345B)  
ASTM A6/AGH-07

S  
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D  
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PACIFIC STEEL  
845 MUNCK, CROMBIEY  
CANADA  
LAVAL, QC  
H7S 1A9

ITEM	ITEM DESCRIPTION	QTY	HEAT #	MECHANICAL PROPERTIES						CHEMICAL PROPERTIES											
				YIELD TO TENSILE RATIO	YIELD STRENGTH PSI MPa	TENSILE STRENGTH PSI MPa	ELONG %	CHAMPY TEMP °F °C	IMPACT ENERGY FT-LBS Joules	C	Mn	P	S	Si	Al	Ni	Cr	Mo	V	Cb	CE
1	W24 - 62.0 60' W610 x 92.0 18.288 M	2	304698	.75	58000	77000	23			.07	1.20	.020	.029	.32	.30	.09	.09	.02	.00	.024	.32
				.74	57000	77000	23														
					400	531	23														
2	W24 - 62.0 60' W610 x 92.0 18.288 M	5	304700	.74	58000	78000	24			.08	1.21	.019	.034	.31	.30	.09	.06	.02	.00	.021	.33
				.74	57000	77000	24														
					400	538	24														

ELONGATION BASED ON 8.00 INCH GAUGE LENGTH  
I hereby certify that the contents of this report are accurate and correct. All test results and operations performed by this material manufacturer are in accordance with the requirements of the material specifications listed in the Specifications Block above.

*Doug Linnell*  
QUALITY ASSURANCE  
CUSTOMER COPY

STATE OF ARKANSAS COUNTY OF MISSISSIPPI  
SWORN TO AND SUBSCRIBED BEFORE ME THIS  
19 Day of 10/07  
*Charlene Wallis* NOTARY PUBLIC  
MY COMMISSION EXPIRES 10/21/2012  
CHARLENE WALLIS  
NOTARY PUBLIC  
18412012  
POLK CO. ARKANSAS

HT# 304698 is used to fab item: B748, B852

Customer Name

Customer PO#

Shipper No

Heat Number

Mandate Erectors & Welding Ltd

31710

17377

B038149

Steel Dynamics, In 260 625 8950

Page 9 of 17

Thu Nov 08 2007 15:11:54 EST

# CERTIFIED MILL TEST REPORT

Date: 11 / 08 / 2007

Customer # 000191

Ship to:

TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Petersburg VA, 23805 US  
Attn: Fred White

Triad Metals Intl  
1951 Bessemer Road  
C-SX-Collier Yard  
Petersburg VA, 23805 US  
Attn: Rock McGovern

Quality Steel 100% Melted  
and Manufactured in the USA

GENERAL INFORMATION		SPECIFICATIONS		SHIPMENT DETAILS	
Product	Wide Flange Beam	Standards	A992 / A992M - 06a	Bundle / ASN #	020995679
Size	W 24 x 68	ASTM A992/A992M - 06a	A709 gr50/gr345	Length	40' 0"
	W 610 x 101	ASTM A709/A709M - 06a	A572 gr50/gr345	PCS	4
Heat Number	B038149	ASTM A572/A572M - 06	A709 gr50Si6345S	Customer PO	1173
Condition(s)	As-Rolled Fine Grained Fully Killed	ASTM A709/A709M - 06a			

### CHEMICAL ANALYSIS (weight percent)

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analysis Type
.07	1.06	.019	.017	.20	.41	.10	.12	.019	.014	.035	.003	.0085	.0004	.31	.35	.17	5.90	Heat

### MECHANICAL TESTING

Test	Yield (fy) Strength	Tensile (fu) Strength	fy / fu ratio	% Elong. (8" gage)
1	55 / 380	76 / 523	.73	24
2	59 / 410	73 / 502	.82	25
3				
4				
5				
6				
7				

Charpy Impact Tests (available only when specified at time of order)

Temp	Absorbed Energy (ft-lbf / J)	F / C	Specimen 1	Specimen 2	Specimen 3	Average	Minimum

### Notes:

\*Calculated Chemistry Values: Carbon Equivalents (C, Mn, P, S), Corrosion Index (I)  
 CE1 (IWI) = C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15  
 CE2 (AWS) = C + (Mn + Si)/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15  
 P<sub>em</sub> (AWS) = C + Si/30 + Mn/20 + Cu/20 + Ni/60 + Cr/20 + mo/15 + V/10 + S/8  
 I (ASTM G101) = 26.01(Cu) + 3.88(Ni) + 1.20(Cr) + 1.42(Si) + 17.29(P) + 7.29(Cu)(Ni) - 9.10(Ni)(P) - 33.39(Cu)<sup>2</sup>

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

State of Indiana, County of Whitley Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

**Doug Rees-Evans**

Signed: \_\_\_\_\_ My commission expires: \_\_\_\_\_  
Femr-4100-002-064 Manager of Technical Services Notary Public

ASTM A6 - 14.6: A signature is not required on the test report; however, the document shall clearly identify the organization submitting the report. Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report.

*HT# B038149 is used to Fab. Items. B704 A01.*

**Certified Mill Test Report**  
 100% Melted and Manufactured in USA

Date: 11/14/07  
 Customer No: 000191  
 Bill of Lading No: 0000118729  
 MTR #: 0000118302

Triad Metals International  
 Triad Customer P/U  
 All in White

Triad Metals International  
 12301 Computer Avenue  
 Willow Grove, PA 19090  
 In: Fire White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1T	000023535	W21X62	44' 0"	1	A034653	A992 / A992M A709 50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
2T	020902071	W24X94	43' 6"	2	B034476	A992 / A992M A709 50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
3T	020902073	W24X94	43' 6"	3	B034476	A992 / A992M A709 50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
4T	020902113	W24X94	43' 6"	4	B034477	A992 / A992M A709 50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
5T	020906203	W21X62	44' 0"	4	A034635	A992 / A992M A709 50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
6T	020906434	W21X62	44' 0"	4	A034653	A992 / A992M A709 50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	Al	Cb	C1	C2	PC	Analysis
1*	.08	1.17	.012	.036	.27	.32	.034	.070	.13	.04	.012	.009	.0104	.00	.33	0.3800	0.1800	HEAT
2*	.07	1.35	.017	.021	.22	.50	1.046	.130	.13	.04	.016	.010	.0103	.00	.38	0.4200	0.1900	HEAT
3*	.07	1.35	.017	.021	.22	.50	.046	.130	.13	.04	.016	.010	.0103	.00	.38	0.4200	0.1900	HEAT
4*	.07	1.35	.020	.038	.20	.49	.043	.120	.12	.03	.014	.010	.0103	.00	.38	0.4100	0.1900	HEAT
5*	.08	1.15	.016	.038	.25	.40	.035	.120	.12	.05	.015	.009	.0104	.00	.34	0.3900	0.1800	HEAT
6*	.08	1.17	.012	.036	.27	.32	.034	.070	.13	.04	.012	.009	.0104	.00	.33	0.3800	0.1800	HEAT

**Tension Testing Results**

Item	Test	Yield Strength ksi/MPa	Tensile Strength ksi/MPa	Elongation %	Fy/Fu	ROA (%)	Bend Test Result
1	1	55/376	75/59	9	.73		
1	2	62/431	77/513	3	.81		
2	1	59/408	76/511	1	.78		

**Charpy Impact Testing Results**

Item	Sample 1 ft. lb/joules	Sample 2 ft. lb/joules	Sample 3 ft. lb/joules	Temp F/C	% Charpy	ASTM Grain Size No (per ASTM E 112)
1						
1						
2						

we hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Quality Assurance

State of Indiana, County of Whitley  
 I am sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
 Signed: \_\_\_\_\_  
 My commission expires: \_\_\_\_\_

HT# B034476 is used. To Fab item B778

Load #: 29

Shipping Date:

Waybill #: 898-29

Customer:	Pizzagalli Construction Company	Prepared By:	Approved By:	Date: 24-01-01
Job Title:	S4 Marginal Way	Bathurst Machine Shop Ltd.		1040 Route 430
Date Sent to Shop:	X	Mandate Erectors & Welding Ltd.		Big River Road
Job Number:	898	MQM Ltd., Treadie		E2A 6P9

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep		Paint Inspection		Shipped				
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	
A	W12X19	A	B616	2	818																							
A	W8X15	A	B617	1	170																							
A	W12X19	A	B622	1	207																							
A	W8X15	A	B624	1	159																							
A	W16X26	A	B632	1	562																							
A	W21X44	A	B633	1	1767			C=1 1/4																				
A	W21X44	A	B634	1	1768			C=1 1/4																				
A	W21X44	A	B637	1	1770			C=1 1/4																				
A	W18X35	A	B644	1	1515																							
A	W12X19	A	B649	1	224																							
A	W16X26	A	B653	1	999																							
A	W18X35	A	B655	1	734																							
A	W18X50	A	B660	1	1693																							
A	HSS8X4X1/4	A	B662	1	181																							
A	W21X44	A	B665	1	1694			C=1 1/4																				
A	HSS12X6X3/8	A	B677	1	1618																							
A	W12X19	A	B679	1	516																							
A	W12X19	A	B687	1	89																							
A	W24X62	A	B705	1	2507																							
A	W24X68	A	B712	1	2036																							

Load # 29

Plate # T51-313

Trucks: Vincent Breau.

Pieces 21 21027 Total Weight(Lbs)

( 10.5 TONS)

Load #: 29

Customer: Pizzagalli Construction Company  
 Job Title: 84 Marginal Way  
 Date Sent to Shop: X  
 Job Number: 898

Job Progress Report Sheet

Prepared By: Approved By: Date: 24-01-01

Bathurst Machine Shop Ltd.  
 Mandate Erectors & Welding Ltd.  
 MQM Ltd., Traendie  
 1040 Route 430  
 Big River Road  
 E2A 6P9

Form# 12 Rev. 4

\* = SEE SHOP DWG

C=COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped															
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date											
A	W8X15	A	B713	6	1548																																		
A	W21X55	A	B734	6	14813			C=1"1/2																															
A	W18X35	A	B753	1	1318																																		
A	W24X62	A	B754	1	3632																																		
A	W24X68	A	B759	1	3888																																		
II	W21X55	A	B764	2	4750			C=1"1/2																															
II	W8X15	A	B768	2	450																																		
A	W24X62	A	B787	1	3632																																		
A	H.S.S. 8X8X1/2	0	D507	1	901																																		
A	H.S.S. 5X5X5/16	0	D515	1	283																																		
A	H.S.S. 5X5X5/16	0	D516	1	274																																		
A	HSS5X5X5/16	A	D604	1	306																																		
A	HSS6X6X3/8	A	D613	2	637																																		
A	HSS6X6X3/8	A	D614	1	319																																		
A	HSS6X6X3/8	A	D615	1	318																																		
A	HSS6X6X3/8	A	D616	1	709																																		
A	HSS6X6X3/8	A	D617	1	354																																		
A	HSS6X6X3/8	A	D618	1	354																																		
A	HSS5X5X5/16	A	D619	1	283																																		
A	HSS5X5X5/16	A	D620	1	274																																		

Pieces 33 39043 Total Weight(Lbs)

( 19.5 TONS)





PART NO.

Atm:



COPPERWELD CANADA INC.  
14 HOLBY AVENUE  
BRAMPTON, ONTARIO L6X 2M3  
CANADA

TEST REPORT

Customer Order No.

11744

Internal Order No. 063441

Invoice No. 17159166

Date 03/29/05

Customer:

ACIER PACIFIQUE INC.  
845 MURCK  
CHOMEDEY  
LAVAL, PQ H7S 1A8

Specification:

8 IN, SQ, 1/2  
48 Ft  
ASTM A500 GRC 03A

HEAT NO.	CHEMICAL ANALYSIS, %										
	C	Mn	P	S	SI	AL		V	CU	NI	CR
08650 C.E. .33	.18	.85	.014	.006	.23	.039		.026	.030	.020	.020

MECHANICAL PROPERTIES

HEAT NO.	C.I./D.I.	YIELD STRENGTH PSI	TENSILE STRENGTH PSI	ELONGATION %	HARDNESS Rb
08650		68500	81500	35	

YIELD STRENGTH IS 0.2% OFFSET - ELONGATION IN 2 INCHES

Other Tests

Copperweld certifies that the material furnished on this order meets all chemical and physical requirements in accordance with the specification noted above.

*Jim Clark*  
JIM CLARK, METALLURGIST

Hi #08650 is used to Fab. item D507

Atlas Tube Canada ULC  
270 Clark St  
Barrrow, Ontario, Canada  
N0R 1G0  
Tel: 519-738-3541  
Fax: 519-738-3537



Ref.B/L: 80269969  
Date: 12.06.2007  
Customer: 1774

### MATERIAL TEST REPORT

Sold to

Acier Alutube Inc.  
2555 Francis-Hugues Avenue  
LAVAL QC H7S 2H7  
CANADA

Shipped to

Acier Alutube Inc.  
2555 Francis-Hugues Avenue  
LAVAL QC H7S 2H7  
CANADA

Material: 9 Qx6 Qx31 3x30"0"0(1x1)REC		Material No: 900S0313	Made In: Canada										
Sales Order: 351251		Purchase Order: 3550											
Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
60563		0.210	0.860	0.011	0.005	0.020	0.029	0.020	0.000	0.010	0.010	0.020	0.001
Bundle No	Yield	Tensile		Eln.2in		Certification							
M200493492	057060 Psi	072830 Psi		34.7 %		ASTM A500-03A GRADE B&C							
Material Note Sales Or Note													

Material: 12 Qx6 Qx31 3x30"0"0(1x1)REC		Material No: 120040313	Made in: Canada										
Sales Order: 351252		Purchase Order: 3546											
Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
60563		0.210	0.860	0.011	0.005	0.020	0.029	0.020	0.000	0.010	0.010	0.020	0.001
Bundle No	Yield	Tensile		Eln.2in		Certification							
M200492495	057280 Psi	070380 Psi		36.3 %		ASTM A500-03A GRADE B&C							
Material Note Sales Or Note													

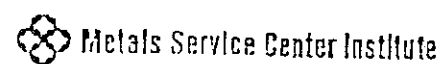
Material: 12 Qx6 Qx250x24"0"0(1x1)REC		Material No: 120060250	Made in: Canada										
Sales Order: 351252		Purchase Order: 3546											
Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
680243		0.190	0.780	0.005	0.005	0.015	0.049	0.034	0.004	0.002	0.014	0.013	0.001
Bundle No	Yield	Tensile		Eln.2in		Certification							
M200461358	063130 Psi	077710 Psi		31.3 %		ASTM A500-03A GRADE B&C							
Material Note Sales Or Note													

Material: 12 Qx6 Qx250x24"0"0(1x1)REC		Material No: 120060250	Made In: Canada										
Sales Order: 350825		Purchase Order: 3546											
Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
680243		0.190	0.780	0.005	0.005	0.015	0.049	0.034	0.004	0.002	0.014	0.013	0.001
Bundle No	Yield	Tensile		Eln.2in		Certification							
M200461358	063130 Psi	077710 Psi		31.3 %		ASTM A500-03A GRADE B&C							
Material Note Sales Or Note													

HT #680243 is used to fab. Item: B677

Quality Assurance: *[Signature]*

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specifications.



Atlas Tube Canada LLC  
 11000, Université, Canada  
 NOR 130  
 Tel: 519-733-3541  
 Fax: 519-733-3537

Ref. B/L: 80269969  
 Date: 12.06.2007  
 Customer: 1774



**MATERIAL TEST REPORT**

Sold to

Acier Altitude Inc  
 2555 Francis-Hugues Avenue  
 LAVAL QC H7S 2H7  
 CANADA

Shipped to

Acier Altitude Inc.  
 2555 Francis-Hugues Avenue  
 LAVAL QC H7S 2H7  
 CANADA

Material: 1.5x1.5x188x240 014x41

Material No. 450451892400

Made In: Canada

Order: 351032

Purchase Order: 351032

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
450603	16	0.180	0.800	0.019	0.006	0.016	0.048	0.044	0.000	0.007	0.020	0.045	0.000

Bundle No	Yield	Tensile	Elon.2in
M100695963	061370 Psi	073630 Psi	29.9 %

Certification  
 ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or Note:

Material: 5.0x5.0x313x49'0"014x21.

Material No: 500503134900

Made in: Canada

Sales order: 351032

Purchase Order: 3548

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
72296	3	0.190	0.830	0.009	0.009	0.020	0.027	0.060	0.000	0.010	0.010	0.020	0.000

Bundle No	Yield	Tensile	Elon.2in
M100693353	055230 Psi	072720 Psi	35.4 %

Certification  
 ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or Note:

*WT # 72296 is used to fabricate items: D515, D516, D604, D619, D620*

Material: 1.8x1.8x376x18000013

Material No: 1800603752400

Made in: Canada

Sales order: 350835

Purchase Order: 3545

*D705*

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
452348	4	0.190	0.800	0.016	0.006	0.050	0.036	0.025	0.003	0.003	0.015	0.050	0.000

Bundle No	Yield	Tensile	Elon.2in
M200496081	055720 Psi	066300 Psi	33.4 %

Certification  
 ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or Note:

Material: 1.8x1.8x313x40'0"015x013A

Material No: 03000011000003A

Made in: Canada

Sales order: 346518

Purchase Order: 3527

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
030003	12	0.200	0.810	0.007	0.004	0.130	0.036	0.000	0.003	0.000	0.022	0.043	0.000

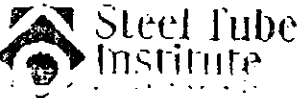
Bundle No	Yield	Tensile	Elon.2in
030003	060070 Psi	070030 Psi	27.7 %

Certification  
 CSA G40.21-04 50W CLASS C

Material Note:

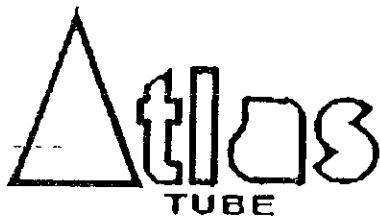
Quality Assurance: *[Signature]*

Testing and contract requirements:



Atlas Tube (U.S.) Inc.  
 3101 Eckles Road  
 Plymouth, Michigan, USA  
 48170  
 Tel: 313-454-5600  
 Fax: 313-454-1474

Ref.B/L: 80243954  
 Date: 06.19.2007



**MATERIAL TEST REPORT**

Sold to

Acier Altitube Inc.  
 2555 Francis-Hugues Avenue  
 LAVAL QC H7S 2H7  
 CANADA

Shipped to

Acier Altitube Inc.  
 2555 Francis-Hugues Avenue  
 LAVAL QC H7S 2H7  
 CANADA

Material: 3 0x6 0x375x48 0 0 0x2  
 Sales order: 307546

Material No: 60603754800 Made in: Canada  
 Purchase Order: 3138

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
450060	0.190	0.790	0.009	0.002	0.160	0.027	0.020	0.005	0.002	0.008	0.028	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M100639733	061820 Psi	073960 Psi	34.5 %	ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or Note:

Material: 3 0x6 0x375x48 0 0 0x2  
 Sales order: 307546

Material No: 60603754800 Made in: Canada  
 Purchase Order: 3138

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
450060	0.190	0.790	0.009	0.002	0.160	0.027	0.020	0.005	0.002	0.008	0.028	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M100639731	061820 Psi	073960 Psi	34.5 %	ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or Note:

*HT #480010 is used to fab items: D613 to D619*

Material: 3 0x4 0x250x40 0 0 0x3  
 Sales order: 310652

Material No: 700402504000 Made in: Canada  
 Purchase Order: 3177

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
015580	0.120	0.530	0.009	0.006	0.027	0.042	0.030	0.000	0.000	0.000	0.000	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M100630116	059550 Psi	072840 Psi	35.4 %	ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or Note:

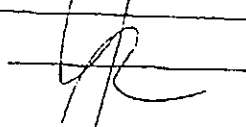
Material: 3 0x4 0x250x40 0 0 0x3  
 Sales order: 310652

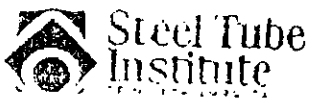
Material No: 700402504000 Made in: Canada  
 Purchase Order: 3177

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
015580	0.120	0.570	0.010	0.008	0.014	0.042	0.023	0.000	0.003	0.010	0.000	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M100630116	058930 Psi	071140 Psi	30.3 %	ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or Note:

Authorized by Quality Assurance: 





**Material Test Report**

200 Den Stee. March - Ontario, Canada N0R 1G0  
 Tel: (519) 736-2387 Fax: (519) 736-2387

Material:	3.5x3.5x250x48"0"0(5x2).	Material No.	350362504800	Made in	Canada
Heat No	C Mn P S	Si Al	Cu	Sales order	Purchase Order
664820	0.190 0.790 0.010 0.005	0.009 0.033	0.018	120231	22385
Bundle No	Yield	Tensile	Elm.Zn	Certification	
M10012590X	064576 Psi	077498 Psi	29.6 %	ASTM A500 GR.B & C.	
Material Note:					
Sales Or.Note:					

Material:	8.0x4.0x250x24"0"0(2x5).	Material No.	800402502400	Made in	Canada
Heat No	C Mn P S	Si Al	Cu	Sales order	Purchase Order
464610	0.180 0.790 0.008 0.006	0.013 0.038	0.007	120231	22385
Bundle No	Yield	Tensile	Elm.Zn	Certification	
M1001259425	086034 Psi	075506 Psi	33.0 %	ASTM A500 GR.B & C.	
Material Note:					
Sales Or.Note:					

Material:	8.0x4.0x250x48"0"0(2x3).	Material No.	800402504800	Made in	Canada
Heat No	C Mn P S	Si Al	Cu	Sales order	Purchase Order
464610	0.200 0.810 0.012 0.007	0.012 0.032	0.012	120231	22385
Bundle No	Yield	Tensile	Elm.Zn	Certification	
M100225446	056594 Psi	066545 Psi	30.9 %	ASTM A500 GR.B & C.	
Material Note:					
Sales Or.Note:					

*HT# 464610 is used to fabricate form B462*

Material:	8.0x4.0x250x48"0"0(2x3).	Material No.	800402504800	Made in	Canada
Heat No	C Mn P S	Si Al	Cu	Sales order	Purchase Order
0113524	0.210 0.870 0.008 0.004	0.013 0.030	0.010	120231	22385
Bundle No	Yield	Tensile	Elm.Zn	Certification	
M100228447	062971 Psi	076428 Psi	27.8 %	ASTM A500 GR.B & C.	
Material Note:					
Sales Or.Note:					

Material:	8.0x4.0x375x48"0"0(2x2).	Material No.	800403754800	Made in	Canada
Heat No	C Mn P S	Si Al	Cu	Sales order	Purchase Order
733058	0.190 0.860 0.018 0.004	0.040 0.047	0.023	120231	22385
Bundle No	Yield	Tensile	Elm.Zn	Certification	
M100125662	014698 Psi	075008 Psi	26.0 %	ASTM A500 GR.B & C.	
Material Note:					
Sales Or.Note:					

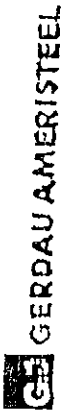


Authorized by Quality Assurance:



Steel Service Center Institute

Page: 2 Of 3  
 Canadian Council of Certified Quality  
 of Canada / Conseil canadien des normes



CARTERSVILLE STEEL MILL  
384 OLD GRASSDALE RD NE  
CARTERSVILLE GA 30121 USA  
(770) 387 1130

(Certified and Physical Test Report)  
MADE IN UNITED STATES

G 107254

PRODUCED IN: CARTERSVILLE

SHIP TO  
TRIAD METAL  
1951 BESSIEMER ROAD  
804-732-5000  
PETERSBURG, VA 23805

INVOICE TO  
TRIAD METALS INTERNATIONAL  
METAL TRADERS INC.  
2300 COMPUTER AVE STE-A  
WILLOW BROVE, PA 19090

SHIP DATE  
12/07/07

CUST. ACCOUNT NO  
40211035

SALES ORDER:  
/081943 04

CUST. P.O. NUMBER  
149104

SHAPE & SIZE	GRADE	SPECIFICATION	Yield	Tensile	Elongation	Chemical Test	Yield	Tensile	Elongation	Chemical Test
WB X 150	A572-50/982	ASTM A572 GR50-07, ASTM A592-06A	377.1 MPa	537.1 MPa	22.1%	PSL 528.14 MPa	377.1 MPa	537.1 MPa	22.1%	PSL 528.14 MPa
HEAT ID. G706468	Mn P S Si Cu Ni Cr									
	.16 .50 .013 .021 .20 .24 .08 .04									
Mechanical Test			Yield 57700 PSI, 397.83 MPa	Tensile 78600 PSI, 539.14 MPa	22.1% Elongation	PSL 528.14 MPa	Yield 57700 PSI, 397.83 MPa	Tensile 78600 PSI, 539.14 MPa	22.1% Elongation	PSL 528.14 MPa
Customer Requirements			CASTING STRAND CAST				CASTING STRAND CAST			

SHAPE & SIZE	GRADE	SPECIFICATION	Yield	Tensile	Elongation	Chemical Test	Yield	Tensile	Elongation	Chemical Test
WB X 150	A572-50/982	ASTM A572 GR50-07, ASTM A592-06A	377.1 MPa	537.1 MPa	22.1%	PSL 528.14 MPa	377.1 MPa	537.1 MPa	22.1%	PSL 528.14 MPa
HEAT ID. G706469	Mn P S Si Cu Ni Cr									
	.16 .50 .013 .021 .20 .24 .09 .04									
Mechanical Test			Yield 57700 PSI, 397.83 MPa	Tensile 78600 PSI, 539.14 MPa	22.1% Elongation	PSL 528.14 MPa	Yield 57700 PSI, 397.83 MPa	Tensile 78600 PSI, 539.14 MPa	22.1% Elongation	PSL 528.14 MPa
Customer Requirements			CASTING STRAND CAST				CASTING STRAND CAST			

HT #G706468 is used to fab. items: Bolt, B024, B073, B068

This material, including the labels, was produced and manufactured in the United States of America

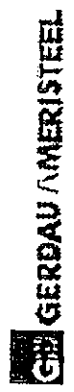
THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

**Shackley**  
Bhavdar Yalamanchi  
Quality Director  
Gerdau Ameristeel

*Signature*

Mgt. Marketing Dept.  
CARTERSVILLE STEEL MILL

Seller warrants that all material furnished shall comply with specifications subject to standard published manufacturing variations. NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE MADE BY THE SELLER, AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Any claim for damages for materials that do not conform to specifications must be made from buyer to seller immediately after delivery of same in order to allow the seller the opportunity to respond to the material in question.



CARTERSVILLE STEEL MILL  
384 OLD GRASSDALE ROAD  
CARTERSVILLE GA 30114 USA  
(770) 387-3300

Chemical and Physical Test Report

MADE IN UNITED STATES

C-1070664

PRODUCED IN: CARTERSVILLE

SHIP TO  
TRIAD METAL  
1951 BESSEMER ROAD  
804-732-5000  
PETERSBURG, VA 23105

VOICE TO  
TRIAD METALS INTERNATIONAL  
METAL TRADERS INC  
100 COMPUTER AVE. STE-A-1  
WILLOW GROVE, PA 19090

SHIP DATE  
11/06/07  
CUST. ACCOUNT NO  
40213035

SHAPE + SIZE	GRADE	SPECIFICATION	TENSILE	YIELD	ELONGATION	SHIM DED. 0	SHIM DED. 3
W12 X 19#	A57250/992	ASTM A572 GR50-07, ASTM A992-06A	74500 PSI, 513.66 MPA	415.06 MPA	25.67%	25.67%	25.67%
HEAT I.D.	Mn P S Si Cu Ni Cr Mo V Nb Ti N Sn Al Ti Ca C Eqv						
G704824	1.18 .025 .018 .28 24 .07 .05 .014 .027 .002 .0007 .0104 .008 .001 .00100 .00050 .329						

Mechanical Test: Yield 57200 PSI, 394.38 MPA Tensile: 73700 PSI, 511.4 MPA %EL: 24.67%  
Customer Requirements CASTING: STRAND CAST

SHAPE + SIZE	GRADE	SPECIFICATION	TENSILE	YIELD	ELONGATION	SHIM DED. 0	SHIM DED. 3
W12 X 19#	A57250/992	ASTM A572 GR50-07, ASTM A992-06A	74500 PSI, 513.66 MPA	415.06 MPA	25.67%	25.67%	25.67%
HEAT I.D.	Mn P S Si Cu Ni Cr Mo V Nb Ti N Sn Al Ti Ca C Eqv						
G704837	1.14 .016 .028 .25 24 .07 .06 .018 .026 .002 .0005 .0089 .009 .001 .00100 .00090 .312						

Mechanical Test: Yield 54900 PSI, 378.12 MPA Tensile: 69100 PSI, 476.43 MPA %EL: 27.50%  
Customer Requirements CASTING: STRAND CAST

NY #G704837 is used to Fab. items: B616, B632, B649, B679, B687

This material, including the tests, was produced and manufactured in the United States of America

*Maackony*  
Director  
Quality Director  
Gerdau Ameristeel

THE ABOVE FIGURES ARE CERTIFIED AS ACCURATE IN THE PERMANENT RECORDS OF COMPANY.

*J. J. J.*  
Mgr. Metallurgy Svcs.  
CARTERSVILLE STEEL MILL

Seller warrants that all material furnished shall comply with specifications subject to standard published manufacturer's specifications. NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, ARE MADE. THE SELLER, AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. In no event shall seller be liable for indirect, consequential or punitive damages arising out of or related to the material furnished by seller. Any claim for damages for materials that do not conform to specifications must be made from buyer to seller immediately after delivery of same in order to allow the seller the opportunity to inspect the material in question.



# CERTIFIED MILL TEST REPORT

Date 11/15/2007

Customer # 000191

Ship to:

Fill to:  
**TRIAD METALS INTERNATIONAL**  
A 1 2300 Computer Avenue  
Petersburg VA, 23805 US  
Attn: Fred White

Triad Metals Intl  
195 Bessemer Road  
CSX Millier Yard  
Petersburg VA, 23805 US  
Attn: Rock McGovern

(260) 625-8100 (260) 625-8950 FAX  
**Quality Steel 100% EAF Melted**  
**and Manufactured in the USA**  
Recycled content: PC = 84-75%, PI = 15-10%

GENERAL INFORMATION		SPECIFICATIONS		SHIPMENT DETAILS	
Product	Wide Flange Beam	Standards	ASTM A6/A6M	Bundle / ASN #	Length
Size	W 16 x 26 W 410 x 38.8	Grades	A992 / A992M A709 gr50/gr345 A572 gr50/gr345 A709 gr50S/gr345S	pcs	Customer PO
Heat Number	A038475			021005778	6 9977:360
Condition(s)	As-Rolled Fine Grained Fully Killed			021005779	6 9977:360
				021005780	6 9977:360
				021005781	6 9977:360
				021005782	6 9977:360
				021005749	7 9977:360
				021005750	7 9977:360

**CHEMICAL ANALYSIS** (weight percent)

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	N	Γ	C1	C2	PC	*I	Analysis Type
.04	.63	.015	.021	.20	.36	.11	.13	.037	.016	.015	.001	.0087	.003	.21	.25	.11	5.86	Heat

**MECHANICAL TESTING**

Test	Yield (fy) ksi / MPa	Tensile Strength ksi / MPa	fy / fu ratio	% Elong. {8" gage}	Charpy Impact Tests (available only when specified at time of order)		
					Temp F / C	Absorbed Energy ft-lbf / J	Specimen
					Average	Minimum	
1	60 / 413	70 / 537	.77	21			
2	68 / 468	78 / 538	.81	21			
3							
4							
5							
6							
7							

**Notes:**

\* Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC), Corrosion Index (I)  
 CE1 (W) = C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15  
 CE2 (AWS) = C + (Mn + Si)/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15  
 I (ASTM G101) = 26.01(Cu) + 3.00(Ni) + 1.20(Cr) + 1.49(Si) + 7.29(P) + 29.0(Nb) + 9.10(Ni)(P) + 33.39(Cu)

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: \_\_\_\_\_  
 Manager of Technical Services  
 ASTM A6 - 14.6: A signature is not required on  
 Notwithstanding the absence of a sign

State of Indiana, County of \_\_\_\_\_  
 this \_\_\_\_\_ day of \_\_\_\_\_  
 if Whitley Sworn to and subscribed before me

Signed: \_\_\_\_\_  
 My commission expires: \_\_\_\_\_  
 Notary Public  
 The organization submitting the report is responsible for the content of the report

HT # A038475 is used to fab. A038475 L, 6653



**Steel Dynamics, Inc.**

Structural and Rail Division • Columbia City, Indiana

# CERTIFIED MILL TEST REPORT

Ship to: Customer # 000191

Triad Metals Intl  
1951 Bessemer Road  
CSX-Collier Yard  
Petersburg VA, 23805 US  
Attn: Rock McGovern

Bill to: Customer # 000128052  
Triad Metals International  
A-1 2310 Computer Avenue  
Petersburg VA, 23805 US  
Attn: Fred White

Quality Steel 100% Melted  
and Manufactured in the USA

## GENERAL INFORMATION

Product Wide Flange Beam

Size W 18 x 50

W 460 x 74

Heat Number B037839

Condition(s) As-Rolled

Fine Grained

Fully Killed

## SPECIFICATIONS

Standards  
ASTM A616/A617

A992 / A992M - 06a

A709 / A709M - 06a

A572 / A572M - 06

A709 / A709M - 06a

## SHIPMENT DETAILS

Bundle / ASN # Length pcs Customer PO

020990302 50' 0" 3 3055

## Grades

A992 / A992M

A709 gr50/gr345

A572 gr50/gr345

A709 gr50S/gr345S

## CHEMICAL ANALYSIS (weight percent)

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analysis Type
.08	.30	.016	.018	.21	.40	.10	.08	.028	.014	.011	.015	.0094	.0014	.29	.32	.16	5.83	Heat

## MECHANICAL TESTING

Test	Yield (fy) ksi / MPa	Tensile Strength ksi / MPa	Elong. % (8" gage)	fy / fu ratio
1	51 / 367	73 / 505	28	.73
2	51 / 371	73 / 501	24	.74
3				
4				
5				
6				
7				

Charpy Impact Tests (available only when specified at time of order)

Temp	Absorbed Energy ft-lbf / J	Specimen 1	Specimen 2	Average	Minimum
F / C					

Notes: Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC), Corrosion Index (I)  
CE1 [(Mn)+C+Mn/6+(Cr+M+V)/5+(Ni+Cu)/15]  
CE2 (AWS)-C+(Mn+Si)/6+(Cr+Mo+V)+5+(Ni+Cu)/15  
I (ASTM G101)= 26.0[(C)+3.88(Ni)+1.20(Cr)+1.44(Si)+17.29(P)+7.29(Cu)(Ni)-9.10(I)](I)-33.39(CuP)

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: Doug Rees-Evans Manager of Technical Services  
ASTM A6-14.6:7  
Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report

Signed: \_\_\_\_\_ My commission expires: \_\_\_\_\_  
Notary Public

HT# B037839 is used to Feels item: B060

PART NO.

ADD.

DATE	10/19/07
INVOICE NO.	177662
BILL OF LADING	873406
CUSTOMER NO	7460
CUSTOMER P.O	16384

NUCOR-YAMATO STEEL CO.  
P.O. BOX 1228 • BLYTHEVILLE, AR 72318

CERTIFIED MILL TEST REPORT

100% MELTED AND MANUFACTURED IN U.S.A.  
All shapes produced by Nucor-Yamato Steel are cast and rolled to a fully killed and fine grain practice.

S  
H PACIFIC STEEL C/O  
I ARRIMAGE IDEAL  
P CN SIDING B076  
T LONGUEUIL, QUEBEC CANADA  
O

S  
P ASTM A992/A992M-06a A572/A572M GR50-06  
E ASTM A709/A709M-07 GR50 (345)  
C ASTM A709/A709M-07 GR508 (345S)  
I  
F  
A  
T  
I  
O  
N  
S

S  
O  
L  
D  
T  
O  
PACIFIC STEEL  
845 MUNCK, CROMEDEY  
CANADA  
LAVAL, QC  
R7S 1A9

ITEM #	ITEM DESCRIPTION	QTY	HEAT #	MECHANICAL PROPERTIES						CHEMICAL PROPERTIES												
				YIELD TO TENSILE RATIO	YIELD STRENGTH	TENSILE STRENGTH	ELONG	CHARPY IMPACT		C	Mn	P	S	SI	Cu	NI	Cr	Mo	V	Cb	CE	
					PSI	PSI		TEMP	IMPACT ENERGY													
					MPa	MPa		°F	FT-LES													
1	W24 - 62.0 60' W610 x 92.0 18.288 M	2	304698	.75	58000	77000	23				.07	1.20	.020	.029	.32	.30	.09	.09	.02	.00	.024	.32
				.74	57000	77000	23												.01	.16		
2	W24 - 62.0 60' W610 x 92.0 18.288 M	5	304700	.74	58000	78000	24				.08	1.21	.019	.034	.31	.30	.09	.08	.02	.00	.021	.33
				.74	57000	77000	24												.01	.17		

ELONGATION BASED ON 8.00 INCH GAUGE LENGTH  
I hereby certify that the contents of this report are accurate and correct. All test results and operations performed by this material manufacturer are in compliance with the requirements of the material specifications listed in the Specifications Block above.

*Ray Council*

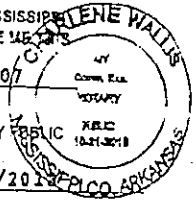
QUALITY ASSURANCE  
CUSTOMER COPY

STATE OF ARKANSAS COUNTY OF MISSISSIPPI  
SWORN TO AND SUBSCRIBED BEFORE ME

19 Day of 10/07

*Charlene Wallis* NOTARY PUBLIC

MY COMMISSION EXPIRES 10/21/2012



NY# 304698 is used to fab items: B705, B754, B787

ALUC

Steel Dynamics, Inc 260 625 8950

Page 4 of 8

Sun Sep 09 2007 09:24:00



**Steel Dynamics, Inc.**

Structural and Rail Division • Columbus, OH, Indiana

Ship to:

PACIFIC STEEL INC.  
845 Rue Munck, Chomedey  
C/O Valport Maritime Services  
Village De Laval PQ, H7S1A9 CA YADA  
Attn: John Pimentel

**CERTIFIED MILL TEST REPORT**

Customer # 000305

Bill to:  
PACIFIC STEEL INC.  
845 Rue Munck,  
Village De Laval PQ, H7S1A9 CANADA  
Attn: John Pimentel

Date: 09 / 09 / 2007

Quality Steel 100% Melted  
and Manufactured in the USA

**GENERAL INFORMATION**

Product Wide Flange Beam

Size W 21 x 55

W 530 x W530x82

Heat Number A036706

Condition(s) As-Rolled  
Fine Grained

**SPECIFICATIONS**

Standards

- ASTM A992/A992M - 06a
- ASTM A709/A709M - 06a
- ASTM A572/A572M - 06
- ASTM A709/A709M - 06a

Grades

- A992 / A992M
- A709 g50/f345
- A572 g50/f345
- A709 g50S/f345S

**SHIPMENT DETAILS**

ROL # 0000123847

Bundle / ASN # Length PCS Customer PO  
020958538 60' 0" 4 18892

**CHEMICAL ANALYSIS (weight percent)**

C	Mn	P	S	Si	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analysis Type
.07	1.01	.015	.044	.16	.028	.013	.021	>.001	.0104	.0003	.31	.34	.16	5.58	Heat

**MECHANICAL TESTING**

Test	Yield (fy)		Tensile (tu)		% Elong. (8" gage)
	ksi / MPa	ratio	ksi / MPa	ratio	
1	51 / 349	.74	68 / 469	.27	
2	57 / 395	.79	73 / 502	.25	
3					
4					
5					
6					
7					

Charpy Impact Tests (available only when specified at time of order)

Temp	Absorbed Energy	Min	Average	Maximum
F / C	Specimen 1	Specimen 2	Specimen 3	Minimum

**Notes:**

\* Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC), Corrosion Index (I)  
 C1 (RW) = C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15  
 C2 (AW) = C + (Mn + Si)/4 + (Cr + Mo + V)/6 + (Ni + Cu)/15  
 I (ASTM G101) = 20.01(Cu) + 3.08(Ni) + 1.20(Cr) + 1.40(Si) + 17.28(P) + 7.28(Cu)(Ni) + 9.10(C) + (P) + 33.33(Cu)

I hereby certify that the content of this report is accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: Doug Rees-Evans

Member of Technical Services

Form 5-100-002-054

Signed: \_\_\_\_\_

Notary Public

My commission expires: \_\_\_\_\_

Statement shall clearly identify the organization submitting the report. Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report.



**Steel Dynamics, Inc.**  
Structural and Rail Division • Columbia City, Indiana

Ship to:  
Triad Metals  
3450 Grand Ave  
Neville Island  
Pittsburgh PA, 15221 US  
Attn: Craig Borrelli

Quality Steel 100% Melted  
and Manufactured in the USA

**CERTIFIED MILL TEST REPORT**

Customer # 000191  
Bill to:  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Pittsburgh PA, 15225 US  
Attn: Fred White

Date: 11/01/2007

Customer Name

Customer PO#

Shipper No

Heat Number

Mandate Erectors & Welding Ltd.

31710

17377

B037994

GENERAL INFORMATION		SPECIFICATIONS		SHIPMENT DETAILS	
Product	Wide Flange Beam	Standards	ASTM A6/A6M	Bundle / ASN #	Length
Size	W 18 x 35			020992284	30' 0"
Heat Number	W 460 x 52			020992286	30' 0"
Condition(s)	B037994			020992287	30' 0"
	As-Rolled			020992289	30' 0"
	Fine Grained			020992283	30' 0"
	Fully Killed				

**CHEMICAL ANALYSIS (weight percent)**

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analyst
.06	.98	.031	.036	.21	.35	.10	.11	.023	.014	.013	.0116	.0004	.28	.32	.15	6.08	11/01

**MECHANICAL TESTING**

Test	Yield (fy)		Tensile (fu)		Elong. (8" gage)	Charpy Impact Temp	Absorbed Energy ft-lbf / J		
	ksi / MPa	ksi / MPa	ksi / MPa	ksi / MPa			Specimen 1	Specimen 2	Specimen 3
1	55 / 377	68 / 471	80	26					Minimum
2	61 / 420	74 / 508	.83	25					
3									
4									
5									
6									
7									

**Notes:** \*Calculated C; Ministry Values; Carbon Equivalents (C1, C2, PC), Corrosion Index (I)  
 CE1 (H<sub>W</sub>) = C + Mn/6 + (C+Mo)/5 + (Ni+Cu)/15  
 CE2 (AWS) = C + (Mn-Si)/6 + (Cr+I)  
 I (ASTM G1) = 26.01(Cu) + 3.88(Ni) + 1.29(Cr) + 1.49(Si) + 17.29(P) + 7.29(Cu)(Ni) - 9.10

I hereby certify that the content of this report are accurate and correct. All tests: operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: Doug Rees-Evans Manager of Technical Services

Form F-6100-002-054

ASTM A6 - 14.6: A signature is not required on the test report, however, the signature of the organization submitting the report, and the report is responsible for the content of the report.

My commission expires \_\_\_\_\_

Notary Public

State of Indiana, County of Whitley Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_ My commission expires \_\_\_\_\_

Notary Public

HT # B037994 is used to label items: B0644, B0655, B753

Customer Name

Customer PO#

Shipper No

Heat Number

Mandate Erectors & Welding Ltd.

31710

17377

B036782

Steel Dynamics, Inc.  
2601 S. County Road 700 East  
Columbiana City, IN 46725  
(260) 625-8100

Certified Mill Test Report  
100% Melting and Manufactured in USA

Customer No: 00191  
Bill of Lading No: 00125263  
K # #: 00124766

Ship to:  
Triad Metals  
3450 Grand Ave  
Neville Island  
Pittsburgh, PA 15125  
Attn: Craig Borrell

Bill to:  
TRIAD METALS INTERNATIONAL  
A-12700 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1†	020947355	W16X36	40'0"	6	A036782	A992 / A992M A709 gr50/gr345 A709 gr50S/gr345S A572 gr50/gr345	ASTM A992/A992M - 06 ASTM A709/A709M - 06 ASTM A709/A709M - 06 ASTM A572/A572M - 06 ASTM A5/A6M	178
2†	020961152	W21X44	45'0"	4	B036782	A992 / A992M A709 gr50/gr345 A709 gr50S/gr345S A572 gr50/gr345	ASTM A992/A992M - 06 ASTM A709/A709M - 06 ASTM A709/A709M - 06 ASTM A572/A572M - 06 ASTM A5/A6M	247
3†	020961156	W21X44	45'0"	4	B036782	A992 / A992M A709 gr50/gr345 A709 gr50S/gr345S A572 gr50/gr345	ASTM A992/A992M - 06 ASTM A709/A709M - 06 ASTM A709/A709M - 06 ASTM A572/A572M - 06 ASTM A5/A6M	247
4†	020962763	W21X44	45'0"	4	A036789	A992 / A992M A709 gr50/gr345 A709 gr50S/gr345S A572 gr50/gr345	ASTM A992/A992M - 06 ASTM A709/A709M - 06 ASTM A709/A709M - 06 ASTM A572/A572M - 06 ASTM A5/A6M	247
5†	020970212	W14X68	50'0"	4	A037107	A992 / A992M A709 gr50/gr345 A709 gr50S/gr345S A572 gr50/gr345	ASTM A992/A992M - 06 ASTM A709/A709M - 06 ASTM A709/A709M - 06 ASTM A572/A572M - 06 ASTM A5/A6M	346

CHEMICAL

Item	C	Min	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1*	.09	.91	.011	.042	.26	.43	.001	.080	.09	.03	.011	.008	.0004	.01	.29	0.3400	0.1700	HEAT
2*	.07	1.06	.019	.023	.18	.28	.024	.120	.11	.04	.012	.010	.0004	.00	.31	0.3400	0.1600	HEAT
3*	.07	1.06	.019	.023	.18	.28	.024	.120	.11	.04	.012	.010	.0004	.00	.31	0.3400	0.1600	HEAT
4*	.08	1.03	.012	.031	.21	.28	.022	.080	.10	.03	.012	.008	.0004	.00	.30	0.3400	0.1600	HEAT
5*	.08	1.22	.019	.028	.19	.37	.032	.110	.12	.03	.012	.010	.0010	.00	.35	0.3800	0.1800	HEAT

HT # B036782 is used to take samples for 178, 247, 346

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed: [Signature]  
Quality Assurance

State of Indiana, County of Whitley  
Sworn to and subscribed before me this \_\_\_ day of \_\_\_, 2012.  
Signed: [Signature] My commission expires: \_\_\_

Special Comments/Information:  
B036782

Customer No: 00191  
Bill of Lading No: 00125263  
K # #: 00124766

**Steel Dynamics, Inc.**  
 2801 S. County Road 700 East  
 Columbus City, IN 46725  
 (770) 625-8100

**Certified Mill Test Report**  
 100% Melted and Manufactured in USA

**Bill to:**  
 TRIAD METALS INTERNATIONAL  
 A-1 2300 Computer Avenue  
 Willow Grove, PA 19390  
 Attn: Fred White

**Ship to:**  
 Triad Metals  
 3450 Grand Ave  
 Neville Island  
 Pittsburgh, PA 15225  
 Attn: Mike Benlock.

**Date:** 1/28/2007  
**Customer No:** 000191  
**Bill of Lading No:** 00001310  
**MTR #:** 000013057


Item	Bundle	Section	Length	Pcs	Heat #	Gr-1e(s)	Specification(s)	Customer P.O.
1†	020995670	W24X68	40' 0"	4	B038149	A992 A992M A709 g 50gr345 A709 g 50gr345 A572 g 50gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	112†
2†	020995672	W24X68	40' 0"	2	B038110	A992 A992M A709 g 50gr345 A709 g 50gr345 A572 g 50gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	112†
2b†	020995672	W24X68	40' 0"	2	B038149	A992 A992M A709 g 50gr345 A709 g 50gr345 A572 g 50gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	112†
3†	020995973	W24X76	35' 0"	4	B038161	A992 A992M A709 g 50gr345 A709 g 50gr345 A572 g 50gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	112†
4†	020996328	W24X76	40' 0"	4	B038178	A992 A992M A709 g 50gr345 A709 g 50gr345 A572 g 50gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	112†

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1*	.07	1.06	.019	.017	.20	.41	.035	.120	10	02	.014	.009	.0004	.00	.31	0.3500	0.1700	HEAT
2a*	.06	1.06	.021	.034	.21	.43	.036	.130	11	.04	.014	.007	.0004	.00	.31	0.3500	0.1600	HEAT
2b*	.07	1.06	.019	.017	.20	.41	.035	.120	10	02	.014	.009	.0004	.00	.31	0.3500	0.1700	HEAT
3*	.08	1.14	.015	.028	.22	.34	.035	.100	13	.04	.015	.010	.0004	.00	.34	0.3700	0.1800	HEAT
4*	.08	1.14	.011	.021	.22	.32	.033	.090	12	04	.013	.007	.0004	.00	.33	0.3600	0.1700	HEAT

**NT # B038149 is melted from item 112 A759**

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed:  Quality Assurance

My commission expires \_\_\_\_\_ day of \_\_\_\_\_

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_ Notary Public

State of Indiana County of Whitley

Special Comments/Information:

Load #: 28

Shipping Date:

Waybill #: 898-28

Customer:	Pizzagalli Construction Company	Prepared By:	Approved By:	Date: 24-01-01
Job Title:	84 Marginal Way	Bathurst Machine Shop Ltd.		10-10 Route 430
Date Sent to Shop:	X	Mandate Erectors & Welding Ltd.		Big River Road
Job Number:	898	MQM Ltd., Tracadie		E2A 6P9

Job Progress Report Sheet

SHEET: 1

Form#12 Rev. 4

\* = SEE SHOP DWG C=COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped					
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date	
A	W24X68	A	B604	1	2085																								
A	W24X62	A	B605	1	2507																								
A	W24X68	A	B606	1	2083																								
A	W24X68	A	B612	1	2036																								
A	W8X15	A	B613	6	1548																								
A	W21X55	A	B635	6	14813			C=1"1/2																					
A	W24X62	A	B652	1	1695																								
A	W24X62	A	B659	1	3621																								
A	W24X68	A	B664	1	3888																								
H	W21X55	A	B669	2	4750			C=1 1/2																					
A	W24X62	A	B671	1	3621																								
H	W8X15	A	B672	1	225																								
H	W8X15	A	B673	2	450																								
A	W24X94	A	B683	1	4043																								
A	II.S.S. 6X6X3/8	0	D513	4	1274																								
A	II.S.S. 6X6X3/8	0	D514	4	1417																								
A	II.S.S. 6X6X1/4	0	M1600	1	431																								
	L4X4X5/16	0	M1601	37	455																								
	L3X3X5/16	0	M1602	7	117																								
	L3X3X5/16	0	M1603	8	98																								

Pieces 87 51157 Total Weight(Lbs)

( 25.6 TONS)



Load #: 28

Customer: Pizzagalli Construction Company  
 Job Title: 84 Marginal Way  
 Date Sent to Shop: X  
 Job Number: 898

SHEET: 2

Prepared By: Bathurst Machine Shop Ltd.  
 Approved By: Mandate Erectors & Welding Ltd.  
 Date: 24-01-01  
 MIQM Ltd., Tracadie  
 1040 Route 430  
 Big River Road  
 E2A 6P9

Form# 12 Rev. 4

\* = SEE SHOP DWG C=COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped				
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date
	L3X3X5/16	0	M604	5	79																							
	L3X3X5/16	0	M605	1	14																							
A	L6X4X3/8	0	M608	1	72																							
A	L6X4X3/8	0	M609	1	57																							
	L3X3X5/16	0	M610	5	46																							
A	H.S.S. 12X6X1/4	0	M627	1	793																							
	L3X3X1/4	0	M629	7	95																							
A	H.S.S. 8X6X5/16	0	M630	1	621																							
A	L6X4X5/16	0	M631	1	276																							
A	H.S.S. 18X6X3/8	0	M634	1	1543																							
A	H.S.S. 18X6X3/8	0	M635	1	1391																							
	L3X3X1/4	0	M638	4	37																							
A	L6X4X3/8	0	M318	2	546																							
a	L6X4X3/8	0	M319	2	831																							
A	H.S.S. 6X6X1/4	0	M700	1	431																							

Pieces 34 6832 Total Weight(Lbs) ( 3.4 TONS)

Atlas Tube Canada ULC  
200 Clark St  
Scarbow, Ontario, Canada  
M0R 1G0  
Tel: 519-738-3541  
Fax: 519-738-3537

Ref.B/L: 80269969  
Date: 12.06.2007  
Customer: 1774



### MATERIAL TEST REPORT

Shipped to  
2555 Francis-Hugues Avenue  
LAVAL QC H7S 2H7  
CANADA

Sold to  
2555 Francis-Hugues Avenue  
ATLAS ULC H7S 2H7  
CANADA

Material: R.0x6 0x313x30"0"0(1x1)REC      Material No: 90060313      Made In: Canada  
Sales order: 351251      Purchase Order: 3550

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
60860		0.210	0.860	0.011	0.005	0.020	0.029	0.020	0.000	0.010	0.010	0.020	0.001

Bundle No: M200493492      Yield: 057060 Psi      Tensile: 072830 Psi      Eln.2in: 34.7 %      Certification: ASTM A500-03A GRADE B&C

Material Note:  
Sales Or Note:

Material: 12 R.4 0x313x32"0"0(1x1)REC      Material No: 120040313      Made in: Canada  
Sales order: 351092      Purchase Order: 3546

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
68180		0.200	0.310	0.009	0.002	0.180	0.035	0.019	0.006	0.002	0.007	0.030	0.000

Bundle No: M200492955      Yield: 057280 Psi      Tensile: 070380 Psi      Eln.2in: 36.3 %      Certification: ASTM A500-03A GRADE B&C

Material Note:  
Sales Or Note:

Material: 12 R.4 0x313x32"0"0(1x1)REC      Material No: 120080305      Made in: Canada  
Sales order: 350225      Purchase Order: 3546

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
680243		0.190	0.790	0.005	0.005	0.015	0.049	0.034	0.004	0.002	0.014	0.019	0.000

Bundle No: M200461958      Yield: 063130 Psi      Tensile: 077710 Psi      Eln.2in: 31.3 %      Certification: ASTM A500-03A GRADE B&C

Material Note:  
Sales Or Note: **HT #680243 is used to Fab. item: M627**

Material: 12 R.4 0x313x32"0"0(1x1)REC      Material No: 120080305      Made In: Canada  
Sales order: 350225      Purchase Order: 3546

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
680243		0.200	0.780	0.009	0.002	0.180	0.049	0.036	0.006	0.003	0.013	0.039	0.000

Bundle No: M200494904      Yield: 057440 Psi      Tensile: 068370 Psi      Eln.2in: 37.3 %      Certification: ASTM A500-03A GRADE B&C

Material Note:  
Sales Or Note:

Quality Assurance: *[Signature]*

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specifications and contract requirements.



Atlas Tube Canada LLC  
1000  
Lamont, Ontario, Canada  
N0R 1G0  
Tel: 519-739-3541  
Fax: 519-739-3537

Ref. B/L: 80269969  
Date: 12.06.2007  
Customer: 1774



### MATERIAL TEST REPORT

Sold to  
Acier Altitude Inc  
2555 Francis-Hugues Avenue  
LAVAL QC H7S 2H7  
CANADA

Shipped to  
Acier Altitude Inc.  
2555 Francis-Hugues Avenue  
LAVAL QC H7S 2H7  
CANADA

Material: 1 1/2 x 1 1/8 x 24" 01424	Material No. 450451892400	Made In: Canada
Sales order: 349942	Purchase Order: 3528	
Heat No: 495803	Yield: 061370 Psi	Tensile: 073530 Psi
	Eln.2in: 29.9 %	
Grade No: M100693352	Certification: ASTM A500-03A GRADE B&C	
Material Note:	Sales Or Note:	

Material: 2 1/2 x 3/8 x 24" 01424	Material No. 500503134500	Made In: Canada
Sales order: 351092	Purchase Order: 3548	
Heat No: 72296	Yield: 060260 Psi	Tensile: 072720 Psi
	Eln.2in: 35.4 %	
Grade No: M100693352	Certification: ASTM A500-03A GRADE B&C	
Material Note:	Sales Or Note:	

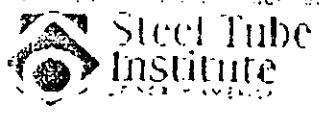
Material: 1 1/2 x 6 x 37 1/2 x 24" 01424	Material No: 180603752400	Made in: Canada
Sales order: 350335	Purchase Order: 3545	
Heat No: 482248	Yield: 055720 Psi	Tensile: 066300 Psi
	Eln.2in: 33.4 %	
Grade No: M200496001	Certification: ASTM A500-03A GRADE B&C	
Material Note:	Sales Or Note:	

*HT # 482248 is used to fab. items' m634, m635*

Material: 2 x 3/8 x 31 1/2 x 40" 016331-CSA	Material No: 0300303134000-CSA	Made in: Canada
Sales order: 346516	Purchase Order: 3521	
Heat No: 480145	Yield: 057700 Psi	Tensile: 079930 Psi
	Eln.2in: 37.7 %	
Grade No: M200496001	Certification: 03A S40.21-04 50W CLASS C	
Material Note:	Sales Or Note:	

Authorized by Quality Assurance: *[Signature]*

The results reported on this report represent the actual distribution of the material furnished and indicate full compliance with all applicable requirements.



Atlas Tube (U.S.) Inc.  
 13101 Eckles Road  
 Plymouth, Michigan, USA  
 48170  
 Tel: 313 454-5600  
 Fax: 313-454-1474

Ref.B/L: 80243954  
 Date: 06.19.2007  
 Customer: 1774



**MATERIAL TEST REPORT**

Sold to

Acier Altitude Inc.  
 2555 Francis-Hugues Avenue  
 LAVAL QC H7S 2H7  
 CANADA

Shipped to

Acier Altitude Inc.  
 2555 Francis-Hugues Avenue  
 LAVAL QC H7S 2H7  
 CANADA

Material: 10.0x6.0x375x26.0"012x21.  
 Sales order: 309232

Material No: 100060375  
 Purchase Order: 3158

Made In: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
280225	0.200	0.790	0.012	0.003	0.150	0.044	0.020	0.005	0.002	0.007	0.032	0.002

Bundle No	Yield	Tensile	Eln.2in
M200450775	064210 Psi	076000 Psi	33.3 %

Certification  
 ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or Note:

Material: 12.0x4.0x500x43.0"012x11  
 Sales order: 3112

Material No: 120040600  
 Purchase Order: 3124

Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
4274G	0.200	0.750	0.008	0.003	0.080	0.044	0.020	0.000	0.020	0.010	0.030	0.000

Bundle No	Yield	Tensile	Eln.2in
M200450992	055580 Psi	071300 Psi	41.8 %

Certification  
 ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or Note:

Material: 5.0x5.0x250x48.0"014x21  
 Sales order: 31346

Material No: 500502504800  
 Purchase Order: 3136

Made In: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
500507	0.200	0.800	0.009	0.007	0.007	0.044	0.024	0.003	0.003	0.011	0.032	0.000

Bundle No	Yield	Tensile	Eln.2in
M100638784	057080 Psi	066500 Psi	33.1 %

Certification  
 ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or Note:

Material: 5.0x6.0x250x48.0"013x21  
 Sales order: 307546

Material No: 500602504800  
 Purchase Order: 3135

Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
893757	0.200	0.500	0.009	0.007	0.007	0.044	0.024	0.003	0.003	0.011	0.032	0.000

Bundle No	Yield	Tensile	Eln.2in
M100639607	057510 Psi	070780 Psi	35.8 %

Certification  
 ASTM A500-03A GRADE C & B

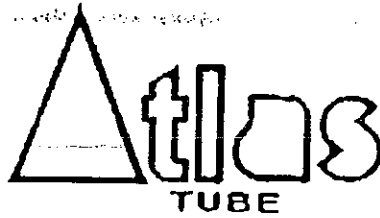
Material Note:  
 Sales Or Note: HT # 893757 is used to fab. item: M600, M700

Authorized by Quality Assurance:



Atlas Tube (U.S.) Inc.  
 13101 Beckles Road  
 Plymouth, Michigan, USA  
 J8170  
 Tel: 313-454-5600  
 Fax: 313-454-1474

Ref.B/L: 80243954  
 Date: 06/19/2007  
 Customer: 1774



**MATERIAL TEST REPORT**

Sold to

Acier Altitude Inc  
 2555 Francis-Hugues Avenue  
 LAVAL QC H7S 2H7  
 CANADA

Shipped to

Acier Altitude Inc.  
 2555 Francis-Hugues Avenue  
 LAVAL QC H7S 2H7  
 CANADA

Material: 6 0x6 0x375x48 0 0(3x2)  
 Sales order: 307546

Material No: 600603754800  
 Purchase Order: 3138  
 Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
130060	0.190	0.790	0.009	0.002	0.160	0.027	0.020	0.005	0.002	0.008	0.028	0.000

Bundle No	Yield	Tensile	Eln.2in
M100639733	051820 Psi	073960 Psi	34.5 %

Certification  
 ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or Note:

Material: 6 0x6 0x375x48 0 0(3x2)  
 Sales order: 307546

Material No: 600603754800  
 Purchase Order: 3138  
 Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
130060	0.190	0.790	0.009	0.002	0.160	0.027	0.020	0.005	0.002	0.008	0.028	0.000

Bundle No	Yield	Tensile	Eln.2in
M100639731	061820 Psi	073960 Psi	34.5 %

Certification  
 ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or Note:

*HT # 450060 is used to Fab. items. D513 D514*

Material: 6 0x6 0x375x48 0 0(3x2)  
 Sales order: 310852

Material No: 700402504000  
 Purchase Order: 3177  
 Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
135830	0.174	0.670	0.010	0.008	0.014	0.042	0.030	0.000	0.000	0.000	0.000	0.000

Bundle No	Yield	Tensile	Eln.2in
M100630115	059550 Psi	072840 Psi	36.4 %

Certification  
 ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or Note:

Material: 6 0x6 0x375x48 0 0(3x2)  
 Sales order: 310852

Material No: 700402504000  
 Purchase Order: 3177  
 Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
135830	0.174	0.670	0.010	0.008	0.014	0.042	0.030	0.000	0.003	0.010	0.000	0.000

Bundle No	Yield	Tensile	Eln.2in
M100630115	059550 Psi	071140 Psi	30.3 %

Certification  
 ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or Note:

Authorized by: Quality Assurance:



Atlas Tube Canada ULC  
 210 Clark St  
 Miramichi, Ontario, Canada  
 NOR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537

Ref. B/C: 80269969  
 Date: 12.06.2007  
 Customer: 1774



**MATERIAL TEST REPORT**

Sold to

Acier Altitude Inc.  
 2555 Francis-Hugues Avenue  
 LAVAL QC H7S 2H7  
 CANADA

Shipped to

Acier Altitude Inc.  
 2555 Francis-Hugues Avenue  
 LAVAL QC H7S 2H7  
 CANADA

Material: 8.0x6.0x313x30"0"0(1x1)REC  
 Sales order: 351251

Material No: 80060313  
 Purchase Order: 3550

Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
3086G	0.210	0.860	0.011	0.005	0.020	0.029	0.020	0.000	0.010	0.010	0.020	0.001

Bundle No	Yield	Tensile	Eln.2in
M200493492	057060 Psi	072830 Psi	34.7 %

Certification  
 ASTM A500-03A GRADE B&C

Material Note:  
 Sales Order Note:

*HT #6056G is used to fab. item m630*

Material: 8.0x6.0x313x30"0"0(1x1)REC  
 Sales order: 351251

Material No: 120040313  
 Purchase Order: 3550

Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
3086G	0.200	0.810	0.009	0.002	0.180	0.035	0.019	0.006	0.002	0.007	0.030	0.000

Bundle No	Yield	Tensile	Eln.2in
M200492495	057280 Psi	070380 Psi	36.3 %

Certification  
 ASTM A500-03A GRADE B&C

Material Note:  
 Sales Order Note:

Material: 12.0x6.0x375x20"0"0(1x1)REC  
 Sales order: 350335

Material No: 120060260  
 Purchase Order: 3546

Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
3086G	0.190	0.790	0.005	0.005	0.015	0.048	0.034	0.004	0.002	0.014	0.019	0.000

Bundle No	Yield	Tensile	Eln.2in
M200481358	063130 Psi	077710 Psi	31.3 %

Certification  
 ASTM A500-03A GRADE B&C

Material Note:  
 Sales Order Note:

Material: 12.0x6.0x375x20"0"0(1x2)  
 Sales order: 350335

Material No: 120060375  
 Purchase Order: 3546

Made in: Canada

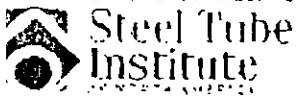
Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
3086G	0.190	0.790	0.005	0.005	0.015	0.048	0.034	0.004	0.002	0.014	0.019	0.000

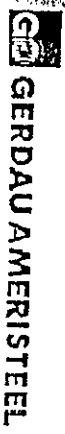
Bundle No	Yield	Tensile	Eln.2in
M200484353	067440 Psi	068370 Psi	37.3 %

Certification  
 ASTM A500-03A GRADE B&C

Material Note:  
 Sales Order Note:

The results reported on this report represent the actual properties of the material furnished and indicate full compliance with all applicable specification and contract requirements.





WHITBY STEEL MILL  
 HOPKINS STREET SOUTH  
 WHITBY ON L1N 5T1 CAN  
 (905) 668-8811

Chemical and Physical Test Report

MADE IN CANADA

W-067313

PRODUCED IN: WHITBY

SHIP TO  
 YORK STEEL INC  
 INDUSTRIAL PARK  
 FREDERICTON, NB E3B 5S4

INVOICE TO  
 YORK STEEL INC  
 ATTS PAYABLE  
 551 WILSEY ROAD  
 FREDERICTON, NB E3B 7K2

SHIP DATE  
 06/21/07  
 CUST. ACCOUNT NO  
 60125663

SALES ORDER  
 6129280-23  
 CUST P.O. NUMBER  
 8527-21

SHAPE + SIZE

GRADE

SPECIFICATION

A3 X 3 X 1/4

44W

C.S.A. G40.21-98 44W/50W; ASTM: A36 - 97a ASTM A709 - 97b ASME: SA36 (A)

HEAT I.D.

C Mn P S Si Cu Ni Cr Mo V Nb B N Sn Al Ti Zr Ca C Eqv

6129280-23

B41642

.16 .78 .012 .031 .19 .30 .10 .07 .026 .000 .000 .0000 .0204 .011 .000 .00000 .000 .00000 .336

6129280-23

Mechanical Test:

Yield 58940 PSI, 406.38 MPA Tensile: 79114 PSI, 545.47 MPA %El: 10.0/8in, 30.0/200MM

Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST

Mechanical Test:

Yield 59078 PSI, 407.33 MPA Tensile: 78520 PSI, 541.38 MPA %El: 10.0/8in, 30.0/200MM

Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST

SHAPE + SIZE

GRADE

SPECIFICATION

A3 X 3 X 1/4

44W

C.S.A. G40.21-98 44W/50W; ASTM: A36 - 97a ASTM A709 - 97b ASME: SA36 (A)

HEAT I.D.

C Mn P S Si Cu Ni Cr Mo V Nb B N Sn Al Ti Zr Ca C Eqv

6129280-19

B41738

.15 .65 .012 .043 .20 .27 .09 .05 .024 .000 .000 .0000 .0096 .010 .000 .00000 .000 .00000 .299

6129280-19

Mechanical Test:

Yield 51691 PSI, 356.4 MPA Tensile: 71679 PSI, 494.21 MPA %El: 30.0/8in, 30.0/200MM

Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST

Mechanical Test:

Yield 52510 PSI, 362.04 MPA Tensile: 72580 PSI, 500.0 MPA %El: 29.4/8in, 30.0/200MM

Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST

HT# B41642 is used to fab. items: M629, M638

This material, including the billets, was produced and manufactured in Canada  
 Bhaskar Yalamanchili  
 Quality Director  
 Gerdau Ameristeel

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS  
 AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.  
 Mgr. Metallurg. Svcs.  
 WHITBY STEEL MILL

# ACIERPAC FIQUE INC.

PART NO.

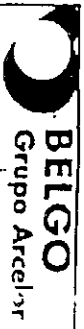
PO/Ref

Certificate of Mill Test Results

PAC-000000 (X)

P. 1/1

Atm:



**BELGO**  
Grupo Arcelor

QUALITY CERTIFICATE


Ref. Nr.: 014200/2007  
Pag.: 01

Customer: ARCELOR INTERNATIONAL CANADA, INC  
Product: ANGLES 3X5/16-X40FT CSA 350M A1C  
Purchase Order: P1200407 Q2-2007-0

Size: 3 X 5/16 X 40  
Order Number: 2303618  
Grade: CSA 350M

Heat	Nr.	Weight (kg)	YIELD POINT	TENSILE STRENGTH	ELONGATION	% C	% Mn	% P	% S	% Pb	% Cu
Col 1			MPa	MPa	%						
6000900	8	15.972	402	534	24.00	0.140	1.760	0.150	0.027	0.020	0.018
TOTAL		8	15.952								
Heat	% Z	% M1	% S2	% Mo							
6000900	0.070	0.050	0.017	0.013							

Remarks: We hereby certify that the material herein listed was produced, inspected, tested and approved in accordance with the standard or the specification required.

Date: 27/JUL/2007  
Approved by:   
General Manager  
Belgo Siderurgica S/A.

HT# 6000900 is used to fab. items: m602 to m605, m610

8/3/2007

180  
Angle 7

Page 7 of 23



WHITBY STEEL MILL  
 HOPKINS STREET SOUTH  
 WHITBY ON L1N 5T1 GAN  
 (905) 668-8811



Chemical and Physical Test Report

MADE IN CANADA

W-072007

PRODUCED IN: WHITBY

SHIP TO  
 YORK STEEL INC  
 INDUSTRIAL PARK  
 FREDERICTON, NB E3B 5S4

INVOICE TO  
 YORK STEEL INC (FRED  
 ACCTS PAYABLE  
 550 WILSEY ROAD  
 FREDERICTON, NB E3B 7K2

SHIP DATE  
 10/01/07  
 CUST. ACCOUNT NO  
 60125663

SHAPE + SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST P.O. NUMBER
A5 X 5 X 3/8	44W	C.S.A. G40.21-04 44W/50W; ASTM: A36 - 05a ASTM A709 - 05b AS 709 - 05b SA36 (A)	7069647-11	09505-11
HEAT ID.	C	S		
B43389	.14	.034		
	Mn .68	P .013		
	S .17	Si .29		
	Cu .11	Ni .07		
	Cr .07	Mo .040		
	V .000	Nb .011		
	R .000	F .0137		
	N .010	Sn .010		
	Al .000	Ti .000		
	Zr .000	Ca .000		
	C Eqv .299			

Mechanical Test: Yield 55797 PSI, 384.71 MPA Tensile: 76308 PSI, 528.13 MPA %El: 23.6/8in, 23.6/200MM  
 Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST  
 Mechanical Test: Yield 56555 PSI, 389.93 MPA Tensile: 77199 PSI, 532.27 MPA %El: 25.0/8in, 25.0/200MM  
 Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST

SHAPE + SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST P.O. NUMBER
A4 X 4 X 5/16	44W	C.S.A. G40.21-04(44W); ASTM: A36 - 05a ASTM A709 - 05b ASME SA36 - 00a	7056075-05	9348-05
HEAT ID.	C	S		
B43413	.18	.024		
	Mn .69	P .013		
	S .15	Si .28		
	Cu .11	Ni .09		
	Cr .030	Mo .000		
	V .000	Nb .000		
	B .000	F .0132		
	N .010	Sn .010		
	Al .000	Ti .000		
	Zr .000	Ca .000		
	C Eqv .35			

HT# B43413 is used to fab. item: M601

This material, including the billets, was produced and manufactured in Canada  
 Bhaskar Yr. Manchill  
 Quality Dir for  
 Gerdau Am. Steel

*Machery*

*B. P. ...*

V HITBY STEEL MILL  
 P.O. Metallurg. Svcs.

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

Seller warrants that all material furnished shall comply with specifications subject to standard published manufacturing practices. NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE MADE BY THE SELLER AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.  
 In no event shall seller be liable for indirect, consequential or punitive damages arising out of or related to the material furnished by seller.  
 Any claim for damages for materials that do not conform to specifications must be made from buyer to seller immediately after delivery of same in order to allow the seller the opportunity to inspect the material in question.

PART NO.

Attn:

客户名称: 江苏舜天投资有限公司  
 代理商: TIANJIN SANYI HANTANG TRADING COMP. LTD  
 交易日期: 2007年5月16日  
 发票日期: 2007年5月16日  
 合同号: 25HZ001/SHT01-2007

MILL TEST CERTIFICATE  
 产品名称: 热轧带钢  
 化学成分: 符合 GB 22388-2002 标准  
 执行标准: GB 22388-2002  
 炉号: 25HZ001/SHT01-2007  
 规格: 1500\*1000\*12.5  
 钢厂: 济钢

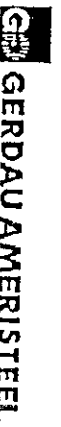
原产地: 中国  
 生产商: CHINA  
 销售商: 山东舜天投资有限公司  
 地址: TIANJIN SANYI HANTANG TRADING CO., LTD

批号 ID NO.	规格 RELATION	卷重 GROSS WEIGHT	化学成分 (wt%)										机械性能				
			C	SI	Mn	P	S	NI	Cr	Ca	V	N	Nb	屈服强度 YIELD STRENGTH (MPa)	抗拉强度 TENSILE STRENGTH (MPa)	伸长率 ELONGATION (%)	
4445016	B	33	0.16	0.10	1.28	0.012	0.022	0.09	0.12	0.20	0.012	0.11	0.005	365	560	26	OK
5445016	B	22	0.18	0.28	1.25	0.011	0.023	0.10	0.12	0.23	0.015	0.14	0.005	365	565	24	OK
5945016	B	26	0.15	0.31	1.19	0.023	0.021	0.10	0.11	0.22	0.015	0.11	0.006	359	570	24	OK
8445016	B	7	0.16	0.26	1.20	0.023	0.025	0.12	0.10	0.21	0.016	0.11	0.004	363	575	27	OK
4435016	B	32	0.15	0.29	1.22	0.017	0.028	0.13	0.13	0.20	0.017	0.12	0.004	349	538	24	OK
3212016	B	61	0.19	0.31	1.27	0.010	0.031	0.11	0.12	0.23	0.014	0.12	0.007	351	562	26	OK
44312016	B	35	0.17	0.28	1.24	0.029	0.027	0.13	0.10	0.21	0.016	0.12	0.006	352	565	27	OK
59312016	B	26	0.19	0.25	1.23	0.021	0.026	0.10	0.13	0.26	0.020	0.12	0.006	350	569	25	OK
6445016	B	22	0.20	0.34	1.25	0.019	0.030	0.13	0.14	0.24	0.022	0.13	0.007	361	555	24	OK
6445016	B	26	0.18	0.32	1.29	0.018	0.029	0.13	0.11	0.25	0.019	0.12	0.004	360	560	28	OK
7445016	B	15	0.16	0.27	1.32	0.010	0.024	0.12	0.10	0.22	0.018	0.12	0.004	357	570	29	OK



REMARKS: SHIPPED ON MV. YELLOW BOWTIE  
 检验员: 李平  
 日期: 2007年5月16日

HT # T-7241 is used to fab items: M608, M609, M319, M609



WHITBY STEEL MILL  
 HOPKINS STREET SOUTH  
 WHITBY ON L1N 5T1 CAN  
 (905) 666-8811

Chemical and Physical Test Report  
 MADE IN CANADA

W-063354

PRODUCED IN: WHITBY

SHIP TO  
 YORK STEEL INC  
 INDUSTRIAL PARK  
 FREDERICTON, NB E3B 5S4

INVOICE TO  
 YORK STEEL INC (FRED)  
 ACCTS PAYABLE  
 550 WILSEY ROAD  
 FREDERICTON, NB E3B 7K2

SHIP DATE  
 03/28/07

CUST. ACCOUNT NO  
 60125663

SHAPE + SIZE: A6 X 4 X 3/8  
 HEAT ID: B41371  
 GRADE: 44W  
 SPECIFICATION: CSA-G40.21-98(44W); ASTM A36M; 01a ASTM709-07b ASME:SA36-00a

Mechanical Test: Yield 49307 PSI, 339.96 MPA Tensile: 73960 PSI, 509.94 MPA %El: 26.2/8in, 26.2/200MM  
 Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST

Mechanical Test: Yield 50112 PSI, 345.51 MPA Tensile: 72907 PSI, 502.68 MPA %El: 26.2/8in, 26.2/200MM  
 Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST

SALES ORDER: 6113629-07  
 CUST P.O. NUMBER: 8311-07

SHAPE + SIZE: A6 X 4 X 5/16  
 HEAT ID: B41243  
 GRADE: 44W  
 SPECIFICATION: C.S.A. G40.21-98 (44W); ASTM: A36 - 97a ASTM709-97b ASME: SA36 (A)

Mechanical Test: Yield 50921 PSI, 351.09 MPA Tensile: 73145 PSI, 504.32 MPA %El: 22.5/8in, 22.5/200MM  
 Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST

Mechanical Test: Yield 51059 PSI, 352.04 MPA Tensile: 72457 PSI, 499.57 MPA %El: 22.5/8in, 22.5/200MM  
 Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST

SALES ORDER: 7022674-10  
 CUST P.O. NUMBER: 8880-10

HF# B41243 is the part item. M631

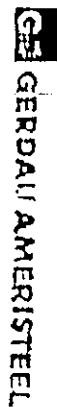
This material, including the billets, was produced and manufactured in Canada  
 Bhasakar Yalamanchilli  
 Quality Director  
 Gerdau Ameristeel

*Mhaskey*

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

Mgr. Metallurg. Svcs.  
 WHITBY STEEL MILL

*B. C. B. B.*



CARTERSVILLE STEEL MILL  
384 OLD GRASSCRAFT RD NE  
CARTERSVILLE GA 31212 USA  
(770) 287-3000

Checked and Typed Test Report  
M: DEINI KATED STALES

G 1077-S

PRODUCED IN: CARTERSVILLE

SHIP TO  
TRIAD METAL  
1931 BESSEMER ROAD  
804-732-6000  
PETERSBURG VA 27806

INVOICE TO  
TRIAD METALS INTERNATIONAL  
METAL TRADERS INC  
2330 COMPUTER AVE STE A 1  
WILLOW GROVE, PA 19080

SHIP DATE  
12/20/07  
CUST. ACCOUNT NO  
40210035

SHAPE + SIZE	GRADE	SPECIFICATION
WB X 15#	A572/50/92	ASTM A572 G50-07, ASTM A592-06A

SALES ORDER#	CUST P.O. NUMBER
7081943-04	149144

HEAT ID	C	Mn	P	S	Si	Al	N	As	Se	Fe	Ca	Zn	C Equ
G706468	16	30	0.13	0.21	20	24	08	04	0.19	0.01	0.009	0.007	0.010

SALES ORDER#	CUST P.O. NUMBER
7081943-04	149144

Customer Requirements: Y441 57700 PSI, 397.63 MPa Tensile; 76600 PSI, 529.14 MPa Y<sub>0.2</sub>; 72.08%, 22.020044 Elong; 5.08 Elong; 5.08

Customer Requirements: Y441 58500 PSI, 403.34 MPa Tensile; 77900 PSI, 537.1 MPa Y<sub>0.2</sub>; 22.18%, 22.170044 Elong; 5.08 Elong; 5.08

HEAT ID	C	Mn	P	S	Si	Al	N	As	Se	Fe	Ca	Zn	C Equ
G706468	16	30	0.13	0.21	20	24	08	04	0.19	0.01	0.009	0.007	0.010

HT # G706468 is used to Fab. Items: B613, B672, B673

This material, including the labels, was produced and manufactured in the United States of America

Bradley Yamanaka  
Quality Director  
Gerdau Ameristeel

Mr. Medling, Specs  
CARTERSVILLE STEEL

Seller warrants that all material furnished shall comply with specifications subject to standard published manufacturing variations. NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, ARE MADE BY THE SELLER AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Any claim for damages for materials that do not conform to specifications must be made from buyer to seller immediately upon delivery of same in order to allow the seller the opportunity to inspect the material in question.

THE ABOVE GUARANTEES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL PHYSICAL AND CHEMICAL TEST RECORDS AS CONTAINED IN THE PAYMENT RECORDS OF COMPANY.

# ACIER PACIFIQUE INC.

PART NO.

PORR

Certificate of Mill Test Results  
PAC-000000-000

Pg 1/1



**Steel Dynamics, Inc.**

301 East 10th Street, Toledo, OH 43604

## CERTIFIED MILL TEST REPORT

Customer # 000305

Date 09/09/2007

Ship to:  
PACIFIC STEEL INC.  
845 Rue Munck, Chomedey  
C/O Valport Maritime Services  
Village De Laval PQ, H7S1A9 CANADA  
Attn: John Pimental

Bill to:  
PACIFIC STEEL INC.  
845 Rue Munck,  
Village De Laval PQ, H7S1A9 CANADA  
Attn: John Pimental

### GENERAL INFORMATION

Product: Wide Flange Beam  
Size: W 21 x 55  
W 530 X W530X82  
Heat Number: A036706  
Condition(s): As-Rolled  
Fire Graded

### SPECIFICATIONS

Standards:  
ASTM A588  
ASTM A992/A992M  
ASTM A709/A709M  
ASTM A572/A572M  
ASTM A709/A709M

Grades:  
A992 / A992M  
A709 Gr50/Gr345  
A572 Gr50/Gr345  
A709 Gr50/Gr345

### SHIPMENT DETAILS

Bundle / ASN # Length Pcs Customer PO  
07-055238 8' 0" 1 1800

ROL # 000023847

### CHEMICAL ANALYSIS (Weight Percent)

C	Mn	P	S	SI	Cu	NI	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analysis Type
.07	1.01	.015	.044	.16	.46	.11	.11	.02	.013	.021	>.001	.0104	.0003	.31	.34	.16	5.58	Heat

### MECHANICAL TESTING

Test	Yield (Fy) ksi / MPa	Tensile (Fu) ksi / MPa	Ey / Fu Ratio	% Elong. (8" gage)
1	51 / 348	68 / 460	.74	27
2	57 / 395	73 / 502	.70	26
3				
4				
5				
6				
7				

Charpy Impact Tests (available only when specified at time of order)

Temp F / C	Absorbed Energy Specimen 1	Specimen 2	Specimen 3	Average	Minimum

### Notes:

\* Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC), Corrosion Index (I)  
CEI (Mn)-C-Mn/Fe-(Cr+Mo+V)/S-(Ni+Cu)15  
CEI (Mn)-C-Mn/Fe-(Cr+Mo+V)/S-(Ni+Cu)15  
1 (ASTM G101)= 26.01(Cu)+3.68(Ni)+1.20(Cr)+1.48(Si)+1.72(P)+2.90(Cu)(Mn)+1.0(Ni)(P)+33.39(Cu)<sup>2</sup>  
Pcm (AWS) = C+Si/30+Mn/20+Cr/20+Nb/10+V/10+5/8

I hereby certify that the content of this report is accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed:

*Doug Rees-Evans*

Signed:

Henry Public

My commission expires:

HT # A036706 is used to Fab. Items: B635, B669

PART NO.

DATE	10/19/07
INVOICE NO.	177662
BILL OF LADING	873406
CUSTOMER NO.	7460
CUSTOMER P.O.	18384

NUCOR-YAMATO STEEL CO.  
P.O. BOX 1228 • BLYTHEVILLE, AR 72318

CERTIFIED MILL TEST REPORT

100% MELTED AND MANUFACTURED IN U.S.A.  
All shapes produced by Nucor-Yamato Steel are cast and rolled to a fully killed and fine grain practice.

S  
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PACIFIC STEEL C/O  
ARRIMAGE IDEAL  
CN SIDING B076  
LONGUEUIL, QUEBEC CANADA

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ASTM A992/A992M-06a A572/A572M GR50-06  
ASTM A709/A709M-07 GR50 (345)  
ASTM A709/A709M-07 GR50B (345B)  
ASTM A6/A6M-07

S  
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PACIFIC STEEL  
845 MUNCK, CROMEDY  
CANADA  
LAVAL, QC  
H7S 1A9

DESCRIPTION	QTY	HEAT #	MECHANICAL PROPERTIES						CHEMICAL PROPERTIES												
			YELD TO TENSILE RATIO	YELD STRENGTH		TENSILE STRENGTH	ELONG	CHARPY IMPACT		C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Cb	CE
				PSI	MPa			°F	FT-LBS												
				MPa	MPa			°C	JOULES												
1 W24 - 62.0 60' W610 x 92.0 18.288 M	2	304698	.75	58000	77000	23			.07	1.20	.023	.029	.32	.30	.09	.03	.02	.00	.024	.32	
			.74	57000	77000	23											.01	.16			
2 W24 - 62.0 60' W610 x 92.0 18.288 M	5	304700	.74	58000	78000	24			.08	1.21	.019	.034	.31	.30	.09	.08	.02	.00	.021	.33	
			.74	57000	77000	24											.01	.17			
				400	538	24															
				393	531	24															

ELONGATION BASED ON 8.00 INCH GAUGE LENGTH

I hereby certify that the contents of this report are accurate and correct. All test results and operations performed by this material manufacturer are in compliance with the requirements of the material specifications listed in the Specifications Block above.

*Ray Lennell*  
QUALITY ASSURANCE

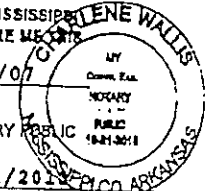
CUSTOMER COPY

STATE OF ARKANSAS COUNTY OF MISSISSIPPI  
SWORN TO AND SUBSCRIBED BEFORE ME THIS

19 Day of 10/07

*Charlene Wallis* NOTARY PUBLIC

MY COMMISSION EXPIRES 10/21/2012



HI # 304698 is used to Fab items: B605, B652, B659, B671

**Steel Dynamics, Inc.**  
 2111 S. County Road 700 East  
 Columbus, IN 46725  
 (317) 625-8100

Date: 11/28/2007  
 Customer No: 000191  
 Bill of Lading No: 0000131079  
 MTR #: 0000130532

Ship to:  
 Trad Metals  
 3450 Grand Ave  
 Neville Island  
 Pittsburgh, PA 15225  
 Attn: Mike Benlock

Bill to:  
 TRAD METALS INTERNATIONAL  
 A-1 2300 Computer Avenue  
 Willow Grove, PA 19080  
 Attn: Fred White

100% Tested and Manufactured in USA

Item	Bundle	Section	Length	Pcs	Heat #	Grade	Sp	Specification(s)	Customer P.O.
1†	020995670	W24X68	40' 0"	4	B038149	A992 / A A709 g5f A709 g50f A572 g5f	12M 1345 1345S 1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	1179
2†	020995672	W24X68	40' 0"	2	B038110	A992 / A A709 g5f A709 g50f A572 g5f	12M 1345 1345S 1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	1179
3†	020995973	W24X76	35' 0"	4	B038161	A992 / A A709 g5f A709 g50f A572 g5f	12M 1345 1345S 1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 05	1179
4†	020996328	W24X76	40' 0"	4	B038178	A992 / A A709 g5f A709 g50f A572 g5f	12M 1345 1345S 1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	1179

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Ca	C1	C2	PC	Analysis
1†	.07	1.06	.019	.017	.20	.41	.035	.120	.10	.02	.014	.009	.0004	.00	.31	0.3500	0.1700	HEAT
2†	.06	1.06	.021	.034	.21	.43	.036	.130	.11	.04	.014	.007	.0004	.00	.31	0.3500	0.1600	HEAT
2b†	.07	1.06	.019	.017	.20	.41	.035	.120	.10	.02	.014	.009	.0004	.00	.31	0.3500	0.1700	HEAT
3†	.08	1.14	.015	.028	.22	.34	.035	.100	.13	.04	.015	.010	.0004	.00	.34	0.3700	0.1800	HEAT
4†	.08	1.14	.011	.021	.22	.32	.033	.090	.12	.04	.011	.007	.0004	.00	.33	0.3600	0.1700	HEAT

**NY # B038149 is used to fab items: Block, Block Roll, Block**

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

State of Indiana, County of Whitley

Sworn to and subscribed before me this 28th day of November, 2007.

Signed: [Signature] Notary Public

My commission expires 11/09/08

Quality Assurance

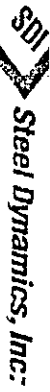
Special Comments/Information

Customer Name  
Mandate Erectors & Welding Ltd.

Customer PO#  
31710

Shipper No  
17377

Heat Number  
B038149



2601 S County Road 700 East  
Columbia City, IN 46725-  
(260) 625-8100

**Certified Mill Test Report**  
100% Melted and Manufactured In USA

Date: 01/14/2011  
Customer No: 000191  
Bill of Lading No: 0000118729  
MTR #: 0000118302

Ship to:  
Triad Metals International  
Triad Customer P/U  
Attn: Sally

SHIP TO:  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grades(s)	Specification(s)	Customer P.O.
1†	000023536	W21X62	44' 0"	1	A034653	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
2†	020902071	W24X94	43' 6"	2	B034476	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
3†	020902073	W24X94	43' 5"	2	B034476	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
4†	020902113	W24X94	43' 6"	1	B034477	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
5†	020905203	W21X62	44' 0"	4	A034635	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
6†	020906434	W21X62	44' 0"	4	A034653	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Ch	C1	C2	PC	Analysis
1*	.08	1.17	.012	.036	.27	.32	.034	.070	.13	.04	.012	.009	.0004	.00	.33	0.3800	0.1800	HEAT
2*	.07	1.35	.017	.028	.22	.50	.046	.130	.13	.14	.016	.010	.0003	.00	.38	0.4200	0.1900	HEAT
3*	.07	1.35	.017	.028	.22	.50	.046	.130	.13	.14	.016	.010	.0003	.00	.38	0.4200	0.1900	HEAT
4*	.07	1.35	.020	.038	.20	.49	.043	.120	.12	.13	.014	.010	.0003	.00	.38	0.4100	0.1900	HEAT
5*	.08	1.15	.016	.038	.25	.40	.035	.120	.12	.15	.015	.009	.0004	.00	.34	0.3900	0.1800	HEAT
6*	.08	1.17	.012	.036	.27	.32	.034	.070	.13	.04	.012	.009	.0004	.00	.33	0.3800	0.1800	HEAT

**Tension Testing Results**

Item	Test	Yield (Fy) Strength ksi/MPa	Tensile (Fu) Strength ksi/MPa	Fy/Fu	Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp F/C	Sample 1 ft. lb/oules	Sample 2 ft. lb/oules	Sample 3 ft. lb/oules	% Shear	ASTM Grain Size No (per ASTM E112)
1	1	55/376	75/519	.73	24		1						
1	2	62/431	77/533	.81	22		2						
2	1	59/408	76/521	.78	18		1						

**Charpy Impact Testing Results**

hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

State of Indiana, County \_\_\_\_\_  
Whitley \_\_\_\_\_  
Sworn to and subscribed \_\_\_\_\_ day of \_\_\_\_\_  
Notary Public \_\_\_\_\_

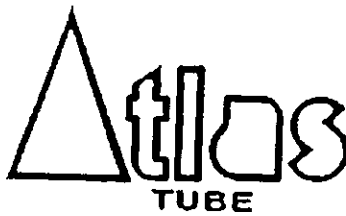
Special Comments/Information  
**HT # B034476 is used to Fabricate: B663**

Signed: \_\_\_\_\_  
Quality Assurance

My commission expires \_\_\_\_\_



Atlas Tube Canada ULC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 NOR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537



Ref.B/L: 80263316  
 Date: 10.24.2007  
 Customer: 1751

**Sold to**

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

**MATERIAL TEST REPORT**

**Shipped to**

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Material: 8.0x8.0x625x50"0(2x1).  
 Sales order: 335491

Material No: 80080625  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002
Bundle No	Yield	Tensile	Eln.2in	Certification									
M200482103	063150 Psi	076440 Psi	34.3 %	ASTM A500-03A GRADE B&C									

Material Note:  
 Sales Or.Note:

Material: 8.0x8.0x625x50"0(2x1).  
 Sales order: 335491

Material No: 80080625  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002
Bundle No	Yield	Tensile	Eln.2in	Certification									
M200482102	063150 Psi	076440 Psi	34.3 %	ASTM A500-03A GRADE B&C									

Material Note:  
 Sales Or.Note:

Material: 10.0x10.0x625x18"0(2x2).  
 Sales order: 335491

Material No: 100100625  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
583750	4	0.200	0.810	0.011	0.002	0.160	0.034	0.015	0.006	0.002	0.007	0.022	0.000
Bundle No	Yield	Tensile	Eln.2in	Certification									
M200483575	054920 Psi	073670 Psi	38.5 %	ASTM A500-03A GRADE B&C									

Material Note:  
 Sales Or.Note:

Material: 10.0x10.0x625x18"0(2x2).  
 Sales order: 335491

Material No: 100100625  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
583750	4	0.200	0.810	0.011	0.002	0.160	0.034	0.015	0.006	0.002	0.007	0.022	0.000
Bundle No	Yield	Tensile	Eln.2in	Certification									
M200483574	054920 Psi	073670 Psi	38.5 %	ASTM A500-03A GRADE B&C									

Material Note:  
 Sales Or.Note:

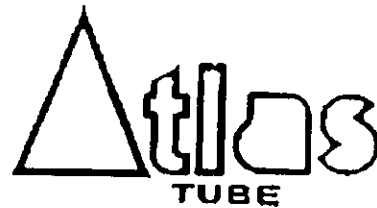
Authorized by Quality Assurance: *M. White*

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.



Atlas Tube Canada LLC  
1000-100  
Lafayette, Ontario, Canada  
M9R 1G9  
Tel: 519-738-3641  
Fax: 519-738-3537

Ref.B/L: 80269969  
Date: 12.06.2007  
Customer: 1774



### MATERIAL TEST REPORT

Sold to

Acier Altitube Inc  
2555 Francis-Hugues Avenue  
LAVAL QC H7S 2H7  
CANADA

Shipped to

Acier Altitube Inc.  
2555 Francis-Hugues Avenue  
LAVAL QC H7S 2H7  
CANADA

Material: 1.5x1.5x188x24"0(4x4)

Material No. 450451822400

Made In: Canada

Purchase Order: 3528

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
450603	16	0.190	0.800	0.019	0.006	0.016	0.048	0.044	0.000	0.007	0.020	0.045	0.000

Bundle No	Yield	Tensile	Eln.2in
M100695963	061370 Psi	073530 Psi	29.9 %

Certification  
ASTM A500-03A GRADE B&C

Material Note:  
Sales Or Note

Material: 5.0x5.0x313x45"0(4x2)

Material No: 500503134800

Made In: Canada

Purchase Order: 3548

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
72296	8	0.190	0.830	0.009	0.009	0.020	0.027	0.060	0.000	0.010	0.010	0.020	0.000

Bundle No	Yield	Tensile	Eln.2in
M100693352	060260 Psi	072720 Psi	35.4 %

Certification  
ASTM A500-03A GRADE B&C

Material Note:  
Sales Or Note

Material: 1.8x3.0x375x24"0(1x4)

Material No: 1800603752400

Made in: Canada

Purchase Order: 3546

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
482248	4	0.190	0.800	0.016	0.006	0.160	0.035	0.035	0.008	0.003	0.015	0.062	0.000

Bundle No	Yield	Tensile	Eln.2in
M200496031	055720 Psi	066300 Psi	33.4 %

Certification  
ASTM A500-03A GRADE B&C

Material Note:  
Sales Or Note

Material: 1.0x3.0x313x40"0(16x3)-CSA

Material No: 0300303134000-CSA

Made in: Canada

Sales order: 348516

Purchase Order: 3521

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
080456	18	0.200	0.810	0.007	0.004	0.160	0.036	0.053	0.005	0.006	0.022	0.043	0.000

Bundle No	Yield	Tensile	Eln.2in
M100695790	068060 Psi	079930 Psi	27.7 %

Certification  
CSA G40.21-04 S0W CLASS C

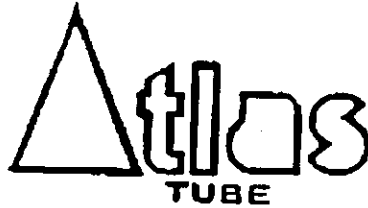
Material Note:  
Sales Or Note

Authorized by Quality Assurance: *[Signature]*

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements



Atlas Tube Canada ULC  
200 Clark St.  
Barrow, Ontario, Canada  
N0R 1G0  
Tel: 519-738-3641  
Fax: 519-739-3537



Ref.B/L: 80254489  
Date: 08.26.2007  
Customer: 1774

Sold to

Acier Altitude Inc.  
2555 Francis-Hugues Avenue  
LAVAL QC H7S 2H7  
CANADA

**MATERIAL TEST REPORT**

Shipped to

Acier Altitude Inc.  
2555 Francis-Hugues Avenue  
LAVAL QC H7S 2H7  
CANADA

Material: 7 O x 7.0 x 500 x 48" O (3x1) PB  
Sales order: 326648

Material No: 70070500  
Purchase Order: 3287

Made in: Canada

Heat No	Pcs	C	Mn	P	S	SI	Al	Cu	Cb	Mo	Ni	Cr	V
487273		0.200	0.780	0.010	0.003	0.150	0.034	0.046	0.004	0.003	0.017	0.053	0.000
Bundle No	Yield	Tensile	Eln.2in	Certification									
M200468200	061100 Psi	076190 Psi	33.3 %	ASTM A500-03A GRADE B&C									

Material Note:  
Sales Or Note:

Material: 8 O x 8.0 x 260 x 48" O (3x2) PB  
Sales order: 326648

Material No: 80080250  
Purchase Order: 3287

Made in: Canada

Heat No	Pcs	C	Mn	P	S	SI	Al	Cu	Cb	Mo	NI	Cr	V
884320		0.190	0.780	0.012	0.008	0.013	0.045	0.042	0.004	0.003	0.011	0.036	0.000
Bundle No	Yield	Tensile	Eln.2in	Certification									
M200467810	056790 Psi	068730 Psi	32.8 %	ASTM A500-03A GRADE B&C									

Material Note:  
Sales Or Note:

Material: 8 O x 8 O x 313 x 48" O (2x1) PB  
Sales order: 326648

Material No: 80080313  
Purchase Order: 3287

Made in: Canada

Heat No	Pcs	C	Mn	P	S	SI	Al	Cu	Cb	Mo	NI	Cr	V
480921		0.200	0.800	0.011	0.004	0.170	0.031	0.061	0.007	0.006	0.018	0.050	0.000
Bundle No	Yield	Tensile	Eln.2in	Certification									
M200467577	065590 Psi	080300 Psi	32.8 %	ASTM A500-03A GRADE B&C									

Material Note:  
Sales Or Note:

Material: 8 O x 8 O x 500 x 48" O (2x2) PB  
Sales order: 326648

Material No: 80080500  
Purchase Order: 3287

Made in: Canada

Heat No	Pcs	C	Mn	P	S	SI	Al	Cu	Cb	Mo	Ni	Cr	V
8213		0.200	0.880	0.007	0.008	0.020	0.037	0.060	0.000	0.010	0.020	0.020	0.000
Bundle No	Yield	Tensile	Eln.2in	Certification									
M200463439	059130 Psi	069650 Psi	39.5 %	ASTM A500-03A GRADE B&C									

Material Note:  
Sales Or Note:

Authorized by Quality Assurance: *M. White*

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.



Atlas Tube Inc  
 200 Clark St  
 Toronto, Ontario Canada  
 M5R 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537

Ref.B/L: 80216328  
 Date: 11.16.2006  
 Customer: 1

# Atlas TUBE INC.

## MATERIAL TEST REPORT

Material: 8 Ox8 Ox260x48"O"(2x2)      Material No: 800802504800      Made In: Canada  
 Sales order: 262530      Purchase Order: 27501

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
205508	0.150	0.910	0.010	0.021	0.011	0.069	0.070	0.001	0.004	0.040	0.020	0.008

Bundle No: M200391033      Yield: 056230 Psi      Tensile: 068430 Psi      Elongation: 34.8 %      Certification: ASTM A500-03A GRADE C & B

Material Note:  
Sales Or. Note:

Material: 8 Ox8 Ox260x48"O"(2x2)      Material No: 800802504800      Made In: Canada  
 Sales order: 260737      Purchase Order: 27856

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
205508	0.150	0.730	0.015	0.023	0.040	0.060	0.040	0.000	0.000	0.030	0.020	0.000

Bundle No: M200391033      Yield: 054810 Psi      Tensile: 066190 Psi      Elongation: 35.0 %      Certification: ASTM A500-03A GRADE C & B

Material Note:  
Sales Or. Note:

Material: 8 Ox8 Ox260x48"O"(2x2)      Material No: 800802504800      Made In: Canada  
 Sales order: 262630      Purchase Order: 27901

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
208608	0.150	0.730	0.015	0.023	0.040	0.060	0.040	0.000	0.000	0.030	0.020	0.000

Bundle No: M200391037      Yield: 054810 Psi      Tensile: 066190 Psi      Elongation: 35.0 %      Certification: ASTM A500-03A GRADE C & B

Material Note:  
Sales Or. Note:

Material: 10 Ox6 Ox500x48"O"(2x2)      Material No: 1000805004800      Made In: Canada  
 Sales order: 260737      Purchase Order: 27858      Heat 8279B

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
8279B	0.200	0.840	0.009	0.006	0.020	0.028	0.040	0.000	0.010	0.020	0.020	0.000

Bundle No: M200390566      Yield: 059720 Psi      Tensile: 072880 Psi      Elongation: 39.0 %      Certification: ASTM A500-03A GRADE C & B

Material Note:  
Sales Or. Note:

Authorized by Quality Assurance: *[Signature]*





# Steel Dynamics, Inc.

STEEL AND RAIL DIVISION • Charlotte, NC  
 Ship to:  
 Triad Metals Intl  
 1951 Bessemer Road  
 CSX-Officer Yard  
 Petersburg, VA, 23005 US  
 Attn: Rock's Govern

# CERTIFIED MILL TEST REPORT

Customer # 000191  
 Date: 10 / 25 / 2007  
 Bill to:  
 TRIAD METALS INTERNATIONAL  
 A-1 2300 Computer Avenue  
 Petersburg, VA, 23005 US  
 Attn: Fred White

Quality Steel 100% Made  
 and Manufactured in the USA

### GENERAL INFORMATION

Product Wide Flange Beam  
 Size W 16 x 36  
 W 410 x 53  
 Heat Number B038089  
 Condition(s) As-Rolled  
 Fine Grained  
 Fully Killed

### SPECIFICATIONS

Standards  
 ASTM A992/A992M 06a  
 ASTM A709/A709M 06a  
 ASTM A572/A572M 06  
 ASTM A709/A709M 06a

### Grades

A992 / A992M  
 A709 Gr50/Gr345  
 A572 Gr50/Gr345  
 A709 Gr50S/Gr345S

SHIPMENT DETAILS  
 Bundle / ASN # Length PCS Customer PO  
 020894248 70' 0" 6 99712060

### CHEMICAL ANALYSIS (weight percent)

C	Mn	P	S	Si
.06	.95	.016	.028	.24

### MECHANICAL TESTING

Yield (fy)	Tensile Strength
ksi / MPa	ksi / MPa
1 59 / 406	74 / 507
2 60 / 413	74 / 513
3	
4	
5	
6	
7	

Cu	Ni	Cr	Mo	Sn	V
.39	.13	.11	.046	.028	.001

Nb/Cb	N	B
.011	.0081	.0004

*C1	*C2	*PC	*I
.28	.32	.15	5.95

Analysis Type  
Heat

Charpy Impact Tests (available only when specified at time of order)  
 Temp F/C Specimen 1 Specimen 2 Specimen 3 Average Minimum  
 Absorbed Energy ft-lbf / J

fy / fu ratio	% Elong. (8" gage)
.80	23
.81	23

### Notes:

1 Calculated Chemistry Values: CE1 (Mn)-C+Mn/6+(Cr+Mo+V)/54  
 I (ASTM G101)- 26.01((Cu)+3.88)

2 Equivalents (C1, C2, PC), Corrosion Index (I)  
 CE2 (AWS)-C+(Mn+Si)/6+(Cr+Mo+V)/5+(Ni+Cu)/15  
 Pcm (AWS) = C+Si/31 Mn/20+Cu/20+Ni/60+Cr/20+V/10+15+V/10+58

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated State of Indiana, County of Whitley Sworn to and subscribed before me

Signed: **Doug Rees-Evans**  
 Manager of Technical Services

ASTM A6 - 14.6: A signature  
 Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report

Signed: \_\_\_\_\_ day of \_\_\_\_\_  
 My commission expires: \_\_\_\_\_  
 Notary Public



**Steel Dynamics, Inc.**

Structural and Rail Division • Columbia City, Indiana

Ship to:

Triad Metals Intl  
1951 Bessemer Road  
CSX-Collier Yard  
Petersburg VA, 23805 US  
Attn: Rock McGovern

**CERTIFIED MILL TEST REPORT**

Customer # 000191

Bill to:

TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Petersburg VA, 23805 US  
Attn: Fred White

Date: 09 / 27 / 2007

Quality Steel 100% Melted  
and Manufactured in the USA

**GENERAL INFORMATION**

Product Wide Flange Beam  
Size W 21 x 62  
W 530 X 92  
Heat Number A036690  
Condition(s) As-Rolled  
Finish Grained

**SPECIFICATIONS**

Standards  
ASTM A6/A6M  
A992 / A992M - 06a  
A709 / A709M - 06a  
A572 / A572M - 06  
A709 / A709M - 06a

**SHIPMENT DETAILS**

Bundle / ASN # Length pcs Customer PO  
020958093 40' 0" 4 252

BOL # 0000125819

**CHEMICAL ANALYSIS (weight percent)**

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analysis Type
.07	1.15	.013	.024	.25	.32	.09	.06	.013	.012	.032	.002	.0127	.0004	.30	.35	.16	.5.67	Heat

**MECHANICAL TESTING**

Yield (fy) Strength	Tensile Strength	fy / fu ratio	% Elong. (8" gage)
ksi / MPa	ksi / MPa		
1 53 / 363	73 / 505	.72	23
2 56 / 396	73 / 501	.77	24
3			
4			
5			
6			
7			

**Charpy Impact Tests (available only when specified at time of order)**

Temp F/C	Absorbed Energy ft-lbf / J
Specimen 1	Specimen 2
Specimen 3	Average
Minimum	

**Notes:**

\*Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC), Corrosion Index (I)  
CE1 ((W)+C+Mn)/6+(Cr+Mo+V)/5+(Ni+Cu)/15  
CE2 (AWS)=C+(Mn+Si)/6+(Cr+Mo+V)/5+(Ni+Cu)/15  
I (ASTM G101)=26.01(Cu)+3.88(Ni)+1.20(Cr)+1.49(Si)+17.28(P)-7.29(Cu)(Ni)-9.10(Ni)(P)-33.39(Cu)<sup>2</sup>  
Pcm (AWS) = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5B

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: Doug Rees-Evans  
Manager of Technical Services

Signed: \_\_\_\_\_ My commission expires: \_\_\_\_\_  
Notary Public

State of Indiana, County of Whitley Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

ASTM A6 - 14.6: A signature is not required on the test report; however, the document shall clearly identify the organization submitting the report. Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report

Chemical and Physical Test Report  
MADE IN UNITED STATES

G-102971

**GERDAU AMERISTEEL**  
CARTERSVILLE STEEL MILL  
384 OLD GRASSDALE RD NE  
CARTERSVILLE GA 30121 USA  
(770) 387-3300

PRODUCED IN: CARTERSVILLE

SHIP TO TRIAD METALS INTERNATIONAL POHC DELY-POV JCT 412-331-7655 NEVILLE ISLAND, PA 15225		INVOICE TO TRIAD METALS INTERNATIONAL METAL TRADERS INC 2300 COMPUTER AVE STE-A-1 WILLOW GROVE, PA 19090		SHIP DATE 10/27/07	CUST. ACCOUNT NO 40213035
--	--	--	--	-----------------------	------------------------------

SHAPE + SIZE	GRADE	SPECIFICATION														SALES ORDER	CUST P.O. NUMBER		
W12 X 30#	A57250/992	ASTM A572 GR50-07, ASTM A992 -06A														7076565-15	1224-15		
HEAT I.D. G704732	C Mn P S Si Cu Ni Cr Mo V Nb B N Sn Al Ti Ca C Eqv	.09	1.14	.020	.022	.27	.25	.08	.05	.014	.035	.001	.0007	.0111	.010	.091	.00100	.00050	.322
Mechanical Test:	Yield 57800 PSI, 398.52 MPA	Tensile: 74800 PSI, 515.73 MPA %El: 23.5/8in, 23.5/200MM Sid Dev:0																	
Customer Requirements CASTING: STRAND CAST																			
Mechanical Test:	Yield 57400 PSI, 395.76 MPA	Tensile: 74400 PSI, 512.97 MPA %El: 22.7/8in, 22.7/200MM Sid Dev:0																	
Customer Requirements CASTING: STRAND CAST																			

SHAPE + SIZE	GRADE	SPECIFICATION														SALES ORDER	CUST P.O. NUMBER			
W12 X 14#	A57250/992	ASTM A572 GR50-07, ASTM A992 -06A														7076565-01	1224-01			
HEAT I.D. G704866	C Mn P S Si Cu Ni Cr Mo V Nb B N Sn Al Ti Ca Zn C Eqv	.08	1.02	.017	.015	.28	.22	.08	.07	.020	.030	.002	.0005	.0105	.008	.001	.00100	.00070	.00370	.294
Mechanical Test:	Yield 57600 PSI, 397.14 MPA	Tensile: 71900 PSI, 495.73 MPA %El: 22.8/8in, 22.8/200MM Sid Dev:0																		
Customer Requirements CASTING: STRAND CAST																				
Mechanical Test:	Yield 56600 PSI, 404.03 MPA	Tensile: 71900 PSI, 495.73 MPA %El: 21.9/8in, 21.9/200MM Sid Dev:0																		
Customer Requirements CASTING: STRAND CAST																				

This material, including the billets, was produced and manufactured in the United States of America

*Shackley*  
Bhaskar Yalamanchili  
Quality Director  
Gerdau Ameristeel

*J. J. J.*  
Mgr. Metallurg. Svcs.  
CARTERSVILLE STEEL MILL

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

Seller warrants that all material furnished shall comply with specifications subject to standard published manufacturing variations. NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, ARE MADE BY THE SELLER, AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. In no event shall seller be liable for indirect, consequential or punitive damages arising out of or related to the materials furnished by seller. Any claim for damages for materials that do not conform to specifications must be made from buyer to seller immediately after delivery of same in order to allow the seller the opportunity to inspect the material in question.

Customer Name

Customer PO#

Shipper No

Heat Number

Mandate Erectors & Welding Ltd.

31710

17377

B036782

Steel Dynamics, Inc.  
2601 S. County Road 700 East  
Columbia City, IN 46725-  
(260) 825-8100

Certified Mill Test Report  
100% Melted and Manufactured in USA

Date: 9/21/2017  
Customer No: 000191  
Bill of Lading No: 0000125263  
MTR #: 0000124766

Ship to:  
Triad Metals  
3450 Grand / e  
Neville Island  
Pittsburgh, PA 15225  
Attn: Craig Br'elli

Bill to:  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1†	020947355	W16X36	40 0"	6	A036284	A992 / A992M A709 gr50/gr345 A709 gr50S/gr345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	128
2†	020961152	W21X44	45 0"	4	B036782	A992 / A992M A709 gr50/gr345 A709 gr50S/gr345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	247
3†	020961156	W21X44	45 0"	4	B036782	A992 / A992M A709 gr50/gr345 A709 gr50S/gr345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	247
4†	020962763	W21X44	45 0"	4	A036489	A992 / A992M A709 gr50/gr345 A709 gr50S/gr345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	247
5†	020970212	W14X68	50 0"	4	A037107	A992 / A992M A709 gr50/gr345 A709 gr50S/gr345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	346

CHEMICAL

Item	C	Min	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1*	.09	.91	.011	.042	.26	.43	.001	.080	.09	.03	.011	.008	.0004	.01	.29	0.3400	0.1700	HEAT
2*	.07	1.06	.019	.023	.18	.28	.024	.120	.11	.04	.012	.010	.0004	.00	.31	0.3400	0.1600	HEAT
3*	.07	1.06	.019	.023	.18	.28	.024	.120	.11	.04	.012	.010	.0004	.00	.31	0.3400	0.1600	HEAT
4*	.08	1.03	.012	.031	.21	.28	.022	.080	.10	.03	.012	.008	.0004	.00	.30	0.3400	0.1600	HEAT
5*	.08	1.22	.019	.028	.19	.37	.032	.110	.12	.03	.012	.010	.0004	.00	.35	0.3800	0.1800	HEAT

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed:

Quality Assurance

State of Indiana, County of Whitley

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed:

Notary Public

My commission expires:

Special Comments/Information:



Customer Name

Customer PO#

Shipper No

Heat Number

Mandate Erectors & Welding Ltd.

31710

17377

1716933

MILL TEST REPORT

NUCOR STEEL - BERKELEY  
P.O. Box 2259  
Mt. Pleasant, S.C. 29464  
Phone: (843) 336-6000

11/13/07 8:55:  
100% MELTED AND MANUFACTURED IN THE USA  
All beams produced by Nucor-Berkeley are cast a  
rolled to a fully killed and fine grain practice

Sold To: TRIAD METALS INTERNATIONAL  
2300 COMPUTER AV.  
SUITE A1  
WILLOW GROVE, PA 19090

Ship To: TRIAD METALS INTERNATIONAL  
3480 GRAND AVE.

Customer #: 473 - 2  
B.O.L. #: 653248

NEVILLE ISLAND, PA 15223

SPECIFICATIONS: Tested in accordance with ASTM specification A6/A6M and A370.  
AASHTO: M270-36-00/M270-50-00  
ASME: SA-36 04  
ASTM: A992-06a://A36-05/A572-06-50/A709-06a36/A70-07 50/A709-345M  
CSA: CSA-44W/G40.21-50W

Description	Heat# Grade (s) Test	Yield/ Tensile Ratio	Yield (PSI) (MPa)	Tensile (PSI) (MPa)	Elong (%)	C Cr Pb	Mn Mo Ti	P Sn Ca	S Al B	Si V N	Cu Nb Zr	Ni CI	CE1 CE2 Pcm
M8X10 040' 00.00* M200X15.0 012.1920m	1716933 A992-06a	.85	59800 412 487	70600 487 487	21.30	.0700 .0220 .0020	.8490 .0270 .0018	.0071 .0049 .0005	.0328 .0025 .0007	.2390 .0019 .0052	.0820 .0108 .0060	.0280 2.5036 Inv#:	.2290 .2710 .1315 946622
M8X10 040' 00.00* M200X15.0 012.1920m	1716933 A992-06a	.85	59800 412 487	70600 487 487	21.30	.0700 .0220 .0020	.8490 .0270 .0018	.0071 .0049 .0005	.0328 .0025 .0007	.2390 .0019 .0052	.0820 .0108 .0060	.0280 2.5036 Inv#:	.2290 .2710 .1315 946622
M8X10 045' 00.00* M200X15.0 013.7160m	1717011 A992-06a	.83	57800 399 401	69500 479 483	26.3	.0720 .0270 .0067	.8960 .0170 .0018	.0090 .0050 .0005	.0219 .0025 .0007	.1930 .0035 .0048	.0740 .0130 .0000	.0270 2.3054 Inv#:	.2376 .2733 .1336 946622
M8X10 050' 00.00* M200X15.0 015.2400m	2714380 A992-06a	.87	62600 432 423	72100 497 498	26.6	.0720 .0340 .0077	.8920 .0200 .0018	.0075 .0058 .0001	.0242 .0004 .0012	.2190 .0036 .0055	.1160 .0120 .0000	.0430 3.1921 Inv#:	.2428 .2817 .1397 946622
M8X10 050' 00.00* M200X15.0 015.2400m	2714380 A992-06a	.87	62600 432 423	72100 497 498	26.6	.0720 .0340 .0077	.8920 .0200 .0018	.0075 .0058 .0001	.0242 .0004 .0012	.2190 .0036 .0055	.1160 .0120 .0000	.0430 3.1921 Inv#:	.2428 .2817 .1397 946622

Elongation based on 8" (20.32cm) gauge length. 'No Weld Repair' was performed. Hg free and no contact with Hg during manufacture  
CI = 26.01Cu+3.88Ni+1.20Cr+1.49Si+17.2Mn-(7.29Cu+Ni)-(9.10Ni+P)-33.39(Cu+Cu)  
Pcm = C+(Si/30)+(Mn/20)+(Cu/20)+(Ni/60)+(Cr/20)+(Mo/15)+(V/10)+5B  
CE1 = C+(Mn/6)+((Cr+Mo+V)/5)+((Ni+Cu)/15)  
CE2 = C+(Mn+Si)/6+((Cr+Mo+V+Cb)/5)+((Ni+Cu)/15)

I hereby certify that the contents of this report are accurate and correct. All test results and operations performed by the material manufacturer are in compliance with material specifications, and when designated by the Purchaser, meet applicable specifications.

Bruce A. Work  
Metallurgist

Bill To:

INFRA-METALS CORPORATION-CT, R INFRA-METALS CORPORATION-CT  
DIV PREUSSAG INTERNATIONAL CO 8 PENT HIGHWAY  
WALLINGFORD CT WALLINGFORD  
06492 US 06492

Ship To: 1  
INFRA-METALS CORPORATION-CT  
8 PENT HWY  
WALLINGFORD CT  
06492 US

Order Date: 05/22/2007  
PO No: C21424  
Mill Order No: 3313698  
Load No: 1144289  
Manifest No: 1855361

CERTIFIED MATERIAL TEST REPORT  
GERDAU AMERISTEEL  
Petersburg Mill  
25801 Hofheimer Way  
Petersburg, VA  
23803

GRADE  
992/572-50  
LENGTH  
30 FT / 9.144 M

SIZE  
W 24 X 68# / W610 X 101  
SPECIFICATION  
ASTM A6-05a, A992-06a, A572-06

HEAT NO: 30385790

(804) 524-2855  
PRODUCT  
WF BEAMS

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Al	Nb	CE
.07	1.11	.013	.033	.23	.35	.11	.08	.018	.016	.002	.002	.017	.31

PHYSICAL PROPERTIES

Yield Strength	KSI	MPa
55.8	384.7	
57.6	397.1	

Tensile Strength	KSI	MPa
72.2	497.8	
73.4	506.1	

CHEMICAL ANALYSIS

Specimen Area	Sq cm	Elongation	%	Gage Length	
Sq In					
0.881	5.68	26.8	81n	200 mm	
0.863	5.57	25.9	81n	200 mm	

Bend Test  
Dia. Result  
ROA %

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A. CTR complies with DIN EN 10204 3.1.B

"I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements."

Signed: *Tom L. Harrington*  
Tom L. Harrington, Quality Assurance Manager

Date: Oct. 17, 2007

Signed: \_\_\_\_\_  
Notary Public (if applicable)

Date: \_\_\_\_\_

CHAPARRAL STEEL  
CERTIFIED MATERIAL TEST REPORT  
CHAPARRAL STEEL  
300 Ward Rd.  
Midlothian, TX  
76065-9651  
(972) 775-8241

Order Date: 04/18/2007  
PO No: C21325  
Mill Order No: 329117  
Load No: 1114877  
Manifest No: 1827962

Ship To: 1  
INFRA-METALS CORPORATION-CT, R INFRA-METALS CORPORATION-CT  
DIV PREUSSAG INTERNATIONAL CO 8 PENT HIGHWAY  
TRACK# 953  
WALLINGFORD CT WALLINGFORD CT  
06492 06492

SIZE W 24 X 55 / W610 X 82  
SPECIFICATION ASTM A6-05a, A992-06a, 1572-06  
HEAT NO: 30362990

GRADE 92/50-50  
LENGTH 40 FT / 12.192 M  
PRODUCT WF BEAMS

CHEMICAL ANALYSIS

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	Al	Nb	CE
.08	1.08	.013	.036	.23	.40	.11	.11	.023	.018	.003	.020	.32

PHYSICAL PROPERTIES

Yield Strength	Tensile Strength	Specimen Area	Elongation	Bend Test	ROA
KSI	KSI	Sq In	%	Din. Result	%
55.8	71.1	0.758	24.9	8In	200 mm
56.0	72.3	0.761	24.1	8In	200 mm

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A. CMTR complies with DIN EN 10204 3.1.B

"I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable cable purchaser designated requirements."

Signed: Tom L. Harrington Date: Jun. 01, 2007 Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
Tom L. Harrington, Quality Assurance Manager Notary Public (if applicable) Page: 26 of 41

# MILL TEST REPORT

FROM **NUCOR**  
**BAR MILL DARLINGTON**  
 Darlington, South Carolina

81 Printed: 4/22/07 07:05:134 Lcd H 11084

BOI H 452988

BILL OF LADING NO.

Prepaid

4 988  
 RGE

R J

Cust# 4936 ITPX82329

INFERR-METALS

SOLD TO: 8 BENT BIGWAY, TRACK #933  
 WALLINGFORD, CT  
 800-243-4410 06492

INFERR-METALS

SHIP TO: 8 BENT BIGWAY, TRACK #933  
 WALLINGFORD, CT  
 800-243-4410 06492

P - 154 C - 9

ITPX82320 3 Rail

Tag No.	P.O.	Size	Spec	Length	Pcs	Weight	Heat #	Tensil	Yield	IL	C	Mn	Si	S	P	V	Nb	Cu	Cr	N	Mo	CF
407003558	C21621	3/4X 7	A36	20' 00"	14	4,998	770204	70000	46000	22	.23	.71	.15	.040	.010	.005	.00	.37	.10	.1	.02	.40
407003560	C21621	3/4X 7	A36	20' 00"	14	4,998	770209	70000	47000	23	.19	.73	.14	.040	.020	.003	.01	.33	.15	.01	.02	.37
407003562	C21621	3/4X 7	A36	20' 00"	14	4,998	770204	70000	47000	23	.19	.73	.14	.040	.020	.003	.01	.33	.15	.01	.02	.37
40700356	C21621	3/4X 7	A36	20' 00"	14	4,998	770204	70000	47000	23	.19	.73	.14	.040	.020	.003	.01	.33	.15	.01	.02	.37
40700374	C21536	6CX 8.2	A529-50	20' 00"	30	4,920	770482	80000	53000	24	.22	.71	.16	.040	.010	.005	.00	.38	.16	.11	.02	.40
40700376	C21536	6CX 8.2	A529-50	20' 00"	30	4,920	770482	80000	54000	24	.22	.71	.16	.040	.010	.005	.00	.38	.16	.11	.02	.40
40700378	C21536	6CX 8.2	A529-50	20' 00"	30	4,920	770482	80000	54000	23	.22	.71	.16	.040	.010	.005	.00	.38	.16	.11	.02	.40
40700379	C21536	6CX 8.2	A529-50	20' 00"	30	4,920	770482	80000	54000	24	.22	.71	.16	.040	.010	.005	.00	.38	.16	.11	.02	.40
40700381	C21536	6CX 8.2	A529-50	20' 00"	30	4,920	770482	80000	55000	23	.22	.71	.16	.040	.010	.005	.00	.38	.16	.11	.02	.40
40700381	C21536	6CX 8.2	A529-50	20' 00"	30	4,920	770482	80000	55000	24	.22	.71	.16	.040	.010	.005	.00	.38	.16	.11	.02	.40

SLS-FRM-08 REVISION:1 REVISION DATE: 8/10/97

Permanent address of shipper:

**NUCOR**  
 300 STEEL MILL ROAD  
 DARLINGTON, S.C. 29540

WELDING OR WELD REPAIR WAS NOT PERFORMED ON THIS MATERIAL

MELTED AND MANUFACTURED IN THE USA

MERCURY, RADIUM OR ALPHA SOURCE MATERIALS IN ANY FORM HAVE NOT BEEN USED IN THE PRODUCTION OF THIS MATERIAL

WE HEREBY CERTIFY THAT THE ABOVE FIGURES ARE CORRECT AS CONTAINED IN THE RECORDS OF NUCOR STEEL.

*J. H. B. L.*

James H. Bl...  
 Chief Metall. (gln)

MADE BY **NUCOR** (800) 300-4521

**BULL MOOSE TUBING COMPANY**

**BULL MOOSE TUBE ELKHART FACILITY  
CERTIFICATION OF TESTS**

R5641100  
02/18/07  
Page 4 of 5

1819 Clarkson Rd.  
Chesterfield, Missouri 63017

**BILL TO** Pacific Steel, Inc.  
845 Munck Street  
Chomedey  
Laval QC H7S 1A9

**SHIP TO** Pacific Steel- Elkhart CAD\$ RAIL  
Rail Siding B-076  
C/O Arrimage Ideal  
Longueuil

QC H7S 1A9

B/L Number 131414

Ship Via

26838\_204828

6" SQ X 0.500 HR X 48'				Ladle Analysis and Physicals							Order # 195983		
152.4 mm											Purchase Order # 18434		
ASTM A500-03 Grade C											Item # 120915		
Ticket # = 59185229				Heat # = 87265							P		
C	MN	P	S	AL	SI	CB	CU	CR	NI	VA	YLD psi	TSN psi	ELN %
.060	.750	.009	.006	.029	.010	.030	.010	.020	.010	.001	57350	70000	36
7" SQ X 0.187 HR X 48'				Ladle Analysis and Physicals							Order # 195983		
177.8 mm											Purchase Order # 18434		
ASTM A500-03 Grade C											Item # 100618		
Ticket # = 59186934				Heat # = J4553							P		
C	MN	P	S	AL	SI	CB	CU	CR	NI	VA	YLD psi	TSN psi	ELN %
.060	.610	.010	.010	.031	.010	.021	.200	.060	.080	.002	59710	71799	31
7" SQ X 0.187 HR X 48'				Ladle Analysis and Physicals							Order # 195983		
177.8 mm											Purchase Order # 18434		
ASTM A500-03 Grade C											Item # 100618		
Ticket # = 59186925				Heat # = J3761							P		
C	MN	P	S	AL	SI	CB	CU	CR	NI	VA	YLD psi	TSN psi	ELN %
.050	.780	.009	.007	.032	.030	.022	.150	.070	.060	.001	63590	72623	33
7" SQ X 0.187 HR X 60'				Ladle Analysis and Physicals							Order # 195983		
177.8 mm											Purchase Order # 18434		
ASTM A500-03 Grade C											Item # 117797		
Ticket # = 59186928				Heat # = J4544							P		
C	MN	P	S	AL	SI	CB	CU	CR	NI	VA	YLD psi	TSN psi	ELN %
.050	.700	.010	.009	.031	.030	.026	.170	.100	.110	.001	61600	73447	33

Quality Manager: *John Mc Carthy*

THIS WELDED STEEL TUBING IS MANUFACTURED IN THE UNITED STATES OF AMERICA AND HAS BEEN PRODUCED IN ACCORDANCE WITH THE STATED SPECIFICATION. LADLE CHEMISTRIES ARE REPORTED FROM DOCUMENTS PROVIDED BY THE SUPPLYING STEEL MILL. ANY PHYSICAL AND MECHANICAL TESTING RESULTS SHOWN ON THIS CERTIFICATION ARE CORRECT AS CONTAINED IN THE RECORDS OF THE COMPANY.



CARTERSVILLE STEEL MILL  
 384 OLD GRASSDALE RD NE  
 CARTERSVILLE GA 30121 USA  
 (770) 387-3300

Chemical and Physical Test Report

MADE IN UNITED STATES

G-091246

PRODUCED IN: CARTERSVILLE

SHIP TO  
 BLACKS TRANSFER  
 T/D YORK STEEL-FREDERICKTON  
 TEAM TRACK LS66  
 SAINT JOHN, NB E2L 4H8

INVOICE TO  
 YORK STEEL INC  
 ACCTS PAYABLE  
 550 WILSEY ROAD  
 FREDERICKTON, NB E3B 7K2

SHIP DATE  
 05/04/07

CUST. ACCOUNT NO  
 60125663

SALES ORDER  
 7017983-26

CUST P.O. NUMBER  
 -26

SHAPE + SIZE	GRADE	SPECIFICATION	CHEMICAL ANALYSIS																
W12 X 19#	A57250/992	A57250/992 ASTM A572 3R50-04, ASTM A992-04A	C	Si	Cu	Mn	P	S	Cr	Mo	Nb	V	N	B	Al	Ti	Ca	C Eqv	
HEAT I.D. G702375			.08	.28	.27	1.13	.018	.023	.09	.024	.001	.027	.0086	.0006	.010	.002	.00100	.00050	.323
Mechanical Test:	Yield 56400 PSI, 388.86 MPA	Tensile: 71600 PSI, 493.66 MPA	%El: 21.9/8in, 21.9/200MM Std Dev:0 ldl Diam: .372																
Customer Requirements CASTING: STRAND CAST			Tensile: 71800 PSI, 495.04 MPA %El: 23.4/8in, 23.4/200MM Std Dev:0 ldl Diam: .372																
Mechanical Test:	Yield 56400 PSI, 388.86 MPA																		
Customer Requirements CASTING: STRAND CAST																			

SHAPE + SIZE	GRADE	SPECIFICATION	CHEMICAL ANALYSIS																
W12 X 19#	A57250/992	A57250/992 ASTM A572 GR50-04, ASTM A992-04A	C	Si	Cu	Mn	P	S	Cr	Mo	Nb	V	N	B	Al	Ti	Ca	C Eqv	
HEAT I.D. G702379			.09	.24	.27	1.14	.019	.024	.10	.026	.001	.027	.0082	.0006	.009	.002	.00100	.00000	.336
Mechanical Test:	Yield 59600 PSI, 410.93 MPA	Tensile: 74400 PSI 512.97 MPA	%El: 25.0/8in, 25.0/200MM Std Dev:0 ldl Diam: .433																
Customer Requirements CASTING: STRAND CAST			Tensile: 73700 PSI, 508.14 MPA %El: 24.5/8in, 24.5/200MM Std Dev:0 ldl Diam: .433																
Mechanical Test:	Yield 56000 PSI, 386.11 MPA																		
Customer Requirements CASTING: STRAND CAST																			

SALES ORDER  
 7017983-27

CUST P.O. NUMBER  
 -27

This material, including the billets, was produced and manufactured in the United States of America

*Shaskany*  
 Bhaskar Yalamanchili  
 Quality Director  
 Gerdau Ameristeel

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

*Jammy*

Mgr. Metallurg. Svcs.  
 CARTERSVILLE STEEL MILL

# ACIER PACIFIQUE INC.

PO/Rel

## Certificate of Mill Test Results

PAC 000000-000

Pg 1/1

PART NO.

Bill To:  
PACIFIC STEEL, INC.  
845 MUNCK  
CHROMEY  
LAVAL  
H7S1A9

Ship To: 1  
PACIFIC STEEL INC.  
845 MUNCK  
8076 LONGUEUIL  
MONTREAL  
H7S-1A9

PO

CA

Order Date: 02/21/2007

PO NO: 18704

Mill Order No: 3261903

Load No: 1099564

Manifest No: 1813840

PO

CA

CERTIFIED MATERIAL TEST REPORT

CHAPARRAL STEEL

300 Ward Rd.

Midlothian, TX

76065-9651

(972) 775-8241

PRODUCT

4P BEAMS

LENGTH  
45 FT / 13.716 M

GRADE  
992/572-50

SIZE  
M 18 X 35# / W460 X 52

SPECIFICATIONS  
ASTM A6-05a, A992-06a, A572-06

HEAT NO: 30350920

C	Mn	P	S	Si	CU	Ni	Cr	Mo	Su	V	Al	Nb	CE
.07	.93	.010	.031	.21	.15	.10	.09	.016	.013	.002	.001	.020	.28

CHEMICAL ANALYSIS

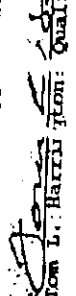
Yield Strength		Tensile Strength	
KSI	MPa	KSI	MPa
55.3	381.3	69.7	480.6
53.3	367.5	68.1	469.5

PHYSICAL PROPERTIES		Elongation	
Specimen Area	Sq Cm	%	Gage Length
Sq In	Sq Cm	%	8 In
0.686	4.43	23.8	200 mm
0.689	4.45	26.0	200 mm

Lead Test  
a. Result  
ROA

All manufacturing processes of this product including electric arc melting and continuous casting, occurred in the U.S.A. CMTR complies with DIN EN 10204 3.1.1.B

"I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements."

Signed:  Tom L. Harrison  
Quality Assurance Manager  
Date: Mar. 23, 2007  
Signature: \_\_\_\_\_  
Notary Public (if applicable)  
Date: \_\_\_\_\_

**Steel Dynamics, Inc.**  
 2601 S. Cherry Road 700 East  
 Columbia City, IN 46725.  
 (219) 625-8100

**Certified Mill Test Report**  
 100% Certified and Manufactured in USA

**Date:** 3/5/2007  
**Customer No:** 000191  
**Bill of Lading No:** 000010007  
**MTR #:** 0000105811

**Ship to:**  
 Triad Metals Mill Day A  
 1951 Bessmer Road  
 CSX Collier Yard  
 Petersburg, VA 23805  
 Attn: Fred Wirth

**Bill to:**  
 TRIAD METALS INTERNATIONAL  
 A-1 2300 Computer Avenue  
 Willow Grove, PA 19090  
 Attn: Fred Wirth

Item	Bundls	Section	Length	Pcs	Heat #	Grade(s)	Spec's (call out's)	Customer P.O.
11	020797091	W14X22	45' 0"	8	8030282	A992/A992M A709 g50S/g345S	ASTM A992/A992M - 06a ASTM A709/A709M - 08a	142071A
21	020797093	W14X22	45' 0"	8	8030282	A992/A992M A709 g50S/g345S	ASTM A572/A572M - 06 ASTM A992/A992M - 08a	142071A
31	020797094	W14X22	45' 0"	8	8030282	A992/A992M A709 g50S/g345S	ASTM A572/A572M - 06 ASTM A992/A992M - 08a	142071A
41	020797097	W14X22	45' 0"	8	8030282	A992/A992M A709 g50S/g345S	ASTM A572/A572M - 06 ASTM A992/A992M - 08a	142071A

**CHEMICAL**

Item	C	Mn	P	S	SI	Cu	V	Cr	NI	Mo	Sn	II	B	Ch	C1	C7	PC	Analysis
1	.08	.76	.016	.034	.20	.40	.012	.10	.11	.028	.014	.0084	.0004	.001	.27	.31	.16	HEAT
2	.08	.76	.016	.034	.20	.40	.012	.10	.11	.028	.014	.0084	.0004	.001	.27	.31	.16	HEAT
3	.08	.76	.016	.034	.20	.40	.012	.10	.11	.028	.014	.0084	.0004	.001	.27	.31	.16	HEAT
4	.08	.76	.016	.034	.20	.40	.012	.10	.11	.028	.014	.0084	.0004	.001	.27	.31	.16	HEAT

**MECHANICAL**


**Tension Testing Results**

Item	Test	Yield (Fy) ksi/MPa	Tensile (Fu) ksi/MPa	Elong (%) based on 8" gage	ROA (%)	End Test Result	Temp F/C	Sample 1 fl. lb/oulets	Sample 2 fl. lb/oulets	Sample 3 fl. lb/oulets	% Shear	ASTM Grain Size No (per ASTM E112)
1	1	63437	80548	.79	25	1						
1	2	81421	76526	.80	30	2						
2	1	63437	80548	.79	25	1						
2	2	81421	76526	.80	30	2						
3	1	63437	80548	.79	25	1						
3	2	81421	76526	.80	30	2						
4	1	63437	80548	.79	25	1						
4	2	81421	76526	.80	30	2						

**Charpy Impact Testing Results**

Item	Test	Temp F/C	Sample 1 fl. lb/oulets	Sample 2 fl. lb/oulets	Sample 3 fl. lb/oulets
1	1				
1	2				
2	1				
2	2				
3	1				
3	2				
4	1				
4	2				

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of this material specifications and applicable purchaser designs.

Signed:  Quality Assurance

My commission expires: \_\_\_\_\_

State of Indiana, County of White

Given to me as described before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_ Notary Public

Special Comments/Information:  
 Fully Killed Steel  
 Cast and Rolled to a Fine Grain Practice



Mandate Erectors & Welding Ltd.

30645

6896

A033858

**Steel Dynamics, Inc.**  
 2401 S. Co. Road 100 East  
 Columbus, IN 47286  
 (260) 625-1100

**Certified Test Report**  
 100% Material Manufactured In USA

Dr: 7/20/2007  
 Customer #: 000181  
 Bill of Lading #: 0000118160  
 NTR #: 0000117737

Ship to:  
 Triad Metals International  
 3480 Grand Avenue  
 Pittsburgh, PA 15225  
 Attn: Craig Bordoli

Bill to:  
 TRIAD METALS INTERNATIONAL  
 Attn: 2300 Computer Avenue  
 Willow Grove, PA 19080  
 Attn: Fred White

Item	Bundle	Section	Length	Pcs	Grade(s)	Specification(s)	Custom: P.O.
17	020911203	W16X26	30'0"	6	A992/A992M A709 G50S/G34S A572 Q50/Q345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	157589/601
18	020911713	W16X26	40'0"	6	A992/A992M A709 G50S/G34S A572 Q50/Q345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	157589/601
19	020911739	W16X26	40'0"	6	A992/A992M A709 G50S/G34S A572 Q50/Q345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	157589/601

#A033858


**CHEMICAL**

Item	C	Mn	P	S	SI	Cu	Y	Cr	Ni	Mo	Sh	N	B	Cb	C1	C2	PC	Analysis
17	.08	.83	.017	.029	.18	.29	.012	.13	.10	.032	.017	.0105	.0002	.000	.25	.28	.15	HEAT
18	.08	.08	.019	.023	.19	.34	.013	.12	.09	.074	.012	.0100	.0003	.001	.25	.28	.15	HEAT
19	.09	.65	.015	.025	.20	.33	.014	.10	.10	.026	.013	.0106	.0003	.001	.26	.29	.18	HEAT

**MECHANICAL**

Item	Test	Tension Testing Results				Charpy Impact Testing Results				ASTM Grain Size No (per ASTM E112)										
		Yield (Fy) ksi/MPa	Tensile (Fu) ksi/MPa	Elong (%) based on 8" gauge	ROA (%)	Temp F/C	Sample 1 ft. lb/ftoules	Sample 2 ft. lb/ftoules	Sample 3 ft. lb/ftoules		% Strain									
17	1	59/09	74/513	28	1															
17	2	61/18	76/524	29	2															
18	1	61/22	78/536	26	1															
18	2	61/421	78/536	26	2															
19	1	59/09	76/527	27	1															
19	2	61/134	79/545	25	2															

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specification and applicable purchaser designated.

Signed:  Quality Assurance

State of Indiana, County of WYBING  
 Exam to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
 Signed \_\_\_\_\_ Notary Public

My commission expires: \_\_\_\_\_

Special Comments/Remarks:  
 Fully Killed Steel  
 Cast and Rolled to a Fine Grain Practice

Load #: 27

Shipping Date:

Waybill #: 898-27

Customer:	Pizzagalli Construction Company		Prepared By:	Approved By:	Date: 24-01-01
Job Title:	84 Marginal Way	Job Progress Report Sheet	Bathurst Machine Shop Ltd. 1040 Route 430 Mandate Erectors & Welding Ltd. Big River Road MQM Ltd., Tracadie E2A 6P9		
Date Sent to Shop:	X	SHEET: 1			
Job Number:	898	X			

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped					
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date	
A	W14X22	A	B803	2	1105																								
A	W14X22	A	B804	1	552																								
A	W24X55	A	B817	1	2348																								
A	W12X19	A	B825	1	152																								
A	W12X19	A	B826	2	304																								
A	W12X19	A	B828	2	317																								
A	W21X44	A	B838	1	1889																								
A	W21X44	A	B839	1	1889																								
A	W21X44	A	B846	1	1596																								
A	W24X68	A	B857	1	2077																								
A	W16X26	A	B859	1	467																								
H	W14X22	A	B863	1	505																								
A	W21X62	A	B874	1	3047																								
A	W12X19	A	B876	1	174																								
H	W14X22	A	B883	1	614																								
A	W8X10	A	B893	3	248																								

Pieces 21 17284 Total Weight( Lbs) ( 8.6 TONS)

Load #: 27

Customer: Pizzagalli Construction Company  
 Job Title: 84 Marginal Way  
 Date Sent to Shop: X  
 Job Number: 898

Job Progress Report Sheet

SHEET: 2

Prepared By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: 24-01-01

Bathurst Machine Shop Ltd.	1040 Route 430 Big River Road E2A 6P9
Mandate Erectors & Welding Ltd.	
MQM Ltd., Tracadie	

Form#12 Rev. 4

\* = SEE SHOP DWG C=COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Dril		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped					
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date	
A	W8X10	A	B894	2	132																								
A	W16X26	A	B901	1	959																								
A	W12X14	A	B902	1	262																								
A	W12X19	A	B903	1	163																								
A	W21X44	A	B904	1	988																								
A	W12X14	A	B905	1	333																								
A	W12X19	A	B906	1	408																								
A	W14X22	A	B907	1	266																								
A	W12X14	A	B908	2	596																								
A	W16X26	A	B909	1	539																								
A	W18X35	A	B912	1	1092																								
A	W16X26	A	B913	1	880																								
A	W16X26	A	B914	1	521																								
A	W16X26	A	B915	1	938																								
A	W18X35	A	B916	1	1326																								
A	W16X26	A	B917	1	513																								
A	W14X22	A	B918	1	604																								
A	W18X35	A	B919	1	1448																								
A	W16X36	A	B921	1	1126																								
A	HSS10X6X1/2	A	B922	1	1110																								

Pieces 22 14204 Total Weight(Lbs) ( 7.1 TONS)

**Load #:** 27

Customer: Pizzagalli Construction Company  
 Job Title: 84 Marginal Way  
 Date Sent to Shop: X  
 Job Number: 898

Job Progress Report Sheet

SHEET: 3

Prepared By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: 24-01-01

Bathurst Machine Shop Ltd.  
 Mandate Erectors & Welding Ltd.  
 MQM Ltd., Tracadie

1040 Route 430  
 Big River Road  
 E2A 6P9

Form# 12 Rev. 4

\* = SEE SHOP DWG

C=COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped				
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date
H	W24X55	A	B923	1	498																							
A	W8X10	A	B924	2	73																							
A	HSS10X6X1/2	A	B925	1	853																							
A	W8X10	A	B926	1	35																							
A	W12X19	A	B927	1	380																							
A	C6X8.2	O	CB805	1	74																							
A	C6X8.2	O	CB806	2	149																							
A	H.S.S. 5X5X5/16	0	D504	1	306																							
A	H.S.S. 7X7X1/2	A	D702	1	813																							
A	H.S.S. 7X7X1/2	A	D703	1	813																							
A	H.S.S. 5X5X5/16	A	D800	1	211																							
A	H.S.S. 5X5X5/16	A	D801	1	212																							
A	H.S.S. 6X6X1/2	A	D802	1	562																							
A	H.S.S. 8X8X5/8	A	D805	1	819																							
A	C6X8.2	A	M708	1	288																							

Pieces 17 6086 Total Weight(Lbs)

( 3.0 TONS)

Load #: Drop Shipping Date: Waybill #: 898-Drop

Customer:	Pizzagalli Construction Company	Prepared By:	Approved By:	Date: 24-01-01
Job Title:	84 Marginal Way	Bathurst Machine Shop Ltd. Mandate Erectors & Welding Ltd. MQM Ltd., Tracadie		
Date Sent to Shop:	X			
Job Number:	898	10-10 Route 430 Big River Road E2A 6P9		

Form#12 Rev. 4 \* = SEE SHOP DWG C= COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped												
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date								
	H.s.s. 12x4x1/4	0	RB3	1	53																															
A	W12X26	0	TB-1	1	335																															
	L4X4X5/16	0	L-1	1	164																															
	L6X4X3/8	0	L-2	3	40																															
H	P13/4x30	0	p184	2	103																															
H	L3X3X1/4	0	SFT-Post	30	613																															
A	L6X4X3/8	0	M817	1	63																															
A	L6X4X3/8	0	M818	1	61																															
A	L4X4X5/16	0	M819	1	22																															
A	L4X4X5/16	0	M820	1	33																															
A	L6X4X3/8	0	M821	1	68																															
A	L6X4X3/8	0	M822	1	68																															
A	L6X4X3/8	0	M823	1	68																															
A	L6X4X3/8	0	M824	1	65																															
A	L6X4X3/8	0	M825	1	103																															
A	L4X4X5/16	0	M826	1	25																															
A	L6X4X3/8	0	M417	6	574																															
A	L6X4X3/8	0	M418	3	287																															
A	L4X4X5/16	0	BA-2	1	150																															

Pieces 58 2895 Total Weight(Lbs) ( 1.4 TONS)

Load #: 27

Shipping Date:

Waybill #: 898-27

Customer:	Pizzagalli Construction Company	Prepared By:	Approved By:	Date: 24-01-01
Job Title:	84 Marginal Way	Job Progress Report Sheet		Bathurst Machine Shop Ltd.
Date Sent to Shop:	X			Mandate Erectors & Welding Ltd.
Job Number:	898	SHEET: 1		MQM Ltd., Tracadie

1040 Route 430  
Big River Road  
E2A 6P9

Attach.	Material	Rev.	Mark #	Qty	Weight	C=COLOR GALV.				Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped			
						Paint	Galv	Camber	Level	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By
A	W14X22	A	B803	2	1105																						
A	W14X22	A	B804	1	552																						
A	W24X55	A	B817	1	2348																						
A	W12X19	A	B825	1	152																						
A	W12X19	A	B826	2	304																						
A	W12X19	A	B828	2	317																						
A	W21X44	A	B838	1	1889																						
A	W21X44	A	B839	1	1889																						
A	W21X44	A	B846	1	1596																						
A	W24X68	A	B857	1	2077																						
A	W16X26	A	B859	1	467																						
II	W14X22	A	B863	1	505																						
A	W21X62	A	B874	1	3047																						
A	W12X19	A	B876	1	174																						
II	W14X22	A	B883	1	614																						
A	W8X10	A	B893	3	248																						

Pieces 21 17284 Total Weight( Lbs) ( 8.6 TONS)

Load #: 27

Customer:

Pizzagalli Construction Company

Job Title:

84 Marginal Way

Job Progress Report Sheet

Date Sent to Shop:

X

SHEET: 2

Job Number:

898

Prepared By: Approved By: Date: 24-01-01

Bathurst Machine Shop Ltd.

1040 Route 430

Mandate Erectors & Welding Ltd.

Big River Road

MQM Ltd., Traralgon

E2A 6P9

Form#12 Rev. 4

\* = SEE SHOP DWG

C=COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped				
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date		
A	W8X10	A	B894	2	132																							
A	W16X26	A	B901	1	959																							
A	W12X14	A	B902	1	262																							
A	W12X19	A	B903	1	163																							
A	W21X44	A	B904	1	988																							
A	W12X14	A	B905	1	333																							
A	W12X19	A	B906	1	408																							
A	W14X22	A	B907	1	266																							
A	W12X14	A	B908	2	596																							
A	W16X26	A	B909	1	539																							
A	W18X35	A	B912	1	1092																							
A	W16X26	A	B913	1	880																							
A	W16X26	A	B914	1	521																							
A	W16X26	A	B915	1	938																							
A	W18X35	A	B916	1	1326																							
A	W16X26	A	B917	1	513																							
A	W14X22	A	B918	1	604																							
A	W18X35	A	B919	1	1448																							
A	W16X36	A	B921	1	1126																							
A	HSS10X6X1/2	A	B922	1	1110																							

Pieces

22

14204 Total Weight( Lbs)

( 7.1 TONS)

Load #: 27

Customer:	Pizzagalli Construction Company	Prepared By:	Approved By:	Date: 24-01-01
Job Title:	84 Marginal Way	Bathurst Machine Shop Ltd.		1040 Route 430
Date Sent to Shop:	X	Mandate Erectors & Welding Ltd.		Big River Road
Job Number:	898	MQM Ltd., Tracadie		E2A 6P9

Job Progress Report Sheet

SHEET: 3

Form#12 Rev. 4

\* = SEE SHOP DWG

C= COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped						
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date				
H	W24X55	A	B923	1	498																									
A	W8X10	A	B924	2	73																									
A	HSS10X6X1/2	A	B925	1	853																									
A	W8X10	A	B926	1	35																									
A	W12X19	A	B927	1	380																									
A	C6X8.2	O	CB805	1	74																									
A	C6X8.2	O	CB806	2	149																									
A	H.S.S. 5X5X5/16	O	D504	1	306																									
A	H.S.S. 7X7X1/2	A	D702	1	813																									
A	H.S.S. 7X7X1/2	A	D703	1	813																									
A	H.S.S. 5X5X5/16	A	D800	1	211																									
A	H.S.S. 5X5X5/16	A	D801	1	212																									
A	H.S.S. 6X6X1/2	A	D802	1	562																									
A	H.S.S. 8X8X5/8	A	D805	1	819																									
A	C6X8.2	A	M708	1	288																									

Pieces 17 6086 Total Weight(Lbs) ( 3.0 TONS)



PART NO.

Atm:



Grupo Arcelor

QUALITY CERTIFICATION

CUSTOMER: ARCELOR INTERNATIONAL CANADA, INC  
Products: CHANNELS 6X8, 2LBS/FTX40FT CSA 350W AIR  
Purchase Order: P1120407 Q2-2007-C

Ref. No.: 014267/2007  
Pag.: 01

Size: 6 FOLGENDAS WA 1" ALMA  
Order Number: 2306142  
Grade: CSA 350W

Heat No.	Coils	Weight (t)	YIELD POINT MPa	TENSILE STRENGTH MPa	ORIENTATION							
					C	W	SL	F	S	CH		
5934601	36	69.660	392	482	21.00	0.100	0.810	0.130	0.022	0.033	0.006	0.710
5934801	12	23.220	394	491	23.00	0.090	0.810	0.130	0.013	0.029	0.005	0.700
5934901	4	7.740	389	490	22.00	0.110	0.900	0.140	0.015	0.032	0.005	0.730
TOTAL	52	100.620										
Heat	% Cr	% Ni	% Mn	% Mo								
5934601	0.050	0.050	0.028	0.009								
934801	0.040	0.050	0.016	0.017								
934901	0.060	0.050	0.017	0.011								

Remarks: We hereby certify that the material herein listed was produced, inspected, tested and approved in accordance with the standard or the specification required.

Date: 29/07/2007

Approved by:

Belgo Siderurgica do Rio de Janeiro

HT #5934801 is used to fab items: M108, C8805, C8806

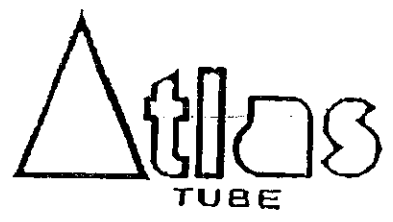
7/1/2007

140

Channel 6 x 8.2 Lbs per ft x 40

Atlas Tube Canada LLC  
2555 Francis-Hugues Avenue  
Laval QC H7S 2H7  
Canada  
Tel: 519-738-3541  
Fax: 519-738-3537

Ref.B/L: 80269969  
Date: 12.06.2007  
Customer: 1774



### MATERIAL TEST REPORT

Shipped to  
Acier Altitude Inc.  
2555 Francis-Hugues Avenue  
LAVAL QC H7S 2H7  
CANADA

Sold to  
Acier Altitude Inc  
2555 Francis-Hugues Avenue  
LAVAL QC H7S 2H7  
CANADA

Material: 1.5x1.5x1.88x2410 (14x4)	Material No: 450451892400	Made In: Canada
Heat No: 445603	Purchase Order: 3543	
Pos: 16	C: 0.190	Mn: 0.900
P: 0.019	S: 0.006	Si: 0.016
Al: 0.049	Cu: 0.044	Cb: 0.000
Mo: 0.007	Ni: 0.020	Cr: 0.045
V: 0.000		
Bundle No: M100699963	Yield: 061370 Psi	Tensile: 073520 Psi
	Eln.2in: 29.9 %	
Material Note: Sales Or Note:	Certification: ASTM A500-03A GRADE B&C	

Material: 5.0x5.0x3.13x43'0" (14x21)	Material No: 500503134800	Made In: Canada
Heat No: 72296	Purchase Order: 3543	
Pos: 3	C: 0.180	Mn: 0.930
P: 0.009	S: 0.009	Si: 0.020
Al: 0.027	Cu: 0.050	Cb: 0.000
Mo: 0.010	Ni: 0.010	Cr: 0.020
V: 0.000		
Bundle No: M100693250	Yield: 055720 Psi	Tensile: 066300 Psi
	Eln.2in: 25.4 %	
Material Note: Sales Or Note:	Certification: ASTM A500-03A GRADE B&C	

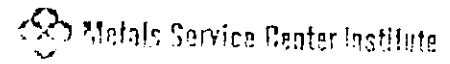
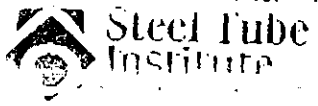
*HT # 72296 is used to fab. item D.504, D800, D801*

Material: 1.8x1.8x2.375x24'0" (14x4)	Material No: 1800503752400	Made In: Canada
Heat No: 482248	Purchase Order: 3543	
Pos: 4	C: 0.180	Mn: 0.900
P: 0.016	S: 0.006	Si: 0.150
Al: 0.035	Cu: 0.035	Cb: 0.009
Mo: 0.003	Ni: 0.015	Cr: 0.352
V: 0.000		
Bundle No: M100496081	Yield: 055720 Psi	Tensile: 066300 Psi
	Eln.2in: 33.4 %	
Material Note: Sales Or Note:	Certification: ASTM A500-03A GRADE B&C	

Material: 1.0x3.0x3.13x40'0" (16x3) -CSA	Material No: 0300303134000-CSA	Made In: Canada
Heat No: 13110	Purchase Order: 3543	
Pos: 1	C: 0.220	Mn: 1.110
P: 0.037	S: 0.004	Si: 0.300
Al: 0.008	Cu: 0.055	Cb: 0.005
Mo: 0.006	Ni: 0.022	Cr: 0.043
V: 0.000		
Bundle No: M100496081	Yield: 055720 Psi	Tensile: 070930 Psi
	Eln.2in: 27.7 %	
Material Note: Sales Or Note:	Certification: CSA G40.21-04 50W CLASS C	

Authorized by Quality Assurance: *[Signature]*

Material and contract requirements are met. All dimensions are in accordance with the purchase order.



Atlas ABC Corp (Atlas Tube Chicago)  
1855 East 122nd Street  
Chicago, Illinois, USA  
60632  
Tel: 773-646-1000  
Fax: 773-646-1028

Ref. B/L: 80226714  
Date: 02.16.2007  
Customer: 1774



# MATERIAL TEST REPORT

### Sold to

Acier Altitude inc.  
1 Rue Provost, Suite 306  
LACHINE QC H8S 4H2  
CANADA

### Shipped to

Acier Altitude inc  
1 Rue Provost (Entrée on vic  
LACHINE QC H8S 4H2  
CANADA

Material: 2 Ex 1 5x125x24"O.D.17x10;  
Sales order: 252374

Material No: 250151252400  
Purchase Order: 2872  
Made in: USA

Heat No	C	Mn	P	S	SI	Al	Cu	Cb	Mo	Ni	Cr	V
53742	0.210	0.780	0.011	0.009	0.030	0.046	0.120	0.002	0.020	0.040	0.060	0.000
Bundle No	Yield		Tensile		Eln. 2In		Certification					
M600015747	068760 Psi		081830 Psi		25 %		ASTM A500-03A GRADE C & B					

Material Note:  
Sales Or. Note:

Material: 6 Cx6 6x600x45"O.D.13x11;  
Sales order: 232307

Material No: 600605004800  
Purchase Order: 2870  
Made in: USA

Heat No	C	Mn	P	S	SI	Al	Cu	Cb	Mo	Ni	Cr	V
7764E	0.200	0.840	0.011	0.004	0.020	0.030	0.040	0.000	0.010	0.020	0.020	0.002
Bundle No	Yield		Tensile		Eln. 2In		Certification					
M900060300	070640 Psi		084090 Psi		32 %		ASTM A500-03A GRADE C & B					

Material Note:  
Sales Or. Note:

*HT #7764E is used to Fab. item D802.*

Material: 6 Cx6 6x500x45"O.D.13x11;  
Sales order: 262307

Material No: 600605004800  
Purchase Order: 2870  
Made in: USA

Heat No	C	Mn	P	S	SI	Al	Cu	Cb	Mo	Ni	Cr	V
7754E	0.200	0.840	0.011	0.004	0.020	0.030	0.040	0.000	0.010	0.020	0.020	0.002
Bundle No	Yield		Tensile		Eln. 2In		Certification					
M900060297	070640 Psi		084090 Psi		32 %		ASTM A500-03A GRADE C & B					

Material Note:  
Sales Or. Note:

Authorized by Quality Assurance: \_\_\_\_\_

*Meg Rastaine*



Atlas Tube Canada ULC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 NOR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537

Ref.B/L: 80263316  
 Date: 10.24.2007  
 Customer: 1751



**MATERIAL TEST REPORT**

Sold to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Shipped to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Material: 6.0x4.0x375x23'0"0(4x4).  
 Sales order: 314780

Material No: 60040375  
 Purchase Order: 31077  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
680291		0.190	0.810	0.011	0.004	0.150	0.035	0.039	0.005	0.003	0.015	0.036	0.000
Bundle No	Yield	Tensile	Eln.2in	Certification									
				ASTM A500-03A GRADE B&C									

Material Note:  
 Sales Or.Note:

Material: 7.0x7.0x500x36'0"0(2x1).  
 Sales order: 335491

Material No: 70070500  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
191346	2	0.190	0.800	0.011	0.002	0.150	0.043	0.017	0.006	0.002	0.009	0.036	0.000
Bundle No	Yield	Tensile	Eln.2in	Certification									
M200482870	058830 Psi	075060 Psi	31.3 %	ASTM A500-03A GRADE B&C									

Material Note:  
 Sales Or.Note:

Material: 7.0x7.0x500x36'0"0(2x1).  
 Sales order: 335491

Material No: 70070500  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
681846	2	0.190	0.800	0.011	0.002	0.150	0.043	0.017	0.006	0.002	0.009	0.036	0.000
Bundle No	Yield	Tensile	Eln.2in	Certification									
M200482871	058830 Psi	075060 Psi	31.8 %	ASTM A500-03A GRADE B&C									

Material Note:  
 Sales Or.Note:

*HI #681846 is used to fab. items: D70.2, D70.3*

Material: 3.0x8.0x625x50'0"0(2x1).  
 Sales order: 335491

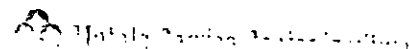
Material No: 30080625  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
191346	2	0.190	0.810	0.009	0.002	0.160	0.023	0.005	0.005	0.002	0.011	0.036	0.000
Bundle No	Yield	Tensile	Eln.2in	Certification									
M200482870	058830 Psi	075060 Psi	31.3 %	ASTM A500-03A GRADE B&C									

Material Note:  
 Sales Or.Note:

Authorized by Quality Assurance: *[Signature]*

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.



Atlas Tube Canada ULC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 NOR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537

Ref.B/L: 80263316  
 Date: 10.24.2007  
 Customer: 1751



**MATERIAL TEST REPORT**

Sold to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Shipped to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Material: 8.0x8.0x625x50"0(2x1).  
 Sales order: 335491

Material No: 80080625 Made in: Canada  
 Purchase Order: 30519-898

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002
Bundle No	Yield	Tensile	Eln.2in		Certification								
M200482103	063150 Psi	076440 Psi	34.3 %		ASTM A500-03A GRADE B&C								

Material Note:  
 Sales Or.Note:

*HT# 582766 is used to Fab item: D805*

Material: 8.0x8.0x625x50"0(2x1).  
 Sales order: 335491

Material No: 80080625 Made in: Canada  
 Purchase Order: 30519-898

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002
Bundle No	Yield	Tensile	Eln.2in		Certification								
M200482102	063150 Psi	076440 Psi	34.3 %		ASTM A500-03A GRADE B&C								

Material Note:  
 Sales Or.Note:

Material: 10.0x10.0x625x18"0(2x2).  
 Sales order: 335491

Material No: 100100625 Made in: Canada  
 Purchase Order: 30519-898

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
583750	4	0.200	0.810	0.011	0.002	0.160	0.034	0.015	0.006	0.002	0.007	0.022	0.000
Bundle No	Yield	Tensile	Eln.2in		Certification								
M200483575	054920 Psi	073670 Psi	38.5 %		ASTM A500-03A GRADE B&C								

Material Note:  
 Sales Or.Note:

Material: 10.0x10.0x625x18"0(2x2).  
 Sales order: 335491

Material No: 100100625 Made in: Canada  
 Purchase Order: 30519-898

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
583750	4	0.200	0.810	0.011	0.002	0.160	0.034	0.015	0.006	0.002	0.007	0.022	0.000
Bundle No	Yield	Tensile	Eln.2in		Certification								
M200483574	054920 Psi	073670 Psi	38.5 %		ASTM A500-03A GRADE B&C								

Material Note:  
 Sales Or.Note:

Authorized by Quality Assurance: *[Signature]*

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.



Atlas Tube Inc  
 200 Clark St  
 Toronto, Ontario Canada  
 M5R 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3531

Ref. B/L: 80216328  
 Date: 11.16.2006  
 Customer: 1



MATERIAL TEST REPORT

Material: 8 D x 8 D x 280 x 48 D 0.013 x 21  
 Sales order: 262530

Material No. 800802504800  
 Purchase Order: 27901

Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
82798	0.150	0.910	0.010	0.021	0.021	0.069	0.070	0.001	0.004	0.040	0.020	0.006

Bundle No: M200331033  
 Yield: 056230 Psi  
 Tensile: 068430 Psi  
 Elongation: 34.9 %

Certification: ASTM A500-03A GRADE C & B

Material Note:  
 Sales Order Note:

Material: 8 D x 8 D x 280 x 48 D 0.013 x 21  
 Sales order: 260737

Material No. 800802504800  
 Purchase Order: 27856

Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
82798	0.150	0.730	0.015	0.021	0.040	0.060	0.040	0.000	0.000	0.030	0.020	0.000

Bundle No: M200331033  
 Yield: 054810 Psi  
 Tensile: 065190 Psi  
 Elongation: 35.0 %

Certification: ASTM A500-03A GRADE C & B

Material Note:  
 Sales Order Note:

Material: 8 D x 8 D x 280 x 48 D 0.013 x 21  
 Sales order: 262530

Material No. 800802504800  
 Purchase Order: 27901

Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
82798	0.150	0.730	0.015	0.023	0.040	0.060	0.040	0.000	0.000	0.030	0.020	0.000

Bundle No: M200331037  
 Yield: 054810 Psi  
 Tensile: 068190 Psi  
 Elongation: 35.0 %

Certification: ASTM A500-03A GRADE C & B

Material Note:  
 Sales Order Note:

Material: 8 D x 8 D x 280 x 48 D 0.013 x 21  
 Sales order: 260737

Material No. 800802504800  
 Purchase Order: 27856

Made in: Canada

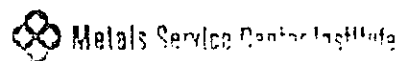
Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
82798	0.200	0.840	0.009	0.005	0.020	0.023	0.040	0.000	0.010	0.020	0.020	0.000

Bundle No: M200330665  
 Yield: 059720 Psi  
 Tensile: 072690 Psi  
 Elongation: 33.1 %

Certification: ASTM A500-03A GRADE C & B

Material Note:

HT # 82798 is used to Fab. item: B922, B925



NUCOR STEEL - BERKELEY  
 P.O. Box 2259  
 Mt. Pleasant, S.C. 29464  
 Phone: (843) 336-6000

HILL TEST REPORT

100% MECHANICAL AND MANUFACTURED IN THE USA  
 All pieces produced by Nucor-berkeley are part of  
 a fully killed and fine grain practice

Sold To: TRIAD METALS INTERNATIONAL  
 2300 COMPUTER AV.  
 SUITE A1  
 WILLOW GROVE, PA 19080

Ship To: TRIAD METALS INTERNATIONAL  
 1480 GRAND ST.  
 REVILLE, PA 15223

R.O.L. No. 653240

SPECIFICATIONS: Tested in accordance with ASTM specification A6/A6M and A170.  
 AASHTO : M270-36-00/M270-50-00  
 ASME : SA-36 04  
 ASTM : A992-06a // A36-05/A572-06-50/A709-06-50/A709-07 (A/A709-34M)  
 CSA : CSA-44W/G40.21-50W

Description	Heat# Grade(s) Test	Yield/ Tensile Ratio	Yield (ksi) (MPa)	Tensile (ksi) (MPa)	Elong %	C		Mn		P		S		Si		Cu		Ni		CE1 CE2 Pcm		
						Tr	Ph	Mo	Ti	Sn	Ca	Al	N	Nb	Zr	Cr						
M8X10 040' 00.00" M200X15.0 012.1920m	1716933 A992-06a	.85	59600	70600	21.10	.0700	.0490	.0071	.0328	.0049	.0025	.0019	.0108	.0000	.0820	.0280	.0280	.0280	.0280	.2290	.2710	.1315
M8X10 040' 00.00" M200X15.0 012.1920m	1717011 A992-06a	.83	57800	69500	26.13	.0720	.0960	.0090	.0215	.0050	.0025	.0035	.0048	.0000	.0740	.0270	.0270	.0270	.0270	.2376	.2723	.1336
M8X10 050' 00.00" M200X15.0 015.2400m	2714380 A992-06a	.87	62600	72100	26.76	.0720	.0970	.0075	.0242	.0058	.0004	.0036	.0055	.0000	.1160	.0430	.0430	.0430	.0430	.2428	.2817	.1397
M8X10 050' 00.00" M200X15.0 015.2400m	2714380 A992-06a	.87	62600	72100	26.76	.0720	.0970	.0075	.0242	.0058	.0004	.0036	.0055	.0000	.1160	.0430	.0430	.0430	.0430	.2428	.2817	.1397

Elongation based on 8" (20.32cm) gauge length. No weld repair was performed.  
 CE1 = C + (Mn/5) + (Cr+Mo+V)/5 + ((Ni+Cu)/15)  
 CE2 = C + (Mn/5) + (Cr+Mo+V)/5 + ((Ni+Cu)/15)  
 Pcm = C + (Si/30) + (Mn/20) + (Cu/20) + (Ni/50) + (Cr/20) + (Mo/15) + (V/10) + S + B

I hereby certify that the contents of this report are accurate and correct. All test results and operations performed by the material manufacturer are in compliance with material specifications, and when designated by the purchaser, meet applicable specifications.

Bruce A. Hork  
 Metallurgist

NY# 1716933 is used to fab. items: B893, B894, B924, B926

Customer Name: Mandate Erector & Welding LLC  
 Customer PO#: 31710  
 Shipper No: 47377  
 Heat Number: 1716933

**GERDAU AMERISTEEL**  
 CARTERSVILLE STEEL MILL  
 384 OLD GRASSDALE RD NE  
 CARTERSVILLE GA 30121 USA  
 (770) 347-3300

Chemical and Physical Test Report  
 MADE IN UNITED STATES

**PRODUCED IN: CARTERSVILLE**

<b>SHIP TO</b> TRIAD METALS INTERNATIONAL POHC DEL-Y-POV JCT 412-331-7855 NEWELL ISLAND, PA 15225	<b>INVOICE TO</b> TRIAD METALS INTERNATIONAL METAL TRADERS INC 2301 COMPUTER AVE STE-A-1 WILLOW GROVE, PA 19090	<b>SHIP DATE</b> 10/27/07	<b>CUST. ACCOUNT NO</b> 40213M35
---	---	------------------------------	-------------------------------------

SHAPE & SIZE	GRADE	SPECIFICATION	SALES ORG.	CUSTOMER NUMBER
W12 X 30# HEATID	A57250/992	ASTM A572 GR50-07, ASTM A 72-06A	7076565-15	153415
G704732	C Mn P S Si Cu Ni			
	.09 1.14 .020 .022 .27 .25 .06			
	Cr Mo V Nb B N Sn Al Ti Ca C Equ			
	.05 .014 .035 .001 .0007 .0111 .010 .001 .00100 .000350 .122			

Mechanical Test: Yield 57800 PSI, 398.52 MPA Tensile: 74800 PSI, 515.3 MPA %El: 23.59in, 23.5200MM Sid Dev'd Hill Diam .365  
 Mechanical Test: Yield 57400 PSI, 395.76 MPA Tensile: 74400 PSI, 512.7 MPA %El: 22.78in, 22.7200MM Sid Dev'd Hill Diam .365  
 Customer Requirements CASTING: STRAND CAST  
 Customer Requirements CASTING: STRAND CAST

SHAPE & SIZE	GRADE	SPECIFICATION	SALES ORG.	CUSTOMER NUMBER
W12 X 14# HEATID	A57250/992	ASTM A572 GR50-07, ASTM A 72-06A	7076565-01	1534101
G704866	C Mn P S Si Cu Ni			
	.08 1.02 .017 .015 .28 .22 .08			
	Cr Mo V Nb B N Sn Al Ti Ca Zn C Equ			
	.07 .020 .030 .0015 .0005 .0105 .008 .001 .00100 .000701 .003701 .294			

Mechanical Test: Yield 57600 PSI, 397.14 MPA Tensile: 71900 PSI, 495.1 MPA %El: 22.88in, 22.8200MM Sid Dev'd  
 Mechanical Test: Yield 58600 PSI, 404.03 MPA Tensile: 71900 PSI, 495.1 MPA %El: 21.98in, 21.9200MM Sid Dev'd  
 Customer Requirements CASTING: STRAND CAST  
 Customer Requirements CASTING: STRAND CAST

*HT # G704866 is used to fab items: B902, B905, B908*

The material, including the billets, was produced and manufactured in the United States of America

Bhaskar Valamanchi  
 Quality Director  
 Gerdau Ameristeel

*John Vary*

Mgr. Metallurg. Svcs.  
 CARTERSVILLE STEEL MILL

Seller warrants that all material furnished shall comply with specifications subject to standard published manufacturing variations. NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE MADE BY THE SELLER, AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. In no event shall seller be liable for indirect, consequential or punitive damages arising out of or related to the materials furnished by seller. Any claim for damages for materials that do not conform to specifications must be made from buyer to seller immediately after delivery of same in order to allow the seller the opportunity to inspect the material in question.





CARTERSVILLE STEEL MILL  
 384 OLD GRASSDALE ROAD  
 CARTERSVILLE GA 30117 USA  
 (770) 387-3300

Chemical and Physical Test Report

MADE IN UNITED STATES

PRODUCED IN: CARTERSVILLE

SHIP TO  
 TRIAD METALS INTERNATIONAL  
 PO BOX DELAYPOVJCT  
 412-371-7655  
 NEWBLE ISLAND, PA 155

INVOICE TO  
 TRIAD METALS INTERNATIONAL  
 METAL TRADERS INC  
 2300 COMPUTER AVE STE A  
 WILLOW GROVE, PA 19090

SHIP DATE  
 09/10/07  
 CUST. ACCOUNT NO  
 40213035

SHAPE - SIZE  
 W12 X 19# 45

GRADE SPECIFICATION  
 A57250992 ASTM A572 GR50-07 ASTM A592 06A

SALES ORDER  
 7076536 07

MECHANICAL TEST  
 Yield 54.1 KSI  
 Tensile 69100 PSI 476.43 MPa  
 Elong 27.5%

MECHANICAL TEST  
 Yield 54.1 KSI  
 Tensile 69100 PSI 476.43 MPa  
 Elong 27.5%

SALES ORDER  
 7076536 07

Customer Requirements  
 Yield 54.1 KSI  
 Tensile 69100 PSI 476.43 MPa  
 Elong 27.5%

Customer Requirements  
 Yield 54.1 KSI  
 Tensile 69100 PSI 476.43 MPa  
 Elong 27.5%

SHAPE - SIZE	GRADE	SPECIFICATION	SALES ORDER
W12 X 19# 45	A57250992	ASTM A572 GR50-07 ASTM A592 06A	7076536 07
MECHANICAL TEST	Yield 54.1 KSI	Tensile 69100 PSI 476.43 MPa	Elong 27.5%
Customer Requirements	Yield 54.1 KSI	Tensile 69100 PSI 476.43 MPa	Elong 27.5%

HT # 6704837 is used to fab items: B905, B906, B927, B825, B826, B828, B874

This material including the mill was produced and manufactured in the United States of America

Director, Manufacturing  
 Quality Director  
 General Management

THE ABOVE FIGURES ARE COPY FOR EXTRACTION FOR ORIGINAL CHEMICAL ANALYSIS TEST REPORTS  
 AS FURNISHED IN THE DEPARTMENT RECORDS OF COMPANY

MR. AND MRS. GUY  
 CARRIERS STEEL MILL

See comments that all material is sold as-is with specific conditions and no other warranties, expressed or implied, shall apply to the material. The seller shall not be held responsible for any damages to the material or for any other losses arising out of or from the use of the material. The material is sold as-is and the buyer shall accept the material in its present condition. The seller shall not be held responsible for any damages to the material or for any other losses arising out of or from the use of the material.

Heat Number  
 G704837

Vendor  
 Gerdau Ameristeel - Cartersville



# Steel Dynamics, Inc.

Structural and Heat Division • Columbia City, Indiana

## CERTIFIED MILL TEST REPORT

Customer # 000191

Bill to:

Date: 10 / 12 / 2007

Quality Steel 100% Melted and Manufactured in the USA

Ship to:  
Triad Metals Int'l  
1951 Bessener Road  
CSX Collier Yard  
Petersburg VA 23805 US  
Attn: Rock M. Givern

TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Petersburg VA, 23805 US  
Attn: Fred White

### GENERAL INFORMATION

Product: Wide Flange Beam  
Size: W 14 x 22  
W 360 X 32.9  
Heat Number: B037632  
Condition(s): As-Rolled  
Fine Grained  
Fully Killed

### SPECIFICATIONS

Standards	Grades
ASTM A992/A992M	A992 / A992M
ASTM A709/A709M - 05	A709 gr50/gr345
ASTM A572/A572M - 05	A572 gr50/gr345
ASTM A709/A709M - 05n	A709 gr50S/gr345S

### SHIPMENT DETAILS

Bundle / ASN #	Length	pcs	Customer PO
020985033	50' 0"	8	6041780
020985043	50' 0"	8	6041780
020985044	50' 0"	8	6041780
020985016	40' 0"	8	6041780
020985024	40' 0"	8	6041780

### CHEMICAL ANALYSIS (weight percent)

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analysis Type
.06	.77	.01	.037	.24	.20	.09	.08	.022	.011	.014	.001	.0086	.0003	.24	.28	.13	5.50	Final

### MECHANICAL TESTING

Test	Yield (fy) Strength ksi / MPa	Tensile (fu) Strength ksi / MPa	fy / fu Ratio	% Elong. (8" gage)	Charpy Impact Tests (available only when specified at time of order)						
					Temp F / C	Absorbed Energy ft-lbf / J	Specimen 1	Specimen 2	Specimen 3	Average	Minimum
1	56 / 383	70 / 480	.80	.29							
2	57 / 393	72 / 494	.80	.27							
3											
4											
5											
6											
7											

### Notes:

\* Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC), Corrosion Index (I)  
 CE1 (Wt%) = C + Mn/6 + (Cr+Mo) \* 5 + (Ni-Cu)/15  
 CE2 (AWS) = C + (Mn+Si)/8 + (Cr+Mo+V)/5 + (Ni-Cu)/15  
 Perm (AWS) = C + Si/30 + Mn/20 + Cu/20 + Ni/60 + C \* 10 + m/15 + W/10 + S/P  
 I = (ASTM C 11) = 26.01(Cu) + 18.0(Nb) + 1.20(Cr) + 1.49(Si) + 17.29(P) + 7.29(Cu)(Ni) + 9.10(Ni)(P) + 3.39(Cd)

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

State of Indiana, County of Whitley Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: Doug Rees-Evans  
 Manager of Technical Services

Signed: \_\_\_\_\_  
 Notary Public  
 My commission expires: \_\_\_\_\_

AS 14.6 - 14.6: A signature is not required on the test report; however, the customer shall clearly identify the organization submitting the report. Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report.

Heat Number  
B037632

Vendor  
Steel Dynamics

Bill To:  
 TRIAD METALS INTERNATIONAL  
 2300 COMPUTER AVENUE  
 SUITE A-1  
 WILLOW GROVE  
 19090 PA 1915

Ship To: 6  
 TRIAD METALS INTERNATIONAL  
 TRIAD METALS INTERNATIONAL  
 1951 BRUSSEMER ROAD  
 PETERSBURG VA 23803

Order Date: 10/29/2007  
 Order No: 3140  
 Order No: 3385695  
 Lot No: 1183789  
 Material No: 1804114

**CERTIFIED MATERIAL TEST REPORT**  
 GERDAU AMERISTEEL  
 25801 Hoffheimer Way  
 Petersburg, VA 23803  
 (804) 524-2855

SPECIFICATIONS  
 ASTM A6-05a, A992-06a, A578-06

SIZE  
 W 16 X 26# / W410 X 8  
 GRADE  
 992/572-50

LENGTH  
 50 FT / 15.24 M

HEAT NO: 30394260

CHEMICAL ANALYSIS														
	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Al	Nb	CE
	.07	.98	.018	.034	.23	.31	.10	.13	.024	.016	.003	.003	.010	.29

Yield Strength		Tensile Strength		Specimen Area		Elongation		Hard Test	
KSI	MPa	KSI	MPa	Sq In	Sq cm	%	Gage Length	Rockwell	Residual
59.8	417.3	72.3	498.5	0.344	2.22	27.3	8 In	200 mm	
60.3	415.8	72.2	497.8	0.352	2.27	26.9	8 In	200 mm	

HT # 30394260 is used to Fab items: B859, B901, B909, B913, B914, B915

B917

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A. CMTR complies with DIN EN 10204 3.1.H

I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its subcontractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: [Signature] Date: Dec. 03, 2007 Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
 Tom L. Harrington: Quality Assurance Manager Notary Public (if applicable)

PART NO.

Attn:

**File Agent:**

Arcelor Sections Commercial S.A.  
86, rue de Luxembourg  
L-4221 ESCH-SUR-ALZETTE

**MR:**

Behval TMB

**Certificate Nr X931469**

Delivery note number 931469 from 8 July 2008

Our reference : 1700004764  
Your reference : 18173  
23.03.2008  
Consignee : PACIFIC STEEL INC.

Arcelor Intern'l Canada Inc.  
Mill business, Long Products  
5500 North Service Road, 7th Floor  
BURLINGTON ON L7L 8W6  
CANADA

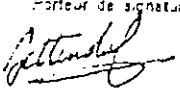
ASTM A 992 - FINE GRAIN SILICON KILLED.

Manufacturer's test certificate acc. to ASTM A 9

Ord. Item	Product	Length	Weight	Heat nr	Weight	Bund.	Bars
000008	W 18 X 7 X 36	40' 12.192 mm	28,088 mt	23381 23382	1,580 mt 28,128 mt		40
000008	W 18 X 7 X 36	46' 13.716 mm	39,879 mt	23381 23382	6,144 mt 34,635 mt		7 47

Heat nr	Heat analysis (%)															
	C	Mn	P	S	Si	N	Cu	Ni	Cr	V	Mo	Co	CEV	Sn	Nb+V	
Min	0,50		0,10													
Max	0,23	1,50	0,035	0,045	0,40		0,40	0,43	0,15	0,150	0,050	0,150	0,45	0,150		
23381	0,08	1,18	0,017	0,021	0,17	0,009	0,29	0,17	0,14	0,002	0,013	0,050	0,35	0,01	0,015	
23382	0,08	1,18	0,014	0,018	0,17	0,008	0,31	0,14	0,12	0,002	0,013	0,040	0,34	0,01	0,014	

Heat nr	Tensile test				
	PSI	PSI 200 mm			
	TS	UTS	EL. (%)	Y/D	
Min	50.000	65.000	18,00		
Max	65.000		0,85		
23381	54.555	71.775	14,24	0,77	
23381	54.375	72.355	14,65	0,75	
23382	55.380	72.065	14,67	0,77	
23382	55.825	72.500	14,58	0,77	

Bettendorff Julien  
Porteur de signature spéciale  


NI #23382 is used to fab. item: B921



Structural and Rail Division - Columbia City, Indiana

# CERTIFIED MILL TEST REPORT

Date: 11/01/2007

Quantity Steel 100% Melted  
and Manufactured in the USA

Ship to:  
Triad Metals  
3450 Grand Ave  
Newville Island  
Pittsburgh PA, 15225 IIS  
Attn: Craig Thorrell

Customer # 000191

Bill to:  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Pittsburgh, PA, 15225 US  
Attn: Fred White

## GENERAL INFORMATION

Product Wide Flange Beam  
Size W 18 x 35  
W 460 x 52  
Heat Number B037994  
Condition(s) As-Rolled  
Fine Grained  
Fully Killed

## SPECIFICATIONS

Standards  
ASTM A516A6M  
ASTM A992/A992M - 06a  
ASTM A709/A709M - 06a  
ASTM A572/A572M - 06  
ASTM A709/A709M - 06a

## Grades

A992 / A992M  
A709 q150/q345  
A577 q150/q345  
A709 q50S/q345S

## SHIPMENT DETAILS

Bundle / ASN #	Length	pcs	Customer PO
070992284	30' 0"	6	809
070992286	30' 0"	6	809
070992287	30' 0"	6	809
070992289	30' 0"	6	809
070992283	30' 0"	6	809

## CHEMICAL ANALYSIS (Weight Percent)

C	Mn	P	S	SI	CU	NI	CR	MO	SN	V	Nb/Cb	N	IT	*C1	*C2	*PC	*I	Analysis Type
.06	.98	.031	.036	.21	.35	.10	.11	.023	.014	.001	.013	.0115	.0004	.28	.32	.15	6.08	Heat

## MECHANICAL TESTING

Test	Yield (fy) ksi / MPa	Tensile (fu) ksi / MPa	fy / fu ratio	% Elong. {8" gage}	Chrupy Impact Tests (available only when specified at time of order)						
					Temp F / C	Absorbed Energy ft-lb / J	Specimen 1	Specimen 2	Specimen 3	Average	Minimum
1	55 / 377	68 / 471	.80	26							
2	61 / 420	74 / 508	.83	25							
3											
4											
5											
6											
7											

Notes: \*Calculated Chemistry Values: Carbon Equivalents (C1, C2, P, S) Corrosion Index (II)

CEI (Mn)=C+Mn/6+(C+Ni+V)/5+(Ni+Cu)/15 CEZ (AWS)=C+(Mn+S)/8+(C+Ni+V)/5+(Ni+Cu)/15 Pcm (AWS) = C+S/30+Mn/7+Cu/20+Ni/60+Cr/20+mo/10+V/10  
I (ASTM G101) = 26.01(Cu)+3.88(Mn)+1.20(Cr)+1.48(Si)+17.29(P)+7.29(Co)+(Ni)/9+(V)/10+(P)/33.39(Cu)

I hereby certify that the content of this report are accurate and correct. All test and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser design requirements.

Signed:

Doug Rees-Evans

Form F-6100-002-04-4

Manager of Technical Services

Signed:

Notary Public

My commission expires

ASTM A6 - 14 ft. A signature is not required on the first report, however, the document shall clearly identify the organization submitting the report.

Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report.

HT # B037994 is used to fab items: B912, B916, B919

Customer Name

Customer PO#

Shipper No

Heat Number

Mandate Erectors & Welding Ltd. 31710

17377

B037994



2801 S. County Road 700 East  
Columba City, IN 46725  
(760) 625-8100

**Certified Mill Test Report**  
100% Melted and Manufactured in USA

Date: 9/7/2007  
Customer No: 001-91  
Bill of Lading No: 001-125263  
MTR #: 001-124766

Ship to:  
Triad Metals  
3450 Grand Ave  
Newville Island  
Pittsburgh, PA 15225  
Attn: Craig Borrelli

Bill to:  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grades(s)	Specifications(s)	Customer P.C.
1†	020947355	W16X36	40'-0"	6	A036284	A992 / A992M 709 g50/g345 09 g50S/g345S 572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A616/A616M	128
2†	020961152	W21X44	45'-0"	4	B036782	A992 / A992M 709 g50/g345 09 g50S/g345S 572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A616/A616M	247
3†	020961156	W21X44	45'-0"	4	B036782	A992 / A992M 709 g50/g345 09 g50S/g345S 572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A616/A616M	247
4†	020962763	W21X44	45'-0"	4	0364189	A992 / A992M 709 g50/g345 09 g50S/g345S 572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A616/A616M	247
5†	020970212	W14X68	50'-0"	4	A037107	A992 / A992M 709 g50/g345 09 g50S/g345S 572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A616/A616M	346

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1†	.09	.91	.011	.042	.26	.43	.001	.000	.09	.03	.011	.008	.0004	.01	.29	0.3400	0.1700	HEAT
2†	.07	1.06	.019	.023	.18	.28	.024	1.10	.11	.04	.012	.010	.0004	.00	.31	0.3400	0.1600	HEAT
3†	.07	1.06	.019	.023	.18	.28	.024	1.20	.11	.04	.012	.010	.0004	.00	.31	0.3400	0.1600	HEAT
4†	.08	1.03	.012	.031	.21	.28	.022	.08	.10	.03	.012	.008	.0004	.00	.30	0.3400	0.1600	HEAT
5†	.08	1.22	.019	.028	.19	.37	.032	1.11	.12	.03	.012	.010	.0004	.00	.35	0.3600	0.1800	HEAT

HT # B036782 is used to fabricate items:  
A992, A992M, A709, A709M, A572, A572M, A616, A616M

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed:   
Quality Assurance

State of Indiana, County of Wayne  
Subscribed and signed before me this \_\_\_\_\_ day of \_\_\_\_\_  
My commission expires: \_\_\_\_\_

PO/Rel

Certificate of Mill Test Results  
PAC-0000000000



**Steel Dynamics, Inc.**  
2801 B. County Road 700 East  
Columbiana, OH 45725-9044  
(740) 625-9100

**Certified Mill Test Report**  
100% Method and Manufactured in U.S.A.

Date: 7/28/2005  
Customer No: 000305  
Bill of Lading No: 0000057341  
MTR #: 0000057100

Ship to:  
PACIFIC STEEL  
Customer Mill Call

Bill to:  
PACIFIC STEEL INC  
845 Pine Street,  
Laval, Quebec, PQ H7V 1A9  
Attn: John Pimentel

Item	Bundle	Section	Length	Pcs	Heat #	Grade 1)	Specification(s)	Customer P.O.
1	020440270	W21X62	45'0"	4	B018577	A992/A92M A709 650S/1345S A572 650M/1345	ASTM A992/A992M - 04 ASTM A709/A709M - 04 ASTM A572/A572M - 04	17830
2	020443428	W12X79	40'0"	2	B018711	A992/A92M A709 650S/1345S A572 650M/1345	ASTM A992/A992M - 04 ASTM A709/A709M - 04 ASTM A572/A572M - 04	17836
3	020448284	W27X84	40'0"	2	B016831	A992/A92M A709 650S/1345S A572 650M/1345	ASTM A992/A992M - 04 ASTM A709/A709M - 04 ASTM A572/A572M - 04	17838
4	020448286	W27X84	40'0"	2	B016831	A992/A92M A709 650S/1345S A572 650M/1345	ASTM A992/A992M - 04 ASTM A709/A709M - 04 ASTM A572/A572M - 04	17838

**CHEMICAL**

Item	C	Mn	P	S	SI	CU	V	Cr	Ni	Mo	Sn
1	.07	1.19	.011	.031	.24	.35	.032	.06	.14	.081	.016
2	.06	1.13	.012	.040	.24	.36	.002	.08	.11	.034	.016
3	.07	1.16	.011	.028	.20	.31	.030	.06	.09	.023	.014
4	.07	1.18	.011	.028	.20	.31	.030	.06	.09	.023	.014

**MECHANICAL**

Tension Testing Results

Item	Test	Yield (Fy) Strength ksi/MPa	Tensile (Fu) Strength ksi/MPa	Fy/Fu	Elong (%) based on 8" Gauge	ROA (%)	Band Test Result
1	1	60/415	74/510	.81	28		
1	2	60/412	77/528	.78	27		
2	1	61/422	73/501	.84	25		
2	2	60/413	72/496	.83	25		
3	1	56/378	73/503	.75	26		
3	2	54/375	72/485	.75	27		
4	1	55/379	73/503	.75	26		
4	2	54/375	72/485	.75	27		

Charpy Impact Testing Results

Item	Temp F/C	Sample 1 ft. Ibs/oules	Sample 2 ft. Ibs/oules	Sample 3 ft. Ibs/oules	% Shear	ASTM Gr. Size No. (per ASTM F 142)
1						
2						
3						
4						

AT # B016577 is used to fabricate: *BS74*

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by the mill and/or contractor are in conformity with the requirements of the relevant specifications and applicable purchase descriptions.

State of Indiana, County of Wayne  
Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_ 2005.  
Signed: \_\_\_\_\_  
My commission expires: \_\_\_\_\_

Date: 7/28/2005 Time: 1:38 PM To: John Pimentel @ 8,1(514)384-9353 Page: 002 - 3

Indexed dan 15 by sw/ive

PART NO.

Ann:

DATE	12/17/07
INVOICE NO	112163
BILL OF LADING	813221
CUSTOMER NO	7460
CUSTOMER P.O.	19179

NUCOR-YAMATO STEEL CO.  
P.O. BOX 1228 • BLYTHEVILLE, AR 72318

CERTIFIED MILL TEST REPORT

100% MELTED AND MANUFACTURED IN U.S.A.  
All shapes produced by Nucor-Yamato Steel are cast and rolled to a fully killed and fine grain practice.

S  
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PACIFIC STEEL C/O  
ARRIMAGE IDRAL  
CN BIDDING 8076  
LONGUEUIL, QUEBEC CANADA

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ASTM A992/A992M-06a A572/A572M-GR50-06  
ASTM A709/A709M-07 GR50 (345)  
ASTM A709/A709M-07 GR50S (345S)  
ASTM A6/A6M-07

S  
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L  
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PACIFIC STEEL  
845 MONCK, CHOMEDRY  
CANADA  
LAVAL, QC  
K7B 1A9

ITEM #	ITEM DESCRIPTION	QTY	HEAT #	MECHANICAL PROPERTIES						CHEMICAL PROPERTIES														
				YIELD TO TENSILE RATIO	YIELD STRENGTH	TENSILE STRENGTH	ELONG	IMPACT ENERGY		C	Mn	P	S	SI	Cu	NI	Cr	Mo	V	Cb	CE			
					MPa	MPa	%	TEMP °C	IMPACT FT-LS															
1	W24 - 55.0 35' W610 x 82.0 10.668 M	3	310005	.74	52000	70000	23			.07	1.10	.023	.031	.25	.30	.11	.15	.03	.00	.017	.32			
				.72	51000	71000	24																	
					359	483	23																	
					352	490	24																	
2	W24 - 55.0 45' W610 x 82.0 13.716 M	1	309999	.75	54000	72000	26			.03	1.10	.018	.037	.20	.27	.10	.09	.02	.00	.015	.30			
				.73	52000	71000	25																	
					372	495	26																	
					359	490	25																	
3	W24 - 55.0 45' W610 x 82.0 13.716 M	5	310002	.76	55000	72000	27			.03	1.13	.023	.038	.21	.29	.12	.12	.03	.00	.018	.32			
				.75	54000	72000	27																	
					379	496	27																	
					372	495	27																	
4	W24 - 55.0 45' W610 x 82.0 13.716 M	1	310004	.74	52000	70000	24			.07	1.10	.018	.037	.28	.26	.11	.10	.03	.00	.017	.30			
				.74	50000	68000	24																	
					359	483	24																	
					345	469	24																	
5	W24 - 55.0 55' W610 x 82.0 16.764 M	1	309971	.74	54000	73000	24			.08	1.12	.021	.034	.30	.25	.10	.09	.02	.00	.018	.31			
				.74	53000	72000	24																	
					372	503	24																	
					365	496	24																	
6	W24 - 55.0 55' W610 x 82.0 16.764 M	5	309973	.75	54000	72000	24			.05	1.10	.021	.032	.23	.27	.12	.10	.03	.00	.015	.32			
				.72	52000	72000	24																	
					372	496	24																	
					359	496	24																	
7	W24 - 55.0 65' W610 x 82.0 19.812 M	7	309995	.75	53000	71000	26			.06	1.11	.015	.038	.27	.26	.10	.08	.05	.00	.017	.31			
				.73	52000	71000	26																	
					365	490	26																	
					359	490	26																	
8	W24 - 55.0 65' W610 x 82.0	2	309997	.75	53000	71000	26			.07	1.10	.020	.034	.30	.27	.10	.12	.03	.00	.016	.30			
				.74	52000	70000	28																	
					365	490	26																	
					359	483	28																	

ELONGATION BASED ON 8.00 INCH GAUGE LENGTH

I hereby certify that the contents of this report are accurate and correct. All test results and operations performed by this material manufacturer are in compliance with the requirements of the material specifications listed in the Specifications Block above.

*Darryl Lowell*

QUALITY ASSURANCE

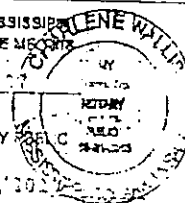
CUSTOMER COPY

STATE OF ARKANSAS COUNTY OF MISSISSIPPI  
SWORN TO AND SUBSCRIBED BEFORE ME THIS

17

*Christina Waller*

NOTARY



HI#310003 is used to Fab. items: BS17, B923





**Steel Dynamics, Inc.**

Structural and Rail Division • Columbia City, Indiana

Quality Steel 100% Melted  
and Manufactured in the USA

Ship to:  
Triad Metals Intl  
1951 Bessemer Road  
CSX-Collier Yard  
Petersburg VA, 23805 US  
Attn: Rock McGovern

Customer # 000191

Bill to:

TRIAD METAL \$ INTERNATIONAL  
A-1 2300 Computer Avenue  
Petersburg VA, 23805 US  
Attn: Fred White

Date 11/08/2007

Page 9 of 17

# CERTIFIED MILL TEST REPORT

GENERAL INFORMATION		SPECIFICATIONS		SHIPMENT DETAIL	
Product	Wide Flange Beam	Standards	Grades	Bundle / ASN #	1" x 11 1/2" x 11 1/2"
Size	W 24 x 68	ASTM A616/A617	A992 / A992M	020995679	11/23
	W 610 x 101		A709 gr50/A709M - 06a		
Header Number	B038149		A709 gr50/A709M - 06a		
Condition(s)	As-Rolled		A572/A572M - 06		
	Fine Grained		A709 gr50/A709M - 06a		
	Fully Killed				
ROL # 0000129538		Customer PO			

CHEMICAL ANALYSIS (Weight Percent)																	
Mn	P	S	Si	Cu	NI	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*P	*I	Analysis Type
1.06	.019	.017	.20	.41	.10	.12	.019	.014	.035	.003	.0085	.0004	.31	.35	.17	5.90	Heat

MECHANICAL TESTING									
Tens	Yield (fy)	Tensile (fu)	fy / fu	% Elong.	Charpy Impact Tests (available only when specified at time of order)				
	ksi / MPa	ksi / MPa	Ft/lb	(8" gage)	Temp	Absorbed Energy	ft-lb/ft <sup>2</sup>	ft-lb/ft <sup>2</sup>	ft-lb/ft <sup>2</sup>
1	55 / 380	76 / 523	.73	24	F / C	Specimen 1	Specimen 2	Specimen 3	Average
2	58 / 410	73 / 507	.77	25					Minimum
3									
4									
5									
6									
7									

Notations: \*Calculated Chemistry Values; Carbon Equivalents (C1, C2, PC), Corrosion Index (I)

CE1 (IWI) = C + Mn/6 + Cr + Mo + V/5 + (Ni + Cu)/15      CE2 (AWS) = C + (Mn + Si)/6 + Cr + Mo + V/5 + (Ni + Cu)/15      Pcm (AWS) = C + Si/30 + Mn/20 + Cu/20 + Ni/60 + Cr/30 + Nb/15 + V/10 + Sn

I (ASTM G101) = 26.01(Cu)/3.88(Ni) + 1.20(Cr) + 1.29(Si) + 17.29(P) + 7.28(Cu)(Ni) + 9.10(Ni)(P) + 33.39(Cu<sup>2</sup>)

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signature: Doug Rees-Evans      Signed: \_\_\_\_\_      Notary Public: \_\_\_\_\_      My commission expires: \_\_\_\_\_

Title: Manager of Technical Services

ASTM A6 - 14.6: A signature is not required on the test report; however, the document shall clearly identify the organization submitting the report. Notwithstanding the absence of a signature, the organization certifying the report is responsible for the content of the report.

Customer Name: \_\_\_\_\_      Shipper No: 17377      Heat Number: B038149

Customer PO #: \_\_\_\_\_      Shipper No: 17377      Heat Number: B038149

Customer Name: \_\_\_\_\_      Shipper No: 17377      Heat Number: B038149

Atlas Tube Canada Ltd  
 290 Clark St  
 Marrow, Ontario Canada  
 N0R 1G0  
 Tel: 519-738-2541  
 Fax: 519-738-3537



Ref.B/L: 80269969  
 Date: 12.06.2007  
 Customer: 1774

**Sold to**

Acier Altitube Inc.  
 2555 Francis-Hugues Avenue  
 LAVAL QC H7S 2H7  
 CANADA

**MATERIAL TEST REPORT**

**Shipped to**

Acier Altitube Inc.  
 2555 Francis-Hugues Avenue  
 LAVAL QC H7S 2H7  
 CANADA

Material: E 2x6 Dx213x50 0.01011-EC  
 Sales Order: 351251

Material No: 60060315  
 Purchase Order: 3550

Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
60060		0.210	0.850	0.011	0.005	0.020	0.028	0.020	0.000	0.010	0.010	0.020	0.001

Sample No	Yield	Tensile	Elon. 2in
M200493482	357000 Psi	372630 Psi	34.7 %

Certification  
 ASTM A500-03A GRADE B&C

Material Note  
 Sales Or Note:

Material: E 2x4 Cx213x50 0.01011-EC  
 Sales Order: 351092

Material No: 120040313  
 Purchase Order: 3545

Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
601805		0.220	0.810	0.009	0.002	0.190	0.035	0.019	0.005	0.002	0.007	0.020	0.001

Sample No	Yield	Tensile	Elon. 2in
M200492855	357250 Psi	370290 Psi	32.3 %

Certification  
 ASTM A500-03A GRADE B&C

Material Note  
 Sales Or Note:

*HT #681805 is used to fab. item. RB3*

Material: E 2x6 Dx250x34 0.01011-EC  
 Sales Order: 351092

Material No: 120060250  
 Purchase Order: 3545

Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
601805		0.180	0.700	0.005	0.005	0.115	0.045	0.034	0.004	0.002	0.014	0.019	0.001

Sample No	Yield	Tensile	Elon. 2in
M200461958	363100 Psi	377110 Psi	34.3 %

Certification  
 ASTM A500-03A GRADE B&C

Material Note  
 Sales Or Note:

Material: E 2x6 Dx275x34 0.01011-EC  
 Sales Order: 350315

Material No: 120060375  
 Purchase Order: 3545

Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
601805		0.180	0.700	0.005	0.002	0.161	0.042	0.036	0.006	0.003	0.013	0.019	0.001

Sample No	Yield	Tensile	Elon. 2in
M200494804	357400 Psi	358370 Psi	37.3 %

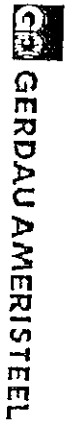
Certification  
 ASTM A500-03A GRADE B&C

Material Note  
 Sales Or Note:

Quality Assurance

Results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.





WHITBY STEEL MILL  
 HOPKINS STREET SOUTH  
 WHITBY ON L1N 5T1 CAN  
 (905) 668-8811

Chemical and Physical Test Report

MADE IN CANADA

W-067313

PRODUCED IN: WHITBY

SHIP TO  
 YORK STEEL INC  
 INDUSTRIAL PARK  
 FREDERICTON, NB E3B 5S4

INVOICE TO  
 YORK STEEL INC (FRED  
 ACCTS PAYABLE  
 550 WILSEY ROAD  
 FREDERICTON, NB E3B 7K2

SHIP DATE  
 06/21/07  
 CUST. ACCOUNT NO  
 60125663

SHAPE + SIZE: A3 X 3 X 1/4  
 HEAT I.D.: B41642  
 Mechanical Test: Yield 58940 PSI, 406.38 MPa  
 Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST  
 Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST

SHAPE + SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST P.O. NUMBER
A3 X 3 X 1/4	44W	C.S.A. G40.21-98 44W/50W; ASTM: A36 - 97a ASTM A709 - 97b ASME: SA36 (A)	6129280-23	8527-23
HEAT I.D. B41738	C Mn P S Si Cu Ni Cr Mo V Nb B N Sn Al Ti Zr Ca C Eqv	.15 .85 .012 .043 .20 .27 .09 .05 .024 .000 .000 .0000 .0099 .010 .000 .00000 .000 .00000 .299	6129280-19	8527-19

HT # B41642 is used to exhibit from SFT-Part

This material, including the billets, was produced and manufactured in Canada

*Manakay*  
 Bhaskar Valamanchili  
 Quality Director  
 Gerdau Ameristeel

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

*B. R. B. B.*  
 Mgr. Metallurg. Svcs.  
 WHITBY STEEL MILL



**GERDAU AMERISTEEL**

WHITBY STEEL MILL  
HOPKINS STREET SOUTH  
WHITBY ON L1N 5T1 CAN  
(905) 668-8811

Chemical and Physical Test Report

MADE IN CANADA

W-072007

PRODUCED IN: WHITBY

SHIP TO  
YORK STEEL INC  
INDUSTRIAL PARK  
FREDERICTON, NB E3B 5S4

INVOICE TO  
YORK STEEL INC (FRED  
ACCTS PAYABLE  
550 WILSEY ROAD  
FREDERICTON, NB E3B 7K2

SHIP DATE  
10/01/07  
CUST. ACCOUNT NO  
60125663

SHAPE + SIZE

A5 X 5 X 3/8

GRADE  
44W

SPECIFICATION  
C.S.A. G40.21-04 44W/50W; ASTM: A36 - 05a ASTM A709 - 05b ASME: SA36 (A)

SALES ORDER  
7069847-11

CUST P.O. NUMBER  
09505-11

HEAT I.D.  
B43389

C Mn P S Si Cu Ni Cr Mo V Nb B N Sn Al Ti Zr Ca C Eqv  
.14 .68 .013 .034 .17 .29 .11 .07 .040 .000 .011 .0000 .0137 .010 .000 .00000 .000 .00000 .299

Mechanical Test: Yield 55797 PSI, 384.71 MPA Tensile: 76308 PSI, 526.13 MPA %El: 23.6/8in, 23.6/200MM  
Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST

HEAT I.D.  
B43413

C Mn P S Si Cu Ni Cr Mo V Nb B N Sn Al Ti Zr Ca C Eqv  
.18 .69 .013 .024 .15 .28 .11 .09 .030 .000 .000 .0000 .0132 .010 .000 .00000 .000 .00000 .35

Mechanical Test: Yield 48871 PSI, 336.95 MPA Tensile: 72362 PSI, 498.92 MPA %El: 23.6/8in, 23.6/200MM  
Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST

SHAPE + SIZE  
A4 X 4 X 5/16

GRADE  
44W

SPECIFICATION  
C.S.A. G40.21-04(44W); ASTM A36M-05a ASTM 709-05b ASME: SA36-00a

SALES ORDER  
7056075-05

CUST P.O. NUMBER  
9348-05

*HT# 643413 is used to feed item 511, 11819, 11820, 11826, BA-2*

This material, including the billets, was produced and manufactured in Canada

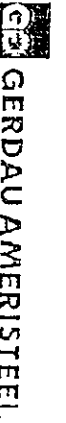
Bhaskar Yalamanchilli  
Quality Director  
Gerdau Ameristeel

*Yalamanchilli*

Mgr. Metallurg. Svcs.  
WHITBY STEEL MILL

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

Seller warrants that all material furnished shall comply with specifications subject to standard published manufacturing variations. NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, ARE MADE BY THE SELLER, AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Any claim for damages for materials that do not conform to specifications must be made from buyer to seller immediately after delivery of same in order to allow the seller the opportunity to inspect the material in question.



WHITBY STEEL MILL  
 HOPKINS STREET SOUTH  
 WHITBY ON L1N 5T1 CAN  
 (905) 668-8811

Chemical and Physical Test Report  
 MADE IN CANADA

W-063354

PRODUCED IN: WHITBY

SHIP TO  
 YORK STEEL INC  
 INDUSTRIAL PARK

FREDERICTON, NB E3B 5S4

INVOICE TO  
 YORK STEEL INC (FRED)  
 ACCTS PAYABLE  
 550 WILSEY ROAD  
 FREDERICTON, NB E3B 7K2

SHIP DATE  
 03/28/07  
 CUST. ACCOUNT NO  
 60125663

SHAPE + SIZE      GRADE      SPECIFICATION  
 A6 X 4 X 3/8      44W      CSA-G40 21-98(44W);ASTM A36M-01a ASTM709-01b ASME:SA36-00a  
 HEAT I.D.      C Mn P S Si Cu Ni Cr Mo V Nb B N      Sn      Al      Ti      Zr      Ca      C Eqv  
 B41371      .17 .74 .011 .028 .23 .22 .10 .15 .023 .000 .000 .0000 .0161 .012 .000 .00000 .000 .00000 .346

Mechanical Test: Yield 49307 PSI, 339.96 MPA      Tensile: 73960 PSI, 509.94 MPA      %El: 26.2/8in, 26.2/200MM  
 Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST  
 Mechanical Test: Yield 50112 PSI, 345.51 MPA      Tensile: 72907 PSI, 502.68 MPA      %El: 26.2/8in, 26.2/200MM  
 Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST

SHAPE + SIZE      GRADE      SPECIFICATION  
 A6 X 4 X 3/8      44W      C.S.A. G40 21-98 44W/50W; ASTM: A36 - 97a ASTM709- 97b ASME: SA36 (A  
 HEAT I.D.      C Mn P S Si Cu Ni Cr Mo V Nb B N      Sn      Al      Ti      Zr      Ca      C Eqv  
 B41243      .16 .80 .011 .025 .22 .27 .09 .12 .021 .000 .000 .0000 .0148 .013 .000 .00000 .000 .00000 .342

Mechanical Test: Yield 50921 PSI, 351.09 MPA      Tensile: 73145 PSI, 504.32 MPA      %El: 22.5/8in, 22.5/200MM  
 Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST  
 Mechanical Test: Yield 51059 PSI, 352.04 MPA      Tensile: 72457 PSI, 499.57 MPA      %El: 22.5/8in, 22.5/200MM  
 Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST

*HT# B41371 is used to Feb items: L-2, M817, M818, M821, M825, M817, M818*

This material, including the billets, was produced and manufactured in Canada  
 Bhaskar Yalamanchili  
 Quality Director  
 Gerdau Ameristeel

*Mackley*

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

*S. P. S. M. S.*  
 Mgr. Metallurg. Svcs.  
 WHITBY STEEL MILL



**IPSCO steel inc.**

**Test Certificate**

1700 Bill Sharp Boulevard, Muscatine, IA 52761-9412

Form TCI: Revision 1: Date 31 Oct 2000

Customer:  
SAMUEL & FILS & CIE (QUEBEC) L  
2225 FRANCOIS HUGUENES AVENUE  
SIDING PA 15 ST MARTIN JUNCTION  
ST MARTIN JUNCTION, PQ H7S1N

Customer P.O. No.: C-43921  
Product Description: ASTM A572-50/M345(04)/A709-50/M345(04)  
CSA G40.21(98/00) 50W/350W

Mill Order No.: 41-086128-02  
Shipping Manifest: 229268  
Ship Date: 29 Nov 04  
Cert Date: 29 Nov 04  
Cert No: 281559

Size: 0.750 X 120.0 X 480.0 (IN)

Heat Id	Piece Id	Piece Dimensions	Tensiles		Charpy Impact Tests			Test Temp	Test Dir	Test Size (mm)	BDWTT							
			YS (PSI)	UTS (PSI)	Elong % of 2in 8in	Bend Test	Average Hardness					Absorbed Energy (FTLB)	% Shear Avg					
B4K803	C15	0.745 X 121.2	58000	72000	39	1	2	3	Avg	1	2	3	Avg					
<p>Heat Id</p> <p>C</p> <p>Min</p> <p>P</p> <p>S</p> <p>SI</p> <p>TOTAL</p> <p>Cu</p> <p>Ni</p> <p>Cr</p> <p>Mn</p> <p>Cb</p> <p>V</p> <p>Ti</p> <p>N</p> <p>Chemical Analysis</p>																		
B4K803	.04	1.41	.019	.007	.06	.029	.34	.13	.15	.02	.047	.004	.017	.0087				

100% MELTED AND MANUFACTURED IN THE USA. MTR DIN EN10204 - 3.1.B  
MERCURY HAS NOT BEEN USED IN THE DIR CT MANUFACTURING OF THIS MATERIAL  
B4K803 C15 PIECES: 4, WEIGHT: 5.016

*HT 345 203 is used. F. Fabrication: 2184*

Cust Part #:

WE HEREBY CERTIFY THAT THIS MATERIAL WAS TESTED IN ACCORDANCE WITH THE APPROPRIATE SPECIFICATION

P. A. CROZIER  
Q.A. METALURGIST

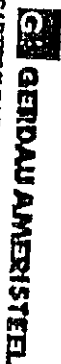
# ACIER PACIFIQUE INC.

PART NO.

PO/Rel

Certificate of Mill Test Results  
PAC-000000-000

Pg 1/1



CARTERSVILLE STEEL MILL  
394 OLD GRASSDALE RD NE  
CARTERSVILLE GA 30171 USA  
(770) 387-3300

Chemical and Physical Test Report  
MADE IN UNITED STATES

Page 6 of 8  
G-103435

PRODUCED IN: CARTERSVILLE

SHIP TO  
ACIER PACIFIC  
ARRIMAGE IDEAL CN SIDING B078  
2245 DE LA METROPOLE  
LONGUEUIL, PQ J4K 1S4

INVOICE TO  
PACIFIQUE STEEL INC  
845 MANICK ST.  
LAVAL, PQ H7S 1A8

SHIP DATE  
11/03/07  
CUST. ACCOUNT NO  
80000632

SHAPE & SIZE	GRADE	SPECIFICATION	HEAT ID.	REMARKS
W12 X 26	A572-50	ASTM A572 GR50-57	ASTM A572 GR50-57	
HEAT ID.	C	Mn	P	S
0705857	.08	1.14	.012	.018
Metallurgical Test	Yield 55000 PSI, 382 MPa	Tensile 71800 PSI, 498.04 MPa	Metallurgical Test	Yield 52000 PSI, 360.04 MPa
Customer Requirements	CASTING: STRAND CAST	Tensile 88700 PSI, 612.87 MPa	Customer Requirements	CASTING: STRAND CAST
SHAPE & SIZE	GRADE	SPECIFICATION	HEAT ID.	REMARKS
W12 X 26	A572-50	ASTM A572 GR50-57	ASTM A572 GR50-57	
HEAT ID.	C	Mn	P	S
0705857	.08	1.13	.022	.017
Metallurgical Test	Yield 55000 PSI, 381.35 MPa	Tensile 74200 PSI, 517.58 MPa	Metallurgical Test	Yield 55000 PSI, 381.11 MPa
Customer Requirements	CASTING: STRAND CAST	Tensile 74000 PSI, 510.21 MPa	Customer Requirements	CASTING: STRAND CAST

HT # 6705945 is used to Fabric item: TB-1

This material, including the labels, was produced and manufactured in the United States of America

*Shackley*

Shackley, Yvonne  
Quality Director  
Carter Steel America

*Shackley*

Mr. Shackley  
CARTERSVILLE STEEL MILL

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

Seller warrants that all material furnished shall comply with specifications subject to standard published requirements. NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, ARE MADE BY THE SELLER, AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Any claim for damages for materials that do not conform to specifications must be made from buyer to seller immediately after delivery of same in order to allow the seller the opportunity to inspect the material in question.







# Material Test Report

Ref.B/L:80154059  
 Date:05.26.2005  
 Customer:1751

200 Clark Street, Harrow, Ontario, Canada N0R 1G0  
 Tel.: (519) 738-5000 Fax (519) 738-5087  
 Mandate Erectors & Welding Ltd  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Shipped to  
 Mandate Erectors & Welding Ltd  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

<b>Material.</b>	8.625x313x49'6"O(2x1).				<b>Material No.</b>				R08625313		<b>Made in Canada</b>	
<b>Sales order</b>	163162				<b>Purchase Order</b>				27682 job852		<b>Cust Material #</b>	
<b>Heat No</b>	<b>C</b>	<b>Mn</b>	<b>P</b>	<b>S</b>	<b>Si</b>	<b>Al</b>	<b>Cu</b>	<b>Cb</b>	<b>Mo</b>	<b>Ni</b>	<b>Cr</b>	<b>V</b>
01 21994	0.200	0.870	0.011	0.009	0.028	0.052	0.090	0.000	0.000	0.000	0.000	0.000
<b>Bundle No</b>	<b>Yield</b>		<b>Tensile</b>		<b>Eln.2in</b>		<b>Certification</b>					
M1 00398373	061874 Psi		078150 Psi		30.2 %		ASTM A500-03A GRADE C & B					
<b>Material Note:</b>												
<b>Sales Or.Note:</b>												

<b>Material.</b>	8.625x313x46'6"O(5x1).				<b>Material No.</b>				R08625313		<b>Made in Canada</b>	
<b>Sales order</b>	163162				<b>Purchase Order</b>				27682 job852		<b>Cust Material #</b>	
<b>Heat No</b>	<b>C</b>	<b>Mn</b>	<b>P</b>	<b>S</b>	<b>Si</b>	<b>Al</b>	<b>Cu</b>	<b>Cb</b>	<b>Mo</b>	<b>Ni</b>	<b>Cr</b>	<b>V</b>
12 7870	0.178	0.712	0.014	0.005	0.185	0.014	0.105	0.000	0.000	0.052	0.000	0.000
<b>Bundle No</b>	<b>Yield</b>		<b>Tensile</b>		<b>Eln.2in</b>		<b>Certification</b>					
M1 00398366	064922 Psi		077320 Psi		29.5 %		ASTM A500-03A GRADE C & B					
<b>Material Note:</b>												
<b>Sales Or.Note:</b>												

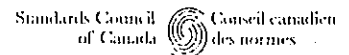
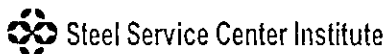
<b>Material.</b>	8.625x313x46'6"O(5x1).				<b>Material No.</b>				R08625313		<b>Made in Canada</b>	
<b>Sales order</b>	163162				<b>Purchase Order</b>				27682 job852		<b>Cust Material #</b>	
<b>Heat No</b>	<b>C</b>	<b>Mn</b>	<b>P</b>	<b>S</b>	<b>Si</b>	<b>Al</b>	<b>Cu</b>	<b>Cb</b>	<b>Mo</b>	<b>Ni</b>	<b>Cr</b>	<b>V</b>
0121993	0.210	0.920	0.015	0.007	0.021	0.046	0.040	0.000	0.000	0.000	0.000	0.000
<b>Bundle No</b>	<b>Yield</b>		<b>Tensile</b>		<b>Eln.2in</b>		<b>Certification</b>					
M1 00398365	061758 Psi		078780 Psi		31.3 %		ASTM A500-03A GRADE C & B					
<b>Material Note:</b>												
<b>Sales Or.Note:</b>												

<b>Material.</b>	8.625x313x46'6"O(5x1).				<b>Material No.</b>				R08625313		<b>Made in Canada</b>	
<b>Sales order</b>	163162				<b>Purchase Order</b>				27682 job852		<b>Cust Material #</b>	
<b>Heat No</b>	<b>C</b>	<b>Mn</b>	<b>P</b>	<b>S</b>	<b>Si</b>	<b>Al</b>	<b>Cu</b>	<b>Cb</b>	<b>Mo</b>	<b>Ni</b>	<b>Cr</b>	<b>V</b>
127870	0.178	0.712	0.014	0.005	0.185	0.014	0.105	0.000	0.000	0.052	0.000	0.000
<b>Bundle No</b>	<b>Yield</b>		<b>Tensile</b>		<b>Eln.2in</b>		<b>Certification</b>					
M100398365	064922 Psi		077320 Psi		29.5 %		ASTM A500-03A GRADE C & B					
<b>Material Note:</b>												
<b>Sales Or.Note:</b>												

*HT # 0121994 is used to fabricate items: Red Type 1 to Red Type 3*

Authorized by Quality Assurance:

Page : 3 Of 4



Load #: 26

Shipping Date:

Waybill #: 898-26

Customer: Pizzagalli Construction Company  
 Job Title: 84 Marginal Way  
 Date Sent to Shop: X  
 Job Number: 898

Job Progress Report Sheet

SHEET: 1

Prepared By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: 24-01-01  
 Bathurst Machine Shop Ltd.  
 Mandate Erectors & Welding Ltd.  
 MQM Ltd., Tracadie  
 1040 Route 430  
 Big River Road  
 E2A 6P9

Form#12 Rev. 4 \* = SEE SHOP DWG C=COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped					
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date	
A	W24X55	A	B814	1	1688																								
A	W24X55	A	B821	1	1644																								
A	W24X55	A	B822	1	1640																								
A	W24X62	A	B823	1	1888																								
A	W24X62	A	B824	1	1891																								
A	W12X19	A	B827	2	307																								
A	W10X39	A	B833	4	1358																								
A	W18X35	A	B834	1	1077																								
A	W18X35	A	B835	1	1077																								
A	W18X35	A	B836	1	1079																								
A	W21X44	A	B837	1	1889																								
A	W21X44	A	B840	1	1889																								
A	W21X44	A	B842	1	1886																								
A	W21X62	A	B845	1	1590																								
A	HSS8X4X1/4	A	B850	1	255																								
A	W21X62	A	B854	1	1949																								
A	W24X68	A	B855	1	2822																								
11	W21X44	A	B866	1	1809																								
A	W21X50	A	B872	1	2510																								
A	W16X36	A	B873	1	1329																								

Pieces 24 31577 Total Weight(Lbs) ( 15.8 TONS)

Load #: 26

Customer:

Pizzagalli Construction Company

Job Title:

84 Marginal Way

Job Progress Report Sheet

Date Sent to Shop:

X

SHEET: 2

Job Number:

898

Prepared By:

Approved By:

Date: 24-01-01

Bathurst Machine Shop Ltd.

10-10 Route 430

Mandate Erectors & Welding Ltd.

Big River Road

MIQM Ltd., Traedie

FE2A 6P9

Form#12 Rev. 4

\* = SEE SHOP DWG

C=COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped					
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qly	By	Date			
A	W27X84	A	B875	1	1884																								
A	W21X44	A	B879	1	1889																								
A	HSS8X4X1/4	A	B885	3	437																								
A	W12X14	A	B889	1	239																								
H	W12X14	A	B890	1	239																								
A	W21X44	A	B895	1	1889																								
A	C6X8.2	O	CB802	2	131																								
A	C6X8.2	o	CB803	1	66																								
A	C6X8.2	O	CB804	1	66																								
A	11.S.S. 8X8X5/8	A	D700	1	728																								
A	11.S.S. 8X8X5/8	A	D701	1	678																								
A	11.S.S. 5X5X5/16	A	D705	1	555																								
A	11.S.S. 7X7X1/2	A	D715	1	813																								
A	11.S.S. 7X7X1/2	A	D716	1	813																								
A	11.S.S. 8X8X5/8	A	D717	1	829																								
A	11.S.S. 8X8X5/8	A	D718	1	968																								
A	11.S.S. 8X8X5/8	A	D721	1	828																								
A	HSS8X6X5/16	A	M810	1	621																								
A	L6X4X5/16	A	M811	1	276																								
A	C6X8.2	O	RB800	1	56																								

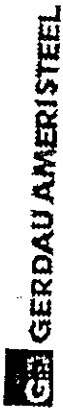
Pieces

23

14005 Total Weight( Lbs)

( 7.0 TONS)





CARTERSVILLE STEEL MILL  
384 OLD GRASSDALE RD NE  
CARTERSVILLE GA 30121 USA  
(770) 387-3300

Chemical and Physical Test Report  
MADE IN UNITED STATES

PRODUCED IN: CARTERSVILLE

SHIP TO  
TRIAD METAL  
1951 BESSEMER ROAD  
804-732-5000  
PETERSBURG, VA 23805

INVOICE TO  
TRIAD METALS INTERNATIONAL  
METAL TRADERS INC  
2300 COMPUTER AVE. STE-A-1  
WILLOW GROVE, PA 19090

SHIP DATE  
11/06/07

CUST. ACCO'INT NO  
40213035

SHAPE + SIZE **W12 X 19** GRADE **A57250/992** SPECIFICATION **ASTM A572 GR 1-07, ASTM A992-06A**

HEAT I.D.	C	Mn	P	S	Si	Al	Ni	Cr	Mo	V	Nb	B	N	Sn	Al	Ti	Ca	C Eqv
G704838	.08	1.19	.020	.029	.25	21	.07	.07	.019	.026	.002	.0005	.0086	.011	.001	.00100	.00090	.322

Mechanical Test: Yield 58400 PSI, 402.65 MPA Tensile: 76000 PSI, 486.77 MPA %EL: 22.0%  
Customer Requirements CASTING: STRAND CAST  
Mechanical Test: Yield 59500 PSI, 368.87 MPA Tensile: 76000 PSI, 475.74 MPA %EL: 26.1%  
Customer Requirements CASTING: STRAND CAST

SHAPE + SIZE **W12 X 19** GRADE **A57250/992** SPECIFICATION **ASTM A572 GR50,07, ASTM A992-06A**

HEAT I.D.	C	Mn	P	S	Si	Al	Ni	Cr	Mo	V	Nb	B	N	Sn	Al	Ti	Ca	C Eqv
G705969	.09	1.15	.014	.024	.26	24	.09	.04	.017	.026	.002	.0006	.0100	.009	.001	.00100	.00030	.319

Mechanical Test: Yield 59400 PSI, 409.55 MPA Tensile: 74700 PSI, 512.20 MPA %EL: 25.4%  
Customer Requirements CASTING: STRAND CAST  
Mechanical Test: Yield 59700 PSI, 411.82 MPA Tensile: 74700 PSI, 520.55 MPA %EL: 24.9%  
Customer Requirements CASTING: STRAND CAST

SALES ORDER  
7097022-10

CUST P.O. NUMBER  
2206-10

SALES ORDER  
7097022-11

CUST P.O. NUMBER  
2206-11

HT# 6705989 is used to fab item 16827

This material, including the billets, was produced and manufactured in the United States of America

*M. Askary*  
Bhaskar Yalamanchili  
Quality Director  
Gerdau Ameristeel

*J. Jankov*

Mgr. Metallurgy Svcs.  
CARTERSVILLE STEEL MILL

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

Seller warrants that all material furnished shall comply with specifications subject to standard published manufacturing variations. NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE MADE BY THE SELLER, AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. In no event shall seller be liable for fire, consequential or punitive damages arising out of or related to the materials furnished by seller. Any claim for damages for materials that do not conform to specifications must be made from buyer to seller immediately after delivery of same in order to allow the seller the opportunity to inspect the material in question.

Acierol Saccos Commercial S.A.  
86, rue de Luxembourg  
L-221 ESCH-SUR-ALZETTE

Ref: TMB

Certificate Nr X 931469

Delivery note number 831469 from 8 July 2008

Our reference: 1700004754

Your reference: 18173

23.03.2008

Consignee: PACIFIC STEEL INC.

ASTM A 992 - FINE GRAIN SUIJON KLEID.

Manufacturer's test certificate acc. to ASTM A 8

Acierol Intern'l Canada Inc.  
Mill business, Long Products  
5500 North Service Road, 7th Floor  
BURLINGTON ON L7L 6W6  
CANADA

Order Item	Product	Length	Weight	Heat nr	Weight	Bundle	Bars
000008	W 18 X 7 X 36	40'	28,088 mt	23382	1,960 mt	3	3
000008	W 18 X 7 X 36	45'	39,979 mt	23381	5,144 mt	7	7

Heat nr	C	Mn	P	S	Si	R	Cu	Ni	Cr	V	Nb	Mo	Co	W	B	N	O	Heat analysis (%)															
																		C	Mn	P	S	Si	R	Cu	Ni	Cr	V	Nb	Mo	Co	W	B	N

Heat nr	Mn	C	Mn	P	S	Si	R	Cu	Ni	Cr	V	Nb	Mo	Co	W	B	N	O	Heat analysis (%)															
																			C	Mn	P	S	Si	R	Cu	Ni	Cr	V	Nb	Mo	Co	W	B	N

Heat nr	Mn	C	Mn	P	S	Si	R	Cu	Ni	Cr	V	Nb	Mo	Co	W	B	N	O	Heat analysis (%)															
																			C	Mn	P	S	Si	R	Cu	Ni	Cr	V	Nb	Mo	Co	W	B	N

Heat nr	Mn	C	Mn	P	S	Si	R	Cu	Ni	Cr	V	Nb	Mo	Co	W	B	N	O
23381	0.23	0.50	0.035	0.045	0.40	0.60	0.43	0.33	0.150	0.050	0.45	0.150	0.015	0.015	0.015	0.015	0.015	0.015
23382	0.08	1.18	0.017	0.021	0.17	0.028	0.23	0.27	0.14	0.002	0.013	0.050	0.05	0.02	0.015	0.001	0.014	0.014
23382	0.08	1.18	0.014	0.014	0.17	0.028	0.23	0.27	0.14	0.002	0.013	0.050	0.05	0.02	0.015	0.001	0.014	0.014

Heat nr	Mn	C	Mn	P	S	Si	R	Cu	Ni	Cr	V	Nb	Mo	Co	W	B	N	O
23381	54.555	71.775	24.24	0.77	54.555	71.775	24.24	0.77	54.555	71.775	24.24	0.77	54.555	71.775	24.24	0.77	54.555	71.775
23382	54.375	72.355	24.65	0.75	54.375	72.355	24.65	0.75	54.375	72.355	24.65	0.75	54.375	72.355	24.65	0.75	54.375	72.355
23382	55.390	72.065	24.67	0.77	55.390	72.065	24.67	0.77	55.390	72.065	24.67	0.77	55.390	72.065	24.67	0.77	55.390	72.065
23382	55.825	72.500	24.58	0.77	55.825	72.500	24.58	0.77	55.825	72.500	24.58	0.77	55.825	72.500	24.58	0.77	55.825	72.500

Acierol Saccos Commercial S.A.  
86, rue de Luxembourg  
L-221 ESCH-SUR-ALZETTE

HT # 23382 is used to fab item: B873



**Steel Dynamics, Inc.**  
Structural and Rail Division • Columbia City, Indiana

**CERTIFIED MILL TEST REPORT**

Ship to:  
**Triad Metals Int'l**  
1951 Bessemer Road  
P.O. Box 1000  
Petersburg VA, 23805 US  
Attn: Rock McGovern

Customer #: 000191  
Bill to:  
**TRIAD METALS INTERNATIONAL**  
A-1 2300 Computer Avenue  
Petersburg VA, 23805 US  
Attn: Fred White

Quality Steel 100% Melted  
and Manufactured in the USA

**GENERAL INFORMATION**

Product Wide Flange Beam  
Size W 18 X 35  
W 460 X 52  
Heat Number B038010  
Condition(s) As-Rolled  
Fine Grained  
Fully Killed

**SPECIFICATIONS**

Standards  
ASTM A6/A6M  
A992/A992M - 06a  
A709/A709M - 06a  
A572/A572M - 05  
A709/A709M - 06a

**SHIPMENT DETAILS**

Grades  
A992 / A992M  
A709 gr50-T345  
A572 gr50-T345  
A709 gr50S-T345S

Bundle / ASN # Length pcs Customer PO  
020992631 45' 0" 6 805-2399  
020992632 45' 0" 6 805-2399  
020992633 45' 0" 6 805-2399  
020992629 45' 0" 6 805-2399

ROI # 0000129093

**CHEMICAL ANALYSIS** (weight percent)

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*1	Analysis Type
.06	.94	.018	.029	.19	.32	.12	.12	.043	.014	.001	.013	.0136	.0004	.28	.31	.15	5.79	Heat

**MECHANICAL TESTING**

Test	Yield (fy) Strength ksi / MPa	Tensile Strength ksi / MPa	% Elong. (8" gage)	fy / fu ratio	Specimen 1	Specimen 2	Specimen 3	Average	Minimum
1	54 / 369	73 / 504	25	.73					
2	56 / 389	73 / 500	25	.78					
3									
4									
5									
6									
7									

Charpy Impact Tests (available only when specified at time of order)  
Temp F / C  
Absorbed Energy ft-lbf / J

*HT # B038010 is used to fabricate items B834 to B836*

Notes:  
\* Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC), Corrosion Index (I)  
CE1 (IIW) = C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15  
I (ASTM G101) = 26.01(Cu) + 3.88(Ni) + 1.20(Cr) + 1.49(Si) + 17.29(P) + 7.29(Cu)(Ni) - 9.10(Ni)(P) - 33.39(Cu)  
Pcm (AWS) = C + Si/30 + Mn/20 + Cu/20 + Ni/50 + Cr/20 + Mo/15 + V/10

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: **Doug Rees-Evans**  
Manager of Technical Services

State of Indiana, County of Whitley Sworn to and subscribed before me this \_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_  
Notary Public  
My commission expires: \_\_\_\_\_



# Steel Dynamics, Inc.

Structural and Heat Treatments • Columbus, OH, USA

Ship to:  
Triad Metals  
3450 Khan Blvd  
Neville Island  
Pittsburgh, PA, 15225  
Attn: John Bennett

# CERTIFIED MILL TEST REPORT

Customer # 000100

Region

## TRIAD METALS INTERNATIONAL

12300 Computer / Service  
E. Pittsburgh, PA, 15225 Attn:  
John Fred Smith

Quality Steel 100% Melted  
and Manufactured in the USA

### GENERAL INFORMATION

Product Wide Flange Beam

Size W 21 x 44

W 530 x 66

Heat Number A038422

Condition(s) As-Rolled

Fine Grained

### SPECIFICATIONS

#### Standards

ASTM A656M

ASTM A572/A572M - 06

ASTM A709/A709M - 06

ASTM A572/A572M - 06

ASTM A709/A709M - 06

### SHIPMENT DETAILS

Bundle / ASME

Length

PCS

Analysis Type

#### Grades

A572 / A572M

A708 gr. 50 gr. 55

A572 gr. 50 gr. 55

A709 gr. 50 gr. 55

### CHEMICAL ANALYSIS (weight percent)

C	Mn	P	S	Si	Ni	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analysis Type
07	1.09	.019	.022	.19	.17	.46	.17	.12	.030	0.13	0.24	> .001	.0087	.0004	.32	.26	.17	5.69	Final

### MECHANICAL TESTING

Test	Yield (fy)	Strength	fy / fu	% Elong.	Temp	Charpy Impact Tests
1	55 / 360	71 / 492	77	26	F / C	Absorbed Energy ft-lb / J
2	57 / 392	73 / 505	78	25		
3						
4						
5						
6						
7						

Charpy Impact Tests (available only when specified at time of order)

### Notes:

\* Calculated Chemistry Values; Carbon Equivalents (C1, C2, F/C), Corrosion Index (1)  
CE1 (Mn)+C+Mn+V/5+(Ni+Cu)/15 CE2 (Mn)+C+(Mn+Si)/6+(C+Mo+V)/5+(Ni+Cu)/15  
F (ASTM G103) = 26.0(Cu)+3.8(Mn)+1.20(Cr)+1.72g(C)+.01(Ni)+.01(NiP)+.33.3g(Cu)

I hereby certify that the content of this report is accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

this \_\_\_\_\_ day of \_\_\_\_\_

Signed: **Doug Rees-Evans**

Manager of Technical Services

Signed: \_\_\_\_\_

Notary Public

My commission expires: \_\_\_\_\_

ASTM #6 - 14.B: A signature is not required on this test report; however, notwithstanding the absence of a signature, the organization certifying the report is responsible for the content of this report

Page 2 of 5

NT# A038422 is used to fab. items. B837, B840, B866, B879, B895

Heat Number:  
A038422





**Steel Dynamics, Inc.**  
 2601 S County Road 700 East  
 Columbia City, IN 46725  
 (260) 625-8100

Date: 7/23/2007  
 Customer No: 000191  
 Bill of Lading No: 0000119486  
 MTR #: 0000119049

Ship to:  
 Triad Metals International  
 Triad Customer P/11  
 Alth Sally

Bill to:  
 TRIAD METALS INTERNATIONAL  
 A-1 2300 Computer Avenue  
 Willow Grove PA 19090  
 Attn: Fred White

**Certified Mill Test Report**  
 100% Melted and Manufactured in USA

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1†	02087220	W21X44	42' 0"	1	B032910	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
2†	02087110	W21X44	42' 0"	4	B032800	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
3†	020896755	W21X101	42' 0"	2	A034248	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
4†	020907997	W21X50	42' 0"	4	A034717	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
5†	020908626	W21X44	42' 0"	4	A034742	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
6†	020909967	W21X50	42' 0"	4	A034715	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1*	.08	1.10	.025	.043	.20	.33	.023	.100	.11	.03	.013	.009	.0004	.00	.32	0.3500	0.1700	HEAT
2*	.06	1.11	.030	.026	.20	.46	.024	.130	.10	.02	.016	.010	.0003	.00	.32	0.3600	0.1600	HEAT
3*	.08	1.17	.017	.039	.24	.41	.034	.090	.10	.02	.017	.011	.0004	.00	.34	0.3800	0.1800	HEAT
4*	.07	1.08	.022	.039	.19	.37	.033	.110	.10	.02	.013	.010	.0004	.00	.32	0.3500	0.1600	HEAT
5*	.09	1.04	.017	.021	.18	.36	.023	.090	.10	.02	.014	.010	.0003	.00	.32	0.3500	0.1800	HEAT
6*	.08	1.05	.019	.037	.20	.34	.032	.080	.11	.03	.012	.009	.0004	.00	.31	0.3400	0.1600	HEAT

HT# A034717 is used to fabricate

we certify that the contents of this report are accurate and  
 reflect all tests and operations performed by this material  
 manufacturer are in compliance with the requirements of the  
 material specifications and applicable purchaser designated

Spec: Whitley

State of Indiana, Count

Sworn to and subscriber

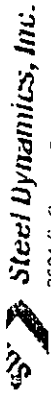
Signed:

*[Signature]*  
 Quality Assurance

ed:

My commission expires

100% Melted and Manufactured in USA



2601 S. County Road 700 East  
Columbia City, IN 46725  
(260) 675 8110

**Certified Mill Test Report**  
100% Melted and Manufactured in USA

Customer No: 000191

Bill of Lading No: 0000118, 9

MTR #: 000118, 2

Triad Metals International

Triad Customer P.O.

Attn: Sally

TRIAD METALS INTERNATIONAL

A-1 2300 Columbia Avenue

Willow Grove, PA 19090

Attn: Fred V. [unclear]

Item	Bundle	Section	Length	Pcs	Heat #	Grade/s	Specification(s)	Customer P.O.
1T	000023595	W21X62	44' 0"	1	A034653	A992/A992M A709 950S/455 A572 gr50/45	A992/A992M - 06a A709 950S/455 A572 gr50/45	455
2T	020902071	W21X94	43' 6"	2	B034476	A992/A992M A709 950S/455 A572 gr50/45	A992/A992M - 06a A709 950S/455 A572 gr50/45	455
3T	020902073	W21X94	43' 6"	3	B034476	A992/A992M A709 950S/455 A572 gr50/45	A992/A992M - 06a A709 950S/455 A572 gr50/45	455
4T	020902113	W21X94	43' 6"	3	B034477	A992/A992M A709 950S/455 A572 gr50/45	A992/A992M - 06a A709 950S/455 A572 gr50/45	455
5T	020906203	W21X62	44' 0"	1	A034635	A992/A992M A709 950S/455 A572 gr50/45	A992/A992M - 06a A709 950S/455 A572 gr50/45	455
6T	020906134	W21X62	44' 0"	1	A034653	A992/A992M A709 950S/455 A572 gr50/45	A992/A992M - 06a A709 950S/455 A572 gr50/45	455

**MECHANICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1	.08	1.17	0	0.03	.27	.32	.034	.070	.13	.04	.012	.009	.0004	.00	.33	0.3800	0.1800	HEAT
2	.07	1.35	0	0.02	.22	.50	.016	.130	.13	.04	.016	.010	.0003	.00	.38	0.4200	0.1900	HEAT
3	.07	1.35	0	0.02	.22	.50	.046	.130	.13	.04	.016	.010	.0003	.00	.38	0.4200	0.1900	HEAT
4	.07	1.35	0	0.03	.20	.49	.043	.120	.12	.03	.014	.010	.0003	.00	.38	0.4100	0.1900	HEAT
5	.08	1.15	0	0.03	.25	.40	.035	.120	.12	.05	.015	.009	.0004	.00	.34	0.3900	0.1800	HEAT
6	.08	1.17	0	0.03	.27	.32	.034	.070	.13	.04	.012	.009	.0004	.00	.33	0.3800	0.1800	HEAT

**MECHANICAL Tension Testing Results**

Item	Yield (Fy) Strength ksi/Mpa	Tensile Strength ksi/Mpa	Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp F/C	Sample 1 ft. lb./joules	Sample 2 ft. lb./joules	Sample 3 ft. lb./joules	ASTM Grain Size No (per ASTM E112)
1	55/376	75/513	24							
2	62/431	77/533	22							
3	59/408	76/511	18							

We certify that the contents of this report are accurate and true. All tests and operations performed by the material manufacturer are in compliance with the requirements of the test specifications and applicable standards designated.

Quality Assurance

Special Comments: Variation

State of Indiana, County of Whitley

born in and subscribed before me this

day of

signed

Quality Assurance



**Steel Dynamics, Inc.**  
 Steel and Rail Division - Columbia City, Indiana

# CERTIFIED MILL TEST REPORT

Ship to: **Triad Metals Intl**  
 1951 Bessmer Road  
 CSX-Coffier Yard  
 Petersburg VA, 23805-1115  
 Attn: Rock McGovern

Customer # 000191 Bill to:  
**TRIAD METALS INTERNATIONAL**  
 A-1 23rd Computer Avenue  
 Petersburg VA, 23805-1115  
 Attn: Fred White

09/14/2007

Quality Steel 100% Melted  
 and Manufactured in the USA

## GENERAL INFORMATION

Product **Wide Flange Beam**  
 Size **W 24 x 55**  
**W 610 x 82**  
 Heat Number **A036622**  
 Condition(s) **As-Rolled**  
**Fine Grained**

## SPECIFICATIONS

Standards  
 ASTM A992/A992M  
 \* ASTM A992/A992M 06a  
 ASTM A709/A709M 06a  
 ASTM A572/A572M 05  
 ASTM A709/A709M 06a

Grades  
 A992/A992M  
 A709 gr50/gr345  
 A572 gr50/gr345  
 A709 gr50S/gr345S

## SHIPMENT DETAILS

Bundle / ASN #	Length	pcs	Customer PO
020056677	40'	4	100
020056679	40'	4	100
020056682	40'	4	100
020056684	40'	4	100
020056686	40'	4	100

## CHEMICAL ANALYSIS (weight percent)

	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*1	Analysis Type
	.08	1.02	.019	.034	.18	.38	.11	.12	.03	.013	.032	.02	.0089	.0003	.32	.35	.17	17	Heat

## MECHANICAL TESTING

Test	Yield (fy) ksi / MPa	Tensile Strength ksi / MPa	fy / fu ratio	% Elong. {8" gage}	Charpy Impact Tests (available only when specified at time of order)	
					Temp F / C	Absorbed Energy ft-lb / J
1	59 / 405	74 / 512	.79	25	Specimen 1	Minimum
2	61 / 424	74 / 510	.93	24	Specimen 2	Average
3					Specimen 3	Minimum
4						
5						
6						
7						

## Notes:

\* Calculated Chemistry Values: Carbon Equivalent (C1, C2, PC), Corrosion Index (I)  
 CE1 ((W)/C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15 CE2 ((W)/S)+C+(Mn+Si)/6+(Cr+Mo+V)/5+(Ni+Cu)/15  
 I (ASTM G101) = 26.9((Cu)+3.89(Ni)+1.20(Cr)+1.49(Si)+17.29(P))+7.29((Cu)(Ni)+9.10(Ni)(P))-33.39(Cv)

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: **Doug Rees-Evans**  
 Manager of Technical Services

ASTM A6-14.6: A signature is not required on the test report however the document shall clearly identify the organization submitting the report

State of Indiana, County of Whitley Sworn to and subscribed before me this \_\_\_\_\_ day \_\_\_\_\_, 2007.

Signed: \_\_\_\_\_ My Commission Expires: \_\_\_\_\_  
 Notary Public

Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report.

DATE	10/19/07
INVOICE NO.	177662
BILL OF LADING	873408
CUSTOMER NO.	7460
CUSTOMER P.O.	18984

UNICOR-YAMATO STEEL CO.  
 P.O. BOX 1228 ■ BLTREVILLE AR 72316

PACIFIC STEEL CO  
 4224 PACIFIC BLVD  
 SEASIDE, CALIF 92138

PACIFIC STEEL  
 845 MONCK, GEORGETOWN  
 CANADA  
 LAYL, QC  
 H7S 1A9

**CERTIFIED MILL TEST REPORT**  
 100% MELTED AND MANUFACTURED IN U.S.A.  
 All grades produced by Nucor-Yamato Steel are cast  
 and rolled to a fully killed and fine grain practice.

- S T E E L C E R T I F I C A T E D P R O P E R T I E S
- A57M A592/A592M-05A A572/A572M 0250-06
  - A57M A709/A709M-07 GR50 (345)
  - A57M A709/A709M-07 GR50 (345S)
  - A57M A6/A6M-07

**CHEMICAL PROPERTIES**

ITEM #	DESCRIPTION	QTY	HEAT#	YIELD TENSILE RATIO	YIELD TENSILE PSI	ELONG %	TEMP IMPACT ENERGY	C	Mn	P	S	SI	CU	NI	CR	Mo	V	Cb	CE	CLAS				
																				%	FT-LBS			
1	M24 - 62.0	2	304698	.75	58000	77000	23																	
2	M24 - 62.0	5	304700	.74	58000	78000	24																	

MECHANICAL PROPERTIES

ITEM #	DESCRIPTION	QTY	HEAT#	YIELD TENSILE RATIO	YIELD TENSILE PSI	ELONG %	TEMP IMPACT ENERGY	C	Mn	P	S	SI	CU	NI	CR	Mo	V	Cb	CE	
1	M24 - 62.0	2	304698	.75	58000	77000	23													
2	M24 - 62.0	5	304700	.74	58000	78000	24													

ELONGATION BASED ON 100 INCH GAGE LENGTH  
 ready copy that the contents of this report are  
 accurate and correct. All test results and operators  
 performed by the nuclear manufacturer and in  
 compliance with the requirements of the material  
 specifications listed in the Specifications Book above.

QUALITY ASSURANCE  
 CUSTOMER COPY

STATE OF ARKANSAS COUNTY OF MISSISSIPPI  
 NOTARY PUBLIC  
 My Commission Expires 10/21/2011  
 10/07  
 19

HT # 304698 is used to trace to lots B803, B827

Steel Dynamics

**Steel Dynamics, Inc.**  
 2901 S. County Road #100 East  
 Columbus, OH 43228  
 (614) 695-8100

**Customer Name:** [Blank]  
**Order No.:** 0000122455  
**Order Date:** 08/01/1992

**Ship To:**  
 Inland Metals International  
 3480 Grand Avenue  
 Pittsburgh, PA 15226  
 Attn: Carol Fawcett

**Product Description:**  
 100% Killed and Mandrel Formed S15C  
 A 12000 Conical  
 Willow Coyle, Inc.  
 Ann Arbor, MI

Item	Grade(s)	Heat #	Pos	Length	Width	Thickness	Weight	Spec. Ref(s)
381	A034338	A034338	2	50' 0"	24"	1.166	1391	ASTM A709/A709M - 08a ASTM A709/A709M - 08b ASTM A709/A709M - 08c ASTM A709/A709M - 08d ASTM A709/A709M - 08e ASTM A709/A709M - 08f ASTM A709/A709M - 08g ASTM A709/A709M - 08h ASTM A709/A709M - 08i ASTM A709/A709M - 08j ASTM A709/A709M - 08k ASTM A709/A709M - 08l ASTM A709/A709M - 08m ASTM A709/A709M - 08n ASTM A709/A709M - 08o ASTM A709/A709M - 08p ASTM A709/A709M - 08q ASTM A709/A709M - 08r ASTM A709/A709M - 08s ASTM A709/A709M - 08t ASTM A709/A709M - 08u ASTM A709/A709M - 08v ASTM A709/A709M - 08w ASTM A709/A709M - 08x ASTM A709/A709M - 08y ASTM A709/A709M - 08z

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Ch	C1	C2	PC
3a	.08	1.03	.013	.021	.22	.36	.036	.69	.10	.023	.012	.0085	.0003	.001	.11	.35	.17
3b	.07	1.06	.017	.037	.20	.31	.035	.17	.11	.067	.011	.0119	.0003	.002	.14	.37	.17

**MECHANICAL**

Item	Test	Yield (fy) ksi/MPa	Tensile (Fu) ksi/MPa	Elong (%) based on 8" gauge	Reduction of Area (%)	Band Test Result	Temp FIC	Sample fl. lb./joules	Sample 2 fl. lb./joules	Sample 3 fl. lb./joules	% Shear
3a	1	60/412	71/493	24							
3a	2	62/425	75/516	23							
3b	1	58/403	75/518	21							
3b	2	64/440	77/528	23							

**Charpy Impact Testing Results**

ASTM A709/A709M - 08a  
ASTM A709/A709M - 08b  
ASTM A709/A709M - 08c  
ASTM A709/A709M - 08d  
ASTM A709/A709M - 08e  
ASTM A709/A709M - 08f  
ASTM A709/A709M - 08g  
ASTM A709/A709M - 08h  
ASTM A709/A709M - 08i  
ASTM A709/A709M - 08j  
ASTM A709/A709M - 08k  
ASTM A709/A709M - 08l  
ASTM A709/A709M - 08m  
ASTM A709/A709M - 08n  
ASTM A709/A709M - 08o  
ASTM A709/A709M - 08p  
ASTM A709/A709M - 08q  
ASTM A709/A709M - 08r  
ASTM A709/A709M - 08s  
ASTM A709/A709M - 08t  
ASTM A709/A709M - 08u  
ASTM A709/A709M - 08v  
ASTM A709/A709M - 08w  
ASTM A709/A709M - 08x  
ASTM A709/A709M - 08y  
ASTM A709/A709M - 08z

**Charpy Impact Testing Results**

ASTM A709/A709M - 08a  
ASTM A709/A709M - 08b  
ASTM A709/A709M - 08c  
ASTM A709/A709M - 08d  
ASTM A709/A709M - 08e  
ASTM A709/A709M - 08f  
ASTM A709/A709M - 08g  
ASTM A709/A709M - 08h  
ASTM A709/A709M - 08i  
ASTM A709/A709M - 08j  
ASTM A709/A709M - 08k  
ASTM A709/A709M - 08l  
ASTM A709/A709M - 08m  
ASTM A709/A709M - 08n  
ASTM A709/A709M - 08o  
ASTM A709/A709M - 08p  
ASTM A709/A709M - 08q  
ASTM A709/A709M - 08r  
ASTM A709/A709M - 08s  
ASTM A709/A709M - 08t  
ASTM A709/A709M - 08u  
ASTM A709/A709M - 08v  
ASTM A709/A709M - 08w  
ASTM A709/A709M - 08x  
ASTM A709/A709M - 08y  
ASTM A709/A709M - 08z

**Charpy Impact Testing Results**


ASTM A709/A709M - 08a  
ASTM A709/A709M - 08b  
ASTM A709/A709M - 08c  
ASTM A709/A709M - 08d  
ASTM A709/A709M - 08e  
ASTM A709/A709M - 08f  
ASTM A709/A709M - 08g  
ASTM A709/A709M - 08h  
ASTM A709/A709M - 08i  
ASTM A709/A709M - 08j  
ASTM A709/A709M - 08k  
ASTM A709/A709M - 08l  
ASTM A709/A709M - 08m  
ASTM A709/A709M - 08n  
ASTM A709/A709M - 08o  
ASTM A709/A709M - 08p  
ASTM A709/A709M - 08q  
ASTM A709/A709M - 08r  
ASTM A709/A709M - 08s  
ASTM A709/A709M - 08t  
ASTM A709/A709M - 08u  
ASTM A709/A709M - 08v  
ASTM A709/A709M - 08w  
ASTM A709/A709M - 08x  
ASTM A709/A709M - 08y  
ASTM A709/A709M - 08z

**Charpy Impact Testing Results**

ASTM A709/A709M - 08a  
ASTM A709/A709M - 08b  
ASTM A709/A709M - 08c  
ASTM A709/A709M - 08d  
ASTM A709/A709M - 08e  
ASTM A709/A709M - 08f  
ASTM A709/A709M - 08g  
ASTM A709/A709M - 08h  
ASTM A709/A709M - 08i  
ASTM A709/A709M - 08j  
ASTM A709/A709M - 08k  
ASTM A709/A709M - 08l  
ASTM A709/A709M - 08m  
ASTM A709/A709M - 08n  
ASTM A709/A709M - 08o  
ASTM A709/A709M - 08p  
ASTM A709/A709M - 08q  
ASTM A709/A709M - 08r  
ASTM A709/A709M - 08s  
ASTM A709/A709M - 08t  
ASTM A709/A709M - 08u  
ASTM A709/A709M - 08v  
ASTM A709/A709M - 08w  
ASTM A709/A709M - 08x  
ASTM A709/A709M - 08y  
ASTM A709/A709M - 08z

**44# A034338 is used to fab item 8855**

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchase agreements.

Signed:   
 Quality Assurance

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_, 1992.

Signed: \_\_\_\_\_  
 Notary Public

My commission expires: \_\_\_\_\_

See all Comments/Informations

\* Fully Killed Steel  
 I Cast and Rolo to a Fine Grain Practice

Customer Name

Customer PO#

Shipper No

Heat Number

100882

30527

3797

30309250

Bill To: Ship To: 6  
 TRIAD METALS INTERNATIONAL TRIAD METALS INTERNATIONAL  
 2300 COMPUTER AVENUE PO No:263  
 SUITE A-1 MILL Order No:3304868  
 WILLOW GROVE PA 19090 Lead No:1120488  
 US VA PETERSBURG 23803 Manifest No:1833332  
 GRADE LENGTH  
 W 27 X 248 / W690 X 125 992/572-39 45 FT / 13.716 M  
 SPECIFICATIONS  
 ASTM A5-05a, A992-05a, A372-05  
 HEAT NO: 30368350  
 CHAPARRAL 100 Main Rd.  
 Midlothian, TX  
 76065-9651  
 (817) 775-8741  
 FAX: 858-9548

CERTIFIED MATERIAL TEST REPORT

CHAPARRAL STEEL

CHAPARRAL

SIZE: W 27 X 248 / W690 X 125 GRADE: 992/572-39 LENGTH: 45 FT / 13.716 M

CHEMICAL ANALYSIS

	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Al	Mh	CE
	.08	1.12	.011	.033	.22	.35	.09	.08	.015	.014	.001	.002	.020	.32

PHYSICAL PROPERTIES

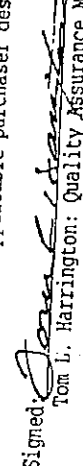
Yld Strength	Tensile Strength		Elongation	
	KSI	MPa	Specimen Area	gage Length
54.0	372.3	Sq In	8 In	
55.0	379.2	Sq Cm	8 In	
		1.017	29.0	
		1.007	25.8	
			8 In	
			200 mm	
			200 mm	

ROD ?  
Pend Test:  
Dia. Result

HT # 30368350 is used to fabricate 8975

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A.  
 CMTR complies with DIN EN 10204 3.1.1.B

I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed:   
 Tom L. Harrington: Quality Assurance Manager

Date: Jun. 27, 2007

Signed: \_\_\_\_\_  
 Notary Public (if applicable)

Date: \_\_\_\_\_

Page: 2 of 2

**MILL TEST REPORT**  
**NUCOR**  
 FROM 49 MILL DARLINGTON

1670us, South Carolina

Printed: 4/22/07 07:05:34

Load H 11084

BOI H 452988

BILL OF LADING NO.

Prepaid

452988  
PAGE 2

CU H 4> 6  
 INFRA-METALS  
 IIPX82320

SOLD TO: 8 PENN HIGHWAY, TRACK H553  
 WALLINGFORD CT  
 800-241-4415 06492

SHIP TO: 8 PENN HIGHWAY, TRACK H953  
 WALLINGFORD, CT  
 800-241-4410

*C to A.F. 2 Charmed*

INFRA-METALS

P - 154 C - 90

06192 IIPX82320 5 Roll

Tag No.	P.O.	Size	Spec	Length	Pcs	Weight	Heat #	Tensil	Yield	EL	C	Mn	Si	S	P	V	Nb	Cu	Cr	Ni	Mo	CE
40700383	1536	6CX 8.2	A529-50	20' 00"	30	4,550	770482	80000	55000	24	.22	.71	.16	.040	.010	.005	.00	.38	.16	.10	.02	.40
40701747	C21621	1/2X 7	A36	20' 00"	20	4,750	771218	64000	43000	27	.15	.56	.15	.050	.030	.003	.00	.41	.15	.12	.02	.31
40701749	C21621	1/2X 7	A36	20' 00"	20	4,750	771218	62000	42000	24	.15	.6	.15	.050	.030	.003	.00	.41	.16	.12	.02	.31
407024636	1536	6CX 8.2	A529-50	50' 00"	24	9,640	771938	70000	52000	30	.20	.71	.15	.050	.020	.004	.00	.53	.14	.10	.02	.39
407024637	1536	6CX 8.2	A529-50	50' 00"	24	9,640	771938	77000	52000	30	.20	.71	.15	.050	.020	.004	.00	.53	.14	.10	.02	.39
407024638	1536	6CX 8.2	A529-50	50' 00"	24	9,640	771938	77000	52000	30	.20	.71	.15	.050	.020	.004	.00	.53	.14	.10	.02	.39
407024639	1536	6CX 8.2	A529-50	50' 00"	24	9,640	771938	77000	52000	30	.20	.71	.15	.050	.020	.004	.00	.53	.14	.10	.02	.39
407024477	1536	6CX 10.5	A529-50	50' 00"	24	12,600	771938	77000	52000	30	.20	.71	.15	.050	.020	.004	.00	.53	.14	.10	.02	.39
407024478	C21536	5CX 10.5	A529-50	50' 00"	24	12,600	771938	78000	53000	31	.20	.71	.15	.050	.020	.004	.00	.53	.14	.10	.02	.39
407024479	C21536	6CX 10.5	A529-50	50' 00"	10	9,450	771938	78000	52000	30	.20	.71	.15	.050	.020	.004	.00	.53	.14	.10	.02	.39

*HT # 7713938 is used in the items: C6802, C6803, C6804  
 R6800, R6801, M603, M611*

SLS FRM-08 REVISION:1 REVISION DATE: 6/10/97

Permanent address of shipper:

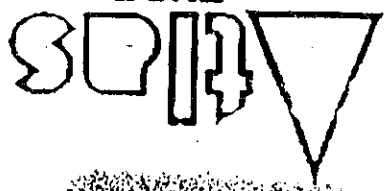
**NUCOR**  
 300 STEEL MILL ROAD  
 DARLINGTON, S.C. 29540

WE HEREBY CERTIFY THAT THE ABOVE FIGURES ARE CORRECT  
 AS CONTAINED IN THE RECORDS OF NUCOR STEEL.

WELDING OR WELD REPAIR WAS NOT PERFORMED ON THIS MATERIAL  
 MELTED AND MANUFACTURED IN THE USA  
 MERCURY, RADIUM OR ALPHA SOURCE MATERIALS IN ANY FORM HAVE  
 NOT BEEN USED IN THE PRODUCTION OF THIS MATERIAL

*J H*  
 James H. Slew  
 Chief Metallurgist

Acier Altitude Inc.  
 2555 Francis-Hugues Avenue  
 Laval, Quebec H7S 2H7  
 CANADA  
 TEL: 514-738-3541  
 FAX: 514-738-3542



**MATERIAL TEST REPORT**

Shipped to

Ref.B/L: 80269969  
 Date: 12.06.2007  
 Customer: 1774

Acier Altitude Inc.  
 2555 Francis-Hugues Avenue  
 Laval, QC H7S 2H7  
 CANADA

Material No. 503503-04800      Purchase Order: 3526      Made in: Canada

Mechanical		Chemical										
Yield	Tensile	Si	Al	Cu	Cb	Mo	Ni	Cr	V	C		Mn
061370 PSI	073530 PSI	0.016	0.048	0.044	0.000	0.007	0.020	0.045	0.000	0.000	0.000	0.000
ASTM A500-03A GRADE B&C												

Material No. 503503-04800      Purchase Order: 3543      Made in: Canada

Mechanical		Chemical										
Yield	Tensile	Si	Al	Cu	Cb	Mo	Ni	Cr	V	C		Mn
060260 PSI	072720 PSI	0.020	0.027	0.050	0.000	0.010	0.010	0.020	0.000	0.000	0.000	0.000
ASTM A500-03A GRADE B&C												

Material No. 180303-04800      Purchase Order: 3543      Made in: Canada

Mechanical		Chemical										
Yield	Tensile	Si	Al	Cu	Cb	Mo	Ni	Cr	V	C		Mn
055720 PSI	066300 PSI	0.006	0.035	0.025	0.009	0.002	0.015	0.052	0.000	0.000	0.000	0.000
ASTM A500-03A GRADE B&C												

Material No. 030303-04800-05A      Purchase Order: 3543      Made in: Canada

Mechanical		Chemical										
Yield	Tensile	Si	Al	Cu	Cb	Mo	Ni	Cr	V	C		Mn
055720 PSI	066300 PSI	0.006	0.035	0.025	0.009	0.002	0.015	0.052	0.000	0.000	0.000	0.000
ASTM A500-03A GRADE B&C												



Atlas Tube Canada ULC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 NOR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537



MATERIAL TEST REPORT

Shipped to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Ref./L: 80263316  
 Date: 10.24.2007  
 Customer: 1751

Sold to

Material: 6.0x4.0x375x23.0(0.4x4)  
 Sales order: 314780

Heat No	Pcs	C	Mn	P	S	SI	Al	Cu	CB	Mo	NI	Cr	V
550291	2	0.190	0.810	0.011	0.004	0.150	0.035	0.039	0.005	0.003	0.015	0.036	0.000
Bundle No: M10064714 Yield: 060930 Psi Tensile: 074270 Psi Elong: 27.4 % Certification: ASTM A500-03A GRADE B&C Material Note:													

Material No: 60040375  
 Purchase Order: 31077  
 Made in: Canada

Material: 7.0x7.0x500x36.0(0.12x1)  
 Sales order: 335491

Heat No	Pcs	C	Mn	P	S	SI	Al	Cu	CB	Mo	NI	Cr	V
581845	2	0.190	0.800	0.011	0.002	0.150	0.043	0.017	0.006	0.002	0.009	0.036	
Bundle No: M200482870 Yield: 058830 Psi Tensile: 075060 Psi Elong: 31.8 % Certification: ASTM A500-03A GRADE B&C Material Note:													

Material No: 70070500  
 Purchase Order: 30519-899  
 Made in: Canada

Material: 7.0x7.0x500x36.0(0.12x1)  
 Sales order: 335491

Heat No	Pcs	C	Mn	P	S	SI	Al	Cu	CB	Mo	NI	Cr	V
581846	2	0.190	0.800	0.011	0.002	0.150	0.043	0.017	0.006	0.002	0.009	0.036	
Bundle No: M200482871 Yield: 058830 Psi Tensile: 075060 Psi Elong: 31.8 % Certification: ASTM A500-03A GRADE B&C Material Note:													

Material No: 70070500  
 Purchase Order: 30519-899  
 Made in: Canada

Material: 3.0x8.0x625x50.0(0.12x1)  
 Sales order: 335491

Heat No	Pcs	C	Mn	P	S	SI	Al	Cu	CB	Mo	NI	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.150	0.028	0.025	0.005	0.002	0.011	0.035	0.002
Bundle No: M200482105 Yield: 060700 Psi Tensile: 075060 Psi Elong: 34.3 % Certification: ASTM A500-03A GRADE B&C Material Note:													

Material No: 80080625  
 Purchase Order: 30519-899  
 Made in: Canada

HT# 681846 is used to fab. item # D715, D716

Material No: 80080625  
 Purchase Order: 30519-899  
 Made in: Canada

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.



Steel Tube Institute  
 1040 Route 430  
 Big River NB E2A 6P9  
 Canada



The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.

Authorized by Quality Assurance: *[Signature]*

*HT # 58076 is used to fab items D717, D718, D721*

Material: 8.0x8.0x625x48.0"(2x1)													
Sales order: 335491													
Material No: 800806254800													
Made in: Canada													
Purchase Order: 30519-898													
Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	C	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002
Bundle No	Yield	Tensile	Eln.Zin		Certification								
M200482111	063150 Psi	076440 Psi	34.3 %		ASTM A500-03A GRADE 88C								
Material Note:													
Sales Or. Note:													

MATERIAL TEST REPORT



Sold to  
Atlas Tube Canada ULC  
200 Clark St.  
Harrow, Ontario, Canada  
NOR 1G0  
Tel: 519-738-3511  
Fax: 519-738-3537

Mandate Erectors & Welding  
1040 Route 430  
BIG RIVER NB E2A 6P9  
CANADA

Shipped to

Mandate Erectors & Welding  
1040 Route 430  
BIG RIVER NB E2A 6P9  
CANADA

Ref./L: 80263316  
Date: 10.24.2007  
Customer: 1751



Steel Tube Institute

Steel Service Center Institute

Page 1 of 3

Material: 8.0x4.0x250x48(0.012x3)  
Heat No: 464810  
Bundle No: 011523  
Yield: 0.210 0.870  
Tensile: 0.008 0.008  
Elon: 0.012 0.012  
Elong: 0.012 0.012  
Material No: 800402504800  
Cu: 0.010  
Al: 0.010  
SI: 0.012  
Mn: 0.012  
P: 0.012  
S: 0.012  
EN: 27.92%  
Zn: 30.9%Certification: 120231  
Sales order: 22985  
Purchase Order: 22985  
Made in: Canada

Material: 8.0x4.0x250x48(0.012x3)  
Heat No: 464810  
Bundle No: 011523  
Yield: 0.210 0.870  
Tensile: 0.008 0.008  
Elon: 0.012 0.012  
Elong: 0.012 0.012  
Material No: 800402504800  
Cu: 0.010  
Al: 0.010  
SI: 0.012  
Mn: 0.012  
P: 0.012  
S: 0.012  
EN: 27.92%  
Zn: 30.9%Certification: 120231  
Sales order: 22985  
Purchase Order: 22985  
Made in: Canada

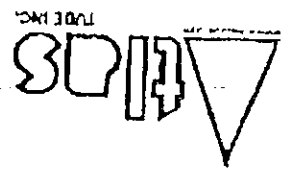
Material: 8.0x4.0x250x48(0.012x3)  
Heat No: 464810  
Bundle No: 011523  
Yield: 0.210 0.870  
Tensile: 0.008 0.008  
Elon: 0.012 0.012  
Elong: 0.012 0.012  
Material No: 800402504800  
Cu: 0.010  
Al: 0.010  
SI: 0.012  
Mn: 0.012  
P: 0.012  
S: 0.012  
EN: 27.92%  
Zn: 30.9%Certification: 120231  
Sales order: 22985  
Purchase Order: 22985  
Made in: Canada

Material: 8.0x4.0x250x48(0.012x3)  
Heat No: 464810  
Bundle No: 011523  
Yield: 0.210 0.870  
Tensile: 0.008 0.008  
Elon: 0.012 0.012  
Elong: 0.012 0.012  
Material No: 800402504800  
Cu: 0.010  
Al: 0.010  
SI: 0.012  
Mn: 0.012  
P: 0.012  
S: 0.012  
EN: 27.92%  
Zn: 30.9%Certification: 120231  
Sales order: 22985  
Purchase Order: 22985  
Made in: Canada

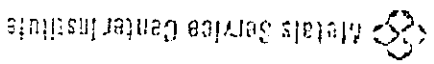
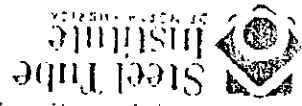
Material: 8.0x4.0x250x48(0.012x3)  
Heat No: 464810  
Bundle No: 011523  
Yield: 0.210 0.870  
Tensile: 0.008 0.008  
Elon: 0.012 0.012  
Elong: 0.012 0.012  
Material No: 800402504800  
Cu: 0.010  
Al: 0.010  
SI: 0.012  
Mn: 0.012  
P: 0.012  
S: 0.012  
EN: 27.92%  
Zn: 30.9%Certification: 120231  
Sales order: 22985  
Purchase Order: 22985  
Made in: Canada

Material Test Report

200 Clark Street, Harrow Ontario, Canada N0R 1G0  
Tel: (519) 465-9000 Fax: (519) 738-5087



Material Test Report



THIS REPORT IS THE PROPERTY OF THE ALTALES SERVICE CENTER INSTITUTE. IT IS TO BE USED FOR THE PURPOSES SPECIFIED IN THE ORDER ONLY. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF THE ALTALES SERVICE CENTER INSTITUTE.

DATE: 12/08/2007

Grade No	Yield	Tensile	Elm. Zn	C	Mn	P	S	SI	AL	CU	NI	MO	CR	V
6085G	0.400	0.500	0.005	0.020	0.010	0.005	0.005	0.005	0.010	0.000	0.010	0.020	0.020	0.000

Material No: 50110180  
Purchase Order: 351381  
Made in: Canada

*Hand # 6085G is used to fab item: 07810*

Grade No	Yield	Tensile	Elm. Zn	C	Mn	P	S	SI	AL	CU	NI	MO	CR	V
5085G	0.200	0.300	0.009	0.007	0.020	0.008	0.007	0.008	0.010	0.000	0.010	0.020	0.020	0.000

Material No: 50110180  
Purchase Order: 351381  
Made in: Canada

Grade No	Yield	Tensile	Elm. Zn	C	Mn	P	S	SI	AL	CU	NI	MO	CR	V
5085G	0.200	0.300	0.009	0.007	0.020	0.008	0.007	0.008	0.010	0.000	0.010	0.020	0.020	0.000

Material No: 50110180  
Purchase Order: 351381  
Made in: Canada

Grade No	Yield	Tensile	Elm. Zn	C	Mn	P	S	SI	AL	CU	NI	MO	CR	V
5085G	0.170	0.280	0.008	0.008	0.014	0.008	0.008	0.009	0.014	0.040	0.005	0.024	0.040	0.000

Material No: 50110180  
Purchase Order: 351381  
Made in: Canada

Altales Tube Canada ULC  
2555 Francis-Hughes Avenue  
Laval, QC H7S 2H7  
Canada

Altales Altitude Inc  
2555 Francis-Hughes Avenue  
Laval, QC H7S 2H7  
Canada

MATERIAL TEST REPORT



Sold to:  
Altales Tube Canada ULC  
2555 Francis-Hughes Avenue  
Laval, QC H7S 2H7  
Canada  
Tel: 514-738-3541  
Fax: 514-738-3537

Ref./L: 80269969  
Date: 12/08/2007  
Customer: 1774

Shipped to:

**GERDAUAM RISTEEL**

WHITBY STEEL MILL  
 HOPKINS STREET SOUTH  
 WHITBY ON L1N 5T1 CAN  
 (905) 668-8811

**Chemical and Physical Test Report**

MADE IN CANADA

W-063354

**PRODUCED IN: WHITBY**

SHIP TO  
 YORK STEEL INC  
 INDUSTRIAL PARK

INVOICE TO  
 YORK STEEL INC (FRED)  
 ACCTS PAYABLE  
 550 WILSEY ROAD  
 FREDERICTON, NB E3B 7K2

SHIP DATE  
 03/28/07

FREDERICTON, NB E3B 5S4

CUST. ACCOUNT NO  
 60125663

SALES ORDER  
 6113629-07

CUST. P.O. NUMBER  
 8311-07

C Sa C Erv  
 .00000 .000 .00000 .345

Al Ti Zr  
 .000 .00000 .000

Sn N  
 .012 .0151

Nb V Mo V Cr Ni Ni  
 .000 .000 .073 .000 .15 .10

ASTM A36M-01a ASTM709-01b ASME-SA313-00a  
 C.S.A. G40.21-98(44W)

Yield 49307 PSI, 339.96 MPA Tensile: 73960 PSI, 509.94 MPA %El: 26.2/8in, 26.2/200t.M  
 Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST

Yield 50112 PSI, 345.51 MPA Tensile: 72907 PSI, 502.68 MPA %El: 26.2/8in, 26.2/200t.M  
 Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST

Yield 50921 PSI, 351.09 MPA Tensile: 73145 PSI, 504.32 MPA %El: 22.5/8in, 22.5/200t.M  
 Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST

Yield 51059 PSI, 352.04 MPA Tensile: 72457 PSI, 499.57 MPA %El: 22.5/8in, 22.5/200t.M  
 Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST

Yield 50921 PSI, 351.09 MPA Tensile: 73145 PSI, 504.32 MPA %El: 22.5/8in, 22.5/200t.M  
 Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST

Yield 51059 PSI, 352.04 MPA Tensile: 72457 PSI, 499.57 MPA %El: 22.5/8in, 22.5/200t.M  
 Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST

Yield 50921 PSI, 351.09 MPA Tensile: 73145 PSI, 504.32 MPA %El: 22.5/8in, 22.5/200t.M  
 Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST

SHAPE * SIZE	GRADE	SPECIFICATION
A6 X 4 X 3/8	44W	CSA G40.21-98(44W); ASTM A36M-01a ASTM709-01b ASME-SA313-00a
HEAT I.D.		
B41371		
Mechanical Test:	Yield 49307 PSI, 339.96 MPA	Tensile: 73960 PSI, 509.94 MPA %El: 26.2/8in, 26.2/200t.M
Customer Requirements SOURCE:	WHITBY BILLETS CASTING: STRAND CAST	
Mechanical Test:	Yield 50112 PSI, 345.51 MPA	Tensile: 72907 PSI, 502.68 MPA %El: 26.2/8in, 26.2/200t.M
Customer Requirements SOURCE:	WHITBY BILLETS CASTING: STRAND CAST	
SHAPE * SIZE	GRADE	SPECIFICATION
A6 X 4 X 5/16	44W	C.S.A. G40.21-98 44W/50W; ASTM: A36 - 97a ASTM709- 97b A1 - E: SA35 (A
HEAT I.D.		
B41243		
Mechanical Test:	Yield 50921 PSI, 351.09 MPA	Tensile: 73145 PSI, 504.32 MPA %El: 22.5/8in, 22.5/200t.M
Customer Requirements SOURCE:	WHITBY BILLETS CASTING: STRAND CAST	
Mechanical Test:	Yield 51059 PSI, 352.04 MPA	Tensile: 72457 PSI, 499.57 MPA %El: 22.5/8in, 22.5/200t.M
Customer Requirements SOURCE:	WHITBY BILLETS CASTING: STRAND CAST	

HT # B41243 is used to fab. item: m811

This material, including the billets, was produced and manufactured in Canada  
 Bhaskar Yalamanchilli  
 Quality Director  
 Gerdau Ameristeel

*Bhaskar Yalamanchilli*

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST REPORTS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

Mgr. Metallurg. Svcs  
 WHITBY STEEL MILL

# CERTIFIED MILL TEST REPORT

Date: 10/02/2007

Customer # 10191

Bill to:

Ship to:  
Triad Metals Intl  
1951 Bessemer Road  
PO Box Collier Yard  
Petersburg VA, 23805 US  
Attn: Rock McGovern

TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Petersburg VA, 23805 US  
Attn: Fred White

Quality Steel 100% Melted  
and Manufactured in the USA

GENERAL INFORMATION	SHIPMENT DETAILS
<b>Product</b> Wide Flange Beam <b>Size</b> W 10 x 39 <b>Heat Number</b> B037472 <b>Condition(s)</b> As-Rolled Fine Grained	<b>Bundle / ASN #</b> Length pcs Customer PO 020978539 70' 0" 4 433
<b>Standards</b> ASTM A618M ▶ ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A709/A709M - 06a	<b>Grades</b> A992 / A992M A709 gr50wpr345 A572 gr50wpr345 A709 gr50S-wpr345S

**CHEMICAL ANALYSIS** (weight percent)

C	Mn	P	S	Si	Cr	Ni	Cu	Mo	Si	V	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analysis Type
.08	1.07	.014	.019	.19	.09	.11	.38	.32	.014	.003	.016	.0102	.0003	.31	.M	.17	5.79	Heat

**MECHANICAL TESTING**

Test	Yield (fy)		Tensile (fu)		% Elong. (8" gage)	Charpy Impact Tests (available only when specified at time of order)		
	ksi / MPa	ksi / MPa	ksi / MPa	ksi / MPa		ft-lbf / J	Specimen 1	Specimen 2
1	59 / 408	74 / 510	.80	.81	23	Minimum	Average	Minimum
2	60 / 412	74 / 508	.81	.81	22			
3								
4								
5								
6								
7								

**Notes:** \*Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC), Corrosion Index (I)  
 CE1 (IWI) = C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15  
 CE2 (AWS) = C + (Mn + Si)/8 + (Mo + V)/5 + (Ni + Cu)/15  
 PCm (AWS) = C + Si/30 + Mn/20 + Cu/20 + Ni/60 + Cr/20 + Nb/15 + Ti/10 + S/8  
 I (ASTM G101) = 25.01(Cu) + 3.68(Ni) + 1.20(Cr) + 1.49(Si) + 17.29(P) + 7.29(Cu)(Ni) + 10(Ni)(P) + 33.39(Cu)

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designations.

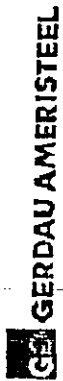
State of Indiana, County of Whitley Sworn to and subscribed to on this \_\_\_\_\_ day of \_\_\_\_\_, 2007.

Signed: Doug Rees-Evans My commission expires \_\_\_\_\_  
 Manager of Technical Services Notary Public

Chemical and Physical Test Report

MADE IN UNITED STATES

G-100596



CARTERSVILLE STEEL MILL  
384 OLD GRASSDALE RD NE  
CARTERSVILLE GA 30121 USA  
(770) 387-3300

PRODUCED IN: CARTERSVILLE

SHIP TO TRIAD METALS INTERNATIONAL POHC DELY-POV JCT 412-331-7655 NEVILLE ISLAND, PA 15225	INVOICE TO TRIAD METALS INTERNATIONAL METAL TRADERS INC 2300 COMPUTER AVE. STE-A-1 WILLOW GROVE, PA 19090	SHIP DATE 09/28/07	CUST. ACCOUNT NO 40713035
--	---	-----------------------	------------------------------

SHAPE & SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST P.O. NUMBER
W12 X 14#	A57250/992	ASTM A572 GR50-07, ASTM A992-06A	7076536-02	1224-02
HEAT I.D. G703555	C Mn P S Si Cu Ni Cr Mo V Nb N Sn Al Ti Ch C Eqv	.07 1.15 .012 .023 .27 .25 .08 .06 .018 .075 .001 .0005 .0104 .008 .001 .00200 .00070 .303		

Mechanical Test: Yield 58900 PSI, 392.31 MPA Tensile: 71900 PSI, 495.73 MPA %EI: 23.3/8in, 23.3/200MM Sid Dev:0 Idl Diam: .305  
Customer Requirements CASTING: STRAND CAST  
Mechanical Test: Yield 58000 PSI, 399.9 MPA Tensile: 72600 PSI, 500.56 MPA %EI: 24.0/8in, 24.0/200MM Sid Dev:0 Idl Diam: .305  
Customer Requirements CASTING: STRAND CAST

SHAPE & SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST P.O. NUMBER
W12 X 14#	A57250/992	ASTM A572 GR50-07, ASTM A992-06A	7076536-02	1223-02
HEAT I.D. G704885	C Mn P S Si Cu Ni Cr Mo V Nb B N Sn Al Ti Ch C Eqv	.07 .96 .015 .018 .30 .19 .06 .06 .010 .075 .001 .0006 .0091 .008 .002 .00100 .00210 .266		

Mechanical Test: Yield 58200 PSI, 401.27 MPA Tensile: 72600 PSI, 500.56 MPA %EI: 22.8/8in, 22.8/200MM Sid Dev:0 Idl Diam: .295  
Customer Requirements CASTING: STRAND CAST  
Mechanical Test: Yield 53700 PSI, 370.25 MPA Tensile: 71500 PSI, 492.98 MPA %EI: 22.4/8in, 22.4/200MM Sid Dev:0 Idl Diam: .295  
Customer Requirements CASTING: STRAND CAST

HT #G703555 is used to fab items: B889, B890

This material, including the billets, was produced and manufactured in the United States of America

*Shackley*  
Bhavskar Yalamanchili  
Quality Director  
Gerdau Ameristeel

*Janying*  
Mgr. Metallurg. Svcs  
CARTERSVILLE STEEL MILL

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

Seller warrants that all material furnished shall comply with specifications subject to standard published manufacturing variations. NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, ARE MADE BY THE SELLER, AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. In no event shall seller be liable for indirect, consequential or punitive damages arising out of or related to the materials furnished by seller. Any claim for damages for materials that do not conform to specifications must be made from buyer to seller immediately after delivery of same in order to allow the seller the opportunity to inspect the material in question.

Load #: 25

Shipping Date:

Waybill #: 862-25

Customer: Pizzagalli Construction Company  
 Job Title: 84 Marginal Way  
 Date Sent to Shop: X  
 Job Number: 898

Job Progress Report Sheet  
 SHEET: 1

Prepared By: Approved By: Date: 24-01-01  
 Bathurst Machine Shop Ltd. 1040 Route 430  
 Mandate Erectors & Welding Ltd. Big River Road  
 MQM Ltd., Tracadie E2A 6P9

Form# 12 Rev. 4

\* = SEE SHOP DWG

C=COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped					
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date	
A	W24X55	A	B701	1	2533																								
A	W24X68	A	B702	1	2082																								
A	W24X62	A	B709	1	3481																								
A	W24X68	A	B710	1	2035																								
A	W24X68	A	B711	1	2030																								
A	W10X17	A	B715	2	644																								
A	W21X44	A	B737	1	1894																								
A	W12X19	A	B744	1	196																								
A	W21X62	A	B756	1	2522																								
A	W21X83	A	B779	1	4283																								
A	W18X35	A	B800	1	1253																								
A	W12X19	A	B808	1	497																								
A	W14X22	A	B809	1	605																								
A	W14X22	A	B810	1	197																								
A	W14X22	A	B811	1	150																								
A	W8X10	A	B832	2	72																								
A	W21X73	A	B853	1	1836																								
A	W18X35	A	B860	1	562																								
A	W24X68	A	B861	1	2564																								
A	W18X35	A	B862	1	702																								

Pieces 22 30138 Total Weight( Lbs)

( 15.1 TONS)



Load #: 25

Customer: Pizzagalli Construction Company  
 Job Title: 84 Marginal Way  
 Date Sent to Shop: X  
 Job Number: 898

Job Progress Report Sheet  
 SHEET: 2

Prepared By: Approved By: Date: 24-01-01  
 Bathurst Machine Shop Ltd. 1040 Route 430  
 Mandate Erectors & Welding Ltd. Big River Road  
 MQM Ltd., Tracadie E2A 6P9

Form#12 Rev. 4

\* = SEE SHOP DWG

C=COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped				
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date
A	W27X84	A	B868	1	1689																							
A	W14X22	A	B880	1	100																							
A	W14X22	A	B881	1	101																							
H	W14X22	A	B884	1	82																							
H	W12X19	A	B886	1	503																							
H	W12X19	A	B887	1	244																							
A	W12X19	A	B888	1	280																							
A	W12X19	A	B892	1	474																							
A	HSS8X8X5/8	A	D600	1	723																							
A	HSS8X8X5/8	A	D602	1	675																							
A	HSS7X7X1/2	A	D609	1	804																							
A	HSS7X7X1/2	A	D610	1	804																							
A	U.S.S. 6X6X1/2	A	D706	1	622																							
A	L6X4X3/8	0	M319	2	913																							
A	C6X8.2	A	M606	1	298																							
A	C6X8.2	A	M607	1	141																							
A	L6X4X3/8	A	M608	1	72		X																					
A	L6X4X3/8	A	M609	1	57																							
A	C6X8.2	A	M612	1	287																							
A	C6X8.2	A	M614	1	282																							

Pieces 21 9151 Total Weight(Lbs)

( 4.6 TONS)

Load #: 25

Customer:	Pizzagalli Construction Company	Prepared By:	Approved By:	Date: 24-01-01
Job Title:	84 Marginal Way	Bathurst Machine Shop Ltd.		1040 Route 430
Date Sent to Shop:	X	Mandate Erectors & Welding Ltd.		Big River Road
Job Number:	898	MQM Ltd., Tracadie		1E2A 6P9

Job Progress Report Sheet

SHEET: 3

Form#12 Rev. 4

\* = SEE SHOP DWG

C=COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		MK. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped																
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date												
A	L6X4X5/16	A	M631	1	276																																			
A	L6X4X5/16	A	M632	1	291																																			
A	L6X4X5/16	A	M633	1	286																																			
A	C6X8.2	A	M639	1	309																																			
A	C6X8.2	A	M640	1	289																																			
A	L6X4X3/8	A	M702	1	72																																			
A	C6X8.2	A	M703	1	309																																			
A	C6X8.2	A	M705	1	234																																			
A	C6X8.2	A	M706	1	289																																			
A	L6X4X3/8	A	M707	1	57																																			
A	C6X8.2	1	M713	1	287																																			
A	C6X8.2	1	M714	1	282																																			
A	C6X8.2	A	M715	1	298																																			
A	C6X8.2	1	M716	1	141																																			
A	C6X8.2	A	M717	1	178																																			
A	C6X8.2	A	M720	1	133																																			

Pieces 16 3731 Total Weight(Lbs)

( 1.9 TONS)

# MILL TEST REPORT

FROM **NUCOR**  
**BAR MILL DARRINGTON**

Fields, South Carolina

BL Product: 4/22/07 07:05:34

Load H 11084

SOL H 452988

BILL OF LADING NO.

452988  
 PAGE 2

Prepaid

*C.L. X.S. 2 Checkin*

SOLD TO: **INFRA-METALS**  
 8 PENT HIGHWAY, TRUCK H953  
 WALLINGFORD, CT  
 800-243-4410

SHIP TO: **INFRA-METALS**  
 8 PENT HIGHWAY, TRUCK H953  
 WALLINGFORD, CT  
 800-243-4410

06492  
 TTPR82320 5 Roll

Tag No.	Size	Spec	Length	Pcs	Weight	Heat	H	Tensil	Yield	EL	C	Mn	Si	S	P	V	Nb	Cu	CF	NI	MO	CE	
407017947	6CK 8.2	A529-50	20' 00"	30	4,920	770462	8000	55000	24	.22	.71	.16	.040	.010	.005	.00	.38	.16	.10	.02	.40		
407017949	6CK 8.2	A529-50	20' 00"	20	4,760	771218	84000	43000	27	.15	.56	.15	.050	.030	.003	.00	.41	.16	.12	.02	.31		
407024636	6CK 8.2	A529-50	50' 00"	24	9,840	771938	77000	52000	30	.20	.71	.15	.050	.020	.004	.00	.53	.14	.10	.02	.39		
407024637	6CK 8.2	A529-50	50' 00"	24	9,840	771938	77000	52000	31	.20	.71	.15	.050	.020	.004	.00	.53	.14	.10	.02	.39		
407024638	6CK 8.2	A529-50	50' 00"	24	9,840	771938	77000	52000	30	.20	.71	.15	.050	.020	.004	.00	.53	.14	.10	.02	.39		
407024639	6CK 8.2	A529-50	50' 00"	24	9,840	771938	77000	52000	31	.20	.71	.15	.050	.020	.004	.00	.53	.14	.10	.02	.39		
407025477	6CK 10.5	A529-50	50' 00"	24	12,600	771938	77000	52000	30	.20	.71	.15	.050	.020	.004	.00	.53	.14	.10	.02	.39		
407025478	6CK 10.5	A529-50	50' 00"	24	12,600	771938	77000	52000	30	.20	.71	.15	.050	.020	.004	.00	.53	.14	.10	.02	.39		
407025479	6CK 10.5	A529-50	50' 00"	18	9,450	771938	77000	52000	30	.20	.71	.15	.050	.020	.004	.00	.53	.14	.10	.02	.39		

*HT# 771938 is used to fab items: M606, M609, M612, M614, M639, M640, M703, M705, M706, M713 to M717, M720*

SIS-FRM-00 REVISION: 1 REVISION DATE: 5/10/97

Permanent address of shipper:  
**NUCOR**  
 300 STEEL MILL ROAD  
 DARRINGTON, S.C. 29540

WELDING OR WELD REPAIR WAS NOT PERFORMED ON THIS MATERIAL  
 MELTED AND MANUFACTURED IN THE USA  
 MERCURY, RADIUM OR ALPHA SOURCE MATERIALS IN ANY FORM HAVE NOT BEEN USED IN THE PRODUCTION OF THIS MATERIAL

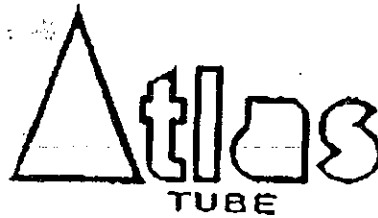
WE HEREBY CERTIFY THAT THE ABOVE FIGURES ARE CORRECT AS CONTAINED IN THE RECORDS OF NUCOR STEEL.

FIXED BY **EX-3105** (100) 300-4521

*J. H. Stewart*  
 James H. Stewart  
 Chief Metallurgist

Atlas ABC Corp (Atlas Tube Chicago)  
 1866 East 122nd Street  
 Chicago, Illinois, USA  
 60633  
 Tel: 773-646-4500  
 Fax: 773-646-6128

Ref. B/L: 80225/14  
 Date: 02.16.2007  
 Customer: 1774



**MATERIAL TEST REPORT**

Sold to

Acier Altitude Inc.  
 1 Rue Provost, Suite 306  
 LACHINE QC H9S 4H2  
 CANADA

Shipped to

Acier Altitude Inc  
 1 Rue Provost (Entry on vic  
 LACHINE QC H9S 4H2  
 CANADA

Material: 2 Ex 1.5x1.25x24" C (17x10)  
 Sales order: 282374

Material No: 250151252400 Made in: USA  
 Purchase Order: 2872

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
E63742	0.210	0.790	0.011	0.009	0.030	0.046	0.120	0.002	0.020	0.040	0.060	0.000

Bundle No	Yield	Tensile	El. 2in
M600015747	068760 Psi	081830 Psi	25 %

Certification  
 ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or. Note:

Material: 6.0x6.0x500x45" C (3x1)  
 Sales order: 282307

Material No: 600605004800 Made in: USA  
 Purchase Order: 2872

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
7764E	0.200	0.340	0.011	0.004	0.020	0.030	0.040	0.000	0.010	0.020	0.020	0.000

Bundle No	Yield	Tensile	El. 2in
M900060300	070640 Psi	084090 Psi	32 %

Certification  
 ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or. Note:

*HT# 7764E is used to fab. item: D706*

Material: 6.0x6.0x500x45" C (3x1)  
 Sales order: 282307

Material No: 600605004800 Made in: USA  
 Purchase Order: 2872

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
7764E	0.200	0.340	0.011	0.004	0.020	0.030	0.040	0.000	0.010	0.020	0.020	0.000

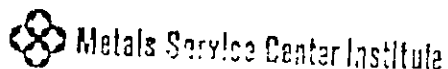
Bundle No	Yield	Tensile	El. 2in
M900060297	070640 Psi	084090 Psi	32 %

Certification  
 ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or. Note:

Authorized by Quality Assurance: \_\_\_\_\_

*Handwritten signature*



Atlas Tube Canada ULC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 NOR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537



Ref.B/L: 80263316  
 Date: 10.24.2007  
 Customer: 1751

Sold to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

MATERIAL TEST REPORT

Shipped to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Material: 6.0x4.0x375x23"0"(4x4).  
 Sales order: 314780

Material No: 60040375  
 Purchase Order: 31077

Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
680291		0.190	0.810	0.011	0.004	0.150	0.035	0.039	0.005	0.003	0.015	0.036	0.000

Bundle No	Yield	Tensile	Eln.2in
M100647174	060930 Psi	074270 Psi	27.4 %

Certification  
 ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Material: 7.0x7.0x500x36"0"(2x1).  
 Sales order: 335491

Material No: 70070500  
 Purchase Order: 30519-898

Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
581846	2	0.190	0.800	0.011	0.002	0.150	0.043	0.017	0.006	0.002	0.009	0.036	0.000

Bundle No	Yield	Tensile	Eln.2in
M200482870	058830 Psi	075060 Psi	31.3 %

Certification  
 ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Material: 7.0x7.0x500x36"0"(2x1).  
 Sales order: 335491

Material No: 70070500  
 Purchase Order: 30519-898

Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
581846	2	0.190	0.800	0.011	0.002	0.150	0.043	0.017	0.006	0.002	0.009	0.036	0.000

Bundle No	Yield	Tensile	Eln.2in
M200482871	058830 Psi	075060 Psi	31.8 %

Certification  
 ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

*HT #6 81846 is used to fab items: D609, D610*

Material: 8.0x8.0x625x50"0"(2x1).  
 Sales order: 335491

Material No: 80080625  
 Purchase Order: 30519-898

Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582765	2	0.200	0.810	0.009	0.002	0.160	0.023	0.025	0.005	0.003	0.011	0.035	0.002

Bundle No	Yield	Tensile	Eln.2in
M200482105	063150 Psi	076440 Psi	34.3 %

Certification  
 ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Authorized by Quality Assurance: *[Signature]*

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.



Atlas Tube Canada ULC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 N0R 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537

Ref.B/L: 80263316  
 Date: 10.24.2007  
 Customer: 1751



**MATERIAL TEST REPORT**

Sold to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Shipped to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Material: 8.0x8.0x625x48"0"0(2x1).  
 Sales order: 335491

Material No: 800806254800  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002

Bundle No	Yield	Tensile	Eln.2in
M20048211 1	063150 Psi	076440 Psi	34.3 %

Certification  
 ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.No: e:

*HT# 582766 is used to fab items: D600, D602*

Authorized by Quality Assurance: *M. Wilson*

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.



**GERDAU AMERISTEEL**

WHITBY STEEL MILL  
HOPKINS STREET SOUTH  
WHITBY ON L1N 5T1 CAN  
(905) 668-8811

**Chemical and Physical Test Report**

MADE IN CANADA

W-063646

PRODUCED IN: WHITBY

SHIP TO  
LES ACIERS TRANSBEC  
396 TEMISCOUATA STREET  
RIVIERE DU LOUP, PQ G5R 2Z2

INVOICE TO  
LES ACIERS TRANSBEC 1997 L.T.E  
ACCTS PAYABLE  
4054 BOULEVARD CORRUSIER #201  
LAVAL, PQ H7L 5R2

SHIP DATE  
04/03/07  
CUST. ACC. UNIT NO  
60074655

SHAPE + SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST P.O. NUMBER
A8 X 4 X 1/2	44W	C.S.A. G40.21-98 (44W/50W); ASTM:	7037484-02	BS20846-02
HEAT I.D.	C	Mn P S Si Cu Ni Cr	C Eq	
B41365	.16 .70 .008 .017 .18 .25 .10 .11		.33	

Mechanical Test: Yield 54348 PSI, 374.72 MPA Tensile: 76031 PSI, 524.22 MP  
Customer Requirements SOURCE: WHITBY BILLETS CASTING; STRAND CAST

Mechanical Test: Yield 56440 PSI, 389.14 MPA Tensile: 76122 PSI, 524.84 MP  
Customer Requirements SOURCE: WHITBY BILLETS CASTING; STRAND CAST

SHAPE + SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST P.O. NUMBER
A8 X 4 X 3/8	44W	CSA-G40.21-98(44W);ASTM A36M-0	7037484-01	BS20846-01
HEAT I.D.	C	Mn P S Si Cu Ni Cr	C Eq	
B41373	.18 .70 .010 .037 .21 .25 .09 .10		.348	

Mechanical Test: Yield 47474 PSI, 327.32 MPA Tensile: 72341 PSI, 498.77 MP  
Customer Requirements SOURCE: WHITBY BILLETS CASTING; STRAND CAST

Mechanical Test: Yield 48220 PSI, 332.47 MPA Tensile: 72710 PSI, 501.32 MPA  
Customer Requirements SOURCE: WHITBY BILLETS CASTING; STRAND CAST

Mo	V	Nb	B	N	Sn	Al	Ti	Zr	Ca	C Eq
.027	.000	.010	.0000	.0194	.019	.000	.00000	.000	.00000	.33

Mo	V	Nb	B	N	Sn	Al	Ti	Zr	Ca	C Eq
.024	.000	.000	.0000	.0122	.010	.000	.00000	.000	.00000	.348

%Ei: 23.6/8in, 23.6/200MM  
%Ei: 23.6/8in, 23.6/200MM

*HT# B41373 is used to fab. items: M608, M609, M319, M702, M707*

This material, including the billets, was produced and manufactured in Canada

Bhaskar Yadavanchill  
Quality Director  
Gerdau Ameristeel

*Bhaskar*

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

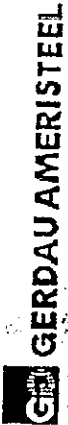
*S. R. Singh*  
Mgr. Metallurg. Svcs.  
WHITBY STEEL MILL

Seller warrants that all material furnished shall comply with specifications subject to standard published manufacturing variations. NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, ARE MADE BY THE SELLER, AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. In no event shall seller be liable for indirect, consequential or punitive damages arising out of or related to the materials furnished by seller. Any claim for damages for materials that do not conform to specifications must be made from buyer to seller immediately after delivery of same in order to allow the seller the opportunity to inspect the material in question.

W-063354

Chemical and Physical Test Report

MADE IN CANADA



WHITBY STEEL MILL  
HOPKINS STREET SOUTH  
WHITBY ON L1N 5T1 CAN  
(905) 688-8811

PRODUCED IN: WHITBY

SHIP TO  
YORK STEEL INC  
INDUSTRIAL PARK

INVOICE TO  
YORK STEEL INC (FRED)  
ACCTS PAYABLE  
550 WILSEY ROAD  
FREDERICTON, NB E3B 7K2

SHIP DATE  
03/28/07

CUST. ACCOUNT NO  
60125663

SALES ORDER  
6113629-07  
CUST P.O. NUMBER  
8311-07

SHAPE * SIZE	GRADE	SPECIFICATION
A6 X 4 X 3/8	44W	CSA-G40.21-98(44W);ASTM A36M-01a ASTM709-01b ASME-SA36-00a
HEAT I.D.	C Mn P S Si Cu Ni Cr Mo V Nb B N	
841371	.17 .74 .011 .028 .23 .22 .10 .15 .023 .000 .000 .000 .0161 .012	

Mechanical Test: Yield 49307 PSI, 338.95 MPA Tensile: 73960 PSI, 509.94 MPA %EI: 26.2/8in, 26.2/200MM

Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST

Mechanical Test: Yield 50112 PSI, 345.51 MPA Tensile: 72907 PSI, 502.68 MPA %EI: 26.2/8in, 26.2/200MM

Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST

SHAPE * SIZE	GRADE	SPECIFICATION
A6 X 4 X 5/16	44W	C.S. / G40.21-98 44W/50W; ASTM: A36 - 97a ASTM709-97b ASME: SA36 (A
HEAT I.D.	C Mn P S Si Cu Ni Cr Mo V Nb B N	
841243	.16 .80 .011 .025 .22 .27 .09 .12 .021 .000 .000 .000 .0148 .013	

Mechanical Test: Yield 50921 PSI, 351.09 MPA Tensile: 73145 PSI, 504.32 MPA %EI: 22.5/8in, 22.5/200MM

Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST

Mechanical Test: Yield 51059 PSI, 352.04 MPA Tensile: 72457 PSI, 499.57 MPA %EI: 22.5/8in, 22.5/200MM

Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST

SALES ORDER  
7022674-10  
CUST P.O. NUMBER  
8080-10

HT # B41243 is used to fab. items: M631 to M633

This material, including the billets, was produced and manufactured in Canada  
Bhaskar Palamanchili  
Quality Director  
Gerdau / meristeel

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

Mgr. Metallurg. Svcs.  
WHITBY STEEL MILL



G-104420

Chemical and Physical Test Report

MADE IN UNITED STATES



CARTERSVILLE STEEL MILL  
304 OLD GRASSDALE RD NE  
CARTERSVILLE GA 30121 USA  
(770) 387-3300

PRODUCED IN: CARTERSVILLE

SHIP TO TRIAD METAL 1951 BESSEMER ROAD 804-732-5000 PETERSBURG, VA 23805		INVOICE TO TRIAD METALS INTERNATIONAL METAL TRADERS INC 2300 COMPUTER AVE. STE-A-1 WILLOW GROVE, PA 19090		SHIP DATE 11/19/07	CUST. ACCOUNT NO 40213035
--	--	---	--	-----------------------	------------------------------

SHAPE * SIZE	GRADE	SPECIFICATION	SALES ORDER	CUSTOMER NUMBER
W10 X 17#	A57250/992	ASTM A572 GR50-07, ASTM A992-06A	7117661-08	3338-08
HEAT I.D. G706226	C Mn 1.19 P .012 S .020 Si .28 Cu .22 Ni .08 Cr .05 Mo .016 V .025 Nb .002 B .0006 N .0091 Sn .008 Al .001 Ti .00200 Ca .00140 C Eqv .328	Tensile: 73400 PSI, 506.08 MPA %El: 23.8/in, 23.8/200MM Std Dev: 0 Idl Diam: .394		

SHAPE * SIZE	GRADE	SPECIFICATION	SALES ORDER	CUSTOMER NUMBER
W10 X 17#	A57250/992	ASTM A572 GR50-07, ASTM A992-06A	7097321-02	2574-C7
HEAT I.D. G706231	C Mn 1.13 P .011 S .020 Si .26 Cu 2 Ni .08 Cr .06 Mo .016 V .025 Nb .001 B .0007 N .0092 Sn .009 Al .001 Ti .00100 Ca .00050 C Eqv .317	Tensile: 73400 PSI, 504.7 MPA %El: 21.3/in, 21.3/200MM Std Dev: 0 Idl Diam: .345		

SHAPE * SIZE	GRADE	SPECIFICATION	SALES ORDER	CUSTOMER NUMBER
W10 X 17#	A57250/992	ASTM A572 GR50-07, ASTM A992-06A	7097321-02	2574-C7
HEAT I.D. G706231	C Mn 1.13 P .011 S .020 Si .26 Cu 2 Ni .08 Cr .06 Mo .016 V .025 Nb .001 B .0007 N .0092 Sn .009 Al .001 Ti .00100 Ca .00050 C Eqv .317	Tensile: 74000 PSI, 510.9 MPA %El: 20.6/in, 20.6/200MM Std Dev: 0 Idl diam: .345		

HT# 6706231 is used to fabricate item: 0715

This material, including the billets, was produced and manufactured in the United States of America

*Shackley*  
Bhaskar Yalamanchilli  
Quality Director  
Gerdau Ameristeel

*Yamanchilli*  
Mgr. Metallurg Svcs.  
CARTERSVILLE STEEL MILL

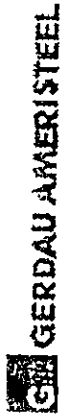
THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY

Seller warrants that all material furnished shall comply with specifications subject to standard published manufacturing variations. NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, ARE MADE BY THE SELLER, AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Any claim for damages for materials that do not conform to specifications must be made from buyer to seller immediately after delivery of same in order to allow the seller the opportunity to inspect the materials in question.

Chemical and Physical Test Report

MADE IN UNITED STATES

19-103561



CARTERSVILLE STEEL MILL  
184 OLD GRASSDALE RD NE  
CARTERSVILLE GA 30121 USA  
(770) 387-3300

PRODUCED IN: CARTERSVILLE

SHIP TO  
HIAD METAL  
551 BESSEMER ROAD  
04-732-5000  
ETERSBURG, VA 23061

INVOICE TO  
TRIAD METALS INTERNATIONAL  
METAL TRADERS INC  
2300 COMPUTER AVE. STE-A-1  
WILLOW GROVE, PA 19090

SHIP DATE  
11/06/07

CUST. ACCOUNT NO  
40213035

GRADE	SPECIFICATION	SALES ORDER	CUST P.O. NUMBER
A57250/992	ASTM A572 GR 50	7097022-10	2206-10
Mn P S	Si		
.19 .020 .029	.25		
Yield 58400 PSI, 402.85 MPA	Tensile: 61600 PSI, 486.77 MPA		
Customer Requirements: CASTING STRAND CAST	%E: 22.00%, 22.0200MM Std Dev:0		
Yield 53500 PSI, 368.87 MPA	Tensile: 61000 PSI, 475.74 MPA		
Customer Requirements: CASTING STRAND CAST	%E: 26.10%, 26.1200MM Std Dev:0		

HEAT ID	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	B	N	Sn	Al	Ti	Ca	C Epy	
W12 X 19#	.02	1.15	0.14	0.24	.26	.24	.09	.04	.17	.026	.002	.0008	.0100	.009	.001	.00100	.00030	.322	
HEAT ID																			
G705989																			
Yield: 59400 PSI, 409.55 MPA																			
Customer Requirements: CASTING STRAND CAST																			
Yield: 59700 PSI, 411.02 MPA																			
Customer Requirements: CASTING STRAND CAST																			

HT # G705989 is used to Fab items: B744, B808, B886 to B888, B892

This material, including the beads, was produced and manufactured in the United States of America

*M. Askany*  
Director  
Gerdau Ameristeel

*J. Jany*  
Mg. Marketing Svcs.  
CARTERSVILLE STEEL MILL

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

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**Steel Dynamics, Inc.**  
 2601 S. County Road 700 East  
 Columbia City, IN 46725  
 (260) 625-8100

**Ship to:**  
 Triad Metals Intl Bay A  
 1951 Bessemer Road  
 CSX-Collier Yard  
 Petersburg, VA 23805  
 Attn: Rock McGovern

**Bill of Lading No:** 0000106434  
**MTR #:** 0000106038

**Date:** 3/8/2007  
**Customer No:** 000191

**Ship to:**  
 TRIAD METALS INTERNAT - NA1  
 P.O. Box 12300 Computer Avenue  
 Willow Grove, PA 19080  
 Attn: Fred White

**Customer I.D.:** 142071A

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer I.D.
15†	020797707	W14X22	50' 0"	8	8030269	A992 / A992M A709 G50S/G345S A572 Gr 50/Gr 345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	142071A
16†	020797709	W14X22	50' 0"	8	8030269	A992 / A992M A709 G50S/G345S A572 Gr 50/Gr 345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	142071A
17†	020797711	W14X22	50' 0"	8	8030269	A992 / A992M A709 G50S/G345S A572 Gr 50/Gr 345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	142071A
18†	02080171	W16X26	35' 0"	8	8030612	A992 / A992M A709 G50S/G345S A572 Gr 50/Gr 345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	147705

**CHEMICAL**

Item	C	Mn	P	S	SI	Cu	V	Cr	NI	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
15	.06	.71	.008	.029	.18	.31	.013	.07	.09	.023	.015	.0083	.0003	.001	.23	.26	.13	HEAT
16	.06	.71	.008	.029	.18	.31	.013	.07	.09	.023	.015	.0083	.0003	.001	.23	.26	.13	HEAT
17	.06	.71	.008	.029	.18	.31	.013	.07	.09	.023	.015	.0083	.0003	.001	.23	.26	.13	HEAT
18	.08	.63	.010	.026	.18	.30	.011	.09	.09	.020	.011	.0075	.0002	.000	.24	.27	.14	HEAT

**MECHANICAL**

Item	Test	Tension Testing Results				Charpy Impact Testing Results				ASTM Grain Size No (per ASTM E112)
		Yield Strength ksi/MPa	Tensile (Fu) Strength ksi/MPa	Elongation %	Reduction of Area (%)	Temp F/C	Sample 1 ft. lb/ftoules	Sample 2 ft. lb/ftoules	Sample 3 ft. lb/ftoules	
15	1	57/395	72/499	28	28	1				
15	2	56/388	71/492	28	28	2				
16	1	57/395	72/499	30	30	1				
16	2	56/388	71/492	28	28	2				
17	1	57/395	72/499	30	30	1				
17	2	56/388	71/492	28	28	2				
18	1	60/416	74/513	25	25	1				
18	2	63/433	76/525	28	28	2				

**HT# B030269 is used to fabricate: B809 to B811, B880, B881, B884**

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchase order designations.

Quality Assurance

State of Indiana, County of Whitley

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_ Notary Public

My commission expires: \_\_\_\_\_

Special Comments/Informations:  
 Fully Killed Steel  
 Cast and Rolled to a Fine Grain Practice



**Steel Dynamics, Inc.**  
Structural and Bar Division - Columbia City, Indiana

# CERTIFIED MILL TEST REPORT

Date: 10 / 31 / 2007

Customer # 000191

Ship to:  
Triad Metals Intl

1951 Bessemer Road  
CSX-Collier Yard  
Petersburg VA, 23805 US  
Attn: Rock McGovern

TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Petersburg VA, 23805 US  
Attn: Fred White

Quality Steel 100% Melted  
and Manufactured in the USA

## GENERAL INFORMATION

Product Wide Flange Beam  
Size W 18 X 35  
W 460 X 52  
Heat Number B037977  
Condition(s) As-Rolled  
Fine Grained  
Fully Killed

## SPECIFICATIONS

Standards  
ASTM A6/A6M  
ASTM A992/A992M - 06a  
ASTM A709/A709M - 06a  
ASTM A572/A572M - 06  
ASTM A709/A709M - 06a

## SHIPMENT DETAILS

Bundle / ASN # 020991839  
Length 50'-11"  
PCS 6  
Customer PO 3065  
BOL # 0000128962

## Grades

A992 / A992M  
A709 gr50/gr345  
A572 gr50/gr345  
A709 g50S/g345S

## CHEMICAL ANALYSIS (weight percent)

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*Analysis Type
.07	.97	.012	.036	.26	.35	.09	.08	.026	.011	.002	.012	.0086	.0003	.28	.33	.15	Heat

## MECHANICAL TESTING

Test	Yield (fy) ksi / MPA	Tensile Strength ksi / MPA	fy / fu ratio	% Elong. {8" gage}	Charpy Impact Tests (available only when specified at time of order)		
					Temp F / C	Absorbed Energy ft-lb / J	Minimum
1	52 / 360	61 / 461	.78	25	Specimen 1	Specimen 2	Specimen 3
2	57 / 393	61 / 473	.83	26			Average

## Notes:

\*Calculated Chemical  
CE1 ((W)-C+Mn/6+...  
I (ASTM G101)-2;  
Values: Carbon Equivalents (C1, C2, PC), Corrosion Index (I)  
CE2 (AWS)=C+(Mn+Si)/6+(Cr+Mo+V)/5+(Ni+Cu)/15  
I ((Cu)+3.88(Ni))+1.20(Cr)+1.49(Si)+17.29(P)+7.29(Cu)(Ni)-9.10(Ni)(P)-33.39(Cu)<sup>2</sup>

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by the material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated

*HT# B037977 is used to Fab items: B800, B860, B862*

Perm (AWS) = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+max{.15+.V/10+.5B

State of Indiana, County of Whitley Sworn to and subscribed before me  
this \_\_\_\_\_ day of \_\_\_\_\_

Signed: **Doug Rees-Evans**  
Manager of Technical Services

ASTM A6 - 14.6: A signature is not required on this test report; however, the document shall clearly identify the organization submitting the report

Signed: \_\_\_\_\_ My commission expires: \_\_\_\_\_  
Notary Public



**Steel Dynamics, Inc.**  
 Subsidiary of Republic - Columbia, SC, USA

Shin to:  
 Triad Metals  
 3457 Grand Ave  
 Newcastle Island  
 Pittsburgh, PA 15225 US  
 Attn: Craig F. Hollis

**CERTIFIED MILL TEST REPORT**

Order # 0003191  
 Ship to:  
 TRIAD METALS INTERNATIONAL  
 A 12303 Campbell Rd  
 Pittsburgh, PA 15225 US  
 Attn: Fred Miller

Quality Steel 100% Melted  
 and Manufactured in the USA

GENERAL INFORMATION		SPECIFICATIONS		SHIPMENT DETAILS	
Product	Wide Flange Beam	Standards		Bundle / ASN #	Length
Size	W 21 x 44	ASTM A572M		071001265	40'0"
Heat Number	W 530 x 611	ASTM A992M	A992 / F 982M	Pcs	Customer P.O.
Condition(s)	A038410	ASTM A708M	A708 / F 982M	1	7100
	As-Rolled	ASTM A572M	A572 / F 982M		
	Fine Grained	ASTM A708M	A708 / F 982M		

**CHEMICAL ANALYSIS** (weight percent)

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Nb	Co	B	*C1	*C2	*PC	*1	Analysis Type
.07	1.04	.017	0.16	.27	.36	1.0	.09	.019	.013	.021	.001	.0081	.0004	30	34	.16	5.93	13.91

**MECHANICAL TESTING**

Test	Yield (fy) ksi / MPa	Tensile Strength ksi / MPa	Elong. ratio (1" gage)	Charpy Impact Tests (available only when specified at time of order)	
				Temp F/C	Absorbed Energy ft-lb / J
1	58 / 398	71 / 508	.76	Specimen 1	Specimen 2
2	60 / 415	75 / 517	.80	Specimen 1	Specimen 2
3				Specimen 1	Specimen 2
4				Specimen 1	Specimen 2
5				Specimen 1	Specimen 2
6				Specimen 1	Specimen 2
7				Specimen 1	Specimen 2

Notes: \*Calculated Chemistry Values. Carbon Equivalents (C1, C2, PC). Composition Index (I)  
 CE1 (IWM) = C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15  
 CE2 (AWS) = C + (Mn + Si)/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15  
 I (ASTM G101) = .260(Cu) + 3.80(Ni) + 1.20(Cr) + 1.49(Si) + 1.79(P) + 7.29(Cu)(Mn) + 9.11(Ni)(P) + 33.39(Cu)

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: Doug Rees-Evans  
 Manager of Technical Services

Signed: \_\_\_\_\_  
 My commission expires: \_\_\_\_\_  
 Notary Public

ASTM AG-146: A signature is not required on the test input; however, the document shall clearly identify the organization submitting the report. Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report.

*AT # A038410 is used to Fab item: A937*

2601 S County Road 700 East  
Columbia City, IN 46725  
(260) 625-8100

Customer No: 000191  
Bill of Lading No: 0000118729  
MTR #: 0000118302

Triad Metals International  
Triad Customer #110  
Attn: Sally

TRIAD METALS INTERNATIONAL  
Attn: 2300 Campbell Avenue  
Willow Grove, PA 19090  
Attn: Fred White

## Certified Mill Test Report

100% Melted and Manufactured in USA

Item	Bundle	Section	Length	Prs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1†	000023536	W21X62	44' 0"	1	A034653	A992 / A992M A709 g50S/g345S	ASTM A992/A992M - 06g ASTM A709/A709M - 06g	459
2†	020902071	W24X94	43' 6"	2	B034476	A572 gr50/gr345 A992 / A992M A709 g50S/g345S	ASTM A572/A572M - 06g ASTM A992/A992M - 06g ASTM A709/A709M - 06g	459
3†	020902073	W24X94	43' 6"	2	B034476	A572 gr50/gr345 A992 / A992M A709 g50S/g345S	ASTM A572/A572M - 06g ASTM A992/A992M - 06g ASTM A709/A709M - 06g	459
4†	020902113	W24X94	43' 6"	1	B034477	A572 gr50/gr345 A992 / A992M A709 g50S/g345S	ASTM A572/A572M - 06g ASTM A992/A992M - 06g ASTM A709/A709M - 06g	459
5†	020906203	W21X62	44' 0"	1	A034635	A992 / A992M A709 g50S/g345S	ASTM A992/A992M - 06g ASTM A709/A709M - 06g	459
6†	020906434	W21X62	44' 0"	1	A034653	A572 gr50/gr345 A992 / A992M A709 g50S/g345S	ASTM A572/A572M - 06g ASTM A992/A992M - 06g ASTM A709/A709M - 06g	459


### MECHANICAL

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	C1	C2	PC	Analysis
1*	.08	1.17	.012	.036	.27	.32	.034	.070	.13	.04	.012	.009	.0004	.33	0.3800	0.1800	HEAT
2*	.07	1.35	.017	.028	.22	.50	.046	.130	.13	.04	.016	.010	.0003	.38	0.4200	0.1900	HEAT
3*	.07	1.35	.017	.028	.22	.50	.046	.130	.13	.04	.016	.010	.0003	.38	0.4200	0.1900	HEAT
4*	.07	1.35	.020	.038	.20	.49	.043	.120	.12	.03	.014	.010	.0003	.38	0.4100	0.1900	HEAT
5*	.08	1.15	.016	.038	.25	.40	.035	.120	.12	.05	.015	.009	.0004	.34	0.3900	0.1800	HEAT
6*	.08	1.17	.012	.036	.27	.32	.034	.070	.13	.04	.012	.009	.0004	.33	0.3800	0.1800	HEAT

### Tension Testing Results

Item	Test	Yield (Fy)		Tensile (Fu)		Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp F/C	Charpy Impact Testing Results			ASTM Grain Size No (per ASTM E112)
		ksi/MPa	ksi/MPa	ksi/MPa	ksi/MPa					Sample 1 ft. lb/ftoules	Sample 2 ft. lb/ftoules	Sample 3 ft. lb/ftoules	
1	1	55/376	75/519	.73	.24								
1	2	62/431	77/531	.81	.22								
2	1	59/408	76/521	.78	.18								

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated

  
 Fred White  
 Quality Assurance

State of Indiana, County of Whitley  
 I am born to and subscribed before me this day of \_\_\_\_\_, 2011.  
 Signed \_\_\_\_\_  
 Notary Public

Special Comments/Information  
**HT# A034653 is used to Fab item;**  
**B756**



**Steel Dynamics, Inc.**  
Structural and Rail Division - Columbia City, Indiana

**CERTIFIED MILL TEST REPORT**

Date: 10/07/2007

Customer # 000191  
Bill to:  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Petersburg VA, 23805 US  
Attn: Fred White

Ship to:  
Triad Metals Intl  
1951 Bessemer Road  
CSX-Collier Yard  
Petersburg VA, 23805 US  
Attn: Rock M. Govern

Quality Steel 100% Melted  
and Manufactured in the USA

GENERAL INFORMATION		SPECIFICATIONS		SHIPMENT DETAILS	
Product	Wide Flange Beam	Standards		Bundle / ASN #	020957809
Size	W 21 x 73	ASTM A616M		Length	70' 0"
	W 530 x 109	ASTM A992/A992M - 06a	Grades	pcs	4
Heat Number	A036670	ASTM A709/A709M - 06a	A992 / A992M	Customer PO	251
Condition(s)	As-Rolled Fine Grained	ASTM A572/A572M - 06	A709 gr50/gr345		
		ASTM A709/A709M - 06a	A572 gr50/gr345		
			A709 gr50S/gr345S		

**CHEMICAL ANALYSIS** (weight percent)

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analysis Type
.07	1.24	.017	.023	.22	.30	.09	.11	.019	.042	.002	.0097	.0004	.3a	.38	.17	5.68	Heat

**MECHANICAL TESTING**

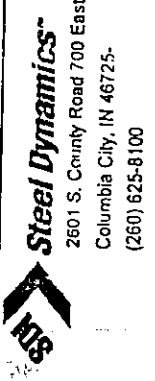
Test	Yield (fy) ksi / MPa	Tensile Strength ksi / MPa	fy / fu ratio	% Elong. {8" gage}	Charpy Impact Tests (available only when specified at time of order)		
					Temp F / C	Absorbed Energy ft-lbf / J	Minimum
1	60 / 412	72 / 498	.83	25	Specimen 1	Specimen 2	Specimen 3
2	60 / 412	73 / 503	.82	27			
3							
4							
5							
6							
7							

Notes: \*Calculated Chemistry Values; Carbon Equivalents (C1, C2, PC), Corrosion Index (I)  
 CE1 (IWI) = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15  
 CE2 (AWS) = C+(Mn+Si)/10+(Cr+Mo+V)/5+(Ni+Cu)/15  
 Pcm (AWS) = C+5/30\*(Mn/20+Cu/20+Ni/60+Cr/70+Mo/15+V/10+5B)  
 I (ASTM G101) = 26.01(Cu)+3.88(Ni)+1.20(Cr)+1.49(Si)+17.29(P)+7.29(Cu) }-9.10(Ni)(P)-33.38(Cr)

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: Doug Rees-Evans My commission expires: \_\_\_\_\_  
 Manager of Technical Services Notary Public

State of Indiana, County of Whitley Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_



2601 S. County Road 700 East  
Columbia City, IN 46725-  
(260) 625-8100

**Certified Mill Test Report**  
100% Melted and Manufactured in USA

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)
1	000023481	W24X68	44' 0"	1	A034341	A992 / A992M A709 gr50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M
2	020899518	W24X68	44' 0"	4	A034352	A992 / A992M A709 gr50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M
3	020900310	W24X62	42' 0"	4	A034524	A992 / A992M A709 gr50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M
4	020900399	W24X62	42' 0"	1	A03452R	A992 / A992M A709 gr50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M
5	020906903	W21X93	41' 6"	1	A034612	A992 / A992M A709 gr50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M
6a	020907114	W21X93	41' 6"	1	A034610	A992 / A992M A709 gr50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M
6b	020907114	W21X93	41' 6"	1	A034680	A992 / A992M A709 gr50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M
7a	020907123	W21X93	41' 6"	1	A03467R	A992 / A992M A709 gr50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M
7b	020907123	W21X93	41' 6"	1	A034680	A992 / A992M A709 gr50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M

**Ship to:**  
Triad Metals International  
Triad Customer P/I  
Allen, Sally

**Date:** 7/19/2007  
**Customer No:** 040191  
**Bill of Lading No:** 000011R001  
**MTR #:** 000011R254

*HT# A034612 is used to Lab item: B779*

hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed: *Dorey R...*  
Quality Assurance

Sworn in and subscribed before me this  
day of \_\_\_\_\_  
2007  
Signed: \_\_\_\_\_  
My Commission Expires \_\_\_\_\_

Special Comments/Information

State of Indiana, County of Whitley





PART NO.

Attn:

DATE	10/19/07
INVOICE NO.	177662
BILL OF LADING	873406
CUSTOMER NO.	7460
CUSTOMER P.O.	18984

**NUCOR-YAMATO STEEL CO.**  
P.O. BOX 1228 • BLYTHEVILLE, AR 72310

### CERTIFIED MILL TEST REPORT

100% MELTED AND MANUFACTURED IN U.S.A.  
All shapes produced by Nucor-Yamato Steel are cast and rolled to a fully killed and fine grain practice.

**SPECIALTY**  
PACIFIC STEEL C/O  
ARRIMAGE IDEAL  
CN SIDING B076  
LONGUEVILLE, QUEBEC CANADA

**SPECIFICATION**  
ASTM A392/A992M-06a A572/A572M GR50-06  
ASTM A709/A709M-07 GR50 (345)  
ASTM A709/A709M-07 GR50S (345S)  
ASTM A6/A6M-07

**SOLD TO**  
PACIFIC STEEL  
845 KENCK, CHOMEDY  
CANADA  
LAVAL, QC  
H7S 1A9

ITEM #	ITEM DESCRIPTION	QTY	HEAT #	MECHANICAL PROPERTIES						CHEMICAL PROPERTIES										
				YIELD TO TENSILE RATIO	YIELD POINT (MPa)	TENSILE STRENGTH (MPa)	ELONG %	CHARPY IMPACT TEMP (°C)	IMPACT ENERGY (FT-LBS)	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Cb
1	W21 - 48.0 45' W530 x 71.0 13.716 M	2	300478	.77	58000	75000	23		.07	1.10	.016	.035	.28	.29	.13	.08	.03	.00	.017	.30
2	W21 - 48.0 45' W530 x 71.0 13.716 M	1	305142	.78	59000	76000	22		.08	1.21	.020	.033	.32	.29	.11	.12	.03	.00	.023	.34
3	W21 - 48.0 60' W530 x 71.0 18.288 M	3	305147	.74	55000	74000	23		.07	1.22	.015	.034	.34	.28	.11	.11	.03	.00	.022	.33
4	W21 - 48.0 60' W530 x 71.0 18.288 M	9	305155	.76	57000	75000	22		.07	1.20	.012	.032	.29	.27	.12	.10	.03	.00	.023	.33
5	W21 - 50.0 65' W530 x 74.0 19.812 M	4	305196	.75	56000	75000	24		.08	1.20	.011	.030	.28	.33	.11	.08	.03	.00	.020	.33
6	W21 - 50.0 65' W530 x 74.0 19.812 M	8	305205	.73	55000	75000	25		.07	1.28	.019	.026	.22	.28	.10	.10	.02	.01	.020	.34
7	W21 - 55.0 50' W530 x 82.0 15.240 M	5	305108	.76	60000	79000	21		.08	1.24	.021	.033	.35	.29	.09	.10	.02	.01	.029	.35
8	W24 - 62.0 60' W610 x 92.0 18.288 M	3	304694	.72	55000	75000	25		.08	1.21	.024	.033	.31	.27	.09	.09	.02	.00	.024	.32
9	W24 - 62.0 60' W610 x 92.0 18.288 M	2	304696	.74	57000	77000	23		.07	1.28	.032	.033	.31	.30	.10	.13	.02	.00	.023	.34

PLICATION BASED ON 1 INCH GAGE LENGTH

I hereby certify that the contents of this report are accurate and correct. All test results and operations performed by this material manufacturer are in compliance with the requirements of the material specifications listed in the Specifications Book referred to.

*Ray Powell*  
QUALITY ASSURANCE

STATE OF ARKANSAS COUNTY OF MISSISSIPPI  
SWORN TO AND SUBSCRIBED BEFORE ME THIS 19th Day of 10/07  
*Charlene Wallis*  
NOTARY PUBLIC

NY # 304694 is used to fab item B709

**Steel Dynamics, Inc.**  
 2801 S. Carly Road, 100 East  
 Columbia City, IN 46124  
 (765) 825-8100

**Certified Mill Test Report**  
 100% Mill Test Results Guaranteed in USA

Item	Bundle	Section	Length	Roll #	Grade(s)	Specifications
1a	026501293	W24X68	40' 0"	A03 448	A992/A992M A709 gr50/gr345 A709 gr50S/gr345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A618/A618M
1b	026001293	W24X68	40' 0"	A03 140	A992/A992M A709 gr50/gr345 A709 gr50S/gr345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A618/A618M
2	020901207	W24X88	40' 0"	A03 449	A992/A992M A709 gr50/gr345 A709 gr50S/gr345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A618/A618M

Order # 2123217  
 Cust. Part No. 000181  
 Bill of Lading No. 0000102155  
 MTR # 0000101082

Site No:  
 Final 100% Inspection  
 34800 Central Avenue  
 P.O. Box 1000, PA 15125  
 4th Floor

Steel Dynamics  
 Heat Number  
 A054448

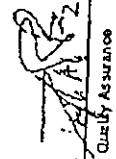
**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	ASTM Grade
1a	.08	1.06	.019	.031	.20	.40	.033	.15	.13	.061	.012	.0132	.002	.001	.33	.36	.16	ASTM A992
1b	.07	1.08	.017	.033	.20	.31	.035	.17	.11	.062	.011	.0119	.003	.002	.34	.37	.17	HEAT
2	.07	1.08	.017	.033	.20	.31	.035	.17	.11	.062	.011	.0119	.003	.002	.34	.37	.17	HEAT

**MECHANICAL**

Item	Test	Tension Testing Results			Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp F/C	Sample 1 ft. lb./inches	Sample 2 ft. lb./inches	Sample 3 ft. lb./inches	ASTM Grade Size No. (per ASTM E111)
		Yield Strength ksi/MPa	Tensile Strength ksi/MPa	Fy/Fu								
1a	1	60411	72494	.83	27		1					
1a	2	57393	71491	.80	25		2					
1b	1	58403	75518	.77	21		1					
1b	2	64440	77528	.83	23		2					
2	1	58403	75518	.77	21		1					
2	2	64440	77528	.83	23		2					

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designations.

Signed:   
 Quality Assurance

State of Indiana, County of Whitley  
 Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
 Signed: \_\_\_\_\_  
 My commission expires: \_\_\_\_\_

Special Comments: "minimization"  
 Fully Killed Steel  
 Cast and Rolled in a Fine Grain Practice

HT# A034448 is used to fab. items: B702, B710, B711, B861

Customer Name

Customer PO#

Shipper No

Heat Number

Mandate Erectors & Welding Ltd.

30368350

3797

30368350

Bill To: TRIAD METALS INTERNATIONAL  
 2300 COMPUTER AVENUE  
 SUITE A-1  
 WILLOW GROVE  
 19090 PA US

Ship To: 6 TRIAD METALS INTERNATIONAL  
 1951 BESSEMER ROAD  
 PETERSBURG  
 23803 VA US

Order Date: 05/15/2007  
 PO No: 263  
 Mill Order No: 3304868  
 Load No: 1120488  
 Manifest No: 1833332

CERTIFIED MATERIAL TEST REPORT  
 CHAPARRAL STEEL  
 300 Ward Rd.  
 Midlothian, TX  
 76065-9651  
 (972) 775-8211

SIZE W 27 X 84# / W690 X 125 GRADE 992/572-50 LENGTH 45 FT / 13.716 M  
 PRODUCT WF BEAMS

SPECIFICATIONS  
 ASTM A6-05a, A992-06a, A572-06

HEAT NO: 30368350

CHEMICAL ANALYSIS

	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Al	Nb	CE
	.08	1.12	.011	.033	.22	.35	.09	.08	.015	.014	.001	.002	.020	.32

PHYSICAL PROPERTIES

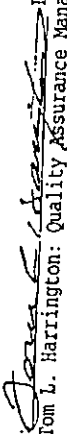
Yield Strength	Tensile Strength		Specimen Area		Elongation %	Gage Length
	KSI	MPa	Sq In	Sq Cm		
54.0	372.3	1.3	477.8	1.017	29.0	8 in   200 mm
55.0	379.2	1.5	486.1	1.007	25.9	8 in   200 mm

Bend Test  
 Dia. Result  
 ROA %

HT # 30368350 is used to fab item: B868

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A. CMTR complies with DIN EN 10204 3.1.B

I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed:  Date: Jun. 27, 2007  
 Tom L. Harrington: Quality Assurance Manager  
 Notary Public (if applicable) \_\_\_\_\_ Date: \_\_\_\_\_  
 Page: 2 of 2

Customer Name

Mandate Erectors & Welding Ltd.

Customer PO#

31710

Shipper No

17377

Heat Number

1716933

MILL TEST REPORT

MUCOR STEEL - BERKELEY  
P.O. Box 2259  
Mt. Pleasant, S.C. 29464  
Phone: (843) 336-6000

11/13/07 8:55:  
100% MELTED AND MANUFACTURED IN THE USA  
All beams produced by Nucor-Berkeley are cast & rolled to a fully killed and fine grain practice

Ship to: TRIAD METALS INTERNATIONAL  
2300 COMPUTER AV.  
SUITE A1  
WILLOW GROVE, PA 19090

Sold to: TRIAD METALS INTERNATIONAL  
3480 GRAND AVE  
NEVILLE ISLAND, PA 15223

Customer #: 473 - 2

B.O.L. #: 653248

SPECIFICATIONS: Tested in accordance with ASTM specifications A6/A6M and A370  
ASHTO : M270-36-00/M270-50-00  
ASME : SA-36 04  
ASTM : A992-06a://A36-05/A572-06-50/A709-06a36/A709-07 50/A709-345M  
CSA : CSA-44W/G40.21-50W

Descript on	Heat# Grade (s) Test	Yield/ Tensile Ratio	Yield Tensile (PSI) (MPa)	Elong (%)	C		P		S		Si		Cu		Ni		CE1 CE2 Pcm
					Cx Pb	Mn Mo Ti	Sn Ca	Al B	S N	V N	Nb Zr	Cu Zr	Ni CI	CE1 CE2 Pcm			
M8X10 040' 0.00" M200X15.0 012.15 0m	1716933 A992-06a	.85	59800 412 59100 407	21.10 487 70600 487	36 Piece(s)	.0700 .0220 .0020	.8490 .0270 .0018	.0071 .0049 .0005	.0328 .0025 .0007	.2390 .0019 .0052	.0820 .0108 .0000	.0280 2.5036	.2290 .2710 .1315	Inv#: 946622			
M8X10 040' 0.00" M200X15.0 012.15 0m	1716933 A992-06a	.85	59800 412 59100 407	21.10 487 70600 487	12 Piece(s)	.0700 .0220 .0020	.8490 .0270 .0018	.0071 .0049 .0005	.0328 .0025 .0007	.2390 .0019 .0052	.0820 .0108 .0000	.0280 2.5036	.2290 .2710 .1315	Inv#: 946623			
M8X10 045' 0.00" M200X15.0 013.71 0m	1717011 A992-06a	.83	57800 399 58100 401	26.13 479 70000 483	24 Piece(s)	.0720 .0340 .0077	.8960 .0170 .0018	.0090 .0050 .0005	.0210 .0025 .0007	.1930 .0015 .0048	.0740 .0130 .0000	.0270 2.3054	.2376 .2723 .1336	Inv#: 946622			
M8X10 050' 00.00" M200X15.0 015.2400m	2714380 A992-06a	.87	62600 432 61300 423	26.26 497 72200 498	24 Piece(s)	.0720 .0340 .0077	.8920 .0200 .0012	.0075 .0058 .0001	.0242 .0004 .0012	.2190 .0036 .0055	.1160 .0120 .0000	.0430 3.1921	.2428 .2817 .1397	Inv#: 946623			
M8X10 050' 00.00" M200X15.0 015.2400m	2714380 A992-06a	.85	62600 432 61300 423	26.26 497 72200 498	12 Piece(s)	.0720 .0340 .0077	.8920 .0200 .0012	.0075 .0058 .0001	.0242 .0004 .0012	.2190 .0036 .0055	.1160 .0120 .0000	.0430 3.1921	.2428 .2817 .1397	Inv#: 946622			

Engation based on 8" (20 32cm) gauge length. 'No Weld Repair' was performed.  
 CE1 =  $26.01Cu + 3.88Ni + 1.20Cr + 1.49Si + 17.28P - (7.29Cu + Ni) - (9.10Ni + P) - 33.39(Cu * Cu)$   
 Pcm =  $C + (Si/30) + (Mn/20) + (Cr/20) + (Ni/60) + (Mo/15) + (V/10) + 5B$   
 CE2 =  $C + (Mn + Si)/6 + ((Cr + Mo + V + Nb)/5) + ((Ni + Cu)/15)$   
 CE =  $C + ((Mn + Si)/6) + ((Cr + Mo + V + Nb)/5) + ((Ni + Cu)/15)$

I hereby certify that the contents of this report are accurate and correct. All test results and operations performed by the material manufacturer are in compliance with material specifications, and when designated by the purchaser, meet applicable specifications.

Bruce A. York  
Metallurgist

HT# 1716933 is used to Fab item: B832

Load #: 24

Shipping Date:

Waybill #: 898-24

Customer:	Pizzagalli Construction Company	Prepared By:	Approved By:	Date: 24-01-01
Job Title:	84 Marginal Way	Bathurst Machine Shop Ltd. Mandate Erectors & Welding Ltd. MIQM Ltd., Tracadie		1040 Route 430 Big River Road E2A 6P9
Date Sent to Shop:	X			
Job Number:	898	Job Progress Report Sheet		
		SHEET: 1		

Attach.	Material	Rev.	Mark #	Qty	Weight	C=COLOR GALV.				Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped				
						Paint	Galv	Camber	Level	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date		
A	W24X68	A	B703	1	2084																							
A	W24X76	A	B707	1	2316																							
A	W24X68	A	B708	1	2084																							
A	W10X17	A	B714	1	322																							
A	W10X17	A	B718	3	965																							
A	W18X35	A	B727	1	1683																							
A	W21X44	A	B736	1	1891																							
A	W21X44	A	B738	3	5681																							
A	W21X44	A	B739	1	1848																							
A	W18X35	A	B740	1	1704																							
A	W12X19	A	B742	1	197																							
A	W12X19	A	B743	1	196																							
A	HSS8X4X1/4	A	B747	1	251																							
A	W21X44	A	B750	1	1891																							
A	W24X76	A	B755	1	3820																							
H	W21X44	A	B761	1	1809																							
A	W16X36	A	B765	1	1413																							
A	W21X101	A	B769	1	5467																							
H	W10X17	A	B770	1	287																							
H	W10X17	A	B771	1	287																							

Load # 24  
Plate # TGR-784

Pieces 24 36196 Total Weight( Lbs)

( 18.1 TONS)

Load #: 24

Customer: Pizzagalli Construction Company  
 Job Title: 84 Marginal Way  
 Date Sent to Shop: X  
 Job Number: 898

SHEET: 2

Prepared By: Approved By: Date: 24-01-01

Bathurst Machine Shop Ltd.  
 Mandate Erectors & Welding Ltd.  
 MQM Ltd., Tracadie  
 1040 Route 430  
 Big River Road  
 E2A 6P9

Form#12 Rev. 4

\* = SEE SHOP DWG

C=COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped				
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date
A	HSS8X4X1/4	A	B776	2	285																							
A	HSS12X4X5/16	A	B777	1	663																							
A	W18X40	A	B789	1	1617																							
A	W21X44	A	B793	1	1894			C=1"1/2																				
A	HSS8X8X1/2	A	D601	1	875																							
A	HSS8X8X1/2	A	D603	1	874																							
A	HSS6X6X1/2	A	D605	1	483																							
A	HSS6X6X1/2	A	D606	1	483																							
A	HSS8X8X5/8	A	D611	2	1645																							
A	HSS8X8X5/8	A	D612	1	970																							
A	L3X3X5/16	0	BA1	16	1040																							

Pieces 28 10829 Total Weight(Lbs)

( 5.4 TONS)

Atlas Tube Canada ULC  
 210 Clark St  
 Barrow, Ontario, Canada  
 NOR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537



Ref. B/L: 80269969  
 Date: 12.06.2007  
 Customer: 1774

Sold to

Acier Altitude Inc.  
 2555 Francis-Hugues Avenue  
 LAVAL QC H7S 2H7  
 CANADA

**MATERIAL TEST REPORT**

Shipped to

Acier Altitude Inc.  
 2555 Francis-Hugues Avenue  
 LAVAL QC H7S 2H7  
 CANADA

*Heat 1281805*

Material: 8.0x6.0x313x30"0"0(1x1)REC  
 Sales order: 351251

Material No: 80060313  
 Purchase Order: 3550

Made In: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
80353	0.210	0.860	0.011	0.005	0.020	0.029	0.020	0.000	0.010	0.010	0.020	0.001
Bundle No	Yield	Tensile	Eln.Zin	Certification								
1200493492	057060 Psi	072830 Psi	38.3 %	ASTM A500-03A GRADE B&C								

Material Note:  
 Sales Or Note

Material: 12 1x4 0x312x52 0"011x1)REC  
 Sales order: 351032

Material No: 120040313  
 Purchase Order: 3546

Made In: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
81805	0.200	0.310	0.007	0.007	0.020	0.035	0.010	0.005	0.002	0.007	0.030	0.001
Bundle No	Yield	Tensile	Eln.Zin	Certification								
1200492955	057280 Psi	070380 Psi	38.3 %	ASTM A500-03A GRADE B&C								

Material Note:  
 Sales Or Note

*HT #681805 is used to fab. item: B777*

Material: 12 0x6 0x250x24"0"011x1)REC  
 Sales order: 351032

Material No: 120060350  
 Purchase Order: 3546

Made In: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
80243	0.190	0.750	0.005	0.005	0.015	0.049	0.034	0.004	0.002	0.014	0.019	0.000
Bundle No	Yield	Tensile	Eln.Zin	Certification								
1200461358	063130 Psi	077710 Psi	31.3 %	ASTM A500-03A GRADE B&C								

Material Note:  
 Sales Or Note

Material: 12 0x5 0x375x20"0"012x2)  
 Sales order: 350835

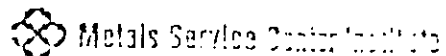
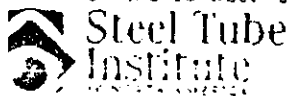
Material No: 120060375  
 Purchase Order: 3546

Made In: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
80243	0.190	0.750	0.005	0.005	0.015	0.049	0.034	0.004	0.002	0.014	0.019	0.000
Bundle No	Yield	Tensile	Eln.Zin	Certification								
1200461358	063130 Psi	068070 Psi	37.3 %	ASTM A500-03A GRADE B&C								

Material Note:  
 Sales Or Note

The results reported on this report represent the actual analyses of the material furnished and indicate full compliance with all applicable specification and contract requirements.





PART NO.

Attr



COPPERWELD

Customer Order No.

11282

COPPERWELD CANADA INC.  
14 HOITTY AVENUE  
BRAMPTON, ONTARIO L6X 2M5  
CANADA

TEST REPORT

Internal Order No. 969968

Invoice No. 27239456

Date 08/06/04

Customer: ACIER PACIFIQUE INC. 845 MUNCK CHOMEDEY LAVAL, PQ H7S 1A6	Specification: 6 IN, SQ, 1/2 48 FT ASTM A500 GRC 03A
---	---

HEAT NO.	CHEMICAL ANALYSIS, %											
	C	Mn	P	S	SI	AL	CB	V	CU	NI	CR	
3125C C.E.	.33	.19	.82	.011	.005	.23	.038	.005	.026	.010	.010	.010

MECHANICAL PROPERTIES					
HEAT NO.	C.I./D.I.	YIELD STRENGTH PSI	TENSILE STRENGTH PSI	ELONGATION %	HARDNESS Rb
3125C		71500	84300	35	

YIELD STRENGTH IS 0.2% OFFSET - ELONGATION IN 2 INCHES

Other Tests	 JIM CLARK, METALLURGIST
-------------	-----------------------------

Copperweld certifies that the material purchased on this order meets all chemical and physical requirements in accordance with the specification noted above.

HT# 3125C is used to Fab. items: D605, D606



**Material Test Report**

200 Clark Street, Harrow Ontario, Canada N0R 1G0  
 Tel: (519) 464-8000 Fax: (519) 738-5087

Material:	3.6x3.6x250x48"0"0(5x2).				Material No.	350362504800.		Made in:	Canada
Heat No	C	Mn	P	S	Si	Al	Cu	Sales order	Purchase Order
664820	0.190	0.790	0.010	0.005	0.009	0.033	0.018	120231	22385
Bundle No	Yield		Tensile		Elon.2In		Certification		
M100228300	064578 Psi		077498 Psi		29.6 %		ASTM A500 GR.B & C.		
Material Note:									
Sales Or.Note:									

Material:	8.0x4.0x250x24"0"0(2x5).				Material No.	800402502400		Made in:	Canada
Heat No	C	Mn	P	S	Si	Al	Cu	Sales order	Purchase Order
664482	0.180	0.790	0.008	0.006	0.013	0.038	0.007	120231	22385
Bundle No	Yield		Tensile		Elon.2In		Certification		
M100228428	060034 Psi		075505 Psi		33.0 %		ASTM A500 GR.B & C.		
Material Note:									
Sales Or.Note:									

Material:	8.0x4.0x250x48"0"0(2x3).				Material No.	800402504800		Made in:	Canada
Heat No	C	Mn	P	S	Si	Al	Cu	Sales order	Purchase Order
464610	0.200	0.810	0.012	0.007	0.012	0.032	0.012	120231	22385
Bundle No	Yield		Tensile		Elon.2In		Certification		
M100223446	058954 Psi		068545 Psi		30.9 %		ASTM A500 GR.B & C.		
Material Note:									
Sales Or.Note:									

*HT # 464610 is used to fab items: B747, B776*

Material:	8.0x4.0x250x48"0"0(2x3).				Material No.	800402504800		Made in:	Canada
Heat No	C	Mn	P	S	Si	Al	Cu	Sales order	Purchase Order
0113524	0.210	0.870	0.008	0.007	0.014	0.030	0.010	120231	22385
Bundle No	Yield		Tensile		Elon.2In		Certification		
M100225447	062971 Psi		078428 Psi		27.8 %		ASTM A500 GR.B & C.		
Material Note:									
Sales Or.Note:									

Material:	8.0x4.0x250x48"0"0(2x3).				Material No.	800402504800		Made in:	Canada
Heat No	C	Mn	P	S	Si	Al	Cu	Sales order	Purchase Order
023055	0.190	0.850	0.018	0.004	0.040	0.047	0.023	120231	22385
Bundle No	Yield		Tensile		Elon.2In		Certification		
M100228662	064898 Psi		075308 Psi		25.3 %		ASTM A500 GR.B & C.		
Material Note:									
Sales Or.Note:									



Steel Service Center Institute



# Material Test Report

Ref. BL: 60143145  
 Date: 11.03.2004  
 Customer: 1774

200 Glen Street, Harrow, Ontario, Canada N0P 1G0  
 Tel: (519) 936-5900 Fax: (519) 705-5097

Acier Altrube Inc.  
 1 Rue Provost - Suite 305  
 LACHINE QC H8S 4K2  
 CANADA

Shipped to  
 Acier Altrube Inc.  
 1 Rue Provost - Suite 305  
 LACHINE QC H8S 4K2  
 CANADA

Material:	E 0x3.0x210x10.0 1x2 REC				Material No.	50030375	Made in Canada		
Heat No.	C	Mn	P	S	Si	Al	Cu	Sales order	Purchase Order
62094C	0.171	0.663	0.008	0.003	0.150	0.015	0.201	148751	1067
Bundle No.	Yield		Tensile		Elm. Zin		Certification		
M100344250	058930 Psi		079830 Psi		24.0 %		ASTM A500-G1A GRADE C & B		
Material Note:									
Sales Or. Note:									

Material:	5.0x5.0x250x46.0 10.0(3x2) REC				Material No.	50050250	Made in Canada		
Heat No.	C	Mn	P	S	Si	Al	Cu	Sales order	Purchase Order
CA11924	0.170	0.430	0.008	0.003	0.050	0.019	0.005	149305	1099
Bundle No.	Yield		Tensile		Elm. Zin		Certification		
M100345975	063020 Psi		074970 Psi		25.9 %		ASTM A500-G1A GRADE C & B		
Material Note:									
Sales Or. Note:									

Material:	5.0x6.0x189x30.0 10.0(2x2) REC				Material No.	50060188	Made in Canada		
Heat No.	C	Mn	P	S	Si	Al	Cu	Sales order	Purchase Order
117930	0.173	0.627	0.011	0.003	0.018	0.025	0.145	149086	1032
Bundle No.	Yield		Tensile		Elm. Zin		Certification		
3590590	054070 Psi		071970 Psi		25.7 %		ASTM A500-G1A GRADE C & B		
Material Note:									
Sales Or. Note:									

Material:	5.0x5.0x189x30.0 10.0(2x2) REC				Material No.	50060188	Made in Canada		
Heat No.	C	Mn	P	S	Si	Al	Cu	Sales order	Purchase Order
118060	0.175	0.635	0.015	0.006	0.015	0.024	0.145	149086	1032
Bundle No.	Yield		Tensile		Elm. Zin		Certification		
3590590	057650 Psi		077650 Psi		32.7 %		ASTM A500-G1A GRADE C & B		
Material Note:									
Sales Or. Note:									

Material:	5.0x5.0x200x20.0 10.0(1x1) REC				Material No.	30080500	Made in Canada		
Heat No.	C	Mn	P	S	Si	Al	Cu	Sales order	Purchase Order
117490	0.185	0.723	0.012	0.005	0.171	0.019	0.132	149224	1090
Bundle No.	Yield		Tensile		Elm. Zin		Certification		
M200211007	052420 Psi		075330 Psi		31.6 %		ASTM A500-G1A GRADE C & B		
Material Note:									
Sales Or. Note:									

HT# 117490 is used to fab. items: D601, D603

Authorized by Quality Assurance:

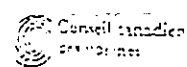


Steel Tube Institute  
 OF NORTH AMERICA



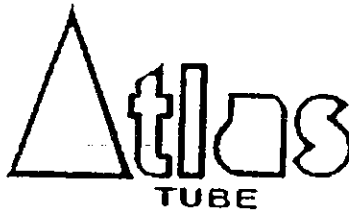
Steel Service Center Institute

Standards Council  
 of Canada



Atlas Tube Canada ULC  
200 Clark St.  
Harrow, Ontario, Canada  
N0R 1G0  
Tel: 519-738-3541  
Fax: 519-738-3537

Ref.B/L: 80263316  
Date: 10.24.2007  
Customer: 1751



Sold to

Mandate Erectors & Welding  
1040 Route 430  
BIG RIVER NB E2A 6P9  
CANADA

**MATERIAL TEST REPORT**

Shipped to

Mandate Erectors & Welding  
1040 Route 430  
BIG RIVER NB E2A 6P9  
CANADA

Material: 8.0x8.0x625x48'0"0(2x1).

Material No: 800806254800

Made in: Canada

Sales order: 335-191

Purchase Order: 30519-898

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002

Bundle No	Yield	Tensile	Eln.2in
M200482111	063150 Psi	076440 Psi	34.3 %

Certification

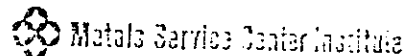
ASTM A500-03A GRADE S&C

Material Note:  
Sales Or.Note:

HT # 582766 is used to fab. items: D611, D612

Authorized by Quality Assurance: *[Signature]*

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.





CARTERSVILLE STEEL MILL  
 384 OLD GRASSDALE RD NE  
 CARTERSVILLE GA 30121 USA  
 (770) 387-3300

Chemical and Physical Test Report  
 MADE IN UNITED STATES

G-104420

PRODUCED IN: CARTERSVILLE

SHIP TO  
 TRIAD METAL  
 1951 BESSEMER ROAD  
 804-732-5000  
 PETERSBURG, VA 23805

INVOICE TO  
 TRIAD METALS INTERNATIONAL  
 METAL TRADERS INC  
 2300 COMPUTER AVE STE-A-1  
 WILLOW GROVE, PA 19090

SHIP DATE  
 11/19/07  
 CUST. ACCT/INT NO  
 40213035

SHAPE + SIZE	GRADE	SPECIFICATION																	
W10 X 17#	A57250/992	ASTM A572	GR50-07	ASTM A992	.06A														
HEAT ID.	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	B	N	Sn	Al	Ti	Ca	C Eqv	
G706226	.09	1.19	.012	.020	.28	.22	.08	.05	.016	0.5	.002	.0006	.0091	.008	.001	.00200	.00140	.328	

Mechanical Test: Yield 56500 PSI, 389.55 MPa Tensile: 73400 PSI, 506.08 MPa %El: 21.7/8in, 23.8/200MM Sid Dev:0 Idl Diam: .394  
 Customer Requirements CASTING: STRAND CAST  
 Mechanical Test: Yield 57100 PSI, 393.69 MPa Tensile: 72300 PSI, 498.49 MPa %El: 21.7/8in, 21.2/200MM Sid Dev:0 Idl Diam: .394  
 Customer Requirements CASTING: STRAND CAST

SHAPE + SIZE	GRADE	SPECIFICATION																	
W10 X 17#	A57250/992	ASTM A572	GR50-07	ASTM A992	.06A														
HEAT ID.	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	B	N	Sn	Al	Ti	Ca	C Eqv	
G706231	.08	1.13	.011	.020	.26	.22	.08	.06	.018	0.5	.001	.0007	.0092	.009	.001	.00100	.00050	.317	

Mechanical Test: Yield 57200 PSI, 394.38 MPa Tensile: 73200 PSI, 504.7 MPa %El: 21.7/8in, 21.3/200MM Sid Dev:0 Idl Diam: .345  
 Customer Requirements CASTING: STRAND CAST  
 Mechanical Test: Yield 58000 PSI, 399.9 MPa Tensile: 74100 PSI, 510.9 MPa %El: 20.6/8in, 20.6/200MM Sid Dev:0 Idl Diam: .345  
 Customer Requirements CASTING: STRAND CAST

HT# G706231 is used to fab items: B714, B718, B770, B771

This material, including the billets, was produced and manufactured in the United States of America

Bhaskar Yalamanchili

Quality Director  
 Gerdau Ameristeel

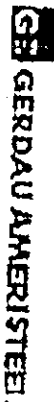
*Mackay*

Mr. Merrill Swes  
 CARTERSVILLE STEEL MILL

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS, AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY

*Yalamanchili*

Seller warrants that all material furnished shall comply with specifications subject to standard published manufacturing variations. NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, ARE MADE BY THE SELLER. AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. In no event shall seller be liable for indirect, consequential or punitive damages arising out of or related to the materials furnished by seller. Any claim for damages for materials that do not conform to specifications must be made from buyer to seller immediately after delivery of same in order to allow the seller the opportunity to inspect the material in question.



CARTERSVILLE STEEL MILL  
384 OLD GRASSDALE RD NE  
CARTERSVILLE GA 30121 USA  
(770) 387-3000

Chemical and Physical Test Report  
MADE IN UNITED STATES

PRODUCED IN: CARTERSVILLE

SHIP TO  
TRIAD METAL  
1951 BEESSEMER ROAD  
804-732-2000  
PETERSBURG, VA 23805

INVOICE TO  
TRIAD METALS INTERNATIONAL  
METAL TRADERS INC  
2300 COMPUTER AVE, STE A-1  
WILLOW GROVE, PA 19090

SHIP DATE  
11/05/07  
CUST. ACCOUNT NO  
40213035

Heat # G705985

SHAPE & SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST. P.O. NUMBER
W12 X 19	A57250/392	ASTM A572 GR50-07, ASTM A572-05A	7897022-10	2206-10

HEAT ID.	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	B	N	Sn	Al	Ti	Cs	C Hrv
G704639	08	1.15	020	025	25	21	07	07	019	026	002	0005	0098	011	001	00100	00090	322

Mechanical Test:	Yield 56400 PSI, 402.66 MPa	Tensile: 70600 PSI, 488.77 MPa	%E: 22.0%	Zz: 22.0%	SD Dwn: 303	Ed Dwn: 303
Customer Requirements:	CASTING: STRAND CAST					

Customer Requirements:	CASTING: STRAND CAST	Tensile: 60000 PSI, 413.74 MPa	%E: 24.1%	Zz: 24.1%	SD Dwn: 303	Ed Dwn: 303			
SHAPE & SIZE	W12 X 19	GRADE	A57250/392	SPECIFICATION	ASTM A572 GR50-07, ASTM A572-05A	SALES ORDER	7897022-11	CUST. P.O. NUMBER	2206-11

HEAT ID.	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	B	N	Sn	Al	Ti	Cs	C Hrv
G705985	05	1.15	014	024	28	24	09	04	017	026	002	0008	0100	009	001	00100	00070	319

Mechanical Test:	Yield 59400 PSI, 409.55 MPa	Tensile: 74000 PSI, 512.28 MPa	%E: 25.4%	Zz: 25.4%	SD Dwn: 315	Ed Dwn: 315
Customer Requirements:	CASTING: STRAND CAST	Tensile: 75500 PSI, 520.55 MPa	%E: 24.9%	Zz: 24.9%	SD Dwn: 315	Ed Dwn: 315

HT# G705985 is used to fab items: B742, B743

The material, including the safety, was produced and manufactured in the United States of America

Blasquez Velazquez  
Quality Director  
Gerdau Ameristeel

Mr. Marketing Dept.  
CARTERSVILLE STEEL MILL

THE ABOVE FIGURES ARE OBTAINED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

Seller warrants that all material furnished shall comply with specifications subject to standard industrial manufacturing variations. NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE MADE BY THE SELLER, AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. In no event shall seller be liable for indirect, consequential or punitive damages arising out of or related to the material furnished by seller. Any claim for damages for materials that do not conform to specifications must be made from buyer to seller immediately after delivery of same in order to allow the seller the opportunity to inspect the material in question.



**Steel Dynamics, Inc.**  
Steel and Rail Division • Canton, OH, USA

# CERTIFIED MILL TEST REPORT

Quality Steel 100% Melted  
and Manufactured in the USA

Ship to:  
Trid Metals Lhu  
1951 Bescomer Road  
CSX Collier Yard  
Petersburg VA, 23805 US  
Attn: Rick McGovern

Customer # 0001191

Bill to:  
TRID METALS INTERNATIONAL  
A-1 2700 Computer Avenue  
Petersburg VA, 23805 US  
Attn: md White

Date: 10/25/2007

### GENERAL INFORMATION

Product: Wide Flange Beam  
Size: W 16 x 36  
W 410 x 53  
Head Number: B038089  
Condition(s): As-Rolled  
Flange Grained  
Flange Killed

### SPECIFICATIONS

Standards  
ASTM A588M  
\* ASTM A992/A992M - 06a  
ASTM A709/A709M - 06a  
ASTM A572/A572M - 06  
ASTM A709/A709M - 06a

### Grades

A992 / A992M  
A709 gr50/gr345  
A572 gr 50/gr345  
A709 gr50/gr345

### SHIPMENT DETAILS

Roll # 0000128472  
E-Indio / ASN # 020994248  
Length 70'-0"  
PCS 6  
Customer PO 93772360

### CHEMICAL ANALYSIS (Weight Percent)

C	Mn	P	S	SI	CU	NI	CR	MO	SN	V	Nb/Cb	N	B	*C1	*C2	*PC	*I
.06	.95	.016	.028	.24	.39	.13	.11	.046	.028	.002	.011	.0001	.0004	.28	.32	.15	5.95

### MECHANICAL TESTING

Test	Yield (fy) Strength ksi / MPa	Tensile (fu) Strength ksi / MPa	fy / fu Ratio	% Elong. (8" gage)	Charpy Impact Tests (available only when specified at time of order)						
					Temp F / C	Absorbed Energy kJ / J	Specimen 1	Specimen 2	Specimen 3	Average	Minimum
1	59 / 406	74 / 507	.80	23							
2	60 / 413	74 / 513	.81	23							
3											
4											
5											
6											
7											

### Notes:

Calculated Chemistry Values: Carbon Equivalents (C1, C2, PCI, Corrosion Index (I))  
CE1 (Mn)/C+Mn/5+(Cr+Mo+V)/5+(Ni+Cu)/15  
CE2 (AWS)=C+(14hr+Si)/B+C+Mo+V/5+(Ni+Cu)/15  
PCI (AWS)=C+(14hr+Si)/B+C+Mo+V/5+(Ni+Cu)/15  
Pon (AWS)=C+Si/20+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5B

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: **Doug Rees-Evans**  
Manager of Technical Services

State of Indiana, County of Whitley  
I signed \_\_\_\_\_ day of \_\_\_\_\_  
My commission expires: \_\_\_\_\_

ASTM A6 - 14 6: A signature is not required on the test report, however, the document will clearly identify the organization submitting the report and is responsible for the content of the report.

The Oct 25 2007 12:05:23 EDT



# Steel Dynamics, Inc.

Steel Dynamics, Inc. • Columbus, OH, USA

Quality Steel 100% Melted and Manufactured in the USA

Ship to: **TRAD METALS INTL**  
1951 Bessinger Road  
CSX-Coffler Yard  
Petersburg VA, 23805, US  
Attn: Rock McGovern

Customer # 000191

Bill to: **TRAD METALS INTERNATIONAL**  
A-1 2300 Computer Avenue  
Petersburg VA, 23805 US  
Attn: Fred Whittle

Date: 11/03/2007

## CERTIFIED MILL TEST REPORT

### GENERAL INFORMATION

Product: Wide Flange Beam  
Size: W 18 X 35  
W 460 X 52  
Heat Number: B038001  
Condition(s): As-Rolled  
Firm Grained  
Fully Killed

### SPECIFICATIONS

Standards: ASTM A6/A6M  
\* ASTM A992/A992M - 06a  
ASTM A709/A709M - 06a  
ASTM A572/A572M - 06  
ASTM A709/A709M - 06a

### Grades

A992 / A992M  
A709 gr50/gr345  
A572 gr50/gr345  
A709 gr50/gr345S

### SHIPMENT DETAILS

Bundle / ASN #	Length	Pcs	Customer PO
020992446	40'0"	6	P04-2399
020992449	40'0"	6	P04-2399
020992444	40'0"	6	P04-2399

### CHEMICAL ANALYSIS (Weight Percent)

C	Mn	P	S	Si	Cu	NI	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	PC	*I	Analysis Type
.07	.93	.021	.026	.20	.34	.08	.09	.016	.015	.001	.011	.0118	.0004	.27	.31	.15	5.84	Heat

### MECHANICAL TESTING

Test	Yield (fy) Strength KSI / MPa	Tensile (ftu) Strength KSI / MPa	fy / ftu ratio	% Elong. (8" gage)	Charpy Impact Tests (available only when specified at time of order)
					Temp Absorbed Energy K-ft/l J
					F / C Specimen 1 Specimen 2 Specimen 3 Average Minimum
1	58 / 399	72 / 498	80	26	
2	60 / 414	74 / 513	81	28	
3					
4					
5					
6					
7					

HT # B038001 is used to fabricate items B927, B940

Noted: C: Carbon Equivalents (C1, C2, PC), Corrosion Index (I)

CE1 (Mn)+C+(Mn/6)+(Cr+Mo+V)/5+(Ni+Cu)/15  
CE2 (AWS)=C+(Mn/6)+(Cr+Mo+V)/5+(Ni+Cu)/15  
Pcm (AWS)=C+Si/30+(Mn/20)+Cu/20+(Ni/60)+(Cr/20)+m/15+V/10+5/8  
I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: **Doug Rees-Evans**  
Manager of Technical Services

State of Indiana, County of Whitley Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_ My commission expires: \_\_\_\_\_

ASTM A6 - 14 G: A signature is not required on the test report, however, the document shall clearly identify the organization submitting the report.  
Note: Understanding the absence of a signature, the organization submitting the report is responsible for the content of the report.





# Steel Dynamics, Inc.

Ship to: Triad Metals International  
2480 Grand Avenue  
Pittsburgh, PA 15201  
Attn: Credit Dept.

Customer # 091101

Bill to: TRIAD METALS INTERNATIONAL  
A 12300 Grand Ave  
Pittsburgh, PA 15201

Attn: Credit Dept.

Quantity Steel 100% Mat. A  
and Manufactured in the USA

## CERTIFIED MILL TEST REPORT

### GENERAL INFORMATION

Product Wide Flange Beam  
Size W 18 x 41  
W 460 x 60  
Heat Number 0037959  
Condition(s) As-Rolled  
From Grade\*

### SPECIFICATIONS

Standards  
ASTM A677/A  
\* ASTM A992/A992M - 06a  
ASTM A709/A709M - 06a  
ASTM A572/A572M - 06  
ASTM A709/A709M - 06a

### SHIPMENT DETAILS

Grades  
A992/A992M  
A709 gr.50Gr.145  
A572 gr.50Gr.145  
A709 gr.50Gr.145

Bundle / ASN #	Len' (ft)	DCS	Customer PO
020001350	55.4	6	007
020001354	55.4	6	007

### CHEMICAL ANALYSIS (Weight percent)

C	Mn	P	S	SI	Cu	NI	CR	MO	SN	V	Nb/Cb	N	B	•C1	•C2	•PC	•1	Analysis Type
.07	1.35	.024	.027	.21	.38	.11	.13	.031	.017	.003	.016	.014	.0003	.31	.34	.16	6.04	Analysis Type

### MECHANICAL TESTING

Test	Yield (fy) ksi / MPa	Tensile (Fu) ksi / MPa	fy / Fu Ratio	% Elong. (8" gage)	Temp F / C	Charpy Impact Tests (available only when specified at time of order)
1	54 / 370	71 / 492	.75	.25		
2	62 / 424	74 / 509	.83	.25		
3						
4						
5						
6						
7						

Notes: \* Charpy Chemicals by Value Carbon Equivalents (C1, C2, PC), Corrosion Index (CI)  
CE1 (PW) = C + (Mn/6) + (Cr/16) + (Ni/5) + (Cu/15)  
CE2 (AWS) = C + (Mn/5) + (Cr/16) + (Ni/5) + (Cu/15)  
CE3 (AWS) = C + (Mn/5) + (Cr/16) + (Ni/5) + (Cu/15)  
I (ASTM Gr 1) = 28.0(Cu) + 0.8(Ni) + 1.20(Cr) + 1.49(Si) + 17.29(P) + 7.29(Cu) + 9.10(Nb) + 33.30(Cu)

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

State of Indiana, County of Whitley Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: Doug Rees-Tovaris Manager of Technical Services  
Signed: \_\_\_\_\_ Notary Public  
My commission expires \_\_\_\_\_

ASTM A572 - 14 6" A709 is not required on this test report, however, the requirement shall clearly identify the organization submitting the report  
Notwithstanding the absence of a signature, the organization submitting this report is responsible for the content of the report

UT HL B037959 is used to fab. item: B789

Head to order  
0037959



**Steel Dynamics, Inc.**  
 2601 S. County Road 700 East  
 Columbia City, IN 46725-  
 (260) 625-8100

**Certified Mill Test Report**  
 100% Melted and Manufactured in US/

Date: 7/17/2007  
 Customer No: 000191  
 Bill of Lading No: 0000118975  
 MTR #: 0000118546

Ship to:  
 Triad Metals International  
 Triad Customer P/U  
 Attn: Sally

Fill to:  
 TRIAD METALS INTERNATIONAL  
 A-1 2300 Computer Avenue  
 Willow Grove, PA 19090  
 Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1†	020896786	W21X101	41' 6"	2	A034247	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	494
2†	020896787	W21X101	41' 6"	2	A034247	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	494
3†	020906653	W21X55	43' 6"	2	A034662	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
4†	020906657	W21X55	43' 6"	4	A034662	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
5†	020906658	W21X55	43' 6"	4	A034662	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1*	.08	1.15	.015	.032	.21	.36	.033	.070	.09	.02	.015	.011	.0003	.00	.32	0.3600	0.1700	HEAT
2*	.08	1.15	.015	.032	.21	.36	.033	.070	.09	.02	.015	.011	.0003	.00	.32	0.3600	0.1700	HEAT
3*	.07	1.04	.011	.029	.20	.35	.023	.070	.11	.04	.022	.008	.0003	.00	.30	0.3300	0.1600	HEAT
4*	.07	1.04	.011	.029	.20	.35	.023	.070	.11	.04	.022	.008	.0003	.00	.30	0.3300	0.1600	HEAT
5*	.07	1.04	.011	.029	.20	.35	.023	.070	.11	.04	.022	.008	.0003	.00	.30	0.3300	0.1600	HEAT

**Tension Testing Results**

Item	Test	Yield (Fy) Strength ksi/Mpa	Tensile (Fu) Strength ksi/Mpa	Fy/Fu	Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp F/C	Charpy Impact Testing Results	ASTM Grain Size No (per ASTM E112)
1	1	58/401	71/489	.82	26		1			
1	2	59/409	72/499	.82	24		2			
2	1	58/401	71/489	.82	26		1			

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

State of Indiana, County of Whitley  
 Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
 Signed: \_\_\_\_\_ Notary Public  
 My commission expires: \_\_\_\_\_

Special Comments/Information:  
 HIT # A034247 is used to fab item B769

Quality Assurance  
 [Signature]



**Steel Dynamics, Inc.**

Structural and Rail Division • Columbia City, Indiana

(260) 625-8100 (260) 625-8950 FAX  
Quality Steel 100% EAF Melted  
and Manufactured in the USA  
Recycled content: PC = 84-75%, PI = 15-10%

Ship to:  
Triad Metals  
3450 Grand Ave  
Neville Island  
Pittsburgh PA, 15225 US  
Attn: Mike Benlock

### CERTIFIED MILL TEST REPORT

Customer # 000191  
Bill to:  
TRUAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Pittsburgh PA, 15225 US  
Attn: Fred White  
Date: 11 / 27 / 2007

#### GENERAL INFORMATION

Product Wide Flange Beam  
Size W 21 x 44  
W 530 X 66  
Heat Number B038428  
Condition(s) As-Rolled  
Fine Grained  
Fully Killed

#### SPECIFICATIONS

Standards  
ASTM A992/A992M  
ASTM A709/A709M - 06a  
ASTM A572/A572M - 06  
ASTM A709/A709M - 06a  
Grades  
A992 / A992M  
A709 gr50/g345  
A572 gr50/g345  
A709 g50S/g345S

#### SHIPMENT DETAILS

BOL # 00130926  
Bundle / ASN # 071004280  
Length 45' 0"  
Pcs 4  
Customer PO 2201

#### CHEMICAL ANALYSIS (weight percent)

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analysis Type
.06	1.09	.012	.025	.22	.30	.13	.08	.033	.011	.030	.001	.0067	.0005	.30	.33	.15	5.59	Heat

#### MECHANICAL TESTING

Test	Yield (fy) ksi / MPa	Tensile (fu) ksi / MPa	fy / fu ratio	% Elong. (8" gage)	Charpy Impact Tests (available only when specified at time of order)						
					Temp F / C	Absorbed Energy	Specimen 1	Specimen 2	Specimen 3	Average	Minimum
1	57 / 390	73 / 501	.78	27							
2	57 / 391	72 / 496	.79	28							
3											
4											
5											
6											
7											

#### Notes:

\* Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC), Corrosion Index (I)  
CE1 (fW)+C+Mn/5+C+Mo+V/5+(Ni+Cu)/15  
CE2 (AWS)=C+(Mn+S)/5+(Cr+Mo+V)/5+(Ni+Cu)/15  
Pcm (AWS) = C+Si/30+Mn/20+Cr/20+N/60+C/20+Mn/15+V/10+S/8  
1 (ASTM G101)= 28.01(Cu)+3.88(Ni)+1.20(CO)+1.49(Si)+17.28(P)+7.29(Cu)(N)/9.10(P)(P)-33.39(Cu)  
HT # B038428 is used to fab. items: B734, B738, B739

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

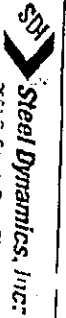
Signed: **Doug Rees-Evans**  
Manager of Technical Services

Signed: \_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

ASTM A6 - 14G: A signature is not required on the test report, however, the document shall clearly identify the organization submitting the report.  
Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report.

Customer Name \_\_\_\_\_ Customer PO# \_\_\_\_\_ Shipper No \_\_\_\_\_ Heat Number \_\_\_\_\_  
Mandate Erectors & Welding Ltd. 31669 16868 B038428



3601 S. Court, Road 7025  
Columbus, Ga. 31905  
706-325-6100

Certified Mill Test Report  
100% Heated and Manufactured in USA

Date: 8/22/2007  
Customer No: 001191  
Bill of Lading No: 0001123456  
MTR #: 0000121582

Ship to:  
Trace Metals International  
3450 Grand Avenue  
Pittsburgh, PA 15225  
Attn: Craig Boyer

Bill to:  
TRIPLE METALS INTERNATIONAL  
11290 Centre Avenue  
Allison Park, PA 15087  
Attn: Frank Hulse

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
4a1	020901306	W24X68	60'-0"	2	A034449	A992 / A992M A709 g50/g345 A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A618/A618	182
4b1	020901306	W24X68	60'-0"	2	A034450	A992 / A992M A709 g50/g345 A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A618/A618	182
51	020944771	W18X35	55'-0"	6	A036149	A992 / A992M A709 g50/g345 A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A618/A618	164114

**CHEMICAL**

Item	C	Mn	P	S	SI	Cu	V	Cr	NI	Mo	Sn	N	B	Ca	C1	C2	PC	Analysis
4a*	.07	1.06	.017	.033	.20	.31	.035	.17	.11	.082	.011	.0118	.0003	.002	.34	.37	.17	HEAT
4b*	.07	1.08	.016	.032	.21	.35	.032	.14	.11	.049	.013	.0111	.0003	.002	.32	.36	.16	HEAT
5*	.08	.95	.026	.033	.22	.38	.001	.15	.10	.027	.017	.0104	.0003	.011	.30	.34	.16	HEAT

**Tension Testing Results**

Item	Test	Yield (Fy) Strength ksi/MPa	Tensile (Fu) Strength ksi/MPa	Fy/Fu	Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp FIC	Sample 1 ft. lb/oules	Sample 2 ft. lb/oules	Sample 3 ft. lb/oules	% Shear	ASTM Grain Size No (per ASTM E727)
4a	1	58/403	75/518	.77	21		1						
4a	2	64/440	77/528	.83	23		2						
4b	1	56/388	71/491	.78	24		1						
4b	2	54/373	71/489	.76	23		2						
5	1	56/384	70/483	.80	26		1						
5	2	58/388	74/512	.78	25		2						

**Charpy Impact Testing Results**

HT# A034449 is used to fab. items: B708, B703

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this mill and its subsidiaries are in compliance with the requirements of the mill and applicable specifications and applicable purchaser designations.

Quality Assurance  
Signed:

State of Indiana, County of Whitey  
Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
Signed: \_\_\_\_\_  
Notary Public

Special Comments/Information:  
\* Fully Killed Steel  
† Cast and Rolled to a Fine Grain Practice

My commission expires: \_\_\_\_\_



**Steel Dynamics, Inc.**

Structural and Steel Division • Columbia City, Indiana

Ship to:  
Triad Metals International  
3480 Grand Avenue  
Pittsburgh PA, 15225 US  
Attn: Craig Borrelli

# CERTIFIED MILL TEST REPORT

Customer # 001191

Bill to:  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Pittsburgh PA, 15225 US  
Attn: Fred White

Date: 10/29/2007

Quality Steel 100% Melted  
and Manufactured in the USA

### GENERAL INFORMATION

Product: Wide Flange Beam  
Size: W 24 x 76  
W 610 x 113  
Heat Number: B038175  
Condition(s): As-Rolled  
Free Grained

### SPECIFICATIONS

Standards:  
ASTM A616M  
ASTM A992/A992M - 06a  
ASTM A709/A709M 06a  
ASTM A572/A572M - 06  
ASTM A709/A709M - 06a

### Grades

A992 / A992.1  
A709 gr50/gr345  
A572 gr50/gr345  
A709 gr50S/gr345S

### SHIPMENT DETAILS

BOL # 0000128826  
Bundle / ASN # 020996294  
Length 60'0" 1  
pcs 1  
Customer PO 1157

### CHEMICAL ANALYSIS (weight percent)

C	Mr	P	S	Si	Cu	Ni	Cr	Mn	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analysis Type
.07	1.16	.013	.032	.22	.31	.12	.10	.041	.015	.034	.001	.0065	.0005	.33	.36	.17	5.68	Heat

### MECHANICAL TESTING

Test	Yield (fy) Strength ksi / MPa	Tensile (fu) Strength ksi / MPa	fy / fu ratio	% Elong. {8" gage}
1	57 / 396	76 / 524	76	22
2	58 / 402	75 / 519	77	22
3				
4				
5				
6				
7				

Charry Impact Tests (available only when specified at time of order)

Temp	Absorbed Energy	Specimen 1	Specimen 2	Specimen 3	Average	Minimum
F / C						

Notes: \*Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC), Corrosion Index (I)

CE1 (IIW) = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15  
CE2 (AWS) = C+(Mn+Si)/6+(Cr+Mo+V)/5+(Ni+Cu)/15  
Pcm (AWS) = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5B

I hereby certify that the content of this report are accurate and correct. All test and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designat requirements.

State of Indiana, County of Whitley Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: Doug Pees-Turns  
Manager of Technical Services

Signed: \_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

ASTM A6 - 14.6: A signature is not required on the test report, however, the document shall clearly identify the organization submitting the report. Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report.

Customer Name \_\_\_\_\_ Customer PO# \_\_\_\_\_ Shipper No \_\_\_\_\_ Heat Number \_\_\_\_\_

PART NO.

Atm:



QUALITY CERTIFICATE

Ref. Nr.: 014209/2007  
Pag.: 01

Customer: ARCELOR INTERNATIONAL CANADA, INC  
Products: ANGLES 3X5/16"X40FT CSA 350W A1C  
Purchase Order: P1110407 02-2007-C

Size: 3 X 5/16 POL  
Order Number: 2299311  
Grade: CSA 350W

Heat	Nr.	Weight (t)	YIELD POINT MPa	TENSILE STRENGTH MPa	ELONGATION	% C	% Mn	% Si	% P	% S	% Nb	% Cu
6000700	1	1.994	393	513	23.00	0.140	0.860	0.170	0.028	0.032	0.017	0.150
6000800	1	1.994	376	490	24.00	0.140	0.770	0.160	0.018	0.031	0.018	0.170
TOTAL		2	3.988									
6000700	0.090	0.070	0.019	0.012								
6000800	0.090	0.050	0.018	0.013								

Remarks: We hereby certify that the material herein listed was produced, inspected, tested and approved in accordance with the standard or the specifications required.

Date: 27/JUL/2007

Approved by:

Belgo Siderurgia S/A.

Eduardo de Oliveira Dias  
Gerente Técnico

HT # 6000800 is used to fab items: B41

Load #: Drop

Shipping Date:

Waybill #: 898-Drop

Customer:	Pizzagalli Construction Company	Prepared By:	Approved By:	Date: 24-01-01
Job Title:	84 Marginal Way	Bathurst Machine Shop Ltd.		1040 Route 430
Date Sent to Shop:	X	Mandate Erectors & Welding Ltd.		Big River Road
Job Number:	898	MQM Ltd., Tracadie		E2A 6P9
		Job Progress Report Sheet		
		SHEET: 1		

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weird Inspection		Surface Prep Insp.		Paint Inspection		Shipped				
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date		
A	W24X62	A	B609	1	3486																							
H	W12X19	A	B685	1	67																							
A	W21X44	A	B690	1	1894			C=1"1/2																				
A	W21X44	A	B790	1	1894			C=1"1/2																				
H	L3X3X1/4		SP	30	588																							
h	fl 1/2x8		p75	2	48																							

Pieces 36 7977 Total Weight(Lbs) ( 4.0 TONS)





江阴博丰钢铁有限公司

产品质量说明书

Jiangyin Botong Iron And Steel Co., Ltd

Mill Test Certificate

地址: 江苏省江阴市华西村  
 Add: Huaxi Village, Jiangyin City,  
 Jiangsu Province, P.R. China  
 邮编 (P.S. Code): 214420  
 电话(Tel): +86-510-86217672

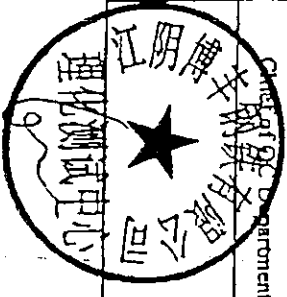
发货单位	江阴博丰钢铁有限公司	产品名称	热轧宽扁钢	合同编号	BF0610-31
Manufacturer	Jiangyin Botong Iron And Steel Co., Ltd	Name of Product	Prime Steel Flat Bars	Contract No.	
收货单位	上海德灵钢铁物料有限公司	发货日期	2006-11-18 by MV OLGA	证明编号	BF06111801
Customer		Delivering Date		Certificate No.	

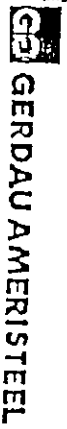
轧制号 Lot No.	规格 Size (mm)	件数 Number of Bundles	钢号 Quality	重量 Weight (mts)	Full Chemical and Physical Analysis per Heat											Mechanical Properties			
					C	Mn	Si	P	S	N	Cu	CEV	屈服强度 Yield strength (Mpa)	抗拉强度 Tensile strength (Mpa)	伸长率 Percentage elongation (%)	冲击功 Energy (J)			
A06-11-196	3/8" * 7" * 40'	22	ASTM A570 GRADE 50	51.175	0.18	1.40	0.39	0.017	0.030	0.008	0.007	0.413	400	570	31.5	82			
A06-11-196	3/8" * 7" x short length	3	ASTM A570 GRADE 50	5.68	0.19	1.41	0.36	0.019	0.028	0.008	0.007	0.428	390	555	32	87			
A06-11-168	3/8" * 8" * 20'	22	ASTM A570 GRADE 50	51.315	0.19	1.41	0.36	0.019	0.028	0.008	0.007	0.428	390	555	32	80			
A06-11-262	3/8" * 10" * 20'	11	ASTM A570 GRADE 50	25.07	0.19	1.41	0.39	0.015	0.020	0.008	0.007	0.422	365	530	32	79			
A06-11-226	3/8" * 12" * 20'	47	ASTM A570 GRADE 50	110.865	0.19	1.49	0.36	0.018	0.022	0.008	0.007	0.434	380	550	27	85			
A06-11-167	1/2" * 8" * 20'	20	ASTM A570 GRADE 50	47.7	0.18	1.41	0.37	0.016	0.021	0.008	0.007	0.416	365	540	32.5	77			
A06-11-261	1/2" * 10" * 20'	11	ASTM A570 GRADE 50	25.66	0.17	1.44	0.37	0.017	0.015	0.008	0.007	0.410	380	545	30.5	90			
B06-11-133	1/2" * 12" * 20'	32	ASTM A570 GRADE 50	77.845	0.19	1.45	0.35	0.02	0.023	0.008	0.007	0.432	390	570	30	78			
A06-11-153	3/4" * 8" * 20'	21	ASTM A570 GRADE 50	49.765	0.18	1.47	0.41	0.019	0.019	0.008	0.007	0.428	365	550	29	83			
A06-11-294	3/4" * 10" * 20'	11	ASTM A570 GRADE 50	25.27	0.19	1.47	0.36	0.018	0.013	0.008	0.007	0.434	370	555	28.5	85			
A06-11-203	3/4" * 12" * 20'	23	ASTM A570 GRADE 50	50.63	0.18	1.51	0.39	0.016	0.016	0.008	0.007	0.431	370	560	28	79			
A06-11-152	1" * 8" * 20'	9	ASTM A570 GRADE 50	20.67	0.18	1.41	0.37	0.016	0.021	0.008	0.007	0.416	360	550	29.5	85			
A06-11-478	1" * 8" * 20'	2	ASTM A570 GRADE 50	4.995	0.17	1.40	0.35	0.015	0.020	0.008	0.007	0.403	355	545	31	80			
A06-11-199	1" * 10" * 20'	11	ASTM A570 GRADE 50	26.035	0.18	1.50	0.38	0.015	0.020	0.008	0.007	0.425	350	535	33.5	85			
A06-11-198	1" * 12" * 20'	22	ASTM A570 GRADE 50	48.095	0.19	1.41	0.39	0.018	0.025	0.008	0.007	0.424	385	555	27	83			
合计	数量(件)		重量 (t)		结论											合格			
Total	Bundles	267	Weight	620.79	conclusion											Qualified			

Test of steel tolerances on dimensions and shape: ASTM A6/A6M-05a  
 ASTM A6/A6M-05a  
 Certification: CSA 40.2012.1 Grade 300W and 350W certified  
 Mechanical Composition and Mechanical Properties: ASTM A570/A570M-05

NAME OF VESSEL: OLGA V.194

HT# A06-11-167 is used for fab. items: P 75





WHITBY STEEL MILL  
 HOPKINS STREET SOUTH  
 WHITBY ON L1N 5T1 CAN  
 (905) 668-8811

Chemical and Physical Test Report

MADE IN CANADA

W-067113

PRODUCED IN: WHITBY

SHIP TO  
 YORK STEEL INC  
 INDUSTRIAL PARK

INVOICE TO  
 YORK STEEL INC (FRED  
 551 WILSEY ROAD  
 FREDERICTON, NB E3B 7K2

SHIP DATE  
 06/21/07  
 CUST. ACCOUNT NO  
 60125663

FREDERICTON, NB E3B 5S4

SHAPE + SIZE

GRADE

SPECIFICATION

SALES ORDER

CUST P. O. NUMBER

A3 X 3 X 1/4

44W

C.S.A. G40-21-98 44W/50W, A: TM: A36 - 97a ASTM A709 - 97b ASME SA36 (A

6129280-23

8527-22

HEAT ID. B41642

C Mn P S Si Cu Ni Cr Mo V Nb B N Sn Al Ti Zr Ca C Eqv

336

Mechanical Test: Yield 58940 PSI, 406.38 MPa

Tensile: 79114 PSI, 545.47 MPa

336

Customer Requirements: SOURCE: WHITBY BILLETS CASTING: STRAND CAST

Tensile: 78520 PSI, 541.78 MPa

336

SHAPE + SIZE

GRADE

SPECIFICATION

SALES ORDER

CUST P. O. NUMBER

A3 X 3 X 1/4

44W

C.S.A. G40-21-98 44W/50W, A: TM: A36 - 97a ASTM A709 - 97b ASME SA36 (A

6129280-19

8527-19

HEAT ID. B41738

C Mn P S Si Cu Ni Cr Mo V Nb B N Sn Al Ti Zr Ca C Eqv

289

Mechanical Test: Yield 51691 PSI, 356.4 MPa

Tensile: 71679 PSI, 494.71 MPa

289

Customer Requirements: SOURCE: WHITBY BILLETS CASTING: STRAND CAST

Tensile: 72580 PSI, 500.0 MPa

289

HT # B41642 is used to fab items: SP

This material, including the billets, was produced and manufactured in Canada

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS  
 AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

*Mackay*  
 Quality Director  
 Gerdau Ameristeel

*[Signature]*

Mgr. Metallurg Sys.  
 WHITBY STEEL MILL



GERDAU AMERISTEEL  
 CARTERSVILLE STEEL MILL  
 364 OLD GRASSDALE RD SE  
 CARTERSVILLE GA 30117 USA  
 (770) 387-3300

Chemical and Physical Test Report

MADE IN UNITED STATES

Customer ID: G704837

PRODUCED IN: CARTERSVILLE

SHIP TO  
 TRIAD METALS INTERNATIONAL  
 PO BOX DELTA-POVJCT  
 412-331-7655  
 NEWVILLE ISLAND, PA 15555

INVOICE TO  
 TRIAD METALS INTERNATIONAL  
 METAL TRADERS INC  
 2300 COMPUTER AVE STE A  
 WILLOW GROVE, PA 19090

SHIP DATE  
 09/10/07  
 CUST. ACCOUNT NO  
 40213035

SALES ORDER  
 7076536-06

Customer Order #

SHAPE - SIZE	TRADE	SPECIFICATION	ASTM A572 GR50-07	ASTM A992 08A	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	B	N	As	Al	Ti	Ca	CEquiv.	
W12 X 19#	4.5	ASTM A572 GR50-07																					
HEAT ID	C																						
GT PART	06																						
Mechanical Test	Yield 55,000 PSI, 378.52 MPa	Tensile 69,100 PSI, 476.43 MPa	% El 27.58%	27.5	0.0044	0.0089	0.009	0.01	0.0100	0.00090	0.022												
Customer Requirements	ASTM A572 GR50-07	ASTM A992 08A																					
Mechanical Test	Yield 55,000 PSI, 384.04 MPa	Tensile 70,100 PSI, 483.32 MPa	% El 25.71%	25.7	0.0044	0.0089	0.009	0.01	0.0100	0.00090	0.022												
Customer Requirements	ASTM A572 GR50-07	ASTM A992 08A																					

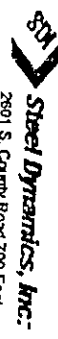
HT # 6704837 is used to fab items: B&B5

Thermax  
 Director  
 General Administration

Signature

Mr. Andrew Swick  
 Carrier - TELE STEEL MILL

Severely damaged from fire damage. These steel coils with specifications as noted in this report were produced in the United States of America. The above figures are certified extracts from the original chemical analysis report. The steel is not to be used for any other purpose. Any other use is at the user's risk. The steel is not to be used for any other purpose. Any other use is at the user's risk.



2601 S. County Road 700 East  
Columba City, IN 46725  
(260) 623-8100

**Certified Mill Test Report**  
100% Method and Manufactured in USA

Date: 9/21/2007  
Customer No: 000191  
Bill of Lading No: 000125263  
MTR #: 000124766

Ship to:  
Triad Metals  
3450 Grand Ave  
Newville Island  
Pittsburgh, PA 15225  
Attn: Craig Bonelli

Bill to:  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.C.
1+	020947355	W16X36	40' 0"	6	A036284	A992 / A992M 709 g50/g345 709 g50S/g345S 1572 g150/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	128
2+	020961152	W21X44	45' 0"	4	B036782	A992 / A992M 709 g50/g345 709 g50S/g345S 1572 g150/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	247
3+	020961156	W21X44	45' 0"	4	B036782	A992 / A992M 709 g50/g345 709 g50S/g345S 1572 g150/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	247
4+	020962763	W21X44	45' 0"	4	036489	A992 / A992M 709 g50/g345 709 g50S/g345S 1572 g150/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	247
5+	020970212	W14X68	50' 0"	4	A037107	A992 / A992M A709 g150/g345 A709 g50S/g345S A572 g150/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	346

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1+	.09	.91	.011	.042	.26	.43	.001	.060	.09	.03	.011	.008	.0004	.01	.29	0.3400	0.1700	HEAT
2+	.07	1.06	.019	.023	.18	.28	.024	.110	.11	.04	.012	.010	.0004	.00	.31	0.3400	0.1600	HEAT
3+	.07	1.06	.019	.023	.18	.28	.024	.120	.11	.04	.012	.010	.0004	.00	.31	0.3400	0.1600	HEAT
4+	.08	1.03	.012	.031	.21	.28	.022	.070	.10	.03	.012	.008	.0004	.00	.30	0.3400	0.1600	HEAT
5+	.08	1.22	.019	.028	.19	.37	.032	.110	.12	.03	.012	.010	.0004	.00	.35	0.3800	0.1800	HEAT

HT# B036782 is used to tab items: B690, B792

State of Indiana, County of Whitley  
Special Commissioner's Office

Signed:   
Quality Assurance

My Commission expires: \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_

PART NO.

Attn:

INVOICE NO. 177662  
BILL OF LADING 873406  
CUSTOMER NO 7460  
CUSTOMER P.O. 18384

NUGOR-YAMATO-STEEL CO.  
P.O. BOX 1228 • BLYTHEVILLE AR 72318

CERTIFIED MILL TEST REPORT  
100% MELTED AND MANUFACTURED IN U.S.A.  
All shapes produced by Nucor-Yamato Steel are cast and rolled to a fully killed and fine grain practice.

PACIFIC STEEL C/O  
ARRIMAGE IDEAL  
CN SIDING B076  
LONGUEUIL, QUEBEC CANADA

ASTM A992/A992M-06a A572/A572M GR50-06  
ASTM A709/A709M-07 GR50 (345)  
ASTM A709/A709M-07 GR508 (3456)  
ASTM A6/A6M-07

PACIFIC STEEL  
845 MONCK, CROMBIE  
CANADA  
LAVAL, QC H7S 1A9

SPECIFICATIONS

ITEM #	ITEM DESCRIPTION	QTY	HEAT #	YIELD TO TENSILE RATIO	YIELD STRENGTH		TENSILE STRENGTH	ELONG	CHARPY IMPACT		C	Mn	P	S	SI	Cu	Ni	Cr	Mo	V	Co	CE			
					MPa	MPa			%	TEMP													IMPACT ENERGY		
1	W24 - 62.0 60' 18.288 M	2	304698	.75	58000	77000	23																		
				.74	57000	77000	23			.07	1.20	.020	.029	.32	.30	.09	.09	.02	.00	.024	.32				
					400	531	23														.01	.16			
					393	531	23																		
2	W24 - 62.0 60' W610 x 92.0 18.288 M	5	304700	.74	58000	78000	24																		
				.74	57000	77000	24			.08	1.21	.019	.034	.31	.30	.09	.08	.02	.00	.021	.33				
					400	538	24														.01	.17			
					393	531	24																		

ELONGATION BASED ON 8.00 INCH GAUGE LENGTH

I hereby certify that the contents of this report are accurate and correct. All test results and operations performed by this material manufacturer are in compliance with the requirements of the material specifications listed in the Specifications Block above.

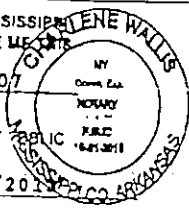
*Ray Lowell*  
QUALITY ASSURANCE

STATE OF ARKANSAS COUNTY OF MISSISSIPPI  
SWORN TO AND SUBSCRIBED BEFORE ME

19 \_\_\_\_\_ Day of 10/07

*Charlene Wallis* NOTARY PUBLIC

MY COMMISSION EXPIRES 10/21/2018



CUSTOMER COPY

HT# 304698 is used to fab item B609

# NUCOR

LOT NO.  
208049B

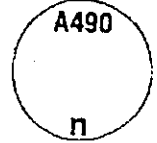
Post Office Box 6100  
Saint Joe, Indiana 46785  
Telephone 260/337-1600

## FASTENER DIVISION

NUCOR ORDER#: 590390  
SERIAL#: FB269765 CUST PO: L-010351 CUST #/NAME: 5614 AMCAN THREADED PRODUCTS  
ISSUE DATE: 4/06/06 DATE SHIPPED: 3/14/07 LAB SAMPLER: PHILLIP A. TITLER, LAB TECHNICIAN  
\*\*\*\*\* CERTIFIED MATERIAL TEST REPORT \*\*\*\*\*

PART NO. LOT NO. DESCRIPTION QUANTITY: 1200  
165405 208049B 7/8-9 X 2 A490 TRU-TENSION STRUC DOME HEAD ASSBY PLAIN  
CUST PART #: TRU-TENSION ASSEMBLY TENSION  
\*\*\*\*\*  
#PCS TESTED: 6 AVG TENSION: 65,000 (LBS) STD DEVIATION: 2,449  
\*\*\*\*\* BOLT \*\*\*\*\*  
PART NO. LOT NO. DESCRIPTION MANUFACTURE DATE  
716835 208031A 7/8-9 X 2 A490 TRUTENSION 3/08/06  
STRUC SCREW PLAIN DOME HEAD TT

--MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM A490-02  
AVERAGE VALUES OF 3 TESTS  
CORE HARDNESS: 33.3 (RC) TENSILE STRENGTH AXIAL 4 DEGREE WEDGE  
PROOF LOAD: 55,450 (LBS) LOAD: 75,650 (LBS)  
ELONGATION: .0004 (IN) STRESS: 163,745 (PSI)



--DIMENSIONS PER ASME B18.2.6-2003  
--CHEMISTRY MATERIAL GRADE -4135MOD  
MATERIAL HEAT \*\*CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER  
NUMBER NUMBER C MN P S SI CR MO V MITTAL  
RM022468 MS 599916 .34 .85 .012 .011 .19 .95 .16 .005 3300 DICKEY ROAD  
MIN .30 .040 .040 EAST CHICAGO, IN 46312  
MAX .48 A2LA NO: 0111-01 EXP: 2006-12-31  
FOR CHEMICAL TESTING

--WET MAGNETIC PARTICLE INSPECTION IN ACCORDANCE WITH ASTM A490 125 PCS. SAMPLED LOT PASSED

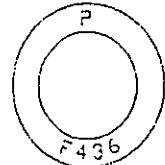
\*\*\*\*\* NUT \*\*\*\*\*  
PART NO. LOT NO. DESCRIPTION MANUFACTURE DATE  
706500 209728A 7/8-9 GR DH HVY HX NUT 6/06/05  
T.T. BOLT NUT, STD. TAP



--MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM A563-04A  
CORE HARDNESS: 31.3 (RC) PROOF LOAD: 80,900(LBS) AVERAGE VALUES OF 5 TESTS  
--DIMENSIONS PER ASME B18.2.6-2003

--CHEMISTRY MATERIAL GRADE -1045  
MATERIAL HEAT \*\*CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER  
NUMBER NUMBER C MN P S SI INLAND STEEL  
RM020870 IN 393603 .46 .67 .324 .027 .18 P. O. BOX 360513M  
MIN .20 .60 PITTSBURGH, PA 15251  
MAX .55 .040 .050 A2LA NO: 111.01 EXP: 2006-12-31  
FOR CHEMICAL TESTING

\*\*\*\*\* WASHER \*\*\*\*\*  
PART NO. LOT NO. DESCRIPTION MANUFACTURE DATE  
180030 022156 7/8 STRUCTURAL WASHER TYPE 1  
ASTM F436



--MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM F436-04  
CORE HARDNESS: 40.4 (RC)  
--CHEMISTRY MATERIAL GRADE -1035  
HEAT \*\*CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER  
NUMBER NUMBER C MN P S SI PRESTIGE STAMPING, INC.  
30500270 .36 .66 .009 .001 .18 P.O. BOX 1086  
MIN .30 .50 WARREN, MI 48090  
MAX .80 .350 .50 A2LA NO: EXP:  
FOR CHEMICAL TESTING

THE SAMPLES, TESTED IN ACCORDANCE WITH THE APPLICABLE SPECIFICATIONS LISTED ABOVE, CONFORM TO THESE SPECIFICATIONS AND WERE MANUFACTURED FREE OF MERCURY CONTAMINATION. NO HEATS TO WHICH BISMUTH, SELENIUM, TELLURIUM, OR LEAD WAS INTENTIONALLY ADDED HAVE BEEN USED TO PRODUCE THE BOLTS. THE STEEL WAS MELTED AND MANUFACTURED IN THE U.S.A. AND THE PRODUCT WAS MANUFACTURED AND TESTED IN THE U.S.A. WE CERTIFY THAT THIS DATA IS A TRUE REPRESENTATION OF INFORMATION PROVIDED BY THE MATERIAL SUPPLIER AND OUR TESTING LABORATORY. THIS CERTIFIED MATERIAL TEST REPORT RELATES ONLY TO THE ITEMS LISTED ON THIS DOCUMENT AND MAY NOT BE REPRODUCED EXCEPT IN FULL.



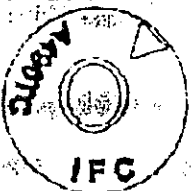
MECHANICAL FASTENER  
Certificate No. A2LA 139-01  
Expiration Date 12/31/07

NUCOR FASTENER  
A DIVISION OF NUCOR CORPORATION

*Chris Ramer*  
CHRIS RAMER  
QUALITY ASSURANCE SUPERVISOR

Fastener Test Report  
 THIS DOCUMENT MAY BE REPRODUCED, BUT ONLY IN ITS ENTIRETY  
 Customer Name and Address: NYLAD  
 City: NEW YORK State: NY ZIP: 10017  
 Part Number: 5170025681907  
 Date: 02/1/02

DESCRIPTION: 7/8 - 9 X 2 1/4 TYPE 1 A490 TC BOLT  
 A490TC TYPE 1 BOLT ASSEMBLED WITH A562 GRADE OH NUT AND F436 TYPE 1 WASHER  
 200 Magnetic particle tested and accepted in accordance with E-705



Coating Thickness	Sample No. 1	Sample No. 2	Sample No. 3	Sample No. 4

HEAT CHEMICAL ANALYSIS

Prod.	Mat'l. Code	Lot Number	Lot Size	Heat Number	CH	MAN	PH	PS	SI	SP	SN	CU	NM	AS	MB	CA	Fe
BoH	IFC & A	020458005	6267	1800006	0.37	0.94	0.017	0.008	0.18	0.008		0.36	0.05	0.33	0.02	0.001	0.008
PAW	FC & A	08101	59509	720466	0.45	0.78	0.011	0.02	0.2		0.01	0.03	0.01	0.02			
Wash.	W	W4002	178033	108458	0.36	0.78	0.008	0.008	0.187								

MECHANICAL PROPERTIES (Tested according to ASTM F436, F437, F438, F439, F440, F441, F442)

Sample Selected Or	Nominal Load		Bolt Weight (Units)		Micro Hardness	Bolt Core Hardness	Acceptance Tension Test	NUT Hardness	N.A. Proof Load	Washer Hardness
	(Lbs)	(Kilg)	(Lbs.)	(Kilg)						
M. MATN										
Spec. Matl.	55450	0.0005	75250	120022						
Spec. Matl.	55450	0.0005	58300	150000						
Exm. No. 1	55450	0.0004	74271	180738	301.8-354.3	33.8	22000	28.5	20250	PASS
2	55450	0.0004	75274	180738		34.5	20000	29.7	20000	PASS
3	55450	0.0004	79042	105413						PASS
4	55450	0.0002	75448	183307						PASS
5	55450	0.0004	78904	196524						PASS
6	55450	0.0004	78453	182267						
7	55450	0.0005	75084	162541						
8	55450	0.0004	78847	185003						
9										
10										
11										
12										
13										
14										
15										

ALL SAMPLES TESTED CONFORM TO THE REQUIREMENTS OF:  
 ASTM A490, ANS B18.2.1, AND B18.3.3C (IF APPLICABLE PER ANS B1.1)  
 THE RAW MATERIAL WAS MELTED AND MANUFACTURED IN THE U.S.A.  
 THESE FASTENERS WERE MANUFACTURED IN THE U.S.A.

WITNESSED AND SUBSCRIBED BEFORE ME  
 THIS 1st DAY OF March, 20 02

Marie Hatin  
 MARIE HATIN  
 NOTARY PUBLIC  
 COUNTY OF FRANKLIN, VT  
 MY COMMISSION EXPIRES 2/28/05

The use of the NYLAD logo does not imply that NYLAD or any other governmental agency endorses this product.

Manufactured by:  
 Vermont Fasteners Manufacturing  
 49 Johnson Drive  
 P.O. Box 722  
 Swanton, Vermont 05490  
 Phone (802) 858-3002 Fax (802) 858-7190

APPROVED BY:  
Peter J. ...  
 Peter J. ...  
 Quality Control Supervisor

Next # Bolts - 020458005  
 Nuts 7820465  
 Washers 108458

SET LOT NO. 38161A

# INSPECTION CERTIFICATE

**UNYTITE, INC.**  
 One Unyrite Drive  
 Peru, Illinois 61354

815-224-2221 — FAX # 815-224-3434

Specification	Size	Quantity
ASTM A490 Type 1 ASTM A563 Grade DH ASTM F436 Type 1	1 - 8 UNC X 2-1/2	34,606 pcs.

Mechanical properties tested in accordance to ASTM F606/F606M, ASTM A370, ASTM E18

**BOLT LOT NO.** 38161

Date: Oct. 24, '05

Mechanical Property of Full Size Bolts				Chemical Composition %											
Tensile Strength	Proof Load (lb)	Position of fracture	Hardness (Length Method)	Heat Treatment °F (C)	IDENTIFICATION										
					C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Ni x 100	Cr x 100	Mo x 100	B x 10,000		
90900	104850	Part of screw	Max. +/- 0.0005 in.	Quench Temp. Min. 1580	30	39	24	93	10	14	8	6	94	23	1
104850	ALL PASS			Heat No. 344850	48				Max. 40	Max. 40					
99625	ALL PASS				39	24	93	10	14	8	6	94	23	1	

**NUT LOT NO.** 35671

Mechanical Property of Full Size Nuts				Chemical Composition %											
Hardness After 24 hr x 1000° F HRB	Proof Load (lbf)	Min. HRB BY	Heat Treatment °F (C)	IDENTIFICATION											
				C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Ni x 100	Cr x 100					
24-38	106050	810	Min. 810	20	44	21	12	35	25	10	12				
28.7	ALL PASS	1562	1562	Heat No. S71849	55				Max. 50	Max. 40					

**WASHER LOT NO.** WB7218

Mechanical Property of Full Size Washers				Chemical Composition %											
Hardness (HRC)	Proof Load (lbf)	Min. HRB BY	Heat Treatment °F (C)	IDENTIFICATION											
				C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Ni x 100	Cr x 100					
38-45	40500310	180	Min. 180	37	18	62	7	3	Max. 40	Max. 50	78754	2673			
41.5	ALL PASS	1562	1562	Heat No. 40500310	55				Max. 50	Max. 40					

Material used for the bolt, nut and washer were melted & manufactured in the USA. The product was manufactured in the USA to ASTM specifications. The bolt and nut are manufactured by Unyrite. We hereby certify that the material described has been manufactured and inspected satisfactory with requirement of the above specification.

Thread Accuracy (Bolt & Nut)	REMARKS
Bolt ASME B1.1 Class 2A Nut ANSI B1.1 Class 2B	THESE BOLTS HAVE BEEN MAGNETIC PARTICLE INSPECTION IN ACCORDANCE WITH THE REQUIREMENTS OF SPECIFICATION ASTM A490

OFFICIAL SEAL  
 JEAN MARGHERIO  
 SECRETARY-PUBLIC-STATE OF ILLINOIS  
 -BY COMMISSION EXPRES. TRANSPORTATION

10-27-05  
 Chief of Quality Assurance Section





Bolts, nuts and fastener products

SET NO.: 2006-28929

**FASTENER TEST REPORT**

(THIS DOCUMENT MAY BE REPRODUCED, BUT ONLY IN ITS ENTIRETY)

DATE: 2006-12-22

DESCRIPTION	A F2280-1TC+A563-DH NA+F436-1 UNC N 1-8 X 2 3/4
-------------	--

**BOLT**

F2280-1TC ROUND HD BOLT UNC N P  
MARKING: HOLLOW TRIANGLE, A490 TC

LOT NO. 0609-58752	MANUFACTURED BY INFASCO			HARDNESS (ROCKWELL) HRC 33.0 - HRC 39.0		PROOF LOAD (LBS) MIN: 72,700	TENSILE STRENGTH (LBS) MIN: 90,900 MAX: 104,850	
MEAN VALUE				36.5		PASS		101,166
HEAT NO.	C %	Mn %	P %	S %	SI %	Mo %		
C60408	0.43	0.92	0.011	0.017	0.20	0.220		

**NUT**

HVY HEX NUT A563-DH FNA UNC N P  
MARKING: TRIANGLE & DH

LOT NO. 0610-60050 0993G	MANUFACTURED BY INFASCO			HARDNESS (ROCKWELL) HRC 24.0 - HRC 38.0		PROOF LOAD (LBS) MIN: 106,000			
MEAN VALUE				28.0		PASS			
HEAT NO.	C %	Mn %	P %	S %	SI %	Cu %			
C63134	0.43	0.80	0.010	0.010	0.22	0.15			

**WASHER**

F436-1 STRUCTURAL WASHER FNA STD P  
MARKING: F436, MANUFACTURER'S I.D. AND A TRIANGLE (OPT.)

LOT NO. 0603-90041 7302G	MANUFACTURED BY TECHNICAL STAMPING INC USA			HARDNESS (ROCKWELL) HRC 38.0 - HRC 45.0					
MEAN VALUE				43.2					
HEAT NO.	C %	Mn %	P %	S %	SI %				
A10137	0.53	0.76	0.012	0.001	0.21				

ASSEMBLY TENSION MINIMUM	54,000 LBS
MEAN VALUE	73,500

Daniel Guilbault  
Quality Assurance Foreman

INFASCO  
A division of Industriel  
3150, Quinze, Maniwic-Quebec G2M 1P6  
Tel: (450) 458-1741 Fax: (450) 460-5486

# NUCOR

LOT NO.  
223253A

Post Office Box 6100  
Saint Joe, Indiana 46785  
Telephone 260/337-1600

## FASTENER DIVISION

NUCOR ORDER#: 600855

SERIAL#: FB286196

CUST PO: L-011181

CUST #/NAME: 5614 AMCAN THREADED PRODUCTS

ISSUE DATE: 4/04/07

DATE SHIPPED: 7/13/07

LAB SAMPLER: PHILLIP A. TITLER, LAB TECHNICIAN

\*\*\*\*\*

CERTIFIED MATERIAL TEST REPORT

\*\*\*\*\*

PART NO. LOT NO. DESCRIPTION

166355 223253A 1-8 X 3

A490 TRU-TENSION STRUC DOME HEAD ASSBY PLAIN

CUST PART #:

QUANTITY: 2760

\*\*\*\*\*

TRU-TENSION ASSEMBLY TENSION

\*\*\*\*\*

#PCS TESTED: 8

AVG TENSION: 75,000 (LBS)

STD DEVIATION: 3,739

\*\*\*\*\*

BOLT \*\*\*\*\*

PART NO. LOT NO. DESCRIPTION

717045 223238A 1-8 X 3

A490 TRUTENSION

MANUFACTURE DATE

3/23/07

STRUC SCREW PLAIN DOME HEAD TT

--MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM A490-06

CORE HARDNESS: 31.9 (RC) TENSILE STRENGTH AXIAL 4 DEGREE WEDGE

PROOF LOAD: 72,700 (LBS) LOAD: 102,140 (LBS)

ELONGATION: .3305 (IN) STRESS: 168,548 (PSI)

--DIMENSIONS PER ASME B18.2.6-2003

--CHEMISTRY

MATERIAL GRADE -4135HLV

MATERIAL HEAT NUMBER \*\*CHEMISTRY COMPOSITION (WT%-HEAT ANALYSIS) BY MATERIAL SUPPLIER

RM023387 NU 740457

C .35 MN .86 P .010 S .023 SI .23 CR .96 HO .16 V .020

NUCOR STEEL - NEBRASKA

MIN .30

A2LA NO: 780.01 EXP: 2008-11-30

MAX .48

.040 .040

FOR CHEMICAL TESTING

--WET MAGNETIC PARTICLE INSPECTION IN ACCORDANCE WITH ASTM A490 400 PCS. SAMPLED

LOT PASSED



\*\*\*\*\* NUT \*\*\*\*\*

PART NO. LOT NO. DESCRIPTION MANUFACTURE DATE

707420 219033E 1-8 GR DH HVY HX NUT 12/02/06

T.T. BOLT NUT, STD. TAP

--MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM A563-04A

CORE HARDNESS: 30.7 (RC) PROOF LOAD: 106,100(LBS) AVERAGE VALUES OF 5 TESTS

--DIMENSIONS PER ASME B18.2.6-2003

--CHEMISTRY

MATERIAL GRADE -1045L

MATERIAL HEAT NUMBER \*\*CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER

RM023067 NU 738451

C .44 MN .66 P .012 S .021 SI .17

NUCOR STEEL - NEBRASKA

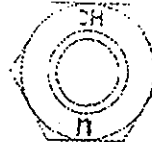
MIN .20

A2LA NO: 780.01 EXP: 2008-11-30

MAX .55

.040 .050

FOR CHEMICAL TESTING



\*\*\*\*\* WASHER \*\*\*\*\*

PART NO. LOT NO. DESCRIPTION MANUFACTURE DATE

180040 023508 1 STRUCTURAL WASHER TYPE 1

ASTM F436

--MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM F436-04

CORE HARDNESS: 39.0 (RC)

--CHEMISTRY

MATERIAL GRADE -1040

HEAT NUMBER \*\*CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER

0867123

C .43 MN .70 P .013 S .017 SI .15

PRESTIGE STAMPING, INC.

MIN .30

P.O. BOX 1026

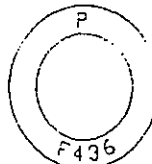
MAX .80

.050 .50

WARREN, MI 48090

A2LA NO: EXP:

FOR CHEMICAL TESTING



THE SAMPLES, TESTED IN ACCORDANCE WITH THE APPLICABLE SPECIFICATIONS LISTED ABOVE, CONFORM TO THESE SPECIFICATIONS AND WERE MANUFACTURED FREE OF MERCURY CONTAMINATION. NO HEATS TO WHICH BISMUTH, SELENIUM, TELLURIUM, OR LEAD WAS INTENTIONALLY ADDED HAVE BEEN USED TO PRODUCE THE BOLTS. THE STEEL WAS MELTED AND MANUFACTURED IN THE U.S.A. AND THE PRODUCT WAS MANUFACTURED AND TESTED IN THE U.S.A. THIS CERTIFIED MATERIAL TEST REPORT IS THE REPRESENTATION OF INFORMATION PROVIDED BY THE MATERIAL SUPPLIER AND OUR TESTING LABORATORY. THIS CERTIFIED MATERIAL TEST REPORT RELATES ONLY TO THE ITEMS LISTED ON THIS DOCUMENT AND MAY NOT BE REPRODUCED EXCEPT IN FULL.



NUCOR FASTENER  
A DIVISION OF NUCOR CORPORATION

CHRIS RAMER  
QUALITY ASSURANCE SUPERVISOR

MECHANICAL FASTENER  
Certificate No. A2LA 139-01  
Expiration Date 12/31/07

KR701

# INSPECTION CERTIFICATE



**UNYTITE, INC.**  
 One Unytite Drive  
 Peru, Illinois 61354  
 815-224-2221 — FAX # 815-224-3434

Specification	Size	Quantity
ASTM A490 Type 1 ASTM A563 Grade DH ASTM F436 Type 1	1 - 8 UNC X 3-1/4	9,364 pcs.

Mechanical properties tested in accordance to ASTM F606/F606M, ASTM A370, ASTM E18

**BOLT LOT NO.** KR701

Date: Aug. 31, '07

Mechanical Property of Full Size Bolts	Chemical Composition %														
	Tensile Strength					IDENTIFICATION									
	Load (lbf)	Position of fracture	Proof Load (Length Method)	HRC	Heat Treatment °F (°C)	C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100	Mo x 100	B x 10,000
	Max.		Max.	Min.											
Spec. 10900						30									
104850						48				Max. 40					
Average 8 pcs			ALL PASS	34.6	1580	39	24	95	12	11	8	4	85	21	2

KR341

**NUT LOT NO.** KR341

Mechanical Property of Full Size Bolts	Chemical Composition %												
	Tensile Strength					IDENTIFICATION							
	Load (lbf)	Position of fracture	Proof Load (Length Method)	HRC	Heat Treatment °F (°C)	C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100
	Max.		Max.	Min.									
Spec. 24-38						20							
28.1						55				Max. 50			
Mean/5 pcs			ALL PASS	1562	1184	45	24	69	6	31	26	10	4

WB9591

**WASHER LOT NO.** WB9591

Mechanical Property of Full Size Washers	Chemical Composition %										Fastener Tension		
	Tensile Strength					IDENTIFICATION					Spec. (lbf.)	Min.	
	Load (lbf)	Position of fracture	Proof Load (Length Method)	HRC	Heat Treatment °F (°C)	C x 100	Si x 100	Mn x 100	P x 1000	S x 1000			Cu x 100
	Max.		Max.	Min.									
Spec. 38-45													
41.0										Max. 50			
Mean/5 Pcs.			ALL PASS	1562	1184	50	16	69	2	1			2946

Material used for the bolt, nut and washer were melted & manufactured in the USA. The product was manufactured in the USA to ASTM specifications. The bolt and nut are manufactured by Unytite. We hereby certify that the material described has been manufactured and inspected in accordance with requirement of the above specification.

Chief of Quality Assurance Section

*[Signature]*

Thread Accuracy (Bolt & Nut)	REMARKS
Bolt ASME B1.1 Class 2A Nut ASME B1.1 Class 2B	THESE BOLTS HAVE BEEN MAGNETIC PARTICLE INSPECTION IN ACCORDANCE WITH THE REQUIREMENTS OF SPECIFICATION ASTM A490

# INSPECTION CERTIFICATE

AC501A

**UNYITE, INC.**  
One Unyite Drive  
Peru, Illinois 61354

815-224-2221 — FAX # 815-224-3434



Specification	Size	Quantity
ASTM A490 Type 1	1 - 8 UNC X 3-3/4	7,297 pcs.
ASTM A563 Grade 1/1H		
ASTM F436 Type 1		

Mechanical properties tested in accordance to ASTM F606/F606M, ASTM A370, ASTM E18

Date: Dec. 19, '05

BOLT LOT NO. AC501

Mechanical Property of Full Size Bolts	IDENTIFICATION	Chemical Composition %									
		C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100	Mo x 100	B x 10,000
Tensile Strength Load (lbf) 90900 104850 100500 Average 8 pcs		30	24	89	14	14	8	4	102	21	1
Proof Load 72700 (Length Method) HRC 34.7 ALL PASS		48	Heat No. 384940	Max. 40	Min. 800	Quench	Temper	Min. 800	Heat Treatment °F (°C)	1580	1013
Part of Screw Part of Screw		Max. +/- 0.0005 in.	ALL PASS	800	1580	1013					

NUT LOT NO. AC641

Mechanical Property of Full Size Nuts	IDENTIFICATION	Chemical Composition %									
		C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100		
Hardness After 24 hr x 1000° F HRB Min. 24-38 29.2 Mean/Specs		20	20	61	14	23	15	6	15		
Proof Load (Lbf) 106050 ALL PASS		55	Heat No. 599495	Max. 40	Min. 800	Quench	Temper	Min. 800	Heat Treatment °F (°C)	1562	1103
Part of Nut		Max. +/- 0.0005 in.	ALL PASS	800	1562	1103					

WASHER LOT NO. WB7406

Mechanical Property of Full Size Washers	IDENTIFICATION	Chemical Composition %									
		C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100		
Hardness (HRC) 38-45 41.4 Mean/5 Pcs		35	7	68	8	2	2	2	2		
Proof Load (Lbf) 9501190 ALL PASS		190	Heat No. 9501190	Max. 40	Min. 800	Quench	Temper	Min. 800	Heat Treatment °F (°C)	1562	1103
Part of Washer		Max. +/- 0.0005 in.	ALL PASS	800	1562	1103					

Material used for the bolt, nut and washer were melted & manufactured in the USA. The product was manufactured in the USA to ASTM specifications. The bolt and nut are manufactured by Unyite. We hereby certify that the material described has been manufactured and inspected satisfactory with requirement of the above specification.

12-20-05  
 JEAN MARGHERIO  
 OFFICIAL SEAL  
 NOTARY PUBLIC - STATE OF ILLINOIS  
 MY COMMISSION EXPIRES 10/18/08  
 Mesh 1/6 sets.  
 Standard Deviation 2626

Chief of Quality Assurance Section

Thread Accuracy	REMARKS
Bolt ASME B1.1 Class 2A Nut ANSI B1.1 Class 2B	THESE BOLTS HAVE BEEN MAGNETIC PARTICLE INSPECTION IN ACCORDANCE WITH THE REQUIREMENTS OF SPECIFICATION ASTM A490

SET LOT NO. AT301A

# INSPECTION CERTIFICATE

Specification	Size	Quantity
ASTM F1852 Type 1 ASTM A563 Grade DH ASTM F436 Type 1	3/4-10 UNC X 4-1/4	3,265 pcs.



**UNYTITE, INC.**  
One Unytite Drive  
Peru, Illinois 61354  
815-224-2221 — FAX # 815-224-3434

Mechanical properties tested in accordance to ASTM F606/F606M, ASTM A370, ASTM E18

BOLT LOT NO. AT301

Date: Jul. 08, '06

	Mechanical Property of Full Size Bolts				Heat Treatment °F (°C)	IDENTIFICATION	Chemical Composition %								
	Tensile Strength		Proof Load 28400 lbf. (length Method)	HRC			C x 100 x 100	Si x 100 x 100	Mn x 100 x 100	P x 1000 x 1000	S x 1000 x 1000	Cu x 100 x 100	Ni x 100 x 100	Cr x 100 x 100	Mo x 100 x 10,000
	Load (lbf)	Position of fracture													
Spec.	40100	Part of Screw	Max. +/- 0.0005 in.	34 MAX	1580		30	15	60	40	50	—	—	—	—
Average	50675	Part of Screw	ALL PASS	32.4	869		Heat No.	52	30	60	40	50	—	—	—
						407980	32	26	80	11	7	8	5	7	1 30

NUT LOT NO. AT032

	Mechanical Property of Full Size Bolts				Heat Treatment °F (°C)	IDENTIFICATION	Chemical Composition %								
	Tensile Strength		Proof Load (Lbf)	HRC			C x 100 x 100	Si x 100 x 100	Mn x 100 x 100	P x 1000 x 1000	S x 1000 x 1000	Cu x 100 x 100	Ni x 100 x 100	Cr x 100 x 100	
	Load (lbf)	Position of fracture													
Hardness (HRC)					1220		20	—	60	40	50	—	—	—	—
Spec.	24-38	HRB 89	58450	—	800		Heat No.	55	—	60	40	50	—	—	—
Mean/5pcs.	27.6	—	ALL PASS	1562	1220	S74342	45	21	71	7	34	29	11	15	15

WASHER LOT NO. WB8069

	Mechanical Property of Full Size Bolts				Heat Treatment °F (°C)	IDENTIFICATION	Chemical Composition %								
	Tensile Strength		Proof Load (Lbf)	HRC			C x 100 x 100	Si x 100 x 100	Mn x 100 x 100	P x 1000 x 1000	S x 1000 x 1000	Cu x 100 x 100	Ni x 100 x 100	Cr x 100 x 100	
	Load (lbf)	Position of fracture													
Hardness (HRC)					8		—	—	—	—	—	—	—	—	—
Spec.	38-45	—	—	—	800		Heat No.	—	—	—	—	—	—	—	—
Mean/5 Pcs.	41.5	—	ALL PASS	1562	8	9402244	35	8	68	8	4	—	—	—	—

Material used for the bolt, nut and washer were melted & manufactured in the USA. The product was manufactured in the USA to ASTM specifications. The bolt and nut are manufactured by Unytite. We hereby certify that the material described has been manufactured and inspected satisfactory with requirement of the above specification.

Thread Accuracy (Bolt & Nut)

Bolt ASME B1.1 Class 2A  
Nut ANSI B1.1 Class 2B

REMARKS: *Official Seal*  
 EAN MARGHERIO  
 NOTARY PUBLIC - STATE OF ILLINOIS  
 MY COMMISSION EXPIRES 10/18/09  
 7-10-06

### Fastener Tension

Fastener Tension	
Spec. (lbf.)	29000
Mean / 6 sets.	34962
Standard Deviation	715

Chief of Quality Assurance Section

*Signature*



1350, rue Marie-Victorin  
Saint-Bruno-de-Montarville, Québec, Canada, J3V 6B9  
Té: (450) 441-6011 Fax: (450) 441-5511  
Sans frais / toll free 1-800-661-2658  
Site web: amcanjumax.com

**Certificat de conformité**  
**Certificate of compliance**

**ANCRAGE À BÉTON EN ZINC**  
**WEDGE ANCHOR ZINC**  
**ASTM A-307**  
PLACAGE / PLATING: ASTM A-153

**CLIENT / CUSTOMER: MANDATE ERECTORS**  
**DATE: 19/12/07**  
**VOTRE / YOUR PO #: 31770-898**  
**GRANDEURS / SIZES: 1/2 x 2 3/4**  
**QUANTITÉ / QUANTITY: 150**

Par la présente nous certifions que le matériel qui a été expédié est conforme aux normes fournies par nos manufacturiers.

We hereby certify that the products shipped conform to the specifications supplied by the manufacturer.

Signature : Geneviève Thiry  
Réception

Approuvé par : Jean Calgario  
Président

SET LOT NO. KR701

# INSPECTION CERTIFICATE



**UNYRITE, INC.**  
 One Unytite Drive  
 Peru, Illinois 61354  
 815-224-2221 — FAX # 815-224-3434

Specification	Size	Quantity
ASTM A490 Type 1 ASTM A563 Grade DH ASTM F436 Type 1	1 - 8 UNC X 3-1/4	9,364 pcs.

Mechanical properties tested in accordance to ASTM F606/F606M, ASTM A370, ASTM E18

**BOLT LOT NO.** KR701

Date: Aug. 31, '07

Mechanical Property of Full Size Bolts		Heat Treatment		Chemical Composition %											
Tensile Strength	Proof Load (Lbf.)	Hardness		*F (°C)		C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100	Mo x 100	B x 10,000
		Load (lbf.)	Position of Fracture	Quench	Temper										
90900	72700	Max.		Min.	800	30			Max.	40	Max.	40			
Spec. 104850		+/- 0.0005 in.				48									
Average 96375	ALL PASS		1580	1031		39	24	95	12	11	8	4	85	21	2

**NUT LOT NO.** KR341

Mechanical Property of Full Size Nuts		Heat Treatment		Chemical Composition %									
Hardness (HRC)	Proof Load (Lbf.)	*F (°C)		C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100		
		Quench	Temper										
24-38	106050	Min.	850	20			Max.	Max.					
Spec. 28-1				55			60	40	50				
Mean/5 pcs.	ALL PASS	1184	1562	45	24	69	6	31	26	10	4		

**WASHER LOT NO.** WB9591

Mechanical Property of Full Size Washers		Heat Treatment		Chemical Composition %									
Hardness (HRC)	Proof Load (Lbf.)	*F (°C)		C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100		
		Quench	Temper										
38-45	106050	Min.	850	20			Max.	Max.					
Spec. 41-0				55			60	40	50				
Mean/5 Pcs.	ALL PASS	1184	1562	45	24	69	6	31	26	10	4		

Material used for the bolt, nut and washer were melted & manufactured in the USA. The product was manufactured in the USA to ASTM specifications. The bolt and nut are manufactured by Unytite. We hereby certify that the material described has been manufactured and inspected satisfactory with requirement of the above specification.

Chief of Quality Assurance Section

*[Signature]*

Thread Accuracy (Bolt & Nut)	REMARKS
Bolt: ASME B1.1 Class 2A Nut: ASME B1.1 Class 2B	THESE BOLTS HAVE BEEN MAGNETIC PARTICLE INSPECTION IN ACCORDANCE WITH THE REQUIREMENTS OF SPECIFICATION ASTM A490

Fastener Tension	
Spec. (lbf.)	Min. 67000
Mean/5 sets.	78972
Designation	2946

OFFICIAL SEAL  
 JEAN MARGHERO  
 NOTARY PUBLIC - STATE OF ILLINOIS  
 MY COMMISSION EXPIRES: 10/30/09

SET LOT NO. AJ101A

# INSPECTION CERTIFICATE



**UNYTITE, INC.**  
 One Unytite Drive  
 Peru, Illinois 61354  
 815-224-2221 — FAX # 815-224-3434

Specification	Size	Quantity
ASTM A490 Type 1		
ASTM A563 Grade DH		
ASTM F436 Type 1	1 - 8 UNC X 3-3/4	5,441 pcs.

Mechanical properties tested in accordance to ASTM F606/F606M, ASTM A370, ASTM E18

BOLT LOT NO. AJ101

Date: Mar. 15, '06

Mechanical Property of Full Size Bolts				Chemical Composition %																
Tensile Strength	Proof Load (lbf)	Position of fracture	HRC	Heat Treatment *F (°C)	IDENTIFICATION															
					C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100	Mo x 100	B x 10,000						
Spec. 90900	72700			Quench	30															
104850	(Length Method)			Temper	48															
	Max. +/- 0.0005 in.			Min. 800																
Average 8 pcs	101875	Part of Screw	35.2	1580	43	24	88	12	10	8	5	96	19	3						
	ALL PASS	Part of Screw		1004	Heat No. 404370															

NUT LOT NO. AH301

Mechanical Property of Full Size Nuts				Chemical Composition %																
Hardness After 24 hr x 1000° F HRB	Proof Load (lbf)	Min. HRB 89	HRC	Heat Treatment *F (°C)	IDENTIFICATION															
					C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100								
Spec. 24-38	106050			Quench	20															
28.1	ALL PASS			Min. 800	35															
	1562			1130	44	21	6	31	21	16	11									
Mean/5pcs	ALL PASS			S73023	Heat No. S73023															

WASHER LOT NO. WB7528

Mechanical Property of Washers				Chemical Composition %																
Hardness (HRC)	Proof Load (lbf)	Min. HRB 89	HRC	Heat Treatment *F (°C)	IDENTIFICATION															
					C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100								
Spec. 38-45	9500908			Quench	34	10	71	10	3											
41.5				1130	3															
Mean/5 Pcs.	9500908			1562	Heat No. 9500908															

Material used for the bolt, nut, and washer were melted & manufactured in the USA. The product was manufactured in the USA to ASTM specifications. The bolt and nut are manufactured by Unytite. We hereby certify that the material described has been manufactured and inspected satisfactory with requirement of the above specification.

03-17-06

Chief of Quality Assurance Section

*[Signature]*

Thread Accuracy	REMARKS
(Bolt & Nut)	THESE BOLTS HAVE BEEN MAGNETIC PARTICLE INSPECTION IN ACCORDANCE WITH THE REQUIREMENTS OF SPECIFICATION ASTM A490

Fastener Tension	Fastener Tension
Spec. (lbf.)	Min.
	67200
Mean / .6 sets.	85440
	3193

Fastener Tension	Fastener Tension
Spec. (lbf.)	Min.
	67200
Mean / .6 sets.	85440
	3193

Fastener Tension	Fastener Tension
Spec. (lbf.)	Min.
	67200
Mean / .6 sets.	85440
	3193



Load #: 23

Shipping Date:

Waybill #: 898-23

Customer:	Pizzagalli Construction Company		Prepared By:	Approved By:	Date: 24-01-01
Job Title:	84 Marginal Way	Job Progress Report Sheet	Bathurst Machine Shop Ltd. Mandate Erectors & Welding Ltd. MQM Ltd., Tracadie		1040 Route 430 Big River Road E2A 6P9
Date Sent to Shop:	X	SHEET: 1			
Job Number:	898	X			

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped				
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By
A	W24X55	A	B601	1	2569																							
A	W24X68	A	B602	1	2082																							
A	W24X68	A	B603	1	2084																							
A	W24X68	A	B610	1	2035																							
A	W24X68	A	B611	1	2030																							
A	W10X17	A	B615	2	644																							
A	W21X44	A	B640	1	1894																							
A	W21X44	A	B641	3	5681																							
A	W18X35	A	B643	1	1709																							
A	W12X19	A	B646	1	196																							
A	W12X19	A	B647	1	196																							
A	W21X62	A	B661	1	2572																							
H	W10X17	A	B676	1	287																							
A	W21X83	A	B684	1	4436																							
A	W18X40	A	B700	1	1434																							
A	W12X19	A	B719	1	657																							
A	W12X19	A	B720	1	166																							
A	W12X19	A	B721	1	178																							
A	W14X22	A	B724	1	553																							
A	W12X19	A	B725	1	495																							

Pieces 23 31898 Total Weight( Lbs) ( 15.9 TONS)

Load #: 23

Customer:	Pizzagalli Construction Company		Prepared By:	Approved By:	Date: 24-01-01
Job Title:	84 Marginal Way	Job Progress Report Sheet	Bathurst Machine Shop Ltd.		1040 Route 430
Date Sent to Shop:	X	SHEET: 2	Mandate Erectors & Welding Ltd.		Big River Road
Job Number:	898		MQM Ltd., Tracadie		E2A 6P9

Form#12 Rev. 4

\* = SEE SHOP DWG C=COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped						
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date		
A	W8X10	A	B726	2	68																									
A	W18X35	A	B728	1	567																									
A	W18X35	A	B729	1	1013																									
A	W18X35	A	B730	1	626																									
A	W16X26	A	B752	1	1063																									
A	W12X19	A	B758	1	618																									
A	W18X35	A	B762	1	986																									
II	W14X22	A	B763	1	505																									
A	W12X19	A	B774	1	378																									
A	W12X19	A	B775	1	154																									
II	W12X19	A	B781	1	67																									
A	W12X19	A	B782	1	86																									
A	W12X19	A	B783	1	682																									
A	W12X19	A	B784	1	282																									
A	W10X17	A	B785	1	322																									
A	W24X55	A	B786	1	2071																									
A	W21X44	A	B788	1	505																									
A	H.S.S. 8X8X5/8	0	D500	1	723																									
A	H.S.S. 8X8X5/8	0	D503	1	675																									

Pieces 20 11391 Total Weight( Lbs) ( 5.7 TONS)





# Material Test Report

Ref: ELS0143143

Date: 11.03.2004

Customer: 1774

251 Clark Street, Harrow, Ontario, Canada N0P 1C0  
 Tel.: (519) 986-5900 Fax: (519) 708-5507

Acier Altitude Inc.  
 1 Rue Provost - Suite 30E  
 LACHINE QC H8S 4R2

Shipped to  
 Acier Altitude Inc.  
 1 Rue Provost - Suite 30E  
 LACHINE QC H8S 4R2  
 CANADA

Material:	6.0x3.0x270x46"O(3x2)PB				Material No.	50030375		Made in Canada	
Heat No	C	Mn	P	S	Si	Al	Cu	Sales order	Purchase Order
62094C	0.171	0.663	0.008	0.003	0.180	0.015	0.201	146751	1067
Bundle No	Yield			Tensile	Elm.Zin		Certification		
M100344280	058950 Psi			078530 Psi	24.0 %		ASTM A500-01A GRADE C & B		
Material Note:									
Sales Or.Note:									

Material:	6.0x5.0x250x46"O(3x2)PB				Material No.	50050250		Made in Canada	
Heat No	C	Mn	P	S	Si	Al	Cu	Sales order	Purchase Order
C111924	0.170	0.430	0.008	0.003	0.050	0.015	0.000	149205	1068
Bundle No	Yield			Tensile	Elm.Zin		Certification		
M100344280	053020 Psi			074970 Psi	25.9 %		ASTM A500-01A GRADE C & B		
Material Note:									
Sales Or.Note:									

Material:	6.0x6.0x188x30"O(2x2)REC				Material No.	50060188		Made in Canada	
Heat No	C	Mn	P	S	Si	Al	Cu	Sales order	Purchase Order
117920	0.173	0.627	0.011	0.003	0.018	0.025	0.146	149086	1082
Bundle No	Yield			Tensile	Elm.Zin		Certification		
5590590	064070 Psi			071970 Psi	25.7 %		ASTM A500-01A GRADE C & B		
Material Note:									
Sales Or.Note:									

Material:	6.0x6.0x188x30"O(2x2)REC				Material No.	50060188		Made in Canada	
Heat No	C	Mn	P	S	Si	Al	Cu	Sales order	Purchase Order
112060	0.175	0.635	0.015	0.006	0.015	0.024	0.145	149086	1082
Bundle No	Yield			Tensile	Elm.Zin		Certification		
5590590	057650 Psi			077650 Psi	25.7 %		ASTM A500-01A GRADE C & B		
Material Note:									
Sales Or.Note:									

Material:	6.0x6.0x500x20"O(11x1)REC				Material No.	30020500		Made in Canada	
Heat No	C	Mn	P	S	Si	Al	Cu	Sales order	Purchase Order
117490	0.185	0.723	0.012	0.005	0.171	0.019	0.132	149224	1090
Bundle No	Yield			Tensile	Elm.Zin		Certification		
M200211007	080420 Psi			075330 Psi	31.5 %		ASTM A500-01A GRADE C & B		
Material Note:									
Sales Or.Note:									

HT # 117490 is used to fab items D508, D509

Authorized by Quality Assurance:



**Steel Tube Institute**  
OF NORTH AMERICA



**Steel Service Center Institute**

Page 1 Of 4

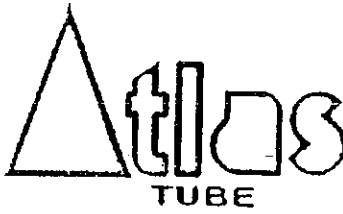
Standard Council of Canada



Comité canadien des normes

Atlas Tube Canada ULC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 NOR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537

Ref.B/L: 80263316  
 Date: 10.24.2007  
 Customer: 1751



**MATERIAL TEST REPORT**

Sold to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Shipped to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Material: 8.0x8.0x625x18'0"0(2x1).  
 Sales order: 335491

Material No: 800806254800  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002
Bundle No	Yield		Tensile		Eln.2in		Certification						
M200482111	063150 Psi		076440 Psi		34.3 %		ASTM A500-03A GRADE 8&C						

Material Note:  
 Sales Or.Note:

*HT #582766 is used to fab. items: D500, D503*

Authorized by Quality Assurance: *[Signature]*

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.



Atlas Tube Canada ULC  
 200 Clark St.  
 Toronto, Ontario, Canada  
 NOR 1G0  
 Tel: 416-738-3541  
 Fax: 416-738-3527

Ref.B/L: 80254489  
 Date: 08.26.2007  
 Customer: 1774



**MATERIAL TEST REPORT**

Sold to

Acier Altitude Inc.  
 2555 Francis-Hugues Avenue  
 LAVAL QC H7S 2H7  
 CANADA

Shipped to

Acier Altitude Inc.  
 2555 Francis-Hugues Avenue  
 LAVAL QC H7S 2H7  
 CANADA

*Heat 880223*

Material: 7 0x7.0x500x48"0"013x11PB  
 Sales order: 326648

Material No: 70070500  
 Purchase Order: 3287  
 Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
880223	0.200	0.780	0.010	0.003	0.150	0.034	0.046	0.004	0.003	0.017	0.053	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M200468200	061100 Psi	076190 Psi	33.3 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or Note:

*HT # 880223 is used to fab. item: D60.7*

Material: 9 0x9 0x250x48"0"013x21PB  
 Sales order: 326648

Material No: 80080250  
 Purchase Order: 3287  
 Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
884320	0.190	0.780	0.012	0.008	0.013	0.045	0.042	0.004	0.003	0.011	0.036	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M200467510	058730 Psi	068730 Psi	32.8 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or Note:

Material: 8 0x8 0x313x48"0"013x11PB  
 Sales order: 326648

Material No: 80080250  
 Purchase Order: 3287  
 Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
880921	0.200	0.800	0.011	0.004	0.170	0.031	0.061	0.007	0.006	0.013	0.050	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M200467577	065590 Psi	080300 Psi	32.9 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or Note:

Material: 8 0x8 0x500x48"0"012x21PB  
 Sales order: 326648

Material No: 80080500  
 Purchase Order: 3267  
 Made in: Canada

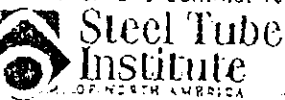
Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
88213	0.200	0.880	0.007	0.008	0.020	0.037	0.050	0.000	0.010	0.020	0.020	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M200463439	059130 Psi	069650 Psi	39.5 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or Note:

Witnessed by Quality Assurance: *[Signature]*

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specifications and contract requirements.



PO/Rel

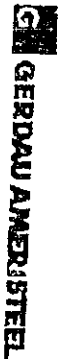
Heat G4-0388

Attn:

Certificate of Mill Test Results

PAC-000000-000

Pg 1/1



CHEMICAL AND PHYSICAL TEST REPORT  
MADE IN U.S.A.

Page 4 of 5

CARTERSVILLE STEEL MILL  
METALLURGICAL DEPARTMENT

Shipper's Number: G-0 3212

384 OLD GRASSDALE RD NE, CARTERSVILLE, GA 30121

PRODUCING MILL IS KNOWN BY HEAT ID PREFIX B=CARTERSVILLE BB, O=CHARLOTTE, G=CARTERSVILLE, J=JACKSONVILLE, K=KNOXVILLE,  
N=CAMBRIDGE, O=ORVILLE BB, P=PERTH AMBOY, S=SAYREVILLE, V=JACKSON TN, W=WHITBY

SHIP TO:  
AVERAGE IDEAL DR SONG B076  
D/D ACER PACIFIC  
2465 DE LA METROPOLE  
LONSJEUILL

PQ MK 154

LAVAL

PQ HTS 1A9

INVOICE TO:  
PACIFIQUE STEEL INC  
845 WILKIN ST

SHIP DATE  
05/08/04  
CUST. ACCOUNT NO.  
6030632

HEAT ID NO	ACTUAL TAG HEAT NO	SPECIFICATION													SALES ORDER		CUSTOMER P.O. NUMBER						
		C	MN	P	S	V	SI	CR	CU	N	SN	AL	MO	N	NB	B	ZR	TI	CA	ZN	C		
44-0388	G4-0388	15	92	008	025	015	20	06	28	11	009	001	020	0110	001	0004							
YIELD PT LBS/SQ IN: 59900; TENSIL LBS/SQ IN: 78400; % ELONG 8 IN: 21.6; BEND: DEF: % LIGHT-HEAVY: 4002998; 11035																							
METRIC EQUIVALENT: YIELD = 410.83 MPa; TENSILE = 540.85 MPa; %ELONG/200MM=21.6 DEF = MM																							
V. 8 X 10W																							
G-440388 G4-0388 ASTM A36-01 ASTM A992-02 ASTM A572-02 TYPE 2.01 ASTM A709 G36-01B 4002998 11035																							
YIELD PT LBS/SQ IN: 56900; TENSIL LBS/SQ IN: 77000; % ELONG 8 IN: 21.6; BEND: DEF: % LIGHT-HEAVY: 4002998; 11035																							
METRIC EQUIVALENT: YIELD = 399.55 MPa; TENSILE = 521.83 MPa; %ELONG/200MM=21.6 DEF = MM																							
V. 8 X 10W																							
G-440388 G4-0388 ASTM A36-01 ASTM A992-02 ASTM A572-02 TYPE 2.01 ASTM A709 G36-01B 4002998 11035																							
YIELD PT LBS/SQ IN: 57700; TENSIL LBS/SQ IN: 77400; % ELONG 8 IN: 21.1; BEND: DEF: % LIGHT-HEAVY: 4002998; 11035																							
METRIC EQUIVALENT: YIELD = 397.83 MPa; TENSILE = 533.85 MPa; %ELONG/200MM=21.1 DEF = MM																							
V. 8 X 10W																							
G-440388 G4-0388 ASTM A36-01 ASTM A992-02 ASTM A572-02 TYPE 2.01 ASTM A709 G36-01B 4002998 11035																							
YIELD PT LBS/SQ IN: 57700; TENSIL LBS/SQ IN: 77400; % ELONG 8 IN: 21.1; BEND: DEF: % LIGHT-HEAVY: 4002998; 11035																							
METRIC EQUIVALENT: YIELD = 415.06 MPa; TENSILE = 544.88 MPa; %ELONG/200MM=21.1 DEF = MM																							
V. 8 X 10W																							
G-440388 G4-0388 ASTM A36-01 ASTM A992-02 ASTM A572-02 TYPE 2.01 ASTM A709 G36-01B 4002998 11035																							
YIELD PT LBS/SQ IN: 57700; TENSIL LBS/SQ IN: 77400; % ELONG 8 IN: 21.1; BEND: DEF: % LIGHT-HEAVY: 4002998; 11035																							
METRIC EQUIVALENT: YIELD = 397.83 MPa; TENSILE = 533.85 MPa; %ELONG/200MM=21.1 DEF = MM																							

HT# G4-0388 is used to fab item: 8726

This material, including the blanks, was produced by  
Manufactured in the United States of America.

A. J. Turner  
Quality Assurance Mgr., JR  
Mill Group

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS  
FROM THE ORIGINAL CHEMICAL AND PHYSICAL  
TEST REPORT AS CONTAINED IN THE PERMANENT  
RECORDS OF THE COMPANY.



CARTERSVILLE STEEL MILL  
 384 OLD GRASSDALE RD NE  
 CARTERSVILLE GA 30121 USA  
 (770) 387-3300

Chemical and Physical Test Report

MADE IN UNITED STATES

G-104420

PRODUCED IN: CARTERSVILLE

SHIP TO  
 TRIAD METAL  
 1951 BESSEMER ROAD  
 804-732-5000  
 PETERSBURG, VA 23805

INVOICE TO  
 TRIAD METALS INTERNATIONAL  
 METAL TRADERS INC  
 2300 COMPUTER AVE. STE-A-1  
 WILLOW GROVE, PA 19090

SHIP DATE  
 11/19/07  
 CUST. ACCOUNT NO  
 40213035

SHAPE * SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST P.O. NUMBER
W10 X 17#	A57250/992	ASTM A572 GR50-07, ASTM A992 -06A	7117661-08	3338-08

HEAT ID.	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	B	N	Sn	Al	Ti	Ca	C Eqv
G706226	.09	1.19	.012	.020	.28	.22	.08	.05	.016	.025	.002	.0006	.0091	.008	.001	.002001	.001401	.328

Mechanical Test: Yield 56500 PSI, 389.55 MPA Tensile: 73400 PSI, 505.08 MPA %El: 23.8/8in, 23.8/200MM Sid Dev:0 Idl Diam: .394  
 Customer Requirements CASTING: STRAND CAST

Mechanical Test: Yield 57100 PSI, 393.69 MPA Tensile: 72300 PSI, 498.49 MPA %El: 21.2/8in, 21.2/200MM Sid Dev:0 Idl Diam: .394  
 Customer Requirements CASTING: STRAND CAST

SHAPE * SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST P.O. NUMBER
W10 X 17#	A57250/992	ASTM A572 GR50-07, ASTM A992 -06A	7097321-02	2224-02

HEAT ID.	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	B	N	Sn	Al	Ti	Ca	C Eqv
G706231	.08	1.13	.011	.020	.26	.32	.08	.06	.016	.025	.001	.0007	.0092	.009	.001	.001001	.000501	.317

Mechanical Test: Yield 57200 PSI, 399.38 MPA Tensile: 73200 PSI, 504.7 MPA %El: 21.3/8in, 21.3/200MM Sid Dev:0 Idl Diam: .345  
 Customer Requirements CASTING: STRAND CAST

Mechanical Test: Yield 58000 PSI, 399.9 MPA Tensile: 74100 PSI, 510.9 MPA %El: 20.6/8in, 20.6/200MM Sid Dev:0 Idl Diam: .345  
 Customer Requirements CASTING: STRAND CAST

HT # G706231 is used to fab items: B615, B676, B785

This material, including the billets, was produced and manufactured in the United States of America

Bhaskar Valamanchili

Quality Director

Gerdau Ameristeel

*Mackay*

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST REPORTS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY

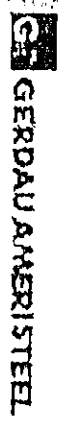
Mgr. Marketing Svcs

CARTERSVILLE STEEL MILL

*g...*

Seller warrants that all material furnished shall comply with specifications subject to standard published manufacturing variations. NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, ARE MADE BY THE SELLER, AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. In no event shall seller be liable for indirect, consequential or punitive damages arising out of or related to the materials furnished by seller. Any claim for damages for materials that do not conform to specifications must be made from buyer to seller immediately after delivery of same in order to allow the seller the opportunity to inspect the material in question.





CARTERSVILLE STEEL MILL  
 384 OLD GRASSDALE RD NE  
 CARTERSVILLE GA 30121 USA  
 (770) 387-3000

Chemical and Physical Test Report  
 MADE IN UNITED STATES

C-109635

PRODUCED IN: CARTERSVILLE

SHIP TO  
 TRIAD METAL  
 1951 BESSEMER ROAD  
 B04-702-8000  
 PETERSBURG, VA 23805

INVOICE TO  
 TRIAD METALS INTERNATIONAL  
 METAL TRADERS INC  
 2200 COLAPUTER AVE STE-A-1  
 WILLOW GROVE, PA 19090

SHIP DATE  
 11/07/07  
 CUST. ACCOUNT NO  
 40213030

SHAPE & SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST P.O. NUMBER
W8 X 18.4# S-BEAM	A5720/592	ASTM A572 GR50-07, ASTM A592-06A	7114598-01	3166-01
HEAT ID.	C	Mn P S Si Cu Ni C		
670478	.15	.92 .012 .020 .21 .24 .09 .05		
		Mg V Nb B N Sn As Ti Ca C Equ		
		.019 .000 .009 .003 .018 .009 .001 .00100 .00120 .208		

Mechanical Test: Yield 96300 PSI, 401.27 MPa Tensile: 78500 PSI, 541.24 MPa %E: 21.15%, 21.17200MM Std Dev: 14.59  
 Customer Requirements CASTING: STRAND CAST  
 Mechanical Test: Yield 57400 PSI, 395.70 MPa Tensile: 77400 PSI, 533.05 MPa %E: 26.16%, 26.17200MM Std Dev: 14.59  
 Customer Requirements CASTING: STRAND CAST

SHAPE & SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST P.O. NUMBER
W12 X 15#	A5720/592	ASTM A572 GR50-07, ASTM A592-06A	7087022-09	2208-09
HEAT ID.	C	Mn P S Si Cu Ni C		
6728974	1.14	.013 .021 .29 .22 .07 .05		
		Mg V Nb B N Sn As Ti Ca C Equ		
		.015 .027 .002 .0007 .0109 .007 .001 .00200 .00030 .207		

Mechanical Test: Yield 60300 PSI, 415.75 MPa Tensile: 75000 PSI, 517.11 MPa %E: 23.05%, 23.27200MM Std Dev: 14.59  
 Customer Requirements CASTING: STRAND CAST  
 Mechanical Test: Yield 60000 PSI, 419.2 MPa Tensile: 76000 PSI, 529.1 MPa %E: 23.48%, 23.47200MM Std Dev: 14.59  
 Customer Requirements CASTING: STRAND CAST

HT# 6705874 is used to Fab. items: B646, B647, B919 to B921, B925, B958  
 B774, B775, B781 to B784

This material, including the labels, was produced and manufactured in the United States of America

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

Bradley Warranville  
 Quality Director  
 Gerdau Ameristeel

Mr. Michael Shea  
 CARTERSVILLE STEEL MILL

Other warrants that all material furnished shall comply with specifications stipulated to standard published manufacturing variations. NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, ARE MADE BY THE SELLER AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.  
 In no event shall seller be liable for indirect, consequential or punitive damages arising out of or related to the materials furnished by seller.  
 Any claim for damages for materials that do not conform to specifications shall be made from the date of delivery of same in order to allow the seller the opportunity to inspect the material in question.



**Steel Dynamics, Inc.**  
201 S. County Road 700 East  
Charlotte, NC 28210  
(704) 633-8100

**Certified Mill Test Report**  
Iron, Steel and Manufacture in USA

Order No: 090101  
Bill of Lading No: 0000107-14  
Weight: 0000107-14

Ship to:  
Tracy Hardie Int'l Bay A  
1951 Bossinger Road  
CSX Collier Yard  
Petersburg, VA 23105  
Attn: Rick McCreary

Bill to:  
TRIAD METAL INTERNATIONAL  
Attn: Operations Director  
Yellow Grove, PA 17090  
Attn: Fred Smith

Item	Grade	Section	Length	Pos	Heat #	Trade(s)	Specification(s)	Custom P.O.
15f	020797707	W14X22	50' 0"	8	B030201	A0927A992M A709 G50S1G345S A572 G501G245	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	1420/1A
16f	020797709	W14X22	50' 0"	8	B030209	A0927A992M A709 G50S1G345S A572 G501G245	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	1420/1A
17f	020797711	W14X22	50' 0"	8	B030207	A0927A992M A709 G50S1G345S A572 G501G245	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	1420/1A
18f	020809171	W16X26	35' 0"	6	B030612	A0912A992M A709 G50S1G345S A572 G501G245	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	147705

**CHEMICAL**

Item	C	Mn	P	S	SI	Cu	V	Cr	Mo	Ni	Al	Me	Sh	N	B	Ca	C1	C2	PC	Analysis
15f	06	71	0.08	0.29	18	0.1	0.13	0.7	0.23	0.15	0.003	0.003	0.01	0.003	0.003	0.01	23	26	13	HEAT
16f	06	71	0.08	0.29	18	0.1	0.13	0.7	0.23	0.15	0.003	0.003	0.01	0.003	0.003	0.01	23	26	13	HEAT
17f	06	71	0.08	0.29	18	0.1	0.13	0.7	0.23	0.15	0.003	0.003	0.01	0.003	0.003	0.01	23	26	13	HEAT
18f	06	63	0.10	0.26	18	0.0	0.11	1.0	0.20	0.11	0.075	0.002	0.002	0.002	0.002	0.00	24	27	14	HEAT

**MECHANICAL**

Item	Test	Yield (Fy) Strength ksi/MPa	Tensile (Fu) Strength ksi/MPa	FRFu	Elong (%) based on 8" gage	ROA (%)	Bend Test Result	Temp FIC	Sample 1 ft. Rebores	Sample 2 ft. Rebores	Sample 3 ft. Rebores	% Shear	ASTM Grain Size No (per ASTM E112)
15	1	57095	72499	79	30	28	1						
15	2	56088	71492	79	28	28	2						
16	1	57095	72499	79	30	28	1						
16	2	56088	71492	79	28	28	2						
17	1	57095	72499	79	30	28	1						
17	2	56088	71492	79	28	28	2						
18	1	60416	74513	81	25	25	1						
18	2	63433	76575	81	28	28	2						

**Charpy Impact Testing Results**

Analysis: HEAT  
HEAT  
HEAT  
HEAT

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated

Size of Volume, County of Windy  
Shewn to and signed before me this  
day of \_\_\_\_\_  
2007

Special Comment/Information:  
Fully Killed Steel  
I Cast and Rolled to a Fine Grain Practice

Quality Assurance

My Commission Expires: \_\_\_\_\_

ASTM Grain Size No (per ASTM E112)

AT# B030269 is used to Lab. Items: B704, B763

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# CERTIFIED MILL TEST REPORT

(260) 625-8100 (260) 625-8950 FAX  
 Quality Steel 100% EAF Melted  
 and Manufactured in the USA  
 Recycled content: FC = 82.75%, PI = 15.10%

Ship to:  
 Triad Metals Int'l  
 1951 Bessemer Road  
 CSX-Coiler Yard  
 Petersburg VA, 23805 US  
 Attn: Rock McGovern

Customer # 000191

Bill to:  
 TRIAD METALS INTERNATIONAL  
 A-1 2300 Computer Avenue  
 Petersburg VA, 23805 US  
 Attn: Fred Whittle

Date: 11/15/2007

### GENERAL INFORMATION

Product: Wide Flange Beam  
 Size: W 16 X 26  
 W 410 X 38.8  
 Heat Number: A038475  
 Condition(s): As-rolled  
 Final Grade: F155  
 Fly: F155

### SPECIFICATIONS

Standards: ASTM A 992/A 992M  
 Grades: A992 / A992M  
 A709 Gr50/A709M - 05a  
 A572 Gr50/A572M - 05  
 ASTM A709M 709M - 05a  
 A709 Gr50S/A345S

### SHIPMENT DETAILS

Bundle / ASN #	Length	Pcs	Customer PO
021005778	40'-0"	6	9972360
021005779	40'-0"	6	9972360
021005780	40'-0"	6	9972360
021005781	40'-0"	6	9972360
021005782	40'-0"	6	9972360
021005749	60'-0"	2	9972360
021005750	60'-0"	2	9972360

### CHEMICAL ANALYSIS (Weight Percent)

C	Mn	P	S	Si	Cu	NI	Cr	Mo	Sr	V	Nb/Cb	N	B	C1	C2	PC	T	Analysis Type
.04	.83	.013	.021	.20	.36	.11	.13	.037	.016	.015	.001	.0087	.0003	.21	.25	.11	5.86	Head

### MECHANICAL TEST KG

Test	Yield (fy) Ksi / MPa	Tensile (fu) Ksi / MPa	fy / fu Ratio	% Elong. [8" gage]	Temp F / C	Absorbed Energy ft-lb / J	Specimen 1	Specimen 2	Specimen 3	Average	Minimum
1	60 / 413	78 / 537	.77	24							
2	68 / 468	78 / 538	.87	24							
3											
4											
5											
6											
7											

Charpy Imp. of Tests (available only when specified at time of order)

AT# A038475 is used to cab item: 8752

Notes: Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC): Corrosion Index (I)  
 CE1 (Mn)+C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15  
 CE2 (AWS)-C+(Mn+S)/5+(Cr+Mo+V)/5+(Ni+Cu)/15  
 Pcm (AWS) = C+Si/30+Mn/20+Cu/20+N/60+Cr/20+me/15+V/10+5R  
 1 (ASTM G101)-26.01(Cu)+3.88(RN)+1.20(Cr)+1.49(Si)+1.72e-7-28(Cu/Ni)+9.10(Ni/P)-33.38(Cu)

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

State of Indiana, County of Whitley Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_ Notary Public \_\_\_\_\_ My commission expires: \_\_\_\_\_

ASTM A6 - 14.6: A signature is not required on the test report; however, the document shall clearly identify the organization submitting the report. Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report.



# Steel Dynamics, Inc.

Shipped and Pack Details • Columbus OH, USA

Quality Steel 100% Melted  
and Manufactured in the USA

## CERTIFIED MILL TEST REPORT

Ship to:  
Triad Metals Int'l  
1951 Berscoiler Road  
CSX Collier Yard  
Petersburg VA, 23905 US  
Attn: Rick Gorman

Customer # 00019:

Bill to:  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Petersburg VA, 23905 US  
Attn: Fred Whitt

11 Nov 11 10:31 2007

### GENERAL INFORMATION

Product Wide Flange Beam  
Size W 18 x 35  
W 460 x 52  
Heat Number B038001  
Condition(s) As Rolled  
Firm Grained  
Flaky Killed

### SPECIFICATIONS

Standards  
ASTM A992/A992M - 05a  
ASTM A709/A709M - 07a  
ASTM A572/A572M - 04  
ASTM A709/A709M - 07a

### Grades

A992/A992M  
A709 gr50/gr345  
A572 gr50/gr345  
A709 gr50/gr345

### SHIPMENT DETAILS

Bundle / ASN #	Length	Pcs	Cur. tomer PO
020992146	40' 0"	5	1-14-2008
020992149	40' 0"	6	1-14-2008
020992144	40' 0"	0	1-14-2008

### CHEMICAL ANALYSIS (Weight percent)

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Su	V	Nb/Cb	N	B	*C1	*C2	PC	*I	Analy. Type
.07	.93	.021	.026	.20	.34	.08	.09	.016	.016	.001	.011	.0118	.0004	.27	.31	.15	5.84	1 gal

### MECHANICAL TESTING

Test	Yield (fy) Strength ksi / MPa	Tensile (ftu) Strength ksi / MPa	fy / ftu ratio	% Elong. (8" gage)
1	58 / 399	72 / 496	.80	25
2	60 / 414	74 / 513	.81	26
3				
4				
5				
6				
7				

(Charpy Impact Tests (available only when specified at time of order))

Temp F / C	Absorbed Energy Specimen 1	Specimen 2	Specimen 3	Average	Minimum

*HY# B038001 is used to fab items: B643, B798 to B730*

Notes: \*Certified Chemistry Values: Carbon Equivalents (C1, C2, PC) Corrosion Index (I)  
CE1 (Mn)+C+(Mn/6)+(Cr+Ni)/5+(Ni+Cu)/5  
CE2 (AWS) C+(Mn+Si)/6+(Cr+Mn)/5+(Ni+Cu)/5  
Pcm (AWS) = C+Si/30+Mn/20+Cu/20+N/60+Cr/20+Mn/15+V/10+50

I hereby certify that the content of this report is accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

State of Indiana, County of Whitley Sworn to and subscribed before me  
this \_\_\_\_\_ day of \_\_\_\_\_

Signed: Doug Rees-Evans  
Manager of Technical Services

Signed: \_\_\_\_\_  
My commission expires: \_\_\_\_\_

ASTM A6 - 14.6: A signature is not in effect on the test report however, the document shall clearly identify the organization submitting the report. Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report.



Steel Dynamics, Inc.

CERTIFIED MILL TEST REPORT

Date: 10/20/2007

Ship to: Triad Metals International  
3400 Grant Avenue  
Pittsburgh PA, 15225-1115  
Attn: Credit Control

Customer # 069191  
Bill to: TRIAD METALS INTERNATIONAL  
441 2300 Computer Avenue  
Pittsburgh PA, 15225-1115  
Attn: Fred White

Quality Steel 100% Method  
and Manufactured in the USA

GENERAL INFORMATION

Product Wide Flange Beam  
Size W 18 X 40  
W 460 X 60  
Heat Number 8037959  
Condition(s) As Rolled  
From Grade

SPECIFICATIONS

Standards  
ASTM A616/A617  
ASTM A992/A992M 06a  
ASTM A709/A709A - 06a  
ASTM A572/A572M - 06  
ASTM A709/A709A - 06a

SHIPMENT DETAILS

Bundle / ASN # Length pcs Customer PO  
020891350 55' 6 807  
020891348 55' 6 807

CHEMICAL ANALYSIS (Weight percent)

Table with 12 columns: C, Mn, P, S, Si, Cu, Ni, Cr, Mo, Sn, V, Ni/Cb, N, B, \*C1, \*C2, \*PC, \*I, Analysis Type. Row 1: 0.07, 1.36, 0.24, 0.27, 0.21, 0.38, 0.11, 0.13, 0.31, 0.17, 0.003, 0.16, 0.10, 0.03, 0.31, 0.34, 0.16, 0.04, 1001

MECHANICAL TESTING

Table with 4 columns: Test, Yield Strength (ksi/MPa), Tensile Strength (ksi/MPa), % Elong. (8" gage). Rows 1-7 with values for yield, tensile, and elongation.

NOTES:

Calculated Chemistry Values: Carbon Equivalents (C1, C2, FC), Corrosion Index (I)  
CE1 (m%)-C\*(Mn/6)+(Cr/16)+(Ni/5)+(P/15)  
CE2 (AW%)=C\*(Mn+Si)/5+(Cr+Mo+V)/5+(Ni+Cu)/15  
Pen (AW%)=C\*(Si/30)+(Mn/20)+(Cu/20)+(Ni/60)+(Cr/20)+(S/15)+(V/10)+(B/5)

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: Doug Rees-Foxman  
Manager of Technical Services

Signed: \_\_\_\_\_  
Notary Public  
My commission expires: \_\_\_\_\_

Handwritten note: NY# B037959 is used to Fab. item 18780



Structural and Rail Division • Columbus City, Indiana

Ship to: Trad Metals 3450 Grand Ave Newville Island Pittsburgh PA, 15225 US Attn: Mike Benlock

Customer # 000191

Bill to:

TRIAD METALS INTERNATIONAL A-1 2300 Computer Avenue Pittsburgh PA, 15225 US Attn: Fred White

Date: 11/27/2007

CERTIFIED MILL TEST REPORT

GENERAL INFORMATION

Product Wide Flange Beam Size W 21 x 44 W 530 x 66 Heat Number B038428 Condition(s) As-Rolled Fine Grained Fully Killed

SPECIFICATIONS

Standards ASTM A6A6M Grades A992/A992M A709 G50/G345 A572/A572M A709 G50/G345

SHIPMENT DETAILS

Bundle / ASN # Length pcs BOL # 0000130925 021004280 45' 0" 4 2201

CHEMICAL ANALYSIS (weight percent)

Table with columns: Element (C, Mn, P, S, Si, Cu, Ni, Cr, Mo, Sn, V, Nb/Cb, N, B, \*C1, \*C2, \*PC, \*I), Value, and Analysis Type (Heal).

MECHANICAL TESTING

Table with columns: Test, Yield (fy) Strength, Tensile (fu) Strength, fy/fu ratio, % Elong., Temp, F/C, Specimen 1, Specimen 2, Specimen 3, Average, Minimum.

Handwritten note: # B038428 is used to cal. items: 6640, B641, 8288

Notes: \* Calculated Chemistry Values... CE1 (Mn+V)+C+Mn/6+(C+Mn+V)/5+(Ni+Cu)/15... CE2 (AWS) = C+(Mn+Si)/5+(Cr+Ni+Mo+V)/5+(Ni+Cu)/15... Pcm (AWS) = C+Si/20+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+SB

I hereby certify that the content of this report is accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: Doug Rees-Evans, Manager of Technical Services

Signed: Notary Public

My commission expires:

ASTM A6 - 14.6: A signature is not required on the test report; however, the document shall clearly identify the organization submitting the report. Notwithstanding the absence of a signature, if the organization submitting the report is responsible for the content of the report.

Customer Name, Customer PO#, Shipper No, Heat Number



# Steel Dynamics, Inc.

Structural and Rail Division • Columbus, Ohio, Indiana

## CERTIFIED MILL TEST REPORT

Quality Steel 100% Melted and Manufactured in the USA

Ship to: Triad Metals Intl  
1951 Bessemer Road  
CSX-Corlier Yard  
Petersburg VA, 23805 US  
Attn: Rock McGovern

Customer # 000191

Bill to: TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Petersburg VA, 23805 US  
Attn: Fred White

Date: 10 / 18 / 2007

### GENERAL INFORMATION

Product Wide Flange Beam  
Size W 21 x 62  
W 530 X 92  
Heat Number A036691  
Condition(s) As-Rolled  
Fine Grained

### SPECIFICATIONS

Standards  
ASTM A616M  
\* ASTM A992/A992M - 06a  
ASTM A709/A709M - 06a  
ASTM A572/A572M - 06  
ASTM A709/A709M - 06a

### Grades

A992 / A992M  
A709 gr50/gr345  
A572 gr50/gr345  
A709 gr50/gr345S

### SHIPMENT DETAILS

BOL # 0000127594  
Bundle / ASN # 020958062  
Length 70' 0"  
pcs 4  
Customer PO 252

### CHEMICAL ANALYSIS (weight percent)

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Su	V	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analysis Type
.08	1.15	.012	.027	.23	.32	.10	.07	.023	.012	.033	.001	.079	.0004	.32	.36	.17	5.65	Heat

### MECHANICAL TESTING

Test	Yield (fy) Strength ksi / MPa	Tensile (fu) Strength ksi / MPa	fy / fu ratio	% Elong. {8" gage}
1	59 / 404	76 / 522	.77	26
2	60 / 417	75 / 517	.81	26
3				
4				
5				
6				
7				

Charpy Impact Tests (available only when specified at time of order)

Temp F / C	Absorbed Energy Ft-Lb / J	Specimen 1	Specimen 2	Specimen 3	Average	Minimum

HT# A036691 is used to fab items: B661

### Notes:

Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC), Corrosion Index (I)  
CE1 (Mn)=C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/5  
CE2 (AWS)=C+(Mn+Si)/6+(Cr+Mo+V)/5+(Ni+Cu)/5  
I (ASTM G101)=.26\*(C)+.38\*(Ni)+.20\*(Cr)+1.49\*(Si)+17.29\*(P)+.29\*(Cu)/(Ni+.10\*(N)/(P)-.33\*(C)^2)  
Perm (AWS)=C+Si/30+(Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10)-5B

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

State of Indiana, County of Whiteley Sworn to and subscribed before me

this \_\_\_\_\_ day of \_\_\_\_\_

Signed: **Doug Rees-Evans**

Form-10-00-001-004

Manager of Technical Services

ASTM A6 - 14.6: A signature is not required on the test report; however, the document shall clearly identify the organization submitting the report.

Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report.

Signed: \_\_\_\_\_ My commission expires: \_\_\_\_\_

Notary Public



**Steel Dynamics**  
 2601 S. County Road 700 East  
 Columbia City, IN 46725-  
 (260) 625-8100

**Certified Mill Test Report**  
 100% Melted and Manufactured in USA

Date: 7/19/2007  
 Customer No: 000191  
 Bill of Lading No: 0000118681  
 MTR #: 0000118254

Ship to:  
 Triad Metals International  
 Triad Customer P/I:  
 Attn: Sally

Bill to:  
 TRIAD METALS INTERNATIONAL  
 A-1 2300 Computer Avenue  
 Willow Grove PA 19090  
 Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1	000023481	W24X68	44' 0"	1	A034343	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
2	020899518	W24X68	44' 0"	4	A034352	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
3	020903310	W24X62	42' 0"	4	B034524	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
4	020903399	W24X62	42' 0"	1	B034528	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
5	020906903	W21X83	41' 6"	1	A034612	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
6a	020907114	W21X83	41' 6"	1	A034610	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
6b	020907114	W21X83	41' 6"	1	A034680	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
7a	020907123	W21X83	41' 6"	1	A034678	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
7b	020907123	W21X83	41' 6"	1	A034680	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459

NT# A034612 is used to fab item: B684

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

State of Indiana, County of Whitley  
 Sworn to and subscribed before me this  
 \_\_\_\_\_ day of \_\_\_\_\_  
 Signed: \_\_\_\_\_  
 Notary Public

Special Comments/Information:

Signed: Henry Public  
 Quality Assurance

My commission expires: \_\_\_\_\_



Bill To: OCEAN STEEL & CONSTRUCTION LT YORK STEEL-DIVISION OF OCEAN  
 400 CHESSLEY DRIVE YORK STEEL-DIVISION OF OCEAN Mill Order No: 3301811  
 SAINT JOHN NB 490 WILSEY Load No: 1124280  
 E2K-5L6 CA FREDERICTON NB Manifest No: 1836351  
 Ship To: 2  
 YORK STEEL-DIVISION OF OCEAN  
 Order Date: 05/09/2007  
 PO No: 9191FB  
 CHAPARRAL STEEL  
 300 Ward Rd.  
 Midlothian, TX  
 76065-9651  
 (972) 775-8241

SPECIFICATIONS: 7 24 X 55# / W610 X 82 GRADE 992/572-50 LENGTH 50 FT / 18.288 M  
 PRODUCT WF BFAMS

HEAT NO: 30346510

CHEMICAL ANALYSIS

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Al	Nb	CE
.08	1.08	.009	.029	.23	.29	.09	.09	.013	.013	.003	.003	.019	.31

PHYSICAL PROPERTIES

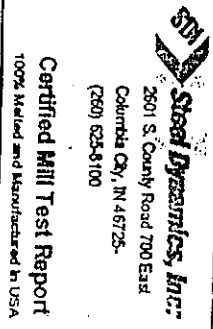
Yield Strength:		Tensile Strength		Specimen Area		Elongation		Bend Test		POA
KSI	MPa	KSI	MPa	Sq In	Sq cm	%	Gage Length	Dia.	Result	%
53.3	367.5	69.7	480.6	0.755	4.87	25.6	8 In	200 mm		
53.3	367.5	70.1	483.3	0.757	4.88	27.6	8 In	200 mm		

*NY # 30346510 is used to Fab. item: B601, B786*

11 manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A. MTR complies with DIN EN 10204 3.1.B

I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements."

Signed: [Signature] Date: Jul. 15, 2007 Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
 Tom L. Harrington: Quality Assurance Manager Notary Public (if applicable)



**Certified Mill Test Report**  
100% Milled and Manufactured in USA

Date: 8/23/2007  
Customer No: 000191  
Bill of Lading No: 0000122455  
MTR #: 0000121982

Ship to:  
Thad Metals International  
3480 Grand Avenue  
Pittsburgh, PA 15225  
Attn: Craig Borrelli

Bill to:  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1a	020901293	W24X68	60'0"	2	A034448	A992 / A992M A709 g50/g345 A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A666M	182
1b	020901293	W24X68	60'0"	2	A034449	A992 / A992M A709 g50/g345 A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A666M	182
2	020901297	W24X68	60'0"	4	A034449	A992 / A992M A709 g50/g345 A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A666M	182

**CHEMICAL**

Item	C	Mn	P	S	SI	Cu	V	Cr	NI	Mo	Sn	N	B	Ca	C1	C2	PC	Analysis
1a	.06	1.05	.019	.031	.20	.40	.033	.15	.13	.081	.012	.0132	.0002	.001	.33	.36	.16	HEAT
1b	.07	1.06	.017	.033	.20	.31	.035	.17	.11	.082	.011	.0119	.0003	.002	.34	.37	.17	HEAT
2	.07	1.06	.017	.033	.20	.31	.035	.17	.11	.082	.011	.0119	.0003	.002	.34	.37	.17	HEAT

**MECHANICAL**

Item	Test	Yield (Fy)			Tension (Fu)			Elong (%) based on 8" gauge	ROA (%)	Band Test Result	Temp FIC	Charpy Impact Testing Results			ASTM Grain Size No (per ASTM E112)
		ksi	MPa	FyFu	ksi	MPa	ft. lb/ft					ft. lb/ft	ft. lb/ft	% Shear	
1a	1	60/411	72/494	.83	27			1							
1a	2	57/393	71/491	.80	25			2							
1b	1	58/403	75/518	.77	21			1							
1b	2	64/440	77/528	.83	23			2							
2	1	58/403	75/518	.77	21			1							
2	2	64/440	77/528	.83	23			2							

HT # A034448 is used to Fab. Items: B602, B603, B610, B611

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchase order designated.

State of Indiana, County of Whitley

Signed: \_\_\_\_\_  
My commission expires: \_\_\_\_\_

Special Comments/Information:  
Fully Killed Steel  
Cast and Rolled to a Fine Grain Practice



# MILL TEST REPORT

FROM **NUCOR**  
**BAR MILL DARLINGTON**

104ds, South Carolina

BL Printed: 4/22/07 07:05:34

Lead H 11084

801 H 452988

**NUCOR**  
**BAR MILL GROUP**  
 DARLINGTON DIVISION  
 TELEPHONE 843-993-5841

BILL OF LADING NO.

452988  
 PAGE 2

Prepaid

R J

Cust# 4936

INFRA-METALS

IIPX82320

INFRA-METALS

**SOLD TO:** 8 PENT HIGHWAY, IRACK H953  
 WALLINGFORD, CT 06492

P - 154 C - 90  
 IIPX82320 5 Reil

Tag No.	P.O.	Size	Spec	Length	Pcs	Weight	Heat #	Tensil	Yield	EL	C	Mn	Si	S	P	V	8b	Cu	Cr	Ni	Mo	CE
407009383	C21536	6CX 8.2	A529-50	20' 00"	30	4,920	770482	80000	55000	24	.22	.71	.16	.040	.010	.005	.00	.38	.15	.10	.02	.40
		1/2X 7	A36	20' 00"	20	4,760	771218	79000	54000	23	.15	.56	.15	.050	.030	.003	.00	.41	.15	.12	.02	.31
407017947	C21621	1/2X 7	A36	20' 00"	20	4,760	771218	62000	42000	24	.15	.56	.15	.050	.030	.003	.00	.41	.15	.12	.02	.31
407017949	C21621	1/2X 7	A36	20' 00"	20	4,760	771218	64000	43000	27	.15	.56	.15	.050	.030	.003	.00	.41	.15	.12	.02	.31
407024636	C21536	6CX 8.2	A529-50	50' 00"	24	9,840	771938	77000	52000	30	.20	.71	.15	.050	.020	.004	.00	.53	.14	.10	.02	.39
407024637	C21536	6CX 8.2	A529-50	50' 00"	24	9,840	771938	77000	52000	31	.20	.71	.15	.050	.020	.004	.00	.53	.14	.10	.02	.39
407024638	C21536	6CX 8.2	A529-50	50' 00"	24	9,840	771938	77000	52000	31	.20	.71	.15	.050	.020	.004	.00	.53	.14	.10	.02	.39
407024639	C21536	6CX 8.2	A529-50	50' 00"	24	9,840	771938	77000	52000	30	.20	.71	.15	.050	.020	.004	.00	.53	.14	.10	.02	.39
407025477	C21536	6CX 10.5	A529-50	50' 00"	24	12,600	771938	77000	52000	31	.20	.71	.15	.050	.020	.004	.00	.53	.14	.10	.02	.39
407025478	C21536	6CX 10.5	A529-50	50' 00"	24	12,600	771938	78000	53000	31	.20	.71	.15	.050	.020	.004	.00	.53	.14	.10	.02	.39
407025479	C21536	6CX 10.5	A529-50	50' 00"	18	9,450	771938	78000	52000	30	.20	.71	.15	.050	.020	.004	.00	.53	.14	.10	.02	.39

HT#771938 is used to fab item: C6801

SLS-FRM-08 REVISION:1 REVISION DATE: 8/10/97

Permanent address of shipper:

**NUCOR**  
 300 STEEL MILL ROAD  
 DARLINGTON, S.C. 29540

WELDING OR WELD REPAIR WAS NOT PERFORMED ON THIS MATERIAL

MELTED AND MANUFACTURED IN THE USA

MERCURY, RADIUM OR ALPHA SOURCE MATERIALS IN ANY FORM HAVE NOT BEEN USED IN THE PRODUCTION OF THIS MATERIAL

WE HEREBY CERTIFY THAT THE ABOVE FIGURES ARE CORRECT AS CONTAINED IN THE RECORDS OF NUCOR STEEL.

*J H Blev*  
 James H. Blev  
 Chief Metallurgist



HT# A7T2242-05 is used to fab item: BA-11



NUCOR STEEL TUSCALOOSA, INC.  
1700 Holt Road NE  
Tuscaloosa, AL 36404  
800-827-8872

**MILL TEST CERTIFICATE**

LOAD NUMBER: 34-1508  
TALLY: 0000000291193  
MILL ORDER NUMBER: N-068018-001  
CERT NUMBER: L206184-1  
Page: 1

ORDER DESCRIPTION: CSA44W/50M, 0.2500 IN X 96.000 IN X 240.000 IN  
Sold to: Hovo Steel Montreal QUE  
Ship to: HOVO STEEL LONGUEUIL QUE

QUALITY PLAN DESCRIPTION: CSA44W/50M; CSA 640.21 44W/50M  
CUSTOMER ORDER NUMBER: M450001  
DATE: Prepared: 07/12/2007 05:15

Shipped Item	Heat/Slab Number	Carbon	Mang	Phos	Sul	Sil	Copper	Nickel	Chrome	Moly	Van	Al	Ti	NZ	Ca	B	Sn
760872B	A7T2242-05	0.06	1.18	0.012	0.008	0.06	0.23	0.07	0.07	0.018	0.047	0.054	0.002	0.010	0.020	0.002	0.0072
760873A	A7T2242-04	0.06	1.18	0.012	0.008	0.06	0.23	0.07	0.07	0.018	0.047	0.054	0.002	0.010	0.020	0.002	0.0072
760902A	B7T265-04	0.06	1.21	0.010	0.007	0.05	0.21	0.06	0.06	0.020	0.045	0.029	0.002	0.011	0.012	0.004	0.0119
760902B	B7T265-04	0.06	1.21	0.010	0.007	0.05	0.21	0.06	0.06	0.020	0.045	0.029	0.002	0.011	0.012	0.004	0.0119
760902C	B7T265-01	0.06	1.21	0.010	0.007	0.05	0.21	0.06	0.06	0.020	0.045	0.029	0.002	0.011	0.012	0.004	0.0119
760907D	B7T265-01	0.06	1.21	0.010	0.007	0.05	0.21	0.06	0.06	0.020	0.045	0.029	0.002	0.011	0.012	0.004	0.0119

Shipped Item	Heat Number	Yield	Tensile	2" Elong % <sub>g</sub>	% Red Area	Hard	Charpy Impact	Tested at	
								Deg. F	Min Avg Ft-Lbs
760872B	A7T2242	59.2	73.2	29.8					
760872B	A7T2242	60.8	74.8	24.4					
760873A	A7T2242	59.0	70.7	31.5					
760873A	A7T2242	59.2	73.2	29.8					
760873A	A7T2242	58.9	73.8	29.0					
760873A	A7T2242	60.8	74.8	24.4					
760873B	A7T2242	59.0	70.7	31.5					
760873B	A7T2242	59.2	73.2	29.8					
760873B	A7T2242	58.9	73.8	29.0					
760902A	B7T265	60.8	74.8	24.4					
760902A	B7T265	58.9	71.2	31.1					
760902B	B7T265	58.6	71.8	29.9					
760902B	B7T265	58.9	71.2	31.1					
760902B	B7T265	58.6	71.8	29.9					

Items: 8 Pieces: 100 Net Wt: 163353 LBS  
\*\*\* indicates heats melted and manufactured in the U.S.A.

WE HEREBY CERTIFY THAT THE PRODUCT DESCRIBED ABOVE PASSED ALL OF THE TESTS REQUIRED BY THE SPECIFICATIONS

*Chiaolin Yu*  
Chiaolin Yu - CHIEF METALLURGIST

**ALGOMA STEEL INC.**

105 West Street, Sault Ste. Marie, Ontario Canada P6A 7B4

CUSTOMER PURCHASE ORDER NUMBER EP2265	ENTRY DATE 2007/09/28	SHIP DATE 2007/11/05	TALLY NUMBER 047440	SHIPPER'S NO. --	CARRIER CN	PAGE -667000	MILL NO. 2699
--	--------------------------	-------------------------	------------------------	---------------------	---------------	-----------------	------------------

CHANGE TO CUSTOMER NAME AND ADDRESS

A C LESLIE INC  
5435 ROYALMOUNT AVENUE  
MONTREAL QUEBEC  
H4P 1J4

A C LESLIE INC.,  
5435 ROYALMOUNT AVE.,  
MONTREAL, QUEBEC  
WEST YARD

CUSTOMER SPECIFICATION

HR MULTIPLE CERTIFIED PLATE - CARBON - CSA G40.21 38W/44W/ASTM A36/ASME SA36  
(04) (04) (05) (04) - FLATNESS 1/2 A-6

*HT# 6650G-05 is used to fab item: BA-12*

SUPPLEMENTARY INSTRUCTIONS

TEST CERT 1: A.C. LESLIE INC EDDY HAKIM 514-342-5583 TEST CERT  
2: PLATE TEST COUPON:

INSP TR TEST REPORTS REQUIRED  
CUST USE RESALE

2000038046 PF PF  
2007/11/13 20:51

MEETS EN 10204 3.1  
MEETS ISO 9001:2000 REGISTERED  
ALL HEATS FULLY KILLED  
HEATS INDICATED WITH (\*) FINE GRAINED

\* \* \* \* \* P R O D U C T S H I P P E D \* \* \* \* \*  
CUSTOMER ITEM 00001 OUR ITEM 001 DIMENSIONS .3125 X 96 X 480 "

PLATE NUMBER	HEAT	NO. PIECES	WEIGHT	PLATE NUMBER	HEAT	NO. PIECES	WEIGHT
52336	6207G-06	1	4083	52337	6207G-06	1	4083
52338	6207G-52	2	8167	52339	6207G-52	2	8167
52340	6650G-05	2	8167	52342	6650G-05	2	8167
52343	6650G-05	1	4083	52344	6650G-53	2	8167
52345	6650G-55	2	8167	52346	6650G-55	2	8167
52347	6650G-55	2	8167	53376	6899G-02	1	4083
53377	6899G-51	2	8167				

TENSILE TESTS:

HEAT	SRC	GAUGE	COND	METH	DIR	TEST	YIELD	TENSILE	% ELONG
6207G	166"	.3125	AR	.2	T	68.5	46.5	68.5	28(8")
6650G	166"	.3125	AR	.2	T	69.5	47.9	69.5	26(8")
6899G	166"	.3130	AR	.2	T	69.0	46.8	69.0	28(8")
	166"	.3125	AR	.2	T	69.5	46.7	69.5	27(8")

LAB  
OTL  
OTL  
OTL  
OTL  
OTL

PAGE 4 OF 5

\*\*WARNING\*\* THE TEST RESULTS AND VALUES REPORTED HEREIN INDICATE ONLY THAT (1) THE PARTICULAR STEEL FOR WHICH THIS CERTIFICATE IS ISSUED MEETS THE MINIMUM SPECIFIED YIELD STRENGTH AND (2) THE CHEMICAL ANALYSIS AND PHYSICAL PROPERTIES OF SUCH STEEL ARE IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARD.

**ALGOMA STEEL INC.**

105 West Street, Sault Ste. Marie, Ontario Canada P6A 7B4

CUSTOMER PURCHASE ORDER NUMBER: EP2265  
 ENTRY DATE: 2007/09/28  
 SHIP DATE: 2007/11/05  
 TALLY NUMBER: 047440  
 SHIPMENTS NO.: -  
 CARRIER: CN

PAGE: -667000  
 MILLS: 2695

CHARGE TO CUSTOMER NAME AND ADDRESS

A C LESLIE INC  
 5435 ROYALMOUNT AVENUE  
 MONTREAL QUEBEC  
 H4P 1J4

SHIP TO CUSTOMER NAME AND ADDRESS

A C LESLIE INC.  
 5435 ROYALMOUNT AVE.  
 MONTREAL QUEBEC  
 WEST YARD

**MILL TEST REPORTS**

ALGOMA STEEL INC. HEREBY CERTIFIES THAT THE MATERIAL HEREIN DESCRIBED WAS MADE AND TESTED IN ACCORDANCE WITH THE RULES OF THE SPECIFICATION SHOWN. ALL RESULTS ARE RETAINED IN ACCORDANCE WITH THE COMPANY'S STANDARD RECORD KEEPING PRACTICES.

J. JOHNSTON  
 MANAGING METALLURGIST

THIS MILL TEST REPORT MAY NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF ALGOMA STEEL INC. IF YOU RECEIVE THIS DOCUMENT AND ARE NOT THE INTENDED RECEIVER, PLEASE CALL (705)945-2624 COLLECT FOR INSTRUCTIONS ON METHOD OF DISPOSAL OF DOCUMENT.

CUSTOMER SPECIFICATION  
 HR MULTIPLE CERTIFIED PLATE - CARBON - CSA G40.21 38W/44W/ASTM A36/ASME SA36  
 (04) (04) (05) (04) - FLATNESS 1/2 A-6

**SUPPLEMENTARY INSTRUCTIONS**

TEST CERT 1: A.C. LESLIE INC EDDY HAKIM 514-342-5583 TEST CERT  
 2: PLATE TEST COUPON:

INST 1/A TEST REPORTS REQUIRED 2000038046 PF PF

CUST USE RESALE 2007/11/13 20:51

HEAT	SRCE	166"	.3125	AR	.2	T	46.9	69.5	26(8")	% ELONG	PROPERTIES	LAB
6899G											CB V	DO
6207G*	C	MN	P	S	SI	CR	NI	CU	MO	AL	.000	.34
	TI	SN	N	AS	ZR	PB	SB	.02	.01	.031	.000	.33
	.15	1.08	.012	.006	.30	.02	.01	.02	.01	.031	.000	.33
	.001										.000	.33
6650G*	.15	1.02	.004	.005	.29	.02	.01	.01	.01	.030	.000	.33
6899G*	.001	1.05	.008	.007	.28	.03	.01	.03	.01	.038	.000	.33
	.001										.000	.33

\*\*WARNING\*\* THE TEST RESULTS AND VALUES REPORTED HEREIN INDICATE ONLY THAT (1) THE PARTICULAR STEEL FOR WHICH THIS CERTIFICATE IS ISSUED MEETS THE MINIMUM



Load #: 22

Shipping Date:

Waybill #: 898-22

Customer:	Pizzagalli Construction Company	Prepared By:	Approved By:	Date: 24-01-01
Job Title:	84 Marginal Way	Bathurst Machine Shop Ltd.		10-10 Route 430
Date Sent to Shop:	X	Mandate Erectors & Welding Ltd.		Big River Road
Job Number:	898	MQM Ltd., Tracadie		E2A 6P9

Job Progress Report Sheet

SHEET: 1

Form# 12 Rev. 4

\* = SEE SHOP DWG

C=COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped			
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date	
A	W24X76	A	B607	1	2316																						
A	W24X68	A	B608	1	2084																						
A	W10X17	A	B614	1	322																						
A	W10X17	A	B618	3	965																						
A	W12X19	A	B621	1	178																						
A	W12X19	A	B623	2	253																						
A	W14X22	A	B625	1	553																						
A	W8X10	A	B627	1	34																						
A	W18X35	A	B628	1	1683																						
A	W18X35	A	B630	1	1013																						
A	W18X35	A	B631	1	626																						
A	W21X44	A	B638	1	1891																						
A	W21X44	A	B639	1	1891																						
A	W21X44	A	B642	1	1848																						
A	W12X19	A	B645	1	197																						
A	W8X10	A	B648	1	34																						
A	HSS8X4X1/4	A	B651	1	251																						
A	W24X76	A	B654	1	3814																						
A	W18X40	A	B656	1	1660																						

Pieces 22 21613 Total Weight (Lbs) ( 10.8 TONS)

Load #: 22

Customer:	Pizzagalli Construction Company	Prepared By:	Approved By:	Date: 24-01-01
Job Title:	84 Marginal Way	Bathurst Machine Shop Ltd. Mandate Erectors & Welding Ltd.		1040 Route 430 Big River Road E2A 6P9
Date Sent to Shop:	X			
Job Number:	898	Job Progress Report Sheet		

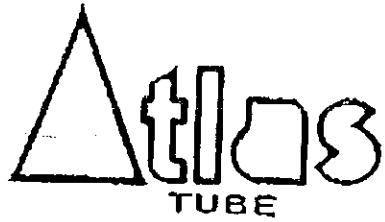
Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped					
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date	
A	W18X35	A	B658	1	1318																								
A	W12X19	A	B663	1	657																								
A	W21X44	A	B666	1	1809			C=1"1/2																					
II	W14X22	A	B668	1	505																								
A	W16X36	A	B670	1	1764																								
A	W21X101	A	B674	1	5898																								
II	W10X17	A	B675	1	287																								
A	W12X19	A	B678	1	618																								
A	W12X19	A	B680	1	378																								
A	HSS8X4X1/4	A	B681	2	285																								
A	HSS12X4X5/16	A	B682	1	663																								
A	W12X19	A	B686	1	154																								
A	W12X19	A	B688	3	259																								
A	W12X19	A	B691	1	682																								
A	W12X19	A	B692	1	282																								
A	W21X44	A	B694	1	1894			C=1"1/2																					
A	H.S.S. 8X8X5/8	0	D501	1	1053																								
A	H.S.S. 8X8X5/8	0	D502	1	1056																								
A	H.S.S. 6X6X1/2	0	D505	1	483																								
A	H.S.S. 6X6X1/2	0	D506	1	482																								

Pieces 23 20527 Total Weight( Lbs) ( 10.3 TONS)



Atlas ABC Corp (Atlas Tube Chicago)  
 1855 East 122nd Street  
 Chicago, Illinois, USA  
 60533  
 To: 773-646-4500  
 Fax: 773-646-6128

Ref.B/L: 80226714  
 Date: 02.16.2007  
 Customer: 1774



MATERIAL TEST REPORT

Sold to

Acier Altitude Inc.  
 1 Rue Provost - Suite 306  
 LACHINE QC H8S 4H2  
 CANADA

Shipped to

Acier Altitude Inc.  
 1 Rue Provost (Entrée) Vic  
 LACHINE QC H8S 4H2  
 CANADA

Material: 2.5x1.5x125x24"0"0(7x10)  
 Sales order: 252374

Material No: 250151252400  
 Purchase Order: 2372  
 Made in: USA

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
ES374E	0.210	0.790	0.011	0.009	0.030	0.046	0.120	0.002	0.020	0.040	0.060	0.000

Bundle No	Yield	Tensile	Eln.2in
M600015747	068760 Psi	081830 Psi	25 %

Certification  
 ASTM A500-33A GRADE C & B

Material Note:  
 Sales Or.Note:

Material: 6.0x6.0x500x45"0"0(3x1)  
 Sales order: 232307

Material No: 600605004900  
 Purchase Order: 2370  
 Made in: USA

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
7764E	0.200	0.840	0.011	0.004	0.020	0.030	0.040	0.000	0.010	0.020	0.020	0.002

Bundle No	Yield	Tensile	Eln.2in
M900060300	070640 Psi	084090 Psi	32 %

Certification  
 ASTM A500-33A GRADE C & B

Material Note:  
 Sales Or.Note:

Material: 6.0x6.0x500x45"0"0(3x1)  
 Sales order: 252307

Material No: 600605004200  
 Purchase Order: 2370  
 Made in: USA

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
7764E	0.200	0.840	0.011	0.004	0.020	0.030	0.040	0.000	0.010	0.020	0.020	0.002

Bundle No	Yield	Tensile	Eln.2in
M900060297	070640 Psi	084090 Psi	32 %

Certification  
 ASTM A500-33A GRADE C & B

Material Note:  
 Sales Or.Note:

HT# 7764E is used to Fab. items: D505, D506

Authorized by Quality Assurance: \_\_\_\_\_

*Mary R. ...*



Atlas Tube Canada ULC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 NCR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537

Ref.B/L: 80263316  
 Date: 10.24.2007  
 Customer: 1751



**MATERIAL TEST REPORT**

Sold to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Shipped to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Material: 8.0x8.0x625x48"0"(2x1)

Material No: 300806254800

Made in: Canada

Sales order: 335191

Purchase Order: 30519-898

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582766	2	0.000	0.310	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002

Bundle No  
 M200482111

Yield  
 063150 Psi

Tensile  
 076440 Psi

Eln.2in  
 34.3 %

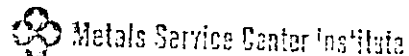
Certification  
 ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

HT # 582766 is used to fab. items: D501, D502  
 D511, D512

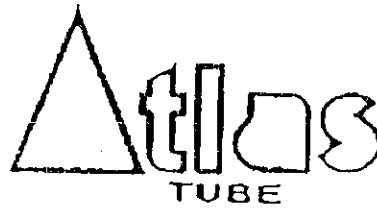
Authorized by Quality Assurance: *[Signature]*

The results reported on this report represent the actual attributes of the material furnished and require full compliance with all applicable specification and contract requirements.



Atlas Tube Canada LLC  
 240 Clark St  
 Harrow, Ontario, Canada  
 N0R 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537

Ref./L: 60269969  
 Date: 12.06.2007  
 Customer: 1774



MATERIAL TEST REPORT

Sold to

Acier Altitude Inc.  
 2555 Francis-Hugues Avenue  
 CANADA

Shipped to

Acier Altitude Inc.  
 2555 Francis-Hugues Avenue  
 LAVAL QC H7S 2H7  
 CANADA

*Heat 681805*

Material: R 0x6 0x31.3x30.0"0(1x1)REC  
 Sales order: 351251

Material No: 80060313  
 Purchase Order: 3550

Made In: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
681805		0.210	0.360	0.011	0.005	0.020	0.028	0.020	0.000	0.010	0.010	0.020	0.001

Bundle No: M200493433  
 Yield: 057060 Psi  
 Tensile: 072830 Psi  
 Eln.2in: 31.3 %

Certification: ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or Note:

Material: 12 1x4 0x31.3x52.0"0(1x1)REC  
 Sales order: 351252

Material No: 120040213  
 Purchase Order: 3546

Made In: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
681805		0.200	0.310	0.011	0.005	0.020	0.028	0.010	0.008	0.010	0.010	0.030	0.001

Bundle No: M200492455  
 Yield: 057280 Psi  
 Tensile: 070380 Psi  
 Eln.2in: 36.3 %

Certification: ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or Note:

*HT#681805 is used to fab item 6682*

Material: 12 0x6 0x28.0x31.0"0(1x1)REC  
 Sales order: 351252

Material No: 120060300  
 Purchase Order: 3546

Made In: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
68243		0.180	0.250	0.008	0.005	0.015	0.048	0.034	0.004	0.002	0.014	0.019	0.000

Bundle No: M200491368  
 Yield: 063150 Psi  
 Tensile: 077710 Psi  
 Eln.2in: 31.3 %

Certification: ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or Note:

Material: 12 0x5 0x37.5x20.0"0(2x2)  
 Sales order: 350975

Material No: 120060300  
 Purchase Order: 3546

Made In: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
68243		0.180	0.250	0.008	0.005	0.015	0.048	0.034	0.004	0.002	0.014	0.019	0.000

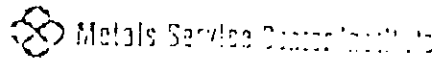
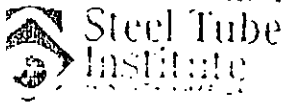
Bundle No: M200491368  
 Yield: 063150 Psi  
 Tensile: 068070 Psi  
 Eln.2in: 37.3 %

Certification: ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or Note:

*[Handwritten signature]*

This document is a copy of the original test report. It is not valid for certification and contract requirements.





**Material Test Report**

200 Clark Street, Harrow, Ontario, Canada N0R 1G0  
 Tel: (519) 436-0000 Fax: (519) 738-5087

Material:	3.5x3.5x260x48"0"0(5x2)				Material No.	350362604800		Made in:	Canada
Heat No	C	Mn	P	S	SI	Al	Cu	Sales order	Purchase Order
664820	0.190	0.790	0.010	0.005	0.009	0.033	0.018	120231	22385
Bundle No	Yield			Tensile	Elon. 2in		Certification		
M100228300	084576 Psi			077498 Psi	29.6 %		ASTM A500 GR.B & C.		
Material Note:									
Sales Or. Note:									

Material:	3.0x4.0x250x24"0"0(2x5)				Material No.	800402502400		Made in:	Canada
Heat No	C	Mn	P	S	SI	Al	Cu	Sales order	Purchase Order
664482	0.180	0.790	0.008	0.006	0.013	0.039	0.007	120231	22385
Bundle No	Yield			Tensile	Elon. 2in		Certification		
M100228428	080034 Psi			075505 Psi	33.0 %		ASTM A500 GR.B & C.		
Material Note:									
Sales Or. Note:									

Material:	3.0x4.0x250x48"0"0(2x3)				Material No.	800402504800		Made in:	Canada
Heat No	C	Mn	P	S	SI	Al	Cu	Sales order	Purchase Order
464610	0.200	0.810	0.012	0.007	0.012	0.032	0.012	120231	22385
Bundle No	Yield			Tensile	Elon. 2in		Certification		
M100228446	055894 Psi			066545 Psi	30.9 %		ASTM A500 GR.B & C.		
Material Note:									
Sales Or. Note:									

*HT #464610 is used to fab items B651, B681*

Material:	3.0x4.0x250x48"0"0(2x3)				Material No.	800402504800		Made in:	Canada
Heat No	C	Mn	P	S	SI	Al	Cu	Sales order	Purchase Order
0113524	0.210	0.870	0.008	0.005	0.019	0.040	0.010	120231	22385
Bundle No	Yield			Tensile	Elon. 2in		Certification		
M100228447	062971 Psi			078428 Psi	27.9 %		ASTM A500 GR.B & C.		
Material Note:									
Sales Or. Note:									

Material:	3.0x4.0x375x48"0"0(2x2)				Material No.	800402504800		Made in:	Canada
Heat No	C	Mn	P	S	SI	Al	Cu	Sales order	Purchase Order
00207	0.150	0.850	0.012	0.004	0.040	0.047	0.020	120231	22385
Bundle No	Yield			Tensile	Elon. 2in		Certification		
M100228562	064898 Psi			075208 Psi	25.0 %		ASTM A500 GR.B & C.		
Material Note:									
Sales Or. Note:									



Steel Service Center Institute

# ACIER PACIFIQUE INC.

PART NO.

PO/Rel

*Handwritten:* # 64-0388

Attn:

Certificate of Test Report  
 PACIF-0000-000



CHEMICAL AND PHYSICAL TEST REPORT  
 MADE IN U.S.A.

CARTERSVILLE STEEL MILL  
 METALLURGICAL DEPARTMENT  
 311 OLD GRASSDALE RD NE, CARTERSVILLE, GA 30121

Shipment Number: GA 3212

PRODUCING MILL IS KNOWN BY HEAT ID PREFIX:  
 F=CAMBRIDGE, O=ORVILLE, P=PERTH AMBOY, S=SAYREVILLE, V=JACKSON TN, W=WHITBY

SHIP TO:  
 GERDAU DEAL ON BOND 9076  
 10 ACER PACH K  
 2445 DE LA METROPOL  
 L'ANQUEL

INVOICE TO:  
 PACIFQUE STEEL INC  
 645 WINDY ST

SHIP DATE  
 05/09/04

CREDIT ACCOUNT NO.  
 60030032

HEAT ID NO	SHAPE AND SIZE	GRADE	PO MK IS4	PO HTS 149	SALES ORDER	CUSTOMER P. N. NUMBER
64-0388	15	AS38A992	15	11	11005	
64-0389	15	AS38A992	15	11	11005	
64-0390	15	AS38A992	15	11	11005	

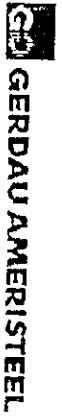
HEAT ID NO	SHAPE AND SIZE	GRADE	PO MK IS4	PO HTS 149	SALES ORDER	CUSTOMER P. N. NUMBER
64-0388	15	AS38A992	15	11	11005	
64-0389	15	AS38A992	15	11	11005	
64-0390	15	AS38A992	15	11	11005	

The material, location of the mill, is produced in  
 and obtained in the United States of America.

A. J. Turner  
 Quality Assurance Mgr. per

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS  
 FROM THE ORIGINAL CHEMICAL AND PHYSICAL  
 TEST REPORTS AS OBTAINED IN THE PERMANENT  
 RECORDS OF THE COMPANY.





CARTERSVILLE STEEL MILL  
 364 OLD GRASSDALE RD NE  
 CARTERSVILLE GA 30121 USA  
 (770) 387-3300

Chemical and Physical Test Report  
 MADE IN UNITED STATES

PRODUCED IN: CARTERSVILLE

SHIP TO  
 TRIAD METAL  
 1951 BESSEMER ROAD  
 804-732-5000  
 PETERSBURG, VA 23805

INVOICE TO  
 TRIAD METALS INTERNATIONAL  
 METAL TRADERS INC  
 2300 COMPUTER AVE STE-A-1  
 WILLOW GROVE, PA 19090

SHIP DATE  
 11/19/07  
 CUST. ACCOUNT NO  
 40213035

SHAPE + SIZE	GRADE	SPECIFICATION	SALES ORDER	TEST P.O. NUMBER
W10 X 17#	A57250/992	ASTM A572 GR5	7117661-08	323402
HEAT I.D.	C	Mn P S Si		
G706226	.08 1.13 .011	.020 26		

Mechanical Test: Yield 56500 PSI, 389.55 MPA Tensile 71: 100 PSI, 506.08 KMPA %El: 23.8/8in, 23.8/200MM Sid Dev: 0 Idl Diam: 394  
 Customer Requirements CASTING: STRAND CAST  
 Mechanical Test: Yield 57100 PSI, 393.69 MPA Tensile 71: 100 PSI, 498.49 KMPA %El: 21.2/8in, 21.2/200MM Sid Dev: 0 Idl Diam: 394  
 Customer Requirements CASTING: STRAND CAST

SHAPE + SIZE	GRADE	SPECIFICATION	SALES ORDER	TEST P.O. NUMBER
W10 X 17#	A57250/992	ASTM A572 GR5	7097321-02	323402
HEAT I.D.	C	Mn P S Si		
G706231	.08 1.13 .011	.020 26		

Mechanical Test: Yield 57200 PSI, 394.38 MPA Tensile 71: 100 PSI, 504.7 KMPA %El: 21.3/8in, 21.3/200MM Sid Dev: 0 Idl Diam: 345  
 Customer Requirements CASTING: STRAND CAST  
 Mechanical Test: Yield 58000 PSI, 399.9 MPA Tensile 71: 100 PSI, 510.9 MPA %El: 20.6/8in, 20.6/200MM Sid Dev: 0 Idl Diam: 345  
 Customer Requirements CASTING: STRAND CAST

HT #6706231 is used to fabricate forms: B614, B618, B675

This material, including the billets, was produced and manufactured in the United States of America  
 Bhaskar Yalamanchili  
 Quality Director  
 Gerdau Ameristeel

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST REPORT AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY  
 Mgr. Metallurgy Services  
 CARTERSVILLE STEEL MILL

Seller warrants that all material furnished shall conform with specific requirements subject to standard published manufacturing variations. NO OTHER WARRANTIES EXPRESSED OR IMPLIED ARE MADE BY THE SELLER AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE  
 Any claim for damages for materials that do not conform to specifications must be made from buyer to seller immediately after delivery of same in order to allow the seller the opportunity to inspect the material in question

**GERDAU AMERISTEEL**  
 CARTERSVILLE STEEL MILL  
 384 OLD GRASSDALE RD NE  
 CARTERSVILLE GA 30121 USA  
 (770) 397-3300

Chemical and Physical Test Report  
 MADE IN UNITED STATES

PRODUCED IN: CARTERSVILLE

SHIP TO  
 TRIAD METAL  
 1951 BESSEMER ROAD  
 804-732-5000  
 PETERSBURG, VA 23805

INVOICE TO  
 TRIAD METAL  
 2200 COLLEGE FBR AVE STE A-1  
 WILLOW GROVE PA 19090

SHIP DATE  
 11/06/07  
 CUST. ACCOUNT NO  
 40213035

SHAPE & SIZE	GRADE	SPECIFICATION	YIELD STRENGTH	TENSILE STRENGTH	ELONGATION	SALES ORDER	CUST. P.O. NUMBER									
W12 X 19	A572/50/582	ASTM A572 GR50-07, ASTM A592-00A	50	65	21	7087022-10	2298-10									
HEAT ID.	C	Mn P S Si Cu Ni Cr Mo V Nb B N H Sn Al Ti Ca C ETP	1.19	0.025	0.25	0.07	0.19	0.026	0.002	0.008	0.010	0.009	0.01	0.00100	0.0030	0.19
Customer Requirements	Yield 50400 PSI, 402.85 MPa															
Customer Requirements	CASTING: STRAND CAST															
Customer Requirements	Yield 57000 PSI, 394.87 MPa															
Customer Requirements	CASTING: STRAND CAST															
Customer Requirements	Yield 57000 PSI, 411.82 MPa															
Customer Requirements	CASTING: STRAND CAST															
Customer Requirements	Yield 55000 PSI, 520.55 MPa															
Customer Requirements	CASTING: STRAND CAST															
Customer Requirements	Yield 57000 PSI, 411.82 MPa															
Customer Requirements	CASTING: STRAND CAST															

HT # 6704839 is used to fabricate items: B621, B623, B645, B663, B678, B680, B686, B688, B691, B692

The material, including the labels, was produced and manufactured in the United States of America

*Bradley Yelamantzi*  
 Quality Director  
 Gerdau Ameristeel

*John*

Mr. Marketing Dept.  
 CARTERSVILLE STEEL MILL

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST REPORTS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

Seller warrants that all material furnished shall comply with specifications, subject to standard published requirements. No other warranties, expressed or implied, are made by the SELLER, AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Any claim for damages for materials that do not conform to specifications must be made from buyer to seller immediately after delivery of same in order to allow the opportunity to inspect the material in question.



Steel Dynamics, Inc.

2401 S. County Road 71 East  
Columbia, GA, 31407  
(706) 233-1000

Certified Mill Test Report  
100% Valid and Usable in All USA

Date: 12/11/11

Customer No: 000111

Bill of Lading No: 0000106434

MTR #: 0000106008

Ship to:  
Tread Marks and Bay A  
1951 Bostinger Road  
Sax's Trailer Yard  
Petersburg, VA 23805  
Attn: Fred McCadden

Product:  
TREAD MARKS INTERMEDIATE  
A 23000 Cor-Steel  
V. 1000000 PA 10000  
A 1000000 PA 10000

Form	Bundle	Section	Length	FS	Heat #	Grade(s)	Specification(s)	Customer P.O.
151	020797707	W14 x 22	50' 0"	4	0030269	A992/A992M A709 G50SiG345S A572 G50SiG245	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	142071A
161	020797709	W14 x 22	50' 0"	4	0030269	A709 G50SiG345S A572 G50SiG245	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	142071A
171	020797711	W14 x 22	50' 0"	8	0030269	A992/A992M A709 G50SiG345S A572 G50SiG245	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	142071A
10T	020609771	W18 x 26	35' 0"	6	0030612	A709 G50SiG345S A572 G50SiG245	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	147705

CHEMICAL

Item	C	Mn	P	S	SI	Cu	V	Cr	Mo	Sn	N	F	Ca	C1	C2	PC	Analysis
15'	06	71	008	029	18	31	013	07	023	015	.0063	.0003	.001	23	26	13	HEAT
16'	06	71	008	028	18	31	013	07	023	015	.0063	.0003	.001	23	26	13	HEAT
17'	06	71	008	028	18	31	012	07	023	015	.0063	.0003	.001	23	26	13	HEAT
18'	06	63	010	026	18	30	011	09	020	011	.0075	.0002	.000	24	27	14	HEAT

MECHANICAL

Item	Test	Yield (Fy) ksi/MPa	Tensile (Fu) ksi/MPa	FXFU	Elong (%) based on 8 gauge	ROA (%)	Bend Test Result	Charpy Impact Testing Results
15	1	57,095	72,499	.78	30			
15	2	58,068	71,497	.79	28			
16	1	57,095	72,499	.79	31			
16	2	56,068	71,497	.79	28			
17	1	57,095	72,499	.79	30			
17	2	56,068	71,497	.79	28			
18	1	60,416	74,873	.81	25			
18	2	63,433	76,925	.83	28			

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser's specified.

State of Indiana, County of Whitey

Seem to and subscribed before me this 1st day of \_\_\_\_\_ 2011

Special Commentary/Information

Fully Killed Steel  
Case and Rolled to a Fine Grain Particle

Signed:

Signed: \_\_\_\_\_  
My commission expires: \_\_\_\_\_

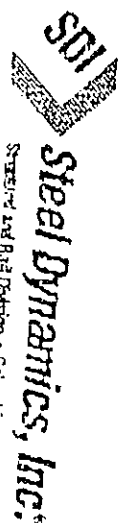
ASTM Gr'n  
Stn. No  
(per ASTM C112)

HT # B030269 is used to fab. item B625 B665

Page 6 of 2

The Mar. 08 2007 12:45:37 CST

Page 5



Steel Dynamics, Inc.  
 Steel and Pipe Division • Columbia City, Indiana

# CERTIFIED MILL TEST REPORT

Quantity Steel 100% Method  
 and Manufactured in the USA

## GENERAL INFORMATION

Product: Wide Flange Beam  
 Size: W 16 X 36  
 W 410 X 53  
 Head Number: B038089  
 Condition(s): As-Rolled  
 Fire Grained  
 Fully Killed

## SPECIFICATIONS

Standards: ASTM A572M  
 \* ASTM A992/A992M - 04s  
 ASTM A709/A709M - 06a  
 ASTM A572/A572M - 05  
 ASTM A709/A709M - 06a

## Grades

A992 / A992M  
 A709 gr50/gr345  
 A572 gr50/gr345  
 A708 gr50S/gr345S

## SHIPMENT DETAILS

Bundle / ASN #: 020942248  
 Length: 70'0"  
 BOL # 000X128472  
 DCS: R  
 Customer PO: 99772360

Ship to: Triad Metals Int'l  
 1951 Bessemer Road  
 CSX-Coffler Yard  
 Petersburg VA, 23805 US  
 Attn: Rock McGovern

Customer # 000191

Bill to: TRIAD METALS INTERNATIONAL  
 A-1 200 Computer Avenue  
 Petersburg VA, 23805 US  
 Attn: 1 mod white

Date: 10 / 25 / 2007

## CHEMICAL ANALYSIS (Weight Percent)

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*1
.06	.95	.016	.028	.24	.39	.13	.11	.046	.028	.002	.011	.0081	.0004	.28	.32	.15	5.95

## MECHANICAL TESTING

Test	Yield (fy) ksi / MPa	Tensile (fu) ksi / MPa	fy / fu ratio	% Elong. (8" gage)
1	59 / 406	74 / 507	.80	23
2	60 / 413	74 / 513	.81	23
3				
4				
5				
6				
7				

Charpy Impact Tests (available only when specified at time of order)  
 Temp F / C Absorbed Energy ft-lb / J  
 Specimen 1 Specimen 2 Specimen 3 Average Minimum

## Notes:

\* Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC), Corrosion Index (I)  
 CE1 (fW)=C+(Mn/6)+(Cr+Mo+V)/5+(Ni+Cu)/15  
 CE2 (AWS)=C+(Mn+Si)/8+(Cr+Mo+V)/5+(Ni+Cu)/15  
 CE3 (AWS)=C+(Mn+Si)/8+(Cr+Mo+V)/5+(Ni+Cu)/15  
 ASTM G101 = 26.01(Cu) + 3.89(Ni) + 1.28(Cr) + 1.48(Si) + 17.29(P) + 7.29(Cu)(Ni) + 9.10(Ni)(P) + 33.39(Cu)<sup>2</sup>  
 Pam (AWS) = C+Si/30 + Mn/20 + Cu/20 + Ni/80 + Cr/20 + Mn/15 + V/10 + S/8

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: Doug Rees-Evans  
 Manager of Technical Services

State of Indiana, County of Whitey Swom to and subscribed before me  
 this \_\_\_\_\_ day of \_\_\_\_\_  
 Signed: \_\_\_\_\_  
 Notary Public

My commission expires: \_\_\_\_\_

ASTM A6 - 14.6: A signature is not required on the test report, however, the document shall clearly identify the organization submitting the report  
 Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report

Form # 100-002-054  
 HY # B038089 is used to fabricate item. Aslan



# Steel Dynamics, Inc.

Standard and Test Methods - Certified by the

## CERTIFIED MILL TEST REPORT

Quality Steel 100% Melted  
and Manufactured in the USA

Ship to:  
Trid Metals Int'l  
1951 Berschmer Road  
CSX-Coilier Yard  
Petersburg VA, 23905 U/S  
Attn: Rod McGovern

Customer # 000191

Bill to:  
TRID METALS INTERNATIONAL  
A-1 2300 Berschmer Avenue  
Petersburg VA, 23905 US  
Attn: Fred Smith

### GENERAL INFORMATION

Product Wide Flange Beam  
Size W 18 x 35  
W 460 x 52  
Heat Number B038001  
Condition(s) As-Rolled  
Firm Grained  
Flay Killed

### SPECIFICATIONS

Standards  
ASTM A6/A6M  
\* ASTM A992/A992M - 06a  
ASTM A709/A709M - 06a  
ASTM A572/A572M - 06  
ASTM A709/A709M - 06a

Grades  
A992 / A992M  
A709 Gr50/A709M  
A572 Gr50/A572M  
A709 Gr50S/A709M

### SHIPMENT DETAILS

Bundle / ASN #	Length	PCS	Customer PO
020992445	40'-0"	6	604-2389
020992449	40'-0"	6	604-2389
020992444	40'-0"	6	604-2398

### CHEMICAL ANALYSIS (weight percent)

C	Mn	P	S	Si	Cr	Ni	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analysis Type
.07	.93	.021	.026	.20	.34	.08	.09	.016	.016	.001	.011	.011	.0004	.27	.31	.15	5.84	Final

### MECHANICAL TESTING

Test	Yield (fy) Strength ksi / MPa	Tensile (fu) Strength ksi / MPa	fy / fu ratio	% Elong. (8" gage)	Charpy Impact Tests (available only when specified at time of order) Temp F / C	Absorbed Energy ft-lbf / J	Specimen 1	Specimen 2	Specimen 3	Average	Minimum
1	58 / 399	72 / 496	.80	26							
2	60 / 414	74 / 513	.81	26							
3											
4											
5											
6											
7											

### Notes:

Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC), Corrosion Index (I)  
CET (Mn) = C + Mn/6 + (Cr + Mo + V) / 5 + (Ni + Cu) / 15  
CEI (AWS) = C + (Mn - Si) / 6 + (Cr + Mo + V) / 5 + (Ni + Cu) / 15  
Pcm (AWS) = C + S / 20 + (Mn) / 20 + (C) / 20 + (Ni) / 60 + (Cr) / 20 + (Mn) / 15 + (V) / 10 + (S)  
I (ASTM G10) = 26.0(Cu) + 3.8(Ni) + 1.20(Cr) + 1.89(Si) + 17.2(Nb) + 7.29(Cu) + 9.1(Ni) + (P) - 33.39(C)²

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: Doug Rees-Evans  
Manager of Technical Services

State of Indiana, County of Whitey Swom to and subscribed before me  
this \_\_\_\_\_ day of \_\_\_\_\_  
Signed: \_\_\_\_\_  
Notary Public

ASTM A6 - 14 G: A signature is not required on the test report. However, the document shall clearly identify the organization submitting the report.  
Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report.  
My commission expires: \_\_\_\_\_

HT # B038001



**Steel Dynamics, Inc.**  
 Steel Division • Columbus, Indiana

Ship to:  
 Triad Metals International  
 2480 Grand Avenue  
 Pittsburgh, PA, 15225-1155  
 Attn: Craig Pennington

Customer # 060191

Bill to:  
 TRIAD METALS INTERNATIONAL  
 Attn: Computer Account  
 Pittsburgh, PA, 15225-1155  
 Attn: Fred Wilson

**CERTIFIED MILL TEST REPORT**

Quality Steel 100% Made  
 and Manufactured in the USA

**GENERAL INFORMATION**

Product: Wide Flange Beam  
 Size: W 18 x 40  
 W 460 x 60  
 Heat Number: B037959  
 Condition(s): As-Relief  
 Fine Grain\*

**SPECIFICATIONS**

Standards:  
 ASTM A666M  
 \* ASTM A902/A992M 00A  
 ASTM A709/A709M 08A  
 ASTM A572/A572M 06  
 ASTM A709/A709M 16A

**SHIPMENT DETAILS**

Bundle / ASN #	Length	Pcs	Customer PO
020091350	55'0"	6	607
020091348	55'0"	6	607

**CHEMICAL ANALYSIS** (% weight percent)

C	Mn	P	S	SI	Cu	NI	Cr	M	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analysis Type
.07	1.35	0.24	0.27	.21	.38	.11	.13	0.1	.017	.007	.046	0.110	0.003	.31	.34	.10	0.04	100%

**MECHANICAL TESTING**

Test	Yield (fy) ksi / MPa	Tensile (fu) ksi / MPa	fy / fu Ratio	% Elong. (8" gage)	Charpy Impact Tests (available only when specified at time of order)
1	54 / 370	71 / 492	.75	25	
2	62 / 424	74 / 509	.83	25	
3					
4					
5					
6					
7					

**Notes:**

\* Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC), Corrosion Index (I)  
 CE1 (Mn)=C+Mn/6+(Cr+10Ni)/5+(Ni+Cu)/15      CE2 (AWS)=C+(Mn+Si)/6+(Cr+10Ni)/5+(Ni+Cu)/15      Perm (AWS)=C+S/30+(Mn/20+Cu/20+Ni/60+Cr/20+Mn/15+V/10+Si/10)  
 I (ASTM G101)=26.0((C)/3+.0008(Ni)+1.20(Cu)+1.48(Si)+17.28(P)-7.29(Cu)(X)-9.10(Ni)(Y)-33.38(Cu))

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

State of Indiana, County of Whitley Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: Doug Rees-Evans      Signed: \_\_\_\_\_  
 Manager of Technical Services      Notary Public  
 My commission expires \_\_\_\_\_

ASTM A6 - 14.8: A signature is not required on the test report, however, the document shall clearly identify the organization submitting the report.  
 Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report.

LTHH R0209050 is used to back form RLS56



**Steel Dynamics, Inc.**

2601 S. County Road 700 East  
Columbia City, IN 46725-  
(260) 625-8100

**Certified Mill Test Report**  
100% Melted and Manufactured in USA

Date: 7/17/2007  
Customer No: 000191  
Bill of Lading No: 0000118975  
MTR #: 0000118546

Ship to:  
Triad Metals International  
Triad Customer P/U  
Attn: Sally

Bill to:  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1*	020896786	W21X101	41' 6"	2	A034247	A992 / A992M A709 g50S/g345S A572 g150/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	494
21	020896787	W21X101	41' 6"	2	A034247	A992 / A992M A709 g50S/g345S A572 g150/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	494
3†	020906653	W21X55	43' 6"	2	A034662	A992 / A992M A709 g50S/g345S A572 g150/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	459
4†	020906657	W21X55	43' 6"	4	A034662	A992 / A992M A709 g50S/g345S A572 g150/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	459
5†	020906658	W21X55	43' 6"	4	A034662	A992 / A992M A709 g50S/g345S A572 g150/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	459

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1*	.08	1.15	.015	.032	.21	.36	.033	.070	.09	.02	.015	.011	.0003	.00	.32	0.3600	0.1700	HEAT
2*	.08	1.15	.015	.032	.21	.36	.033	.070	.09	.02	.015	.011	.0003	.00	.32	0.3600	0.1700	HEAT
3*	.07	1.04	.011	.029	.20	.35	.023	.070	.11	.04	.022	.008	.0003	.00	.30	0.3300	0.1600	HEAT
4*	.07	1.04	.011	.029	.20	.35	.023	.070	.11	.04	.022	.008	.0003	.00	.30	0.3300	0.1600	HEAT
5*	.07	1.04	.011	.029	.20	.35	.023	.070	.11	.04	.022	.008	.0003	.00	.30	0.3300	0.1600	HEAT

**Tension Testing Results**

Item	Test	Yield (Fy) Strength ksi/MPa	Tensile Strength (Fu) ksi/MPa	Fy/Fu	Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp F/C	Sample 1 ft. lb/ftoules	Sample 2 ft. lb/ftoules	Sample 3 ft. lb/ftoules	% Shear	ASTM Grain Size No (per ASTM E112)
1	1	58/401	71/489	.82	26		1						
1	2	59/409	72/499	.82	24		2						
2	1	58/401	71/489	.82	26		1						

**Charpy Impact Testing Results**

Item	Test	Yield (Fy) Strength ksi/MPa	Tensile Strength (Fu) ksi/MPa	Fy/Fu	Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp F/C	Sample 1 ft. lb/ftoules	Sample 2 ft. lb/ftoules	Sample 3 ft. lb/ftoules	% Shear	ASTM Grain Size No (per ASTM E112)
1	1	58/401	71/489	.82	26		1						
1	2	59/409	72/499	.82	24		2						
2	1	58/401	71/489	.82	26		1						

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

State of Indiana, County of Whitley  
Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Special Comments/Information:

Signed:

Signed: \_\_\_\_\_  
Notary Public

Quality Assurance

My commission expires: \_\_\_\_\_

HT # A034247 is used to fab. item. B674



**Steel Dynamics, Inc.**  
 Structural and Rail Division • Columbia City, Indiana

**CERTIFIED MILL TEST REPORT**

Ship to:  
 Triad Metals  
 3450 Grand Ave  
 Neville Island  
 Pittsburgh PA, 15225 US  
 Attn: Mike Benlock

Customer # 000191

(260) 625-8100 (260) 625-8950 FAX  
 Quality Steel 100% EAF Melted  
 and Manufactured In the USA  
 Recycled content: PC = 84-75%, PI = 15-10%

Bill to:  
 TRIAD METALS INTERNATIONAL  
 A-1 2300 Computer Avenue  
 Pittsburgh PA, 15225 US  
 Attn: Fred White

**GENERAL INFORMATION**

Product: Wide Flange Beam  
 Size: W 21 x 44  
 W 530 X 66  
 Heat Number: A038429  
 Condition(s): As-Rolled  
 Fine Grained  
 Fully Killed

**SPECIFICATIONS**

Standards:  
 ASTM A992/A992M - 06a  
 ASTM A709/A709M - 06a  
 ASTM A572/A572M - 06  
 ASTM A709/A709M - 06a

Grades:  
 A992 / A992M  
 A709 gr50gr345  
 A572 gr50gr345  
 A709 gr50Sgr345S

**SHIPMENT DETAILS**

Bundle / ASN #: 021004287  
 Length: 45'-0"  
 pcs: 4  
 BOL # 0000130904  
 Customer PO: 2201

**CHEMICAL ANALYSIS** (weight percent)

C	Mn	P	S	SI	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analysis Type
.05	1.03	.013	.042	.25	.32	.11	.11	.032	.012	.021	>.001	.0073	.0004	.28	.32	.14	.579	Heat

**MECHANICAL TESTING**

Test	Yield (fy) ksi / MPa	Tensile (fu) ksi / MPa	fy / fu ratio	% long. {8 gage}	Charpy Impact Tests (available only when specified at time of order) Temp F / C	Absorbed Energy ft-lbf / J	Specimen 1	Specimen 2	Specimen 3	Average	Minimum
1	55 / 376	71 / 491	.77	29							
2	59 / 404	73 / 501	.81	27							
3											
4											
5											
6											
7											

**Notes:**

\* Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC), Corrosion Index (I)  
 CE1 (fW) = C + Mn/6 + Cr + Mo + V/5 + (Ni + Cu)/15  
 CE2 (AWS) = C + (Mn + Si)/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15  
 PCm (AWS) = C + Si/30 + Mn/20 + Cu/20 + Ni/60 + Cr/20 + Mo/15 + V/10 + Sr  
 I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: \_\_\_\_\_

**Doug R. Evans**  
 Manager of Technical Services

Form 6100-022-024

ASTM A6 - 14.6: A signal 9 is not required on the test report, however, the document shall clearly identify the organization submitting the report.

Notwithstanding to the absence of a signature, the organization submitting the report is responsible for the content of the report.

Signed: \_\_\_\_\_

Notary Public

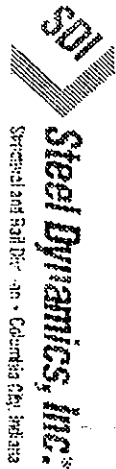
My commission expires: \_\_\_\_\_

this \_\_\_\_\_ day of \_\_\_\_\_

State of Indiana, County of Whitley Sworn to and subscribed before me

HT # A038429 is used to Fab. Items: 6638, 6639, 6642, 6666, 6694





Quality Steel 100% Melted and Manufactured in the USA

Ship to:  
 Triad Metals International  
 3480 Grand Avenue  
 Pittsburgh PA, 15225 US  
 Attn: Craig Borrelli

Customer # 000191

Bill to:  
 TRIAD METALS INTERNATIONAL  
 A-1 2300 Computer Avenue  
 Pittsburgh PA, 15225 US  
 Attn: Fred White

### CERTIFIED MILL TEST REPORT

Date 10 / 29 / 2007

#### GENERAL INFORMATION

Product Wide Flange Beam  
 Size W 24 X 76  
 W 610 X 111  
 Heat Number B038175  
 Condition(s) As-Rolled  
 Fine Grained

#### SPECIFICATIONS

Standards  
 ASTM A618/M  
 » ASTM A992/A992M - 06a  
 ASTM A709/A709M - 06a  
 ASTM A572/A572M - 06  
 ASTM A709/A709M - 06a

#### SHIPMENT DETAILS

BOI # 0000128826  
 Bundle / ASN # 020096284  
 Length 60'0"  
 PCS 4  
 Customer PO 1129

#### CHEMICAL ANALYSIS (wt. ght percent)

C	Mn	P	S	Si	Cu	NI	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analysis Type
.07	1.16	.013	.012	.22	.31	.12	.10	.24	.015	.034	.001	.0065	.0005	.33	.36	.17	5.68	119at

#### MECHANICAL TESTING

Test	Yield (fy) ksi / MPa	Tensile Strength ksi / MPa	fy / fu ratio	% Elong. (8" gage)	Charpy Impact Tests (available only when specified at time of order)		
					Temp F / C	Absorbed Energy Specimen 1	Specimen 2
1	57 / 396	76 / 524	76	22			
2	58 / 402	75 / 519	77	22			
3							
4							
5							
6							
7							

#### Notes:

- 1. Calculated Chemistry Values Carbon Equivalents (C1, C2, PC), Corrosion Index (I)
- CE1 (I)W=C+Mn/6+(Cr+Ni+V)/5+(Ni+Cu)/15
- CE2 (AWS)=C+(Mn+Si)/6+(Cr+Mo+V)/5+(Ni+Cu)/15
- Pcm (AWS) = C-Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+S/8
- 1 (ASTM G101)=26\*(Cu)+3.88(Ni)+1.20(Cr)+1.49(Si)+17.29(P)+7.29(Cu(Ni))9.10(Ni)(P)-33.39(Cu<sup>2</sup>)

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

State of Indiana, County of Whitley Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: **Doug Rees-Evans**

Signed: \_\_\_\_\_ My commission expires \_\_\_\_\_

Form # 100-0003-064

Notary Public

ASTM A6-1-06: A signature is not required on the test report, however, the document shall clearly identify the organization submitting the report. Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report.

Customer Name \_\_\_\_\_ Customer PO# \_\_\_\_\_ Shipper No 16946 Heat Number B038175  
 Mandate Erectors & Welding Ltd. 31669



QUALITY CERTIFICATE

Ref. Nr.: 014200/2007  
Part.: 01

Customer: ARCELOR INTERNATIONAL CANADA, INC  
Product: ANGIUS 3X5/16"X40FT CSA 350M A1C  
Purchase Order: P1200407 03-2007-0

Size: 3 X 5/16" POL  
Order Number: 303618  
Grade: CSA 350M

Heat	Nr.	Weight (C)	YIELD POINT	TENSILE STRENGTH	% ELONGATION	% C	% Mn	% P	% S	% Nb	% Cu
Cell#			MPa	MPa							
6000900	8	15.952	402	534	24.00	0.140	0.760	0.007	0.027	0.020	0.016
TOTAL	8	15.952									
Heat	% C	% Mn	% Sn	% Mo							
6000900	0.070	0.050	0.017	0.013							

Remarks: We hereby certify that the material herein listed was produced, inspected, tested and approved in accordance with the standard or the specification required.

Date: 27/JUL/2007  
Approved by:   
Escameo da Opreda Danc  
Gerente Técnico  
Belgo Siderurgica S.A.

HT# 6000900 is used to fab. items. BH1





Atlas Tube Canada ULC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 NOR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537

Ref.B/L: 80263316  
 Date: 10.24.2007  
 Customer: 1751



MATERIAL TEST REPORT

Sold to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Shipped to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Material: 6.0x4.0x375x23"0"(4x4).  
 Sales order: 314780

Material No: 60040375  
 Purchase Order: 31077

Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
		0.190	0.810	0.011	0.004	0.150	0.035	0.039	0.005	0.003	0.015	0.036	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M100647174	060930 Psi	074270 Psi	27.4 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Material: 7.0x7.0x500x36"0"(2x1).  
 Sales order: 335491

Material No: 70070500  
 Purchase Order: 30510-858

Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
681846	2	0.190	0.800	0.011	0.002	0.150	0.043	0.017	0.006	0.002	0.009	0.036	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M200482870	058830 Psi	075060 Psi	31.3 %	ASTM A500-03A GRADE 3&C

Material Note:  
 Sales Or.Note:

Material: 7.0x7.0x500x36"0"(2x1).  
 Sales order: 335491

Material No: 70070500  
 Purchase Order: 30519-898

Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
681846	2	0.190	0.800	0.011	0.002	0.150	0.043	0.017	0.006	0.002	0.009	0.036	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M200482871	058830 Psi	075060 Psi	31.8 %	ASTM A500-03A GRADE 3&C

Material Note:  
 Sales Or.Note:

*HT #681846 is used to fab. item: D510*

Material: 8.0x8.0x625x50"0"(2x1).  
 Sales order: 335491

Material No: 80080625  
 Purchase Order: 30619-955

Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
681846	2	0.190	0.800	0.011	0.002	0.150	0.043	0.017	0.006	0.002	0.009	0.036	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M200482875	063150 Psi	076140 Psi	34.3 %	ASTM A500-03A GRADE 3&C

Material Note:  
 Sales Or.Note:

Authorized by Quality Assurance: *[Signature]*

The results reported in this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.



PART NO.

Attu:

Atlas Tube Canada ULC  
200 Clark St.  
Harrow, Ontario, Canada  
N0R 1G0  
Tel: 519-738-3541  
Fax: 519-738-3637

Ref./L: 80246346  
Date: 07.04.2007  
Customer: 2



MATERIAL TEST REPORT

Sold to

Acier Pacifique Incorporated  
845 Munck Street  
LAVAL QC H7S 1A9  
CANADA

Shipped to

Acier Pacifique Incorporated  
845 Munck Street  
LAVAL QC H7S 1A9  
CANADA

Material: 8.0x8.0x375x40"0"0(3x2).CSA-H  
Sales order: 309772

Material No: 80080376  
Purchase Order: 18896

Made in: Canada

Heat No	C	Mn	P	S	SI	Al	Cu	Cb	Mo	NI	Cr	V
680401	0.190	0.800	0.017	0.002	0.150	0.032	0.042	0.005	0.002	0.012	0.044	0.000

Bundle No	Yield	Tensile	Elm.2In
H001698982	053510 Psi	070890 Psi	35.8 %

Certification - Heat lot - 20070630A  
CSA G40.21-04 50W CLASS H

Material Note:  
Sales Or.Note:

Material: 8.0x8.0x250x40"0"0(3x3).  
Sales order: 306941

Material No: 800602504000  
Purchase Order: 18890

Made in: Canada

Heat No	C	Mn	P	S	SI	Al	Cu	Cb	Mo	NI	Cr	V
749730	0.200	0.820	0.011	0.007	0.011	0.049	0.021	0.004	0.002	0.010	0.035	0.000

Bundle No	Yield	Tensile	Elm.2In
M100644578	063750 Psi	077210 Psi	32.2 %

Certification  
ASTM A500-03A GRADE C & B

Material Note:  
Sales Or.Note:

*HT # 749730 is used to fab item: C331*

Material: 8.0x8.0x250x40"0"0(3x3).  
Sales order: 308941

Material No: 600602504000  
Purchase Order: 18890

Made in: Canada

Heat No	C	Mn	P	S	SI	Al	Cu	Cb	Mo	NI	Cr	V
749730	0.200	0.820	0.011	0.007	0.011	0.049	0.021	0.004	0.002	0.010	0.035	0.000

Bundle No	Yield	Tensile	Elm.2In
M100644580	063750 Psi	077210 Psi	32.2 %

Certification  
ASTM A500-03A GRADE C & B

Material Note:  
Sales Or.Note:

Material: 8.0x8.0x250x40"0"0(3x3).  
Sales order: 308941

Material No: 600602504000  
Purchase Order: 18890

Made in: Canada

Heat No	C	Mn	P	S	SI	Al	Cu	Cb	Mo	NI	Cr	V
749730	0.200	0.820	0.011	0.007	0.011	0.049	0.021	0.004	0.002	0.010	0.035	0.000

Bundle No	Yield	Tensile	Elm.2In
M100644578	063750 Psi	077210 Psi	32.2 %

Certification  
ASTM A500-03A GRADE C & B

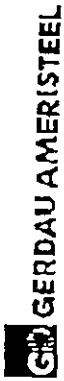
Material Note:  
Sales Or.Note:

Authorized by Quality Assurance:



G-0R2342

Chemical and Physical Test Report  
MADE IN UNITED STATES



CARTERSVILLE STEEL MILL  
384 OLD GRASSDALE RD NE  
CARTERSVILLE GA 30121 USA  
(770) 387-3307

PRODUCED IN: CARTERSVILLE

SHIP TO  
TRIAD METAL  
1951 BESSEMER ROAD  
804-732-5000  
PETERSBURG, VA 23805

INVOICE TO  
TRIAD METALS INTERNATIONAL  
METAL TRADERS INC  
2300 COMPUTER AVE STE-A-1  
WILLOW GROVE, PA 19090

SHIP DATE  
12/09/06

CUST. ACCOUNT NO  
40213035

SHAPE & SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST. P. NUMBER
W10 X 17 1/2	A57250992	ASTM A572 GR50-04, ASTM A992-04	605340-11	124289-11
HEAT ID G605061				

Mechanical Test: Yield 59600 PSI, 410.93 MPA  
Customer Requirements CASTING: STRAND CAST  
Tensile 81200 PSI, 559.85 MPA %EL: 24.170% Min, 24.170% Max Sid Dev: 0.168 Durn: 635  
Mechanical Test: Yield 60000 PSI, 415.75 MPA  
Customer Requirements CASTING: STRAND CAST  
Tensile 78100 PSI, 542.62 MPA %EL: 21.270% Min, 21.270% Max Sid Dev: 0.168 Durn: 635  
CUST ITEM NUMBER: NOV

SHAPE & SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST. P. NUMBER
W10 X 17 1/2	A57250992	ASTM A572 GR50-04, ASTM A992-04	605340-11	124289-11
HEAT ID G605062				

Mechanical Test: Yield 62200 PSI, 428.65 MPA  
Customer Requirements CASTING: STRAND CAST  
Tensile 82600 PSI, 568.51 MPA %EL: 21.478% Min, 21.478% Max Sid Dev: 0.168 Durn: 378  
Mechanical Test: Yield 61100 PSI, 421.27 MPA  
Customer Requirements CASTING: STRAND CAST  
Tensile 81900 PSI, 554.68 MPA %EL: 21.175% Min, 21.175% Max Sid Dev: 0.168 Durn: 378  
CUST ITEM NUMBER: NOV

HT # 6605061 is used to fab. item: 8619

This material, including the billets, was produced and manufactured in the United States of America.

*Maikay*  
Quality Director  
Gerdau Ameristeel

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY

*J. J. Kelly*

New Milling Site  
CARTERSVILLE STEEL MILL



**Steel Dynamics, Inc.**  
Structural and Rail Division • Columbia City, Indiana

**CERTIFIED MILL TEST REPORT**

Customer # 000191

Date: 10 / 02 / 2007

Ship to:  
Triad Metals International  
3480 Grand Avenue  
Pittsburgh PA, 15225 US  
Attn: Craig Borrelli

Bill to:

TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Pittsburgh PA, 15225 U.S.  
Attn: Fred White

Quality Steel 100% Melted  
and Manufactured in the USA

**GENERAL INFORMATION**

Product Wide Flange Beam  
Size W 10 x 33  
W 250 x 49.1

Heat Number 8037481

Condition(s) As-Rolled  
Fine Grained

**SPECIFICATIONS**

Standards  
ASTM A6/A6M

- \* ASTM A992/A992M - 06a
- ASTM A709/A709M - 06a
- ASTM A572/A572M - 06
- ASTM A709/A709M - 06a

**Grades**

- A992 / A992M
- A709 gr50/gr345
- A572 gr50/gr345
- A709 gr50S/gr345S

**SHIPMENT DETAILS**

BOL # 0000126289

Bundle / ASN #	Length	pcs	Customer PO
020979137	50' 0"	4	437/2121
020979139	50' 0"	4	437/2121
020979136	50' 0"	4	437/2121

**CHEMICAL ANALYSIS** (weight percent)

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analysis Type
.06	.98	.018	.029	.20	.39	.12	.08	.041	.015	.001	.019	.0090	.0003	.28	.32	.15	5.86	Heat

**MECHANICAL TESTING**

Test	Yield (fy) Strength ksi / MPa	Tensile (fu) Strength ksi / MPa	Elong. % {8" gage}	Charpy Impact Tests (available only when specified at time of order)		
				Temp F / C	Absorbed Energy ft-lbf / J	Minimum
1	61 / 419	72 / 499	.84	Specimen 1	Specimen 2	Specimen 3
2	61 / 423	74 / 508	.83			
3				Average	Minimum	
4						
5						
6						
7						

**Notes:**

\*Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC), Corrosion Index (I)  
 CE1 (IIW) = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15  
 CE2 (AWS) = C+(Ni+Si)/6+(Cr+Mo+V)/5+(Ni+Cu)/15  
 I (ASTM G101) = 26.01(Cu)+3.88(Ni)+1.20(Cr)+1.48(Si)+17.29(P)+7.29(Cu)(Ni)-9.10(Ni)(P)-33.39(CuF)  
 Pcm (AWS) = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5B  
 HT # 8037481 is used to fabricate item: C316

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

State of Indiana, County of Whitley Sworn to and subscribed before me  
 this \_\_\_ day of \_\_\_\_\_

*Doug Rees-Evans*  
 Manager of Technical Services

Signed: \_\_\_\_\_ My commission expires \_\_\_\_\_  
 Notary Public

Form F-100-00-3-054

ASTM A6 - 14.6: A signature is not required on the test report; however, the document shall clearly identify the organization submitting the report. Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report.



**Steel Dynamics, Inc.**  
2601 S. County Road 700 East  
Columbia City, IN 46725  
(765) 625-8100

**Customer No:** 000181  
**Bill of Lading No:** 0000115142  
**MTR #:** 0000114736

**Ship to:**  
Triad Metals Ind  
1951 Bassamer Road  
CSX-Collier Yard  
Petersburg, VA 23805

**Bill to:**  
TRIP METALS INTERNATIONAL  
A-1700 Computer Avenue  
Willer Grove, PA 17190  
Attn: Ed White

**Customer P.O.:**  
1547318

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)
9T	020873756	W10X49	50' 0"	4	A033328	A992/A992M A709 G50S/G345S A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06
10aT	020873766	W10X49	50' 0"	2	A033328	A992/A992M A709 G50S/G345S A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06
10bT	020873766	W10X49	50' 0"	2	A033329	A992/A992M A709 G50S/G345S A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	H	B	Cb	C1	C2	PC	Analysis
9T	.08	1.02	.018	.033	.21	.33	.033	.09	.10	.02	.033	.0084	.0003	.003	.31	.34	.16	HEAT
10aT	.08	1.02	.018	.033	.21	.33	.033	.09	.10	.02	.033	.0084	.0003	.003	.31	.34	.16	HEAT
10bT	.08	1.07	.018	.036	.20	.30	.034	.10	.12	.024	.015	.0086	.0003	.003	.33	.36	.18	HEAT

**MECHANICAL**

Item	Test	Tension Testing Results		Elong (%)	ROA (%)	Band Test Result	Temp F/C	Sample 1 ft. lbf/oules	Sample 2 ft. lbf/oules	Sample 3 ft. lbf/oules	% Shear	ASTM Grain Size No (per ASTM E112)
		Yield (Fy) ksi/MPa	Tensile (Fu) ksi/MPa									
9	1	57391	74508	22	77	1	1					
9	2	56383	71490	24	78	2	2					
10a	1	57391	74508	22	77	1	1					
10a	2	56383	71490	24	79	2	2					
10b	1	56388	72497	23	78	1	1					
10b	2	56384	71491	24	79	2	2					

*HT #A033328 is used to Fab. item: C314*

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designations.

Signature:

Quality Assurance

State of Indiana, County of Shelby

Sworn to and subscribed before me this \_\_\_ day of \_\_\_\_\_

Signature: \_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

Special Comments/Information:

1 Fully Killed Steel  
1 Cast and Rolled to a Fine Grain Practice

Customer: 000181-0000115142-0000114736  
Heat: A033328  
MTR #: 0000114736  
ASTM: A992/A992M-06a, A709/A709M-06a, A572/A572M-06



**Steel Dynamics, Inc.**

Structural and Rail Division • Columbus, Indiana

Ship to:

Triad Metals Intl  
1951 Bessemer Road  
CSX-Collier Yard  
Petersburg VA, 23805 US  
Attn: Rock McGovern

# CERTIFIED MILL TEST REPORT

Customer # 000191

Bill to:  
**TRIAD METALS INTERNATIONAL**  
A-1 2300 Computer Avenue  
Petersburg VA, 23805 US  
Attn: Fred White

Date: 10 / 03 / 2007

Quality Steel 100% Melted  
and Manufactured in the USA

### GENERAL INFORMATION

Product Wide Flange Beam  
Size W 10 x 68  
W 250 x 101

Heat Number **B037382**

Condition(s) As-Rolled  
Fine Grained

### SPECIFICATIONS

Standards  
ASTM A6/A6M

- A992/A992M - 06a
- ASTM A709/A709M - 06a
- ASTM A572/A572M - 06
- ASTM A709/A709M - 06a

### SHIPMENT DETAILS

Bundle / ASN #	Length	pcs	Customer PO
020976853	60' 0"	4	435
020976839	40' 0"	4	435

BOL # 0000126354

### CHEMICAL ANALYSIS (weight percent)

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analysis Type
.08	1.35	.015	.021	.18	.43	.10	.06	.017	.016	.044	.002	.0095	.0004	.36	.39	.18	5.67	Heat

### MECHANICAL TESTING

Test	Yield (fy) Strength ksi / MPa	Tensile (fu) Strength ksi / MPa	fy / fu ratio	% Elong. {8" gage}	Charpy Impact Tests (available only when specified at time of order)		
					Temp F / C	Absorbed Energy ft-lbf / J	Minimum
1	57 / 390	78 / 539	.72	22	Specimen 1	Specimen 2	Specimen 3
2	57 / 394	80 / 551	.71	23	Average	Minimum	
3							
4							
5							
6							
7							

### Notes:

\*Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC), Corrosion Index (I)  
 CE1 (IIV) = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15  
 CE2 (AWS) = C+(Mn+Si)/6+(Cr+Mo+V)/5+(Ni+Cu)/15  
 I (ASTM G101) = 26.01(Cu)+3.88(Ni)+1.20(Cr)+1.49(Si)+17.29(P)+7.29(Cu)(Ni)-8.10(Ni)(P)-33.39(Cu)<sup>2</sup>

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: Doug Rees-Evans

Manager of Technical Services

Signed: \_\_\_\_\_

Notary Public

My commission expires: \_\_\_\_\_

*HT # B037382 is used to Fab. items: C306, C308, C322, C325, C329*

State of Indiana, County of Whitley Sworn to and subscribed before me  
this \_\_\_\_\_ day of \_\_\_\_\_

ASTM A6 - 14.6: A signature is not required on the test report; however, the document shall clearly identify the organization submitting the report. Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report.

G-099999

Chemical and Physical Test Report  
MADE IN UNITED STATES

**GERDAU AMERISTEEL**  
CARTERSVILLE STEEL MILL  
384 OLD GRASSDALE RD NE  
CARTERSVILLE GA 30121 USA  
(770) 387-3300

PRODUCED IN: CARTERSVILLE

SHIP TO  
TRIAD METAL  
1651 BESSEMER ROAD  
804-732-5000  
PETERSBURG, VA 23805

SHIP DATE  
08/19/07

SHIP TO  
NYORKE TO  
TRIAD METALS INTERNATIONAL  
METAL TRADERS INC  
2000 COMPUTER AVE STE A-1  
YELLOW GROVE, PA 19080

CUST. ACCOUNT NO  
40211035

SHAPE & SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST P.O. NUMBER													
W12 X 22	A572-50	ASTM A572 GRS-07, ASTM A592-08A	7074477-13	1108-13													
HEAT ID.	C	S	Si	Cu	N	Ca	Mn	P	S	As	Fe	Al	Ti	Ca	C	Eq	
G704790	.08	1.12	.023	.028	.29	.26	.07	.07	.11	.027	.001	.0007	.0121	.002	.00100	.00190	.321

Mechanical Test: Yield 58700 PSI, 404.72 MPA Tensile: 73200 PSI, 504.7 MPA %EL: 28.0% Min, 28.0% Max, Std Dev: 0.0  
Customer Requirements CASTING: STRAND CAST  
Mechanical Test: Yield 60800 PSI, 419.2 MPA Tensile: 74400 PSI, 512.57 MPA %EL: 28.0% Min, 28.0% Max, Std Dev: 0.0  
Customer Requirements CASTING: STRAND CAST

SHAPE & SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST P.O. NUMBER													
W12 X 18	A572-50	ASTM A572 GRS-07, ASTM A592-08A	7074477-11	1108-11													
HEAT ID.	C	S	Si	Cu	N	Ca	Mn	P	S	As	Fe	Al	Ti	Ca	C	Eq	
G704837	.08	1.14	.018	.028	.25	.24	.07	.06	.078	.028	.002	.0005	.008	.001	.00100	.00290	.312

Mechanical Test: Yield 54900 PSI, 378.52 MPA Tensile: 68100 PSI, 474.43 MPA %EL: 27.5% Min, 27.5% Max, Std Dev: 0.0  
Customer Requirements CASTING: STRAND CAST  
Mechanical Test: Yield 55700 PSI, 384.04 MPA Tensile: 70100 PSI, 483.32 MPA %EL: 25.7% Min, 25.7% Max, Std Dev: 0.0  
Customer Requirements CASTING: STRAND CAST

HT # G704837 is used to fab. items: B620, B626

This material, including the labels, was produced and manufactured in the United States of America.

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST REPORTS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

*Maskary*  
Brad J. Yalowitz  
Quality Director  
Gerdau Ameristeel

*J. Wang*  
W. Wang Svc  
CARTERSVILLE STEEL MILL

Other reports for all material furnished will comply with reports of one subject to standard published material safety variations. NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, ARE MADE BY THE SELLER, AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. In the event that failure is liable to occur, consequential or punitive damages arising out of or related to the materials furnished by seller. Any claim for damages for materials that do not conform to specifications must be made immediately after delivery of same in order to allow for the opportunity to conduct the material in question.



**Steel Dynamics, Inc.**  
 Standard and Red Division - Columbia City, Indiana

**CERTIFIED MILL TEST REPORT**

Ship to:  
 Triad Metals Intl  
 1951 Bessemer Road  
 CSX-Collier Yard  
 Petersburg VA, 23805 US  
 Attn: Rock McGovern

Customer # 007191  
 Bill to:  
 TRIAD METALS INTERNATIONAL  
 A-1 2300 Computer Avenue  
 Petersburg VA, 23805 US  
 Attn: Fred White

Quality Steel 100% Melted  
 and Manufactured in the USA

**GENERAL INFORMATION**

Product Wide Flange Beam  
 Size W 12 x 40  
 W 310 x 60  
 Heat Number 6037520  
 Condition(s) As-Rolled  
 Fine Grained

**SPECIFICATIONS**

Standards  
 ASTM A876M  
 \* ASTM A992/A992M - 06a  
 ASTM A709/A709M - 06a  
 ASTM A572/A572M - 06  
 ASTM A709/A709M - 06a

Grades  
 A992 / A992M  
 A709 gr 50/gr345  
 A572 gr 50/gr345  
 A709 gr 50S/gr345S

**SHIPMENT DETAILS**

Bundle / ASN #	Length	PCS	Customer PO
020979806	40' 0"	4	115
020979810	40' 0"	4	415
020979834	40' 0"	4	413

Order # 007126347

**CHEMICAL ANALYSIS** (weight percent)

C	Mn	P	S	SI	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	N	B
.07	1.04	.017	.026	.19	.35	.11	.09	.030	.012	.002	.016	.0068	.0003

**MECHANICAL TESTING**

Test	Yield (fy) ksi / MPa	Tensile Strength ksi / MPa	% Elong. (8" gage)	fy / fu ratio
1	57 / 380	71 / 488	24	.80
2	60 / 413	72 / 495	26	.83

Charpy Impact Tests (available only when specified in terms of order)

Temp F / C  
 Absorbed Energy ft-lb / J  
 Specimen 1 Specimen 2 Specimen 3  
 HT # 6037520 is used for fab

**Notes:**

Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC), Corrosion Index (I)  
 $CE1 (PW) = C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15$   
 $CE2 (AWS) = C + (Mn + Si) / 6 + (Cr + Mo + V) / 5 + (Ni + Cu) / 15$   
 $I (ASTM G10) = 28.01(Cu) + 3.88(Ni) + 1.20(Cr) + 1.49(Si) + 17.28(P) + 7.28(Cu) + 9.10(Ni) + (P - 33.38)(Cu)$   
 Per (AWS) = C + Si + P + Mn + 20 + Cu + 20 + Ni + 60 + Cr + 70 + mod 15 + V + 10 + 5 + 8

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: Doug Rees-Evans  
 Manager of Technical Services

ASTM A8 - 14.6: A signature is not required on the test report; however, the document shall clearly identify the organization submitting the report

Notary Public  
 My commission expires: \_\_\_\_\_

Signed: \_\_\_\_\_ day of \_\_\_\_\_  
 State of Indiana, County of Whitley, Sworn to and subscribed before me

Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report

Date 10 / 05 / 2007

**CERTIFIED MILL TEST REPORT**

Customer # 007191

Ship to:

TRIAD METALS INTERNATIONAL  
Attn: Fred White

Triad Metals International  
3460 Grand Avenue  
Pittsburgh PA, 15225 US  
Attn: Craig Borrelli

Quality Steel 100% Melted  
and Manufactured in the USA

**SHIPMENT DETAILS**

Bundle / ASN #	Length	pcs	Customer PO
020980156	50' 0"	4	4372121
020980155	50' 0"	4	4372121

**SPECIFICATIONS**

Standards	Grades
ASTM A674-6M	A552, A592, A709
ASTM A592/A592M - 06a	A709 gr 50, gr 34.5
ASTM A709/A709M - 06a	A572 gr 50, gr 34.5
ASTM A572/A572M - 06	A709 gr 50S, gr 34.5S
ASTM A709/A709M - 06a	

**GENERAL INFORMATION**

Product: Wide Flange Beam  
Size: W 12 x 45  
W 310 x 67

Heat Number: **B037507**

Condition(s): As-Rolled  
Fins Grammed

**CHEMICAL ANALYSIS (weight percent)**

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analysis Type
.08	1.12	.016	.028	.23	.34	.10	.13	.065	.014	.003	.015	.0094	.0004	.33	.37	.17	5.88	Heal

**MECHANICAL TESTING**

Test	Yield (fy)		Tensile Strength	Elong. ratio	Charpy Impact Tests
	ksi / MPa	ksi / MPa			
1	59, 407	76, 526	76, 526	77	Temp F, C
2	63, 437	76, 526	76, 526	83	Absorbed Energy ft-lbf, J
3				25	Specimen 1
4				24	Specimen 2
5					Specimen 3
6					Average
7					Minimum

**Notes:**

\*Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC) (Corrosion Index I)

CE1 (HWS) = C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15

CE2 (AWS) = C + (Mn + Si) + 6 \* (Cr + Mo + V) + 5 \* (Ni + Cu) + 15

I (ASTM G101) = 26.01 \* (Cu) + 3.88 \* (Ni) + 1.20 \* (Cr) + 1.45 \* (Si) + 17.29 \* (P) + 7.25 \* (Cu) \* (Ni) + 9.10 \* (Ni) \* (P) - 33.39 \* (Cu)

Pcm (AWS) = C + Si/30 + Mn/20 + Cu/20 + Ni/60 + Cr/20 + Mo/15 + V/10 + 5B

*HT# B037507 is used to fabricate item: C310*

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

State of Indiana, County of Whitley Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: Doug Rees-Evans (Manager of Technical Services)

Notary Public: \_\_\_\_\_ My commission expires: \_\_\_\_\_

**Steel Dynamics, Inc.**  
2601 S. County Road 700 East  
Columbia City, IN 46725  
(260) 625-8100

**Certified Mill Test Report**  
100% Melted and Manufactured in USA

**Date:** 5/19/2007  
**Customer No:** 000191  
**Bill of Lading No:** 0000113222  
**MTR #: 000011-821**

**Ship to:**  
Triad Metals Int'l  
1951 Bessmer Road  
CSX-Coker Yard  
Petersburg, VA 23805

**Bill to:**  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19091  
Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat#	Grade(s)	Specification(s)	Customer P.O.
6a	020872880	W12x58	60'0"	2	A033287	A992/A992M A709 650S/G345 A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 07	15132B
6b	020872880	W12x58	60'0"	2	A033268	A992/A992M A709 650S/G345 A572 G50/G345	ASTM A992/A992M - 06 ASTM A709/A709M - 06 ASTM A572/A572M - 07	15132B
7	020872883	W12x58	40'0"	4	A033267	A992/A992M A709 650S/G345 A572 G50/G345	ASTM A992/A992M - 06 ASTM A709/A709M - 06 ASTM A572/A572M - 07	15132B
8	020873121	W12x53	40'0"	4	A033059	A992/A992M A709 650S/G345 A572 G50/G345	ASTM A992/A992M - 06 ASTM A709/A709M - 06 ASTM A572/A572M - 07	151732B

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
6a	.06	1.23	.023	.033	.21	.31	.033	.10	.10	.021	.014	.0118	.0004	.003	.32	.36	.15	HEAT
6b	.07	1.24	.025	.034	.20	.35	.031	.12	.11	.018	.017	.0116	.0004	.003	.34	.38	.17	HEAT
7	.06	1.23	.023	.033	.21	.31	.033	.10	.10	.021	.014	.0118	.0004	.003	.32	.36	.15	HEAT
8	.08	1.14	.019	.030	.21	.30	.033	.21	.16	.087	.013	.0076	.0004	.001	.37	.40	.19	HEAT

**MECHANICAL**

Item	Test	Tension Testing Results					Charpy Impact Testing Results																
		Yield (Fy) ksi/MPa	Tensile (Fu) ksi/MPa	Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp F/C	Sample 1 ft. lb/joules	Sample 2 ft. lb/joules	Sample 3 ft. lb/joules	% Shear	ASTM Grain Size No (per ASTM E112)											
6a	1	51051	71490	.72	18	1																	
6a	2	52655	69474	.75	22	2																	
6b	1	55378	69476	.80	24	1																	
6b	2	55378	69477	.80	22	2																	
7	1	51051	71490	.72	18	1																	
7	2	52655	69474	.75	22	2																	
8	1	54359	73504	.74	25	1																	
8	2	59398	74511	.78	25	2																	

*HT # A033059 is used to fabricate C332*

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

State of Indiana, County of Whitley  
Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
Signed: \_\_\_\_\_  
My commission expires: \_\_\_\_\_

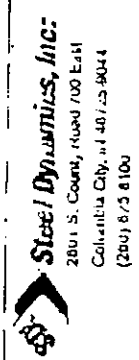
Quality Assurance

Special Comments: Information:  
Fully Killed Steel  
Cast and Rolled to a Fine Grain Practice

PART NO.

PO/Rel

Alt:



**Certified Mill Test Report**  
100% In-Plant and Manufactured in USA

Date: 7/17/2005  
Customer No: 000305  
Bill of Lading No: 0000056272  
MTR #: 0000055922

Ship to:  
PACIFIC STEEL INC  
Customer WIT Cpt

Bill to:  
PACIFIC STEEL INC  
845 Pine Munch,  
Laval Quebec, PQ H7S 1A9  
Attn: John Plimmet

Item	Grade	Section	Length	Pcs	Heat #	Grade(s)	Specifications	Customer P.O.
1	020124699	W12X58	45' 0"	4	A015994	A992/A992M A709 G50S/G345S A572 G50/G345	ASTM A992/A992M - 04a ASTM A709/A709M - 04a ASTM A572/A572M - 04	17880
2	020124707	W12X58	45' 0"	4	A015993	A992/A992M A709 G50S/G345S A572 G50/G345	ASTM A992/A992M - 04a ASTM A709/A709M - 04a ASTM A572/A572M - 04	17880
3	020126101	W10X45	50' 0"	4	A015921	A992/A992M A709 G50S/G345S A572 G50/G345	ASTM A992/A992M - 04a ASTM A709/A709M - 04a ASTM A572/A572M - 04	17870
4	020126102	W10X45	50' 0"	4	A015921	A992/A992M A709 G50S/G345S A572 G50/G345	ASTM A992/A992M - 04a ASTM A709/A709M - 04a ASTM A572/A572M - 04	17870
5	020126187	W10X45	40' 0"	4	A015920	A992/A992M A709 G50S/G345S A572 G50/G345	ASTM A992/A992M - 04a ASTM A709/A709M - 04a ASTM A572/A572M - 04	17892

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	G1	G2	PC	Analysis
1	.08	1.24	.010	.029	.22	.38	.031	.080	.11	.02	.017	.009	.0003	.00	.35	0.3900	0.1900	HEAT
2	.09	1.24	.011	.034	.22	.30	.030	.080	.11	.02	.018	.010	.0003	.00	.38	0.4000	0.1900	HEAT
3	.08	1.15	.013	.030	.22	.37	.002	.110	.12	.03	.016	.009	.0003	.02	.34	0.3700	0.1800	HEAT
4	.08	1.15	.013	.030	.22	.37	.002	.110	.12	.03	.016	.009	.0003	.02	.34	0.3700	0.1800	HEAT
5	.08	1.12	.010	.026	.22	.34	.002	.080	.10	.03	.014	.009	.0003	.02	.32	0.3600	0.1700	HEAT

**MECHANICAL**

Item	Test	Yield (Fy)		Tensile (Fu)		Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp F/C	Charpy Impact Testing Results			ASTM Grain Size No (per ASTM E112)
		ksi/MPa	ksi/MPa	ksi/MPa	ksi/MPa					ft. lb/ft/lbs	ft. lb/ft/lbs	ft. lb/ft/lbs	
1	1	62/425	75/518	81	81	25				1			
1	2	59/409	74/513	80	80	25				2			
2	1	62/424	75/519	81	81	24				1			
2	2	64/438	76/526	81	81	24				2			
3	1	60/417	74/519	81	81	27				1			
3	2	61/421	74/511	81	81	27				2			
4	1	60/417	74/509	81	81	27				1			
4	2	61/421	74/511	82	82	27				2			

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this certified manufacturer are in compliance with the requirements of the material specifications and applicable purchaser drawings.

Signed:   
Quality Assurance

State of Indiana, County of Hendry  
Sworn to and subscribed to on this day of \_\_\_\_\_, 2005.

Special Comments/Information:  
MTR # A015994 is used to fabricate item: C333

My commission expires: \_\_\_\_\_  
day of \_\_\_\_\_, 2005.

**SHIP TO:**  
 TRIAD METALS INTERNATIONAL  
 2300 COMPUTER AVENUE  
 SUITE A-1  
 WILLOW GROVE  
 19090  
 PA  
 US

**ORDER DATE:** 04/18/2007  
**PO NO:** 157595  
**MILL ORDER NO:** 3291583  
**LOAD NO:** 1116370  
**MANIFEST NO:** 1829463

**SHIP TO:**  
 TRIAD METALS INTERNATIONAL  
 1951 BESSEMER ROAD  
 PETERSBURG  
 21801  
 VA  
 US

**GRADE:** 992/572-50  
**LENGTH:** 40 FT / 12.192 M

**SPECIFICATION:** ASTM A6-05a, A992-06a, A572-06  
**HEAT NO:** 30362880

**PRODUCT:** W7 BEAMS

**ORDER DATE:** 04/18/2007  
**PO NO:** 157595  
**MILL ORDER NO:** 3291583  
**LOAD NO:** 1116370  
**MANIFEST NO:** 1829463

**SHIP TO:**  
 TRIAD METALS INTERNATIONAL  
 1951 BESSEMER ROAD  
 PETERSBURG  
 21801  
 VA  
 US

**GRADE:** 992/572-50  
**LENGTH:** 40 FT / 12.192 M

**SPECIFICATION:** ASTM A6-05a, A992-06a, A572-06  
**HEAT NO:** 30362880

**PRODUCT:** W7 BEAMS

**CHEMICAL ANALYSIS**

	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Al	Nb	CG
	.08	1.11	.016	.028	.22	.33	.09	.09	.018	.014	.001	.020	.11

**PHYSICAL PROPERTIES**

Yield Str <sup>1</sup>	Tensile Strength		Elongat <sup>1</sup>	Gage Length
	KSI	MPa		
56.1	186.8	492.3	27.4	8 to 200 mm
54.1	173.0	488.1	25.1	8 to 200 mm

**TEST RESULTS**

Specimen Area	Specimen Area	Length	Result
Sq In	Sq cm	In	
1.009	6.51	8 to 200 mm	
1.000	6.45	8 to 200 mm	

HT # 30362880 is used to Fab. items: C309/C326

Vendor: Gerdau Ameristeel - Petersburg  
 Heat Number: 30362880

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A. CMAA complies with DIN EN 10204 3.1.B

I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: [Signature] Date: Jun. 07, 2007  
 Notary Public (if applicable)



2601 S. County Road 700 East  
 Columbia City, IN 48725.  
 (260) 625-8100

Customer No: 000191  
 Bill of Lading No: 0000127533  
 MTR #: 0000127015

Triad Metals International  
 Triad Customer P/U  
 Attn: Sally

Customer No: 000191  
 Bill of Lading No: 0000127533  
 MTR #: 0000127015

Triad Metals International  
 Triad Customer P/U  
 Attn: Sally

Customer No: 000191  
 Bill of Lading No: 0000127533  
 MTR #: 0000127015

Triad Metals International  
 Triad Customer P/U  
 Attn: Sally


Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1†	020972028	W12X96	50' 0"	2	B037194	A992 / A992M A709 gr50/gr345 A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	2873
2†	020972101	W12X96	50' 0"	2	B037190	A992 / A992M A709 gr50/gr345 A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	2873
3†	020972102	W12X96	50' 0"	2	B037190	A992 / A992M A709 gr50/gr345 A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	2873
4†	020972132	W12X96	50' 0"	2	B037189	A992 / A992M A709 gr50/gr345 A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	2873
5†	020972623	W10X77	50' 0"	2	B037401	A992 / A992M A709 gr50/gr345 A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	2873

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1*	.07	1.36	.017	.032	.20	.36	.041	.100	.11	.04	.014	.011	.0004	.00	.36	0.3900	0.1800	HEAT
2*	.07	1.30	.017	.018	.17	.34	.043	.070	.10	.03	.017	.011	.0004	.00	.34	0.3700	0.1700	HEAT
3*	.07	1.30	.017	.018	.17	.34	.043	.070	.10	.03	.017	.011	.0004	.00	.34	0.3700	0.1700	HEAT
4*	.07	1.34	.015	.026	.19	.39	.045	.080	.10	.03	.016	.012	.0004	.00	.35	0.3800	0.1700	HEAT
5*	.08	1.30	.009	.013	.18	.31	.043	.090	.09	.03	.013	.009	.0004	.00	.35	0.3800	0.1800	HEAT

**117 # B037190 is used to fabricate items: C301, C302, C307, C311, C312**

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed:  Quality Assurance

State of Indiana, County of Whitley

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_ Notary Public

My commission expires: \_\_\_\_\_

Special Comments/Information: C301, C302, C307, C311, C312

Page 1



CARRETERA TOLEDO, KM. 9  
28021 MADRID  
TELEF. (91) 797.23.00 - FAX (91) 505.02.57



## QUALITY CERTIFICATE

### APS 5393

DISCHARGE ADDRESS		CUSTOMER	
ARCELOR INTERNATIONAL AMERICA, INC. 350 HUDSON STREET 4TH FLOOR NEW YORK, NY 10014 EE.UU.		ARCELOR INTERNATIONAL AMERICA, INC. 350 HUDSON STREET 4TH FLOOR NEW YORK, NY 10014 EE.UU.	
SHIPPED AND CERTIFIED BY		PORT OF DISCHARGE	
ACERALIA PERFILES OLABERRIA, S.L. CARRETERA MADRID - IRUN, KM. 419 20212 OLABERRIA (Guipúzcoa) TELEF. (943) 80.50.00 - FAX (943) 88.04.04		80	PASAJES, SPAIN
		PORT OF DISCHARGE	VESSEL
		NEW HAVEN, CT	ACACIA
OUR REFERENCE	CONTRACT NUMBER	ORDER NUMBER	DATE
MERCHE	E-14284 LOT 4	3° TRIM. 05	30/09/2005

MATERIAL: AMERICAN WIDE FLANGE BEAMS W, AS PER ASTM TRI-CERT. ASTM A36/ASTM A 572 GR 50  
CSA G. 40.21 50 W / ASTM A992.

MARKINGS: SIZE / QUALITY / WEIGHT / HEAT NO. / ORDER NO. / COLOR MARKINGS / MADE IN SPAIN.

SIZE	LENGTH	BUNDLES	PIECES BUNDLES	TOTAL PIECES	WEIGHT BUNDLES	TOTAL WEIGHT	HEAT
10042526 - P.O. C17922 + / GREEN / WHITE							
WF BEAMS 8x24 LBS/FT	30'	3	10	30	3266	9.798	54969,54971,54972
WF BEAMS 8x24 LBS/FT	35'	3	10	30	3811	11.433	54977
WF BEAMS 8x24 LBS/FT	40'	9	10	90	4355	39.195	54957,54958,54959,54960,54982,54984
WF BEAMS 8x24 LBS/FT	45'	4	10	40	4899	19.596	54966,54973,54976
WF BEAMS 8x24 LBS/FT	50'	7	8	56	4355	30.485	54957,54958,54959
WF BEAMS 8x24 LBS/FT	55'	2	8	16	4790	9.580	54963
WF BEAMS 8x24 LBS/FT	60'	2	8	16	5226	10.452	54972,54973
WF BEAMS 8x28 LBS/FT	30'	3	10	30	3810	11.430	54990
WF BEAMS 8x28 LBS/FT	35'	2	10	20	4445	8.890	54988
WF BEAMS 8x28 LBS/FT	40'	4	10	40	5080	20.320	54991
WF BEAMS 8x28 LBS/FT	45'	4	8	32	4572	18.288	54988,54989,54990
WF BEAMS 8x28 LBS/FT	50'	4	8	32	5080	20.320	54993,54994
WF BEAMS 8x28 LBS/FT	55'	4	6	24	4191	16.764	54988,54989
WF BEAMS 8x28 LBS/FT	60'	3	6	18	4572	13.716	54970
WF BEAMS 16x26 LBS/FT	30'	14	6	84	2123	29.722	54668,54770,54786,54787,54788
WF BEAMS 16x26 LBS/FT	32'	4	6	24	2264	9.056	54669
WF BEAMS 16x26 LBS/FT	35'	8	6	48	2476	19.808	54777,54782,54785,54786
WF BEAMS 16x26 LBS/FT	40'	14	6	84	2830	39.320	54666,54770,54773,54788,54789

HT #54788 is used to fab item: B657

## QUALITY CERTIFICATE

### APS 5393

SIZE	LENGTH	BUNDLES	PIECES BUNDLES	TOTAL PIECES	WEIGHT BUNDLES	TOTAL WEIGHT	HEAT
WF BEAMS 16x26 LBS/FT	45'	9	6	54	3184	28.656	54784,54785
WF BEAMS 16x26 LBS/FT	50'	11	6	66	3538	38.918	54786,54787,54789
WF BEAMS 16x26 LBS/FT	55'	5	6	30	3892	19.460	54775
WF BEAMS 16x26 LBS/FT	60'	12	6	72	4245	50.940	54667,54668,54669,54770
WF BEAMS 16x31 LBS/FT	30'	12	6	72	2531	30.372	54777,54796,54797
WF BEAMS 16x31 LBS/FT	32'	7	6	42	2700	18.900	54790,54795
WF BEAMS 16x31 LBS/FT	35'	10	6	60	2953	29.530	54780,54781
WF BEAMS 16x31 LBS/FT	40'	9	6	54	3375	30.375	54777,54792,54793,54796
WF BEAMS 16x31 LBS/FT	45'	5	6	30	3796	18.980	54780,54781
WF BEAMS 16x31 LBS/FT	50'	7	6	42	4218	29.526	54778,54779
WF BEAMS 16x31 LBS/FT	55'	3	6	18	4640	13.920	54789
WF BEAMS 16x31 LBS/FT	60'	6	6	36	5062	30.372	54793,54794

TOTAL BUNDLES      190                      TOTAL WEIGHT      678.422 Kg.

COLADA HEAT	COMPOSICION QUIMICA (%) CHEMICAL COMPOSITION (%)												
	C	Mn	Si	P	S	V	Cr	Ni	Mo	Cu	Nb	CFV	
54666	.080	1,210	.170	.019	.031	.003	.100	.120	.025	.450	.025	.35	
54667	.090	1,270	.150	.019	.032	.003	.080	.130	.025	.480	.021	.36	
54668	.080	1,250	.150	.016	.031	.003	.080	.140	.025	.490	.023	.35	
54669	.090	1,190	.200	.021	.031	.003	.100	.100	.019	.500	.026	.35	
54770	.097	1,230	.220	.019	.028	.002	.170	.300	.048	.500	.024	.40	
54773	.090	1,220	.210	.017	.021	.003	.140	.180	.045	.500	.022	.38	
54775	.090	1,140	.200	.021	.029	.003	.170	.190	.049	.520	.027	.37	
54777	.090	1,150	.180	.018	.023	.003	.150	.200	.050	.540	.025	.37	
54778	.090	1,130	.180	.018	.020	.003	.160	.200	.053	.530	.021	.37	
54779	.100	1,190	.180	.021	.028	.003	.140	.210	.054	.530	.024	.39	
54780	.090	1,130	.200	.017	.024	.003	.140	.200	.051	.530	.021	.37	
54781	.100	1,110	.170	.019	.032	.003	.170	.190	.047	.510	.020	.38	
54782	.110	1,200	.210	.033	.014	.003	.200	.170	.042	.530	.022	.41	
54784	.120	1,130	.210	.027	.015	.003	.210	.190	.049	.550	.021	.41	
54785	.100	1,120	.210	.023	.015	.003	.190	.180	.048	.540	.022	.38	
54786	.080	1,210	.200	.018	.014	.003	.160	.190	.047	.530	.021	.37	
54787	.080	1,210	.160	.016	.016	.003	.150	.190	.047	.540	.020	.37	
54788	.080	1,240	.200	.018	.022	.003	.130	.200	.050	.520	.020	.37	
54789	.100	1,250	.180	.015	.019	.003	.140	.200	.050	.540	.022	.40	
54790	.100	1,240	.190	.023	.019	.003	.180	.200	.050	.510	.026	.40	
54792	.100	1,220	.180	.014	.020	.003	.170	.200	.051	.550	.023	.40	
54793	.110	1,140	.180	.014	.024	.003	.150	.190	.044	.510	.022	.39	
54794	.100	1,170	.180	.022	.024	.003	.160	.190	.045	.520	.023	.38	
54795	.110	1,180	.170	.019	.031	.003	.150	.200	.045	.530	.022	.40	
54796	.090	1,210	.190	.016	.023	.003	.140	.180	.043	.510	.023	.37	

**QUALITY CERTIFICATE**
**APS 5393**

MATERIAL SIZE	COLADA HEAT	PROPIEDADES MECANICAS MECHANICAL PROPERTIES					
		ReH MPa		Rm MPa		Elongation %	
		C11	C12	C13	C14	C15	C16
W-16x31	54790	381	375	548	539	28,4	28,2
W-16x31	54792	375	373	548	537	30,5	29,4
W-16x31	54793	385	375	545	541	30,1	29
W-16x31	54794	389	385	541	538	30,2	29,4
W-16x31	54795	381	367	541	542	28,	27,7
W-16x31	54796	403	397	538	537	32,3	31,3
W-16x31	54797	414	408	545	545	30,7	29,7
W-8x24	54957	399	385	543	527	31,7	30,6
W-8x24	54958	398	384	538	560	31,9	31,3
W-8x24	54959	390	390	546	552	29,1	28,3
W-8x24	54960	402	391	546	534	31,	30,7
W-8x24	54963	412	411	549	537	30,	29,
W-8x24	54966	402	390	523	515	31,4	30,4
W-8x24	54969	386	376	550	533	30,3	30,3
W-8x24	54971	39,	397	541	557	29,5	29,1
W-8x24	54972	404	392	548	534	28,	27,9
W-8x24	54973	403	397	543	521	33,9	33,1
W-8x24	54976	400	396	507	501	29,4	28,3
W-8x24	54977	418	400	547	542	29,8	29,6
W-8x24	54982	377	375	549	539	30,8	30,1
W-8x24	54984	390	388	544	538	28,7	28,3
W-8x28	54970	383	369	542	549	29,3	27,9
W-8x28	54988	392	384	544	532	31,4	30,6
W-8x28	54989	378	368	546	548	29,5	29,3
W-8x28	54990	383	377	548	540	31,1	30,9
W-8x28	54991	414	400	545	554	27,9	27,
W-8x28	54993	373	371	548	534	29,5	28,5
W-8x28	54994	392	392	528	515	31,7	31,2

**47 análisis**

 D01: Certificamos que los aceros arriba indicados han sido satisfactoriamente probados de acuerdo con la especificación.  
 D06: Marca APO

201

  
 Luis María Lakunza

**CERTIFIED MILL TEST REPORT**

Date: 09 / 12 / 2007

Customer # 000191

Ship to:  
Triad Metals Intl  
1951 Bessemer Road  
CSX-Collier Yard  
Petersburg VA, 23805 US  
Attn: Rock McGovern

Bill to:  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Petersburg VA, 23805 US  
Attn: Fred White

GENERAL INFORMATION		SPECIFICATIONS		SHIPMENT DETAILS	
Product	Wide Flange Beam	Standards	ASTM A8/A8M	Bundle / ASN #	BOL # 0000124256
Size	W 18 X 35			Length	pcs Customer PO
	W 460 x 52	Grades	A992 / A992M	40' 0"	6 164105
Heat Number	A036022		A709 gr50gr345	40' 0"	6 164105
Condition(s)	As-Rolled		A572 gr50gr345	40' 0"	6 164105
	Flare Grained		A709 gr50S/g345S	40' 0"	6 164105

**CHEMICAL ANALYSIS** (weight percent)

C	.08	Mn	.95	P	.018	S	.035	Si	.23	V	.005	Nb/Cb	.011	N	.0082	B	.0004	*C1	.29	*C2	.33	*PC	.16	*1	5.85	Analysis Type	Heat
---	-----	----	-----	---	------	---	------	----	-----	---	------	-------	------	---	-------	---	-------	-----	-----	-----	-----	-----	-----	----	------	---------------	------

**MECHANICAL TESTING**

Test	Yield (fy)		Tensile (fu)		Charpy Impact Tests (available only when specified at time of order)	
	ksi / MPa	ksi / MPa	Strength	fy / fu ratio	Temp F / C	Absorbed Energy ft-lb / J
1	61 / 424	75 / 518	.82	.83	Specimen 1	Specimen 2
2	62 / 425	75 / 514	.83	.83	Specimen 3	Specimen 3
3					Average	Minimum
4						
5						
6						
7						

HT # A036022 is used to Fab. item B629, B667

**Notes:** \*Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC), Corrosion Index (I)  
 CE1 [(W)/C+(Mn)/8+(Cr+Mo+V)/5+(Ni+Cu)/15  
 CE2 (AWS) = C+(Mn+Si)/8+(Cr+Mo+V)/5+(Ni+Cu)/15  
 I (ASTM G101) = 26.01(Cu)+3.86(Ni)+1.20(Cr)+1.49(Si)+17.29(P)-7.29(Cu)(Ni)-6.10(Ni)(P)-33.39(CuP)  
 Pcm (AWS) = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/70+Mn/15+V/10+5B

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

State of Indiana, County of Whitley Sworn to and subscribed before me  
 this \_\_\_\_\_ day of \_\_\_\_\_  
 Signed: \_\_\_\_\_ My commission expires: \_\_\_\_\_  
 Notary Public

Signed: **Doug Rees-Evans**  
 Manager of Technical Services  
 Form#-6100-002-064

ASTM A6 - 14.6: A signature is not required on the test report; however, the document shall clearly identify the organization submitting the report. Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report.

DATE: 5/21/07  
 INVOICE NO: 139371  
 BILL OF LADING: 047294  
 CUSTOMER P.O.: 9310  
 CUSTOMER P.O.: C20741

**NUCOR-YAMATO STEEL CO.**  
 P.O. BOX 1228 • BLYTHEVILLE, AR 72316

**CERTIFIED MILL TEST REPORT**  
 100% MELTED AND MANUFACTURED IN U.S.A.  
 All shapes produced by Nucor-Yamato Steel are cast and rolled to a fully killed and fine grain practice.

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 INFRA-METALS CORP  
 8 PENT HIGHWAY  
 TRACK # 953  
 WALLINGFORD, CT 06492

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 ASTM A992/A992M-06a A572/A572M GR50-04  
 ASTM A709/A709M-03a GR50 (345)  
 ASTM A709/A709M-03a GR50S (345S)  
 ASTM A6/A6M-05a

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 INFRA-METALS CORP.  
 8 PENT HIGHWAY  
 WALLINGFORD, CT 06492

ITEM #	ITEM DESCRIPTION	QTY	HEAT #	MECHANICAL PROPERTIES							CHEMICAL PROPERTIES											
				YIELD TO TENSILE RATIO	YIELD STRENGTH	TENSILE STRENGTH	ELONG	CHARPY IMPACT		C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Cb	CE	
					PSI	PSI		%	TEMP													IMPACT ENERGY
					MPa	MPa		%	°F													FT-LBS
1	W18 - 40.0 35' W460 x 60.0 10.668 M	11	295056	.74	56000	76000	25				.06	1.23	.022	.031	.31	.36	.13	.11	.03	.00	.025	.33
2	W18 - 40.0 35' W460 x 60.0 10.668 M	18	295285	.73	53000	73000	24				.06	1.10	.019	.037	.29	.30	.11	.13	.03	.00	.015	.30
3	W18 - 40.0 35' W460 x 60.0 10.668 M	1	295287	.74	57000	77000	22				.07	1.14	.020	.025	.33	.28	.09	.12	.02	.00	.021	.31
4	W18 - 40.0 40' W460 x 60.0 12.192 M	4	295046	.72	55000	76000	25				.07	1.22	.023	.033	.31	.32	.11	.12	.03	.00	.024	.33
5	W18 - 40.0 40' W460 x 60.0 12.192 M	20	295310	.73	54000	74000	26				.08	1.11	.025	.024	.26	.28	.10	.17	.04	.00	.018	.34
6	W18 - 40.0 40' W460 x 60.0 12.192 M	5	295352	.75	56000	75000	25				.07	1.11	.020	.039	.27	.29	.13	.14	.03	.00	.019	.32

CARBON EQUIVALENT: CE = C(Mn) + C + Ni + Cr + V + B + Cu + Ni

ELONGATION BASED ON 8.00 INCH GAUGE LENGTH

I hereby certify that the contents of this report are accurate and correct. All test results and operations performed by this material manufacturer are in compliance with the requirements of the material specifications, and when designated by the purchaser, meet the applicable specifications.

*Doug Connell*  
 QUALITY CONTROL

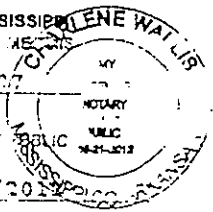
CUSTOMER COPY

STATE OF ARKANSAS COUNTY OF MISSISSIPPI  
 SWORN TO AND SUBSCRIBED BEFORE ME

Day of 05 2007

*Cherlene Wallis*

NOTARY PUBLIC



MY COMMISSION EXPIRES 10/31/2010

HT # 295310 is used to fab item: B600

**Certified Mill Test Report**  
 100% Melted and Manufactured in USA

Customer No: 000191  
 Bill of Lading No: 0000119461  
 MTR #: 0000119025

Triad Metals International  
 Triad Customer P/U  
 Attn: Sally

TRIAD METALS INTERNATIONAL  
 A-1 2300 Computer Avenue  
 Willow Grove PA 19090  
 Attn: Fred White


Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1†	020908432	W21X44	42' 0"	4	A034738	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	495
2†	020908437	W21X44	42' 0"	4	A034738	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	495
3†	020908539	W21X44	42' 0"	4	A034729	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	495
4†	020908578	W21X44	42' 0"	4	A034727	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	495
5†	020908643	W21X44	42' 0"	4	A034743	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	495
6†	020908707	W21X44	42' 0"	4	A034745	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	495

**HEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1*	.08	1.03	.016	.031	.22	.32	.022	.080	.13	.04	.016	.007	.0004	.00	.31	0.3500	0.1700	HEAT
2*	.08	1.03	.016	.031	.22	.32	.022	.080	.13	.04	.016	.007	.0004	.00	.31	0.3500	0.1700	HEAT
3*	.07	1.04	.016	.029	.19	.36	.023	.120	.13	.04	.019	.010	.0003	.00	.31	0.3400	0.1600	HEAT
4*	.07	1.04	.019	.029	.21	.31	.021	.100	.11	.03	.015	.009	.0003	.00	.30	0.3400	0.1600	HEAT
5*	.06	1.01	.018	.038	.18	.31	.021	.080	.10	.03	.013	.007	.0003	.00	.28	0.3100	0.1400	HEAT
6*	.08	1.05	.017	.042	.20	.31	.022	.100	.10	.03	.014	.008	.0004	.00	.31	0.3400	0.1600	HEAT

HT# A034745 is used to Fab. item: B631e

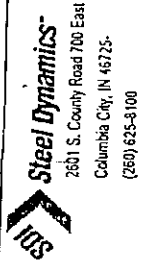
hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed:   
 Quality Assurance

My commission expires: \_\_\_\_\_  
 Signed: \_\_\_\_\_  
 Notary Public

Special Comments/Information:  
 State of Indiana, County of Whitley.

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_



**Certified Mill Test Report**  
100% Melted and Manufactured in USA

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1	000022684	W24X55	55' 0"	4	B032742	A992 / A992M A709 g50Sg345S A572 gr50grC45	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	152115B
2a	020856466	W24X68	60' 0"	2	B032616	A992 / A992M A709 g50Sg345S A572 gr50grC45	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	152115B
2b	020856466	W24X68	60' 0"	2	B032629	A992 / A992M A709 g50Sg345S A572 gr50grC45	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	152115B
3	020856469	W24X68	60' 0"	4	B032630	A992 / A992M A709 g50Sg345S A572 gr50grC45	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	152115B
4	020856472	W24X68	60' 0"	4	B032630	A992 / A992M A709 g50Sg345S A572 gr50grC45	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	152115B
5	020856578	W24X68	60' 0"	4	B032634	A992 / A992M A709 g50Sg345S A572 gr50grC45	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	152115B
6	020856823	W24X68	35' 0"	4	B032637	A992 / A992M A709 g50Sg345S A572 gr50grC45	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	152115B
7	020856830	W24X68	35' 0"	4	B032637	A992 / A992M A709 g50Sg345S A572 gr50grC45	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	152115B
8a	020856832	W24X68	35' 0"	2	B032636	A992 / A992M A709 g50Sg345S A572 gr50grC45	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	152115B
8b	020856832	W24X68	35' 0"	2	B032637	A992 / A992M A709 g50Sg345S A572 gr50grC45	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	152115B
9	020859371	W24X55	55' 0"	4	B032741	A992 / A992M A709 g50Sg345S A572 gr50grC45	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	152115B
10	020859381	W24X55	55' 0"	4	B032741	A992 / A992M A709 g50Sg345S A572 gr50grC45	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	152115B

**HT # B032741 is used to Fab. item B089**

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed: Doug Ross - Burns Quality Assurance

My commission expires: \_\_\_\_\_

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_ Notary Public

Special Comments/Information: \_\_\_\_\_

Heat Number B032770

Vendor Steel Dynamics



Load #: 20

Shipping Date:

Waybill #: 898-20

Customer:	Pizzagalli Construction Company	Prepared By:	Approved By:	Date: 2-4-01-01
Job Title:	84 Marginal Way	Bathurst Machine Shop Ltd.		1010 Route 430 Big River Road E2A 6P9
Date Sent to Shop:	X			
Job Number:	898	Mandate Erectors & Welding Ltd.		
		MQM Ltd., Tracadie		

Job Progress Report Sheet

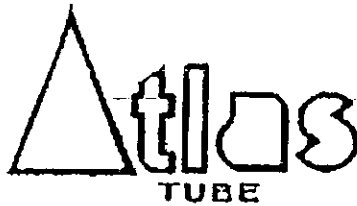
SHEET: 1

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped				
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By
A	W12X19	0	B505	2	818																							
A	W08X15	0	B506	1	170																							
A	W08X15	0	B513	1	155																							
A	W18X35	0	B521	1	1515																							
A	W21X44	0	B524	1	1767																							
A	W21X44	0	B529	1	1770																							
A	W12X19	0	B539	1	220																							
A	W24X62	0	B544	1	1685																							
A	W18X50	0	B557	1	1844																							
A	H.S.S. 8X4X1/4	0	B562	1	153																							
A	H.S.S. 12X6X3/8	0	B578	1	1404																							
A	W12X96	A	C300	1	4961																							
A	W10X39	A	C303	1	2295																							
A	W12X96	A	C304	1	3844																							
A	W12X58	A	C305	1	2296																							
A	W12X96	A	C313	1	4965																							
A	W12X50	A	C315	1	2847																							
A	W12X96	A	C317	1	3757																							
A	W12X40	A	C318	1	1558																							
A	W12X96	A	C320	1	4888																							

Pieces 21 42912 Total Weight(Lbs) ( 21.5 TONS)



Atlas Tube Canada ULC  
 200 Clark St  
 Harrow, Ontario, Canada  
 NOR 1G0  
 Tel 519-738-3541  
 Fax 519-738-3537



MATERIAL TEST REPORT

Material: 12.0x6.0x375x48" (12x11) Material No: 120060376 Made in: Canada  
 Sales order: 304177 Purchase Order: 2221

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	NI	Cr	V
679968	0.210	0.830	0.007	0.004	0.150	0.023	0.020	0.005	0.002	0.009	0.027	0.000

Bundle No: M200444570 Yield: 057140 Psi Tensile: 070290 Psi Eln.2ln: 35.3 % Certification: ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or. Note:

*HT #679968 is used to fabric item: B578*

Material: 12.0x6.0x500x48" (12x11) Material No: 1200606004800 Made in: Canada  
 Sales order: 304177 Purchase Order: 2221

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	NI	Cr	V
679469	0.190	0.920	0.018	0.002	0.160	0.028	0.018	0.005	0.002	0.007	0.043	0.000

Bundle No: M200444478 Yield: 004300 Psi Tensile: 078000 Psi Eln.2ln: 34.3 % Certification: ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or. Note:

Material: 4.0x4.0x500x48" (4x4) -CSA Material No: 0400405004800-CSA Made in: Canada  
 Sales order: 301905 Purchase Order: 2157

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	NI	Cr	V
479418	0.190	0.810	0.008	0.002	0.160	0.032	0.028	0.005	0.002	0.010	0.020	0.000

Bundle No: M100632364 Yield: 063390 Psi Tensile: 079960 Psi Eln.2ln: 29.9 % Certification: CSA G40.21-04 50W CLASS C

Material Note:  
 Sales Or. Note:

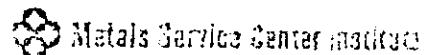
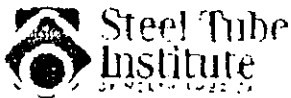
Material: 8.0x4.0x313x24" (8x4) -CSA Material No: 0600403132400-CSA Made in: Canada  
 Sales order: 001805 Purchase Order: 2157

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	NI	Cr	V
680084	0.007	0.830	0.007	0.004	0.150	0.023	0.020	0.005	0.002	0.009	0.027	0.000

Bundle No: M100632364 Yield: 076400 Psi Tensile: 076400 Psi Eln.2ln: 30.1 % Certification: CSA G40.21-04 50W CLASS C

Material Note:  
 Sales Or. Note:

Authorized by Quality Assurance



NOVA TUBE AND STEEL CORPORATION  
 600 Dean Sievers Place  
 Norrisville, PA, 19067  
 Tel: 215-295-8813 Fax: 215-295-8798

TEST CERTIFICATE

DATE SHIPPED: 08/23/07  
 B/L #: 152912  
 P.O. #: 28971  
 SALES ORDER #: 127663

sOp12h10v0s0b3T

Description	Dimensions	Pcs	Mill/Heat Number	Specifications
Hot Roll Rectangular Tub	3x3x0.250	4	MIT /422H2261	ASTM A 500 B/C
Hot Roll Rectangular Tub	8x4x0.375	4	MIT /422H2851	ASTM A 500 B/C
Hot Roll Rectangular Tub	3x4x0.375	20	MIT /422H7601	ASTM A 500 B/C
HSS Square Tubing	5x5x0.313	12	FAR /FAR6801723	ASTM A 500 B/C

sOp15-12v0s0b3T

Heat Number	Chemical Analysis															
	C	Mn	P	S	Si	Cu	Ni	Cr	Cb	Mo	V	Al	N	Sn	B	Ti
MIT/422H2261	0.080	0.630	0.013	0.016	0.002	0.020	0.020	0.030	0.015	0.008	0.001	0.037	0.006	-	-	-
Melted & Manufactured in U.S.A.																
MIT/422H2851	0.020	0.600	0.011	0.015	0.006	0.020	0.020	0.030	0.004	0.008	0.002	0.056	0.006	-	-	-
Melted & Manufactured in U.S.A.																
MIT/422H7601	0.100	0.650	0.014	0.017	0.014	0.020	0.020	0.030	0.005	0.005	0.003	0.055	0.006	-	-	-
Melted & Manufactured in U.S.A.																
FAR/FAR6801723	0.190	0.750	0.007	0.011	0.006	0.049	0.036	0.020	-	0.003	0.002	0.041	0.004	0.002	0.000	0.005
Manufactured in U.S.A.																

sOp10h12v0s0b3T

Mechanical Test Results				
Heat Number/Size	Yield Strength	Tensile Strength	Elong. %	Hardness
MIT/422H2261 8x3x0.250	62,500	65,000	29.00	
MIT/422H2851 8x4x0.375	54,344	65,299	33.00	
MIT/422H7601 9x4x0.375	59,000	64,154	29.00	
FAR/FAR6801723 5x5x0.313	50,100	68,281	50.00	

continue...

sOp10h12v0s0b3T

HT # FAR 6801723 is used to fab items: D417  
 D418

# MATERIAL TEST REPORT

Atlas Tube Canada ULC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 NOR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537

Ref./L: 80248589  
 Date: 10.29.2007  
 Customer: 1751

*Attn: Denis Guitera.*

*300-540-1829*

**Sold to**

Mandate Erectors & Welding Lt  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

**Shipped to**

Mandate Erectors & Welding Lt  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Material: 8.0x4.0x250x26"0(2x2).

Material No: S6040250

Made in: Canada

Sales order: 314780

Purchase Order: 31077

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
749730	4	0.200	0.820	0.011	0.007	0.011	0.049	0.021	0.004	0.002	0.010	0.035	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M100648382	058250 Psi	069520 Psi	33.2 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

*HT # 749730 is used to fab item B562*

Material: 12.0x12.0x375x32"4"0(2x2).

Material No: 120120375

Made in: Canada

Sales order: 314238

Purchase Order: 31072

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582788	4	0.200	0.790	0.011	0.003	0.150	0.035	0.026	0.005	0.002	0.013	0.040	0.002

Bundle No	Yield	Tensile	Eln.2in	Certification
M200457870	063170 Psi	076790 Psi	30.7 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Material: 12.0x12.0x375x32"4"0(2x2).

Material No: 120120375

Made in: Canada

Sales order: 314238

Purchase Order: 31072

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582788	4	0.200	0.790	0.011	0.003	0.150	0.035	0.026	0.005	0.002	0.013	0.040	0.002

Bundle No	Yield	Tensile	Eln.2in	Certification
M200457871	063170 Psi	076790 Psi	30.7 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Material: 12.0x12.0x375x32"4"0(2x2).

Material No: 120120375

Made in: Canada

Sales order: 314238

Purchase Order: 31072

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582787	4	0.200	0.730	0.011	0.003	0.150	0.029	0.038	0.005	0.004	0.013	0.040	0.000

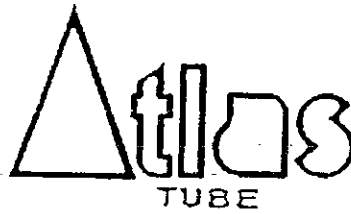
Bundle No	Yield	Tensile	Eln.2in	Certification
M200457868	055840 Psi	073400 Psi	35.0 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Authorized by Quality Assurance:

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.

Atlas Tube Canada ULC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 NOR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537



Ref.B/L: 80263316  
 Date: 10.24.2007  
 Customer: 1751

Sold to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

**MATERIAL TEST REPORT**

Shipped to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Material: 8.0x8.0x625x50"0"0(2x1).  
 Sales order: 335491

Material No: 80080625  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002

Bundle No	Yield	Tensile	Eln.2in	Certification
M200482103	063150 Psi	076440 Psi	34.3 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Material: 8.0x8.0x625x50"0"0(2x1).  
 Sales order: 335491

Material No: 80080625  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002

Bundle No	Yield	Tensile	Eln.2in	Certification
M200482102	063150 Psi	076440 Psi	34.3 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

*HT # 582766 is used to fab. item: D412*

Material: 10.0x10.0x625x18"0"0(2x2).  
 Sales order: 335491

Material No: 100100625  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
583750	4	0.200	0.810	0.011	0.002	0.160	0.034	0.015	0.006	0.002	0.007	0.022	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M200483575	054920 Psi	073670 Psi	28.5 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Material: 10.0x10.0x625x18"0"0(2x2).  
 Sales order: 335491

Material No: 100100625  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
593750	4	0.200	0.810	0.011	0.002	0.160	0.034	0.015	0.006	0.002	0.007	0.022	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M200483574	054920 Psi	073670 Psi	28.5 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Authorized by Quality Assurance: *[Signature]*

The results reported in this report are the actual test results of the material examined and indicate full compliance with all applicable specification and contract requirements.



G-100404

Chemical and Physical Test Report

MADE IN UNITED STATES

**GERDAU AMERISTEEL**

CARTERSVILLE STEEL MILL  
384 OLD CASSDALE RD NE  
CARTERSVILLE GA 30121 USA  
(770) 347 1300

PRODUCED IN: CARTERSVILLE

W8 X 15

Sheet G-705132

SHIP TO

TRUAD METALS  
1961 BESSEMER ROAD  
804-732-5000  
PETERSBURG, VA 23816

INVOICE TO  
TRUAD METALS INTERNATIONAL  
METAL TRADERS INC  
2000 COMPUTER AVE, STE-A-1  
WILLOW GROVE, PA 18098

SHIP DATE

08/24/07

CUST. ACCOUNT NO

40213005

SALES ORDER

7001534-02

CUST P.O. NUMBER

1483-02

SHAPE & SIZE

U8 X 15#

GRADE

A5720392

ASTM A572 GR50-07, ASTM A582-05A

HEAT NO.

G705132

C

Mn

P

S

Si

Cu

N

O

Al

Fe

V

Mo

W

Ni

Cr

Mn

Si

Al

Fe

W

Ni

Cr

Mn

Si

Al

Fe

W

Ni

Cr

Mn

Si

Al

Fe

W

Ni

Cr

Mn

Si

Al

Fe

W

Ni

Cr

Mechanical Test:

Yield: 56000 PSI, 404.03 MPa

Tensile: 79000 PSI, 544.82 MPa

Yield: 20.5% Elong, 20.52000441 Std Dev, 14.0

Customer Requirements CASTING, STRAND CAST

Mechanical Test:

Yield: 100000 PSI, 689.49 MPa

Tensile: 115000 PSI, 802.81 MPa

Yield: 20.0% Elong, 20.02000441 Std Dev, 14.0

Customer Requirements CASTING, STRAND CAST

SHAPE & SIZE

U8 X 15#

GRADE

A5720392

ASTM A572 GR50-07, ASTM A582-05A

HEAT NO.

G705132

C

Mn

P

S

Si

Cu

N

O

Al

Fe

V

Mo

W

Ni

Cr

Mn

Si

Al

Fe

W

Ni

Cr

Mn

Si

Al

Fe

W

Ni

HT 11-G705132 is used to Fab items: E506, B513

This material, including the labels, was produced and manufactured in the United States of America

*Maskay*  
Blaine Valenzuela  
Quality Director  
Gerdau Ameristeel

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST REPORTING AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY

*Jenkins*

My. Marketing Dept  
CARTERSVILLE STEEL MILL

Customer warrants that all material furnished shall comply with specifications subject to standard published manufacturing variations. NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, ARE MADE BY THE SELLER, AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Any claim for damages for materials that do not conform to specifications must be made by the buyer to seller immediately after delivery of same in order to allow the opportunity to process the material in question.

Bill To: TRIAD METALS INTERNATIONAL  
2300 COMPUTER AVENUE  
SUITE A-1  
WILLOW GROVE  
19090 PA US

Ship To: 6  
TRIAD METALS INTERNATIONAL  
TRIAD METALS INTERNATIONAL  
1951 BESSEMER ROAD  
PETERSBURG  
23803 VA US

Order Date: 09/10/2007  
PO No: 2142  
Mill Order No: 3365496  
Load No: 1137432  
Manifest No: 1848849

CERTIFIED MATERIAL, TEST REPORT  
CHAPARRAL, STEEL  
300 Ward Rd.  
Midlothian, TX  
76065-0451  
(973) 775-8241

PRODUCTION  
WF BEAMS

SIZE W 10 X 39# / W250 X 58 GRADE 992/572-50 LENGTH 45 FT / 13.716 M

SPECIFICATIONS  
ASTM A6-05a, A992-06a, A572-06  
HEAT NO. 30360460

CHEMICAL ANALYSIS	
C	.08
Mn	.95
P	.011
S	.041
Si	.23
Cu	.40
Ni	.11
Cr	.10
Mo	.019
Sn	.016
V	.002
Al	.003
Nb	.018
CE	.3

Yield Strength		Tensile Strength		Elongation		Bend Test Dia. Result	ROA %
KSI	MPa	KSI	MPa	%	Gage Length		
53.1	366.1	68.7	473.7	28.4	8 In	200 mm	
50.6	348.9	67.2	463.3	26.8	8 In	200 mm	

HT # 30360460 is used to Fab items C303, C321

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A.  
CMTR complies with DIN 10204 3.1.B

"I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements."

Signed: *[Signature]* Date: Sep. 1, 2007 Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
T. L. Harrington: Quality Assurance Manager Notary Public (if applicable)  
Page: 1 of 2



G-100808

Chemical and Physical Test Report

MADE IN UNITED STATES

**GERDAU AMERISTEEL**  
CARTERSVILLE STEEL MILL  
384 OLD GRASSDALE RD NE  
CARTERSVILLE GA 30121 USA  
(770) 387-3300

PRODUCED IN: CARTERSVILLE

SHIP TO  
TRIAD METAL  
1951 BESSEMER ROAD  
804-732-5000  
PETERSBURG, VA 23805

INVOICE TO  
TRIAD METALS INTERNATIONAL  
METAL TRADERS INC  
2200 COMPUTER AVE. STE A-1  
WILLOW GROVE, PA 19090

SHIP DATE  
08/28/07

CUST. ACCOUNT NO  
40213035

SALES ORDER  
7074491-19

CUST. P.O. NUMBER  
111013

SHAPE & SIZE	GRADE	SPECIFICATION	Yield	Tensile	El. Elong.	Reduct. of Area	Charpy
W12 X 22	A572-50	ASTM A572 GR50-07, ASTM A392-05A	50	65	21	15	31
HEAT NO.	C						
G704786	08						

SHAPE & SIZE	GRADE	SPECIFICATION	Yield	Tensile	El. Elong.	Reduct. of Area	Charpy
W12 X 18	A572-50	ASTM A572 GR50-07, ASTM A392-05A	50	65	21	15	31
HEAT NO.	C						
G704824	08						

HT # G704824 is used to fab items: 12505, 1539

The material, including the labels, was produced and manufactured in the United States of America

Product: Yield strength  
Quality Control  
Control Approved

Signature: *Shackley*

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE US STEEL CHEMICAL AND PHYSICAL TEST HISTORY AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY

Signature: *Jenkins*

Product: Yield strength  
Quality Control  
Control Approved

Signature: *Jenkins*

Signature: *Shackley*

Signature: *Shackley*

Signature: *Shackley*

**CERTIFIED MILL TEST REPORT**

Customer # 000191  
 Bill to:  
**TRIAD METALS INTERNATIONAL**  
 A-1 2300 Computer Avenue  
 Petersburg VA, 23805 US  
 Attn: Fred White

Quality Steel 100% Melted  
 and Manufactured in the USA

**GENERAL INFORMATION**

Product Wide Flange Beam  
 Size W 12 x 40  
 W 310 x 60  
 Heat Number R037570  
 Condition(s) As-Rolled  
 Fine Grained

**SPECIFICATIONS**

Standards  
 ASTM A8/A8M  
 ▶ ASTM A992/A992M - 06a  
 ASTM A709/A709M - 06a  
 ASTM A572/A572M - 06  
 ASTM A709/A709M - 06a

**Grades**

A992 / A992M  
 A709 gr 50/gr 345  
 A572 gr 50/gr 345  
 A709 gr 50S/gr 345S

**SHIPMENT DETAILS**

Bundle / ASN # Length Pcs Customer PO #  
 020979808 10' 0" 4 000012634  
 020979810 40' 0" 4 435  
 020979834 40' 0" 4 435

**CHEMICAL ANALYSIS (weight percent)**

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	N	B	As
.07	1.04	.017	.026	.19	.35	.11	.08	.030	.012	.002	.016	.0088	.0003	

**MECHANICAL TESTING**

Test	Yield (fy) Strength ksi / MPa	Tensile Strength ksi / MPa	fy / fu ratio	% Elong. (8" gage)
1	57 / 390	71 / 488	.80	24
2	60 / 413	72 / 495	.83	26

Charpy Impact Tests (available only when specified at time of order)  
 Temp F / C Specimen 1 Specimen 2 Specimen 3 Average Minimum  
 71 488 72 495

**Notes:**

Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC), Corrosion Index (I)  
 CE1 (Wt-%C+Mn/6+(Cr+Mo)/5+(Ni+Cu)/15)  
 CE2 (AWS) = C+(Mn+Si)/6+(Cr+Mo)/5+(Ni+Cu)/15  
 I (ASTM G101) = 28.01(Cu)+3.84(Ni)+1.20(Cr)+1.49(Si)+17.28(Cu)(Ni)+0.10(Ni)(P)+33.38(CuP)  
 Per (AWS) = S+5/160+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+50  
 I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: **Doug Rees Evans**  
 Manager of Technical Services

A7 MAB-14.6: A signature is not required on the test report; however, the document shall clearly identify the organization submitting the report. Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report.

State of Indiana, County of Whitley Sworn to and subscribed before me this \_\_\_ day of \_\_\_\_\_  
 Signed: \_\_\_\_\_ Notary Public  
 My commission expires \_\_\_\_\_



Steel Dynamics, Inc.

Steel Dynamics, Inc. - Customer Service

# CERTIFIED MILL TEST REPORT

Date 10/05/2007

Customer # 000191

Bill to:

Ship to:  
Triad Metals International  
3460 Grand Avenue  
Pittsburgh PA 15225 US  
Attn: Craig Borrelli

TRIAD METALS INTERNATIONAL  
A 12500 Campbell Avenue  
Pittsburgh PA 15225 US  
Attn: Fred White

Quality Steel 100% Melted  
and Manufactured in the USA

## GENERAL INFORMATION

Product Wide Flange Beam

Size W 12 x 45

W 310 x 117

Heat Number B037507

Condition(s) As-Rolled

Fine Grained

## SPECIFICATIONS

Standards  
ASTM A674/A674M

ASTM A674/A674M - 06a

ASTM A709/A709M - 05a

ASTM A572/A572M - 05

ASTM A709/A709M - 06a

## SHIPMENT DETAILS

BOL # 0000126372

Bundle / ASN # Length pcs Customer PO

020990155 50' 0" 4 437-2121

020990155 50' 0" 4 437-2121

## Grades

A572 - A572M

A709 gr50-gr345

A572 gr50-gr345

A709 gr50S-gr345S

## CHEMICAL ANALYSIS (weight percent)

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb/Cb	N	B	C1	C2	PC	*I	Analysis Type
0.06	1.12	0.016	0.028	0.23	0.34	0.10	0.15	0.065	0.00	0.015	0.0094	0.0004	33	37	17	5.88	Heat

## MECHANICAL TESTING

Test	Yield (fy) Strength	Tensile (fu) Strength	Elong. ratio	% Elong. (8" gage)
1	59-407	76-526	77	25
2	63-437	76-526	93	24
3				
4				
5				
6				
7				

Charpy Impact Tests (available only when specified at time of order)

Temp	F	C	Specimen 1	Specimen 2	Specimen 3	Average	Minimum

HT # B037507 is used to fabricate item C330

Notes: \*Calculated Chemistry Values: Carbon Equivalents (C1, C2, C3), Corrosion Index (I)  
CE1 (IHW) = C + Mn/6 + Cr + Mo + V/5 + (Ni + Cu)/15  
CE2 (I) = S/30 + (Mn + Si)/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15  
I (ASTM G101) = 26.01(Cu) + 3.88(Ni) + 1.20(Cr) + 1.45(Si) + 29(P) + 7.25(Cu)(Ni) - 9.10(Ni)(P) - 33.39(Cu)

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: Doig Rees-Evans  
Manager of Technical Services

Signed: \_\_\_\_\_  
Notary Public

this \_\_\_\_\_ day of \_\_\_\_\_

State of Indiana, County of Wayne Sworn to and subscribed before me

ASTM A6-14.6 A signature is not required on this report however, the document shall clearly identify the organization

Notwithstanding the absence of a signature, the organization, by submitting the report, is accepting responsibility for the content of this report.

**Steel Dynamics, Inc.**  
 2601 S County Road 100 East  
 Columbia City, IN 46725  
 (760) 625-8100

**Certified Mill Test Report**  
 100% Metall and Manufactured in USA

Order: 8/18/2007  
 Customer No: 000181  
 301 of Loading No: 0000121R-2  
 MTR #: 00001214-0

Steel Dynamics Inc  
 1051 Resseaux Drive  
 CSX Center Yard  
 Petersburg, VA 20105  
 Attn: Brock McC...

THUNDERBOLT STEELWORKS  
 A 12300 Center Road  
 Millersburg, PA 17058  
 Attn: Head Office

Item	Bundle	Section	Length	Pc	Heat #	Grade(s)	Specs (Kilograms)	Customer F.O.
4T	020931580	W12X50	50'0"	4	R035714	A992/A992M A709 50S/g345 A709 50S/g345S A572 50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	15111A
5T	020934652	W12X30	45'0"	8	A035743	A992/A992M A709 50S/g345 A709 50S/g345S A572 50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	160110
6T	020935607	W12X26	50'0"	0	A035750	A992/A992M A709 50S/g345 A709 50S/g345S A572 50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	160110

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Ch	C1	C2	PC	Anal
4	06	1.16	0.18	0.041	.21	.38	.002	.10	.10	0.16	.015	.0088	0.004	.022	.31	.35	.16	HE7
5	08	.98	0.18	0.027	.21	.34	.000	.09	.09	0.19	.023	.0076	0.003	.012	.20	.32	.16	HEA
6	07	.94	0.20	0.031	.21	.39	.001	.10	.10	0.24	.015	.0081	0.003	.012	.26	.32	.15	HEA

**MECHANICAL**

Item	Yield (Fy) Strength ksi/MPa	Tensile (Fu) Strength ksi/MPa	Elong (%) based on 8" gauge	ROA (%)	Band Test Result	Temp F/°C	Sample 1			Sample 2			Sample 3			ASTM Grain Size No (per ASTM E112)
							Fy/ir	Test	Temp F/°C	FL R/foolkes	FL R/foolkes	FL R/foolkes	% Shear			
4	54372	73500	21		1											
4	55282	69478	21		2											
5	58400	69477	25		1											
5	60413	73505	24		2											
6	63435	83573	21		1											
6	63437	84587	22		2											

**Chemical Impact Testing Results**

Temp F/°C	Sample 1 FL R/foolkes	Sample 2 FL R/foolkes	Sample 3 FL R/foolkes	% Shear

*HP # B03514 is used to fabricate*

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser documents.

Signed:   
 Quality Assurance

State of Indiana, County of Whitley

Sworn to and subscribed before me this

day of

Signed: \_\_\_\_\_

My commission expires \_\_\_\_\_

Special Comments/Information

\* Fully Killed Steel  
 1 Cast and Refined to a Firm Grain Practice

PO/Rel

PART NO.

**Steel Dynamics, Inc.**  
2601 S. County Road 100 East  
Columbiana City, OH 44705-5044  
(260) 825 8100

**Continued Mill Test Report**  
100% Inspected and Reinspected in USA

Date: 7/12/2005  
Customer No: 000305  
Bill of Lading No: 0000058272  
MTR #: 0000055022

Ship to:  
PACIFIC STEEL  
Customer Will Call

Bill to:  
PACIFIC STEEL INC.  
845 Rue Murick,  
Laval Quebec, PQ H7S1A9  
Attn: John Pirmeniet

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1	0201261609	W12X55	45' 0"	4	A015934	A992 / A992M A709 G50S/G34S A572 G50S/G34S	ASTM A992/A992M - 04a ASTM A709/A709M - 04a ASTM A572/A572M - 04	17880
2	0201261607	W12X58	45' 0"	4	A015903	A992 / A992M A709 G50S/G34S A572 G50S/G34S	ASTM A992/A992M - 04a ASTM A709/A709M - 04a ASTM A572/A572M - 04	17880
3	0201261601	W10X45	50' 0"	4	A015921	A992 / A992M A709 G50S/G34S A572 G50S/G34S	ASTM A992/A992M - 04a ASTM A709/A709M - 04a ASTM A572/A572M - 04	17870
4	0201261602	W10X45	50' 0"	4	A015921	A992 / A992M A709 G50S/G34S A572 G50S/G34S	ASTM A992/A992M - 04a ASTM A709/A709M - 04a ASTM A572/A572M - 04	17870
5	0201261617	W10X45	40' 0"	4	A015920	A992 / A992M A709 G50S/G34S A572 G50S/G34S	ASTM A992/A992M - 04a ASTM A709/A709M - 04a ASTM A572/A572M - 04	17892

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Ca	PC	Analysis
1	.08	1.24	0.10	.029	.22	.38	.031	.040	.11	.02	.017	.009	.0003	.00	.35	HEAT
2	.09	1.24	0.11	.034	.22	.36	.030	.040	.11	.02	.018	.010	.0003	.00	.38	HEAT
3	.08	1.15	0.13	.030	.22	.37	.002	.110	.12	.03	.016	.009	.0003	.02	.34	HEAT
4	.08	1.15	0.13	.030	.22	.37	.002	.110	.12	.03	.016	.009	.0003	.02	.34	HEAT
5	.08	1.12	0.10	.026	.22	.34	.002	.080	.10	.03	.014	.009	.0003	.02	.32	HEAT

**MECHANICAL**

Item	Test	Tension Testing Results				Charpy Impact Testing Results				ASTM Grain Size No (per ASTM E112)						
		Yield Strength ksi/MPa	Tensile Strength ksi/MPa	Elongation (%) based on 8" gauge	ROA (%)	Band Test Result	Test	Temp F/C	Sample 1 ft. lb/oules		Sample 2 ft. lb/oules	Sample 3 ft. lb/oules	% Shear			
1	1	62/47	75/516	25	1	1	1	1	1	1	1	1	1	1	1	1
1	2	59/403	74/513	25	2	2	2	2	2	2	2	2	2	2	2	2
2	1	62/42	75/519	24	1	1	1	1	1	1	1	1	1	1	1	1
2	2	64/43	76/526	24	2	2	2	2	2	2	2	2	2	2	2	2
3	1	60/41	74/509	27	1	1	1	1	1	1	1	1	1	1	1	1
3	2	61/42	74/511	27	2	2	2	2	2	2	2	2	2	2	2	2
4	1	60/41	74/509	27	1	1	1	1	1	1	1	1	1	1	1	1
4	2	61/42	74/511	27	2	2	2	2	2	2	2	2	2	2	2	2

I hereby certify that the contents of this report are accurate and correct. All data and operations performed by the Mill Test Laboratory are in accordance with the requirements of the International Standards and applicable purchaser drawings.

Signed: *[Signature]*  
Quality Assurance

State of Indiana, County of Whitley

Sweorn to and subscribed before me this day of \_\_\_\_\_, 2005.

Signed: \_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

Special Comments/Information:

MTR # A0159914 is used to fabricate item: C305

**Bill To:** TRIAD METALS INTERNATIONAL  
 2300 COMPUTER AVENUE  
 SUITE A-1  
 WILLOW GROVE  
 19090 PA US

**Ship To: 6**  
 TRIAD METALS INTERNATIONAL  
 1951 BESSNER ROAD  
 PETERSBURG VA US  
 23801

**Order Date:** 04/18/2007  
**PO No:** 163595  
**Mill Order No:** 1291583  
**Load No:** 1116370  
**Manifest No:** 1899461

**CERTIFIED MATERIAL TEST REPORT**  
**CHAPARRAL STEEL**  
 300 Ward Rd.  
 Midlothian, TX  
 76065-9651  
 (972) 775-8241

**PROXACT**  
**VP BYAMS**

**SIZE** W 12 X 7 1/8 / W310 X 107  
**GRADE** 957/572-50

**SPERIFICATIONS** ASTM A6-05a, A992-06a, A572-06  
**HEAT NO:** J0362870

**CHEMICAL ANALYSIS**

	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Su	V	Al	Nb	CR
	.07	1.10	.011	.027	.23	.32	.09	.09	.016	.015	.001	.000	.020	.3

**PHYSICAL PROPERTIES**

Yield Strength	Tensile Strength		Elongation	Bend Test
	RSI	KSI		
55.1	779.9	71.3	26.9	8 In 200 mm
54.7	777.3	71.3	26.5	8 In 200 mm

**Specimen Area**  
 Sq In: 0.991, 1.005  
 Sq cm: 6.39, 6.48

**Gage Length**  
 8 In 200 mm

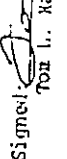
**ROA** 8

HT # 30362870 is used to fab item: C 334

Vendor  
 Gerdau Ameristeel - Petersburg

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A.  
 CFR complies with DTR EN 10204 3.1.B

I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed:  Date: Jun. 07, 2007  
 Tom L. Harrington: Quality Assurance Manager  
 Notary Public (if applicable) \_\_\_\_\_ Date: \_\_\_\_\_  
 Page 1 of 2



**CERTIFIED MILL TEST REPORT**

Date: 09 / 12 / 2007

Customer # 000191

Ship to:  
Triad Metals Intl  
1951 Bessemer Road  
CSX-Collier Yard  
Petersburg VA, 23805 US  
Attn: Rock McGovern

Bill to:  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Petersburg VA, 23805 US  
Attn: Fred White

Quality Steel 100% Melted  
and Manufactured in the USA

GENERAL INFORMATION		SPECIFICATIONS		SHIPMENT DETAILS	
Product	Wide Flange Beam	Standards	ASTM A6/A6M	Bundle / ASN #	BOL # 0000124256
Size	W 18 x 35			Length	pcs Customer PO
	W 460 x 52			40' 0"	6 154105
Heat Number	A036022			40' 0"	6 154105
Condition(s)	Hot-Rolled Fine Grained			40' 0"	6 154105
				40' 0"	6 154105
				40' 0"	6 154105

**CHEMICAL ANALYSIS** (weight percent)

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*J	Analysis Type
.08	.95	.018	.035	.23	.33	.11	.09	.029	.013	.005	.011	.0082	.0004	.29	.33	.16	5.85	Hrc

**MECHANICAL TESTING**

Test	Yield Strength ksi / MPa	Tensile Strength ksi / MPa	Elong. % (8" gage)	fy / fu ratio
1	61 / 424	75 / 518	.26	.82
2	62 / 425	75 / 514	.25	.83
3				
4				
5				
6				
7				

Charpy Impact Tests (available only when specified at time of order)

Temp	F / C	Specimen 1	Specimen 2	Specimen 3	Average	Minimum

AT # A036022 is used to fabricate item 3521

**Notes:**  
 \* Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC), Corrosion Index (I)  
 CE1 (IIV) = C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15  
 CE2 (AWS) = C + (Mn + Si)/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15  
 I = (ASTM G101) = 26.01(Cu) + 3.88(Ni) + 1.20(Cr) + 1.49(Si) + 17.29(P) + 7.28(Cu)(Ni) + 9.10(Ni)(P) + 33.39(Cu)<sup>2</sup>  
 Pcm (AWS) = C + Si/20 + Mn/20 + Cu/20 + Ni/60 + Cr/20 + mol%15 + V/10 + 5B

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

State of Indiana, County of Whitley Sworn to and subscribed before me on this \_\_\_ day of \_\_\_\_\_

Signed: Doug Rees-Evans My commission expires: \_\_\_\_\_  
 Notary Public

ASTM A6 - 14.6: A signature is not required on the test report; however, the document shall clearly identify the organization submitting the report. Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report.







**Steel Dynamics, Inc.**  
 2601 S. County Road 700 East  
 Columbia City, IN 46725  
 (260) 625-8100

**Certified Mill Test Report**  
 100% Melted and Manufactured in USA

Date: 7/23/2007  
 Customer No: 000191  
 Bill of Lading No: 0000119461  
 MTR #: 0000119025

Ship to:  
 Triad Metals International  
 Triad Customer P/U  
 Attn: Sally

Bill to:  
 TRIAD METALS INTERNATIONAL  
 A-1 2300 Computer Avenue  
 Willow Grove, PA 17090  
 Attn: Freight Writer

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.C.	Analysis
1t	020908432	W21X44	42' 0"	4	A034738	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	495	HEAT
2t	020908437	W21X44	42' 0"	4	A034738	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	495	HEAT
3t	020908539	W21X44	42' 0"	4	A034729	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	495	HEAT
4t	020908578	W21X44	42' 0"	4	A034727	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	495	HEAT
5t	020908643	W21X44	42' 0"	4	A034743	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	495	HEAT
6t	020908707	W21X44	42' 0"	4	A034745	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	495	HEAT

**CHEMICAL**

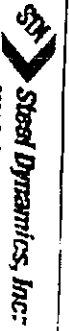
Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC
1*	.08	1.03	.016	.031	.22	.32	.022	.080	.13	.04	.016	.007	.0004	.00	.31	0.3500	0.1700
2*	.08	1.03	.016	.031	.22	.32	.022	.080	.13	.04	.016	.007	.0004	.00	.31	0.3500	0.1700
3*	.07	1.04	.016	.029	.19	.36	.023	.120	.13	.04	.019	.010	.0003	.00	.31	0.3400	0.1600
4*	.07	1.04	.019	.029	.21	.31	.021	.100	.11	.03	.015	.009	.0003	.00	.30	0.3400	0.1600
5*	.06	1.01	.018	.038	.18	.31	.021	.080	.10	.03	.013	.007	.0003	.00	.28	0.3100	0.1400
6*	.08	1.05	.017	.042	.20	.31	.022	.100	.10	.03	.014	.008	.0004	.00	.31	0.3400	0.1600

NY# A034743 is used for the items: A534, B529  
 I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

State of Indiana, County of Whitley  
 Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
 Signed: \_\_\_\_\_ Notary Public

Special Comments/Information:  
 My commission expires: \_\_\_\_\_

Quality Assurance



2601 S. County Road 700 East  
Columbia City, IN 46725-  
(260) 625-8100

**Certified Mill Test Report**  
100% Made and Manufactured in USA

Date: 09/02/2007  
Customer No: 000191  
Bill of Lading No: 0000123446  
MTR #: 0000122965

Ship to:  
Triad Metals Int  
1951 Bessemer Road  
CSX-Collier Yard  
Petersburg, VA 23805  
Attn: Rock McGovern

Bill to:  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 18900  
Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
7t	020955203	W24X62	60' 0"	4	B036562	A992 / A992M A709 g50/g345 A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A674M	185
8t	020955273	W24X62	60' 0"	4	A030578	A992 / A992M A709 g50/g345 A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A674M	185
9t	020955275	W24X62	60' 0"	4	A030576	A712 / A892M A710 g50/g345 A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A674M	185

Item	C	Mn	P	S	SI	Cu	V	Cr	NI	Mo	Sn	N	B	Co	C1	C2	PC	Analysis
7t	.06	1.11	.016	.028	.20	.36	.032	.08	.11	.023	.013	.0089	.0003	.002	.30	.34	.15	HEAT
8t	.08	1.16	.013	.026	.24	.52	.032	.07	.11	.023	.015	.0099	.0003	.001	.34	.36	.19	HEAT
9t	.09	1.19	.014	.018	.24	.51	.032	.06	.11	.023	.016	.0093	.0003	.001	.35	.39	.19	HEAT

**MECHANICAL**

**Tension Testing Results**

Item	Test	Yield (Fy) ksi/MPa	Tensile (Fu) ksi/MPa	Fy/Fu	Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp F/C	Charpy Impact Testing Results
7	1	52/359	69/473	.75	20				
7	2	55/381	73/503	.75	22				
8	1	57/393	75/519	.76	20				
8	2	57/396	75/519	.76	22				
9	1	60/416	78/536	.77	21				
9	2	59/407	76/527	.78	20				

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designations.

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

\* Fully Killed Steel  
† Cast and Rolled to a Fine Grain Practice

Signature:

Signature: \_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

Spec: - Comments/Information:

ASTM Grain Size No (per ASTM E112)

Heat Number B036562

Page 4 of 6

Sun Sep 02 2007 04:08:37 EDT

Page 3

Steel Dynamics

Vendor

# NUCOR

LOT NO.  
227221A

Post Office Box 6100  
Saint Joe, Indiana 46785  
Telephone 260/337-1600

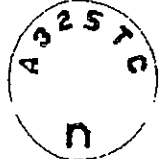
## FASTENER DIVISION

NUCOR ORDER#: 608204  
SERIAL#: FB291042 CUST PO: L-011489 CUST #/NAME: 9207 AMCAN /JUMAX  
ISSUE DATE: 7/17/07 DATE SHIPPED: 9/16/07 LAB SAMPLER: STEVEN A. JENNINGS, LAB TECHNICIAN  
\*\*\*\*\*  
PART NO. LOT NO. DESCRIPTION \*\*\*\*\*  
160559 227221A 3/4-10 X 1 3/4 A325TRU-TENSION STRUC DOME HEAD ASSBY PLAIN

CUST PART #: \*\*\*\*\*  
\*\*\*\*\* TRU-TENSION ASSEMBLY TENSION QUANTITY: 23100 \*\*\*\*\*  
--IN ACCORDANCE WITH ASTM F1852-05 \*\*\*\*\*

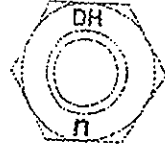
#PCS TESTED: 10 AVG TENSION: 33,000 (LBS) STD DEVIATION: 1,033  
\*\*\*\*\* BOLT \*\*\*\*\*  
PART NO. LOT NO. DESCRIPTION MANUFACTURE DATE  
714000 227220A 3/4-10 X 1 3/4 A325 TRUTENSION 6/19/07  
STRUC SCREW PLAIN DOME HEAD TT

--MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM A325-06  
AVERAGE VALUES OF 5 TESTS  
CORE HARDNESS: 27.9 (RC)  
TOO SHORT TO TEST



--DIMENSIONS PER ASME B18.2.6-2003  
--CHEMISTRY MATERIAL GRADE -1039MLI  
MATERIAL HEAT \*\*CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER  
NUMBER NUMBER C MN P S SI  
RM023756 NU 840547 .39 .87 .005 .017 .25  
MIN .30 .60 .10  
MAX .52 .040 .050 .30  
NUCOR STEEL - NEBRASKA  
A2LA NO: 780.01 EXP: 2008-11-30  
FOR CHEMICAL TESTING  
--VISUAL INSPECTION IN ACCORDANCE WITH ASTM A325-06 80 PCS. SAMPLED LOT PASSED

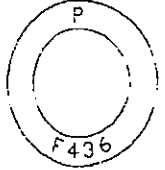
\*\*\*\*\* NUT \*\*\*\*\*  
PART NO. LOT NO. DESCRIPTION MANUFACTURE DATE  
706010 228084A 3/4-10 GR DH HVY HX NUT 6/05/07  
T.T. BOLT NUT, STD. TAP



--MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM A563-04A  
CORE HARDNESS: 31.4 (RC) PROOF LOAD: 58,500(LBS) AVERAGE VALUES OF 5 TESTS

--DIMENSIONS PER ASME B18.2.6-2003  
--CHEMISTRY MATERIAL GRADE -1045L  
MATERIAL HEAT \*\*CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER  
NUMBER NUMBER C MN P S SI  
RM023433 NU 741015 .45 .72 .017 .018 .19  
MIN .20 .60  
MAX .55 .040 .050  
NUCOR STEEL - NEBRASKA  
A2LA NO: 780.01 EXP: 2008-11-30  
FOR CHEMICAL TESTING

\*\*\*\*\* WASHER \*\*\*\*\*  
PART NO. LOT NO. DESCRIPTION MANUFACTURE DATE  
180020B 023811 3/4 STRUCTURAL WASHER TYPE 1  
ASTM F436



--MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM F436-04  
CORE HARDNESS: 41.6 (RC)  
--CHEMISTRY MATERIAL GRADE -1050  
HEAT \*\*CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER  
NUMBER NUMBER C MN P S SI  
0132840 .52 .62 .015 .003 .19  
MIN .30 .50  
MAX .80 .050 .50  
PRESTIGE STAMPING, INC.  
P.O. BOX 1086  
WARREN, MI 48090  
A2LA NO: EXP:  
FOR CHEMICAL TESTING

THE SAMPLES, TESTED IN ACCORDANCE WITH THE APPLICABLE SPECIFICATIONS LISTED ABOVE, CONFORM TO THESE SPECIFICATIONS AND WERE MANUFACTURED FREE OF MERCURY CONTAMINATION. NO HEATS TO WHICH BISMUTH, SELENIUM, TELLURIUM, OR LEAD WAS INTENTIONALLY ADDED HAVE BEEN USED TO PRODUCE THE BOLTS. THE STEEL WAS MELTED AND MANUFACTURED IN THE U.S.A. AND THE PRODUCT WAS MANUFACTURED AND TESTED IN THE U.S.A. WE CERTIFY THAT THIS DATA IS A TRUE REPRESENTATION OF INFORMATION PROVIDED BY THE MATERIAL SUPPLIER AND OUR TESTING LABORATORY. THIS CERTIFIED MATERIAL TEST REPORT RELATES ONLY TO THE ITEMS LISTED ON THIS DOCUMENT AND MAY NOT BE REPRODUCED EXCEPT IN FULL.



NUCOR FASTENER  
A DIVISION OF NUCOR CORPORATION

*Chris Ramer*  
CHRIS RAMER  
QUALITY ASSURANCE SUPERVISOR

MECHANICAL FASTENER  
Certificate No. A2LA 139-01  
Expiration Date 12/31/07

SET LOT NO. KT1111

# INSPECTION CERTIFICATE

Specification	Size	Quantity
ASTM F1852 Type 1 ASTM A563 Grade DH ASTM F436 Type 1	3/4-10 UNC X 2	35,280 pcs.

Mechanical properties tested in accordance to ASTM F606/F606M, ASTM A370, ASTM E18

BOLT LOT NO. KT1111

Date: Sep. 13, '07



**UNYTITE, INC.**  
One Unytite Drive  
Peru, Illinois 61354  
815-224-2221 — FAX # 815-224-3434

Average	Mechanical Property of Full Size Bolts			Heat Treatment		Chemical Composition %										
	Tensile Strength	Proof Load	Hardness	°F (°C)	Min.	C	Si	Mn	P	S	Cu	Ni	Cr	Mo	B	
51900	28400 lbf	32.2	1580	869	Min. 800	30	15	Min. 60	Max. 40	Max. 50	—	—	—	—	—	
Part of Screw	Part of Screw	HRC 34 MAX	Quench	Temper	Heat No.	30	15	Min. 60	Max. 40	Max. 50	—	—	—	—	—	
ALL PASS	ALL PASS	32.2	1580	869	Min. 800	30	15	Min. 60	Max. 40	Max. 50	—	—	—	—	—	
ALL PASS	ALL PASS	32.2	1580	869	Min. 800	30	15	Min. 60	Max. 40	Max. 50	—	—	—	—	—	

NUT LOT NO. KS211

Average	Mechanical Property of Full Size Bolts			Heat Treatment		Chemical Composition %										
	Tensile Strength	Proof Load	Hardness	°F (°C)	Min.	C	Si	Mn	P	S	Cu	Ni	Cr	Mo	B	
28.2	58450	1193	635	800	Min. 800	20	—	Min. 60	Max. 40	Max. 50	—	—	—	—	—	
Part of Screw	Part of Screw	HRC 34 MAX	Quench	Temper	Heat No.	20	—	Min. 60	Max. 40	Max. 50	—	—	—	—	—	
ALL PASS	ALL PASS	32.2	1580	869	Min. 800	20	—	Min. 60	Max. 40	Max. 50	—	—	—	—	—	
ALL PASS	ALL PASS	32.2	1580	869	Min. 800	20	—	Min. 60	Max. 40	Max. 50	—	—	—	—	—	

WASHER LOT NO. WB9742

Mean/5 Pcs.	Mechanical Property of Full Size Bolts			Heat Treatment		Chemical Composition %										
	Tensile Strength	Proof Load	Hardness	°F (°C)	Min.	C	Si	Mn	P	S	Cu	Ni	Cr	Mo	B	
42.0	55	18	68	13	3	—	—	—	—	—	—	—	—	—	—	
Part of Screw	Part of Screw	HRC 34 MAX	Quench	Temper	Heat No.	—	—	—	—	—	—	—	—	—	—	
ALL PASS	ALL PASS	32.2	1580	869	Min. 800	—	—	—	—	—	—	—	—	—	—	
ALL PASS	ALL PASS	32.2	1580	869	Min. 800	—	—	—	—	—	—	—	—	—	—	

Material used for the bolt, nut and washer were melted & manufactured in the USA. The product was manufactured in the USA to ASTM specifications. The bolt and nut are manufactured by Unytite. We hereby certify that the material described has been manufactured and inspected satisfactory with requirement of the above specification.

Chief of Quality Assurance Section  
*Jean Margherio*

**FASTENER TENSION**

Spec. (lbf)	Min.
29000	29000
Mean / 6 sets	40326
Standard Deviation	1675

**THREAD ACCURACY**

Bolt	ASME B1.1 Class 2A
Nut	ANSI B1.1 Class 2B

**MARKS**

OFFICIAL SEAL  
JEAN MARGHERIO  
NOTARY PUBLIC - STATE OF ILLINOIS  
COMMISSION EXPIRES: 10/18/08  
09-17-07

SF1 LOT NO. KG461A

# INSPECTION CERTIFICATE

Specification	Size	Quantity
ASTM F1852 Type 1 ASTM A563 Grade DH ASTM F436 Type 1	3/4-10 UNC X 2-1/4	34, 045 pcs.


Mechanical properties tested in accordance to ASTM F606/F606M, ASTM A370, ASTM E18

BOLT LOT NO. KG461

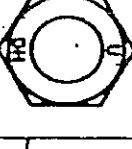
Date: May 21, '07




**UNYTITE, INC.**  
One Unyite Drive  
Peru, Illinois 61354  
815-224-2221 — FAX # 815-224-3434

Mechanical Property of Full Size Bolts	Tensile Strength		Proof Load		Hardness		Heat Treatment		IDENTIFICATION		Chemical Composition %									
	Load (lbf)	Position of fracture	28400 lbf.	(Length Method)	HRC	Quench	Temper	*F (°C)	Heat No.											
Spec.	40100	Part of screw	Max.	+/- 00005 in.	34 MAX	Min.	800	Heat No.												
Average	52100	Part of screw	ALL PASS		32.4	1580	869	475650	C	Si	Mn	P	S	Cu	Ni	Cr	Mo	B		
									x 100	x 100	x 100	x 1000	x 1000	x 100	x 100	x 100	x 100	x 10,000		
									30	15	Min.	Max.	Min.	Max.	50	-	-	-		
									52	30	60	40	50	-	-	-	-	-		
									32	26	85	1.1	1.0	8	5	6	1	25		

NUT LOT NO. KG401

Hardness (HRC)	Hardness After 24 hr x 1000° F HRB	Proof Load (lbf)	Heat Treatment		IDENTIFICATION		Chemical Composition %												
			*F (°C)	Temper	Heat No.														
Spec.	24-38	HRB 89	Min.	58450	Heat No.														
Mean/5 pcs	28.2	—	ALL PASS	1562	1202	M24367	C	Si	Mn	P	S	Cu	Ni	Cr					
							x 100	x 100	x 100	x 1000	x 1000	x 100	x 100	x 100					
							20	55	Min.	Max.	Min.	Max.	50	-	-	-	-	-	
							43	24	80	9	36	1.4	5	11					

WASHER LOT NO. WB8554

Hardness (HRC)	IDENTIFICATION	Chemical Composition %								Fastener Tension		REMARKS	
		C	Si	Mn	P	S	Cu	Ni	Cr	Spec. (lbf.)	Min.		
Spec.	38-45	Heat No.									Mean / 6 sets.	40726	
Mean/5 pcs.	41.5	B17014	43	18	76	7	1	-	-	Standard Deviation	953		

Material used for the bolt, nut and washer were melted & manufactured in the USA.  
The product was manufactured in the USA to ASTM specifications. The bolt and nut are manufactured by Unyite.  
We hereby certify that the material described has been manufactured and inspected satisfactorily with requirement of the above specification.

Chief of Quality Assurance Section  
*Jean Margherio*

OFFICIAL SEAL  
JEAN MARGHERIO  
NOTARY PUBLIC - STATE OF ILLINOIS  
MY COMMISSION EXPIRES: 10/18/09

SET LOT NO. KH591A

# INSPECTION CERTIFICATE

Specification

ASTM F1852 Type 1  
ASTM A563 Grade 1DH  
ASTM F436 Type 1

Size

3/4-10 UNC X 2-1/2

Quantity

37,659 pcs.



UNYTTTE, INC.

One Unyttte Drive  
Peru, Illinois 61354

815-224-2221 — FAX # 815-224-3434

Mechanical properties tested in accordance to ASTM F606/F606M, ASTM A570, ASTM E18

BOLT LOT NO. KH591

Date: May 29, '07

Average	Mechanical Property of Full Size Bolts		Heat Treatment		IDENTIFICATION		Chemical Composition %									
	Tensile Strength	Proof Load	*F (°C)	Quench	Temper	Heat No.	C	SI	Mn	P	S	Cu	NI	Cr	Mo	B
51075	28400	28400	32.8	ALL PASS	800	1562	44	18	65	10	24	19	8	10		
Spec.	Min	Max.	HRC	Min.	Max.	Min.	20	55	60	40	50					
Load (lb)	Position of fracture	(Length Method)														
40100	Part of Screw	+/- 00005 in.	34 MAX	800	860	477050	30	15	60	40	50					
Part of Screw							31	28	84	11	8	9	5	7	2	26
Part of Screw																

NUT LOT NO. K3421

Average	Mechanical Property of Full Size Bolts		Heat Treatment		IDENTIFICATION		Chemical Composition %							
	Tensile Strength	Proof Load	*F (°C)	Quench	Temper	Heat No.	C	SI	Mn	P	S	Cu	NI	Cr
28.2	58450	58450	800	ALL PASS	800	1562	44	18	65	10	24	19	8	10
Spec.	Min.	Max.	HRC	Min.	Max.	Min.	20	55	60	40	50			
24-38	HRB 89	58450	800	800	860	477050	30	15	60	40	50			
Min.														
HRB 89														
Min.														

WASHER LOT NO. WB9059

Hardness (HRC)	IDENTIFICATION		Chemical Composition %								Fastener Tension		REMARKS
	C	SI	Mn	P	S	Cu	NI	Cr	Spec. (lb.)	Min.	Mean / 6 sets.		
18-45	44	20	76	5	2				29000	38770	1774		
Spec.	Heat No.		Max.	Max.	Max.								
18-45	B17017		40	50									
Heat No.													
42.1													
Mean/5 Pcs.													

Material used for the bolt, nut and washer were melted & manufactured in the USA. The product was manufactured in the USA to ASTM specifications. The bolt and nut are manufactured by Unyttte. We hereby certify that the material described has been manufactured and inspected satisfactory with requirement of the above specification.

Chief of Quality Assurance Section

JEAN MARGHERIO

OFFICIAL SEAL  
JEAN MARGHERIO  
NOTARY PUBLIC - STATE OF ILLINOIS  
MY COMMISSION EXPIRES: 10/18/09

05-30-07

SET LOT NO. KK371

# INSPECTION CERTIFICATE

Specification	Size	Quantity
ASTM F1852 Type 1 ASTM A563 Grade DH ASTM F436 Type 1	3/4-10 UNC X 2-3/4	33,775 pcs.



**UNYTITE, INC.**  
One Unyrite Drive  
Peru, Illinois 61354  
815-224-2221 — FAX # 815-224-3434

**BOLT LOT NO.** KK371

Date: Aug. 28, '07

Mechanical Property of Full Size Bolts	Tensile Strength	Proof Load 28400 lbf.	Hardness	Heat Treatment		IDENTIFICATION	Chemical Composition %														
				°F (°C)	Min. Temper		C	Si	Mn	P	S	Cu	Ni	Cr	Mo	B					
Spec.	40100	Part of Screw	34 MAX	Min.	800		30	15	30	Min.	60	Max.	40	Max.	50						
Average	51550	Part of Screw	ALL PASS				491270	32	21	84	9	9	8	5	5	1	27				

**NUT LOT NO.** KM292

Hardness (HRC)	Hardness After 24 hr x 1000° F HR8	Proof Load (lbf)	Heat Treatment		IDENTIFICATION	Chemical Composition %															
			°F (°C)	Min. Temper		C	Si	Mn	P	S	Cu	Ni	Cr								
Spec.	24-38	HR8 89	58450	Min.	800		20	55	60	Min.	40	Max.	50								
Mean/5pcs	29.5	—	ALL PASS				45	24	80	7	36	13	5	10							

**WASHER LOT NO.** WB9063

Hardness (HRC)	IDENTIFICATION	Chemical Composition %											
		C	Si	Mn	P	S	Cu	Ni	Cr				
Spec.	38-43	—	—	—	Max.	40	Max.	50					
Mean/5 Pcs.	41.5	30640050	38	20	70	12	4	—	—	—	—	—	—

**Fastener Tension**

Fastener Tension	Min.
Spec. (lbf)	29000
Mean / 5 sets.	39230
Standard Deviation	2175

**Thread Accuracy**

(Bolt & Nut)	
Bolt	ASME B1.1 Class 2A
Nut	ANSI B1.1 Class 2B

**REMARKS**

08/29/07  
OFFICIAL SEAL  
JEAN MARGHERIO  
NOTARY PUBLIC - STATE OF ILLINOIS  
MY COMMISSION EXPIRES 10/8/09

Material used for this bolt, nut and washer were melted & manufactured in the USA. The product was manufactured in the USA to ASTM specifications. The bolt and nut are manufactured by Unyrite. We hereby certify that the material described has been manufactured and inspected satisfactory with requirement of the above specification.

Chief of Quality Assurance Section

*[Signature]*



# NUCOR

LOT NO.  
221311B

Post Office Box 6100  
Saint Joe, Indiana 46786  
Telephone 260/337-1800

## FASTENER DIVISION

CUSTOMER NO/NAME

5614 AMCAN THREADED PRODUCTS

NUCOR ORDER # 593816

TEST REPORT SERIAL# FB285813

CUST PART #

TEST REPORT ISSUE DATE 2/12/07

DATE SHIPPED 4/20/07

CUSTOMER P.O. # L-010582

NAME OF LAB SAMPLER: JACK H. MILLER, LAB TECHNICIAN

\*\*\*\*\*CERTIFIED MATERIAL TEST REPORT\*\*\*\*\*

NUCOR PART NO	QUANTITY	LOT NO.	DESCRIPTION
160740	1800	221311B	3/4-10 X 6 1/2 A325 HVY HX
MANUFACTURE DATE 2/06/07			STRUC SCREW PLAIN



### --CHEMISTRY

MATERIAL GRADE -1039ML1

MATERIAL NUMBER	HEAT NUMBER	**CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER					MATERIAL SUPPLIER
		C	MN	P	S	SI	
RM023305	NU 837907	.40	.90	.009	.011	.24	NUCOR STEEL - NEBRASKA
	MIN	.30	.60			.10	A2LA NO: 780.01 EXP: 2008-11-30
	MAX	.52		.040	.050	.30	FOR CHEMICAL TESTING

### --MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM A325-04b

SURFACE HARDNESS (R30N)	CORE HARDNESS (RC)	PROOF LOAD 28400 LBS	TENSILE STRENGTH 10 DEG-WEDGE (LBS)	STRESS (PSI)
N/A	25.7	PASS	46010	137754
N/A	25.9	PASS	46410	138952
N/A	25.5	PASS	46910	140449
N/A	25.2			
AVERAGE VALUES FROM TESTS		PRODUCTION LOT SIZE	5350 PCS	
25.6		46443	139052	

--VISUAL INSPECTION IN ACCORDANCE WITH ASTM A325-04b 4 PCS. SAMPLED LOT PASSED  
 HEAT TREATMENT - AUSTENITIZED, OIL QUENCHED & TEMPERED (MIN 800 DEG F)

### --DIMENSIONS PER ASME B18.2.6-2003

CHARACTERISTIC	#SAMPLES TESTED	MINIMUM	MAXIMUM
Width Across Corners	8	1.4010	1.4040
Grip Length	8	5.0060	5.0190
Head Height	8	0.4610	0.4650
Threads	8	PASS	PASS

ALL TESTS ARE IN ACCORDANCE WITH THE LATEST REVISIONS OF THE METHODS PRESCRIBED IN THE APPLICABLE SAE AND ASTM SPECIFICATIONS. THE SAMPLES TESTED CONFORM TO THE SPECIFICATIONS AS DESCRIBED/LISTED ABOVE AND WERE MANUFACTURED FREE OF MERCURY CONTAMINATION. NO HEATS TO WHICH BISMUTH, SELENIUM, TELLURIUM, OR LEAD WAS INTENTIONALLY ADDED HAVE BEEN USED TO PRODUCE THE BOLTS. THE STEEL WAS MELTED AND MANUFACTURED IN THE U.S.A. AND THE PRODUCT WAS MANUFACTURED AND TESTED IN THE U.S.A. WE CERTIFY THAT THIS DATA IS A TRUE REPRESENTATION OF INFORMATION PROVIDED BY THE MATERIAL SUPPLIER AND OUR TESTING LABORATORY. THIS CERTIFIED MATERIAL TEST REPORT RELATES ONLY TO THE ITEMS LISTED ON THIS DOCUMENT AND MAY NOT BE REPRODUCED EXCEPT IN FULL.



NUCOR FASTENER  
A DIVISION OF NUCOR CORPORATION

*Chris Ramer*  
CHRIS RAMER  
QUALITY ASSURANCE SUPERVISOR

MECHANICAL FASTENER  
CERTIFICATE NO. A2LA 139-01

**S UNION TRADING CO., LTD.**

50th Lane, Chia-Hsing West Road, Kangshan, Kaohsiung 820, Taiwan.

TEL: 886-7-6213959

FAX: 886-7-6214466, 6212466

EMAIL: service@midas.com.tw

**INSPECTION & QUALITY ASSURANCE REPORT**

Date : 2007/03/22 IQAR NO. : MUT-001287

Customer : AMCAN JUMAX INC.

Part Name/No. : 3/4-10 A563 GR. C HEAVY HEX NUTS COARSE THREAD PLAIN.

Drawing No. : \_\_\_\_\_ Rev. : \_\_\_\_\_ Date : \_\_\_\_\_

P/O No. : L-009376 Lot Size : 17.500 MPCS(LOT NO: A601-720401A97.)

**NONDESTRUCTIVE INSPECTION**

DIM. KEY	REQUIREMENT				FINDING	Nos. Rejected	RESULT	
	REQUIRED MIN - MAX	UNITS [IN]	Level	Sample Size				Acc. Nbr.
A	WIDTH A/F: 1.212 - 1.250		B	32	1	1.222 - 1.226	0	OK
B	WIDTH A/C: 1.382 - 1.443		C	8	0	1.395 - 1.400	0	OK
C	THICKNESS: .710 - .758		C	8	0	.715 - .722	0	OK
D	MINOR DIA: .642 - .663		C	8	0	.649 - .651	0	OK
E	3/4-10 THREAD		A	100	2	GO-NOGO	0	OK

**DESTRUCTIVE INSPECTION**

CHARACTERISTIC	Level)	Sample Size	Acc. Nbr.	FINDING	Nos. Rejected	RESULT
HARDNESS: 38 HRC (MAX)	A	8	0	20 - 22	0	OK
PROOF LOAD: 144000 PSI (MIN)	A	8	0	144690 - 144848	0	OK
PLAIN	B	4	0	OK	0	OK

OTHERS :

MATERIAL : C-1018 (CERTIFICATE NO: 960123B0231.) (HEAT NO: 3K951.) OK

VISUAL : FINISH & APPEARANCE. : OK

COMMENT ON SHIPMENT

ACCEPTED & SHIP  REJECTED, USE AS IS, IMPROVE NEXT SHIPMENT.

REJECTED, SORT BEFORE SHIPMENT.  REJECTED, SCRAP & REPRODUCE.

Washers



TECHNICAL STAMPING, INC.

58400 E. RUSSELL SCHMIDT BLVD.
CHESTERFIELD TWP., MI 48051
PH(586)948-3285 / FX(586)948-3286

MATERIAL CERTIFICATION

CUSTOMER NAME CUSTOMER ORDER NUMBER DATE

Amcan Produits Filetes Inc. L-009561 3/14/07

PART NUMBER - CUSTOMER LOT NO. LOT NUMBER QUANTITY

3/4" F436 F436N449\*T 0107492 173,750

Table with columns: STEEL GRADE, HEAT, C, MN, P, S, SI, AL, REVISION. Values: 0180699, .25, 1.03, .012, .004, .15, .049, 2004

SPECIFICATION ACTUAL GAUGE

O.D - 1.438 - 1.500 1.451 - 1.454 CALIPER

I.D - .813 - .844 .826 - .829 CALIPER, PIN GAUGE

THICKNESS- .122 - .177 .124 - .126 MICROMETER

FLAT- Max .010 .003 CALIPER

HEAT TREAT - 38 - 45HRC 40 - 42

PLATING- N/A

OTHER N/A

WE HERABY CERTIFY THIS PRODUCT WAS PRODUCED UNDER A ISO-9001:2000 QUALITY ASSURANCE SYSTEM. ISO-9001:2000 CERTIFICATION NUMBER-1265 - DATE OF REGIS. JAN. 3, 2003 ALL MATERIALS ARE MADE AND MELTED IN THE U.S.A. THIS PRODUCT WAS MANUFACTURED IN CHESTERFIELD, MICHIGAN, U.S.A. THIS PRODUCT CONFORMS TO ALL REQUIREMENTS FOR WASHERS AS PRODUCED ACCORDING TO A.S.T.M. F-436-04. THE ABOVE TEST RESULTS APPLY ONLY TO THE ITEMS TESTED. THIS TEST REPORT MUST NOT BE REPRODUCED EXCEPT IN FULL WITHOUT PRIOR WRITTEN APPROVAL.

Handwritten signature and AUTHORIZED SIGNATURE stamp

CERTIFIED ISO 9001:2000

# MIDAS UNION TRADING CO., LTD.

#25, 30th Lane, Chiu-Hsing West Road, Kangshan, Kaohsiung 820, Taiwan.

TEL/886-7-6213959

FAX/886-7-6214466, 6212466

EMAIL: service@midas.com.tw

## INSPECTION & QUALITY ASSURANCE REPO

Date : 2007/7/12 IQAR NO. : MUT-00Q095

Customer : AMCAN JUMAX INC.

Part Name/No. : 3/4-10X7-1/2 A325 HEAVY HEX BOLT COARSE THREAD PLAIN.

Drawing No. : 1FI Rev. : \_\_\_\_\_ Date : \_\_\_\_\_

P/O No. : L-010401 4 Lot Size : 1.521 MPCS (LOT NO: 056368.)

### NONDESTRUCTIVE INSPECTION

DIM. KEY	REQUIREMENT					FINDING	Nos. Rejected	RESULT
	REQUIRED MIN - MAX	UNITS [IN]	Level	Sample Size	Acc. Nbr.			
A	WIDTH A/F: 1.212 - 1.250		B	32	1	1.219 - 1.222	0	OK
B	WIDTH A/C: 1.383 - 1.443		C	8	0	1.386 - 1.396	0	OK
C	HEAD HEIGHT: .455 - .483		C	8	0	.472 - .478	0	OK
D	BODY DIA: .729 - .750		C	8	0	.744 - .745	0	OK
E	THREAD LENGTH: 1.380		B	32	1	1.717 - 1.737	0	OK
F	TOTAL LENGTH: 7.320 - 7.640		B	32	1	7.362 - 7.382	0	OK
G	MAJOR DIA: .7353 - .7482		B	32	1	.7400 - .7415	0	OK
H	3/4-10 UNC-2A		A	100	2	GO-NOGO	0	OK

### DESTRUCTIVE INSPECTION

CHARACTERISTIC	Level	Sample Size	Acc. Nbr.	FINDING	Nos. Rejected	RESULT
CORE HARDNESS: 25 - 34 RC	A	8	0	30 - 31	0	OK
TENSILE STRENGTH: 40100 lbs (MIN)	B	4	0	46837 - 47108	0	OK
PROOF LOAD: 28400 lbs (MIN)	B	4	0	28476 - 28897	0	OK
PLAIN	B	4	0	OK	0	OK

OTHERS :

MATERIAL : 10B33 (CERTIFICATE NO: 960424B0020.) (HEAT NO: 1Y231.) OK

VISUAL : FINISH & APPEARANCE : OK

COMMENT ON SHIPMENT

ACCEPTED & SHIP  REJECTED. USE AS IS, IMPROVE NEXT SHIPMENT.

**MIDAS UNION TRADING CO., LTD.**

#25, 30th Lane, Chia-Hsiung West Road, Kangshan, Keelung 820, Taiwan.

TEL 886-7-6213959 FAX 886-7-6214466, 6212466

EMAIL: service@midas.com.tw

**INSPECTION & QUALITY ASSURANCE REPORT**

Date : 2006.12.28 IQAR NO. : MUT-001287  
 Customer : AMCAN PRODUTES FILETES INC.  
 Part Name No. : 3.4-10 A563 GR. C HEAVY HEX NUTS COARSE THREAD PLAIN.  
 Drawing No. : Rev. : Date :  
 P.O. No. : L-008868 Lot Size : 42,500 MPCSI LOT NO: A601-6R1101B71.1

**NONDESTRUCTIVE INSPECTION**

DIM. KEY	REQUIREMENT			FINDING	Nos. Rejected	RESULT
	REQUIRED MIN. MAX	UNITS [IN]	Level / Sample Size / Acc. Nbr			
A	WIDTH A/F 1.2 - 1.250	B	32	1.218 - 1.230	0	OK
B	WIDTH A/C 1.582 - 1.433	C	8	1.595 - 1.598	0	OK
C	THICKNESS 7.0 - 7.0	C	8	7.25 - 7.33	0	OK
D	MINOR DIA 6.42 - 6.63	C	8	6.57 - 6.61	0	OK
L	3.4-10 THREAD	A	100	GO-NOGO	0	OK

**DESTRUCTIVE INSPECTION**

CHARACTERISTIC	Level	Sample Size	Acc. Nbr	FINDING	Nos. Rejected	RESULT
HARDNESS 38 HRC (MAX)	A	8	0	70 - 72	0	OK
THREAD TO 144.0 IN. MIN	A	8	0	144.690 - 144.848	0	OK
PLAIN	B	4	0	OK	0	OK

Inspected by: [Signature] Checked by: [Signature] Approved by: [Signature]

ALL PARTS MUST BE SHIPPED WITH SHIPMENT. IF REJECTED, SCRAP & REPROFIT



**TECHNICAL STAMPING, INC.**

5060 E. RUSSELL SCHMIDT BLVD.  
 CHESTERFIELD TWP., MI 48051  
 TEL(586)948-3285 / FAX(586)948-3286

**MATERIAL  
 CERTIFICATION**

CUSTOMER NAME		CUSTOMER ORDER NUMBER				DATE		
Amcan / Jumax Inc.		L-009057				9/25/07		
PART NUMBER - CUSTOMER LOT NO.		LOT NUMBER				QUANTITY		
3/4" F436 F436N449*T		0807-713				240,000		
STEEL GRADE	HEAT	C	MN	P	S	SI	AL	REVISION
	2127989	.25	1.25	.010	.004	.27	.038	ACTM F-436-04
SPECIFICATION		ACTUAL				GAUGE		
O.D - 1.438 - 1.500		1.444 - 1.447				CALIPER		
I.D - .815 - .845		.825 - .828				CALIPER, PIN GAUGE		
THICKNESS- .122 - .177		.127 - .130				MICROMETER		
FLAT- Max .010		.006				CALIPER		
HEAT TREAT - 38 - 45 HRC		41						
PLATING-		N/A						
OTHER		N/A						

WE HEREBY CERTIFY THIS PRODUCT WAS PRODUCED UNDER A ISO-9001:2000 QUALITY ASSURANCE SYSTEM, ISO-9001:2000 CERTIFICATION NUMBER-1263 - DATE OF REGIS. JAN 3, 2003  
 ALL MATERIALS ARE MADE AND MELTED IN THE U.S.A. THIS PRODUCT IS PRODUCED IN CHESTERFIELD, MICHIGAN, U.S.A. THIS PRODUCT CONFORMS TO ALL REQUIREMENTS  
 FOR WASHERS AS PRODUCED ACCORDING TO A.S.T.M. F-436-04. THE ABOVE TEST RESULTS APPLY ONLY TO THE ITEMS TESTED. THIS TEST REPORT MUST NOT BE REPRODUCED  
 EXCEPT IN FULL WITHOUT PRIOR WRITTEN APPROVAL.

*[Handwritten Signature]*  
 AUTHORIZED SIGNATURE

CERTIFIED ISO 9001:2000

# MIDAS UNION TRADING CO., LTD.

#25, 30th Lane, Chia-Hsing West Road, Kangshan, Kaohsiung 820, Taiwan.

TEL/886-7-6213959

FAX/886-7-6214466, 6212466

EMAIL: service@midas.com.tw

## INSPECTION & QUALITY ASSURANCE REPORT

Date : 2007/6/7

IQAR NO. : MUT-00Q095

Customer : AMCAN JUMAX INC.

Part Name/No. : 3/4-10X8-1/2 A325 HEAVY HEX BOLT COARSE THREAD PLAIN.

Drawing No. : IFI

Rev. : \_\_\_\_\_ Date : \_\_\_\_\_

P/O No. : L-010401

Lot Size : 3,477 MPCS (LOT NO: 05638S.)

### NONDESTRUCTIVE INSPECTION

DIM. KEY	REQUIREMENT				FINDING	Nos. Rejected	RESULT	
	REQUIRED MIN - MAX	UNITS [IN]	Level	Sample Size				Acc. Nbr.
A	WIDTH A/F: 1.212 - 1.250		B	32	1	1.218 - 1.227	0	OK
B	WIDTH A/C: 1.383 - 1.443		C	8	0	1.391 - 1.392	0	OK
C	HEAD HEIGHT: .455 - .483		C	8	0	.467 - .470	0	OK
D	BODY DIA: .729 - .750		C	8	0	.742 - .744	0	OK
E	THREAD LENGTH: 1.380		B	32	1	1.723 - 1.728	0	OK
F	TOTAL LENGTH: 8.320 - 8.640		B	32	1	8.346 - 8.380	0	OK
G	MAJOR DIA: .7353 - .7482		B	32	1	.740 - .741	0	OK
H	3/4-10 UNC-2A		A	100	2	GO-NOGO	0	OK

### DESTRUCTIVE INSPECTION

CHARACTERISTIC	Level	Sample Size	Acc. Nbr.	FINDING	Nos. Rejected	RESULT
CORE HARDNESS: 25 - 34 RC	A	3	0	29 - 30	0	OK
TENSILE STRENGTH: 40100 lbs (MIN)	B	4	0	46405 - 47108	0	OK
PLAIN	B	4	0	OK	0	OK

OTHERS :

MATERIAL : 10B33 (CERTIFICATE NO: 960424B0020)(HEAT NO: 1Y23L) OK

VISUAL : FINISH & APPEARANCE : OK

COMMENT ON SHIPMENT

ACCEPTED & SHIP  REJECTED, USE AS IS, IMPROVE NEXT SHIPMENT.

REJECTED, SORT BEFORE SHIPMENT.  REJECTED, SCRAP & REPRODUCE

Inspected by :

725, 2nd Lane, Chiu-Hsing West Road, Kangshan, Kaohsiung 820, Taiwan.

TEL: 886-7-6213959

FAX: 886-7-6214466, 6212466

EMAIL: service@midas.com.tw

**INSPECTION & QUALITY ASSURANCE REPORT**

Date : 2006.12.28 IQAR NO. : MUT-001287  
 Customer : AMCAN PRODUCTS FILETES INC.  
 Part Name No. : 3/4-10 A563 GR. C HEAVY HEX NUTS COARSE THREAD PLAIN.  
 Drawing No. : \_\_\_\_\_ Rev. : \_\_\_\_\_ Date : \_\_\_\_\_  
 P.O. No. : L-008868 Lot Size : 42,500 MPCs (LOT NO: A601-6B1101B71)

**NONDESTRUCTIVE INSPECTION**

DIM. KEY	REQUIREMENT				FINDING	Nos. Rejected	RESULT
	REQUIRED MIN - MAX	UNITS [IN]	Level	Sample Size			
A	WIDTH A: 1.2 - 1.250		B	32	1.218 - 1.230	0	OK
B	WIDTH B: 1.382 - 1.447		C	5	1.395 - 1.399	0	OK
C	THICKNESS 0.70 - 0.758		C	8	0.725 - 0.733	0	OK
D	MINOR DIA: 0.642 - 0.662		C	5	0.657 - 0.661	0	OK
E	3/4-10 THREAD		A	100	GO-NOGO	0	OK

**DESTRUCTIVE INSPECTION**

CHARACTERISTIC	Level	Sample Size	Acc. Nbr.	FINDING	N. Rejected	RESULT
HARDNESS 38 HRC (MAX)	A	8	9	20 - 22	0	OK
CRACKS (NO CRACKS PERMITTED)	A	8	9	144 880 - 144 848	0	OK
PLAIN	B	4	9	OK	0	OK

Inspected by: [Signature] Checked by: [Signature] Approved by: [Signature]  
 REJECTED, SCRAP & REPRODUCTION





**TECHNICAL STAMPING, INC.**

5060 E. RUSSELL SCHMIDT BLVD.  
CHESTERFIELD TWP., MI 48051  
PH(586)948-3285 / FX(586)948-3286

**MATERIAL CERTIFICATION**

CUSTOMER NAME		CUSTOMER ORDER NUMBER				DATE		
Amcan / Jumax Inc.		L-009057				9/25/07		
PART NUMBER	CUSTOMER LOT NO.	LOT NUMBER				QUANTITY		
3/4" F436	F436N449*T	0807-713				240,000		
STEEL GRADE	HEAT	C	MN	P	S	SI	AL	DIVISION
	2127989	.25	1.25	.010	.004	.23	.038	ASTM F-436-04
SPECIFICATION		ACTUAL				GAUGE		
O.D - 1.438 - 1.500		1.444 - 1.447				CALIPER		
I.D - .813 - .845		.825 - .828				CALIPER, PIN GAUGE		
THICKNESS- .122 - .177		.127 - .130				MICROMETER		
FLAT- Max .010		.006				CALIPER		
HEAT TREAT - 38 - 45 HRC		41						
PLATING-		N/A						
OTHER		N/A						

WE HEREBY CERTIFY THIS PRODUCT WAS PRODUCED UNDER A ISO-9001:2000 QUALITY ASSURANCE SYSTEM, ISO-9001:2000 CERTIFICATION NUMBER-1285- DATE 11/28/03. ALL MATERIALS ARE MADE AND MELTED IN THE U.S.A. THIS PRODUCT WAS MANUFACTURED IN CHESTERFIELD, MICHIGAN, U.S.A. THIS PRODUCT CONFORMS TO ALL TEST METHODS FOR WASHERS AS PRODUCED ACCORDING TO A.S.T.M. F-436-04. THE ABOVE TEST RESULTS APPLY ONLY TO THE ITEMS TESTED. THIS TEST REPORT MUST NOT BE REPRODUCED EXCEPT IN FULL WITHOUT PRIOR WRITTEN APPROVAL.

*[Handwritten Signature]*  
AUTHORIZED SIGNATURE

CERTIFIED ISO 9001:2000

# MIDAS UNION TRADING CO., LTD.

#25, 30th Lane, Chia-Hsing West Road, Kangshan, Kaohsiung 820, Taiwan.

TEL/886-7-6213959

FAX/886-7-6214466, 6212466

EMAIL: service@midas.com.tw

## INSPECTION & QUALITY ASSURANCE REPO

Date : 2007/6/7

IQAR NO. : MUT-00Q095

Customer : AMCAN JUMAX INC.

Part Name/No. : 3/4-10X9-1/2 A325 HEAVY HEX BOLT COARSE THREAD PLAIN.

Drawing No. : IFI

Rev. : \_\_\_\_\_ Date : \_\_\_\_\_

P/O No. : L-010401

8 Lot Size : 3.100 MPCS.(LOT NO: 05640S.)

### NONDESTRUCTIVE INSPECTION

DIM. KEY	REQUIREMENT					FINDING	Nos. Rejected	RESULT
	REQUIRED MIN - MAX	UNITS [IN]	Level	Sample Size	Acc. Nbr.			
A	WIDTH A/F: 1.212 - 1.250		B	32	1	1.215 - 1.220	0	OK
B	WIDTH A/C: 1.383 - 1.443		C	8	0	1.387 - 1.392	0	OK
C	HEAD HEIGHT: .455 - .483		C	8	0	.468 - .470	0	OK
D	BODY DIA: .729 - .750		C	8	0	.742 - .744	0	OK
E	THREAD LENGTH: 1.380		B	32	1	1.701 - 1.714	0	OK
F	TOTAL LENGTH: 9.320 - 9.640		B	32	1	9.370 - 9.409	0	OK
G	MAJOR DIA: .7353 - .7482		B	32	1	.7390 - .7405	0	OK
H	3/4-10 UNC-2A		A	100	2	GO-NOGO	0	OK

### DESTRUCTIVE INSPECTION

CHARACTERISTIC	Level	Sample Size	Acc. Nbr.	FINDING	Nos. Rejected	RESULT
CORE HARDNESS: 25 - 34 RC	A	8	0	30 - 32	0	OK
TENSILE STRENGTH: 40100 lbs (MIN)	B	4	0	47108 - 47324	0	OK
PLAIN	B	4	0	OK	0	OK

OTHERS :

MATERIAL : 10B33 (CERTIFICATE NO. 1042020)(HEAT NO: 11231) OK

VISUAL : FINISH & APPEARANCE : OK

ACCEPTED & SHIP  REJECTED, USE AS IS, IMPROVE NEXT SHIPMENT.

REJECTED, SORT BEFORE SHIPMENT  REJECTED, SCRAP & REPRODUCE.

#25, 30th Lane, Chia-Hsing West Road, Kangshan, Kaohsiung 820, Taiwan.

Tel: 886-7-6213959

FAX: 886-7-6214466, 6212466

EMAIL: service@mldas.com.tw

**INSPECTION & QUALITY ASSURANCE REPORT**

Date : 2006.12.28

IQAR NO. : MUT-001287

Customer : AMCAN PRODUCTS EH FTFS INC.

Part Name No. : 3-4-10 A563 GR. C HEAVY HEX NUTS COARSE THREAD PLAIN.

Drawing No. : \_\_\_\_\_

Rev. : \_\_\_\_\_

Date : \_\_\_\_\_

P O No. : L-008868

Lot Size : 42,500 MPCs LOT NO: A601-GR1101B71A

**NONDESTRUCTIVE INSPECTION**

DIM. KEY	REQUIREMENT			FINDING	Nos. Rejected	RESULT
	REQUIRED MIN - MAX	UNITS [IN]	Level Sample Size Acc. Nbr			
A	WIDTH A F 1.22 - 1.250		B 32 1	1.218 - 1.230	0	OK
B	WIDTH A C 1.382 - 1.435		C 5 0	1.375 - 1.399	0	OK
C	THICKNESS 7.10 - 7.58		C 8 0	7.25 - 7.33	0	OK
D	MINOR DIA				0	
E	3-4-10 THREAD		A 100 2	CO-NOGO	0	OK

**DESTRUCTIVE INSPECTION**

CHARACTERISTIC	Level	Sample Size	Acc. Nbr	FINDING	Nos. Rejected	RESULT
HARDNESS 35 HRS - MAX	A	8	0	20 - 22	0	OK
TENSILE LOAD 144,000 PSI - MIN	A	8	0	144,600 - 144,848	0	OK
PLAIN	B	4	0	OK	1	OK

NOTES:  
 1. MATERIALS TO BE INSPECTED MUST BE IDENTIFIED BY LOT NO. (LOT NO. 31476)

2. WORK PRACTICES SHOULD BE REVIEWED TO USE AS IS, IMPROVE NEXT SHIPMENT,  
 OR TO PREVENT REPEAT OF DEFECTS IN SHIPMENT. EXCEPT AS NOTED, ALL  
 INSPECTED BY: [Signature] Checked by: [Signature] Approved by: [Signature]



**TECHNICAL STAMPING, INC.**

50600 E. RUSSELL SCHMIDT BLVD.  
CHESTERFIELD TWP., MI 48051  
TEL(586)948-3285 / FAX(586)948-3286

**MATERIAL CERTIFICATION**

CUSTOMER NAME		CUSTOMER ORDER NUMBER				DATE		
Amcan / Jumax Inc.		L-009057				9/25/07		
PART NUMBER - CUSTOMER LOT NO.		LOT NUMBER				QUANTITY		
3/4" F436 F436N449*T		0807-713				240,000		
STEEL GRADE	HEAT	C	MN	P	S	SI	AL	REVISION
	2127989	.25	1.25	.010	.004	.23	.038	ASTM F-436-04
SPECIFICATION		ACTUAL				GAUGE		
O.D - 1.438 - 1.500		1.444 - 1.447				CALIPER		
I.D - .813 - .845		.825 - .828				CALIPER, PIN GAUGE		
THICKNESS- .122 - .177		.127 - .130				MICROMETER		
FLAT- Max .010		.006				CALIPER		
HEAT TREAT - 38 - 45 HRC		41						
PLATING-		N/A						
OTHER		N/A						

WE HEREBY CERTIFY THIS PRODUCT WAS PRODUCED UNDER A ISO-9001:2000 QUALITY ASSURANCE SYSTEM, ISO-9001:2000 CERTIFICATION NUMBER-1265 - DATE OF REGIS. JAN 3, 2003  
ALL MATERIALS ARE MADE AND MELTED IN THE U.S.A. THIS PRODUCT WAS MANUFACTURED IN CHESTERFIELD, MICHIGAN, U.S.A. THIS PRODUCT CONFORMS TO ALL REQUIREMENTS  
FOR WASHERS AS PRODUCED ACCORDING TO A.S.T.M. F-436-04. THE ABOVE TEST RESULTS APPLY ONLY TO THE ITEMS TESTED. THIS TEST REPORT MUST NOT BE REPRODUCED  
EXCEPT IN FULL WITHOUT PRIOR WRITTEN APPROVAL.

*[Handwritten Signature]*  
AUTHORIZED SIGNATURE

CERTIFIED ISO 9001:2000





**CERTIFIED MILL TEST REPORT**

Date: 11/13/11

Customer # 000193

Ship to:

Triad Metals  
3450 Grand Avr  
Newport Island  
Pittsburgh PA, 15225 US  
Attn: Craig Bonelli

TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Pittsburgh PA, 15225 US  
Attn: Fred Whitt

Quality Steel 100% Melted  
and Manufactured in the USA

GENERAL INFORMATION		SPECIFICATIONS		SHIPMENT DETAILS	
Product	Wide Flange Beam	Standards	ASTM A817M	Bundle / ASN #	021004798
Size	W 21 x 44			Length	40' 0"
	W 530 x 66			pcs	4
Heat Number	A038410			Customer PO	1747
Condition(s)	As-Rolled Fine Grained				
		Grades	A992 / A992M A709 gr50/gr345 A572 gr50/gr345 A709 gr50S/gr345S		

**CHEMICAL ANALYSIS (weight percent)**

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analysis Type
.07	1.04	.017	.016	.27	.36	.10	.09	.019	.013	.021	.001	.0081	.0004	.30	.34	.16	5.93	Local

**MECHANICAL TESTING**

Test	Yield (fy)		Tensile (fu)		% Elong. (8" gage)
	ksi / MPa	ksi / MPa	ksi / fu ratio	fy / fu ratio	
1	58 / 398	74 / 508	78	26	
2	60 / 415	75 / 517	.80	26	
3					
4					
5					
6					
7					

Charpy Impact Tests (available only when specified at time of order)

Temp	Absorbed Energy	Specimen 1	Specimen 2	Specimen 3	Average	Minimum
F / C						

**Notes:** \* Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC), Corrosion Index (I)  
 CE1 (Mn) = C + Mn/8 + (Cr + Mo + V) / 16 + (Ni + Cu) / 15  
 CE2 (AWS) = C + (Mn + Si) / 8 + (Cr + Mo + V) / 16 + (Ni + Cu) / 15  
 I (ASTM G101) = 26.01(Cu) + 3.88(Mn) + 1.20(Cr) + 1.49(Si) + 17.29(P) + 7.29(Cu)(Ni) + 10(Ni)(P) + 33.39(Cu)

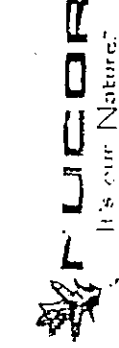
I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: Doug Rees-Evans Manager of Technical Services  
 My commission expires: \_\_\_\_\_  
 Notary Public

Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report.

Page 2 of 2

Heat # A038410 is used to fab item: B555



# Mill Test Report

Page 2

P.O. Box 279  
Winton, NC 27986  
(252) 366-3700

PLATE MILL

Issuing Date: 12/24/2004  
Vehicle No: TTPX 81702  
Specification: 0.3750" x 120.000" x 384.000"  
CSA G40.21-350WT/50WT/50WT-04 CAT 3/ASTM A572 50-04

Load No.: 88248  
Our Order No.: 28695/3  
Sold To: SAMUEL PLATE SALES  
12 TEAL AVENUE  
STONE CREEK  
HAMILTON, ON L8P4Z3

Cust. Order No.: N52151  
Ship To: SAMUEL PLATE SALES C/O STEEL  
CARE  
(HAMILTON TRANSFER) STATION 3477  
400 LONGWOOD ROAD SOUTH  
HAMILTON TFR, ON M5W2X5

Marking:

Heat No	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Aiz	V	Nb	Ti	N	Ca	B	Sn	CEQ	PCM
4108157	0.19	1.26	0.014	0.001	0.20	0.25	0.08	0.08	0.01	0.038	0.047	0.003	0.001	0.0111	0.0012	0.0001	0.015	0.45	0.29

Plate Serial No	Tensile Test		Elongation		Charpy Impacts		Dir.	H-L	Temp (F)
	Yield	Tensile	% in 2"	% in 8"	(ft-lbs) 1	(ft-lbs) 2			
4108157-04	63,900	86,100	20.4	20.4	26.5	26.8	H-L	30.0	27.8
	72,100	88,600	20.5	20.5	26.8	33.8	H-L	25.3	28.5

SAMUEL PLATE SALES  
 CERTIFIED COPY OF  
 TEST REPORT  
 SHIPPED ON:  
 YOUR P/O \_\_\_\_\_  
 OUR ORDER \_\_\_\_\_  
 DATE \_\_\_\_\_

HT # 4108157 is used to Fab items: PM213 PM271 PM252 27292004 4:23:50 PM

We hereby certify that the contents of this report are accurate and correct. All test results and operations performed by the material manufacturer are in compliance with the applicable specifications.

Manufactured to fully killed fine grain practice. Welding or weld repair was not performed on this material.  
 Mercury has not been used in the direct manufacturing of this material. Produced as continuous cast as-re-lead discrete plate.  
 Yield by 0.5EUL method unless otherwise specified. Ceq = C+(Mn/8)+(Cr+Mo+V/5)+(Cu+Ni/15)  
 Pcm = C+(S/20)+(Mn/20)+(Cu/20)+(Ni/20)+(Mo/15)+(V/10)+B  
 Melted and manufactured in the USA. ISO 9001-2000 certified (#12443-0) by SRI Quality System Registrar (#0985-09).  
 DIN 50049 3.1.BEN 10204 3.1.B compliant. For ABS grades only. Quality Assurance certificate No. 03-MK-PQA-182

T. A. Depretis  
 T. A. Depretis, Metallurgist



**ALGOMA STEEL INC.** (18LD)  
 CUSTOMER PURCHASE ORDER NUMBER  
 EP-2264

105 West Street, Sault Ste. Marie, Ontario Canada P6A 7B4  
 ENTRY DATE 2007/09/24  
 SHIP DATE 2007/10/28  
 TALLY NUMBER 046296  
 SHIPPED'S NO. -  
 CARRIER PTTX

FAXE -137405  
 MILL ORDER 26375

CHARGE TO CUSTOMER NAME AND ADDRESS  
 A.C. LESLIE INC  
 5435 ROYALMOUNT AVENUE  
 MONTREAL QUEBEC  
 H4P 1J4

SHIP TO CUSTOMER NAME AND ADDRESS  
 A.C. LESLIE INC.  
 5435 ROYALMOUNT AVE.  
 MONTREAL QUEBEC  
 WEST YARD

**MILL TEST REPORTS**

ALGOMA STEEL INC. HEREBY CERTIFIES THAT THE MATERIAL HEREBY DESCRIBED WAS MADE AND TESTED IN ACCORDANCE WITH THE RULES OF THE SPECIFICATION SHOWN HEREIN AS CONTAINED IN THE COMPANY RECORDS AND WITHIN THE SCOPE OF ACCREDITATION OF ISO/IEC GUIDE 25:1990 AS CONTAINED IN THE COMPANY RECORDS.

J. JOHNSTON  
 MANAGING METALLURGIST

THIS MILL TEST REPORT MAY NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF ALGOMA STEEL INC.

CUSTOMER SPECIFICATION  
 HR MULTIPLE CERTIFIED PLATE - CARBON - CSA G40.21 38W/44W/ASTM A36/ASME SA36  
 (04) (04) (05) (04) - FLATNESS 1/2 A-6

SUPPLEMENTARY INSTRUCTIONS

TEST CERT 1: A.C. LESLIE INC EDDY HAKIM 514-342-5583 TEST CERT  
 2: PLATE TEST COUPON:

WSP YR TEST REPORTS REQUIRED:  
 CUST. RESALE  
 2000037161 PF PF  
 2007/10/30 06:06

MEETS EN 10204 3.1  
 MEETS ISO 9001:2000 REGISTERED  
 ALL HEATS FULLY KILLED  
 HEATS INDICATED WITH (\*) FINE GRAINED

OUR ITEM 027 DIMENSIONS .250 X 120 X 480 "

PLATE NUMBER	HEAT	PIECES	WEIGHT	PLATE NUMBER	HEAT	PIECES	WEIGHT
51707	6650G-04	1	4083	51708	6650G-04	2	8167
51714	6370G-04	2	8167	51748	6370G-05	2	8167
51749	6370G-05	1	4083	51750	6370G-54	2	8167
51751	6370G-54	2	8167	51752	6370G-54	2	8167
51754	6370G-55	1	4083				

TENSILE TESTS:

HEAT	SAMPLE GAUGE	COND METH	TEST DIR	YIELD TENSILE KSI	TENSILE KSI	% ELONG
6370G	.2500	AR	T	55.0	74.0	26(8")
	.2500	AR	T	51.0	72.0	28(8")
	.3130	AR	T	47.9	69.5	28(8")
6650G	.2500	AR	T	52.0	71.5	27(8")

HT# 6370G-04 is used to fab items: EL-P3, EL-P5

\*\*WARNING\*\* THE TEST RESULTS AND VALUES REPORTED HEREIN INDICATE ONLY THAT (1) THE PARTICULAR STEEL FOR WHICH THIS CERTIFICATE IS ISSUED MEETS THE MINIMUM SPECIFIED YIELD STRENGTH AND (2) THE CHEMICAL ANALYSIS AND PHYSICAL PERFORMANCE OF SUCH STEEL.

**ALGOMA STEEL INC.**  
 CUSTOMER PURCHASE ORDER NUMBER  
 EP-2264

105 West Street, Sault Ste. Marie, Ontario Canada P6A 7B4

ENTRY DATE  
 2007/9/24

TALLY NUMBER  
 046296

SHIPMENTS NO.  
 PTTX

CHARGE TO CUSTOMER NAME AND ADDRESS  
 A C LESLIE INC  
 5435 ROYALMOUNT AVENUE  
 MONTREAL QUEBEC  
 H4P 1J4

SHIP TO CUSTOMER NAME AND ADDRESS  
 A C LESLIE INC  
 5435 ROYALMOUNT AVE.,  
 MONTREAL QUEBEC  
 WEST YARD

**MILL TEST REPORTS**  
 ALGOMA STEEL INC. HEREBY CERTIFIES THAT THE MATERIAL HEREBY DESCRIBED WAS MADE AND TESTED IN ACCORDANCE WITH THE RULES OF THE SPECIFICATION SHOWN HEREIN AS CONTAINED IN THE COMPANY RECORDS AND WITHIN THE SCOPE OF ACCREDITATION OF ISO/IEC GUIDE 25:1990 AS CONTAINED IN THE COMPANY RECORDS.

CUSTOMER SPECIFICATION  
 HR MULTIPLE CERTIFIED PLATE - CARBON - CSA G40.21 38W/44W/ASTM A36/ASME SA36  
 (04) (04) (05) (04) - FLATNESS 1/2 A-6

J. JOHNSTON  
 MANAGING METALLURGIST

SUPPLEMENTARY INSTRUCTIONS  
 TEST CERT 1: A.C. LESLIE INC EDDY BAKIM 514-342-5583 TEST CERT  
 2: PLATE TEST COUPON:

THIS MILL TEST REPORT MAY NOT BE REPRODUCED EXCEPT IN FULL WITH WRITTEN APPROVAL OF ALGOMA STEEL INC.

WSP/HR TEST REPORTS REQUIRED  
 CUST USE  
 2000037161 PF PF  
 2007/10/30 06:06

PROPERTIES

HEAT	C	MN	P	S	SI	CR	NI	CU	MO	AL	CB	V	B	DO
6370G*	0.15	1.13	0.12	0.004	0.28	0.03	0.01	0.02	0.02	0.034	0.000	0.002	0.000	0.35
6650G*	0.001	1.02	0.004	0.005	0.29	0.02	0.01	0.01	0.01	0.030	0.000	0.000	0.000	0.33

\*\*WARNING\*\* THE TEST RESULTS AND VALUES REPORTED HEREIN INDICATE ONLY THAT (1) THE PARTICULAR STEEL FOR WHICH THIS CERTIFICATE IS ISSUED MEETS THE MINIMUM



C208 86  
Amesi

MILL TEST CERTIFICATE

订货单位: 江苏舜天股份有限公司  
CONSIGNEE:  
发货日期: 2007年5月19日  
DATE OF ISSUING: MAY 19, 2007  
合同号: JSBH11281

产地名称: 热轧卷板  
COMMODITY: PRIME STEEL CHANNELS  
订牌号: C1046  
P.O. NO.  
牌号(规格代号): ASTM A572 GR50/48-50A  
STEEL GRADE: ASTM A572 GR50/48-50A

原产地: 中国  
ORIGIN: CHINA  
制钢单位: 唐山钢铁有限公司  
MILL: TANGSHAN GRAND FATELI STEEL CO., LTD  
编号: 78519021  
NO.:

规格 DIMENSION IN INCH	炉号 HEAT NO.	数量 NUMBER OF LOTS	数量 NUMBER OF SAMPLE	化学成分 (%)										机械性能				
				C	Si	Mn	P	S	NI	Cr	Cu	V	Mn	Nb	屈服强度 YIELD STRENGTH MPa	抗拉强度 TENSILE STRENGTH MPa	伸长率 ELONGATION % L <sub>1</sub>	冷弯 COLD BENDING (180°)
6*8.2*20	X-2917	36	12	0.19	0.26	1.30	0.029	0.031	0.13	0.16	0.23	0.036	0.024	0.006	356	525	26	OK
8*11.5*20	X-3103	24	8	0.15	0.25	1.31	0.022	0.027	0.12	0.13	0.22	0.017	0.022	0.006	357	524	25	OK
6*8.2*40	X-2917	32	18	0.19	0.26	1.30	0.029	0.031	0.13	0.16	0.23	0.026	0.024	0.006	356	525	26	OK
7*9.8*40	X-3108	24	6	0.19	0.30	1.24	0.025	0.022	0.12	0.13	0.28	0.016	0.026	0.008	360	565	24	OK
8*11.5*40	X-0917	20	21	0.16	0.31	1.25	0.022	0.017	0.13	0.16	0.23	0.026	0.024	0.006	362	551	25	OK
8*11.5*50	X-2917	18	9	0.15	0.26	1.29	0.022	0.023	0.12	0.13	0.22	0.026	0.024	0.006	360	531	24	OK
TOTAL:			74															

唐山钢铁有限公司  
TANGSHAN GRAND FATELI STEEL CO., LTD  
质检专用章

日期: DATED: MAY 19, 2007  
检验员: INSPECTOR: 李

Load #: 19

Shipping Date:

Waybill #: 898-19

Customer:	Pizzagalli Construction Company		Prepared By:	Approved By:	Date: 24-01-01
Job Title:	84 Marginal Way	Job Progress Report Sheet	Bathurst Machine Shop Ltd.		
Date Sent to Shop:	X	SHEET: 1	Mandate Erectors & Welding Ltd.		
Job Number:	898	X	MQM Ltd., Traendie		

1040 Route 430  
Big River Road  
E2A 6P9

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped													
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date									
A	W18X35	0	B501	1	1330																																
A	W08X15	0	B502	6	1548																																
A	W21X55	0	B527	6	14813			C=1 1/2"																													
A	W24X62	0	B542	1	2507																																
A	W24X68	0	B552	1	2035																																
A	W24X68	0	B553	1	3888																																
A	W24X62	0	B559	1	3632																																
H	W21X55	0	B568	1	2374			C=1 1/2"																													
H	W21X55	0	B569	1	2373			C=1 1/2"																													
H	W08X15	0	B574	1	224																																
H	W08X15	0	B575	1	224																																
H	W24X94	0	B584	1	4040																																
A	W24X62	0	B590	1	3632																																
A	H.S.S. 6X6X3/8	0	D404	1	441																																
A	H.S.S. 6X6X3/8	0	D414	4	1274																																
A	H.S.S. 6X6X3/8	0	D415	1	354																																
A	H.S.S. 6X6X3/8	0	D416	3	1063																																
H	L3X3X1/4	0	A1	20	416.5																																
H	L3X3X1/4	0	A2	40	817																																

Pieces 92 46985.5 Total Weight(Lbs) ( 23.5 TONS)

PART NO.

Attn:

R5641100

BULL MOOSE TUBE ELKHART FACILITY  
CERTIFICATION OF TESTS

02/08/04

BILL TO Pacific Steel Inc.  
845 Munck Street  
Chomeley

SHIP TO Pacific Steel Inc.  
845 Munck Street  
Chomeley  
Level

OC H7S 1A9

B/L Number 57440

Ship Via

6" SQ X 0.375 HR X 60'				Ladle Analysis and Physicals					Order # 76842				
152.4 mm				Heat # = 37200					Purchase Order # 10973				
A500 Grade C Std Config									Item # 115928 3840 S				
Ticket # = 59066993									P				
C	MN	P	S	AL	SI	CB	CU	CR	NI	VA	YLD psi	TSN psi	ELN %
.150	.780	.008	.000	.028	.009	.020	.036	.027	.021	0.000	83310	82718	27
12" SQ X 0.500 HR X 60'				Ladle Analysis and Physicals					Order # 76842				
304.8 mm				Heat # = 77349					Purchase Order # 10973				
A500 Grade C Std Config									Item # 115347 7680 S				
Ticket # = 59068328									P				
C	MN	P	S	AL	SI	CB	CU	CR	NI	VA	YLD psi	TSN psi	ELN %
.070	.770	.013	.007	.047	.013	.030	.030	.005	.020	.001	52880	87779	36
12" SQ X 0.500 HR X 60'				Ladle Analysis and Physicals					Order # 76842				
304.8 mm				Heat # = A01734					Purchase Order # 10973				
A500 Grade C Std Config									Item # 115347 7880 S				
Ticket # = 59068330									P				
C	MN	P	S	AL	SI	CB	CU	CR	NI	VA	YLD psi	TSN psi	ELN %
.050	.810	.011	.009	.040	.030	.040	.010	.020	.010	0.000	51580	89011	40

HT # 37200 is used to fab items: D404, D414 to D416

THIS WELDED STEEL TUBE IS MANUFACTURED IN THE UNITED STATES OF AMERICA AND HAS BEEN PRODUCED IN ACCORDANCE WITH THE STATED SPECIFICATION. LADLE CHEMISTRIES ARE REPORTED FROM DOCUMENTS PROVIDED BY THE SUPPLYING STEEL MILL. ANY PHYSICAL AND MECHANICAL TESTING RESULTS SHOWN ON THIS CERTIFICATION ARE CORRECT AS CONTAINED IN THE RECORDS OF THE COMPANY.

WUCOR STEEL - BERKELEY  
 P.O. Box 7259  
 Mt. Pleasant, S.C. 29464  
 Phone: (843) 336-6000

4/21/97 5:37:57  
 100% MELTED AND MANUFACTURED IN THE USA  
 All beams produced by Nucor-Berkeley are cast and rolled to a fully killed and fine grain practice.

Sold To: INFRA METALS CORP - CI  
 8 PENT HIGHWAY  
 WALLINGFORD, CT 06492

Ship To: INFRA METALS CORP - CI  
 8 PENT HIGHWAY  
 WALLINGFORD, CT 06492

Customer #: 502 - 1  
 B.O.L. H...: 612684

Specifications: Tested in accordance with ASTM specification A6/A6M and A370.  
 ASME : SA-36  
 ASTM : A992-06  
 CSA : CSR-44W/G40.21-50W

Description	Heath Grade(s)	Yield Ratio	Yield (PSI)	Tensile (MPa)	Elong %	C		Mn		P		S		Si		Cu		Ni		CFI	
						CI	Pb	Mo	II	Sn	Ca	Al	B	V	N	Nb	Zr	XXXXX	CI		CE2
W8X13 046' 00.00' W200X19.3 012.1920m	2706279 A992-06	.83	58700	70400	27.10	.0720	.0250	.8340	.0170	.1110	.0860	.0220	.0007	.2160	.0040	.0870	.0270	.0360	.2317	.2731	.1330
W8X13 050' 00.00' W200X19.3 015.2400m	2706250 A992-06	.84	57600	68800	28.30	.0630	.0250	.8280	.0160	.1086	.049	.0011	.0036	.0040	.0650	.0270	.0770	.2161	.2577	.1204	
W8X15 030' 00.00' W200X22.5 009.1440m	1706192 A992-06	.83	59300	71700	26.01	.0630	.0074	.7830	.0240	.1102	.0055	.0041	.0035	.2030	.0056	.1104	.0330	.2151	.2540	.1279	
W8X15 040' 00.00' W200X22.5 012.1920m	1706232 A992-06	.84	57800	69000	26.21	.0660	.0005	.8000	.0180	.0091	.0056	.0013	.1740	.0034	.1080	.0230	.0330	.2214	.2543	.1275	
W8X15 050' 00.00' W200X22.5 015.2400m	2619963 A992-06	.84	57500	68500	29.23	.0650	.0007	.8010	.0160	.0060	.0052	.0008	.2400	.0031	.0760	.0269	.0200	.2127	.2571	.1232	

Elongation based on 8" (20.32cm) gauge length. 'No Weld Repair' was performed. Kg free and no contact with Hg during manufacture.  
 CI = 26.0(Cu+3.888Ni+1.20Cr+1.99Si+17.28P-(7.29CuNi)-(9.10NiP)-33.37(CuCu)  
 Pcm = C1((S1/30)+(Mn/70)+(Cu/20)+(Ni/60)+(Cr/20)+(Mo/15)+(V/10)+58  
 CE2 = C1((MnSi)/6)+(Cr+Mo+V/Cb)/5)+(Ni+Cu)/15

I hereby certify that the contents of this report are accurate and correct, all test results and operations performed by the material manufacturer are in compliance with material specifications, and when designated by the purchaser, meet applicable specifications.

State of South Carolina  
 County of Berkeley  
 Bruce A. Work  
 Metallurgist  
 Signed and subscribed before me

1706192 is used to fab items: B502, B574, B575

CHAPARRAL STEEL  
CERTIFIED MATERIAL TEST REPORT  
CHAPARRAL STEEL  
300 Ward Rd.  
Midlothian, TX  
76065-9651  
(972) 775-8241

Order Date: 05/22/2007  
PO No: C21424  
Mill Order No: 3313293  
Load No: 1124268  
Manifest No: 1839184

Ship To: 1  
INFRAMETALS CORPORATION-CT, R INFRAMETALS CORPORATION-CT  
DIV FREUSSAG INTERNATIONAL CO 8 PENT HIGHWAY  
TRACK# 953  
8 PENT HWY  
WALLINGFORD CT WALLINGFORD CT  
06492 US 06492 US

PRODUCT  
WF BEAMS

LENGTH  
60 FT / 18.288 M

GRADE  
992/572-50

SIZE  
W 18 X 35# / W460 X 52

SPECIFICATION  
ASTM A6-05a, A992-06a, A572-06

HEAT NO: 30370270

CHEMICAL ANALYSIS

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Al	Nb	CE
.07	.97	.011	.031	.23	.33	.10	.08	.021	.018	.003	.003	.020	.28

PHYSICAL PROPERTIES

Yield Strength	Tensile Strength	Specimen Area	Elongation	Bend Test	ROA
KSI	KSI	Sq In	%	Result	%
54.7	69.6	0.678	27.4	8In	200 mm
58.4	74.0	0.633	24.9	8In	200 mm
		4.37			
		4.08			

HT # 30370270 is used to fab. item . B501

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A. CMTR complies with DIN EN 10204 3.1.B

"I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements."

Signed: Tom L. Harrington Date: Jul. 30, 2007 Signed: Tom L. Harrington Date:                       
Tom L. Harrington: Quality Assurance Manager Notary Public (if applicable)





# Steel Dynamics, Inc.

2601 S County Road 700 East  
Columbia City, IN 46725-  
(260) 625-8100

## Certified Mill Test Report

100% Melted and Manufactured in USA

Date: 7/17/2007  
Customer No: 000191  
Bill of Lading No: 0000118975  
MTR #: 0000118546

Ship to:  
Triad Metals International  
Triad Customer - PU  
Attn: Sally

Triad Metals International  
11200 Corporate Avenue  
Willow Grove, PA 19080  
Attn: Fred Lybster

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.C.
1†	020896786	W21X101	41' 3"	2	A034247	A992 / A992M A709 G50S/G345S A572 Gr50/Gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A616/6M	434
2†	020896787	W21X101	41' 3"	2	A034247	A992 / A992M A709 G50S/G345S A572 Gr50/Gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A616/6M	434
3†	020906653	W21X55	43' 6"	2	A034662	A992 / A992M A709 G50S/G345S A572 Gr50/Gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A616/6M	459
4†	020906657	W21X55	43' 6"	4	A034662	A992 / A992M A709 G50S/G345S A572 Gr50/Gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A616/6M	459
5†	020906658	W21X55	43' 6"	4	A034662	A992 / A992M A709 G50S/G345S A572 Gr50/Gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A616/6M	459

Chemical	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	As	Cb	C1	C2	PC	Analysis
1*	.08	.015	.032	.21	.36	.033	.070	.09	.02	.015	.011	.0003	.00	.32	0.3600	0.1700		HEAT
2*	.08	.015	.032	.21	.36	.033	.070	.09	.02	.015	.011	.0003	.00	.32	0.3600	0.1700		HEAT
3*	.07	.011	.029	.20	.35	.023	.070	.11	.04	.022	.008	.0003	.00	.30	0.3300	0.1600		HEAT
4*	.07	.011	.029	.20	.35	.023	.070	.11	.04	.022	.008	.0003	.00	.30	0.3300	0.1600		HEAT
5*	.07	.011	.029	.20	.35	.023	.070	.11	.04	.022	.008	.0003	.00	.30	0.3300	0.1600		HEAT

Item	Test	Yield (Fy) Strength ksi/MPa	Tensile (Fu) Strength ksi/MPa	Fy/Fu	Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp F/C	Sample 1 ft. lb/ftoules	Sample 2 ft. lb/ftoules	Sample 3 ft. lb/ftoules	% Shear	ASTM Grain Size No (per ASTM E112)
1	1	58/401	71/489	.82	26		1						
2	2	59/409	72/499	.82	24		2						
2	1	58/401	71/489	.82	26		1						

Charpy Impact Testing Results

State of Indiana, County of Whitley

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed \_\_\_\_\_ Notary Public

My commission expires: \_\_\_\_\_

Special Comments/Information: **HT# A034662 is used to fabricate forms.**

**B527, B568, B569**

DATE 9/25/07  
 INVOICE NO 171376  
 BILLS OF LADING 868914  
 CUSTOMER NO 7717  
 CUSTOMER P.O. C 1022A

NUCOR-YAMATO STEEL CO.  
 P.O. BOX 1228 • BLYTHEVILLE, AR 72316

**CERTIFIED MILL TEST REPORT**

100% MELTED AND MANUFACTURED IN U.S.A.  
 All shapes produced by Nucor-Yamato Steel are cast and rolled to a fully killed and fine grain practice.

S H I P T O  
 INFRA-METALS CORP.  
 8 PENT HIGHWAY  
 TRACK# 953  
 WALLINGFORD, CT 06492

S P E C I F I C A T I O N S  
 ASTM A992/A992M-06a AS72/AS72M GR50-06  
 ASTM A709/A709M-07 GR50 (345)  
 ASTM A709/A709M-07 GR50S (345S)  
 ASTM A6/A6M-07

S O L D T O  
 INFRA-METALS CORP.  
 8 PENT HIGHWAY  
 WALLINGFORD, CT 06492

ITEM #	ITEM DESCRIPTION	QTY	HEAT #	MECHANICAL PROPERTIES						CHEMICAL PROPERTIES												
				YIELD TO TENSILE RATIO	YIELD STRENGTH	TENSILE STRENGTH	ELONG	CHARPY IMPACT		C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Cb	CE	
					PSI	PSI		TEMP	IMPACT ENERGY													
					MPa	MPa		*F	FT-LBS													
1	W24 - 62.0 30' W610 x 92.0 9.144 M	2	304718	.73	55000	75000	23				.07	1.22	.027	.033	.26	.32	.12	.11	.02	.00	.022	.33
				.73	56000	77000	25												.01	.17		
2	W24 - 62.0 30' W610 x 92.0 9.144 M	4	304746	.73	55000	75000	23				.07	1.21	.016	.037	.31	.28	.09	.08	.02	.00	.023	.31
				.76	57000	75000	24												.01	.15		
					393	517	24															

CARBON EQUIVALENT: CE = C + (Mn/6) + (Cr + Mo + V) / 5 + (Ni + Cu) / 15

ELONGATION BASED ON 8.00 INCH GAUGE LENGTH

I hereby certify that the contents of this report are accurate and correct. All test results and operations performed by this material manufacturer are in compliance with the requirements of the material specifications listed in the Specifications Block above.

*Day Linnell*

QUALITY ASSURANCE

CUSTOMER COPY

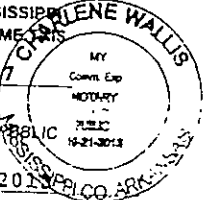
STATE OF ARKANSAS COUNTY OF MISSISSIPPI  
 SWORN TO AND SUBSCRIBED BEFORE ME THIS

25 Day of 09/07

*Charlene Wallis* NOTARY PUBLIC

MY COMMISSION EXPIRES

10/21/2011



HT # 304718 is used to fab items: B542, B559, B590...

Bill To: INERA-METALS CORPORATION-CT, R INFRA-METALS CORPORATION-CT  
 DIV PREUSSAG INTERNATIONAL CO 8 PENT HIGHWAY  
 8 PENT HWY WALLINGFORD CT 06492  
 WALLINGFORD CT 06492  
 Ship To: 1 INFRA-METALS CORPORATION-CT  
 8 PENT HIGHWAY TRACK# 953  
 WALLINGFORD CT 06492  
 Order Date: 05/22/2007  
 PO No: C21424  
 Mill Order No: 3313698  
 Load No: 1144289  
 Manifest No: 1855361  
 CERTIFIED MATERIAL TEST REPORT  
 GERDAR AMERISTEEL  
 Peterburg Mill  
 75801 Pfeiffer Hwy  
 Peterburg, VA 23803  
 (80) 524-2855  
 PDDICT  
 FRMS

SPECIFICATION M 24 X 68 / M610 X 101  
 ASTM A6-05a, A992-06a, A572-06  
 HEAT NO: 30385790  
 GRADE 992/572-50  
 LENGTH 30 FT / 9.144 M

CHEMICAL ANALYSIS

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Al	Nb	CE	
.07	1.11	.013	.033	.23	.35	.11	.08	.018	.016	.002	.002	.017	.21	
PHYSICAL PROPERTIES														
Yield Strength	Tensile Strength		Specimen Area		Elongation		Gage Length		1 <sup>st</sup> Test		2 <sup>nd</sup> Test		ROA	
KSI	MPa	KSI	MPa	Sq In	Sq cm	%	8In	8In	200 mm	%	8In	200 mm	%	%
55.8	384.7	72.2	497.8	0.881	5.68	26.8	8In	8In	200 mm					
57.6	397.1	73.4	506.1	0.863	5.57	25.9	8In	8In	200 mm					

HT # 30385790 is used to Fab. items: B552, B553

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A. CMTR complies with DIN EN 10204 3.1.B  
 "I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements."

Signed: Tom L. Harrington Quality Assurance Manager Date: Oct. 17, 2007 Signed: \_\_\_\_\_  
 Notary Public (If applicable) Date: \_\_\_\_\_



**Steel Dynamics, Inc.**  
 2601 S County Road 700 East  
 Columbia City, IN 46725.  
 (260) 625-8100

**Certified Mill Test Report**  
 100% Melted and Manufactured in USA

Date: 11/14/2001  
 Customer No: 0000191  
 Bill of Lading No: 0000118729  
 MTR #: 0000118302

Trade Metals International  
 Trade Customer P/U  
 Attn: Sally

TRIPLE METALS INTERNATIONAL  
 A-1 300 Computer Avenue  
 Willow Grove, PA 19080  
 Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grades(s)	Specifications	Customer P.O.
+	000023536	W21X62	44' 0"	1	A034653	A992 / A992M A709 g50S/g345S	ASTM A992/A992M - 06a ASTM A709/A709M - 06a	459
+	020902071	W24X94	43' 6"	2	B034476	A572 g150/g145 A992 / A992M A709 g50S/g345S	ASTM A572/A572M - 06 ASTM A992/A992M - 06a ASTM A709/A709M - 06a	459
+	020902073	W24X94	43' 6"	2	B034476	A572 g150/g145 A992 / A992M A709 g50S/g345S	ASTM A572/A572M - 06 ASTM A992/A992M - 06a ASTM A709/A709M - 06a	459
+	020902113	W24X94	43' 6"	1	B034477	A572 g150/g145 A992 / A992M A709 g50S/g345S	ASTM A572/A572M - 06 ASTM A992/A992M - 06a ASTM A709/A709M - 06a	459
+	020906203	W21X62	44' 0"	4	A034635	A572 g150/g145 A992 / A992M A709 g50S/g345S	ASTM A572/A572M - 06 ASTM A992/A992M - 06a ASTM A709/A709M - 06a	459
+	020906434	W21X62	44' 0"	4	A034653	A572 g150/g145 A992 / A992M A709 g50S/g345S	ASTM A572/A572M - 06 ASTM A992/A992M - 06a ASTM A709/A709M - 06a	459

Chemical	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
.08	1.17	.012	.036	.27	.32	.034	.070	.13	.04	.012	.009	.0004	.00	.33	0.3800	0.1800	HEAT
.07	1.35	.017	.028	.22	.50	.046	.130	.13	.04	.016	.010	.0003	.00	.38	0.4200	0.1900	HEAT
.07	1.35	.017	.028	.22	.50	.046	.130	.13	.04	.016	.010	.0003	.00	.38	0.4200	0.1900	HEAT
.07	1.35	.020	.038	.20	.49	.043	.120	.12	.03	.014	.010	.0003	.00	.38	0.4100	0.1900	HEAT
.08	1.15	.016	.038	.25	.40	.035	.120	.12	.05	.015	.009	.0004	.00	.34	0.3900	0.1800	HEAT
.08	1.17	.012	.036	.27	.32	.034	.070	.13	.04	.012	.009	.0004	.00	.33	0.3800	0.1800	HEAT

**Mechanical Tension Testing Results**

Test	Yield (FY) Strength ksi/MPa	Tensile (Fu) Strength ksi/MPa	Fy/Fu	Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp F/C	Charpy Impact Testing Results
1	55/376	75/519	.73	24		1		
2	62/431	77/533	.81	22		2		
1	59/408	77/521	.78	18		1		

by certify that the contents of this report are accurate and  
 All tests and operations performed by this material  
 factor are in compliance with the requirements of the  
 l specifications and applicable purchase order designated

State of Indiana, County of Whitley  
 Sworn to and subscribed before me this  
 d y of  
 Signed  
 Notary Public

Special Comments/Inform: None  
 HT # B034476 is used to fab item: 0584



QUALITY CERTIFICATE

Customer: ARCELOR INTERNATIONAL CANADA, INC  
 Product: ANGLES 3X1/4\*40FT CSA 350W AIC  
 Purchase Order: P1110407 Q2-2007-C

Size: 3 X 3 X 1/4 POL  
 Order Number: 2299311  
 Grade: CSA 350W

Ref. Nr.: 014209/2007  
 Page: 01

Heat	Nr.	Weight (t)	YIELD POINT	TENSILE STRENGTH	ELONGATION	% C	% Mn	% Si	% P	% S	% Nb	% Cu
Coils			MPa	MPa	%							
5995805	1	2.16	400	521	20.00	0.140	0.810	0.160	0.028	0.040	0.018	0.150
5995807	1	2.46	406	533	21.00	0.140	0.810	0.160	0.028	0.040	0.018	0.150
5996400	16	32.36	399	511	22.00	0.110	0.740	0.170	0.033	0.031	0.016	0.210
5996500	17	34.82	393	485	22.00	0.110	0.700	0.150	0.023	0.034	0.016	0.190
5996807	14	28.44	400	510	21.00	0.130	0.820	0.170	0.022	0.038	0.017	0.190
TOTAL	49	100.24										
Heat	% Cr	% Ni	% Br	% Mo								
5995805	0.070	0.050	0.018	0.009								
5995807	0.070	0.050	0.018	0.009								
5996400	0.080	0.060	0.022	0.011								
5996500	0.080	0.050	0.021	0.008								
5996801	0.050	0.050	0.019	0.009								

Remarks: We hereby certify that the material herein listed was produced, inspected, tested and approved in accordance with the standard or the specification required.

Date: 23/JUL/2007  
 Approved by:   
 Fabrice Duvigneaud  
 Director of Quality Control  
 Belgo Siderurgica S/A.

HT # 5996802 is used to fab items: A1, A2

8/3/2007

160  
 Angle 4

Load #: 18

Shipping Date:

Waybill #: 898-18

Customer:	Pizzagalli Construction Company	Prepared By:	Approved By:	Date: 24-01-01
Job Title:	84 Marginal Way	Bathurst Machine Shop Ltd.		10-10 Route 430
Date Sent to Shop:	X	Mandate Erectors & Welding Ltd.		Big River Road
Job Number:	898	MIQM Ltd., Tracadie		E2A 6P9

Attach.	Material	Rev.	Mark #	Qty	Weight	C=COLOR GALV.				Fitted		Mk. Insp.		Punch/Drift		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped				
						Paint	Galv	Camber	Level	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date		
A	W12X19	0	B511	1	173																							
A	W12X19	0	B512	1	203																							
A	W14X22	0	B514	1	553																							
A	W18X35	0	B520	1	1013																							
A	W18X35	0	B522	1	626																							
A	W16X26	0	B523	1	562																							
A	W21X44	0	B525	1	1768																							
A	W21X44	0	B530	1	1891																							
A	W21X44	0	B531	1	1891																							
A	W21X44	0	B534	1	1847																							
A	W12X19	0	B536	1	192																							
A	W12X19	0	B537	1	196																							
A	W24X68	0	B543	1	2083																							
A	W24X76	0	B545	1	2314																							
A	W24X68	0	B546	1	2089																							
A	W16X26	0	B554	1	998																							
A	W18X35	0	B556	1	734																							
A	W24X76	0	B560	1	3810																							
II	W21X44	0	B565	1	1805																							
II	W14X22	0	B567	1	504																							

Pieces 20 25252 Total Weight(Lbs)

( 12.6 TONS)

Load #: 18

Customer:	Pizzagalli Construction Company	Prepared By:	Approved By:	Date: 24-01-01
Job Title:	84 Marginal Way	Bathurst Machine Shop Ltd.		1040 Route 430
Date Sent to Shop:	X	Job Progress Report Sheet	Mandate Erectors & Welding Ltd.	Big River Road
Job Number:	898	MQM Ltd., Tracadie		E2A 6P9

SHEET: 2

Form#12 Rev. 4

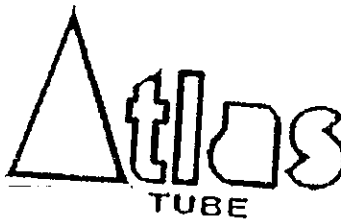
\* = SEE SHOP DWG C=COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drift		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped				
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date
H	W21X44	0	B570	1	1691			C=1 1/4"																				
H	W08X15	0	B573	1	224																							
A	W21X101	0	B576	1	6162																							
A	W12X19	0	B579	1	618																							
A	W12X19	0	B580	1	516																							
A	W21X83	0	B585	1	4588																							
H	W12X19	0	B587	1	154																							
H	W12X19	0	B588	1	89																							
A	W21X44	0	B594	1	1894			C=1 1/2"																				
A	U.S.S. 10X10X5/8	0	D400	1	1338																							
A	U.S.S. 10X10X5/8	0	D401	1	1345																							
A	U.S.S. 8X8X5/8	0	D411	1	823																							
A	U.S.S. 8X8X5/8	0	D413	1	823																							

Pieces 13 20265 Total Weight(Lbs) ( 10.1 TONS)

200 Clark St.  
 Harrow, Ontario, Canada  
 NOR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537

Ref./L: 80263316  
 Date: 10.24.2007  
 Customer: 1751



MATERIAL TEST REPORT

Sold to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Shipped to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Material: 10.0x10.0x625x18"0"0(1x1).

Sales order: 335491

Material No: 100100625

Purchase Order: 30519-898

Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
480370	1	0.200	0.800	0.010	0.003	0.170	0.039	0.036	0.003	0.004	0.014	0.041	0.002
Bundle No	Yield	Tensile	Eln.2in	Certification									
M200480196	056550 Psi	070670 Psi	37.5 %	ASTM A500-03A GRADE B&C									

Material Note:

Sales Or.Note:

*HT # 480370 is used to fab. items: D400, D401*

Material: 7.0x7.0x500x40"0"0(3x1).

Sales order: 335491

Material No: 700705004000

Purchase Order: 30519-898

Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
5511G	3	0.190	0.840	0.011	0.004	0.020	0.028	0.010	0.000	0.010	0.010	0.020	0.000
Bundle No	Yield	Tensile	Eln.2in	Certification									
M200479469	060730 Psi	071910 Psi	38.0 %	ASTM A500-03A GRADE B&C									

Material Note:

Sales Or.Note:

Material: 8.0x8.0x625x48"0"0(2x1).

Sales order: 335491

Material No: 800806254800

Purchase Order: 30519-898

Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002
Bundle No	Yield	Tensile	Eln.2in	Certification									
M200482110	063150 Psi	076440 Psi	34.3 %	ASTM A500-03A GRADE B&C									

Material Note:

Sales Or.Note:

Material: 8.0x8.0x625x48"0"0(2x1).

Sales order: 335491

Material No: 800806254800

Purchase Order: 30519-898

Made in: Canada

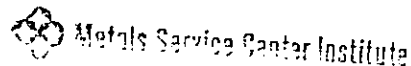
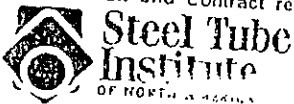
Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002
Bundle No	Yield	Tensile	Eln.2in	Certification									
M200482112	063150 Psi	076440 Psi	34.3 %	ASTM A500-03A GRADE B&C									

Material Note:

Sales Or.Note:

Authorized by Quality Assurance: *[Signature]*

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.





Steel Tube Canada ULC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 NOR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537

Ref./B/L: 80263316  
 Date: 10.24.2007  
 Customer: 1751



MATERIAL TEST REPORT

Sold to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Shipped to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Material: 8.0x8.0x625x50"0"0(2x1),  
 Sales order: 335491

Material No: 80080625  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002
Bundle No	Yield		Tensile		Eln.2in		Certification						
M200482103	063150 Psi		076440 Psi		34.3 %		ASTM A500-03A GRADE 3&C						

Material Note:  
 Sales Or.Note:

Material: 8.0x8.0x625x50"0"0(2x1),  
 Sales order: 335491

Material No: 80080625  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002
Bundle No	Yield		Tensile		Eln.2in		Certification						
M200482102	063150 Psi		076440 Psi		34.3 %		ASTM A500-03A GRADE 3&C						

Material Note:  
 Sales Or.Note:

*HT# 582766 is used to fab. items: D411, D413*

Material: 10.0x10.0x625x18"0"0(2x2),  
 Sales order: 335491

Material No: 100100625  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
583750	4	0.200	0.810	0.011	0.002	0.160	0.034	0.015	0.006	0.002	0.007	0.022	0.000
Bundle No	Yield		Tensile		Eln.2in		Certification						
M200483575	054920 Psi		073670 Psi		38.5 %		ASTM A500-03A GRADE B&C						

Material Note:  
 Sales Or.Note:

Material: 10.0x10.0x625x18"0"0(2x2),  
 Sales order: 335491

Material No: 100100625  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
593750	4	0.200	0.810	0.011	0.002	0.160	0.034	0.015	0.006	0.002	0.007	0.022	0.000
Bundle No	Yield		Tensile		Eln.2in		Certification						
M200483574	054920 Psi		073670 Psi		38.5 %		ASTM A500-03A GRADE B&C						

Material Note:  
 Sales Or.Note:

Authorized by Quality Assurance: *[Signature]*

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.



NUCOR STEEL - BERKELEY  
 P.O. Box 2259  
 Mt. Pleasant, S.C. 29464  
 Phone: (993) 336-6000

Sold To: INFRA METALS CORP - CT  
 8 PENIT HIGHWAY  
 WALLINGFORD, CT 06492

SHIP TO: INFRA METALS CORP - CT  
 8 PENIT HIGHWAY  
 WALLINGFORD, CT 06492

SPECIFICATIONS: Tested in accordance with ASTM Specification A6/6M and A370.  
 ASTM : A392-06  
 ASTM : A392-06  
 CSA : CSA-44W/G40.21-50W

MILL TEST REPORT

100% MELTED AND MANUFACTURED IN THE USA  
 All items produced by Nucor-Berkeley are cast and  
 rolled to a fully killed and fine grain structure.

Customer No.: 502 - 1

B.O.L. No.: 612584

Description	Heat	Grade(s)	Yield/Tensile Ratio	Yield (PSI)	Tensile (MPa)	Elong %	C		Mn		P		S		Si		Cu		Ni	Nb	Zr	Inch	SI	F2	
							CT	Pb	Mo	Ti	Ca	Sn	B	V	N	As	Se								
WBX13 040' 00.00' W200X19.3 012.1920m	2706250	A992-06	.83	58700	70400	27.10	.0729	.0250	.0540	.0170	.0110	.0220	.0220	.0220	.0220	.0220	.0220	.0220	.0220	.0220	.0220	.0220	.0220	.0220	.0220
WBX13 030' 00.00' W200X19.3 015.2400m	2706250	A992-06	.83	57600	68800	28.30	.0631	.0250	.0280	.0049	.0086	.0209	.0209	.0209	.0209	.0209	.0209	.0209	.0209	.0209	.0209	.0209	.0209	.0209	.0209
WBX15 030' 00.00' W200X22.5 009.1440m	1706192	A992-06	.84	59300	71700	26.01	.0631	.0334	.0240	.0055	.0102	.0275	.0275	.0275	.0275	.0275	.0275	.0275	.0275	.0275	.0275	.0275	.0275	.0275	.0275
WBX15 040' 00.00' W200X22.5 012.1920m	1706232	A992-06	.84	57800	69000	26.21	.0661	.0371	.0240	.0056	.0091	.0238	.0238	.0238	.0238	.0238	.0238	.0238	.0238	.0238	.0238	.0238	.0238	.0238	.0238
WBX15 050' 00.00' W200X22.5 015.2400m	2619863	A992-06	.83	57300	69400	27.45	.0661	.0371	.0240	.0056	.0091	.0238	.0238	.0238	.0238	.0238	.0238	.0238	.0238	.0238	.0238	.0238	.0238	.0238	.0238

Elongation based on 8" (20.32cm) gauge length. No Weld Repair was performed.  
 CT = 26.01Cu+3.88Mn+1.20Cr+1.49S+17.28P-(7.29CuMn)-(9.10Ni)P-.33.39(CuCu)  
 PCm = C+((S/30)+((Mn/20)+((Cu/20)+((Ni/60)+((Cr/20)+((Mo/15)+((V/10)+5N  
 Hg (free and no contact with Hg during manufacture.  
 CE1 = C+((Mn/6)+((Cr/60)+((V/5)+((Ni/6)/5)  
 CE2 = C+((Mn/6)+((Cr/60)+((V/5)+((Ni/6)/5)  
 I hereby certify that the contents of this report are accurate and correct. All test results and operations performed by the material manufacturer are in compliance with material specifications, and when designated by the Purchaser, meet applicable specifications.

Bruce A. Work  
 Metallurgist

(State of South Carolina)  
 (County of Berkeley)  
 Sworn and subscribed before me

NY# 1706192 is used to fab item: B573

day of \_\_\_\_\_

NUCOR STEEL - BERKELEY  
 P.O. Box 2259  
 Mt. Pleasant, S.C. 29464  
 Phone: (843) 336-6000

Sold To: INFRA METALS CORP - CT  
 8 PENT HIGHWAY  
 WALLINGFORD, CT 06492

SPECIFICATIONS: Tested in accordance with ASTM Specification A6/AS6M and A370.  
 ASHTO: M270-36-00/M270-50-00  
 ASTM: SA-36 04  
 RSTW: A992-06a://A936-05/A572-06-50/A709-06a36/A709-07 50/A709-345M  
 CSA: CSA-44W/C40.21-50W

SHIP TO: INFRA METALS CORP - CT  
 8 PENT HIGHWAY  
 WALLINGFORD, CT 06492

MILL TEST REPORT

100% MELTED AND MANUFACTURED IN THE USA  
 All beams produced by Nucor-Berkeley are cast and  
 rolled to a fully killed and fine grain practice.

Customer H: 392 - 1  
 Customer PR: C2139H  
 B.O.L. #: 639655

Description	Heat#	Grade(s)	Yield/Tensile Ratio	Yield (MPa)	Tensile (MPa)	Elong %	C		Mn		P		S		Si		Cu		Ni	CE1	CE2	PCM
							Pb	TI	Mo	TI	Ca	B	N	V	Nb	Zr						
W12x19	030' 00.00'	2708129	.82	59100	71800	24.89	.0730	.8660	.0190	.0051	.0026	.0279	.2130	.0780	.0361	.2347	.0000	.0000	.0000	.0000	.0000	.1378
W12x19	030' 00.00'	0992-06A	.83	59700	72200	26.34	.0004	.0011	.0000	.0000	.0000	.0000	.0045	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.1378
W12x19	030' 00.00'	3619532	.83	56900	68700	25.83	.0660	.8910	.0077	.0223	.1820	.1000	.0377	.0377	.2341	.0000	.0000	.0000	.0000	.0000	.0000	.1378
W10x28.3	009.1440m	A992-06A	.83	56900	68800	24.44	.0260	.0250	.0046	.0043	.0030	.0030	.0030	.0030	.0030	.2202	.0000	.0000	.0000	.0000	.0000	.1273
W12x19	030' 00.00'	619529	.83	57700	69600	26.70	.0650	.8010	.0079	.0253	.2210	.1348	.0377	.0377	.2212	.0000	.0000	.0000	.0000	.0000	.0000	.1273
W10x28.3	009.1440m	A992-06A	.83	57100	68800	26.14	.0340	.0180	.0072	.0024	.0036	.0264	.0264	.2633	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.1273
W12x19	040' 00.00'	1213152	.80	54800	68600	27.34	.0680	.8790	.0075	.0283	.2280	.1260	.0470	.0470	.2363	.0000	.0000	.0000	.0000	.0000	.0000	.1341
W10x28.3	012.1920m	A992-06A	.80	54900	68500	28.23	.0280	.0220	.0056	.0025	.0032	.0140	.0140	.2645	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.1315
W12x19	040' 00.00'	2713149	.81	54800	68000	29.39	.0670	.8190	.0076	.0316	.2110	.1330	.0459	.0459	.2268	.0000	.0000	.0000	.0000	.0000	.0000	.1315
W10x28.3	012.1920m	A992-06A	.79	53400	67800	28.50	.0330	.0210	.0059	.0018	.0030	.0130	.0130	.2645	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.1315

Elongation based on 8" (20.32cm) gauge length. No Weld Repair was performed.  
 CI = 26.01(Cu+1.8Mn+1.20Cr+1.49Si+1.72B)-(7.29Co+XW1)-(9.10Ni+XP)-33.39(Cu+X)  
 PCm = C+(Si/30)+(Mn/20)+(Cu/20)+(Al/60)+(Cr/20)+(Mo/15)+(V/10)+S  
 HG free and no contact with Hg during manufacture.  
 CE1 = C+(Mn/6)+((Cr+Ni)/5)+((Ni+Cu)/15)  
 CE2 = C+((Mo+Si)/6)+((Cr+Ni+Cu)/75)  
 (State of South Carolina)  
 (County of Berkeley)  
 Sworn and subscribed before me

BRUCE A. WORK  
 Metallurgist

day of \_\_\_\_\_

HT #171315a is used to fab items: B511, B512, B536, B537  
 B579, B580, B587, B588

NUCOR STEEL - BERKELEY  
 P.O. Box 2259  
 Mt. Pleasant, S.C. 29464  
 Phone: (843) 336-6000

Sold To: INFRA METALS CORP - CI  
 8 PENN HIGHWAY  
 WALLINGFORD, CT 06492

MILL TEST REPORT

Ship To: INFRA METALS CORP - CT  
 8 PENN HIGHWAY  
 WALLINGFORD, CT 06492

SPECIFICATIONS: Tested in accordance with ASTM specification A6/A6M and A370.  
 PARTID : M270-36-00/M270-50-00  
 NSM : SA-36  
 NSIM : A992-06:///A36-05/A372-06-SN/A709-06A36/A709-06A50/A709-345M  
 CSA : CSA-44W/G40.21-50W

100% HEATED AND MANUFACTURED IN THE USA  
 All beams produced by Nucor-Berkeley are cost and rolled to a fully killed and fine grain practice.  
 4/26/07 5:38:47  
 Customer H.: SR2 - 1  
 Customer ID: C20919  
 B.O.L. H...: 613792

Description	Heat Grade(s)	Yield/Tensile Ratio	Yield (PSI) (MPa)	Tensile (PSI) (MPa)	Elong %	C		Mn		P		S		SI		Cu		NI	CE1	CE2	PCm
						Pb	TI	Sn	Ca	RI	V	Nb	2F								
W14x22	270612	.84	59200	70200	24.51	.0690	.829N	.0077	.0303	.2490	.0900	.0360	.2263								
050' 00.00'	A992-06	.86	61300	71300	25.09	.0310	.019N	.0053	.0016	.0039	.0281	.2734									
W360x32.9	423	.86	61300	71300	25.09	.0031	.0016	.0000	.0015	.0048	.0000	.2752	.1344								
015.2400m						21 Piece(s)															
W14x22	170f614	.84	57200	67900	26.48	.0660	.8610	.0087	.0315	.1820	.0910	.0330	.2282								
050' 00.00'	A992-06	.85	58200	68800	26.18	.0300	.0180	.0056	.0009	.0043	.0296	.2645									
W360x32.9	401	.81	54200	66800	28.64	.0055	.0014	.0000	.0014	.0055	.0000	.2652									
015.2400m						21 Piece(s)															
W14x22	170S855	.81	53000	65800	26.34	.0690	.8610	.0136	.0140	.2050	.0690	.0269									
050' 00.00'	A992-06	.81	365	454		.0190	.0180	.0046	.0032	.0039	.0120	.2635									
W360x32.9	374	.81	54200	66800	28.64	.0003	.0014	.0002	.0002	.0055	.0000	2.2453	.1761								
015.2400m						65 Piece(s)															
W14x22	1706616	.81	53000	67800	27.75	.0690	.8440	.0139	.0346	.2170	.1870	.0490	.2458								
050' 00.00'	A992-06	.91	379	467		.0720	.0270	.0070	.0038	.0030	.0117	.2843									
W360x32.9	377	.91	54700	67500	27.81	.0055	.0017	.0003	.0006	.0050	.0000	4.6633	.1372								
015.2400m						47 Piece(s)															

*NY # 1705855 is used to fabrication B514 B567*

Longation based on 8" (20.32cm) gauge length. No Weld Repair was performed.  
 CE1 = C1((Mn+Si)/6)+((Cr+Mo+V)/5)+((Ni+Cu)/15)  
 CE2 = C1((Mn+Si)/6)+((Cr+Mo+V+Cb)/5)+((Ni+Cu)/15)

Bruce A. Work  
 Metallurgist



ACERALIA PERFILES  
Grupo Arcelor  
CARRETERA TOLEDO, KM. 9  
28021 MADRID  
TELEF. (91) 797 23.00 - FAX (91) 505.02.57



## QUALITY CERTIFICATE

APS 5393

DISCHARGE ADDRESS		CUSTOMER	
ARCELOR INTERNATIONAL AMERICA, INC. 350 HUDSON STREET 4TH FLOOR NEW YORK, NY 10014 EE.UU.		ARCELOR INTERNATIONAL AMERICA, INC. 350 HUDSON STREET 4TH FLOOR NEW YORK, NY 10014 EE.UU.	
SHIPPED AND CERTIFIED BY		80	PORT OF LOADING
ACERALIA PERFILES OLABERRIA, S.L. CARRETERA MADRID - IRUN, KM. 419 20212 OLABERRIA (Guipúzcoa) TELEF. (943) 80.50.00 - FAX (943) 88.04.04		PORT OF DISCHARGE	PASAJES, SPAIN
		NEW HAVEN, CT	VESSEL
			ACACIA
OUR REFERENCE	CONTRACT NUMBER	ORDER NUMBER	RELEASE DATE
MERCHE	E-14284 LOT 4	3° TRIM. 05	30/09/2005

MATERIAL: AMERICAN WIDE FLANGE BEAMS W, AS PER ASTM TRI-CERT. ASTM A36/ASTM A 572 GR 50  
CSA G. 40.21 50 W / ASTM A992.

MARKINGS: SIZE / QUALITY / WEIGHT / HEAT NO. / ORDER NO. / COLOR MARKINGS / MADE IN SPAIN.

SIZE	LENGTH	BUNDLES	PIECES BUNDLES	TOTAL PIECES	WEIGHT BUNDLES	TOTAL WEIGHT	HEAT
10042526 - P.O. C17922 + / GREEN / WHITE							
WF BEAMS 8x24 LBS/FT	30'	3	10	30	3266	9.798	54969,54971,54972
WF BEAMS 8x24 LBS/FT	35'	3	10	30	3811	11.433	54977
WF BEAMS 8x24 LBS/FT	40'	9	10	90	4355	39.195	54957,54958,54959,54960,54982,54984
WF BEAMS 8x24 LBS/FT	45'	4	10	40	4899	19.596	54966,54973,54976
WF BEAMS 8x24 LBS/FT	50'	7	8	56	4355	30.485	54957,54958,54959
WF BEAMS 8x24 LBS/FT	55'	2	8	16	4790	9.580	54963
WF BEAMS 8x24 LBS/FT	60'	2	8	16	5226	10.452	54972,54973
WF BEAMS 8x28 LBS/FT	30'	3	10	30	3810	11.430	54990
WF BEAMS 8x28 LBS/FT	35'	2	10	20	4445	8.890	54988
WF BEAMS 8x28 LBS/FT	40'	4	10	40	5080	20.320	54991
WF BEAMS 8x28 LBS/FT	45'	4	8	32	4572	18.288	54988,54989,54990
WF BEAMS 8x28 LBS/FT	50'	4	8	32	5080	20.320	54993,54994
WF BEAMS 8x28 LBS/FT	55'	4	6	24	4191	16.764	54988,54989
WF BEAMS 8x28 LBS/FT	60'	3	6	18	4572	13.716	54970
WF BEAMS 16x26 LBS/FT	30'	14	6	84	2123	29.722	54668,54770,54786,54787,54788
WF BEAMS 16x26 LBS/FT	32'	4	6	24	2264	9.056	54669
WF BEAMS 16x26 LBS/FT	35'	8	6	48	2476	19.808	54777,54782,54785,54786
WF BEAMS 16x26 LBS/FT	40'	14	6	84	2830	39.620	54666,54770,54773,54788,54789

HT # 54788 is used to fab. item B523, B554



**QUALITY CERTIFICATE**

**APS 5393**

SIZE	LENGTH	BUNDLES	PIECES BUNDLES	TOTAL PIECES	WEIGHT BUNDLES	TOTAL WEIGHT	HEAT
WF BEAMS 16x26 LBS/FT	45'	9	6	54	3184	28.656	54784,54785
WF BEAMS 16x26 LBS/FT	50'	11	6	66	3538	38.918	54786,54787,54789
WF BEAMS 16x26 LBS/FT	55'	5	6	30	3892	19.460	54775
WF BEAMS 16x26 LBS/FT	60'	12	6	72	4245	50.940	54667,54668,54669,54770
WF BEAMS 16x31 LBS/FT	30'	12	6	72	2531	30.372	54777,54796,54797
WF BEAMS 16x31 LBS/FT	32'	7	6	42	2700	18.900	54790,54795
WF BEAMS 16x31 LBS/FT	35'	10	6	60	2953	29.530	54780,54781
WF BEAMS 16x31 LBS/FT	40'	9	6	54	3375	30.375	54777,54792,54793,54796
WF BEAMS 16x31 LBS/FT	45'	5	6	30	3796	18.980	54780,54781
WF BEAMS 16x31 LBS/FT	50'	7	6	42	4218	29.526	54778,54779
WF BEAMS 16x31 LBS/FT	55'	3	6	18	4640	13.920	54789
WF BEAMS 16x31 LBS/FT	60'	6	6	36	5062	30.372	54793,54794

TOTAL BUNDLES 190

TOTAL WEIGHT 678.422 Kg.

A02 EN 10204/3.1.B

CSA G40.21 50W/ASTM A36-04/A572 G50-04/A992-04/A6-04

(801/802/803) A03

COLADA HEAT	COMPOSICION QUIMICA (%) CHEMICAL COMPOSITION (%)																	
	C	Mn	Si	P	S	V	Cr	Ni	Mo	Cu	Nb	CEV						
54666	.080	1.210	.170	.019	.031	.003	.100	.120	.025	.450	.025	.35						
54667	.090	1.270	.150	.019	.032	.003	.080	.130	.025	.480	.021	.36						
54668	.080	1.250	.150	.016	.031	.003	.080	.140	.025	.490	.023	.35						
54669	.090	1.190	.200	.021	.031	.003	.100	.100	.019	.500	.026	.35						
54770	.097	1.230	.220	.019	.028	.002	.170	.300	.048	.500	.024	.40						
54773	.090	1.220	.210	.017	.021	.003	.140	.180	.045	.500	.022	.38						
54775	.090	1.140	.200	.021	.029	.003	.170	.190	.049	.520	.027	.37						
54777	.090	1.150	.180	.018	.023	.003	.150	.200	.050	.540	.025	.37						
54778	.090	1.130	.180	.018	.020	.003	.160	.200	.053	.530	.021	.37						
54779	.100	1.190	.180	.021	.028	.003	.140	.210	.054	.530	.024	.39						
54780	.090	1.130	.200	.017	.024	.003	.140	.200	.051	.530	.021	.37						
54781	.100	1.110	.170	.019	.032	.003	.170	.190	.047	.510	.020	.38						
54782	.110	1.200	.210	.033	.014	.003	.200	.170	.042	.530	.022	.41						
54784	.120	1.130	.210	.027	.015	.003	.210	.190	.049	.550	.021	.41						
54785	.100	1.120	.210	.023	.015	.003	.190	.180	.048	.540	.022	.38						
54786	.080	1.210	.200	.018	.014	.003	.160	.190	.047	.530	.021	.37						
54787	.080	1.210	.160	.016	.016	.003	.150	.190	.047	.540	.020	.37						
54788	.080	1.240	.200	.018	.022	.003	.130	.200	.050	.520	.020	.37						
54789	.100	1.250	.180	.015	.019	.003	.140	.200	.050	.540	.022	.40						
54790	.100	1.240	.190	.023	.019	.003	.180	.200	.050	.510	.026	.40						
54792	.100	1.220	.180	.014	.020	.003	.170	.200	.051	.550	.023	.40						
54793	.110	1.140	.180	.014	.024	.003	.150	.190	.044	.510	.022	.39						
54794	.100	1.170	.180	.022	.024	.003	.160	.190	.045	.520	.023	.38						
54795	.110	1.180	.170	.019	.031	.003	.150	.200	.046	.530	.022	.40						
54796	.090	1.210	.190	.016	.023	.003	.140	.180	.043	.510	.023	.37						



**QUALITY CERTIFICATE**

**APS 5393**

COLADA HEAT	COMPOSICION QUIMICA (%) CHEMICAL COMPOSITION (%)																	
	C	Mn	Si	P	S	V	Cr	Ni	Mo	Cu	Nb	CEV						
54797	,080	1,130	,200	,020	,030	,003	,150	,170	,034	,490	,025	,35						
54957	,110	1,190	,190	,014	,024	,003	,130	,160	,034	,490	,020	,39						
54958	,100	1,210	,220	,016	,023	,003	,140	,140	,031	,470	,021	,38						
54959	,110	1,230	,220	,023	,022	,003	,150	,130	,026	,460	,019	,39						
54960	,110	1,220	,230	,027	,022	,003	,200	,120	,025	,470	,020	,40						
54963	,110	1,200	,210	,031	,021	,003	,190	,110	,021	,520	,021	,39						
54966	,100	1,190	,210	,032	,026	,003	,160	,120	,025	,510	,021	,38						
54969	,110	1,200	,220	,020	,028	,003	,110	,110	,024	,500	,022	,38						
54970	,090	1,090	,190	,019	,027	,003	,130	,110	,024	,530	,021	,35						
54971	,110	1,180	,190	,030	,026	,003	,100	,110	,025	,530	,022	,37						
54972	,110	1,210	,200	,021	,028	,003	,100	,120	,025	,450	,021	,38						
54973	,110	1,190	,210	,021	,024	,003	,110	,120	,024	,430	,022	,37						
54976	,110	1,170	,210	,016	,030	,003	,100	,100	,024	,370	,023	,36						
54977	,110	1,210	,200	,013	,026	,003	,090	,100	,032	,330	,023	,37						
54982	,120	1,280	,180	,014	,023	,003	,110	,110	,027	,390	,023	,39						
54984	,110	1,230	,220	,023	,024	,003	,120	,100	,022	,410	,023	,38						
54988	,110	1,160	,190	,028	,024	,003	,140	,100	,022	,410	,023	,37						
54989	,120	1,170	,220	,029	,015	,003	,160	,090	,020	,430	,022	,39						
54990	,110	1,240	,210	,033	,017	,003	,150	,080	,018	,420	,022	,38						
54991	,110	1,210	,210	,022	,017	,003	,130	,090	,019	,430	,022	,38						
54993	,100	1,210	,220	,018	,020	,003	,120	,090	,021	,500	,021	,37						
54994	,100	1,200	,220	,019	,032	,003	,110	,110	,025	,530	,022	,37						

MATERIAL SIZE	COLADA HEAT	PROPIEDADES MECANICAS MECHANICAL PROPERTIES					
		ReH MPa	ReL MPa	Rm MPa	RA %	AG %	AP %
W-16x26	54666	363	353	547	536	29,8	29,2
W-16x26	54667	376	366	546	534	31,	30,7
W-16x26	54668	422	416	545	544	31,7	31,2
W-16x26	54669	425	425	549	543	31,2	30,1
W-16x26	54770	427	415	546	547	32,6	32,6
W-16x26	54773	361	360	539	538	29,2	28,4
W-16x26	54775	399	395	539	517	33,9	33,8
W-16x26	54777	424	412	544	542	27,8	27,6
W-16x26	54782	396	392	543	536	28,4	28,1
W-16x26	54784	375	369	544	540	30,2	29,7
W-16x26	54785	384	370	545	547	28,6	28,4
W-16x26	54786	369	367	549	529	29,1	28,5
W-16x26	54787	373	363	542	551	29,1	28,5
W-16x26	54788	374	374	548	529	30,2	29,4
W-16x31	54789	385	371	546	538	30,7	29,8
W-16x31	54777	367	357	545	543	29,	28,7
W-16x31	54778	379	365	539	554	28,7	27,8
W-16x31	54779	376	364	546	533	27,9	27,3
W-16x31	54780	380	379	544	556	30,4	29,5
W-16x31	54781	377	371	549	528	28,3	27,7
W-16x31	54789	379	363	548	537	27,1	26,2

**QUALITY CERTIFICATE**
**APS 5393**

MATERIAL SIZE	COLADA HEAT	PROPIEDADES MECANICAS MECHANICAL PROPERTIES					
		ReH MPa		ReL MPa		Elong	
011	200	011		012		013	
W-16x31	54790	381	375	548	539	28,4	28,2
W-16x31	54792	375	373	548	537	30,5	29,4
W-16x31	54793	385	375	545	541	30,1	29,
W-16x31	54794	389	385	541	538	30,2	29,4
W-16x31	54795	381	367	541	542	28,	27,7
W-16x31	54796	403	397	538	537	32,3	31,3
W-8x24	54957	399	385	545	545	30,7	29,7
W-8x24	54958	398	384	543	527	31,7	30,6
W-8x24	54959	390	390	546	552	31,9	31,3
W-8x24	54960	402	391	546	534	29,1	28,3
W-8x24	54963	412	411	549	537	31,	30,7
W-8x24	54966	402	390	523	515	30,	29,
W-8x24	54969	386	376	550	533	31,4	30,4
W-8x24	54971	397	397	541	557	30,3	30,3
W-8x24	54972	404	392	548	534	29,5	29,1
W-8x24	54973	403	397	543	521	28,	27,9
W-8x24	54976	400	396	547	501	33,9	33,1
W-8x24	54977	418	400	547	542	29,4	28,3
W-3x24	54982	377	375	549	539	29,8	29,6
W-8x24	54984	390	388	544	538	30,8	30,1
W-8x28	54970	383	369	542	538	28,7	28,3
W-3x28	54988	392	384	541	549	28,3	27,8
W-8x28	54989	378	368	546	532	31,1	30,6
W-8x28	54990	383	377	546	548	29,5	29,3
W-8x28	54991	414	400	548	540	31,1	30,9
W-8x28	54993	373	371	545	554	27,9	27,
W-8x28	54994	392	392	548	534	29,5	28,5
				528	515	31,7	31,2

**47 análisis**

 D01: Certificamos que los aceros arriba indicados han sido satisfactoriamente probados de acuerdo con la especificación.  
 B06: Marca APO

201

  
 Luis María Lakunza



Bill To: INTRA-METALS CORPORATION-CT R INTRA-METALS CORPORATION-CT  
 8 PENT HWY HALLINGFORD CT MAULINGFORD 06492  
 Ship To: 1 8 PENT HIGHWAY TRACK# 953 MAULINGFORD CT US 06492

Order Date: 05/22/2007  
 PO No: C21424  
 Hill Order No: 3313293  
 Load No: 1124268  
 Manifest No: 1839184  
 CHAPARRAL STEEL  
 CERTIFIED MATERIAL TEST REPORT  
 CHAPARRAL STEEL  
 300 Ward Rd.  
 Midlothian, TX  
 76065-9651  
 (972) 775-8241

SIZE M 18 X 35# / M460 X 52  
 SPECIFICATION ASTM A6-05a, A992-06a, A572-06  
 GRAD: 992/572-50  
 LENGTH 60 FT / 18.288 M

PRODUCT WF BEAMS

HEAT NO: 30370270

CHEMICAL ANALYSIS

C	Mn	P	S	Si	Cu	NI	Cr	Mo	Sn	V	Al	Nb	CE
.07	.97	.011	.031	.23	.33	.10	.08	.021	.018	.003	.003	.020	.28

PHYSICAL PROPERTIES		Tensile Strength		Specimen Area		Elongation		Bend Test		ROA	
Yield Strength	KSI	MPa	KSI	MPa	Sq In	Sq cm	%	Gage Length	Dia.	Result	%
54.7	377.1	402.7	69.6	479.9	0.678	4.37	27.4	8in	8in	200 mm	
58.1	402.7		74.0	510.2	0.633	4.08	24.9	8in	8in	200 mm	

HT # 30370270 is used to fab items: B520, B522, B556

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A. CMTR complies with DIN EN 10204 3.1.1.B

"I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements."

Signed: Tom L. Harrington Date: Jul. 30, 2007 Signed: \_\_\_\_\_  
 Tom L. Harrington: Quality Assurance Manager Notary Public (if applicable) Date: \_\_\_\_\_



**Steel Dynamics, Inc.**  
2601 S. County Road 700 East  
Columbia City, IN 46737  
(260) 625-8100

**Certified Mill Test Report**  
100% Melted and Manufactured in USA

Date: 7/23/2007  
Customer No: 1900191  
Bill of Lading No: 19000119461  
MTR #: 1900119025

Ship to:  
Triad Metals International  
Third Customer P/U  
Attn: Sally

Bill to:  
TRIAD METALS INTERNATIONAL  
A 12300 Century Star Avenue  
Milledy, Indiana, IN 46090  
Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grades(s)	Specification(s)	Customer P.O.
1†	020908432	W21X44	42' 0"	4	A034738	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 05a ASTM A709/A709M - 05a ASTM A572/A572M - 05 ASTM A616/A616M	495
2†	020908437	W21X44	42' 0"	4	A034738	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 05a ASTM A709/A709M - 05a ASTM A572/A572M - 05 ASTM A616/A616M	495
3†	020908539	W21X44	42' 0"	4	A034729	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 05a ASTM A709/A709M - 05a ASTM A572/A572M - 05 ASTM A616/A616M	495
4†	020908578	W21X44	42' 0"	4	A034727	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 05a ASTM A709/A709M - 05a ASTM A572/A572M - 05 ASTM A616/A616M	495
5†	020908643	W21X44	42' 0"	4	A034743	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 05a ASTM A709/A709M - 05a ASTM A572/A572M - 05 ASTM A616/A616M	495
6†	020908707	W21X44	42' 0"	4	A034745	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 05a ASTM A709/A709M - 05a ASTM A572/A572M - 05 ASTM A616/A616M	495

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1*	.08	1.03	.016	.031	.22	.32	.022	.080	.13	.04	.016	.007	.0004	.00	.31	0.1500	0.1700	HEAT
2*	.08	1.03	.016	.031	.22	.32	.022	.080	.13	.04	.016	.007	.0004	.00	.31	0.1500	0.1700	HEAT
3*	.07	1.04	.016	.029	.19	.36	.023	.120	.13	.04	.019	.010	.0003	.00	.31	0.1500	0.1700	HEAT
4*	.07	1.04	.019	.029	.21	.31	.021	.100	.11	.03	.015	.009	.0003	.00	.30	0.1400	0.1600	HEAT
5*	.06	1.01	.018	.038	.18	.31	.021	.080	.10	.03	.013	.007	.0003	.00	.28	0.1100	0.1400	HEAT
6*	.08	1.05	.017	.042	.20	.31	.022	.100	.10	.03	.014	.008	.0004	.00	.31	0.1400	0.1600	HEAT

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the listed specifications and applicable purchaser designated.

State of Indiana, County of Whitley

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_  
Notary Public

Special Comments/Information:  
HT # A034738 is used to Feb. items.

My commission expires: \_\_\_\_\_

B525, B530  
B531, B534  
B565, B570  
B594



**Steel Dynamics, Inc.**

2601 S. County Road 700 East  
Columbia City, IN 46725-  
(260) 625-8100

**Certified Mill Test Report**  
100% Melled and Manufactured in USA

Date: 7/23/2007  
Customer No: 000191  
Bill of Lading No: 0000119461  
MTR #: 0000119025

Ship to  
Third Metals International  
Third Customer P/U  
Attn: Sally

Bill to:  
TRINAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

**MECHANICAL**

**Tension Testing Results**

Item	Test	Yield (Fy) Strength ksi/MPa	Tensile Strength (Fu) ksi/MPa	Fy/Fu	Elong (%) based on 8" gauge	ROA (%)	Bend Test Result
1	1	50/345	68/454	.76	24		
1	2	53/368	73/502	.73	22		
2	1	50/345	66/454	.76	24		
2	2	53/368	73/502	.73	22		
3	1	52/361	67/462	.78	22		
3	2	59/404	74/512	.80	21		
4	1	62/427	76/526	.82	26		
4	2	60/412	75/520	.80	28		
5	1	57/396	73/501	.78	26		
5	2	53/369	71/486	.75	26		
6	1	56/388	69/474	.81	26		
6	2	54/373	71/491	.76	27		

**Charpy Impact Testing Results**

Item	Temp F/C	Sample 1 ft. lb/joules	Sample 2 ft. lb/joules	Sample 3 ft. lb/joules	% Shear	ASTM Grain Size No (per ASTM E112)
1						
2						
1						
2						
1						
2						
1						
2						
1						
2						

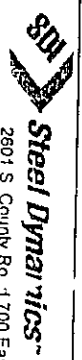
I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Quality Assurance

State of Indiana, County of Whitley  
Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
Signed: \_\_\_\_\_  
Notary Public

Special Comments/Information

My commission expires: \_\_\_\_\_



2601 S County Rd. #1700 East  
Columbia City, IN 47725  
(260) 625-8100

**Certified Mill Test Report**  
100% Melted and Manufactured In USA

Date: 7/10/2007  
Customer No: 000101  
Bill of Lading No: 0000118681  
MTR #: 0000118254

Ship to:  
Triad Metals International  
Triad Customer Pk.  
Arlin, Sally

Mill:  
TRIPOLI  
10000  
10000  
10000  
10000  
10000

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.C.
1	000023481	W24X68	44' 0"	1	A034343	A992/A992M A709 g50S/g345S A572 gr50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 05 ASTM A6/A6M	100
2	020999518	W24X68	44' 0"	4	A034352	A992/A992M A709 g50S/g345S A572 gr50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	100
3	020903310	W24X62	42' 0"	4	R034524	A992/A992M A709 g' S/g345S A572 gr' 50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	100
4	020903399	W24X62	42' 0"	1	R034528	A992/A992M A709 g' S/g345S A572 gr' 50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	100
5	020906903	W21X83	41' 6"	1	A034612	A992/A992M A709 g50S/g345S A572 gr50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	100
6a	020907114	W21X83	41' 6"	1	A034611	A992/A992M A709 g50S/g345S A572 gr50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	100
6b	020907114	W21X83	41' 6"	1	A034680	A992/A992M A709 g50S/g345S A572 gr50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	100
7a	020907123	W21X83	41' 6"	1	A034678	A992/A992M A709 g50S/g345S A572 gr50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	100
7b	020907123	W21X83	41' 6"	1	A034680	A992/A992M A709 g50S/g345S A572 gr50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	100

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

State of Indiana, County of Whitley

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

My commission expires \_\_\_\_\_

Special Comments/Information  
NY # A034612 is used to fab. item: B585

Quality Assurance

**Certified Mill Test Report**  
 100% Melted and Manufactured in USA

Date: 7/17/2007  
 Customer No: 000191  
 Bill of Lading No: 0000118975  
 MTR #: 0000118346

Ship to:  
 Triad Metals International  
 Triad Customer P/U  
 Attn: Sally

Fill to:  
 TRIAD METALS INTERNATIONAL  
 A-1 2300 Computer Avenue  
 Willow Grove, PA 19090  
 Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1t	020896786	W21X101	41' 6"	2	A034247	A992 / A992M A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 05 ASTM A6/A6M	454
2t	020896787	W21X101	41' 6"	2	A034247	A992 / A992M A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 05 ASTM A6/A6M	494
3t	020906653	W21X55	43' 6"	2	A034662	A992 / A992M A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 05 ASTM A6/A6M	459
4t	020906657	W21X55	43' 6"	4	A034662	A992 / A992M A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 05 ASTM A6/A6M	459
5t	020906658	W21X55	43' 6"	4	A034662	A992 / A992M A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 05 ASTM A6/A6M	459

**HEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	NI	Mo	Sn	N	B	Charpy Impact Testing Results
1*	.08	1.15	.015	.032	.21	.36	.033	.070	.09	.02	.015	.011	.0003	0.32 0.3600 0.1700
2*	.08	1.15	.015	.032	.21	.36	.033	.070	.09	.02	.015	.011	.0003	0.32 0.3600 0.1700
3*	.07	1.04	.011	.029	.20	.35	.023	.070	.11	.04	.022	.008	.0003	0.30 0.3300 0.1600
4*	.07	1.04	.011	.029	.20	.35	.023	.070	.11	.04	.022	.008	.0003	0.30 0.3300 0.1600
5*	.07	1.04	.011	.029	.20	.35	.023	.070	.11	.04	.022	.008	.0003	0.30 0.3300 0.1600

**MECHANICAL**

Item	Yield (Fy) Strength ksi/MPa	Tensile (Fu) Strength ksi/MPa	Fy/Fu	Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp F/C	Sample 1 ft. lb/joules	Sample 2 ft. lb/joules	Sample 3 ft. lb/joules	% Shear	ASTM Grain Size 1/2 (per ASTM E112)	Analysis
1	58/401	71/489	.82	26									HEAT
2	59/409	72/499	.82	24									HEAT
2	58/401	71/489	.82	26									HEAT

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

State of Indiana, County of Whitley  
 Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
 Signed: \_\_\_\_\_ Notary Public

Special Comments/Information:  
 HT # A034247 is used to fab item: 8576

Bill To: INFERA-METALS CORPORATION-CT, R  
 8 PENT HWY WALLINGFORD CT 06492

Ship To: 1  
 INFERA-METALS CORPORATION-CT  
 TRACK# 953  
 WALLINGFORD CT 06492

CERTIFIED MATERIAL TEST REPORT  
 GERDAU AMERISTEEL  
 Peterborough Mill  
 25801 Hoffmaster Way  
 Peterborough, VA 23103

ORDER DATE: 05/22/2007  
 PO NO: C21424  
 ORDER NO: 3313698  
 LOAD NO: 1144289  
 MFG PART NO: 18555361

SIZE: W 24 X 68# / M610 X 101

GRADE: 992/572-50

LENGTH: 30 FT / 9.144 M

HEAT NO: 30385790

CHEMICAL ANALYSIS

Yield Strength	Tensile Strength	Specimen Area	Elongation	ROA
KSI	KSI	Sq In	%	%
55.8	72.2	0.881	26.8	81%
57.6	73.4	0.863	25.9	81%

HT # 30385790 is used to fab items: B543, B546

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A. CMTR complies with DIN EN 10204 3.1.B

"I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchase designated requirements."

Signed: Tom L. Harrington Quality Assurance Manager Date: Oct. 17, 2007 Signed: \_\_\_\_\_  
 Notary Public (if applicable)

Date: \_\_\_\_\_



Load #: 17

Shipping Date:

Waybill #: 898-17

Customer: Pizzagalli Construction Company Prepared By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: 24-01-01

Job Title: 84 Marginal Way Job Progress Report Sheet Bathurst Machine Shop Ltd. 1040 Route 430

Date Sent to Shop: X SHEET: 1 Mandate Erectors & Welding Ltd. Big River Road

Job Number: 898 X MQM Ltd., Tracadie E2A 6P9

Form #12 Rev. 4

\* = SEE SHOP DWG

C = COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Tilted		Mk. Insp.		Punch Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped				
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date
A	W18X40	0	B500	1	1434			C=1 1/4"																				
A	W10X17	0	B503	1	322																							
A	W10X17	0	B504	2	644																							
A	W10X17	0	B507	3	965																							
A	W10X17	0	B508	1	322																							
A	W12X19	0	B510	1	161																							
A	W12X19	0	B515	1	495																							
A	W18X35	0	B517	1	1683																							
A	W18X35	0	B518	1	1709																							
A	W24X55	0	B526	1	2568																							
A	W21X44	0	B528	1	502																							
A	W21X44	0	B532	1	1894			C=1 1/2"																				
A	W21X44	0	B533	1	1894			C=1 1/2"																				
A	W12X19	0	B535	1	192																							
A	U.S.S. 8X6X5/16	0	B540	1	295																							
A	U.S.S. 8X4X1/4	0	B541	1	248																							
A	W24X68	0	B547	1	2090																							
A	W24X68	0	B548	2	4168																							
A	W24X62	0	B549	1	3486																							
A	W24X68	0	B550	1	2035																							

Pieces 21 27107 Total Weight (Lbs)

( 13.6 TONS)



Load #: 17

Customer:	Pizzagalli Construction Company		Prepared By:	Approved By:	Date: 24-01-01
Job Title:	84 Marginal Way	Job Progress Report Sheet	Bathurst Machine Shop Ltd. 10-10 Route 430 Mandate Erectors & Welding Ltd. Big River Road MQM Ltd, Tracadie 12A 6P9		
Date Sent to Shop:	X	SHEET: 2			
Job Number:	898				

Form #12 Rev. 4

\* = SEE SHOP DWG C- COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped						
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date		
A	W24X68	0	B554	1	2028																									
A	W16X26	0	B558	1	1125																									
A	W21X62	0	B561	1	2548																									
A	W12X19	0	B563	1	122																									
A	W16X36	0	B571	1	1774																									
A	W18X40	0	B572	1	1835																									
H	W10X17	0	B577	2	573																									
A	W12X19	0	B581	1	378																									
A	U.S.S. 8X4X1/4	0	B582	2	279																									
A	U.S.S. 12X1X5/16	0	B583	1	663																									
H	W12X19	0	B592	1	682																									
A	U.S.S. 8X8X5/8	0	D402	1	671																									
A	U.S.S. 8X8X5/8	0	D403	1	721																									
A	U.S.S. 6X6X1/2	0	D405	1	483																									
A	U.S.S. 6X6X1/2	0	D406	1	482																									
A	U.S.S. 10X10X5/8	0	D407	1	1260																									
A	U.S.S. 8X8X1/2	0	D408	1	912																									
A	U.S.S. 8X8X1/2	0	D409	1	912																									
A	U.S.S. 7X7X1/2	0	D410	1	726																									
				Pieces	21	18174 Total Weight( Lbs)																					( 9.1 TONS)			





УКРАИНА  
UKRAINE



МАРИУПОЛЬСКИЙ МЕТАЛЛУРГИЧЕСКИЙ КОМБИНАТ  
ИМЕНИ ИЛЬИЧА

ILYICH IRON & STEEL WORKS OF MARIUPOLE

87504, г. Мариуполь, ул. Лявченко, 1. Тел: 115157 DEPO SU

Levchenko str. 1, Mariupol, 87504. Tel: 115157 DEPO SU

ЗАВОДСКОЙ СЕРТИФИКАТ КАЧЕСТВА №  
MILL'S QUALITY CERTIFICATE №

17159

Дата  
Date

12.07.04

Лист  
Sheet

1

of

Листов  
sheets

Свидетельство о приемочных испытаниях  
Inspection certificate

EN 10204-3.1 B



ISO  
9001



Контракт № 12EXP/06L-04

Lot1

Заводской заказ №

Contract №

LF43010648

Sp.48LF

Manufacturer's

LF43-010648/369927

works order №

Заказчик

DULERCO S.A.

11743/2

Customer

Вагон № (Автомашинна №)

68778273

Количество штук

58

Freight Car № (Lorry №)

Number of pieces

Наименование товара Прокат пластинчатой  
Description of goods Heavy plates

Стандарт  
Standarts

CSA G40.21-04

Марка стали

350W(50W)

ASTM A6/A6M-02

Steel grade

Состояние поставки Горячекатанный лист  
Delivery condition Hot Rolled Plate

№ 5204/1

Маркировка

Marking

Hard stamp

Позиция № Item №	Номер плавки Cast number	Номер партии Test number	Размеры, дюйм Product dimensions, in "			Кол-во штук Number of pieces	Теоретич. масса, м.т Theoret. mass, m t
			Толщина Thickness	Ширина Width	Длина Length		
	144058	13097	3/8	96	240	20	22,24
	244218	13098	3/8	96	240	27	30,024
	144057	13099	3/8	96	240	11	12,232
						58	64,496

SAMUEL PLATE SALES

CERTIFIED COPY OF  
TEST REPORT

SHIPPED ON:

YOUR PO \_\_\_\_\_

OUR ORDER \_\_\_\_\_

DATE \_\_\_\_\_

HT #13097 is used to eq. items: F49, F123

MILL'S QUALITY CERTIFICATE № 1758  
 Результаты испытаний Test results

Номер партии Test number	Испытание на растяжение и ударный изгиб Tensile and impact test														Изгиб Bend			
	Отбор образца Specimen		Темп ратура исп. гання Test te. peratura	Предел текучести Yield strength	Пределное сопротивление Tensile strength	Относительное удлинение Elongation	Сужение Reduction of area	Размеры образца D.m. of specimen		1-Энергия удара / Impact energy, (J) 2-Ударная вязкость / Impact strength, (J/cm <sup>2</sup> ) 3- Механическое старение / Mechanical aging, (h, °C) В- количество вязкой составляющей в изломе / Number of toughness component in fracture V: ISO-V; U: ISO-U	°C	Значение Value				В. %		
	Место Localit.	Направление						Толщина Thickness	Ширина Width			1	2	3				
	4)	5)	°C	R <sub>el</sub>	R <sub>m</sub>	A, %	Z, %	mm	mm				6)					
13098		Т	20	409	530	21												
13099		Т	20	396	530	23												
				407	540	22												
				404	550	21												
				395	555	22												

153 04/1

4) Н - начало полосы / head strip;  
 E - конец полосы / end strip

5) L - продольное / longitudinal;  
 T - поперечное / transverse.

6) а - толщина образца / thickness of specimen;  
 d - диаметр оправки / diameter of the mandrel

УЗК / Ultrasonic Examination

Выплавка / Steelmaking process

Конвертерный способ / Made by the BOF Process

№ плавки Cast №	Химическое содержание элементов / Chemical contents of elements, %																
	C	Mn	Si	S	P	Cr	Ni	Cu	Ti	Al	B	N	Mo	V	Nb	Ceq	Pcm
	x100			x10 <sup>-3</sup>		x100			x100		x1000					x100	
144058	21	108	25	17	26	4	2	3	0,1	44		7	1	6	5	40	
144059	23	111	21	17	21	4	2	3	0,1	45		7	1	6	4	21	
144057	22	104	22	12	18	3	2	3	0,2	37		6	1	6	4	40	

Подпись / Name

Настоящим сертификатом подтверждается, что продукция, соответствующая по качеству действующим стандартам и техническим условиям, выпущена на заводе-изготовителе.

It is hereby certified that the quality of goods mentioned in this certificate is in conformity with the standards and technical conditions.

Подпись \_\_\_\_\_ Штамп предприятия  
 Signature \_\_\_\_\_ Receiving agent's stamp  
 Дата \_\_\_\_\_  
 Date \_\_\_\_\_

УКРАИНА  
UKRAINE



МАРИУПОЛЬСКИЙ МЕТАЛЛУРГИЧЕСКИЙ КОМБИНАТ  
ИМЕНИ ИЛЬИЧА

ДОТК-9

ILYICH-IRON & STEEL WORKS OF MARIUPOL

87504, г. Мариуполь, ул. Левченко, 1. Телекс 115157 DEPO SU

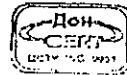
Levchenko str. 1, Mariupol, 87504. Telex 115157 DEPO SU

ЗАВОДСКОЙ СЕРТИФИКАТ КАЧЕСТВА № 3053 Дата 07.02.2006 Лист 1 из 1 Листов sheets  
MILL'S QUALITY CERTIFICATE № 3053 Date 07.02.2006 Sheet 1 of 1 sheets

Свидетельство о приемочных испытаниях EN 10204-3.1 B  
Inspection certificate



ISO  
9001



Контракт №	12EXP/01L-05	Lot1	Заводской заказ №
Contract №	LF53010109	Sp.09LF	Manufacturer's works order № LF53010109369927

Заказчик  
Customer SALZGITTER INTERNATIONAL

Вагон № (Freight Car №) 66169327 Количество штук Number of pieces 54

Наименование товара	Прокат толстолистовой	Стандарт	ASTM A572/A572M-01
Description of goods	plates	Standards	
Марка стали	350W/GR.50 TYPE 2	ASTM A6/A6M-02	
Steel grade		CSAG 40.21-04	

Состояние поставки Горячекатанный лист  
Delivery condition Hot Rolled Plate

Маркировка  
Marking

Hard stamp

Позиция № Item №	Номер плавки Cast number	Номер партии Test number	Размеры, дюйм Product dimensions, in "			Кол-во штук Number of pieces	Теоретич. масса, т. Theoret. mass, t.
			Толщина Thickness	Ширина Width	Длина Length		
	360593	2451	1/4	96	240	54	40,014

HT # 2451 is used to fab...iteens: F91, F120, F121.

MILL'S QUALITY CERTIFICATE № 3053

Результаты испытаний Test results

Номер партии Test number:	Испытание на растяжение и ударный изгиб Tensile and impact test													Изгиб Bend				
	Отбор образца Specimen		Температура испытания Test temperature	Предел текучести Yield strength		Врем. сопротивл. Tensile strength	Относительное удлинение Elongation	Сужение Reduction of area	Размеры образца D.m. of specimen		1-Энергия удара / Impact energy, (J) 2- Ударная вязкость / Impact strength, (J/cm <sup>2</sup> ). 3- Механическое старение / Mechanical aging, (J/cm <sup>2</sup> ). В - количество вязкой составляющей в изломе / Number of toughness compo-nent in fracture V: ISO-V; U: ISO-U							
	Место Location	Направление Direction		Re <sub>0.2</sub>	R <sub>m</sub>				A, %	Z, %					Толщина Thickness	Ширина Width		
			°C			MPa	8 in"	mm			mm	Значение Value					B, %	
4)	5)	°C	MPa	8 in"	Z, %	mm	mm	1	2	3	B, %							
2451		T	20	438 439	550 550	24 23		6,35	40									

4) H - начало полосы / head strip; E - конец полосы / end strip; 5) L - предельное / longitudinal; T - поперечное / transverse; 6) a - толщина образца / thickness of specimen; d - диаметр образца / diameter of the mandrel.

УЗК / Ultrasonic Examination

Выплавка / Steelmaking process Конвертерный способ / Made by the BOC Process

№ плавки Cast №	Химическое содержание элементов / Chemical contents of elements, %																
	C	Mn	Si	S	P	Cr	Ni	Cu	Ti	Al	As	N	Mo	V	Nb	Ce <sub>0</sub>	Зем.
	x100	x100	x100	x10000	x10000	x100	x100	x100	x100	x10000	x10000	x10000	x10000	x10000	x10000	x100	
360693	20	106	23	17	20	4	2	1	0,1	45	3	7	1	64	6	40	

Примечание / Note

Указанный в настоящем сертификате товар соответствует по качеству действующим стандартам и техническим условиям.

It is hereby certified that the quality of the material conforms to the standards and specifications.

Подпись / Signature: [Signature]  
Дата / Date: [Date]

SET LOT NO. KA901A  
**INSPECTION CERTIFICATE**

Specification	Size	Quantity
ASTM F1452 Type 1 ASTM A5-3 Grade DH ASTM F416 Type 1	3/4-10 UNC X 3-3/4	5,536 pcs.



**UNYTITE, INC.**  
 One Unytite Drive  
 Peru, Illinois 61354  
 815-224-2221 — FAX # 815-224-1434

Mechanical properties tested in accordance to ASTM F606/F606M, ASTM A370, ASTM E18  
**BOLE LOT NO. KA901**  
 Date: Mar. 29 '07

Average	Mechanical Property of Full Size Bolts				Heat Treatment		Chemical Composition %									
	Tensile Strength	Proof Load	Hardness	Heat Treatment	Quench	Temper	C	Si	Mn	P	S	Cu	Ni	Cr	Mn	R
50150	28400	32.4	1580	860	467690	31	25	66	10	8	5	6	1	24		
Spec.	40100	34 MAX	800	800	Heat No.	30	15	60	40	50						
Min.	Part of Screw	4/- 0.0005 in.	Min.	Min.	AS 25TC	52	30	Max.	Max.	Max.						
Max.	Part of Screw	Max.	Max.	Max.	Heat No.											
Part of Screw	ALL PASS	ALL PASS	ALL PASS	ALL PASS												

**NUT LOT NO. JX511**

Average	Mechanical Property of Full Size Bolts				Heat Treatment		Chemical Composition %									
	Tensile Strength	Proof Load	Hardness	Heat Treatment	Quench	Temper	C	Si	Mn	P	S	Cu	Ni	Cr	Mn	R
29.2	58450	1211	800	800	M23520	47	24	85	12	42	13	6	12			
Spec.	24-38	800	800	800	Heat No.	20	55	Max.	Max.	Max.						
Min.	HRB 89	Min.	Min.	Min.	Heat No.											
Max.	ALL PASS	ALL PASS	ALL PASS	ALL PASS												
Part of Screw	ALL PASS	ALL PASS	ALL PASS	ALL PASS												

**WASHER LOT NO. WB9015**

Average	Mechanical Property of Full Size Bolts				Heat Treatment		Chemical Composition %									
	Tensile Strength	Proof Load	Hardness	Heat Treatment	Quench	Temper	C	Si	Mn	P	S	Cu	Ni	Cr	Mn	R
42.0	58450	1211	800	800	M23520	47	24	85	12	42	13	6	12			
Spec.	38-45	800	800	800	Heat No.	20	55	Max.	Max.	Max.						
Min.	HRB 89	Min.	Min.	Min.	Heat No.											
Max.	ALL PASS	ALL PASS	ALL PASS	ALL PASS												
Part of Screw	ALL PASS	ALL PASS	ALL PASS	ALL PASS												

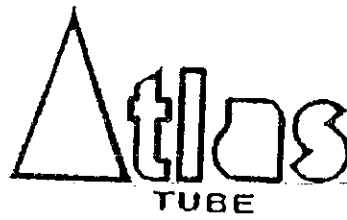
Material used for the bolt, nut and washer were melted & manufactured in the USA.  
 The product was manufactured in the USA to ASTM specifications. The bolt and nut are manufactured by Unytite.  
 We hereby certify that the material described has been manufactured and inspected

Chief of Quality Assurance Section  
 OFFICIAL SEAL  
 JEAN MARGHERIO  
 NOTARY PUBLIC - STATE OF ILLINOIS  
 MY COMMISSION EXPIRES: 04/30/08  
 04-05-07



Atlas Tube Canada ULC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 NOR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537

Ref.B/L: 80263316  
 Date: 10.24.2007  
 Customer: 1751



MATERIAL TEST REPORT

Sold to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Shipped to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Material: 10.0x10.0x625x18'0"0(1x1).  
 Sales order: 335491

Material No: 100100625  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
480370	1	0.200	0.800	0.010	0.003	0.170	0.039	0.036	0.003	0.004	0.014	0.041	0.002
Bundle No	Yield	Tensile	Eln.2in										
M200480196	056550 Psi	070670 Psi	37.5 %										
Certification													
ASTM A500-03A GRADE B&C													

Material Note:  
 Sales Or Note:

*HT # 480370 is used to fab item: D407*

Material: 7.0x7.0x500x40'0"0(3x1).  
 Sales order: 335491

Material No: 700705004000  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
5011G	3	0.190	0.840	0.011	0.004	0.020	0.028	0.010	0.000	0.010	0.010	0.020	0.000
Bundle No	Yield	Tensile	Eln.2in										
M200479469	060730 Psi	071910 Psi	38.0 %										
Certification													
ASTM A500-03A GRADE B&C													

Material Note:  
 Sales Or Note:

Material: 8.0x8.0x625x48'0"0(2x1).  
 Sales order: 335491

Material No: 800806254800  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002
Bundle No	Yield	Tensile	Eln.2in										
M200482110	063150 Psi	076440 Psi	34.3 %										
Certification													
ASTM A500-03A GRADE B&C													

Material Note:  
 Sales Or Note:

Material: 8.0x8.0x625x48'0"0(2x1).  
 Sales order: 335491

Material No: 800806254800  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002
Bundle No	Yield	Tensile	Eln.2in										
M200482112	063150 Psi	076440 Psi	34.3 %										
Certification													
ASTM A500-03A GRADE B&C													

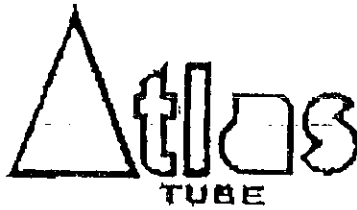
Material Note:  
 Sales Or Note:

Authorized by Quality Assurance: *[Signature]*

The results reported on this report represent the actual material and factors that compliance with all applicable specification and contract requirements.



Atlas ABC Corp (Atlas Tube Chicago)  
 1885 East 122nd Street  
 Chicago, Illinois, USA  
 80833  
 Tel: 773-846-4500  
 Fax: 773-846-6128



MATERIAL TEST REPORT

Material: 12.0x4.0x375x48'0" (2x2)

Material No: 300201882400

Made In: USA

Sales order: 33832

Purchase Order: 2899

Melted & Manufactured in USA

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
D41839	38	0.200	0.840	0.015	0.010	0.015	0.034	0.020	0.001	0.003	0.010	0.030	0.001

Bundle No	Yield	Tensile	Elon. 2in
M700050596	067430 Psi	078170 Psi	31 %

Certification  
 ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or. Note:

Material: 12.0x4.0x375x48'0" (2x2)

Material No: 1200403754800

Made In: USA

Sales order: 33832

Purchase Order: 2899

Melted & Manufactured in USA

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
Y47414	4	0.200	0.780	0.008	0.012	0.010	0.037	0.020	0.001	0.002	0.010	0.030	0.001

Bundle No	Yield	Tensile	Elon. 2in
M900120092	057940 Psi	070990 Psi	38 %

Certification  
 ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or. Note:

*HT #Y47414 is used to fab item: B.583*

Material: 14.005x600x40'0" (2x1)

Material No: 1140006000

Made In: USA

Sales order: 33832

Purchase Order: 2885

Melted & Manufactured in USA

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
818820	1	0.200	0.460	0.012	0.002	0.060	0.038	0.020	0.000	0.000	0.010	0.040	0.001

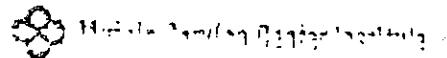
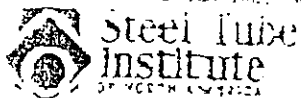
Bundle No	Yield	Tensile	Elon. 2in
M900118809	060790 Psi	074170 Psi	38 %

Certification  
 ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or. Note:

Authorized by Quality Assurance

Steel Tube Institute is a non-profit organization and does not discriminate on the basis of race, sex, or religion in its programs and activities.



P.O. 32912

COPPERWELD CANADA INC.  
14 HOLTBY AVENUE  
BRAMPTON, ONTARIO L6X 2M3  
CANADA



Customer Order No. 87827

Internal Order No. 536796

Invoice No. 17049030

TEST REPORT

Customer:	Specification: 6 IN, SQ, 1/2 48 FT CSA G40.21
-----------	--

HEAT NO.	CHEMICAL ANALYSIS, %											
	C	Mn	P	S	SI	AL	CB	V	CU	NI	CR	
6469T C.E. .33	.18	.96	.011	.005	.22	.034	.005	.03	.020	.010	.020	

MECHANICAL PROPERTIES

HEAT NO.	LAB NO.	YIELD STRENGTH PSI	TENSILE STRENGTH PSI	ELONGATION %	HARDNESS Rb
6469T	7	71300	87300	34	

YIELD STRENGTH IS 0.2% OFFSET - ELONGATION IN 2 INCHES

Other Tests

LTV Copperweld certifies that the material purchased on this order meets all chemical and physical requirements in accordance with the latest applicable ASTM standards.

*Jim Clark*  
JIM CLARK, METALLURGIST

HT # 6469T is used to Fab. items: D405, D406

Atlas Tube Canada ULC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 NOR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537

Ref.B/L: 80263316  
 Date: 10.24.2007  
 Customer: 1751



**MATERIAL TEST REPORT**

Sold to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Shipped to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Material: 6.0x4.0x375x23"0"0(4x4).  
 Sales order: 314780

Material No: 60040375  
 Purchase Order: 31077  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
680291		0.190	0.810	0.011	0.004	0.150	0.035	0.039	0.005	0.003	0.015	0.036	0.000
Bundle No	Yield	Tensile		Elm.2in		Certification							
M100647174	060930 Psi	074270 Psi		27.4 %		ASTM A500-03A GRADE B&C							

Material Note:  
 Sales Or.Note:

Material: 7.0x7.0x500x36"0"0(2x1).  
 Sales order: 335491

Material No: 70070500  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
681846	2	0.190	0.800	0.011	0.002	0.150	0.043	0.017	0.006	0.002	0.009	0.036	0.000
Bundle No	Yield	Tensile		Elm.2in		Certification							
M200482870	058830 Psi	075060 Psi		31.3 %		ASTM A500-03A GRADE B&C							

Material Note:  
 Sales Or.Note:

Material: 7.0x7.0x500x36"0"0(2x1).  
 Sales order: 335491

Material No: 70070500  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
681846	2	0.190	0.800	0.011	0.002	0.150	0.043	0.017	0.006	0.002	0.009	0.036	0.000
Bundle No	Yield	Tensile		Elm.2in		Certification							
M200482871	058830 Psi	075060 Psi		31.3 %		ASTM A500-03A GRADE B&C							

Material Note:  
 Sales Or.Note:

*HT #681846 is used to fab. item: D410*

Material: 8.0x8.0x625x50"0"0(2x1).  
 Sales order: 335491

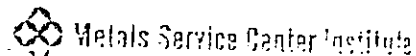
Material No: 80080625  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
682766	2	0.200	0.810	0.009	0.002	0.160	0.029	0.026	0.006	0.002	0.011	0.036	0.000
Bundle No	Yield	Tensile		Elm.2in		Certification							
M200482105	063150 Psi	076440 Psi		34.3 %		ASTM A500-03A GRADE B&C							

Material Note:  
 Sales Or.Note:

Approved by: *[Signature]*

The results reported in this report represent the actual properties of the material furnished and indicate full compliance with all applicable specification and contract requirements.



Atlas Tube Canada ULC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 NCR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537

# MATERIAL TEST REPORT

Ref.B/L: 80248589  
 Date: 10.29.2007  
 Customer: 1751

*Attn: Denis Guitera.*

*300-540-1827*

**Sold to**

Mandate Erectors & Welding Lt  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

**Shipped to**

Mandate Erectors & Welding Lt  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Material: 8.0x4 0x250x26"0(2x2).  
 Sales order: 314760

Material No: 80040250  
 Purchase Order: 31077  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
749730	4	0.200	0.820	0.011	0.007	0.011	0.049	0.021	0.004	0.002	0.010	0.035	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M100648382	058250 Psi	069520 Psi	33.2 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note: *HT # 749730 is used to fab. items: B541, B582*

Material: 12.0x12.0x375x32"4(2x2).  
 Sales order: 314238

Material No: 120120375  
 Purchase Order: 31072  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582788	4	0.200	0.790	0.011	0.003	0.150	0.035	0.026	0.005	0.002	0.013	0.040	0.002

Bundle No	Yield	Tensile	Eln.2in	Certification
M200457870	063170 Psi	076790 Psi	30.7 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Material: 12.0x12.0x375x32"4(2x2).  
 Sales order: 314238

Material No: 120120375  
 Purchase Order: 31072  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582788	4	0.200	0.790	0.011	0.003	0.150	0.035	0.026	0.005	0.002	0.013	0.040	0.002

Bundle No	Yield	Tensile	Eln.2in	Certification
M200457871	063170 Psi	076790 Psi	30.7 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Material: 12.0x12.0x375x32"4(2x1).  
 Sales order: 314238

Material No: 120120375  
 Purchase Order: 31072  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582787	4	0.200	0.780	0.011	0.003	0.150	0.029	0.038	0.005	0.004	0.015	0.046	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M200457868	069340 Psi	075430 Psi	35.3 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Authorized by: \_\_\_\_\_

The test results shown in this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.

Atlas Tube Canada LLC  
200 Clark St  
Montreal, Quebec, Canada  
H3T 1G0  
Tel: 514-738-3541  
Fax: 514-738-3537



Ref.B/L: 80261880  
Date: 10.13.2007  
Customer: 1774

### MATERIAL TEST REPORT

**Sold to**  
Acier Altitude Inc.  
2555 Francis-Hugues Avenue  
LAVAL QC H7S 2H7  
CANADA

**Shipped to**  
Acier Altitude Inc.  
2555 Francis-Hugues Avenue  
LAVAL QC H7S 2H7  
CANADA

*TS 8x6x313 5/16 Heat 681186*

Material: 8.0x6.0x313x20'0"0111REC	Material No: 80050375	Made In: Canada
Sales order: 333355	Purchase Order: 3426	
Heat No: 882435	C: 0.200	Mn: 0.900
	P: 0.010	S: 0.003
	Si: 0.180	Al: 0.044
	Cu: 0.033	Cb: 0.005
	Mo: 0.002	Ni: 0.014
	Cr: 0.043	V: 0.000
Bundle No: 000720788	Yield: 069140 Psi	Tensile: 080350 Psi
		Elon. 2in: 28.8 %
	Certification: ASTM A500-03A GRADE B&C	

Material Note:  
Sales Or. Note:

Material: 8.0x6.0x313x20'0"0111REC	Material No: 80060250	Made In: Canada
Sales order: 337352	Purchase Order: 3426	
Heat No: 882435	C: 0.180	Mn: 0.850
	P: 0.008	S: 0.005
	Si: 0.021	Al: 0.049
	Cu: 0.061	Cb: 0.006
	Mo: 0.005	Ni: 0.013
	Cr: 0.027	V: 0.000
Bundle No: M200479177	Yield: 063370 Psi	Tensile: 075300 Psi
		Elon. 2in: 31.3 %
	Certification: ASTM A500-03A GRADE B&C	

Material Note:  
Sales Or. Note:

Material: 8.0x6.0x313x20'0"0111REC	Material No: 80060313	Made In: Canada
Sales order: 333356	Purchase Order: 3426	
Heat No: 881186	C: 0.200	Mn: 0.800
	P: 0.011	S: 0.002
	Si: 0.150	Al: 0.034
	Cu: 0.031	Cb: 0.005
	Mo: 0.002	Ni: 0.013
	Cr: 0.031	V: 0.000
Bundle No: M200471436	Yield: 060750 Psi	Tensile: 073280 Psi
		Elon. 2in: 32.6 %
	Certification: ASTM A500-03A GRADE B&C	

Material Note:  
Sales Or. Note:

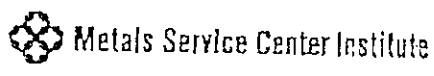
*HT # 681186 is used to fab item: B540*

Material: 8.0x6.0x313x16'0"0111REC CSA	Material No: 80050313	Made In: Canada
Sales order: 333356	Purchase Order: 3426	
Heat No: 880568	C: 0.180	Mn: 0.750
	P: 0.014	S: 0.006
	Si: 0.180	Al: 0.035
	Cu: 0.033	Cb: 0.005
	Mo: 0.003	Ni: 0.013
	Cr: 0.042	V: 0.000
Bundle No: 000720788	Yield: 062950 Psi	Tensile: 077320 Psi
		Elon. 2in: 32.6 %
	Certification: CSA G40.21-04 50W CLASS C	

Material Note:  
Sales Or. Note:

Authorized by Quality Assurance *[Signature]*

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.





Material Test Report

Ref. No.: S0092755  
Date: 03.21.2002  
Customer: 1613

2000 Centre Street, Montreal, Canada H3P 1G0  
Tel: (514) 736-5000 Fax: (514) 736-5004

Shipped to  
Canam Steel  
The Canam Manac Group  
807 Marshall Street  
LAVAL QC H7S 1J9  
CANADA

P.O. 27239

Material	E.CxS.3x500x60*0*0(2x7)				Material No.	E00E000E100		
Heat No	C	Mn	P	S	Si	Al	Sales order	Purchase Order
0017A	0.200	0.290	0.013	0.007	0.010	0.030	B2478	C-38852
Element	Tensile		Elong.		Elong.		Certification	
M2003E0370	078757 Pa		30.1 %		ASTM A500 GR. B & C			
Material Note:								
Sales Or Note:								

HT #0017A is used to fab. items: D408, D409

James Baker  
Shipping Clerk

Authorized by Quality Assurance: \_\_\_\_\_



Steel Tube Institute  
OF NORTH AMERICA

Steel Service Center Institute

Standards Council  
of Canada

Council canadien  
des normes

Atlas Tube Canada ULC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 NOR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537



Ref.B/L: 80263316  
 Date: 10.24.2007  
 Customer: 1751

Sold to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

**MATERIAL TEST REPORT**

Shipped to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Material: 8.0x8.0x625x50\*0\*(2x1).  
 Sales order: 335491

Material No: 80080625 Made in: Canada  
 Purchase Order: 30519-898

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002
Bundle No	Yield	Tensile	Eln.2in		Certification								
M200482103	063150 Psi	076440 Psi	34.3 %		ASTM A500-03A GRADE B&C								

Material Note:  
 Sales Or.Note:

Material: 8.0x8.0x625x50\*0\*(2x1).  
 Sales order: 335491

Material No: 80080625 Made in: Canada  
 Purchase Order: 30519-898

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002
Bundle No	Yield	Tensile	Eln.2in		Certification								
M200482102	063150 Psi	076440 Psi	34.3 %		ASTM A500-03A GRADE B&C								

Material Note:  
 Sales Or.Note:

*HT #582766 is used to fab items: D402, D403*

Material: 10.0x10.0x625x18\*0\*(2x2).  
 Sales order: 335491

Material No: 100100625 Made in: Canada  
 Purchase Order: 30519-898

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
583750	4	0.200	0.810	0.011	0.002	0.160	0.034	0.015	0.006	0.002	0.007	0.022	0.000
Bundle No	Yield	Tensile	Eln.2in		Certification								
M200483575	054920 Psi	073670 Psi	38.5 %		ASTM A500-03A GRADE B&C								

Material Note:  
 Sales Or.Note:

Material: 10.0x10.0x625x18\*0\*(2x2).  
 Sales order: 335491

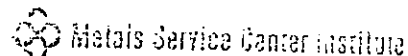
Material No: 100100625 Made in: Canada  
 Purchase Order: 30519-898

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
583750	4	0.200	0.810	0.011	0.002	0.160	0.034	0.015	0.006	0.002	0.007	0.022	0.000
Bundle No	Yield	Tensile	Eln.2in		Certification								
M200483574	054920 Psi	073670 Psi	38.5 %		ASTM A500-03A GRADE B&C								

Material Note:  
 Sales Or.Note:

Witnessed by Quality Assurance: *[Signature]*

This report represents the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.





NUCOR STEEL - BERKELEY  
 P.O. Box 2259  
 Mt. Pleasant, S.C. 29464  
 Phone: (843) 336-6000

MILL TEST REPORT

100% MELTED AND MANUFACTURED IN THE USA  
 ALL beams produced by Nucor-Berkeley are cast and  
 rolled to a fully killed and fine grain practice.

Sold To: INFRA METALS CORP - CI  
 8 PENN HIGHWAY  
 WALLINGFORD, CT 06492

SHIP To: INFRA METALS CORP - CI  
 8 PENN HIGHWAY  
 WALLINGFORD, CT 06492

Customer H.: 502 - 1  
 Customer PO: C20919  
 B.O.L. H.: 626381

SPECIFICATIONS: Tested in accordance with ASTM specification A6/A6M and A370.  
 A6/A6M: W270-36-00/A370-50-00  
 ASME: SA-36 04  
 ASTM: A992-06a//A36-05/A572-06-50/A709-06a36/A709-07 50/A709-345M  
 CSA: CSA-44W/G40.21-50W

Description	Heat Grade(s)	Yield/ Tensile Ratio	Yield (PSI) (MPa)	Tensile (PSI) (MPa)	Elong %	C Pd	Mn Ti	P Sn Cd	S Al B	SI V N	Cu Nb Zr	ML XXXXX CI	CE1 CE2 Pcm
W10X17	1709082	.01	56300	69700	27.78	.0700	.0340	.0130	.0294	.2100	.1020	.0540	.2338
035' 00.00'	A992-06a		308	481		.0400	.0290	.0066	.0032	.0030	.0149		.2718
W250X25.3		.79	54900	69100	27.81	.0079	.0018	.0004	.0001	.0055	.0000	3.0541	.1293
010.6680m			379	476								Invh:	0
W10X17	2709065	.80	54500	68100	28.76	.0700	.0440	.0131	.0326	.1980	.1550	.0510	.2379
035' 00.00'	A992-06a		376	470		.0440	.0200	.0087	.0020	.0035	.0147		.2738
W250X25.3		.80	55700	69300	28.19	.0026	.0015	.0003	.0013	.0061	.0000	3.9377	.1377
010.6680m			384	478								Invh:	0
W10X39.0	2709415	.76	54900	72100	24.90	.0710	.10960	.0064	.0247	.2880	.0860	.0410	.2715
040' 00.00'	A992-06a		379	497		.0260	.0170	.0055	.0018	.0037	.0287		.3232
W250X58		.79	55800	71000	24.78	.0046	.0013	.0000	.0007	.0049	.0000	2.6918	.1466
012.1920m			385	490								Invh:	0
W10X45.0	1709362	.79	54900	69800	23.33	.0680	.10090	.0072	.0296	.2620	.1480	.0520	.2607
045' 00.00'	A992-06a		379	481		.0290	.0230	.0072	.0021	.0041	.0267		.3097
W250X67		.77	53800	69600	23.78	.0044	.0015	.0000	.0010	.0053	.0000	3.3100	.1437
013.7160m			371	480								Invh:	0
W10X45.0	1709364	.77	54600	70700	24.15	.0660	.10250	.0093	.0347	.2740	.1410	.0520	.2619
050' 00.00'	A992-06a		376	487		.0350	.0220	.0079	.0023	.0039	.0284		.3132
W250X67		.76	54400	71500	21.41	.0046	.0016	.0006	.0017	.0053	.0000	3.7505	.1463
015.2400m			375	493								Invh:	0

Elongation based on 8" (20.32cm) gauge length. No Weld Repair was performed. Hg free and no contact with Hg during manufacture.  
 CI = 26.0(Cu/3.88Ni+1.20Cr+1.49Si+17.20P-(7.25Cu+Al))-9.10(Ni+P) CE1 = C\*((Mn/5)+((Cr+Mo+V)/5)+((Ni+Cu)/15))  
 Pcm = C\*((Si/30)+((Mn/20)+(Cu/20)+(Ni/60)+(Cr/20)+(Mo/15)+(V/10))+5B) CE2 = C\*((Mn+Si)/6)+((Cr+Mo+V)/5)+((Ni+Cu)/15))

I hereby certify that the contents of this report are accurate and correct. All test results and operations performed by the material manufacturer are in compliance with material specifications, and when designated by the purchaser, meet applicable specifications.

Bruce A. Work  
 Metallurgist  
 (State of South Carolina  
 County of Berkeley  
 Sworn and subscribed before me  
 day of \_\_\_\_\_)

HT # 1709062 is used to Fab items: B503, B504, B507, B508, B577

NUCOR STEEL - BERKELEY  
 P.O. Box 2259  
 Mt. Pleasant, S.C. 29464  
 Phone: (843) 336-6000

MILL TEST REPORT

9/20/07 3:41:49  
 100% MELTED AND MANUFACTURED IN THE USA  
 All beams produced by Nucor-Berkeley are cast and  
 rolled to a fully killed and fine grain practice.

SOLD TO: INFRA METALS CORP - CT  
 8 PENN HIGHWAY  
 WALLINGFORD, CT 06492

SHIP TO: INFRA METALS CORP - CT  
 8 PENN HIGHWAY  
 WALLINGFORD, CT 06492

Customer #: 522 - 1  
 Customer PO: C21390  
 B.O.L. #: 639655

SPECIFICATIONS: Tested in accordance with ASTM specification A6/A6M and A370.  
 RASH 9 : M270 36-00/M270-50-00  
 ASME : SR-36 '4  
 ASTM : A992-07a://A36-05/A572-06-50/A709-06a36/A709-07 50/A709-345M  
 CSA : CSR-44W C40.21-50W

Description	Heat Grade(s)	Yield/Tensile Ratio	Yield (MPa)	Tensile (MPa)	Elong %	C		Mn		P		S		Si		Cu		Ni		CE1	CE2	PCm
						CR	Rb	Mo	Ti	Sn	Ca	R	FI	η	η	η	η	η	η			
W12x19	708129	.82	59100	71800	24.99	.0730	.0270	.0004	.0011	.0060	.0051	.0000	.0279	.0026	.0045	.0150	.0307	.0000	.0340	.2347	.2767	.1378
030' 00.00'	192-06a		407	495																		
W310X28.3		.83	59700	72200	26.34	.0004	.0011	.0004	.0011	.0051	.0051	.0000	.0006	.0026	.0045	.0034	.0307	.0000	.0340	.2347	.2767	.1378
009.1440m			412	498																		
W12x19	3619532	.83	56900	68700	25.83	.0660	.0260	.0057	.0018	.0077	.0046	.0012	.0223	.0043	.0080	.0210	.0315	.0008	.0320	.2241	.2707	.1253
030' 00.00'	A992-06a		392	474																		
W310X28.3		.83	56900	68800	24.44	.0057	.0018	.0000	.0013	.0072	.0024	.0000	.0024	.0024	.0080	.0036	.0264	.0000	.0320	.2241	.2707	.1253
009.1440m			392	474																		
W12x19	2619529	.83	57700	69600	26.70	.0650	.0260	.0021	.0013	.0079	.0024	.0000	.0253	.0024	.0060	.0210	.0340	.0000	.0320	.2241	.2707	.1253
030' 00.00'	A992-06a		398	480																		
W310X28.3		.83	57100	68800	26.14	.0021	.0013	.0000	.0013	.0072	.0024	.0000	.0024	.0024	.0060	.0036	.0264	.0000	.0320	.2241	.2707	.1253
009.1440m			394	474																		
W12x19	1713152	.80	48000	58600	27.34	.0680	.0280	.0052	.0021	.0075	.0025	.0000	.0283	.0025	.0055	.0280	.0160	.0000	.0420	.2263	.2771	.1341
040' 00.00'	A992-06a		378	472																		
W310X28.3		.80	54900	68500	28.23	.0052	.0021	.0000	.0021	.0056	.0025	.0000	.0025	.0025	.0055	.0032	.0160	.0000	.0420	.2263	.2771	.1341
012.1920m			379	472																		
W12x19	2713149	.81	54800	68000	29.39	.0330	.0210	.0016	.0016	.0096	.0036	.0004	.0316	.0018	.0051	.0210	.0130	.0000	.0450	.2268	.2745	.1316
040' 00.00'	A992-06a		378	469																		
W310X28.3		.79	53400	67800	28.50	.0016	.0016	.0004	.0016	.0039	.0018	.0004	.0018	.0018	.0051	.0030	.0130	.0000	.0450	.2268	.2745	.1316
012.1920m			368	467																		

Elongation based on 8" (20.32cm) gauge length. No weld repair was performed. Big free and no contact with Hg during manufacture.  
 CE1 = 26.01Cu+3.88Ni+1.20Cr+1.49Si+17.28P-(7.29CuNi)-(-9.10NiP)+33.39(CuCu)  
 CE2 = C+((Si/30)+((Mn/20)+((Cu/20)+((W/60)+((Cr/20)+((Mo/5)+((V/10)/5)  
 CF1 = C+((Mn/6)+((Cr/10)/5)+((Ni/15)  
 CF2 = C+((Mn/5)/6)+((Cr/10)/5)+((Ni/15)  
 I hereby certify that the contents of this report are accurate and correct. All test results and operations performed by the material manufacturer are in compliance with material specifications, and when designated by the purchaser, most applicable specifications.

BRUCE A. WORK  
 Metallurgist  
 (State of South Carolina  
 County of Berkeley  
 Sworn and subscribed before me  
 day of \_\_\_\_\_

HY# 1713152 is used to fab. Items: B510, B515, B535, B563, B581, B592



CARRETERA TOLEDO, KM. 9  
28021 MADRID  
TELEF. (91) 797 23 00 - FAX (91) 505.02.57



## QUALITY CERTIFICATE

APS 5393

DISCHARGE ADDRESS		CUSTOMER	
ARCELOR INTERNATIONAL AMERICA, INC. 350 HUDSON STREET 4TH FLOOR NEW YORK, NY 10014 EE.UU.		ARCELOR INTERNATIONAL AMERICA, INC. 350 HUDSON STREET 4TH FLOOR NEW YORK, NY 10014 EE.UU.	
SHIPPED AND CERTIFIED BY		PORT OF LOADING	
ACERALIA PERFILES OLABERRIA, S.L. CARRETERA MADRID - IRUN, KM. 419 20212 OLABERRIA (Guipúzcoa) TELEF. (943) 80.50.00 - FAX (943) 88.04.04		80	PASAJES, SPAIN
		PORT OF DISCHARGE	VESSEL
		NEW HAVEN, CT	ACACIA
OUR REFERENCE	CONTRACT NUMBER	ORDER NUMBER	DATE
MERCHE	E-14284 LOT 4	3° TRIM. 05	30/09/2005

MATERIAL: AMERICAN WIDE FLANGE BEAMS W, AS PER ASTM TRI-CERT. ASTM A36/ASTM A 572 GR 50  
CSA G. 40.21 50 W / ASTM A992.

MARKINGS: SIZE / QUALITY / WEIGHT / HEAT NO. / ORDER NO. / COLOR MARKINGS / MADE IN SPAIN.

SIZE	LENGTH	BUNDLES	PIECES BUNDLES	TOTAL PIECES	WEIGHT BUNDLES	TOTAL WEIGHT	HEAT
10042526 - P.O. C17922 + / GREEN / WHITE							
WF BEAMS 8x24 LBS/FT	30'	3	10	30	3266	9.798	54969,54971,54972
WF BEAMS 8x24 LBS/FT	35'	3	10	30	3811	11.433	54977
WF BEAMS 8x24 LBS/FT	40'	9	10	90	4355	39.195	54957,54958,54959,54960,54982,54984
WF BEAMS 8x24 LBS/FT	45'	4	10	40	4899	19.596	54966,54973,54976
WF BEAMS 8x24 LBS/FT	50'	7	8	56	4355	30.485	54957,54958,54959
WF BEAMS 8x24 LBS/FT	55'	2	8	16	4790	9.580	54963
WF BEAMS 8x24 LBS/FT	60'	2	8	16	5226	10.452	54972,54973
WF BEAMS 8x28 LBS/FT	30'	3	10	30	3810	11.430	54990
WF BEAMS 8x28 LBS/FT	35'	2	10	20	4445	8.890	54988
WF BEAMS 8x28 LBS/FT	40'	4	10	40	5080	20.320	54991
WF BEAMS 8x28 LBS/FT	45'	4	8	32	4572	18.288	54988,54989,54990
WF BEAMS 8x28 LBS/FT	50'	4	8	32	5080	20.320	54993,54994
WF BEAMS 8x28 LBS/FT	55'	4	6	24	4191	16.764	54988,54989
WF BEAMS 8x28 LBS/FT	60'	3	6	18	4572	13.716	54970
WF BEAMS 16x26 LBS/FT	30'	14	6	84	2123	29.722	54668,54770,54786,54787,54788
WF BEAMS 16x26 LBS/FT	32'	4	6	24	2264	9.056	54669
WF BEAMS 16x26 LBS/FT	35'	8	6	48	2476	19.808	54777,54782,54785,54786
WF BEAMS 16x26 LBS/FT	40'	14	6	84	2830	39.620	54666,54770,54773,54788,54789

HT # 54788 is used to fab item : B558

**QUALITY CERTIFICATE**

**APS 5393**

SIZE	LENGTH	BUNDLES	PIECES BUNDLES	TOTAL PIECES	WEIGHT BUNDLES	TOTAL WEIGHT	HEAT
WF BEAMS 16x26 LBS/FT	45'	9	6	54	3184	28.656	54784,54785
WF BEAMS 16x26 LBS/FT	50'	11	6	66	3538	38.918	54786,54787,54789
WF BEAMS 16x26 LBS/FT	55'	5	6	30	3892	19.460	54775
WF BEAMS 16x26 LBS/FT	60'	12	6	72	4245	50.940	54667,54668,54669,54770
WF BEAMS 16x31 LBS/FT	30'	12	6	72	2531	30.372	54777,54796,54797
WF BEAMS 16x31 LBS/FT	32'	7	6	42	2700	18.900	54790,54795
WF BEAMS 16x31 LBS/FT	35'	10	6	60	2953	29.530	54780,54781
WF BEAMS 16x31 LBS/FT	40'	9	6	54	3375	30.375	54777,54792,54793,54796
WF BEAMS 16x31 LBS/FT	45'	5	6	30	3796	18.980	54780,54781
WF BEAMS 16x31 LBS/FT	50'	7	6	42	4218	29.526	54778,54779
WF BEAMS 16x31 LBS/FT	55'	3	6	18	4640	13.920	54789
WF BEAMS 16x31 LBS/FT	60'	6	6	36	5062	30.372	54793,54794

TOTAL BUNDLES 190

TOTAL WEIGHT 678.422 Kg.

A02 EN 10204/3.1.B

CSA G40.21 50W/ASTM A36-04/A572 G50-04/A992-04/A6-04

(B01/B02/B03) A03

COLADA HEAT	COMPOSICION QUIMICA (%) CHEMICAL COMPOSITION (%)												
	C	Mn	SI	P	S	V	Cr	Ni	Mo	Cu	Nb	CEV	
54666	.080	1,210	.170	.019	.031	.003	.100	.120	.025	.450	.025	.35	
54667	.090	1,270	.150	.019	.032	.003	.080	.130	.025	.480	.021	.36	
54668	.080	1,250	.150	.016	.031	.003	.080	.140	.025	.490	.023	.35	
54669	.090	1,190	.200	.021	.031	.003	.100	.100	.019	.500	.026	.35	
54770	.097	1,230	.220	.019	.028	.002	.170	.300	.048	.500	.024	.40	
54773	.090	1,220	.210	.017	.021	.003	.140	.180	.045	.500	.022	.38	
54775	.090	1,140	.200	.021	.029	.003	.170	.190	.049	.520	.027	.37	
54777	.090	1,150	.180	.018	.023	.003	.150	.200	.050	.540	.025	.37	
54778	.090	1,130	.180	.018	.020	.003	.160	.200	.053	.530	.021	.37	
54779	.100	1,190	.180	.021	.028	.003	.140	.210	.054	.530	.024	.39	
54780	.090	1,130	.200	.017	.024	.003	.140	.200	.051	.530	.021	.37	
54781	.100	1,110	.170	.019	.032	.003	.170	.190	.047	.510	.020	.38	
54782	.110	1,200	.210	.033	.014	.003	.200	.170	.042	.530	.022	.41	
54784	.120	1,130	.210	.027	.015	.003	.210	.190	.049	.550	.021	.41	
54785	.100	1,120	.210	.023	.015	.003	.190	.180	.048	.540	.022	.38	
54786	.080	1,210	.200	.018	.014	.003	.160	.190	.047	.530	.021	.37	
54787	.080	1,210	.160	.016	.016	.003	.150	.190	.047	.540	.020	.37	
54788	.080	1,240	.200	.018	.022	.003	.130	.200	.050	.520	.020	.37	
54789	.100	1,250	.180	.015	.019	.003	.140	.200	.050	.540	.022	.40	
54790	.100	1,240	.190	.023	.019	.003	.180	.200	.050	.510	.026	.40	
54792	.100	1,220	.180	.014	.020	.003	.170	.200	.051	.550	.023	.40	
54793	.110	1,140	.180	.014	.024	.003	.150	.190	.044	.510	.022	.39	
54794	.100	1,170	.180	.022	.024	.003	.160	.190	.045	.520	.023	.38	
54795	.110	1,180	.170	.019	.031	.003	.150	.200	.046	.530	.022	.40	
54796	.090	1,210	.190	.016	.023	.003	.140	.180	.043	.510	.023	.37	

**QUALITY CERTIFICATE**

**APS 5393**

COLADA HEAT	COMPOSICION QUIMICA (%) CHEMICAL COMPOSITION (%)																	
	C	Mn	Si	P	S	V	Cr	Ni	Mo	Cu	Nb	CEV						
54797	,080	1,130	,200	,020	,030	,003	,150	,170	,034	,490	,025	,35						
54957	,110	1,190	,190	,014	,024	,003	,130	,160	,034	,490	,020	,39						
54958	,100	1,210	,220	,016	,023	,003	,140	,140	,031	,470	,021	,38						
54959	,110	1,230	,220	,023	,022	,003	,150	,130	,026	,460	,019	,39						
54960	,110	1,220	,230	,027	,022	,003	,200	,120	,025	,470	,020	,40						
54963	,110	1,200	,210	,031	,021	,003	,190	,110	,021	,520	,021	,39						
54966	,100	1,190	,210	,032	,026	,003	,160	,120	,025	,510	,021	,38						
54969	,110	1,200	,220	,020	,028	,003	,110	,110	,024	,500	,022	,38						
54970	,090	1,090	,190	,019	,027	,003	,130	,110	,024	,530	,021	,35						
54971	,110	1,180	,190	,030	,026	,003	,100	,110	,025	,530	,022	,37						
54972	,110	1,210	,200	,021	,028	,003	,100	,120	,025	,450	,021	,38						
54973	,110	1,190	,210	,021	,024	,003	,110	,120	,024	,430	,022	,37						
54976	,110	1,170	,210	,016	,030	,003	,100	,100	,024	,370	,023	,36						
54977	,110	1,210	,200	,013	,026	,003	,090	,100	,032	,330	,023	,37						
54982	,120	1,280	,180	,014	,023	,003	,110	,110	,027	,390	,023	,39						
54984	,110	1,230	,220	,023	,024	,003	,120	,100	,022	,410	,023	,38						
54988	,110	1,160	,190	,028	,024	,003	,140	,100	,022	,410	,023	,37						
54989	,120	1,170	,220	,029	,015	,003	,160	,090	,020	,430	,022	,39						
54990	,110	1,240	,210	,033	,017	,003	,150	,080	,018	,420	,022	,38						
54991	,110	1,210	,210	,022	,017	,003	,130	,090	,019	,430	,022	,38						
54993	,100	1,210	,220	,018	,020	,003	,120	,090	,021	,500	,021	,37						
54994	,100	1,200	,220	,019	,032	,003	,110	,110	,025	,530	,022	,37						

MATERIAL SIZE	COLADA HEAT	PROPIEDADES MECANICAS MECHANICAL PROPERTIES					
		ReH MPa C11	ReL MPa C12	Rm MPa C13	Yp MPa C14	A <sub>5</sub> % C15	A <sub>10</sub> % C16
W-16x26	54666	363	353	547	536	29,8	29,2
W-16x26	54667	376	366	546	534	31,	30,7
W-16x26	54668	422	416	545	544	31,7	31,2
W-16x26	54669	425	425	549	543	31,2	30,1
W-16x26	54770	427	415	546	547	32,6	32,6
W-16x26	54773	361	360	539	538	29,2	28,4
W-16x26	54775	399	395	539	517	33,9	33,8
W-16x26	54777	424	412	544	542	27,8	27,6
W-16x26	54782	396	392	543	536	28,4	28,1
W-16x26	54784	375	369	544	540	30,2	29,7
W-16x26	54785	384	370	545	547	28,6	28,4
W-16x26	54786	369	367	549	529	29,1	28,5
W-16x26	54787	373	363	542	551	29,1	28,5
W-16x26	54788	374	374	548	529	30,2	29,4
W-16x26	54789	385	371	546	538	30,7	29,8
W-16x31	54777	367	357	545	543	29,	28,7
W-16x31	54778	379	365	539	554	28,7	27,8
W-16x31	54779	376	364	546	533	27,9	27,3
W-16x31	54780	380	379	544	556	30,4	29,5
W-16x31	54781	377	371	549	529	28,3	27,7
W-16x31	54789	379	363	548	537	27,1	26,2


**QUALITY CERTIFICATE**
**APS 5393**

MATERIAL SIZE	COLADA HEAT	PROPIEDADES MECANICAS MECHANICAL PROPERTIES					
		R <sub>m</sub> MPa		R <sub>m</sub> MPa		A <sub>5</sub> %	
		C17	C17	C17	C17	C17	C17
W-16x31	54790	381	375	548	539	28,4	28,2
W-16x31	54792	375	373	548	537	30,5	29,4
W-16x31	54793	385	375	545	541	30,1	29,
W-16x31	54794	389	385	541	538	30,2	29,4
W-16x31	54795	381	367	541	542	28,	27,7
W-16x31	54796	403	397	538	537	32,3	31,3
W-16x31	54797	414	408	545	545	30,7	29,7
W-8x24	54957	399	385	543	527	31,7	30,6
W-8x24	54958	398	384	538	560	31,9	31,3
W-8x24	54959	390	390	546	552	29,1	28,3
W-8x24	54960	402	391	546	534	31,	30,7
W-8x24	54963	412	411	549	537	30,	29,
W-8x24	54966	402	390	523	515	31,4	30,4
W-8x24	54969	386	376	550	533	30,3	30,3
W-8x24	54971	397	397	541	557	29,5	29,1
W-8x24	54972	404	392	548	534	28,	27,9
W-8x24	54973	403	397	543	521	33,9	33,1
W-8x24	54976	400	396	507	501	29,4	28,3
W-8x24	54977	418	400	547	542	29,8	29,6
W-8x24	54982	377	375	549	539	30,8	30,1
W-8x24	54984	390	388	547	539	30,8	30,1
W-8x28	54970	383	369	542	549	28,3	27,8
W-8x28	54988	392	384	544	532	31,4	30,6
W-8x28	54989	378	368	546	548	29,5	29,3
W-8x28	54990	383	377	548	540	31,1	30,9
W-8x28	54991	414	400	545	554	27,9	27,
W-8x28	54993	373	371	548	534	29,5	28,5
W-8x28	54994	392	392	528	515	31,7	31,2

**47 análisis**

 D01: Certificamos que los valores arriba indicados han sido satisfactoriamente probados de acuerdo con la especificación.  
 B06: Marca APO

201

  
 Luis Maria Lakunza



**Steel Dynamics, Inc.**  
2601 S. County Road 700 East  
Columbiana City, IN 46725-9044  
(260) 625-8100

**Certified Mill Test Report**  
100% Melted and Manufactured in USA

Date: 11/19/2011  
Customer No: 000191  
Bill of Lading No: 0000056511  
MTR #: 0000056160

Ship to:  
Tandem Metals International  
Tandem Customer Entry  
Attn: Heather

Bill to:  
FRYAD Steel Fabricating  
2300 E. Green  
Yorkville, IL 62458  
Attn: Fred

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.C.	Analysis
1	000007124	W30X99	35' 0"	2	A015377	A992 / A992M A709 g50S/g345S A572 g150/g1345 A992 / A992M A709 g50S/g345S A572 g150/g1345 A992 / A992M A709 g50S/g345S A572 g150/g1345 A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 01a ASTM A709/A709M - 01a ASTM A572/A572M - 01a ASTM A992/A992M - 01a ASTM A709/A709M - 01a ASTM A572/A572M - 01a ASTM A992/A992M - 01a ASTM A709/A709M - 01a ASTM A572/A572M - 01a ASTM A992/A992M - 01a ASTM A709/A709M - 01a ASTM A572/A572M - 01a	79501 79501 79501 79501 79501 79501 79501 79501 79501 79501 79501 79501	HEAT HEAT HEAT HEAT HEAT HEAT HEAT HEAT HEAT HEAT HEAT HEAT
2	000007425	W21X166	35' 0"	1	B008114	A709 g50S/g345S A572 g150/g1345 A992 / A992M A709 g50S/g345S A572 g150/g1345 A992 / A992M A709 g50S/g345S A572 g150/g1345 A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A709/A709M - 01a ASTM A572/A572M - 01a ASTM A992/A992M - 01a ASTM A709/A709M - 01a ASTM A572/A572M - 01a ASTM A992/A992M - 01a ASTM A709/A709M - 01a ASTM A572/A572M - 01a ASTM A992/A992M - 01a ASTM A709/A709M - 01a ASTM A572/A572M - 01a	79501 79501 79501 79501 79501 79501 79501 79501 79501 79501 79501 79501	HEAT HEAT HEAT HEAT HEAT HEAT HEAT HEAT HEAT HEAT HEAT HEAT
3	020430495	W16X36	50' 0"	6	A016194	A709 g50S/g345S A572 g150/g1345 A992 / A992M A709 g50S/g345S A572 g150/g1345 A992 / A992M A709 g50S/g345S A572 g150/g1345 A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A709/A709M - 01a ASTM A572/A572M - 01a ASTM A992/A992M - 01a ASTM A709/A709M - 01a ASTM A572/A572M - 01a ASTM A992/A992M - 01a ASTM A709/A709M - 01a ASTM A572/A572M - 01a ASTM A992/A992M - 01a ASTM A709/A709M - 01a ASTM A572/A572M - 01a	79501 79501 79501 79501 79501 79501 79501 79501 79501 79501 79501 79501	HEAT HEAT HEAT HEAT HEAT HEAT HEAT HEAT HEAT HEAT HEAT HEAT
4	020439295	W24X146	40' 0"	1	B016505	A709 g50S/g345S A572 g150/g1345 A992 / A992M A709 g50S/g345S A572 g150/g1345 A992 / A992M A709 g50S/g345S A572 g150/g1345 A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A709/A709M - 01a ASTM A572/A572M - 01a ASTM A992/A992M - 01a ASTM A709/A709M - 01a ASTM A572/A572M - 01a ASTM A992/A992M - 01a ASTM A709/A709M - 01a ASTM A572/A572M - 01a ASTM A992/A992M - 01a ASTM A709/A709M - 01a ASTM A572/A572M - 01a	79501 79501 79501 79501 79501 79501 79501 79501 79501 79501 79501 79501	HEAT HEAT HEAT HEAT HEAT HEAT HEAT HEAT HEAT HEAT HEAT HEAT
5	020439300	W24X146	40' 0"	1	B016505	A709 g50S/g345S A572 g150/g1345 A992 / A992M A709 g50S/g345S A572 g150/g1345 A992 / A992M A709 g50S/g345S A572 g150/g1345 A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A709/A709M - 01a ASTM A572/A572M - 01a ASTM A992/A992M - 01a ASTM A709/A709M - 01a ASTM A572/A572M - 01a ASTM A992/A992M - 01a ASTM A709/A709M - 01a ASTM A572/A572M - 01a ASTM A992/A992M - 01a ASTM A709/A709M - 01a ASTM A572/A572M - 01a	79501 79501 79501 79501 79501 79501 79501 79501 79501 79501 79501 79501	HEAT HEAT HEAT HEAT HEAT HEAT HEAT HEAT HEAT HEAT HEAT HEAT
6	020439947	W24X55	40' 0"	4	B016533	A709 g50S/g345S A572 g150/g1345 A992 / A992M A709 g50S/g345S A572 g150/g1345 A992 / A992M A709 g50S/g345S A572 g150/g1345 A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A709/A709M - 01a ASTM A572/A572M - 01a ASTM A992/A992M - 01a ASTM A709/A709M - 01a ASTM A572/A572M - 01a ASTM A992/A992M - 01a ASTM A709/A709M - 01a ASTM A572/A572M - 01a ASTM A992/A992M - 01a ASTM A709/A709M - 01a ASTM A572/A572M - 01a	79501 79501 79501 79501 79501 79501 79501 79501 79501 79501 79501 79501	HEAT HEAT HEAT HEAT HEAT HEAT HEAT HEAT HEAT HEAT HEAT HEAT

**EMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	As	Se	Co	Al	Other
1	.07	1.14	.011	.028	.26	.44	.031	.080	.11	.03	.016	.018	.0003	.00	.13	.03700		
2	.07	1.30	.024	.039	.16	.36	.044	.140	.12	.05	.013	.015	.0003	.00	.15	.03900		
3	.07	.92	.010	.030	.21	.40	.002	.090	.14	.04	.017	.018	.0003	.01	.13	.03200		
4	.09	1.23	.011	.026	.28	.42	.033	.070	.12	.03	.015	.017	.0003	.00	.35	.04000		
5	.09	1.23	.011	.026	.28	.42	.033	.070	.12	.03	.015	.017	.0003	.00	.35	.04000		
6	.08	1.03	.009	.029	.22	.32	.032	.080	.11	.05	.013	.014	.0003	.00	.31	.03400		

**CHAMICAL**

Item	Yield (FY) Strength ksi/MPa	Tensile (Fu) Strength ksi/MPa	Fy/Fu	Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp F/C	Sample 1 ft. lb/ftoules	Sample 2 ft. lb/ftoules	Sample 3 ft. lb/ftoules	% Shear	ASTM Grain Size No (per ASTM E112)
1	59/405	73/501	.81	29		1						
2	60/415	74/507	.81	29		2						
1		73/506		29		1						
1		73/506		29		1						

**Tension Testing Results**

**Charpy Impact Testing Results**

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the trial specifications and applicable purchaser designated.

State of Indiana, County of Whitley  
Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
Signed: \_\_\_\_\_ Notary Public: \_\_\_\_\_  
My commission expires: \_\_\_\_\_

Quality Assurance

Special Comments/Information: **AST # A016194 is used to fab. item B591**

5/21/07

# NUCOR-YAMATO STEEL CO.

P.O. BOX 1228 • BLYTHEVILLE, AR 72316

## CERTIFIED MILL TEST REPORT

100% MELTED AND MANUFACTURED IN U.S.A.

All shapes produced by Nucor-Yamato Steel are cast and rolled to a fully killed and fine grain practice.

BILL OF LADING  
CUSTOMER NO.  
CUSTOMER P.O.

139371

847294

9310

C20741

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INFRA-METALS CORP  
8 PENT HIGHWAY  
TRACK # 953  
WALLINGFORD, CT 06492

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ASTM A992/A992M-06a A572/A572M GR50-04  
ASTM A709/A709M-03a GR50 (345)  
ASTM A709/A709M-03a GR50S (345S)  
ASTM A6/A6M-05a

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INFRA-METALS CORP.  
8 PENT HIGHWAY  
WALLINGFORD, CT 06492

ITEM #	ITEM DESCRIPTION	QTY	HEAT #	MECHANICAL PROPERTIES						CHEMICAL PROPERTIES												
				YIELD TO TENSILE RATIO	YIELD STRENGTH	TENSILE STRENGTH	ELONG	CHARPY IMPACT		C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Cb	CE	
					PSI	PSI		TEMP	IMPACT ENERGY													
					MPa	MPa		* F	FT-LBS													
1	W18 - 40.0 35' W460 x 60.0 10.668 M	11	295056	.74	56000	76000	25				.06	1.23	.022	.031	.31	.36	.13	.11	.03	.00	.025	.33
2	W18 - 40.0 35' W460 x 60.0 10.668 M	18	295285	.73	53000	73000	24				.06	1.10	.019	.037	.29	.30	.11	.13	.03	.00	.015	.30
3	W18 - 40.0 35' W460 x 60.0 10.668 M	1	295287	.74	57000	77000	22				.07	1.14	.020	.025	.33	.28	.09	.12	.02	.00	.021	.31
4	W18 - 40.0 40' W460 x 60.0 12.192 M	4	295046	.72	55000	76000	25				.07	1.22	.023	.033	.31	.32	.11	.12	.03	.00	.024	.33
5	W18 - 40.0 40' W460 x 60.0 12.192 M	20	295310	.73	54000	74000	26				.08	1.11	.025	.024	.26	.28	.10	.17	.04	.00	.018	.34
6	W18 - 40.0 40' W460 x 50.0 12.192 M	5	295352	.75	56000	75000	25				.07	1.11	.020	.039	.27	.29	.13	.14	.03	.00	.018	.32

CARBON EQUIVALENT: CE = (C) + (Mn)/16 + (Cr)/5 + (Ni)/16 + (Cu)/16

ELONGATION BASED ON 3.00 INCH GAUGE LENGTH

I hereby certify that the contents of this report are accurate and correct. All test results and operations performed by this material manufacturer are in compliance with the requirements of the material specifications, and when designated by the purchaser, meet the applicable specifications.

*Darryl Linnell*

MANUFACTURER

CUSTOMER COPY

STATE OF ARKANSAS COUNTY OF MISSISSIPPI  
SWORN TO AND SUBSCRIBED BEFORE ME

21

Day of

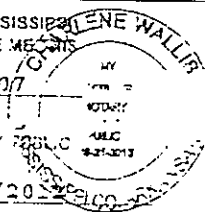
15/07

*Christina Walker*

NOTARY PUBLIC

MY COMMISSION EXPIRES

10/21/2008



HT # 295310 is used to fab item B500, B572



2601 S. County Road 700 East  
Columbia City, IN 46725  
(260) 625-8100

Customer No: 000191  
Bill of Lading No: 0000119461  
MTR #: 0000119025

TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grades(s)	Specification(s)	Customer P.O.
1†	02090132	W21X44	42" 0"	4	A034738	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 05a ASTM A709/A709M - 05a ASTM A572/A572M - 05	495
2†	020908437	W21X44	42" 0"	4	A034738	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 05a ASTM A709/A709M - 05a ASTM A572/A572M - 05	495
3†	020908539	W21X44	42" 0"	4	A034729	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 05a ASTM A709/A709M - 05a ASTM A572/A572M - 05	495
4†	020908578	W21X44	42" 0"	4	A034727	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 05a ASTM A709/A709M - 05a ASTM A572/A572M - 05	495
5†	020908543	W21X44	42" 0"	4	A034743	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 05a ASTM A709/A709M - 05a ASTM A572/A572M - 05	495
6†	020908707	W21X44	42" 0"	4	A034745	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 05a ASTM A709/A709M - 05a ASTM A572/A572M - 05	495

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1*	.08	1.03	.016	.031	.22	.32	.022	.080	.13	.04	.016	.007	.0004	.00	.31	0.3500	0.1700	HEAT
2*	.08	1.03	.016	.031	.22	.32	.022	.080	.13	.04	.016	.007	.0004	.00	.31	0.3500	0.1700	HEAT
3*	.07	1.04	.016	.029	.19	.36	.023	.120	.13	.04	.019	.010	.0003	.00	.31	0.3100	0.1600	HEAT
4*	.07	1.04	.019	.029	.21	.31	.021	.100	.11	.03	.015	.009	.0003	.00	.30	0.3100	0.1600	HEAT
5*	.06	1.01	.018	.038	.18	.31	.021	.090	.10	.03	.013	.007	.0003	.00	.28	0.3100	0.1400	HEAT
6*	.08	1.05	.017	.042	.20	.31	.022	.110	.10	.03	.014	.008	.0004	.00	.31	0.3400	0.1600	HEAT

**1. Certified Mill Test Report**  
100% Melted and Manufactured in USA

State of Indiana, County of Whitley  
Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
Signed: \_\_\_\_\_  
My commission expires: \_\_\_\_\_

HT # A034729 is used to Fab. items:  
B528, B532  
B533

Quality Assurance  
Signed: \_\_\_\_\_

Page 1



**Steel Dynamics, Inc.**  
 2601 S. County Road 700 East  
 Columbia City, IN 47525  
 (260) 625-8100

**Certified Mill Test Report**  
 100% Melted and Manufactured in USA

Date: 1/14/2017  
 Customer No: 000191  
 Fill of Lading No: 0000118729  
 MTR #: 0000118302

Ship to:  
 Triad Metals International  
 Triad Customer P/U  
 Attn: Sally

Bill to:  
 TRIAD METALS INTERNATIONAL  
 A-123 Computer Avenue  
 Willow Grove, PA 19080  
 Attn: Fred White

Item	Burble	Section	Length	Pcs	Heat #	Grade(s)	Specifications	Customer P.O.
1+	000023536	W21X62	44' 0"	1	A034653	A992 / A992M A709 G50S/G345S A572 G150/G1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	456
2+	020902071	W24X94	43' 6"	2	B034476	A992 / A992M A709 G50S/G345S A572 G150/G1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	456
3+	020902073	W24X94	43' 6"	2	B034476	A992 / A992M A709 G50S/G345S A572 G150/G1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	456
4+	020902113	W24X94	43' 6"	1	B034477	A992 / A992M A709 G50S/G345S A572 G150/G1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	456
5+	020906203	W21X62	44' 0"	4	A034635	A992 / A992M A709 G50S/G345S A572 G150/G1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	456
5+	020906434	W21X62	44' 0"	4	A034653	A992 / A992M A709 G50S/G345S A572 G150/G1345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	456

**EMICAL**

Item	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
08	1.17	.012	.036	.27	.32	.034	.070	.13	.04	.012	.009	.0004	00	.33	0.3801	0.1800	HEAT
07	1.35	.017	.028	.22	.50	.046	.130	.13	.04	.016	.010	.0003	00	.38	0.4201	0.1900	HEAT
07	1.35	.017	.028	.22	.50	.046	.130	.13	.04	.016	.010	.0003	00	.38	0.4201	0.1900	HEAT
07	1.35	.020	.038	.20	.49	.043	.120	.12	.03	.014	.010	.0003	00	.38	0.4101	0.1900	HEAT
08	1.15	.016	.038	.25	.40	.035	.120	.12	.05	.015	.009	.0004	00	.34	0.3901	0.1800	HEAT
08	1.17	.012	.036	.27	.32	.034	.070	.13	.04	.012	.009	.0004	00	.33	0.3801	0.1800	HEAT

**Tension Testing Results**

Test	Yield (Fy) Strength ksi/MPa	Tensile Strength ksi/MPa	Fy/Fu	Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp T/C	Sample 1 ft. lb/ftoules	Sample 2 ft. lb/ftoules	Sample 3 ft. lb/ftoules	Shear %	ASTM Grain Size No. (per ASTM E-112)
1	55/376	75/519	.73	21								
2	62/431	77/533	.81	22								
1	59/408	76/521	.78	18								

**Charpy Impact Testing Results**

Sample 1 ft. lb/ftoules	Sample 2 ft. lb/ftoules	Sample 3 ft. lb/ftoules

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

State of Indiana, County of Whitley  
 I, Worm Ir and subscribed before me, this 17 day of February, 2017.

Special Comments/Information  
HT # A34653 is used to fab item:

*[Signature]*  
 Quality Assurance

Signed: Notary Public

B561



**Steel Dynamics, Inc.**

2601 S. County Road 700 East  
Columbia City, IN 46725-  
(766) 625-8100

**Certified Mill Test Report**  
100% Melted and Manufactured in USA

Date: 7/23/20F

Customer No: 000191

Bill of Lading No: 0000119471

MTR #: 0000119471

Ship to:

Triad Metals International  
Triad Customer P/U  
Attn: Sales

Bill to:

TRIAD METALS INTERNATIONAL  
A-1 Steel Center  
Wilkesboro, NC 28696  
Attn: Fred White

**MECHANICAL**

**Tension Testing Results**

Item	Test	Yield (FY) Strength ksi/MPa	Tensile (Fu) Strength ksi/MPa	Fy/Fu	Elong (%) based on 8" gauge	ROV (%)	Brinell Reprint	Temp F/C	Sample 1 ft. lb/oules	Sample 2 ft. lb/oules	Sample 3 ft. lb/oules	% Shear	ASTM Grain Size No (per ASTM E112)
1	1	50/345	66/454	.76	24								
1	2	53/368	73/502	.73	22								
2	1	50/345	66/454	.76	24								
2	2	53/368	73/502	.73	22								
3	1	52/361	67/462	.78	22								
3	2	59/404	74/512	.80	21								
4	1	62/427	76/526	.82	26								
4	2	60/412	75/520	.80	28								
5	1	57/396	73/501	.78	26								
5	2	53/369	71/486	.75	26								
6	1	56/388	69/474	.81	26								
6	2	54/373	71/491	.76	27								

**Charpy Impact Testing Results**

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designator.

State of Indiana, County of Whitley

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_ Notary Public

Quality Assurance

My commission expires: \_\_\_\_\_

Special Comments/Information

Bill To: INFRA-METALS CORPORATION-CT, R INFRA-METALS CORPORATION-CT  
 DIV. PREUSSAG INTERNATIONAL CO 8 PENT HIGHWAY  
 8 PENT HWY TRACK# 953  
 WALLINGFORD CT WALLINGFORD 06492  
 US 06492  
 Ship To: 1  
 Order Date: 04/18/2007  
 PO No: C21395  
 Mill Order No: 3291717  
 Load No: 1114877  
 Manifest No: 1827962  
 CHAPARRAL STEEL  
 CERTIFIED MATERIAL TEST REPORT  
 CHAPARRAL STEEL  
 300 Hard Rd.  
 Midlothian, TX  
 76065-9651  
 (972) 775-8241

SIZE M 24 X 55# / W610 X 82  
 SPECIFICATION ASTM A6-05a, A992-06a, A572-06  
 HEAT NO: 30362990  
 GRADE 992/572-50  
 LENGTH 40 FT / 12.192 M  
 PRODUCT WF BEAMS

CHEMICAL ANALYSIS

C	Mn	P	S	Si	Cu	Ni	CF	Mo	Sn	V	Al	Nb	CE	Bend Test	ROA
Yield Strength	Yield Strength	Tensile Strength	Tensile Strength	MPa	MPa	MPa	Sq In	Sq cm	%	Elongation	Cage Length	8In	200 mm	8In	200 mm
55.8	384.7	71.1	490.2	0.758	4.89	24.9	8In	200 mm							
86.0	386.1	72.3	498.5	0.761	4.91	24.1	8In	200 mm							

HT# 30362990 is used to fab item B526

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A. CTR complies with DIN EN 10204 3.1.B

"I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements."

Signed: Tom L. Harrington Date: Jun. 01, 2007 Signed: \_\_\_\_\_  
 Tom L. Harrington: Quality Assurance Manager Notary Public (if applicable)

Date: \_\_\_\_\_ Page: 26 of 41

DATE 9/25/07  
 INVOICE NO 171376  
 BILL OF LADING 868914  
 CUSTOMER NO 7717  
 CUSTOMER P.O. C 1022A

NUCOR-YAMATO STEEL CO.  
 P.O. BOX 1228 • BLYTHEVILLE, AR 72318

**CERTIFIED MILL TEST REPORT**

100% MELTED AND MANUFACTURED IN U.S.A.  
 All shapes produced by Nucor-Yamato Steel are cast and rolled to a fully refined and fine grain practice.

SHIP TO  
 INFRA-METALS CORP.  
 8 PENT HIGHWAY  
 TRACK# 953  
 WALLINGFORD, CT 06492

SPECIFICATIONS  
 ASTM A992/A992M-06a A572/A572M GR50-06  
 ASTM A709/A709M-07 GR50 (345)  
 ASTM A709/A709M-07 GR50S (345S)  
 ASTM A6/A6M-07

SOLD TO  
 INFRA-METALS CORP.  
 8 PENT HIGHWAY  
 WALLINGFORD, CT 06492

ITEM #	ITEM DESCRIPTION	QTY	HEAT #	MECHANICAL PROPERTIES						CHEMICAL PROPERTIES												
				YIELD TO TENSILE RATIO	YIELD STRENGTH	TENSILE STRENGTH	ELONG	CHARPY IMPACT		C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Cb	CE	
					PSI	PSI	%	TEMP	IMPACT ENERGY													
					MPa	MPa	%	° F	FT-LBS													
1	W24 - 62.0 30' W610 x 92.0 9.144 M	2	304718	.73	55000	75000	23				.07	1.22	.027	.033	.26	.32	.12	.11	.02	.00	.022	.33
				.73	56000	77000	25												.01	.17		
2	W24 - 62.0 30' W610 x 92.0 9.144 M	4	304746	.73	55000	75000	23				.07	1.21	.016	.037	.31	.28	.09	.08	.02	.00	.023	.31
				.76	57000	75000	24												.01	.15		

CARBON EQUIVALENT: CE = C(Mn) + C + Mn/6 + (Cr+Mo+V)/5 + (Ni+Cu)/15

ELONGATION BASED ON 8.00 INCH GAUGE LENGTH  
 I hereby certify that the contents of this report are accurate and correct. All test results and operations performed by this material manufacturer are in compliance with the requirements of the material specifications stated in the Manufacturers' Book.

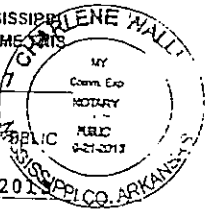
*Doug Russell*  
 QUALITY ASSURANCE

STATE OF ARKANSAS COUNTY OF MISSISSIPPI  
 SWORN TO AND SUBSCRIBED BEFORE ME THIS

25 Day of 09/07

*Charlene Wallis*

NOTARY PUBLIC



CUSTOMER COPY

MY COMMISSION EXPIRES 10/21/2011

HY # 304718 is used to fab item: B549

Bill To: INFRA-METALS CORPORATION-CT R INFRA-METALS CORPORATION-CT  
 DIV PREUSSAG INTERNATIONAL CO 8 PENT HIGHWAY  
 8 PENT HWY WALLINGFORD CT TRACK# 953  
 WALLINGFORD CT WALLINGFORD 06492 US 06492  
 Ship To: 1  
 Order Date: 05/22/2007  
 PO No: C21424  
 Hill Order No: 3313698  
 Load No: 1144389  
 Manifest No: 1855361  
 CERTIFIED MATERIAL TEST REPORT  
 GERDVO AMERISTE-L  
 Petersburg Hill  
 25801 Hofheimstr 119  
 Petersburg, VA 21803  
 (804) 524-2855  
 PRODUCT HP BFMMS

SPECIFICATION M 24 X 68# / M610 X 101  
 ASTM A6-05a, A992-06a, A572-06  
 GRADE 992/572-50  
 LENGTH 30 FT / 9.144 M

HEAT NO: 30385790

CHEMICAL ANALYSIS

C	Mn	P	S	SI	CU	NI	CT	Mo	Sn	V	Al	Nb	CE
.07	1.11	.013	.033	.23	.35	.11	.08	.018	.016	.002	.002	.017	.31

PHYSICAL PROPERTIES

Yield Strength	KSI	MPa	Tensile Strength	KSI	MPa	Specimen Area	Sq In	Sq cm	Elongation	%	Gage Length	In	mm	Hard Test	Result	ROV
55.8		384.7	72.2		497.8	0.881		5.68	26.8		8In	200	mm			
57.6		397.1	73.4		506.1	0.863		5.57	25.9		8In	200	mm			

HT # 30385790 is used to fab items: B547, B548, B550, B551

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A. CMR complies with DIN EN 10204 3.1.B

"I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements."

Signed: Tom L. Harrington Date: Oct. 17, 2007 Signed: \_\_\_\_\_  
 Tom L. Harrington, Quality Assurance Manager Notar Public (if applicable)

Date: \_\_\_\_\_

Load #: 16

Shipping Date:

Waybill #: 898-16

Customer:	Pizzagalli Construction Company		Prepared By:	Approved By:	Date: 24-01-01
Job Title:	84 Marginal Way	Job Progress Report Sheet	Bathurst Machine Shop Ltd.		
Date Sent to Shop:	X	SHEET: 1	Mandate Erectors & Welding Ltd.		
Job Number:	898	X	MQM Ltd., Traendie		

10-10 Route 430  
Big River Road  
1/2A 6P9

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fined		Alk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped					
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date	
A	W18X50	0	B401	1	1923																								
A	W12X19	0	B405	2	818																								
A	W08X15	0	B406	1	170																								
A	W12X19	0	B412	1	203																								
A	W08X15	0	B413	1	155																								
A	W18X35	0	B421	1	1515																								
A	W21X44	0	B424	1	1767			C-1 1/4"																					
A	W21X44	0	B429	1	1770			C-1 1/4"																					
A	W12X19	0	B439	1	220																								
A	W24X62	0	B444	1	1695																								
A	H.S.S. 8X4X1/4	0	B462	1	163																								
H	W21X44	0	B470	1	1691			C-1 1/4"																					
A	H.S.S. 12X6X3/8	0	B478	1	1804																								
H	W24X94	0	B484	1	4040																								
A	W12X19	0	B509	1	657																								
A	W08X10	0	B516	1	30																								
A	W18X35	0	B519	1	564																								
A	W08X10	0	B538	1	30																								
A	W24X55	0	B564	1	2071																								
A	W18X35	0	B566	1	985																								

Pieces 21 22271 Total Weight( Lbs) ( 11.1 TONS)

Load #: 16

Customer:  
Job Title:  
Date Sent to Shop:  
Job Number:

Pizzagalli Construction Company  
84 Marginal Way  
X SHEET: 2  
898

Prepared By: Approved By: Date: 24-01-01

Bathurst Machine Shop Ltd. 1040 Route 430  
Mandate Erectors & Welding Ltd. Big River Road  
MQM Ltd., Tracadie E2A 6P9

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped				
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date
I	W12X19	0	B586	1	281																							
I	W12X19	0	B589	1	66																							
A	W12X19	0	B591	2	166																							
A	H.S.S. 6X6X3/8	0	D310	1	376																							
A	H.S.S. 6X6X3/8	0	D311	1	382																							
A	H.S.S. 8X8X5/8	0	D314	1	986																							
N/A	1.3X3X5/16	0	M200	8	296																							
A	H.S.S. 6X6X1/4	0	M201	1	412																							
A	1.6X4X5/16	0	M204	1	238																							
A	1.6X4X5/16	0	M206	1	443																							
A	1.6X4X5/16	0	M207	1	293																							
N/A	1.3X3X1/4	0	M208	4	112																							
N/A	1.3X3X1/4	0	M209	6	172																							
A	1.6X4X5/16	0	M210	1	307																							
A	1.6X4X5/16	0	M211	1	164																							
A	1.6X4X5/16	0	M212	1	698																							
A	1.6X4X5/16	0	M214	1	576																							
N/A	1.4X4X5/16	0	M215	70	858																							
N/A	1.6X4X5/16	0	M217	1	706																							
N/A	1.3X3X1/4	0	M221	4	132																							

Pieces 108 7664 Total Weight(Lbs) ( 3.8 TONS)



Load #: 16

Customer:

Pizzagalli Construction Company

Job Title:

84 Marginal Way

Job Progress Report Sheet

Date Sent to Shop:

X

SHEET: 3

Job Number:

898

Prepared By: Approved By: Date: 2-1-01

Bathurst Machine Shop Ltd.

10-10 Route -130

Mandate Erectors & Welding Ltd.

Big River Road

MQM Ltd., Tracadie

B2A 6P9

Form#12 Rev. 4

\* SEE SHOP DWG

C=COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped					
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date	
N/A	1.3X3X1/4	0	M232	4	112																								
N/A	1.3X3X1/4	0	M233	1	28																								
N/A	1.3X3X5/16	0	M234	16	576																								
N/A	1.3X3X1/4	0	M235	2	50																								
N/A	1.3X3X1/4	0	M236	7	210																								
N/A	1.3X3X1/4	0	M237	10	310																								
A	1.6X4X3/8	0	M238	1	292																								
A	1.6X4X3/8	0	M239	1	270																								
A	1.6X4X3/8	0	M240	1	52																								
A	1.6X4X5/16	0	M242	1	413	?????																							
N/A	1.3X3X1/4	0	M262	10	74																								
H	1.4X4X5/16	0	M263	1	12																								
N/A	1.3X3X1/4	0	M264	1	29																								
A	1.6X4X3/8	0	M300	2	192																								
A	U.S.S. 6X6X1/4	0	M307	1	431																								
H	1.4X4X5/16	0	M309	37	455																								
A	1.4X6X3/8	0	M310	1	52																								
N/A	1.3X3X5/16	0	M313	8	134																								
N/A	1.3X3X5/16	0	M314	8	101																								
N/A	1.3X3X5/16	0	M315	5	78																								

Pieces 118 3871 Total Weight( lbs)

( 1.9 TONS)



Load #: 16

Customer: Pizzagali Construction Company  
 Job Title: 84 Marginal Way  
 Date Sent to Shop: X  
 Job Number: 898

SHEET: 5

Prepared By: Bathurst Machine Shop Ltd.  
 Approved By: Mandate Erectors & Welding Ltd.  
 Date: 24-01-01  
 10-10 Route 430  
 Big River Road  
 12A 619

Form#12 Rev. 4

\* - SEE SHOP DWG C-COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped					
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date	
A	C06C8.2	0	M412	1	178																								
A	C06C8.2	0	M413	1	298																								
A	H.S.S. 12X6X1/4	0	M427	1	685																								
H	1.4X4X5/16	0	M429	12	147																								
N/A	1.3X3X1/4	0	M430	35	95																								
A	H.S.S. 8X6X5/16	0	M431	1	621																								
A	1.6X4X5/16	0	M432	1	276																								
A	1.6X4X5/16	0	M433	1	291																								
A	1.6X4X5/16	0	M434	1	286																								
A	H.S.S. 18X6X3/8	0	M435	1	1346																								
A	H.S.S. 18X6X3/8	0	M436	1	1391																								
N/A	1.3X3X1/4	0	M439	4	44																								
A	H.S.S. 6X6X1/4	0	M500	1	431																								
N/A	1.3X3X5/16	0	M501	5	44																								
H	1.4X4X5/16	0	M502	37	453																								
A	C06C8.2	0	M503	1	309																								
N/A	C06C8.2	0	M504	1	72																								
A	C06C8.2	0	M505	1	289																								
N/A	1.3X3X5/16	0	M506	7	117																								
A	1.3X3X5/16	0	M507	1	100																								

Pieces 114      7473 Total Weight(Lbs)      ( 3.7 TONS)      0 KG



# MILL TEST REPORT

FROM **NUCOR**  
BAR MILL DARLINGTON

104ds, South Carolina

BL Printed: 4/22/07 07:05:34

Load H 11084 BOL H 45298P

BILL OF LADING NO.

452988  
PAGE 1

Prepaid

Cust# 4936 TIPK82320

INFR-METALS

SOLD TO: 8 PENI BIGWAY, IRACK #933  
WALLINGFORD, CT  
800-243-4410 06492

SHIP TO: 8 PENI BIGWAY, IRACK #933  
WALLINGFORD, CT  
800-243-4410 06492

INFR-METALS

P 154 C ap  
TIPK82320 5 Rail

Inq No.	P.O.	Size	Spec	Length	Pcs	Weight	Root H	Tensil	Yield	EL	C	Mn	Si	S	P	Nb	Cu	Cr	Bi	Mo	CE	
406100476	C20846	L5505 X 4/0 5X	5X 5/16 A36/36H	40' 00"	24	9,868	76764	74000	52000	22	.23	.71	.15	.040	.010	.005	.00	.37	.10	.11	.02	.40
407003558	C21621	3/4X	A36	20' 00"	14	4,998	770204	70000	46000	24	.19	.73	.14	.040	.020	.003	.01	.33	.15	.09	.02	.37
407003560	C21621	3/4X	A36	20' 00"	14	4,998	770204	70000	47000	23	.19	.73	.14	.040	.020	.003	.01	.33	.15	.09	.02	.37
407003562	C21621	3/4X	A36	20' 00"	14	4,998	770204	70000	47000	23	.19	.73	.14	.040	.020	.003	.01	.33	.15	.09	.02	.37
407003564	C21621	3/4X	A36	20' 00"	14	4,998	770204	70000	47000	23	.19	.73	.14	.040	.020	.003	.01	.33	.15	.09	.02	.37
407009374	C21536	6CX 8.2	A529-50	20' 00"	30	4,920	770482	80000	50000	23	.22	.71	.16	.040	.010	.005	.00	.38	.15	.10	.02	.40
407009376	C21536	6CX 8.2	A529-50	20' 00"	30	4,920	770482	80000	50000	23	.22	.71	.16	.040	.010	.005	.00	.38	.15	.10	.02	.40
407009378	C21536	6CX 8.2	A529-50	20' 00"	30	4,920	770482	80000	50000	24	.22	.71	.16	.040	.010	.005	.00	.38	.15	.10	.02	.40
407009379	C21536	6CX 8.2	A529-50	20' 00"	30	4,920	770482	80000	50000	24	.22	.71	.16	.040	.010	.005	.00	.38	.15	.10	.02	.40
407009381	C21536	6CX 8.2	A529-50	20' 00"	30	4,920	770482	80000	50000	24	.22	.71	.16	.040	.010	.005	.00	.38	.15	.10	.02	.40

HT 770482 is used to fab items: M405  
M406  
M411  
M412 M504 M511  
M413 M505 M512  
M503 M510 M515

SLS-FRM-08 REVISION:1 REVISION DATE: 8/16/97

Permanent address of shipper:

**NUCOR**  
300 STEEL MILL ROAD  
DARLINGTON, S.C. 29540

WELDING OR WELD REPAIR WAS NOT PERFORMED ON THIS MATERIAL  
MELTED AND MANUFACTURED IN THE USA

MERCURY, RADIUM OR ALPHA SOURCE MATERIALS IN ANY FORM HAVE  
NOT BEEN USED IN THE PRODUCTION OF THIS MATERIAL

WE HEREBY CERTIFY THAT THE ABOVE FIGURES ARE CORRECT  
AS CONTAINED IN THE RECORDS OF NUCOR STEEL.

*J. H. Blew*

James H. Blew  
Chief Metallurgist

MADE BY [232-5102] (1007) 200-8521

Atlas Tube (U.S.) Inc.  
 13101 Eckles Road  
 Plymouth, Michigan, USA  
 48170  
 Tel 313-454-5600  
 Fax 313-454-1474



MATERIAL TEST REPORT

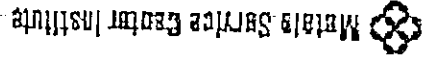
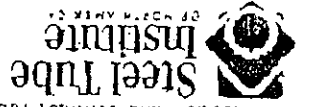
Material	Material No	Material Note	Yield	Tensile	Elm. Zn	Carbon	Mo	Ni	Cr	V
Material: 1.0x4.0x375x40(0.012x2)-CSA	Material No: 1000403754000-CSA	Material Note: M100671554	81.223	0.210	0.015	0.008	0.150	0.034	0.032	0.006
Sales order: 328118	Purchase Order: 2730	CSA G40.21-04 50W CLASS C								
Made in: Canada										

Material	Material No	Material Note	Yield	Tensile	Elm. Zn	Carbon	Mn	P	S	Bi	Al	Cu	Co	Mo	Ni	Cr	V
Material: 2.0x8.0x260x24(0.012x4)-CSA	Material No: 1200602902400-CSA	Material Note: M100671554	481066	0.180	0.010	0.007	0.033	0.007	0.033	0.007	0.007	0.049	0.008	0.008	0.014	0.039	0.002
Sales order: 325584	Purchase Order: 2730	CSA G40.21-04 50W CLASS C															
Made in: Canada																	

HT 481066 is used to fab item: M427

Authorized by Quality Assurance  
*[Signature]*

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.





Metals Service Center Institute

Authorized by Quality Assurance

Material: 12.0x5 0x375x48 (0.012x11)  
Sales order: 304177  
Purchase Order: 2221

Heat No	C	Mn	P	S	SI	Al	Cu	CB	Mo	Ni	Cr	V
679968	0.210	0.930	0.007	0.004	0.150	0.023	0.020	0.006	0.002	0.009	0.027	0.000
Bundle No	Yield Tensile Em,2in											
M200444570	057740 Psl 070290 Psl 35.3 %											
Material Note:	A81M A900-03A GRADE C & S											
Sales Order:	2221											
Made in:	Canada											

Material: 12.0x5 0x375x48 (0.012x11)  
Sales order: 304177  
Purchase Order: 2221

Heat No	C	Mn	P	S	SI	Al	Cu	CB	Mo	Ni	Cr	V
679469	0.180	0.920	0.018	0.002	0.160	0.028	0.018	0.005	0.002	0.007	0.043	0.000
Bundle No	Yield Tensile Em,2in											
M200444478	064030 Psl 078230 Psl 34.5 %											
Material Note:	A91M A900-03A GRADE C & S											
Sales Order:	2221											
Made in:	Canada											

Material: 12.0x5 0x375x48 (0.012x11)  
Sales order: 304177  
Purchase Order: 2221

Heat No	C	Mn	P	S	SI	Al	Cu	CB	Mo	Ni	Cr	V
479478	0.190	0.910	0.008	0.002	0.160	0.032	0.028	0.005	0.002	0.010	0.020	0.000
Bundle No	Yield Tensile Em,2in											
M10827384	063080 Psl 078860 Psl 29.8 %											
Material Note:	CSA G40.21-04 50W CLASS C											
Sales Order:	2157											
Made in:	Canada											

Material: 12.0x5 0x375x48 (0.012x11)  
Sales order: 304177  
Purchase Order: 2221

Heat No	C	Mn	P	S	SI	Al	Cu	CB	Mo	Ni	Cr	V
302254	0.180	0.920	0.018	0.002	0.160	0.028	0.018	0.005	0.002	0.007	0.043	0.000
Bundle No	Yield Tensile Em,2in											
M200444478	064030 Psl 078230 Psl 34.5 %											
Material Note:	A91M A900-03A GRADE C & S											
Sales Order:	2221											
Made in:	Canada											

HT67968 is used to fabricate: B478

MATERIAL TEST REPORT



Atlas Tube Canada ULC  
200 Clark St  
Harrow, Ontario, Canada  
NOR:EGC  
Tel: 519-738-3541  
Fax: 519-738-3537

The purchaser is responsible for the proper use of the material and for the proper interpretation of the test results. The purchaser is also responsible for the proper interpretation of the test results. The purchaser is also responsible for the proper interpretation of the test results.

Material: 1.0x0.6x3.75x48 (0.11x0.75)  
 Sales order: 329266  
 Heat No: 563526  
 Bundle No: 1200451405  
 Yield: 0.180  
 Tensile: 0.810  
 Elongation: 0.003  
 0.150  
 0.035  
 0.035  
 0.005  
 0.002  
 0.013  
 0.034  
 0.000

Material No: 500502504800  
 Sales order: 331874  
 Heat No: 594931  
 Bundle No: 1100674709  
 Yield: 0.200  
 Tensile: 0.840  
 Elongation: 0.007  
 0.003  
 0.014  
 0.046  
 0.050  
 0.006  
 0.005  
 0.016  
 0.044  
 0.000

Material No: 700702504500  
 Sales order: 331830  
 Heat No: 51583  
 Bundle No: 120073120  
 Yield: 0.180  
 Tensile: 0.830  
 Elongation: 0.003  
 0.150  
 0.035  
 0.035  
 0.005  
 0.002  
 0.013  
 0.034  
 0.000

Material: 1.0x0.6x3.75x48 (0.11x0.75)  
 Sales order: 329266  
 Heat No: 563526  
 Bundle No: 1200451405  
 Yield: 0.180  
 Tensile: 0.810  
 Elongation: 0.003  
 0.150  
 0.035  
 0.035  
 0.005  
 0.002  
 0.013  
 0.034  
 0.000

Material No: 500502504800  
 Sales order: 331874  
 Heat No: 594931  
 Bundle No: 1100674709  
 Yield: 0.200  
 Tensile: 0.840  
 Elongation: 0.007  
 0.003  
 0.014  
 0.046  
 0.050  
 0.006  
 0.005  
 0.016  
 0.044  
 0.000

Material No: 700702504500  
 Sales order: 331830  
 Heat No: 51583  
 Bundle No: 120073120  
 Yield: 0.180  
 Tensile: 0.830  
 Elongation: 0.003  
 0.150  
 0.035  
 0.035  
 0.005  
 0.002  
 0.013  
 0.034  
 0.000

Material: 1.0x0.6x3.75x48 (0.11x0.75)  
 Sales order: 329266  
 Heat No: 563526  
 Bundle No: 1200451405  
 Yield: 0.180  
 Tensile: 0.810  
 Elongation: 0.003  
 0.150  
 0.035  
 0.035  
 0.005  
 0.002  
 0.013  
 0.034  
 0.000

Material No: 500502504800  
 Sales order: 331874  
 Heat No: 594931  
 Bundle No: 1100674709  
 Yield: 0.200  
 Tensile: 0.840  
 Elongation: 0.007  
 0.003  
 0.014  
 0.046  
 0.050  
 0.006  
 0.005  
 0.016  
 0.044  
 0.000

Material No: 700702504500  
 Sales order: 331830  
 Heat No: 51583  
 Bundle No: 120073120  
 Yield: 0.180  
 Tensile: 0.830  
 Elongation: 0.003  
 0.150  
 0.035  
 0.035  
 0.005  
 0.002  
 0.013  
 0.034  
 0.000

Material: 1.0x0.6x3.75x48 (0.11x0.75)  
 Sales order: 329266  
 Heat No: 563526  
 Bundle No: 1200451405  
 Yield: 0.180  
 Tensile: 0.810  
 Elongation: 0.003  
 0.150  
 0.035  
 0.035  
 0.005  
 0.002  
 0.013  
 0.034  
 0.000

Material No: 500502504800  
 Sales order: 331874  
 Heat No: 594931  
 Bundle No: 1100674709  
 Yield: 0.200  
 Tensile: 0.840  
 Elongation: 0.007  
 0.003  
 0.014  
 0.046  
 0.050  
 0.006  
 0.005  
 0.016  
 0.044  
 0.000

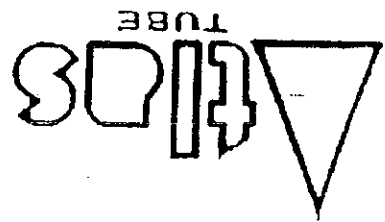
Material No: 700702504500  
 Sales order: 331830  
 Heat No: 51583  
 Bundle No: 120073120  
 Yield: 0.180  
 Tensile: 0.830  
 Elongation: 0.003  
 0.150  
 0.035  
 0.035  
 0.005  
 0.002  
 0.013  
 0.034  
 0.000

HT583536 is used to fab items: M435 M436

Acier Altitude Inc.  
 2355 Francis-Hughes Avenue  
 LAVAL QC H7S 2H7  
 CANADA

Shipped to

**MATERIAL TEST REPORT**



Ref./L: 80261880  
 Date: 10.13.2007  
 Customer: 1774

Atlas Tube Canada ULC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 NOR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537



Adas Tube Canada ULC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 N0R 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537



MATERIAL TEST REPORT

Shipped to  
 Acier Pacificque Incorporated  
 845 Munck Street  
 LAVAL QC H7S 1A9  
 CANADA

Sold to  
 Acier Pacificque Incorporated  
 845 Munck Street  
 LAVAL QC H7S 1A9  
 CANADA

HT 749730 is used to fab item M201 P1307 M400 M500

Material: 8.0x8.0x250x40.0(13x31)  
 Sales order: 309772  
 Material No: 80080375  
 Purchase Order: 18896  
 Made in: Canada

Heat No	C	Mn	P	S	SI	Al	Cu	Cb	Mo	Ni	Cr	V	Certification			
													CSA G40.21-04 50W CLASS H	Heat lot - 20070630A		
680401	0.190	0.600	0.017	0.002	0.150	0.032	0.042	0.006	0.002	0.012	0.044	0.000	0.000	0.000		
													Yield	0.6810 Psl	0.70890 Psl	35.8 %
													Tensile	Em,2in		
													Material Note: H001898982			
													Sales Or.Note:			

Material: 8.0x8.0x250x40.0(13x31)  
 Sales order: 306941  
 Material No: 800602504000  
 Purchase Order: 18890  
 Made in: Canada

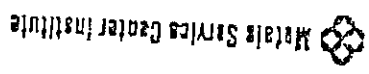
Heat No	C	Mn	P	S	SI	Al	Cu	Cb	Mo	Ni	Cr	V	Certification			
													ASTM A500-03A GRADE C & B	ASTM A500-03A GRADE C & B		
749730	0.200	0.820	0.011	0.007	0.011	0.049	0.021	0.004	0.002	0.010	0.035	0.000	0.000			
													Yield	0.63750 Psl	0.77210 Psl	32.2 %
													Tensile	Em,2in		
													Material Note: M100644579			
													Sales Or.Note:			

Material: 8.0x8.0x250x40.0(13x31)  
 Sales order: 306941  
 Material No: 800602504000  
 Purchase Order: 18890  
 Made in: Canada

Heat No	C	Mn	P	S	SI	Al	Cu	Cb	Mo	Ni	Cr	V	Certification			
													ASTM A500-03A GRADE C & B	ASTM A500-03A GRADE C & B		
749730	0.200	0.820	0.011	0.007	0.011	0.049	0.021	0.004	0.002	0.010	0.035	0.000	0.000			
													Yield	0.63750 Psl	0.77210 Psl	32.2 %
													Tensile	Em,2in		
													Material Note: M100644580			
													Sales Or.Note:			

Material: 8.0x8.0x250x40.0(13x31)  
 Sales order: 306941  
 Material No: 800602504000  
 Purchase Order: 18890  
 Made in: Canada

Heat No	C	Mn	P	S	SI	Al	Cu	Cb	Mo	Ni	Cr	V	Certification			
													ASTM A500-03A GRADE C & B	ASTM A500-03A GRADE C & B		
749730	0.200	0.820	0.011	0.007	0.011	0.049	0.021	0.004	0.002	0.010	0.035	0.000	0.000			
													Yield	0.63750 Psl	0.77210 Psl	32.2 %
													Tensile	Em,2in		
													Material Note: M100644579			
													Sales Or.Note:			





MATERIAL TEST REPORT

Ref./L: 80248589  
 Date: 10.29.2007  
 Customer: 1751

Alias Tube Canada ULC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 NCR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537

*Attn: Dennis Guitera*  
*800-540-1529*

Shipped to

Mandate Erectors & Welding Lt  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Sold to  
 Mandate Erectors & Welding Lt  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

*HT749730 is used to fab item B402*

Material: 8.0x4.0x250x26"0"(2x2).  
 Sales order: 314750  
 Material No: 80040250  
 Made in: Canada  
 Purchase Order: 31077

Heat No	Pcs	C	Mn	P	S	SI	Al	Cu	Cb	Mo	Ni	Cr	V
749730	4	0.200	0.820	0.011	0.007	0.011	0.049	0.021	0.004	0.002	0.010	0.035	0.000
Bundle No Yield Tensile Eln.2in Certification ASTM A500-03A GRADE B&C													

Material Note: M130648382  
 Sales Or.Note: 314750

Material: 12.0x12.0x375x32.4"(2x2).  
 Sales order: 314238  
 Material No: 120120375  
 Made in: Canada  
 Purchase Order: 31072

Heat No	Pcs	C	Mn	P	S	SI	Al	Cu	Cb	Mo	Ni	Cr	V
582788	4	0.200	0.790	0.011	0.003	0.150	0.035	0.026	0.005	0.002	0.013	0.040	0.002
Bundle No Yield Tensile Eln.2in Certification ASTM A500-03A GRADE B&C													

Material Note: M200457371  
 Sales Or.Note: 314238

Material: 12.0x12.0x375x32.4"(2x2).  
 Sales order: 314238  
 Material No: 120120375  
 Made in: Canada  
 Purchase Order: 31072

Heat No	Pcs	C	Mn	P	S	SI	Al	Cu	Cb	Mo	Ni	Cr	V
582787	4	0.200	0.790	0.011	0.003	0.150	0.038	0.005	0.004	0.015	0.045	0.000	0.000
Bundle No Yield Tensile Eln.2in Certification ASTM A500-03A GRADE B&C													

Material Note: M200457368  
 Sales Or.Note: 314238

Material: 12.0x12.0x375x32.4"(2x2).  
 Sales order: 314238  
 Material No: 120120375  
 Made in: Canada  
 Purchase Order: 31072

Heat No	Pcs	C	Mn	P	S	SI	Al	Cu	Cb	Mo	Ni	Cr	V
582787	4	0.200	0.790	0.011	0.003	0.150	0.029	0.038	0.005	0.004	0.015	0.045	0.000
Bundle No Yield Tensile Eln.2in Certification ASTM A500-03A GRADE B&C													

Material Note: M200457368  
 Sales Or.Note: 314238

Authorized by Quality Assurance:  
 The results reported on this report represent the actual attributes of the material furnished and indicate compliance with the specification and contract requirements.



200 Clark Street, Hamilton, Ontario, Canada N0H 1G0  
 TEL: (519) 754-1000 FAX (519) 754-6037

Leroux Steel Inc - Quebec  
 1331 11th Street East  
 BOUCHERVILLE QC J4B 6A1  
 CANADA



Part No. 80137153  
 Date: 07.14.2004  
 Customer: 87

Shipped to  
 Leroux Inc. (DIV.) Quebec  
 167 Desfontaines  
 ST. AUGUSTIN QC G8A 2K1  
 CANADA

Material No.	600403134800	Material No.	600302504800	Material No.	800401884800	Material No.	800502508000	Material No.	800803756000
Heat No.	800633	Heat No.	0410837	Heat No.	0410873	Heat No.	0410937	Heat No.	0410938
C Mn P S	0.200 0.770 0.006 0.003	C Mn P S	0.170 0.420 0.006 0.003	C Mn P S	0.170 0.420 0.010 0.003	C Mn P S	0.170 0.420 0.006 0.003	C Mn P S	0.170 0.410 0.005 0.003
Yield	0.200	Yield	0.170	Yield	0.170	Yield	0.170	Yield	0.170
Tensile	0.006	Tensile	0.006	Tensile	0.010	Tensile	0.006	Tensile	0.005
Em.2in	0.043	Em.2in	0.000	Em.2in	0.040	Em.2in	0.050	Em.2in	0.100
En.2in	0.082	En.2in	0.000	En.2in	0.033	En.2in	0.030	En.2in	0.033
Certification	140894	Certification	140894	Certification	140894	Certification	140894	Certification	140892
ASTM A500-01A GRADE C & B		ASTM A500-01A GRADE C & B		ASTM A500-01A GRADE C & B		ASTM A500-01A GRADE C & B		ASTM A500-01A GRADE C & B	
Made in Canada		Made in Canada		Made in Canada		Made in Canada		Made in Canada	
Purchase Order	M85001706	Purchase Order	M85001706	Purchase Order	M85001706	Purchase Order	M85001706	Purchase Order	M85001705
Sales order	140894	Sales order	140894	Sales order	140894	Sales order	140894	Sales order	140892

Material No.	800401884800	Material No.	800502508000	Material No.	800803756000	Material No.	800803756000	Material No.	800803756000
Heat No.	0410873	Heat No.	0410937	Heat No.	0410937	Heat No.	0410937	Heat No.	0410938
C Mn P S	0.170 0.420 0.010 0.003	C Mn P S	0.170 0.420 0.006 0.003	C Mn P S	0.170 0.420 0.006 0.003	C Mn P S	0.170 0.420 0.006 0.003	C Mn P S	0.170 0.410 0.005 0.003
Yield	0.170	Yield	0.170	Yield	0.170	Yield	0.170	Yield	0.170
Tensile	0.010	Tensile	0.006	Tensile	0.006	Tensile	0.006	Tensile	0.005
Em.2in	0.040	Em.2in	0.000	Em.2in	0.050	Em.2in	0.030	Em.2in	0.100
En.2in	0.033	En.2in	0.000	En.2in	0.030	En.2in	0.030	En.2in	0.033
Certification	140894	Certification	140894	Certification	140894	Certification	140894	Certification	140892
ASTM A500-01A GRADE C & B		ASTM A500-01A GRADE C & B		ASTM A500-01A GRADE C & B		ASTM A500-01A GRADE C & B		ASTM A500-01A GRADE C & B	
Made in Canada		Made in Canada		Made in Canada		Made in Canada		Made in Canada	
Purchase Order	M85001706	Purchase Order	M85001706	Purchase Order	M85001706	Purchase Order	M85001706	Purchase Order	M85001705
Sales order	140894	Sales order	140894	Sales order	140894	Sales order	140894	Sales order	140892

Material No.	800401884800	Material No.	800502508000	Material No.	800803756000	Material No.	800803756000	Material No.	800803756000
Heat No.	0410873	Heat No.	0410937	Heat No.	0410937	Heat No.	0410937	Heat No.	0410938
C Mn P S	0.170 0.420 0.010 0.003	C Mn P S	0.170 0.420 0.006 0.003	C Mn P S	0.170 0.420 0.006 0.003	C Mn P S	0.170 0.420 0.006 0.003	C Mn P S	0.170 0.410 0.005 0.003
Yield	0.170	Yield	0.170	Yield	0.170	Yield	0.170	Yield	0.170
Tensile	0.010	Tensile	0.006	Tensile	0.006	Tensile	0.006	Tensile	0.005
Em.2in	0.040	Em.2in	0.000	Em.2in	0.050	Em.2in	0.030	Em.2in	0.100
En.2in	0.033	En.2in	0.000	En.2in	0.030	En.2in	0.030	En.2in	0.033
Certification	140894	Certification	140894	Certification	140894	Certification	140894	Certification	140892
ASTM A500-01A GRADE C & B		ASTM A500-01A GRADE C & B		ASTM A500-01A GRADE C & B		ASTM A500-01A GRADE C & B		ASTM A500-01A GRADE C & B	
Made in Canada		Made in Canada		Made in Canada		Made in Canada		Made in Canada	
Purchase Order	M85001706	Purchase Order	M85001706	Purchase Order	M85001706	Purchase Order	M85001706	Purchase Order	M85001705
Sales order	140894	Sales order	140894	Sales order	140894	Sales order	140894	Sales order	140892

HT 0410937 issued to fab  
 Items M33, M53

Steel Tube Institute  
 Steel Service Center Institute

Part 2 of 3  
 Standards Center  
 10000  
 10000

Atlas Tube Canada ULC  
 200 Clark St  
 Hamilton, Ontario, Canada  
 Non IG0  
 TEL: 519-738-3541  
 FAX: 519-738-3537



MATERIAL TEST REPORT

Sold to  
 Acier Altube Inc.  
 2555 Francis-Hugues Avenue  
 Laval QC H7S 2H7  
 CANADA

Shipped to  
 Acier Altube Inc.  
 2555 Francis-Hugues Avenue  
 Laval QC H7S 2H7  
 CANADA

Ref./L: 80261880  
 Date: 10.13.2007  
 Customer: 1774

0088/013

Material 5.0x5.0x25x20.0 (12x11)BEC  
 Sales order: 333355  
 Material No: 50050375  
 Purchase Order: 3426  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	SI	Al	Cu	Cb	Mo	Ni	Cr	V	Certification	
														ASTM A500-03A	GRADE B&C
56040E	0.200	0.500	0.010	0.003	0.160	0.044	0.033	0.005	0.002	0.014	0.043	0.000		Yield	0.200
														Tensile	0.80350 Psi
														Elm.2in	29.9 %

Material 5.0x5.0x13x20.0 (11x11)BEC  
 Sales order: 333352  
 Material No: 50060250  
 Purchase Order: 3409  
 Made in: Canada

HT 68118 is used to fabricate M431

Heat No	Pcs	C	Mn	P	S	SI	Al	Cu	Cb	Mo	Ni	Cr	V	Certification	
														ASTM A500-03A	GRADE B&C
55113B	0.200	0.500	0.011	0.002	0.150	0.024	0.031	0.005	0.002	0.013	0.031	0.000		Yield	0.200
														Tensile	0.73280 Psi
														Elm.2in	32.6 %

Material 5.0x5.0x13x20.0 (11x11)BEC  
 Sales order: 333352  
 Material No: 50050313  
 Purchase Order: 3415  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	SI	Al	Cu	Cb	Mo	Ni	Cr	V	Certification	
														ASTM A500-03A	GRADE B&C
55113B	0.200	0.500	0.011	0.002	0.150	0.024	0.031	0.005	0.002	0.013	0.031	0.000		Yield	0.200
														Tensile	0.73280 Psi
														Elm.2in	32.6 %

Material 5.0x5.0x13x20.0 (11x11)BEC  
 Sales order: 333352  
 Material No: 50050313  
 Purchase Order: 3415  
 Made in: Canada

Atlas Tube Canada ULC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 NOR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537



MATERIAL TEST REPORT

Sold to  
 Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Shipped to  
 Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Ref.B/L: 80263316  
 Date: 10.24.2007  
 Customer: 1751

Material: 8.0x8.0x625x50.0" (12x11)  
 Sales Order: 335491  
 Material No: 80080625  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	SI	Al	Cu	CB	Mo	NI	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002
Bundle No: M200482103 Yield: 0.63150 Psi Tensile: 0.76440 Psi Elongation: 34.3% Certification: ASTM A500-03A GRADE B&C													

Material: 8.0x8.0x625x50.0" (12x11)  
 Sales Order: 335491  
 Material No: 80080625  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	SI	Al	Cu	CB	Mo	NI	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002
Bundle No: M200482102 Yield: 0.63150 Psi Tensile: 0.76440 Psi Elongation: 34.3% Certification: ASTM A500-03A GRADE B&C													

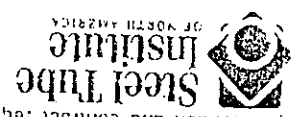
Material: 10.0x10.0x625x18.0" (12x21)  
 Sales Order: 335491  
 Material No: 100100625  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	SI	Al	Cu	CB	Mo	NI	Cr	V
583750	4	0.200	0.810	0.011	0.002	0.160	0.034	0.015	0.006	0.002	0.007	0.022	0.000
Bundle No: M200483575 Yield: 0.54920 Psi Tensile: 0.73670 Psi Elongation: 38.5% Certification: ASTM A500-03A GRADE B&C													

Material: 10.0x10.0x625x18.0" (12x21)  
 Sales Order: 335491  
 Material No: 100100625  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	SI	Al	Cu	CB	Mo	NI	Cr	V
593750	4	0.200	0.810	0.011	0.002	0.160	0.034	0.015	0.006	0.002	0.007	0.022	0.000
Bundle No: M200483574 Yield: 0.54920 Psi Tensile: 0.73670 Psi Elongation: 38.5% Certification: ASTM A500-03A GRADE B&C													

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specifications and contract requirements.



Metals Service Center Institute

# ACIER PACIFIQUÉ INC.

PART NO.

P/O/Rel

Certificate of Mill Test Results

PAY 000000 000

Page 1/1

ATLANTIC TUBE & STEEL INC.  
 1580 WATKINS DRIVE, MISSISSAUGA, ONTARIO, CANADA, L5T 1A3  
 PHONE: (905) 670-1511 FAX: (905) 670-1045  
 INVOICE TEST REPORT (PAGE: 1)

Customer	160824	Ship to	02
	PACIFIC STEEL INC.		PACIFIC STEEL INC.
	845 MORCK		845 MORCK
	LAVAL, QUEBEC		LAVAL, QUEBEC
	N7S 1S9		N7S 1A9
Invoice No.	5454	Order Number	239265
Invoice Date	MAY232007	Order Date	MAY232007
		P/O Number	1R631

Qty	Size	Gauge	Steel Type/Spec.	Length	Heat #	Yield	Tensile	Elong%	C	MP	R	T	CV
18	4.000 4.000	.250	A574-A500C	576.000	30625600	67600	79200	25.180	180	840	010	009	010
16	4.000 4.000	.250	A574-A500C	388.000	30625600	67600	79200	25.180	180	840	010	009	010
18	4.000 4.000	.250	A574-A500C	576.000	30625600	67600	79200	25.180	180	840	010	009	010
54	4.000 4.000	.250	A574-A500C	188.000	10633110	66900	80200	24.180	180	820	011	006	070
24	4.000 4.000	.250	A574-A500C	480.000	10625600	67600	79200	25.180	180	840	010	009	010
					10625600	67600	79200	25.180	180	840	010	009	010

Test conducted with ASTM A370-94.  
 Elongation in 2 inches.

HT 30625600 is used to fab item. M202

The chemical and physical test reported above are correct as contained in the records of the company.

Yours truly,

*Frank Cancelli*  
 Frank Cancelli  
 President

Mr. S. K. ...

02002

ATLANTIC TUBE & STEEL

05/30/2007 15:43 PAY 905 670 1845

CERTIFIED TEST REPORT

**NUCOR**  
 BAR MILL - AUBURN  
 NUCOR STEEL AUBURN, INC.

212 pcs. = 41542  
 HEAT# C5219  
 DATE SHIPPED 8/15/2007  
 SHIPMENT# 0300273  
 SIZE: AN 3 X 3 X 1/4 40' 0"  
 ORDER ITEM# 192040/11  
 SOLD TO: INFRA-METALS CORP - CT  
 FAX#/EMAIL: 2032942993

CUST. P.O. C1010-K  
 PART # L334  
 GRADE: A529-C3 GR50/50"  
 SPEC CSA G41.21 98 GR. 1W  
 SUPP. REQ:  
 SHIP TO: INFRA METALS CORP-C7

CHEMICAL ANALYSIS %

C	MN	SI	P	S	CU	NI	CR	MO	SN	V	CB	TI	B	N2	O2
170	1.050	280	0.27	0.44	360	1000	150	0.34	0.21	0.01	0.130	0.010	0.009	XXX	XXX

MECHANICAL RESULTS

YIELD	TENSILE	GAUGE	%	BEND	
K.S.I.	K.S.I.	LENGTH	ELONG	PIN. DIA	R.A.
64.30	85.80	8	26.3	.0	.0
61.50	84.40	8	29.4	.0	.0
MPa	MPa	GAUGE	%	BEND	
LENGTH	LENGTH	PIN. DIA	R.A.		

CHARPY IMPACT TEST

TEMP. F.	FT./LB.	SUBSIZE SPECIMEN SAMPLE

I CERTIFY THESE RESULTS TO BE CORRECT AS CONTAINED IN THE RECORDS OF THE COMPANY.

JIM BIERNAT METALLURGIST  
 STATE OF NEW YORK SS.  
 COUNTY OF CAYUGA

Grain Size: XXX Reduction Ratio: XXX As-Rolled Hardness: DJL C.F. C.L. XXX  
 XXX XXX .459 XXX

JOMINY END-QUENCH HARDENABILITY RESULTS (HRC)

J1	J2	J3	J4	J5	J6	J7	J8	J9	J10	J11	J12
J13	J14	J15	J16	J18	J20	J22	J24	J26	J28	J30	J32

HT C5219 is used to fab items: M408, M409, M421, M432, M433, M435, M436, M437, M463, M46A, M420, M435, M430, M439, M530, M535

ALL MANUFACTURING PROCESSES FOR THIS STEEL, INCLUDING MELTING FROM SCRAP AND HOT ROLLING HAVE BEEN PERFORMED IN THE U.S.A. NO WELD REPAIR PERFORMED. STEEL NOT EXPOSED TO MERCURY OR ANY LIQUID ALLOY WHICH IS LIQUID AT AMBIENT TEMPERATURES.

DUAL CERTIFICATION

CUSTOMER SPECIAL INSTRUCTIONS:  
 ASTM A36 MATERIAL IS DUAL CERTIFIED TO  
 ASTM A709-97B GR. 36 AND AASHTO M183-98 GR.36

Jim Biernat (print)  
 AFTER BEING DULY SWORN BY ME, I DECLARE THAT THESE RESULTS ARE CORRECT AS CONTAINED IN THE RECORDS OF NUCOR STEEL AUBURN, I (Sign)

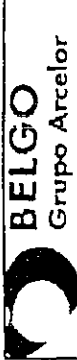

SUBSCRIBED AND SHOWN BEFORE ME:  
 THIS \_\_\_\_\_ DAY OF \_\_\_\_\_  
 L.S. \_\_\_\_\_  
 THIS CERTIFICATE IS NOTARIZED WHEN REQUESTED

BY: 285  
 181 00

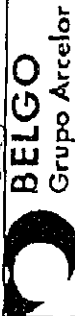


Attn:

ES

QUALITY CERTIFICATE		Ref. Nr. 014209/2007 Pag.: 01										
		Size: 3 X 5/16 POL Order Number: 2299311 Grade: CSA 350W										
Customer: ARCELOR INTERNATIONAL CANADA, INC Products: ANGLES 3X5/16"X40FT CSA 350W AIC Purchase Order: P1110407 02-2007-C												
Heat Nr.	Coils	Weight (t)	YIELD POINT MPa	TENSILE STRENGTH MPa	ELONGATION	% C	% Mn	% Si	% P	% S	% Nb	% Cu
6000700	1	1.994	393	513	23.00	0.140	0.860	0.170	0.028	0.032	0.017	0.150
6000800	1	1.994	376	490	24.00	0.140	0.770	0.160	0.018	0.031	0.018	0.170
TOTAL		2	3.988									
Heat	% Cr	% Ni	% Sn	% Mo								
6000700	0.090	0.070	0.019	0.012								
6000800	0.090	0.050	0.018	0.013								
Remarks: We hereby certify that the material herein listed was produced, inspected, tested and approved in accordance with the standard of the specification required.												
						Date: 27/JUL/2007			Approved by:  Esteban de Ochoa's Drive Comanche Towers			
						Belgo Siderurgica S/A.						
HT 6000800 is used to fab items: M200, M234, M313, M314, M315, M316, M322, M401, M403, M403, M403, M404, M410, M501, M506, M507, M508, M509.												

ES



QUALITY CERTIFICATE

Ref Nr.: 012049/2006  
Pag 01

Customer: PACIFIC STEEL  
Products: ANGLES 4X5/16"x40FT CSA 350N PACIFIC STEEL  
Purchase Order: E2731106 18454 61068  
SI: 4 X 4 X 5/16 P01  
Order Number: 2163589  
Grade: CSA 150W

P.L. 4

Heat	Nr.	Weight (t)	YIELD POINT	TENSILE STRENGTH	% ELONGATION	% C	SI	% P	% S	% Mn	% Nb	% Cu
		Coils	MPa	MPa								
5608405	3	5.805	433	540	22.00	0.120	0.700	0.200	0.040	0.031	0.024	0.230
TOTAL		3	5.805									
Heat		% Cr	% Ni	% Sn	% Mo							
5608405		0.090	0.050	0.028	0.011							

Remarks: We hereby certify that the material herein listed was produced, inspected, tested and approved in accordance with the standard or the specification required.

Date: 26/DEZ/2006

Approved by:

Gerardo T. Acosta  
Gerente y Acceptor

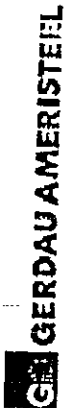
Siglo Siderurgia S/A.

HT 5608405 is used to fab items: M215 M321 M514  
M263 M409 M429  
M309 M502

W-13646

Chemical and Physical Test Report

MADE IN CANADA



WHITBY STEEL MILL  
HOPKINS STREET SOUTH  
WHITBY ON L7N 5T1 CAN  
(905) 668-8811

PRODUCED IN: WHITBY

SHIP TO LLES ACIERS TRANSBEC 396 TEMISCOUATA STREET RIVIERE DU LOUP, PQ G9R 2Z2	INVOICE TO LLES ACIERS TRANSBEC 1997 LTE ACCTS PAYABLE 4054 BOUL LE CORBUSIER #201 LAVAL, PQ H7L 5R2	SHIP DATE 04/03/07	CUST. ACCOUNT NO 60074655
--	--	-----------------------	------------------------------

SHAPE + SIZE	GRADE	SPECIFICATION	S	LES ORDER	CUST P.O. NUMBER
A6 X 4 X 1/2	44W	C.S.A. G40.21-98 44W/50W; ASTM: A36 - 97a ASTM A709- 97b ASME: SA36 (A)	70	7484 02	BS20846-02
HEAT I.D.			C Eqv		
B41385			.33		

HEAT I.D.	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	B	N	Sn	Al	Ti	Zr	Ca	C Eqv
B41373	.18	.70	.009	.017	.18	.25	.10	.11	.027	.000	.010	.0000	.0194	.019	.000	.00000	.000	.00000	.33

SHAPE + SIZE	GRADE	SPECIFICATION	S	LES ORDER	CUST P.O. NUMBER
A6 X 4 X 3/8	44W	C.S.A. G40.21-98(44W)/ASTM: A36M-01a ASTM709-01b ASME:SA36-00a	70	7484 01	BS20846-01
HEAT I.D.			C Eqv		
B41373			.348		

HEAT I.D.	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	B	N	Sn	Al	Ti	Zr	Ca	C Eqv
B41373	.18	.70	.010	.037	.21	.25	.09	.10	.024	.000	.000	.0000	.0122	.010	.000	.00000	.000	.00000	.348

HT B41373 is used to fab items: M238, M239, M240, M300, M317, M319, M407, M408, M513, M310

This material, including the billets, was produced and manufactured in Canada  
Bhaskar Yalamanchilli  
Quality Director  
Gerdau Ameristeel

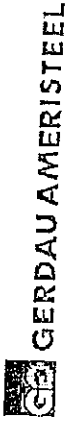
*Amaskany*

*S. R. B...*

Mgr. Metallurg. Svcs  
WHITBY STEEL MILL

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

Seller warrants that all material furnished shall comply with specifications subject to standard published manufacturing variations. NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, ARE MADE BY THE SELLER, AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. In no event shall seller be liable for indirect, consequential or punitive damages arising out of or related to the materials furnished by seller. Any claim for damages for materials that do not conform to specifications must be made from buyer to seller immediately after delivery of same in order to allow the seller the opportunity to inspect the material in question.



WHITBY STEEL MILL  
HOPKINS STREET SOUTH  
WHITBY ON L7N 5T1 CAN  
(905) 668-8811

Chemical and Physical Test Report  
MADE IN CANADA

W-063510

PRODUCED IN: WHITBY

SHIP TO  
YORK STEEL INC  
INDUSTRIAL PARK

INVOICE TO  
YORK STEEL INC (FRED)  
ACCTS PAYABLE  
550 WILSEY ROAD  
FREDERICTON, NB E3B 7K2

SHIP DATE  
03/30/07

CUST. ACCOUNT NO  
60125663

SHAPE + SIZE: A6 X 4 X 5/16  
GRADE: 44W  
SPECIFICATION: C.S.A. G40.21-98 44W/50W; ASTM: A36 - 97a ASTM A709- 97b ASME: SA36 (A)  
HEAT I.D.: B41244  
C: .18 Mn: .86 P: .012 S: .029 Si: .25 Cu: .27 Ni: .08 Cr: .12 Mo: .015 V: .000 Nb: .000 B: .0004 N: .0146 Sn: .010 Al: .000 Ti: .000000 Zr: .000000 Ca: .000000 C Eqv: .37  
SALES ORDER: 6113629-06  
CUST P.O. NUMBER: 8311-06

Mechanical Test: Yield 52411 PSI, 361.36 MPA Tensile: 75852 PSI, 522.98 MPA %El: 22.5/8in, 22.5/200MM  
Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST  
Mechanical Test: Yield 53041 PSI, 365.7 MPA Tensile: 76246 PSI, 525.7 MPA %El: 22.5/8in, 22.5/200MM  
Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST

SHAPE + SIZE: A6 X 6 X 1/2  
GRADE: 44W  
SPECIFICATION: C.S.A. G40.21-98 44W/50W; ASTM: A36 - 97a ASTM A709- 97b ASME: SA36 (A)  
HEAT I.D.: B41167  
C: .15 Mn: .71 P: .010 S: .018 Si: .19 Cu: .28 Ni: .13 Cr: .10 Mo: .037 V: .000 Nb: .012 B: .0000 N: .0150 Sn: .015 Al: .196 Ti: .00100 Zr: .000000 Ca: .000000 C Eqv: .324  
SALES ORDER: 6113629-05  
CUST P.O. NUMBER: 8311-05

Mechanical Test: Yield 55396 PSI, 381.94 MPA Tensile: 76341 PSI, 526.35 MPA %El: 22.5/8in, 22.5/200MM  
Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST  
Mechanical Test: Yield 55725 PSI, 384.21 MPA Tensile: 76931 PSI, 530.42 MPA %El: 23.8/8in, 23.8/200MM  
Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST

HT B41244 is used to fab items: M204 M210 M214 M432  
M206 M211 M217 M433  
M207 M212 M213 M434

This material, including the billets, was produced and manufactured in Canada  
Bhaskar Yalamanchilli  
Quality Director  
Gerdau Ameristeel

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

*B. R. B...*  
Mgr. Metallurg. Svcs.  
WHITBY STEEL MILL





NUCOR STEEL - BERKELEY  
 P.O. Box 2259  
 Mt. Pleasant, S.C. 29464  
 Phone: (843) 336-6000

MILL TEST REPORT

4/21/07 5:37:12  
 100% MELTED AND MANUFACTURED IN THE USA  
 All beams produced by Nucor Berkeley are cast and  
 rolled to a fully killed and fine grain practice.

Sold To: INFRA METALS CORP - CI  
 8 PENN HIGHWAY  
 WALLINGFORD, CT 06492

Shld To: INFRA METALS CORP - CT  
 8 PENN HIGHWAY  
 WALLINGFORD, CT 06492

Customer No.: 502 - 1  
 B.O.L. No.: 612684

SPECIFICATIONS: Tested in accordance with ASTM specification A6/A6M and A370.  
 ARSBIO : M270-36-00/A270-50-00  
 ASME : SA-36  
 ASTM : A992-06 // A36-05/A572-06-50/A709-06a36/A709-06a50/A709-345M  
 CSA : CSA-44W/C40-21-50W

Description	Heath Grade(s) Test	Yield/Tensile Ratio	Yield (PSI)	Tensile (PSI)	Elong (%)	C		Mn	P	S	Si	Cu	Ni	CEI	
						Cr	Pb								Mo
W8X13 040' 00.00' W200X19.3 012.1920m	2706279 A992-06	.83	58700	70400	27.10	.0720	.0720	.8540	.0110	.0320	.2160	.0870	.0360	.2317	
			405	485		.0250	.0250	.0170	.0160	.0010	.0040	.0270	.2731		
			401	485		.0030	.0030	.0010	.0009	.0007	.0048	.0000	2.6653		
						84 Piece(s) Customer PO: C20919									InvH: 0
W8X13 050' 00.00' W200X19.3 015.2400m	2706250 A992-06	.84	57600	68800	29.30	.0630	.0630	.8280	.0086	.0200	.2180	.0650	.0270	.2161	
			397	474		.0250	.0250	.0160	.0049	.0011	.0036	.0266	.2577		
			396	476		.0013	.0013	.0011	.0002	.0005	.0032	.0000	2.1420		
						24 Piece(s) Customer PO: C20919									InvH: 0
W8X15 030' 00.00' W200X22.5 009.1440m	1706192 A992-06	.83	59300	71700	26.01	.0630	.0630	.7830	.0102	.0275	.2030	.1100	.0330	.2151	
			409	494		.0330	.0330	.0240	.0055	.0041	.0035	.0233	.2540		
			418	499		.0074	.0074	.0019	.0003	.0009	.0056	.0000	3.0733		
						60 Piece(s) Customer PO: C20919									InvH: 0
W8X15 040' 00.00' W200X22.5 012.1920m	1706232 A992-06	.84	57800	69000	26.21	.0660	.0660	.8000	.0091	.0238	.1740	.1080	.0330	.2204	
			399	476		.0370	.0370	.0180	.0056	.0005	.0034	.0250	.2544		
			395	479		.0005	.0005	.0010	.0000	.0013	.0051	.0000	2.9793		
						36 Piece(s) Customer PO: C20919									InvH: 0
W8X15 050' 00.00' W200X22.5 015.2400m	2619963 A992-06	.84	57500	68500	29.23	.0650	.0650	.8010	.0060	.0226	.2400	.0760	.0287	.2127	
			396	472		.0190	.0190	.0170	.0052	.0009	.0031	.0269	.2580		
			389	468		.0007	.0007	.0012	.0000	.0008	.0059	.0000	2.7340		
						19 Piece(s) Customer PO: C20919									InvH: 0

Elongation based on 8" (20.32cm) gauge length. 'No Weld Repair' was performed. Hg free and no contact with Hg during manufacture.  
 CI = 26.01Cu+3.88Bi+1.20Cr+1.49Si+17.28P-(7.29CuXNi)-(9.10UNiXP)-33.39(Cr+Cu)  
 Pcm = C\*((Si/30)+(Mn/20)+(Cu/20)+(Ni/60)+(Mo/15)+(V/10)+Sb)  
 CE1 = C\*((Mn/6)+(Cr+Mo+V)/5)+(Ni+Cu)/15  
 CE2 = C\*((Mn+Si)/6)+(Cr+Mo+V/Cb)/5)+(Ni+Cu)/15

I hereby certify that the contents of this report are accurate and correct. All test results and operations performed by the material manufacturer are in compliance with material specifications, and when designated by the Purchaser, meet applicable specifications.

(State of South Carolina  
 County of Berkeley  
 Sworn and subscribed before me

Bruce A. Work  
 Metallurgist

day of \_\_\_\_\_

HT 1706192 IS USED TO LAB ITEMS: BACK  
 BA13





CHAPARRAL STEEL  
 CERTIFIED MATERIAL TEST REPORT  
 CHAPARRAL STEEL  
 300 Ward Rd.  
 Midlothian, TX  
 76065-9651  
 (972) 775-8241

Order Date: 05/22/2007  
 Po No: C21424  
 Mill Order No: 3313293  
 Load No: 1124268  
 Manifest No: 1839184

Ship To: 1  
 INFRA-METALS CORPORATION-CT, R  
 INFRA-METALS CORPORATION-CT  
 DIV PREUSSAG INTERNATIONAL CO  
 8 PENT HIGHWAY  
 TRACK# 953  
 WALLINGFORD  
 CT US

CT US  
 WALLINGFORD  
 06492

LENGTH 60 FT / 18.288 M  
 PRODUCT WF BEAMS

GRADE 992/572-50

SIZE W 18 X 35# / W460 X 52

SPECIFICATION ASTM A6-05a, A992-06a, A572-06

HEAT NO: 30370270

CHEMICAL ANALYSIS

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	S	V	Al	Nb	CE
.07	.97	.011	.031	.23	.33	.10	.08	.021	.01	.003	.003	.020	.28

PHYSICAL PROPERTIES

Yield Strength KSI	Yield Strength MPa	Tensile Strength KSI	Tensile Strength MPa	Specimen Area Sq In	Specimen Area Sq cm	Elongation %	Cage Length
54.7	377.1	69.6	479.9	0.678	4.37	27.4	8In 200 mm
58.4	402.7	74.0	510.2	0.633	4.08	24.9	8In 200 mm

Bend Test  
 Dia. Result  
 ROR

HT # 30370270 is used to fab items. B421  
 B519  
 B566

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A. CMTR complies with DIN EN 10204 3.1.2

"I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements."

Signed: Tom L. Harrington Date: Jul. 30, 2007 Signed: Stary Public (if applicable) Date: \_\_\_\_\_  
 Tom L. Harrington: Quality Assurance Manager







**Steel Dynamics, Inc.**  
 2601 S. County Road 700 East  
 Columbia City, IN 46725  
 (260) 625-8100

**Certified Mill Test Report**  
 100% Melted and Manufactured in USA

Date: 7/23/2007  
 Customer No: 000191  
 Bill of Lading No: 0000119461  
 MTR #: 0000119025

Ship to:  
 Triad Metals International  
 Triad Customer P/U  
 Attn: Sally

Bill to:  
 TRIAD METALS INTERNATIONAL  
 A-1 2300 Campbell Avenue  
 Willow Grove, PA 19090  
 Attn: Fred Whittip

MECHANICAL		Tension Testing Results			Elongation			Charpy Impact Testing Results					
Item	Test	Yield (Fy) Strength ksi/MPa	Tensile Strength ksi/MPa	Fy/Fu	Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Test	Temp F/C	Sample 1 ft. lb/ftoules	Sample 2 ft. lb/ftoules	Sample 3 % Shear	ASTM Grain Size No (per ASTM E112)
1	1	50/345	66/454	.76	24			1					
1	2	53/368	73/507	.73	22			2					
2	1	50/345	66/454	.76	24			1					
2	2	53/368	73/507	.73	22			2					
3	1	52/361	67/462	.78	22			1					
3	2	59/404	74/512	.80	21			2					
4	1	62/427	76/525	.82	26			1					
4	2	60/412	75/520	.80	28			2					
5	1	57/396	73/501	.78	26			1					
5	2	53/369	71/486	.75	26			2					
6	1	56/388	69/474	.81	26			1					
6	2	54/373	71/491	.76	27			2					

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser (signaled).

Signed:   
 Quality Assurance

State of Indiana, County of Whitley

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_  
 Notary Public

My commission expires: \_\_\_\_\_

Special Comments/Information:

CHAPARRAL STEEL  
CERTIFIED MATERIAL TEST REPORT  
CHAPARRAL STEEL  
300 Ward Rd.  
Midlothian, TX  
76065-9651  
(972) 775-8241

Order Date: 04/18/2007  
PC No: C21395  
Mill Order No: 3291717  
Load No: 1114877  
Manifest No: 1827962

Ship To: 1  
INFRA-METALS CORPORATION-CT R  
DIV PREUSSAG INTERNATIONAL CO  
8 PENT HIGHWAY  
TRACK# 953  
WALLINGFORD  
CT  
US  
06492

GRADE: 992/572-50  
LENGTH: 40 FT / 12.192 M  
PRODUCT: QE BEAMS

SIZE: W 24 X 55# / W610 X 82  
SPECIFICATION: ASTM A6-05a, A992-06a, A572-06  
HEAT NO: 30362990

CHEMICAL ANALYSIS

C	Mn	P	S	SI	Cu	Ni	Cr	Mo	Sn	V	Al	Nb	CE
.08	1.08	.013	.036	.23	.40	.11	.11	.023	.018	.003	.003	.020	.32

PHYSICAL PROPERTIES

Yield Strength	Tensile Strength	Specimen Area	Elongation	Red Test	ROA
KSI	KSI	Sq In	%	Din. Result	%
55.8	71.1	0.758	24.9	8In	200 mm
56.0	72.3	0.761	24.1	8In	200 mm

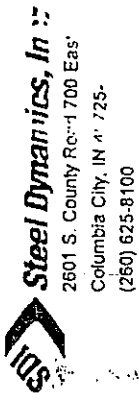
HT 30362990 is used to fab item. B564

All manufacturing processes of this product, including electric arc melting and continuous casting occurred in the U.S.A. CMTR complies with DIN EN 10204 3.1.B

"I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements."

Signed: Tom L. Harrington Date: Jun. 01, 2007 Signed: Notary Public (if applicable) Date: \_\_\_\_\_  
Tom L. Harrington: Quality Assurance Manager Page: 26 of 41





2601 S. County Road 1700 East  
Columbia City, IN 47525  
(260) 625-8100

**Certified Mill Test Report**  
100% Melted and Manufactured in USA

Date: 1/14/2007  
Customer No: 000191  
Bill of Lading No: 0000118729  
MTR #: 0000118302

SHIP TO: TRIAD METALS INTERNATIONAL  
21200 Highway 100  
Whisper, MO 64889  
Attn: Sally

Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
020902536	W21X62	44' 0"	1	A034653	A992 / A992M A709 q50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 05	459
020902071	W24X94	43' 6"	2	B034476	A992 / A992M A709 q50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 05	459
020902073	W24X94	43' 6"	2	B034476	A992 / A992M A709 q50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 05	459
020902113	W24X94	43' 6"	1	B034477	A992 / A992M A709 q50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 05	459
020906203	W21X62	44' 0"	4	A034635	A992 / A992M A709 q50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 05	459
020906434	W21X62	44' 0"	4	A034653	A992 / A992M A709 q50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 05	459

**MICAL**

C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	C1	C2	C3	Analysis
0.08	1.17	0.012	0.036	0.27	0.32	0.034	0.070	0.13	0.04	0.12	0.09	0.0004	0.33	0.380	0.18-0.10	HEAT
0.07	1.35	0.017	0.028	0.22	0.50	0.046	0.130	0.13	0.04	0.16	0.10	0.0003	0.38	0.420	0.18-0.10	HEAT
0.07	1.35	0.017	0.028	0.22	0.50	0.046	0.130	0.13	0.04	0.16	0.10	0.0003	0.38	0.420	0.18-0.10	HEAT
0.07	1.35	0.020	0.038	0.20	0.49	0.043	0.120	0.12	0.03	0.14	0.10	0.0003	0.38	0.410	0.18-0.10	HEAT
0.08	1.15	0.016	0.038	0.25	0.40	0.035	0.120	0.12	0.05	0.15	0.09	0.0004	0.34	0.390	0.18-0.10	HEAT
0.08	1.17	0.012	0.036	0.27	0.32	0.034	0.070	0.13	0.04	0.12	0.09	0.0004	0.33	0.380	0.18-0.10	HEAT

**HANICAL**

Test	Yield (Fy)			Tensile (Fu)			Elongation (%)			Charpy Impact Testing Results		
	ksi/MPa	ksi/MPa	ksi/MPa	ksi/MPa	ksi/MPa	ksi/MPa	8" gauge	8" gauge	8" gauge	Sample 1	Sample 2	Sample 3
1	55/376	75/519	73	73	73	73	24	24	24	ft. lb/joules	ft. lb/joules	ft. lb/joules
2	62/431	77/533	81	81	81	81	22	22	22	ft. lb/joules	ft. lb/joules	ft. lb/joules
3	59/408	76/521	78	78	78	78	18	18	18	ft. lb/joules	ft. lb/joules	ft. lb/joules

Verify that the contents of this report are accurate and that all tests and operations performed by this material producer are in compliance with the requirements of the applicable specifications and applicable purchaser designated.

Date of Whitley: \_\_\_\_\_  
Whitley: \_\_\_\_\_  
Signed: \_\_\_\_\_  
My commission expires: \_\_\_\_\_

Specimen Comments/Information: HT B034476 is used to fab item: B4S4

Quality Assurance: \_\_\_\_\_

Load #:

15

Shipping Date:

Waybill #: 898-15

Customer:	Pizzagalli Construction Company	Prepared By:	Approved By:	Date: 24-01-01
Job Title:	84 Marginal Way	Job Progress Report Sheet		1010 Route 430 Big River Road L2A 6P9
Date Sent to Shop:	X			
Job Number:	898	X	SHEET: 1	

Attach.	Material	Qty	Weight	Paint		Galv	Camber	Level	Fined		Mk. Insp.		Punch Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped				
				By	Date				By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	
A	W08X15	0	B402	6	1848																						
A	W12X19	0	B411	1	173																						
A	W14X22	0	B414	1	553																						
A	W18X35	0	B420	1	1613																						
A	W18X35	0	B422	1	626																						
A	W16X26	0	B423	1	562																						
A	W21X44	0	B425	1	1768																						
A	W21X55	0	B427	6	14813																						
A	W21X44	0	B430	1	1891																						
A	W21X44	0	B431	1	1891																						
A	W21X44	0	B434	1	1847																						
A	W24X62	0	B442	1	2507																						
A	W24X68	0	B443	1	2082																						
A	W24X68	0	B452	1	2035																						
A	W24X68	0	B453	1	3888																						
A	W16X26	0	B454	1	998																						
A	W18X35	0	B456	1	734																						
A	W24X62	0	B459	1	3772																						
II	W21X55	0	B468	1	2374																						
II	W21X55	0	B469	1	2373																						

Pieces 30 48348 Total Weight(Lbs) ( 24.2 TONS)



Load #: 15

Customer: Pizzagalli Construction Company  
 Job Title: 84 Marginal Way  
 Date Sent to Shop: X  
 Job Number: 898

Job Progress Report Sheet

SHEET: 2

Prepared By: Approved By: Date: 21-01-01

Bathurst Machine Shop Ltd.  
 Mandate Erectors & Welding Ltd.  
 MQM Ltd., Traralgon  
 1010 Route 430  
 Big River Road  
 E2A 6P9

Form#12 Rev.-1

SLE SHOP DWG C' COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped				
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date
A	W24X62	0	B472	1	3771																							
II	W08X15	0	B473	1	224																							
II	W08X15	0	B474	1	224																							
II	W08X15	0	B475	1	224																							
A	W21X101	0	B476	1	6434																							
A	W12X19	0	B479	1	618																							
A	W12X19	0	B480	1	516																							
A	W12X19	0	B487	1	454																							
A	W12X19	0	B488	1	39																							
A	W08X35	0	B490	1	1341																							
A	U.S.S. 8X8X5/8	0	D304	1	411																							
A	U.S.S. 6X6X1/2	0	D307	4	1600																							
A	U.S.S. 6X6X1/2	0	D308	4	1752																							
A	C6X8.2	0	M325A	1	287																							

Pieces 20 17675 Total Weight (Lbs) ( 8.8 TONS)

P.O: 32912

COPPERWELD CANADA INC.  
14 HOLTBY AVENUE  
BRAMPTON, ONTARIO L5X 2M3  
CANADA



Customer Order No. 87827  
Internal Order No. 536796  
Invoice No. 17049030

TEST REPORT

HT# 6469T is used to lab items D307, D308

Customer:	Specification: 6 IN, SQ, 1/2 48 Ft CSA G40.21
-----------	--

HEAT NO.	CHEMICAL ANALYSIS, %											
	C	Mn	P	S	SI	AL	CB	V	CU	NI	CR	
6469T C.E. .33	.18	.86	.011	.005	.22	.034	.005	.03	.020	.010	.020	

MECHANICAL PROPERTIES

HEAT NO.	LAB NO.	YIELD STRENGTH PSI	TENSILE STRENGTH PSI	ELONGATION %	HARDNESS R5
6469T	7	71300	87300	34	

YIELD STRENGTH IS 0.2% OFFSET - ELONGATION IN 2 INCHES

Other Tests

LTV Copperweld certifies that the material purchased on this order meets all chemical and physical requirements in accordance with the latest applicable ASTM standards.

*Jim Clark*  
JIM CLARK, METALLURGIST

Atlas Tube Canada ULC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 NOR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537

Ref.B/L: 80263316  
 Date: 10.24.2007  
 Customer: 1751



**MATERIAL TEST REPORT**

Sold to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Shipped to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

*1111552766 is used to fab item D304*

Material: 8.0x8.0x625x50"0(2x1),  
 Sales order: 335491  
 Material No: 80080625  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002
Bundle No	Yield	Tensile		Eln.2in		Certification							
M200482103	063150 Psi	076440 Psi		34.3 %		ASTM A500-03A GRADE B&C							

Material Note:  
 Sales Or.Note:

Material: 8.0x8.0x625x50"0(2x1),  
 Sales order: 335491  
 Material No: 80080625  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002
Bundle No	Yield	Tensile		Eln.2in		Certification							
M200482102	063150 Psi	076440 Psi		34.3 %		ASTM A500-03A GRADE B&C							

Material Note:  
 Sales Or.Note:

Material: 10.0x10.0x625x13"0(2x2),  
 Sales order: 335491  
 Material No: 100100625  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
583750	4	0.200	0.810	0.011	0.002	0.160	0.034	0.015	0.006	0.002	0.007	0.022	0.002
Bundle No	Yield	Tensile		Eln.2in		Certification							
M200483575	054920 Psi	073670 Psi		38.5 %		ASTM A500-03A GRADE B&C							

Material Note:  
 Sales Or.Note:

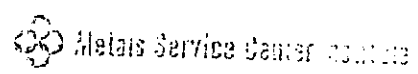
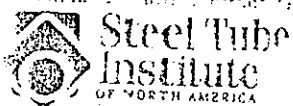
Material: 10.0x10.0x625x13"0(2x2),  
 Sales order: 335491  
 Material No: 100100625  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
583750	4	0.200	0.810	0.011	0.002	0.160	0.034	0.015	0.006	0.002	0.007	0.022	0.002
Bundle No	Yield	Tensile		Eln.2in		Certification							
M200483574	054920 Psi	073670 Psi		38.5 %		ASTM A500-03A GRADE B&C							

Material Note:  
 Sales Or.Note:

Authorized by Quality Assurance: *[Signature]*

The results reported in this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specifications and contract requirements.



BUCCOR STEEL - BERKELEY  
 P.O. Box 2259  
 Mt. Pleasant, S.C. 29464  
 Phone: (843) 336-6000

MILL TEST REPORT

100% MELTED AND MANUFACTURED IN THE USA  
 All beams produced by Nucor-Forkley are cast and  
 rolled to a fully killed and fine grain practice.

Sold To: INFRA METALS CORP - CT  
 8 PENN HIGHWAY  
 WALLINGFORD, CT 06492

SHIP To: INFRA METALS CORP - CT  
 8 PENN HIGHWAY  
 WALLINGFORD, CT 06492

Customer No: 502 1

W.O.L. H. ... 61266

SPECIFICATIONS: Tested in accordance with ASTM specification A666 and A370.  
 AASSTO: M270-36-00/M270-50-00  
 RSMF: SR-36  
 ASIM: R992-06//A36-05/A572-06-50/A709-06A36/A709-06A36/A709-145M  
 CSA: CSN-44W/640-21-50W

Description	Heat	Grade(s)	Yield/ Tensile Ratio	Yield (MPa)	Tensile (MPa)	Elong %	C	Cr	Mn	P	S	SI	Ch	NI	CFI
W8X13	040' 00.00'	A992-06	.83	58700	70400	27.10	.0720	.0250	.0170	.0110	.0220	.2160	.0870	.0360	.2317
W200X19.3	012.1920m	A992-06	.83	58200	70400	27.46	.0230	.0010	.0009	.0010	.0010	.0040	.0270	.6653	.2711
W8X13	050' 00.00'	A992-06	.84	57600	68800	20.30	.0630	.0250	.0160	.0086	.0209	.2160	.0650	.0270	.2161
W200X19.3	015.2400m	A992-06	.83	57500	69100	27.79	.0013	.0013	.0002	.0005	.0011	.0036	.0266	.1428	.2577
W8X15	030' 00.00'	A992-06	.83	59300	71700	26.01	.0630	.0240	.0102	.0275	.0275	.2030	.1100	.0336	.2151
W200X22.5	009.1440m	A992-06	.84	60600	72400	26.86	.0074	.0019	.0003	.0009	.0041	.0035	.0253	.0739	.2560
W8X15	040' 00.00'	A992-06	.84	57800	69000	26.21	.0660	.0370	.0190	.0056	.0238	.1740	.1080	.0330	.2294
W200X22.5	012.1920m	A992-06	.83	57300	69400	27.45	.0005	.0110	.0000	.0013	.0015	.0034	.0250	.1744	
W8X15	050' 00.00'	A992-06	.84	57500	68500	29.23	.0650	.0190	.0060	.0276	.0276	.2400	.0700	.0280	.2127
W200X22.5	015.2400m	A992-06	.83	56400	67900	27.96	.0007	.0112	.0000	.0038	.0039	.0031	.0269	.1380	
				389	468		19 piece(s)					.0059	.0000	2.2340	.1332

Elongation based on 8" (20.32cm) gauge length. No cold chiller was performed. HG free and no contact with rig during manufacture.  
 CT = 26.01Cu+3.88Ni+1.20Cr+1.49Si+17.28P-(7.29CuXSi)-9.10Mn+P-33.39(CuXCu)  
 Pcm = C+(Si/30)+(Mn/20)+(Cu/20)+(Ni/60)+(Cr/20)+(Mo/15)+(V/10)+S  
 CE2 = C+((MnSi)/6)+((Cr+Mo+V)/5)+((NiCu)/15)  
 I hereby certify that the contents of this report are accurate and correct. All test results and operations performed by the material manufacturer are in compliance with material specifications, and when designated by the purchaser, meet applicable specifications.  
 Bruce A. Work  
 Metallurgist  
 (State of South Carolina)  
 (County of Berkeley)  
 Sworn and subscribed before me  
 day of \_\_\_\_\_

HT #1706192 is used to fab items: b462

b473  
 b474  
 RATES



BUCOR STEEL - BERKELEY  
 P.O. Box 2259  
 Mc. Pleasant, S.C. 29464  
 Phone: (843) 336-6000

MILL TEST REPORT

9/09/07 3:47:18  
 100% MELTED AND MANUFACTURED IN THE USA  
 All beams produced by Nucor Steel are cold and  
 rolled to a fully killed and fine grain structure.

Sold To: INFRA METALS CORP - CI  
 8 DENI HIGHWAY  
 WALLINGFORD, CT 06492

Ship To: INFRA METALS CORP - CI  
 8 DENI HIGHWAY  
 WALLINGFORD, CT 06492

Customer: 581-1  
 Customer ID: 021308  
 D.O.C. #: 430655

SPECIFICATIONS: Tested in accordance with ASTM specification A6/6M and A370.  
 ASTM: M270-36-00/A270-50-00  
 SHS: SA-36 04  
 ASTM: A992-06a://A36-05/A372-06-50/A709-06a36/A709-07 50/A709-345M  
 CSA: CSA-44W/C40.21-50W

Description	Heath Grade(s) Test	Yield/Tensile Ratio	Yield (PSI) (MPa)	Tensile (PSI) (MPa)	Elong %	C		Mn		P		S		Si		Cu		Ni	CEI
						Gr	Ph	Mo	Ti	Sn	Ca	B	N	V	Nb	Zr	XXYY		
W12x19	2708129	.82	59100	71800	24.99	.070		.8660		.0660		.0279		.2150		.0780		.0347	.2367
030' 00.00'	A992-06a		407	495		.0270		.0190		.0051		.0026		.0034		.0307		.0267	.2767
W310x28.3	59700	.83	59700	72200	26.34	.0004		.0011		.0000		.0006		.0045		.0000		2.3029	.1336
009.1440m	412		498			R	pieces(s)												
W12x19	3619532	.83	56900	68700	25.93	.0660		.8910		.0077		.0223		.1820		.1000		.1390	.2212
030' 00.00'	A992-06a		392	474		.0260		.0250		.0046		.0043		.0030		.0315		.0297	.2707
W310x28.3	56900	.83	56900	68800	24.44	.0057		.0018		.0012		.0000		.0080		.0000		2.0011	.1253
009.1440m	392		474			R	pieces(s)												
W12x19	2619529	.83	57700	69600	26.70	.0650		.8010		.0179		.0253		.2210		.1340		.1390	.2212
030' 00.00'	A992-06a		398	480		.0340		.0180		.0072		.0024		.0036		.0264		.0264	.2733
W310x28.3	57100	.83	57100	68800	26.14	.0029		.0013		.0000		.0010		.0060		.0000		3.0028	.1379
009.1440m	394		474			24	pieces(s)												
W12x19	1713152	.80	54800	68600	27.34	.0680		.8790		.0075		.0283		.2280		.1260		.1370	.2363
040' 00.00'	A992-06a		378	473		.0290		.0220		.0056		.0025		.0140		.0140		.0140	.2771
W310x28.3	54900	.80	54900	68500	28.73	.0012		.0021		.0000		.0009		.0055		.0090		3.3716	.1341
012.1920m	379		472			120	pieces(s)												
W12x19	2713149	.81	54800	68000	28.19	.0670		.8190		.0096		.0316		.2110		.1330		.1459	.2368
040' 00.00'	A992-06a		378	469		.0330		.0210		.0059		.0018		.0030		.0130		.0130	.2645
W310x28.3	53400	.79	53400	67800	28.10	.0034		.0016		.0004		.0012		.0051		.0090		3.5157	.1315
012.1920m	368		467			40	pieces(s)												

Elongation based on 8" (20.32cm) gauge length. No weld repair was performed.  
 CI = 26.01(Cu)+3.88Ni+1.20Cr+1.49Si+17.28P+(7.29CuW)+1.91Mn+P+33.39(CuXcu)  
 PCm = C+(Si)/30+(Mn)/20+(Cu)/20+(Ni)/60+(Cr)/20+(Mo)/15+(V)/10+58  
 CEI = C+(Mn)/6+(Cr)/6+(Si)/5+(Ni)/15  
 CE2 = C+(Mn)/6+(Cr)/6+(Si)/5+(Ni)/15  
 I hereby certify that the contents of this report are accurate and correct. All test results and operations performed by the material manufacturer are in compliance with material specifications, and when designated by the purchaser, meet applicable specifications.  
 Bruce A. Work  
 Metallurgist  
 (State of South Carolina)  
 (County of Berkeley)  
 Sworn and subscribed before me  
 day of \_\_\_\_\_

HT #1713152 is used to fab items: B411 B481  
 B479 B488  
 B480

NUCOR STEEL - BERKELEY  
 P.O. Box 2753  
 Mc. Pleasant, S.C. 29464  
 Phone: (843) 336-6000

Sold To: INFRA METALS CORP - CT  
 8 PENT HIGHWAY  
 WALLINGFORD, CT 06492

SHIP TO: INFRA METALS CORP - CT  
 8 PENT HIGHWAY  
 WALLINGFORD, CT 06492

MILL TEST REPORT

4/25/02 11:38:57  
 100% MELTED AND MANUFACTURED IN THE USA  
 All beams produced by Nucor-Berkeley are 100% and  
 rolled to a fully killed and fine grain product.

Customer # : 507 - 1  
 Customer P# : C20919  
 B.L.L. # : 413622

SPECIFICATIONS: Tested in accordance with ASTM Specification A6/A6M and A370.  
 PART: M270-36-00/M270-50-00  
 NSM: SA-36  
 ASTM: A992-06//A36-05/A572-05-50/A709-06/A36/A709-06A572-05-50/A709-06A572-05-50  
 CSA: CSA-44W/C40.21-50W

Description	Heat Grade(s)	Yield Test	Tensile Ratio	Yield (PSI)	Tensile (MPa)	Elong %	C	Mn	P	S	SI	Cu	Ni	CI
				(MPa)	(MPa)		Pb	TI	Ca	NI	N	Nb	TI	CI
W14x22	050' 00.00'	2706512	.84	59200	70200	24.51	.0690	.0290	.0077	.0373	.2490	.0900	.0360	.63
	W360X32.9	A992-06	.86	61300	71300	25.09	.0310	.0190	.0053	.0016	.0038	.0281	.034	.34
	015.2400m	423		423	492		.0031	.0016	.0000	.0015	.0048	.0000	.0000	.144
							21	Pieces(s)						
W14x22	050' 00.00'	1706614	.84	57200	67900	26.40	.0660	.0610	.0087	.0315	.1820	.0910	.0330	.792
	W360X32.9	A992-06	.85	58200	68800	26.18	.0300	.0180	.0056	.0009	.0043	.0296	.0245	.45
	015.2400m	401		474			.0055	.0014	.0000	.0014	.0055	.0000	.0000	.107
							21	Pieces(s)						
W14x22	050' 00.00'	1705855	.81	53000	65800	26.34	.0690	.0610	.0126	.0140	.2050	.0690	.0260	.69
	W360X32.9	A992-06	.81	54200	66800	28.64	.0190	.0180	.0046	.0032	.0039	.0120	.035	.35
	015.2400m	374		374	461		.0055	.0014	.0002	.0002	.0055	.0000	.0000	.51
							65	Pieces(s)						
W14x22	050' 00.00'	1706616	.81	53000	67800	27.75	.0690	.0440	.0139	.0344	.2170	.1870	.0490	.50
	W360X32.9	A992-06	.81	54700	67500	27.81	.0720	.0270	.0070	.0030	.0030	.0117	.043	.43
	015.2400m	377		377	465		.0055	.0017	.0003	.0006	.0060	.0000	.0000	.4633
							47	Pieces(s)						.772

Flangeation based on 8" (20.32cm) gauge length. No Weld Repair was performed.  
 CI = 26.01(Cu+3.88Ni+1.20Cr+1.49Si+17.28P-7.29Cu)/100  
 PCW = C+((Si/30)+(Mn/20)+(Cu/20)+(Ni/60)+(Cr/20)+(Mn/15)+(V/10))/58  
 CE1 = C1((Mn/6)+((Cr+Mo+V)/5))+((Ni+Cu)/15)  
 CE2 = C1((Mn+Si)/6)+((Cr+Mo+V)/5)+((Ni+Cu)/15)  
 I hereby certify that the contents of this report are accurate and correct. All test results and operations performed by the material manufacturer are in compliance with material specifications, and when designated by the purchaser, meet applicable specifications.

George A. Work  
 Metallurgist

HT # 1705855 is used for job from B414



CARRETERA TOLEDO, KM. 9  
28021 MADRID  
TELEF. (91) 797.23.00 - FAX (91) 505.02.57



### QUALITY CERTIFICATE

APS 5393

DISCHARGE ADDRESS		CUSTOMER	
ARCELOR INTERNATIONAL AMERICA, INC. 350 HUDSON STREET 4TH FLOOR NEW YORK, NY 10014 EE.UU.		ARCELOR INTERNATIONAL AMERICA, INC. 350 HUDSON STREET 4TH FLOOR NEW YORK, NY 10014 EE.UU.	
SHIPPED AND CERTIFIED BY		PORT OF LOADING	
ACERALIA PERFILES OLABERRIA, S.L. CARRETERA MADRID - IRUN, KM. 419 20212 OLABERRIA (Guipúzcoa) TELEF. (943) 80.50.00 - FAX (943) 88.04.04		80	PASAJES, SPAIN
		PORT OF DISCHARGE	VESSEL
		NEW HAVEN, CT	ACACIA
OUR REFERENCE	CONTRACT NUMBER	ORDER NUMBER	DATE
MERCHE	E-14284 LOT 4	3° TRIM. 05	30/09/2005

MATERIAL: AMERICAN WIDE FLANGE BEAMS W, AS PER ASTM TRI-CERT. ASTM A36/ASTM A 572 GR 50  
CSA G. 40.21 50 W / ASTM A992.

MARKINGS: SIZE / QUALITY / WEIGHT / HEAT NO. / ORDER NO. / COLOR MARKINGS / MADE IN SPAIN.

SIZE	LENGTH	BUNDLES	PIECES BUNDLES	TOTAL PIECES	WEIGHT BUNDLES	TOTAL WEIGHT	HEAT
10042526 - P.O. C17922 + / GREEN / WHITE							
WF BEAMS 8x24 LBS/FT	30'	3	10	30	3266	9.798	54969,54971,54972
WF BEAMS 8x24 LBS/FT	35'	3	10	30	3811	11.433	54977
WF BEAMS 8x24 LBS/FT	40'	9	10	90	4355	39.195	54957,54958,54959,54960,54982,54984
WF BEAMS 8x24 LBS/FT	45'	4	10	40	4899	19.596	54966,54973,54976
WF BEAMS 8x24 LBS/FT	50'	7	8	56	4355	30.485	54957,54958,54959
WF BEAMS 8x24 LBS/FT	55'	2	8	16	4790	9.580	54963
WF BEAMS 8x24 LBS/FT	60'	2	8	16	5226	10.452	54972,54973
WF BEAMS 8x28 LBS/FT	30'	3	10	30	3810	11.430	54990
WF BEAMS 8x28 LBS/FT	35'	2	10	20	4445	8.890	54988
WF BEAMS 8x28 LBS/FT	40'	4	10	40	5080	20.320	54991
WF BEAMS 8x28 LBS/FT	45'	4	8	32	4572	18.288	54988,54989,54990
WF BEAMS 8x28 LBS/FT	50'	4	8	32	5080	20.320	54993,54994
WF BEAMS 8x28 LBS/FT	55'	4	6	24	4191	16.764	54988,54989
WF BEAMS 8x28 LBS/FT	60'	3	6	18	4572	13.716	54970
WF BEAMS 16x26 LBS/FT	30'	14	6	84	2123	29.722	54668,54770,54786,54787,54788
WF BEAMS 16x26 LBS/FT	32'	4	6	24	2264	9.056	54669
WF BEAMS 16x26 LBS/FT	35'	8	6	48	2476	19.808	54777,54782,54785,54786
WF BEAMS 16x26 LBS/FT	40'	14	6	84	2830	39.620	54666,54770,54773,54783,54789

111#54788 is used to fab. items: B423  
B454



**QUALITY CERTIFICATE**

**APS 5393**

SIZE	LENGTH	BUNDLES	PIECES BUNDLES	TOTAL PIECES	WEIGHT BUNDLES	TOTAL WEIGHT	HEAT
WF BEAMS 16x26 LBS/FT	45'	9	6	54	3184	28.656	54784,54785
WF BEAMS 16x26 LBS/FT	50'	11	6	66	3538	38.918	54786,54787,54789
WF BEAMS 16x26 LBS/FT	55'	5	6	30	3892	19.460	54775
WF BEAMS 16x26 LBS/FT	60'	12	6	72	4245	50.940	54667,54668,54669,54770
WF BEAMS 16x31 LBS/FT	30'	12	6	72	2531	30.372	54777,54796,54797
WF BEAMS 16x31 LBS/FT	32'	7	6	42	2700	18.900	54790,54795
WF BEAMS 16x31 LBS/FT	35'	10	6	60	2953	29.530	54780,54781
WF BEAMS 16x31 LBS/FT	40'	9	6	54	3375	30.375	54777,54792,54793,54796
WF BEAMS 16x31 LBS/FT	45'	5	6	30	3796	18.980	54780,54781
WF BEAMS 16x31 LBS/FT	50'	7	6	42	4218	29.526	54778,54779
WF BEAMS 16x31 LBS/FT	55'	3	6	18	4640	13.920	54789
WF BEAMS 16x31 LBS/FT	60'	6	6	36	5062	30.372	54793,54794

TOTAL BUNDLES 190 TOTAL WEIGHT 678.422 Kg.

A02 EN 10204/3.1.B CSA G40.21 50W/ASTM A36-04/A572 G50-04/A992-04/A6-04 (801/902/903) A03

COLADA HEAT	COMPOSICION QUIMICA (%) CHEMICAL COMPOSITION (%)																	
	C	Mn	Si	P	S	V	Cr	Ni	Mo	Cu	Nb	CEV						
54666	.080	1,210	.170	.019	.031	.003	.100	.120	.025	.450	.025	.35						
54667	.090	1,270	.150	.019	.032	.003	.080	.130	.025	.480	.021	.36						
54668	.080	1,250	.150	.016	.031	.003	.080	.140	.025	.490	.023	.35						
54669	.090	1,190	.200	.021	.031	.003	.100	.100	.019	.500	.026	.35						
54770	.097	1,230	.220	.019	.028	.002	.170	.300	.048	.500	.024	.40						
54773	.090	1,220	.210	.017	.021	.003	.140	.180	.045	.500	.022	.38						
54775	.090	1,140	.200	.021	.029	.003	.170	.190	.049	.520	.027	.37						
54777	.090	1,150	.180	.018	.023	.003	.150	.200	.050	.540	.025	.37						
54778	.090	1,130	.180	.018	.020	.003	.160	.200	.053	.530	.021	.37						
54779	.100	1,190	.180	.021	.028	.003	.140	.210	.054	.530	.024	.39						
54780	.090	1,130	.200	.017	.024	.003	.140	.200	.051	.530	.021	.37						
54781	.100	1,110	.170	.019	.032	.003	.170	.190	.047	.510	.020	.38						
54782	.110	1,200	.210	.033	.014	.003	.200	.170	.042	.530	.022	.41						
54784	.120	1,130	.210	.027	.015	.003	.210	.190	.049	.550	.021	.41						
54785	.100	1,120	.210	.023	.015	.003	.190	.180	.048	.540	.022	.38						
54786	.080	1,210	.200	.018	.014	.003	.160	.190	.047	.530	.021	.37						
54787	.080	1,210	.160	.016	.016	.003	.150	.190	.047	.540	.020	.37						
54788	.080	1,240	.200	.018	.022	.003	.130	.200	.050	.520	.020	.37						
54789	.100	1,250	.180	.015	.019	.003	.140	.200	.050	.540	.022	.40						
54790	.100	1,240	.190	.023	.019	.003	.180	.200	.050	.510	.026	.40						
54792	.100	1,220	.180	.014	.020	.003	.170	.200	.051	.550	.023	.40						
54793	.110	1,140	.180	.014	.024	.003	.150	.190	.044	.510	.022	.39						
54794	.100	1,170	.180	.022	.024	.003	.160	.190	.045	.520	.023	.38						
54795	.110	1,180	.170	.019	.031	.003	.150	.200	.046	.530	.022	.40						
54796	.090	1,210	.190	.016	.023	.003	.140	.180	.043	.510	.023	.37						

**QUALITY CERTIFICATE**

**APS 5393**

COLADA HEAT	COMPOSICION QUIMICA (%) CHEMICAL COMPOSITION (%)																	
	C	Mn	Si	P	S	V	Cr	Ni	Mo	Cu	Nb	CEV						
54797	,080	1,130	,200	,020	,030	,003	,150	,170	,034	,490	,025	,35						
54957	,110	1,190	,190	,014	,024	,003	,130	,160	,034	,490	,020	,39						
54958	,100	1,210	,220	,016	,023	,003	,140	,140	,031	,470	,021	,38						
54959	,110	1,230	,220	,023	,022	,003	,150	,130	,026	,460	,019	,39						
54960	,110	1,220	,230	,027	,022	,003	,200	,120	,025	,470	,020	,40						
54963	,110	1,200	,210	,031	,021	,003	,190	,110	,021	,520	,021	,39						
54966	,100	1,190	,210	,032	,026	,003	,160	,120	,025	,510	,021	,38						
54969	,110	1,200	,220	,020	,028	,003	,110	,110	,024	,500	,022	,38						
54970	,090	1,090	,190	,019	,027	,003	,130	,110	,024	,530	,021	,35						
54971	,110	1,180	,190	,030	,026	,003	,100	,110	,025	,530	,022	,37						
54972	,110	1,210	,200	,021	,028	,003	,100	,120	,025	,450	,021	,38						
54973	,110	1,190	,210	,021	,024	,003	,110	,120	,024	,430	,022	,37						
54976	,110	1,170	,210	,016	,030	,003	,100	,100	,024	,370	,023	,36						
54977	,110	1,210	,200	,013	,026	,003	,090	,100	,032	,330	,023	,37						
54982	,120	1,280	,180	,014	,023	,003	,110	,110	,027	,390	,023	,39						
54984	,110	1,230	,220	,023	,024	,003	,120	,100	,022	,410	,023	,38						
54988	,110	1,160	,190	,028	,024	,003	,140	,100	,022	,410	,023	,37						
54989	,120	1,170	,220	,029	,015	,003	,160	,090	,020	,430	,022	,39						
54990	,110	1,240	,210	,033	,017	,003	,150	,080	,018	,420	,022	,38						
54991	,110	1,210	,210	,022	,017	,003	,130	,090	,019	,430	,022	,38						
54993	,100	1,210	,220	,018	,020	,003	,120	,090	,021	,500	,021	,37						
54994	,100	1,200	,220	,019	,032	,003	,110	,110	,025	,530	,022	,37						

MATERIAL SIZE	COLADA HEAT	PROPIEDADES MECANICAS MECHANICAL PROPERTIES					
		R <sub>m</sub> MPa	R <sub>0,2</sub> MPa	R <sub>0,01</sub> MPa	A <sub>5</sub> %	A <sub>10</sub> %	A <sub>180</sub> %
W-16x26	54666	363	353	547	536	29,8	29,2
W-16x26	54667	376	366	546	534	31,	30,7
W-16x26	54668	422	416	545	544	31,7	31,2
W-16x26	54669	425	425	549	543	31,2	30,1
W-16x26	54770	427	415	546	547	32,6	32,6
W-16x26	54773	361	360	539	538	29,2	28,4
W-16x26	54775	399	395	539	517	33,9	33,8
W-16x26	54777	424	412	544	542	27,8	27,6
W-16x26	54782	396	392	543	536	28,4	28,1
W-16x26	54784	375	369	544	540	30,2	29,7
W-16x26	54785	384	370	545	547	28,6	28,4
W-16x26	54786	369	367	549	529	29,1	28,5
W-16x26	54787	373	363	542	551	29,1	28,5
W-16x26	54788	374	374	548	529	30,2	29,4
W-16x26	54789	385	371	546	538	30,7	29,8
W-16x31	54777	367	357	545	543	29,	28,7
W-16x31	54778	379	365	539	554	28,7	27,8
W-16x31	54779	376	364	546	533	27,9	27,3
W-16x31	54780	380	379	544	556	30,4	29,5
W-16x31	54791	377	371	549	528	28,3	27,7
W-16x31	54789	379	363	548	537	27,1	26,2

## QUALITY CERTIFICATE

**APS 5393**

MATERIAL SIZE	COLADA HEAT	PROPIEDADES MECANICAS MECHANICAL PROPERTIES					
		ReH MPa		Rm MPa		AK J/cm <sup>2</sup>	
W-16x31	54790	381	375	548	539	28,4	28,2
W-16x31	54792	375	373	548	537	30,5	29,4
W-16x31	54793	385	375	545	541	30,1	29
W-16x31	54794	389	385	541	538	30,2	29,4
W-16x31	54795	381	367	541	542	28	27,7
W-16x31	54796	403	397	538	537	32,3	31,3
W-16x31	54797	414	408	545	545	30,7	29,7
W-8x24	54957	399	385	543	527	31,7	30,6
W-8x24	54958	398	384	538	560	31,9	31,3
W-8x24	54959	390	390	546	552	29,1	28,3
W-8x24	54960	402	391	546	534	31	30,7
W-8x24	54963	412	411	549	537	30	29
W-8x24	54966	402	390	523	515	31,4	30,4
W-8x24	54969	386	376	550	533	30,3	30,3
W-8x24	54971	397	397	541	557	29,5	29,1
W-8x24	54972	404	392	548	534	28	27,9
W-8x24	54973	403	397	543	521	33,9	33,1
W-8x24	54976	400	396	507	501	29,4	28,3
W-8x24	54977	418	400	547	542	29,8	29,6
W-8x24	54982	377	375	549	539	30,8	30,1
W-8x24	54984	390	388	544	538	28,7	28,3
W-8x28	54970	383	369	542	549	28,3	27,8
W-8x28	54988	392	384	544	532	31,4	30,6
W-8x28	54989	378	368	546	548	29,5	29,3
W-8x28	54990	383	377	548	540	31,1	30,9
W-8x28	54991	414	400		554	27,9	27
W-8x28	54993	373	371	548	534	29,5	28,5
W-8x28	54994	392	392	528	515	31,7	31,2

**47 análisis**

 D01: Certificamos que los aceros arriba indicados han sido satisfactoriamente probados de acuerdo con la especificación.  
 D06: Marca APO

201

  
 Luis María Lakunza





**Steel Dynamics, Inc.**  
 2301 S County Road 700 East  
 Columbus City, IN 46725-  
 (765) 625-8100

**Certified Mill Test Report**  
 100% Melted and Manufactured in USA

Date: 7/17/2007  
 Customer No: 000191  
 Bill of Lading No: 0000118975  
 MTR #: 0000118546

Ship to:  
 Triad Metals International  
 Triad Customer P/U  
 Attn: Sally

Bill to:  
 TRIAD METALS INTERNATIONAL  
 A-1 2300 Computer Avenue  
 Willow Grove, PA 19090  
 Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specifications(s)	Customer P.O.
1†	020896786	W21X101	41' 6"	2	A034247	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A572/A572M - 06 ASTM A572/A572M - 06	494
2†	020896787	W21X101	41' 6"	2	A034247	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A572/A572M - 06	494
3†	020906653	W21X55	43' 6"	2	A034662	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A572/A572M - 06	459
4†	020906657	W21X55	43' 6"	4	A034662	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A572/A572M - 06	459
5†	020906658	W21X55	43' 6"	4	A034662	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A572/A572M - 06	459

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1*	.08	1.15	.015	.032	.21	.36	.033	.070	.09	.02	.015	.011	.0003	.00	.32	0.3:00	0.1700	HEAT
2*	.08	1.15	.015	.032	.21	.36	.033	.070	.09	.02	.015	.011	.0003	.00	.32	0.3:00	0.1700	HEAT
3*	.07	1.04	.011	.029	.20	.35	.023	.070	.11	.04	.022	.008	.0003	.00	.30	0.3:00	0.1600	HEAT
4*	.07	1.04	.011	.029	.20	.35	.023	.070	.11	.04	.022	.008	.0003	.00	.30	0.3:00	0.1600	HEAT
5*	.07	1.04	.011	.029	.20	.35	.023	.070	.11	.04	.022	.008	.0003	.00	.30	0.3:00	0.1600	HEAT

**MECHANICAL**

Item	Test	Yield (FY) Strength ksi/MPa	Tensile (FU) Strength ksi/MPa	Fy/Fu	Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp F/C	Sample 1 ft. lb/ftoules	Sample 2 ft. lb/ftoules	Sample 3 ft. lb/ftoules	% Shear	ASTM Grain Size No (per ASTM E112)
1	1	58/401	71/489	.82	26		Test	1					
1	2	59/409	72/499	.82	24		Test	2					
2	1	58/401	71/489	.82	26		Test	1					

**Tension Testing Results**

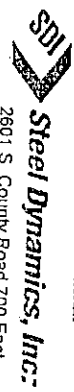
**Charpy Impact Testing Results**

State of Indiana, County of Whitley  
 Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
 Signed: \_\_\_\_\_ Notary Public \_\_\_\_\_  
 My commission expires: \_\_\_\_\_

Special Comments/Information:  
 HT#A034247 is used to  
 for item: B476

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Quality Assurance  
 gned: \_\_\_\_\_



2601 S County Road 700 East  
Columbia City, IN 46725  
(260) 625-8100

**Certified Mill Test Report**  
100% Melted and Manufactured in USA

Date: 7/23/2007  
Customer No: 000191  
Bill of Lading No: 0000119461  
MTR #: 0000119025

Ship to:  
Triad Metals International  
Triad Customer P/U  
Attn: Sally

Bill to:  
TRIAD METAL  
A-1 2300 Centre  
Willow Grove  
Attn: Fred Webb  
INTERNATIONAL  
Avenue  
19090

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1†	020908432	W21X44	42' 0"	4	A034738	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 06a ASTM A709/A709M - 05a ASTM A572/A572M - 05 ASTM A6/A6M	495
2†	020908437	W21X44	42' 0"	4	A034738	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 06a ASTM A709/A709M - 05a ASTM A572/A572M - 05 ASTM A6/A6M	495
3†	020908539	W21X44	42' 0"	4	A034729	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 06a ASTM A709/A709M - 05a ASTM A572/A572M - 05 ASTM A6/A6M	495
4†	020908578	W21X44	42' 0"	4	A034727	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 06a ASTM A709/A709M - 05a ASTM A572/A572M - 05 ASTM A6/A6M	495
5†	020908643	W21X44	42' 0"	4	A034743	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 06a ASTM A709/A709M - 05a ASTM A572/A572M - 05 ASTM A6/A6M	495
6†	020908707	W21X44	42' 0"	4	A034745	A992 / A992M A709 g50S/g345S A572 g150/g1345	ASTM A992/A992M - 06a ASTM A709/A709M - 05a ASTM A572/A572M - 05 ASTM A6/A6M	495

HT # A034727 is used to find items. B425 B430 B431 B434

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this metallurgical manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

State of Indiana, County of Whitley

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_ Notary Public

Quality Assurance

My commission expires: \_\_\_\_\_

Special Comments/Informa...

Analysis:  
HEAT  
HEAT  
HEAT  
HEAT  
HEAT  
HEAT  
HEAT



**Steel Dynamics, Inc.**  
 2801 S. County Road 700 East  
 Columbia City, IN 46725  
 (219) 625-8100

**Certified Mill Test Report**  
 100% Milled and Manufactured in USA

Date: 7/23/2007  
 Customer No: 000191  
 Bill of Lading No: 0000119461  
 MTR #: 0000119025

Ship to  
 Thad Metals International  
 Thad Customer P/U  
 Attn: Sally

Mill #  
 IRIAD METAL  
 A-1 STEEL GROUP  
 Millway Grove  
 Attn Fred White

**MECHANICAL**

**Tension Testing Results**

Item	Test	Yield (Fy) Strength ksi/Mpa	Tensile Strength (Fu) Strength ksi/Mpa	Fy/Fu	Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp F/C	Sample 1 ft. lb/ftoules	Sample 2 ft. lb/ftoules	Sample 3 ft. lb/ftoules	% Shear	ASTM Grain Size No (per ASTM E112)
1	1	50/345	66/454	.76	24								
1	2	53/368	73/502	.73	22								
2	1	50/345	66/454	.76	24								
2	2	53/368	73/502	.73	22								
3	1	52/361	67/462	.78	22								
3	2	59/404	74/512	.80	22								
4	1	62/427	76/526	.82	21								
4	2	60/412	75/520	.80	26								
5	1	57/396	73/501	.78	28								
5	2	53/369	71/486	.75	26								
6	1	56/388	69/474	.81	26								
6	2	54/373	71/491	.76	27								

**Charpy Impact Testing Results**

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

State of Indiana, County of Whitley

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

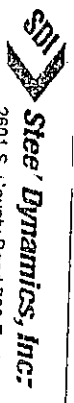
Signed: \_\_\_\_\_  
 Notary Public

Special Comments/Information

Quality Assurance

My commission expires \_\_\_\_\_

WY=C-MAGS+G+C+H+VDS+IN+GUTS C2MAY7=C+Nm+5jle+G+Me+V5+IN+CU 15 PG=C-5000+M70+CUT+M70+G70+M70+V70+59 Invt 26 01Jan 3 88MAY 2007 1 0000119025 11 2007 11 2007 11 2007



2601 S. County Road 700 East  
Columbus, City, IN 46725.  
(260) 67-8100

**Certifier Mill Test Report**  
100% Melted and Manufactured in USA

Date: 7/17/2007  
Customer No: 000191  
Bill of Lading No: 0000118975  
MTR #: 0000118546

Ship to:  
Triad Metals International  
Triad Customer P/U  
Attn: Sally

Bill to:  
TRIAD METALS INTL RNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19190  
Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1†	020896786	W21X101	41' 6"	2	A034247	A992 / A992M A709 g50S/g345S A572 gr50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	491
2†	020896787	W21X101	41' 6"	2	A034247	A992 / A992M A709 g50S/g345S A572 gr50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	491
3†	020906653	W21X55	43' 6"	2	A034662	A992 / A992M A709 g50S/g345S A572 gr50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	45a
4†	020906657	W21X55	43' 6"	4	A034662	A992 / A992M A709 g50S/g345S A572 gr50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	45a
5†	020906658	W21X55	43' 6"	4	A034662	A992 / A992M A709 g50S/g345S A572 gr50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	45a

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1*	.08	1.15	.015	.032	.21	.16	.033	.070	.09	.02	.015	.011	.0003	.00	.32	0.1600	0.1700	HEAT
2*	.08	1.15	.015	.032	.21	.16	.033	.070	.09	.02	.015	.011	.0003	.00	.32	0.1600	0.1700	HEAT
3*	.07	1.04	.011	.029	.20	.35	.023	.070	.11	.04	.022	.008	.0003	.00	.30	0.1300	0.1600	HEAT
4*	.07	1.04	.011	.029	.20	.35	.023	.070	.11	.04	.022	.008	.0003	.00	.30	0.1300	0.1600	HEAT
5*	.07	1.04	.011	.029	.20	.35	.023	.070	.11	.04	.022	.008	.0003	.00	.30	0.1300	0.1600	HEAT

**Tension Testing Results**

Item	Test	Yield (Fy) ksi/MPa	Tensile (Fu) ksi/MPa	Fy/Fu	Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp F/C	Sample 1 ft. lb./joules	Sample 2 ft. lb./joules	Sample 3 ft. lb./joules	% Shear	ASTM Grain Size No (per ASTM E112)
1	1	58/401	71/489	.82	26								
1	2	59/409	72/499	.82	24								
2	1	58/401	71/489	.82	26								

**Charpy Impact Testing Results**

Item	Temp F/C	Sample 1 ft. lb./joules	Sample 2 ft. lb./joules	Sample 3 ft. lb./joules
1				
2				

everyby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

State of Indiana, County of Whitley  
Sworn to and subscribed before me this  
day of \_\_\_\_\_  
Signed: \_\_\_\_\_  
Notary Public

Special Comments/Information:  
IT # A034662 is used to fab items. B427  
B468  
B469

Quality Assurance





Bill To: INFRA-METALS CORPORATION-CT, R  
 DIV PRUSSAG INTERNATIONAL CO  
 8 PENT HWY  
 WALLINGFORD  
 06492

SHIP To: 1  
 INFRA-METALS CORPORATION-CT  
 8 PENT HIGHWAY  
 TRACK# 953  
 WALLINGFORD  
 06492

Order Date: 05/22/2007  
 PO No: 023424  
 Hill Order No: 3313698  
 Load No: 1144289  
 Manifest No: 18F5361

CERTIFIED MATERIAL TEST REPORT  
 GERDNU AMERISTEEL  
 Petersburg Hill  
 25801 Hofheimer Way  
 Petersburg, VA  
 23803

SIZE M 24 X 68" / M610 X 101  
 SPECIFICATION ASTM A6-05a, A992-06a, A572-06  
 HEAT NO: 30385790

GRADE 992/572-50  
 LENGTH 30 FT / 9.144 M

(R04) 524-2855  
 PRODUCT  
 HF BEAMS

C Mn P S SI Cu Ni

CHEMICAL ANALYSIS

PHYSICAL PROPERTIES

Yield Strength KSI	MPa	Tensile Strength KSI	MPa	Specimen Area Sq In	Sq cm	Elongation %	Gage Length	Bend Test Dir.	Result	ROA %
55.8	384.7	72.2	497.8	0.881	5.68	26.8	8In			
57.6	397.1	73.4	506.1	0.863	5.57	25.9	8In			

HT# 30385790 is used to fab items: B443  
 B452  
 B453

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A. CMTR complies with DIN EN 10204 3.1.B

"I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements."

Signed: Tom L. Harrington  
 Tom L. Harrington, Quality Assurance Manager

Date: Oct. 17, 2007

Signed:

Notary Public (if applicable)

Date:

# MILL TEST REPORT

FROM **NUCOR**  
**BAR MILL DARLINGTON**

10445, South Carolina

Bl. Produced: 4/22/07 07:05:34

Lead # 11094

BILL OF LADING NO.

**NUCOR**  
**BAR MILL GROUP**  
**DARLINGTON DIVISION**

TELEPHONE: 803.541.5411

457083  
 INCL

Prepaid

CUSCR 4936  
 INFR-METALS  
 TTPX02320

SOLD TO: 8 PENT BIGWAY, TRUCK #933  
 WALLINGFORD, CT  
 800-243-4410

SHIP TO: 8 PENT BIGWAY, TRUCK #933  
 WALLINGFORD, CT  
 800-243-4410

INFR-METALS

06492

TTPX02320

5 P.11

Tag No.	P.O.	Size	Spec	Length	Pcs	Weight	Heat #	Transit	Yield	EL	C	Mn	Si	S	P	S	As	Bb	Cu	Cr	Ni	Mo	CE
406100476	C20E16	L5505 X 4/0 5X	Q15	20' 00"	14	4,998	770204	70000	53000	22	.23	.21	.15	.040	.010	.005	.00	.37	.19	.11	.02	.10	.40
407003358	C21621	3/4X 7	Q15	20' 00"	14	4,998	770204	70000	53000	23	.19	.13	.14	.040	.020	.003	.01	.33	.15	.09	.02	.37	
407003360	C21621	3/4X 7	Q16	20' 00"	14	4,998	770204	70000	56000	24	.19	.13	.14	.040	.020	.003	.01	.31	.15	.09	.02	.37	
407003362	C21621	3/4X 7	Q16	20' 00"	14	4,998	770204	70000	45000	24	.19	.13	.14	.040	.020	.003	.01	.33	.15	.09	.02	.37	
407003364	C21621	3/4X 7	Q16	20' 00"	14	4,998	770204	70000	47000	23	.19	.13	.14	.040	.020	.003	.01	.33	.15	.09	.02	.37	
407003374	C21536	6CX 8.2	A529-50	20' 00"	30	4,920	770482	80000	55000	24	.22	.21	.16	.040	.010	.005	.00	.36	.15	.10	.02	.40	
407009376	C21536	6CX 8.2	A529-50	20' 00"	30	4,920	770482	79000	56000	23	.22	.21	.16	.040	.010	.005	.00	.36	.15	.10	.02	.40	
407009378	C21536	6CX 8.2	A529-50	20' 00"	30	4,920	770482	79000	54000	23	.22	.21	.15	.040	.010	.005	.00	.36	.15	.10	.02	.40	
407009379	C21536	6CX 8.2	A529-50	20' 00"	30	4,920	770482	79000	56000	23	.22	.21	.15	.040	.010	.005	.00	.36	.15	.10	.02	.40	
407009381	C21536	6CX 8.2	A529-50	20' 00"	30	4,920	770482	79000	55000	24	.22	.21	.16	.040	.010	.005	.00	.36	.15	.10	.02	.40	

SLS-FRM-08 REVISION:1 REVISION DATE: 6/10/97

Permanent address of shipper:  
**NUCOR**  
 300 STEEL MILL ROAD  
 DARLINGTON, S.C. 29540

WELDING OR WELD REPAIR WAS NOT PERFORMED ON THIS MATERIAL  
 MELTED AND MANUFACTURED IN THE USA  
 MERCURY, RADIUM OR ALPHA SOURCE MATERIALS IN ANY FORM HAVE  
 NOT BEEN USED IN THE PRODUCTION OF THIS MATERIAL

WE HEREBY CERTIFY THAT THE ABOVE FIGURES ARE CORRECT  
 AS CONTAINED IN THE RECORDS OF NUCOR STEEL.

MADE BY **INSTRON** (190) 200-4421

*[Signature]*  
 James H. Blaw  
 Chief Metallurgist

Load #: 14

Shipping Date:

Waybill #: 898-14

Customer:	Pizzagalli Construction Company	Prepared By:	Approved By:	Date: 24-01-01
Job Title:	84 Marginal Way	Bathurst Machine Shop Ltd. 1040 Route 430 Mandate Erectors & Welding Ltd. Big River Road MQM Ltd., Treadie C2A 6P9		
Date Sent to Shop:	X			
Job Number:	898	Job Progress Report Sheet		
		SHEET: 1		

Attach.	Material	Rev.	Mark #	Qty	Weight	C COLOR GALV.				Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped				
						Paint	Galy	Camber	Level	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date		
A	H.S.S. 8X4X1/4	3	B383	1	181																							
A	W10X17	0	B403	1	322																							
A	W10X17	0	B404	2	644																							
A	W10X17	0	B407	3	965																							
A	W18X35	1	B417	1	1669																							
A	W18X35	0	B418	1	1709																							
A	W24X55	0	B426	1	2568																							
A	W21X44	0	B432	1	1894																							
A	W21X44	0	B433	4	7574																							
A	W12X19	0	B435	1	192																							
A	W12X19	0	B436	1	192																							
A	W12X19	0	B437	1	196																							
A	H.S.S. 8X4X1/4	0	B441	1	248																							
A	W24X76	0	B445	1	2323																							
A	W24X68	0	B446	1	2089																							
A	W24X68	0	B447	1	2090																							
A	W24X68	0	B448	2	4168																							
A	W24X62	0	B449	1	3486																							
A	W24X68	0	B450	1	2035																							
A	W24X68	0	B451	1	2028																							

Pieces 27      36573 Total Weight (Lbs)      ( 18.3 TONS)

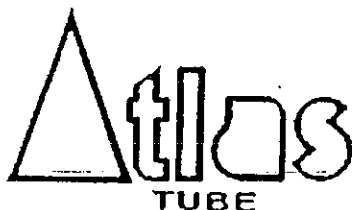
Load #: 14

Customer:	Pizzagalli Construction Company		Prepared By:	Approved By:	Date: 24-01-01
Job Title:	84 Marginal Way	Job Progress Report Sheet	Bathurst Machine Shop Ltd.		1040 Route 430
Date Sent to Shop:	X	SHEET: 2	Mandate Erectors & Welding Ltd.		Big River Road
Job Number:	898		MQM Ltd., Traegdie		E2A 619

Attach.	Material	Rev.	Mark. #	Qty	Weight	C- COLOR GALV.				Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped			
						Paint	Galv	Camber	Level	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date	
A	W18X40	0	B457	1	2053																						
A	W24X76	0	B460	1	3810																						
A	W21X62	0	B461	1	2548																						
H	W21X44	0	B465	1	1805																						
H	W14X22	0	B467	1	504																						
A	W16X36	0	B471	1	1774																						
H	W10X17	0	B477	2	573																						
A	11S.S. 8X4X1/4	0	B482	2	285																						
A	11S.S. 12X4X5/16	0	B483	1	663																						
A	W21X83	0	B485	1	4644																						
A	W21X44	0	B494	1	1894																						
A	11S.S. 10X10X5/8	0	D300	1	1338																						
A	11S.S. 10X10X5/8	0	D301	1	1341																						
A	11S.S. 8X8X5/8	0	D302	1	671																						
A	11S.S. 8X8X5/8	0	D303	1	721																						
A	11S.S. 6X6X1/2	0	D305	1	483																						
A	11S.S. 6X6X1/2	0	D306	1	482																						
A	11S.S. 8X8X5/8	0	D313	1	823																						
A	11S.S. 8X8X5/8	0	D315	2	2130																						
A	11S.S. 8X8X5/8	0	D316	1	823																						

Pieces 23 29365 Total Weight(Lbs) ( 14.7 TONS)

Atlas Tube Canada ULC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 NOR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537



Ref.B/L: 80263316  
 Date: 10.24.2007  
 Customer: 1751

Sold to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

**MATERIAL TEST REPORT**

Shipped to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Material: 8.0x8.0x625x50"0"(2x1).  
 Sales order: 335491

Material No: 80080625 Made in: Canada  
 Purchase Order: 30519-898

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002

Bundle No	Yield	Tensile	Eln.2in	Certification
M200482103	063150 Psi	076440 Psi	34.3 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Material: 8.0x8.0x625x50"0"(2x1).  
 Sales order: 335491

Material No: 80080625 Made in: Canada  
 Purchase Order: 30519-898

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002

Bundle No	Yield	Tensile	Eln.2in	Certification
M200482102	063150 Psi	076440 Psi	34.3 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Material: 10.0x10.0x625x18"0"(2x2).  
 Sales order: 335491

Material No: 100100625 Made in: Canada  
 Purchase Order: 30519-898

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
583750	4	0.200	0.810	0.011	0.002	0.160	0.034	0.015	0.006	0.002	0.007	0.022	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M200483575	054920 Psi	073670 Psi	38.5 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

*11# 583750 is used to fab items: D300, D301*

Material: 10.0x10.0x625x18"0"(2x2).  
 Sales order: 335491

Material No: 100100625 Made in: Canada  
 Purchase Order: 30519-898

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
583750	4	0.200	0.810	0.011	0.002	0.160	0.034	0.015	0.006	0.002	0.007	0.022	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M200483574	054920 Psi	073670 Psi	38.5 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Authorized by Quality Assurance: *Al W. [Signature]*

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.



Atlas ABC Corp (Atlas Tube Chicago)  
 1835 East 122nd Street  
 Chicago, Illinois, USA  
 60633  
 Tel: 773-646-4500  
 Fax: 773-648-6128



## MATERIAL TEST REPORT

Material: 3.0x2.0x1.88x24'0"0(7x5).

Material No: 300201882400

Made In: USA

Melted & Manufactured In USA

Sales order: 338321

Purchase Order: 2899

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
D41839	35	0.200	0.840	0.015	0.010	0.015	0.034	0.020	0.001	0.003	0.010	0.030	0.001

Bundle No	Yield	Tensile	Elon.2in	Certification
M700060698	067430 Psi	078170 Psi	31 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Material: 12.0x4.0x3.75x48'0"0(2x2).

Material No: 1200403754800

Made In: USA

Melted & Manufactured In USA

Sales order: 338321

Purchase Order: 2899

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
Y47414	4	0.200	0.730	0.008	0.012	0.010	0.037	0.020	0.001	0.002	0.010	0.030	0.001

Bundle No	Yield	Tensile	Elon.2in	Certification
M500120001	057940 Psi	070680 Psi	38 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

HT #Y47414 is used to fab item B483

Material: 14.000x5.00x4.0"0(1x1).

Material No: R14000500

Made In: USA

Melted & Manufactured In USA

Sales order: 338314

Purchase Order: 2865

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
E18220	1	0.200	0.450	0.012	0.002	0.060	0.038	0.020	0.000	0.000	0.010	0.040	0.001

Bundle No	Yield	Tensile	Elon.2in	Certification
M900118509	060790 Psi	074170 Psi	38 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Authorized by Quality Assurance: *M. Wilson*

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.



P.O.: 37912

COPPERWELD CANADA INC.  
 14 HOLTBY AVENUE  
 BRAMPTON, ONTARIO L6X 2M3  
 CANADA



Customer Order No. 87827

Internal Order No. 536796

Invoice No. 17049030

TEST REPORT

Customer:	Specification: 6 IN, SQ, 1/2 48 Ft CSA G40.21
-----------	--

HEAT NO.	CHEMICAL ANALYSIS, %											
	C	Mn	P	S	SI	AL	CB	V	CU	NI	CR	
6469T C.E. .33	.18	.86	.011	.005	.22	.034	.005	.03	.020	.010	.020	

MECHANICAL PROPERTIES					
HEAT NO.	LAB NO.	YIELD STRENGTH PSI	TENSILE STRENGTH PSI	ELONGATION %	HARDNESS Rb
6469T	7	71300	87300	34	

YIELD STRENGTH IS 0.2% OFFSET - ELONGATION IN 2 INCHES

Other Tests  
 HT # 6469T is used to fab items:  
 D305  
 D306

LTV Copperweld certifies that the material purchased on this order meets all chemical and physical requirements in accordance with the latest applicable ASTM standards.

*Jim Clark*  
 JIM CLARK, METALLURGIST



# MATERIAL TEST REPORT

Atlas Tube Canada ULC  
200 Clark St.

Ref.B/L: 80248589  
Date: 10.29.2007

NCR 100  
Tel: 514-736-3541  
Fax: 514-736-3537

Attn: Denis Guitera.

500-540-1629

**Sold to**

Mandate Erectors & Welding Lt  
1040 Route 430  
BIG RIVER NB E2A 6P9  
CANADA

**Shipped to**

Mandate Erectors & Welding Lt  
1040 Route 430  
BIG RIVER NB E2A 6P9  
CANADA

Material: 6.0x4.0x250x26"0(2x2).  
Sales order: 314780

Material No: 80040250  
Purchase Order: 31077

Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
749730	4	0.200	0.820	0.011	0.007	0.011	0.049	0.021	0.004	0.002	0.010	0.035	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M100648382	058250 Psi	069520 Psi	33.2 %	ASTM A500-03A GRADE B&C

Material Note:  
Sales Or.Note:

HT # 749730 is used to fab items: B441, B482, B383

Material: 12.0x12.0x375x32"4"0(2x2).  
Sales order: 314238

Material No: 120120375  
Purchase Order: 31072

Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582786	4	0.200	0.790	0.011	0.003	0.150	0.035	0.026	0.005	0.002	0.013	0.040	0.002

Bundle No	Yield	Tensile	Eln.2in	Certification
M200457870	063170 Psi	076790 Psi	30.7 %	ASTM A500-03A GRADE B&C

Material Note:  
Sales Or.Note:

Material: 12.0x12.0x375x32"4"0(2x2).  
Sales order: 314238

Material No: 120120375  
Purchase Order: 31072

Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582788	4	0.200	0.790	0.011	0.003	0.150	0.035	0.026	0.005	0.002	0.013	0.040	0.002

Bundle No	Yield	Tensile	Eln.2in	Certification
M200457871	063170 Psi	076790 Psi	30.7 %	ASTM A500-03A GRADE B&C

Material Note:  
Sales Or.Note:

Material: 12.0x12.0x375x32"4"0(2x1).  
Sales order: 314238

Material No: 120120375  
Purchase Order: 31072

Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582787	2	0.200	0.780	0.011	0.003	0.150	0.029	0.038	0.005	0.004	0.015	0.046	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M200457868	059840 Psi	075430 Psi	35.9 %	ASTM A500-03A GRADE B&C

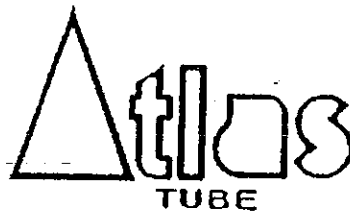
Material Note:  
Sales Or.Note:

Authorized by Quality Assurance:

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.

Atlas Tube Canada ULC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 NOR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537

Ref.B/L: 80263316  
 Date: 10.24.2007  
 Customer: 1751



**MATERIAL TEST REPORT**

Sold to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Shipped to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Material: 8.0x8.0x6.25x48'0"0(2x1).

Material No: 800806254800

Made in: Canada

Sales order: 335491

Purchase Order: 30519-898

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002

Bundle No	Yield	Tensile	Eln.2in
M200482111	063150 Psi	076440 Psi	34.3 %

Certification  
 ASTM A500-03A GRADE B&C

Material Note:

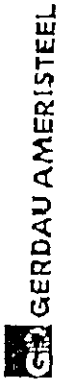
Sales Or.Note:

*HT # 582766 is used to fab items: D302, D303  
 D313, D315, D316*

Authorized by Quality Assurance: *[Signature]*

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.





CARTERSVILLE STEEL MILL  
384 OLD GRASSDALE RD NE  
CARTERSVILLE GA 30121 USA  
(770) 387-3300

Chemical and Physical Test Report  
MADE IN UNITED STATES

G-082342

PRODUCED IN: CARTERSVILLE

SHIP TO  
TRIAD METAL  
1951 BESSEMER ROAD  
804-732-5000  
PETERSBURG, VA 23805

INVOICE TO  
TRIAD METALS INTERNATIONAL  
METAL TRADERS INC  
2300 COMPUTER AVE STE-A-1  
WILLOW GROVE, PA 19150

SHIP DATE  
12/09/06

CUST. ACCOUNT NO  
40213035

SALES ORDER  
6053480-11

CUST. P. O. NUMBER  
174789-11

SHAPE & SIZE	GRADE	SPECIFICATION	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Bi	N	Sn	Al	Ti	Ca	C Equ
W10 X 17 1/2	A57250/992	A57250/992, ASTM A572 G9150-04, ASTM A992-04A	.17	.94	.019	.029	.78	.25	.31	.06	.020	.015	.001	.0005	.0101	.010	.001	.00100	.00130	.373
Mechanical Test: Yield 59600 PSI, 410.93 MPA Tensile 81200 PSI, 559.85 MPA %EL 21.18in, 74.1200in Sid Dev 0.14 Dism 635																				
Customer Requirements CASTING, STRAHD CAST																				
Mechanical Test: Yield 60000 PSI, 415.75 MPA Tensile 78700 PSI, 542.62 MPA %EL 21.28in, 21.2200in Sid Dev 0.16 Dism 635																				
Customer Requirements CASTING, STRAHD CAST																				
CUST ITEM NUMBER: NOV																				

SHAPE & SIZE	GRADE	SPECIFICATION	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Bi	N	Sn	Al	Ti	Ca	C Equ
W10 X 17 1/2	A57250/992	A57250/992, ASTM A572 G9150-04, ASTM A992-04A	.08	1.14	.017	.021	.29	.26	.11	.07	.040	.026	.001	.0005	.0093	.010	.001	.00100	.00110	.322
Mechanical Test: Yield 62200 PSI, 428.65 MPA Tensile 82600 PSI, 569.51 MPA %EL 21.48in, 21.4700in Sid Dev 0.14 Dism 378																				
Customer Requirements CASTING, STRAHD CAST																				
Mechanical Test: Yield 61100 PSI, 421.27 MPA Tensile 81900 PSI, 564.08 MPA %EL 21.05in, 21.0200in Sid Dev 0.14 Dism 378																				
Customer Requirements CASTING, STRAHD CAST																				
CUST ITEM NUMBER: NOV																				

HT # 605051 is used to fab items 6403, 6404, 6407, 6417

This material, including the billets, was produced and manufactured in the United States of America

*Markony*  
IP Director  
Quality Director  
Lead Auditor

*January*  
IP Director  
Quality Director  
Lead Auditor

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY

IP Director  
Quality Director  
Lead Auditor  
CARTERSVILLE STEEL MILL

G-100808

Chemical and Physical Test Report

MADE IN UNITED STATES



CARTERSVILLE STEEL MILL  
384 OLD GRASSDALE RD NE  
CARTERSVILLE GA 30121 USA  
(770) 287-3300

PRODUCED IN: CARTERSVILLE

SHIP TO  
TRIAD METALS  
1951 BESSEMER ROAD  
604-732-6000  
PETERSBURG, VA 23805

INVOICE TO  
TRIAD METALS INTERNATIONAL  
METAL TRADERS INC  
2200 COMPUTER AVE STE-A-1  
WILLOW GROVE, PA 18090

SHIP DATE  
08/28/07

CUST. ACCOUNT NO  
40210035

SHAPE + SIZE L	GRADE	SPECIFICATION	SALES ORDER	CUSTOMER NUMBER
W12 X 27	A572-50	ASTM A572 GR50-07, ASTM A592-08A	7074491-10	111013
HEAT NO. G704786	C Mn P S Si Cu Ni Cr Mo V Nb B N Sn As Ti Ca C Eq	Tensile: 71800 PSI, 495.04 MPA Yield: 54300 PSI, 381.29 MPA Customer Requirements CASTING: STRAND CAST		
Mechanical Test:		Yield: 54300 PSI, 381.29 MPA		
Mechanical Test:		Tensile: 71800 PSI, 495.04 MPA		
Customer Requirements CASTING: STRAND CAST		Yield: 54300 PSI, 381.29 MPA		
Customer Requirements CASTING: STRAND CAST		Tensile: 71800 PSI, 495.04 MPA		

SHAPE + SIZE L	GRADE	SPECIFICATION	SALES ORDER	CUSTOMER NUMBER
W12 X 18	A572-50	ASTM A572 GR50-07, ASTM A592-08A	7101728-01	2496-01
HEAT NO. G704824	C Mn P S Si Cu Ni Cr Mo V Nb B N Sn As Ti Ca C Eq	Tensile: 73700 PSI, 508.14 MPA Yield: 57200 PSI, 394.36 MPA Customer Requirements CASTING: STRAND CAST		
Mechanical Test:		Yield: 57200 PSI, 394.36 MPA		
Mechanical Test:		Tensile: 73700 PSI, 508.14 MPA		
Customer Requirements CASTING: STRAND CAST		Yield: 57200 PSI, 394.36 MPA		
Customer Requirements CASTING: STRAND CAST		Tensile: 73700 PSI, 508.14 MPA		

ART # G704824 is used to Fab items B 435 to B 437

This material, including the label, was produced at a manufacturing facility in the United States of America

Shankar  
Bharat Vallamuri  
Quality Director  
Cartersville, Georgia

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST REPORTS AS CONTAINED IN THE PERMANENT RECORDS OF THE COMPANY

Yankay  
MKT. MANAGER  
CARTERSVILLE STEEL MILL

Steel reports that is material furnished used comply with specifications and used to standard in which the manufacturer's name, NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, ARE MADE BY THE SELLER, AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Any claims for damages for materials that do not conform to specifications must be made from buyer to seller immediately after delivery of same in order to allow the opportunity to inspect the material in question.

NUCOR STEEL - BERKELEY  
 P.O. Box 2259  
 Mt. Pleasant, S.C. 29464  
 Phone: (843) 336-6000

MILL TEST REPORT

100% MELTED AND MANUFACTURED IN THE USA  
 All beams produced by Nucor-Berkeley are cast and  
 rolled to a fully killed and fine grain practice.

4/25/07 5:38:57

Sold To: INFRA METALS CORP - CT  
 8 PENN HIGHWAY  
 WALLINGFORD, CT 06492

Ship To: INFRA METALS CORP - CT  
 8 PENN HIGHWAY  
 WALLINGFORD, CT 06492

Customer H.: 502 - 1  
 Customer PO: C20919  
 B.O.L. H.: 613622

SPECIFICATIONS: Tested in accordance with ASTM specification A666M and A370.  
 ASHTO : M270-36-00/M270-50-00  
 ASME : SA-36  
 ASTM : A992-06://A36-05/A572-06-50/A709-06a36/A709-06a50/A709-345M  
 CSA : CSA-44W/C40.21-50W

Description	Heat Grade(s) Test	Yield/ Tensile Ratio	Yield (MPa)	Tensile (PSI)	Elong (%)	C		Mn		P		S		SI		Cu		Ni	CE1 CE2 PCm	
						CT PB	TI	Mo	TI	Sn	Ca	ql	B	V	N	Nb	Zr			CI
W14x22 050' 00.00'	2706612 A992-06	.84	59200	70200	24.51	.0690	.0310	.0290	.0077	.0303	.2490	.0900	.0360	.2263						
W360X32.9 015.2400m	61300 423	.86	61300	71300	25.09	.0071	.0016	.0190	.0053	.0016	.0038	.0281	.2734							
W14x22 050' 00.00'	1706614 A992-06	.84	57200	67900	26.48	.0660	.0310	.0180	.0007	.0315	.1820	.0910	.0330	.2282						
W360X32.9 015.2400m	58700 401	.85	58700	68800	26.18	.0055	.0014	.0180	.0036	.0009	.0043	.0296	.2545							
W14x22 050' 00.00'	1705855 A992-06	.81	53000	65800	26.34	.0670	.0180	.0610	.0126	.0140	.2050	.0680	.0260	.2269						
W360X32.9 015.2400m	54200 374	.81	54200	66800	28.64	.0017	.0014	.0180	.0046	.0032	.0039	.0120	.2635							
W14x22 050' 00.00'	1706616 A992-06	.81	55000	67800	27.75	.0690	.0440	.0610	.0139	.0344	.2170	.1870	.0490	.2450						
W360X32.9 015.2400m	54700 377	.81	54700	67500	27.81	.0055	.0017	.0180	.0070	.0039	.0030	.0117	.2803							
						47	pieces(s)		.0003	.0007	.0080	.0000	4.4633	.1372						

*HT # 1705855 is used to fab item B467*

Elongation based on 8" (20.32cm) Gauge length. 'No Weld Repair' was performed.  
 CT = 26.01Cu+3.88Ni+1.20Cr+1.49Si+17.28B-(7.23CuXNi)-(9.10NiXp)-33.39(CuXCu)  
 PCm = C+(Si/30)+(Mn/20)+(Cu/20)+(Ni/60)+(Cr/20)+(Mo/15)+(V/10)+58  
 CE1 = C+(Mn/6)+((Cr+Mo+V)/5)+((Ni+Cu)/15)  
 CE2 = C+(Mn+Si)/6+((Cr+Mo+V+Cu)/5)+((Ni+Cu)/15)  
 I hereby certify that the contents of this report are accurate and correct. All test results and operations performed by the material manufacturer are in compliance with material specifications, and when designated by the purchaser, meet applicable specifications.  
 Bruce A. Work  
 Metallurgist

2004-03-09  
 Renate Schmidt  
 Works Inspector

NY # 11656 is used to fab item: B471

Certificate Nr 1443/3-2004 Advice Nr A0803217 Stahlwerk Thüringen GmbH Postfach 1163 07331 Unterwellenborn Germany		Order Nr: 1700001653 Customer Nr: M95000283		Arcelor Intern l Canada Inc. Milll business, Long Products 5500 North Service Road, 7th Floor CAN-L7L 6W6 BURLINGTON		
Order Nr: 1700001653 Customer Nr: M95000283		Quality: A992 DUAL according to: ASTM A992/98 - A572 GR50 PER AISI TB3 - ASTM A572/97C GR50 FINE GRAIN SILICON KILLED Inspection certificate		ASTM A6 part 8.		
Lot Nr	Heat Nr	Dimension	Length	Pieces	Weight [t]	Customer Nr
013	11656	W 16X7X36	45'	30	21.915	
Heat Analysis [%]						
Heat Nr	C	Si	Mn	P	S	N
11656	max 0.23 min 0.09	0.40 0.10	1.50 0.50	0.035 0.025	0.045 0.025	0.009 0.014
Heat Analysis [%]						
Heat Nr	Mo	CEV1	Sn			
11656	max 0.45 min 0.13	0.15 0.04	0.45 0.35	0.017		
Tensile test						
Heat Nr	Yield stress [PSI]	Tensile strength [PSI]	Elongation 50 mm [%]			
11656/1	53650	74530	23.0	21.0		
11656/2	55680	72355	32.0	21.0		



**Steel Dynamics, Inc.**

Structural and Rail Division • Columbus City, Indiana

Quality Steel 100% Melted and Manufactured in the USA

Ship to:

Triad Metals Intl  
1951 Bessemer Road  
CSX-Collier Yard  
Petersburg VA, 23805 US  
Attn: Rock McGovern

### CERTIFIED MILL TEST REPORT

Customer # 000191

Bill to:

TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Petersburg VA, 23805 US  
Attn: Fred White

Date: 09 / 12 / 2007

#### GENERAL INFORMATION

Product Wide Flange Beam  
Size W 18 X 35  
W 460 X 52  
Heat Number **A036022**  
Condition(s) **As-Rolled**  
Fine Grained

#### SPECIFICATIONS

Standards  
ASTM A692/A992M - 06a  
ASTM A709/A709M - 06a  
ASTM A572/A572M - 06  
ASTM A709/A709M - 06a

#### Grades

A992 / A992M  
A709 gr50/gr345  
A572 gr50/gr345  
A709 gr50S/gr345S

#### SHIPMENT DETAILS

BOL # 0000124256

Bundle / ASN #	Length	Pcs	Customer PO
020946066	40' 0"	6	164105
020946069	40' 0"	6	164105
020946071	40' 0"	6	164105
020946076	40' 0"	6	164105
020946064	40' 0"	6	164105

#### CHEMICAL ANALYSIS (Weight Percent)

C	Mn	P	S	SI	Cu	NI	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analysis Type
.08	.95	.018	.035	.23	.33	.11	.09	.029	.013	.005	.011	.0082	.0004	.29	.33	.16	5.85	Heat

#### MECHANICAL TESTING

Test	Yield (fy) ksi / MPa	Tensile (fu) ksi / MPa	fy / fu ratio	%Elong. {8" gage}
1	61 / 424	75 / 518	.82	26
2	62 / 425	75 / 514	.83	25
3				
4				
5				
6				
7				

Charpy Impact Tests (available only when specified at time of order)

Temp	Absorbed Energy	Fibf/J
F / C	Specimen 1	Specimen 2
	Specimen 3	Average
		Minimum

#### Notes:

\* Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC), Corrosion Index (I)  
CE1 (NIW)=C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15  
CE2 (AWS)=C+(Mn+Si)/6+(Cr+Mo+V)/5+(Ni+Cu)/15  
Pcm (AWS)=C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+mol/15+V/10+5B  
1 (ASTM G101)=.26.01(C1)+.3.88(Ni)+1.20(C2)+1.48(Si)+17.28(P)+7.28(Cu)(Ni)/9.10(Ni)(P)+.33.39(Cu<sup>2</sup>)

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

State of Indiana, County of Whitley Sworn to and subscribed before me

this \_\_\_\_\_ day of \_\_\_\_\_

Signed:

**Doug Rees-Evans**

Signed:

My commission expires:

Form E-1100-002-054

Manager of Technical Services

Notary Public

*11# A036022 is used to fabricate items: B417, B418*







**Steel Dynamics, Inc.**  
 2601 S. County Road 700 East  
 Columbia City, IN 46725-  
 (260) 625-8100

**Certified Mill Test Report**  
 100% Melted and Manufactured in USA

Date: 7/23/2007  
 Customer No: 000191  
 Bill of Lading No: 0000119461  
 MTR #: 0000119025

Ship to:  
 Triad Metals International  
 Triad Customer P/U  
 Attn: Sally

Bill to:  
 TRIAD METALS INTERNATIONAL  
 A-1 2300 Computer Avenue  
 Willow Grove, PA 19090  
 Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1†	020908432	W21X44	42' 0"	4	A034738	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A616/A616M	495
2†	020908437	W21X44	42' 0"	4	A034738	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A616/A616M	495
3†	020908539	W21X44	42' 0"	4	A034729	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A616/A616M	495
4†	020908578	W21X44	42' 0"	4	A034727	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A616/A616M	495
5†	020908643	W21X44	42' 0"	4	A034743	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A616/A616M	495
6†	020908707	W21X44	42' 0"	4	A034745	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A616/A616M	495

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1*	.08	1.03	.016	.031	.22	.32	.022	.080	.13	.04	.016	.007	.0004	.00	.31	0.3500	0.1700	HEAT
2*	.08	1.03	.016	.031	.22	.32	.022	.080	.13	.04	.016	.007	.0004	.00	.31	0.3500	0.1700	HEAT
3*	.07	1.04	.016	.029	.19	.36	.023	.120	.13	.04	.019	.010	.0003	.00	.31	0.3400	0.1600	HEAT
4*	.07	1.04	.019	.029	.21	.31	.021	.100	.11	.03	.015	.009	.0003	.00	.30	0.3400	0.1600	HEAT
5*	.06	1.01	.018	.038	.18	.31	.021	.080	.10	.03	.013	.007	.0003	.00	.28	0.3100	0.1400	HEAT
6*	.08	1.05	.017	.042	.20	.31	.022	.100	.10	.03	.014	.008	.0004	.00	.31	0.3400	0.1600	HEAT

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the literal specifications and applicable purchaser designated.

State of Indiana, County of Whitley

Special Comments/Information:

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_  
 Notary Public

*[Signature]*  
 Quality Assurance

My commission expires: \_\_\_\_\_

HT # A034738 is used to fab items: B432, B433, B465, B494



1/1

**Certificate Nr 2290/8-2007**  
 Advice Nr A2908161

Inspection Certificate 3.1  
 according to ASTM A6

**SWT**

Arcelor International America, LLC  
 Mill business, Long Products  
 350 Hudson Street  
 10014 NEW YORK  
 UNITED STATES OF AMERICA

Stahlwerk Thüringen GmbH  
 Qualitätsstelle  
 Kronacher Straße 6  
 07333 Unterwellenborn  
 Germany

Order Nr: 1700006317  
 Customer Nr: C1010A

Quality: A992 DUAL  
 according to: ASTM A992/98 -- A572 GR50  
 PER AISC TB3 -- ASTM A572/97C GR50  
 FINE GRAIN SILICON KILLED

Lot Nr	Heat Nr	Dimension	Length	Pieces	Weight [t]	Customer Nr
[A10]	[B07]	[B01]	[B08]	[B06]	[B12]	[A11]
011	50971	W 21X8,25X62	35'	5	4.922	PURCHASE ORDER # C1010

Heat Analysis [%]

Heat Nr	C	Si	Mn	P	S	N	Nb	V	Cr	Cu
[B07]	[C71]	[C72]	[C73]	[C74]	[C75]	[C76]	[C77]	[C78]	[C79]	[C80]
max	0.23	0.40	1.50	0.035	0.045	0.012	0.050	0.110	0.35	0.60
min		0.10	0.50				0.005			
50971	0.11	0.19	1.14	0.020	0.029	0.009	0.015	0.008	0.08	0.26

Heat Analysis [%]

Heat Nr	Ni	Mo	CEV1	Sn
[B07]	[C81]	[C82]	[C83]	[C84]
max	0.45	0.15	0.45	
min				
50971	0.13	0.03	0.35	0.015

Tensile test

Heat Nr	Yield stress [PSI]	Tensile strength [PSI]	Elongation 50 mm [%]	Ys/Ts
[B07]	[C11]	[C12]	[C13]	[C14]
max	65000			0.85
min	50000	65000	21.0	
50971	55535	72935	43.6	0.76

B14

HT #50971 is used to fab item: B461

Works inspector  
 Renate Schmidt

Aug 30, 2007



# CERTIFIED MILL TEST REPORT

Date: 09/04/2007

Customer # 000191

Ship to:  
Triad Metals International  
3480 Grand Avenue  
Pittsburgh PA, 15225 US  
Attn: Craig Borrelli

Bill to:  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Pittsburgh PA, 15225 US  
Attn: Fred White

Quality Steel 100% Melted  
and Manufactured in the USA

GENERAL INFORMATION		SPECIFICATIONS		SHIPMENT DETAILS	
Product	Wide Flange Beam	Standards	ASTM A6/A6M	Bundle / ASN #	020954875
Size	W 24 x 55			Length	40' 0"
Heat Number	W 610 X 82 A036411			pcs	4
Condition(s)	As-Rolled Fine Grained			Customer PO	182
					182

**CHEMICAL ANALYSIS** (weight percent)

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb/Cb	N	B	*C1	*C2	*PC	*1	Analysis Type
.08	1.04	0.14	0.031	.22	.30	.13	.09	.031	.034	.002	.0099	.0003	.31	.35	.16	5.65	Heat

**MECHANICAL TESTING**

Test	Yield (fy)		Tensile (fu)		% Elong. (8" gage)
	ksi / MPa	ksi / MPa	ksi / MPa	ksi / MPa	
1	59 / 406	60 / 414	70 / 485	73 / 505	28
2					26
3					
4					
5					
6					
7					

Charpy Impact Tests (available only when specified at time of order)

Temp	F / C	Specimen 1	Specimen 2	Specimen 3	Average	Minimum

*NI# A036411 is used to Fab Item: A426*

**Notes:** \*Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC), Corrosion Index (I)  
 CE1 (IIW) = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15  
 CE2 (AWS) = C+(Mn+Si)/6+(Cr+Mo+V)/5+(Ni+Cu)/15  
 I (ASTM G101) = 26.01(Cu)+3.88(Ni)+1.20(Cr)+1.49(Si)+17.29(P)+7.29(Cu)(Ni)+9.10(Ni)(P)+33.39(CuF)

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: Doug Rees-Evans Manager of Technical Services  
 My commission expires: \_\_\_\_\_

Notary Public: \_\_\_\_\_  
 Signed: \_\_\_\_\_ My commission expires: \_\_\_\_\_

State of Indiana, County of Whitley Sworn to and subscribed before me  
 this \_\_\_\_\_ day of \_\_\_\_\_

ASTM A6 - 14.6: A signature is not required on the test report; however, the document shall clearly identify the organization submitting the report.  
 Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report

**Steel Dynamics, Inc.**  
2601 S. County Road 700 East  
Columbia City, IN 46725-  
(260) 625-8100

**Certified Mill Test Report**  
100% Melbed and Manufactured in USA

**Date:** 09/02/2007  
**Customer No:** 000191  
**Bill of Lading No:** 0000123446  
**MTR #:** 0000122965

**Ship to:**  
Triad Metals Int'l  
1951 Bessemer Road  
CSX-Collier Yard  
Petersburg, VA 23805  
Attn: Rock McGovern

**Bill to:**  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

**Customer P.O.:**  
186

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
7T	020955203	W24X62	60' 0"	4	B036562	A992/A992M A709 gr50/gr345 A709 gr50S/gr345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A572/A572M - 06 ASTM A572/A572M - 06	186
8T	020955273	W24X62	60' 0"	4	A036578	A992/A992M A709 gr50/gr345 A709 gr50S/gr345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A572/A572M - 06	185
9T	020955275	W24X62	60' 0"	4	A036576	A992/A992M A709 gr50/gr345 A709 gr50S/gr345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A572/A572M - 06 ASTM A572/A572M - 06	185

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Ca	C1	C2	PC	Analysis
7*	.06	1.11	.016	.028	.20	.36	.032	.08	.11	.023	.013	.0089	.0003	.002	.30	.34	.15	HEAT
8*	.08	1.16	.013	.026	.24	.52	.032	.07	.11	.023	.015	.0099	.0003	.001	.34	.38	.19	HEAT
9*	.09	1.19	.014	.018	.24	.51	.032	.06	.11	.023	.016	.0093	.0003	.001	.35	.39	.19	HEAT

**MECHANICAL**

Item	Test	Tension Testing Results				Charpy Impact Testing Results				ASTM Grain Size No (per ASTM E112)										
		Yield (Fy) ksi/MPa	Tensile Strength ksi/MPa	Elong (%) based on 8" gauge	Fy/Fu	Temp F/C	Sample 1 ft. lb./joules	Sample 2 ft. lb./joules	Sample 3 ft. lb./joules		% Shear									
7	1	52/359	68/473	.75	.20															
7	2	55/381	73/503	.75	.22															
8	1	57/393	75/519	.76	.20															
8	2	57/396	75/518	.76	.22															
9	1	60/416	78/536	.77	.21															
9	2	59/407	78/527	.78	.20															

*Handwritten:* Heat # B036562 is used to Fab item B449

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed: \_\_\_\_\_  
Quality Assurance

State of Indiana, County of Whitley  
Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
Signed: \_\_\_\_\_  
My commission expires: \_\_\_\_\_

Special Comments/Information:  
\* Fully Killed Steel  
1 Cast and Rolled to a Fine Grain Practice

**Steel Dynamics, Inc.**  
2601 S. County Road 700 East  
Columbia City, IN 46725  
(260) 625-8100

**Certified Mill Test Report**  
100% Melted and Manufactured in USA

**Date:** 6/24/2007  
**Customer No:** 000191  
**Bill of Lading No:** 0000116623  
**MTR #:** 0000116208

**Ship to:**  
Triad Metals Int'l  
1951 Bessemer Road  
CSX-Collier Yard  
Petersburg, VA 23805

**Bill to:**  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

**Customer P.O.:** 156398

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
10a†	020901457	W24X68	60' 0"	2	A034437	A992/A992M A709 950S/G345S A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	156398
10b†	020901457	W24X68	60' 0"	2	B034457	A992/A992M A709 950S/G345S A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	156398
11†	020901458	W24X68	60' 0"	4	B034457	A992/A992M A709 950S/G345S A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	156398
12†	020901460	W24X68	60' 0"	4	B034457	A992/A992M A709 950S/G345S A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	156398

**CHEMICAL**


Item	C	Mn	P	S	SI	Cu	Gr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
10a*	.08	1.04	.014	.020	.21	.33	.10	.10	.037	.013	.0691	.0003	.001	.31	.35	.17	HEAT
10b*	.09	1.06	.017	.040	.26	.34	.10	.09	.019	.011	.0112	.0004	.002	.33	.37	.18	HEAT
11*	.09	1.06	.017	.040	.26	.34	.10	.09	.019	.011	.0112	.0004	.002	.33	.37	.18	HEAT
12*	.09	1.06	.017	.040	.26	.34	.10	.09	.019	.011	.0112	.0004	.002	.33	.37	.18	HEAT

**MECHANICAL**

Item	Test	Tension Testing Results				Charpy Impact Testing Results				ASTM Grain Size No (per ASTM E112)
		Yield (Fy) Strength ksi/MPa	Tensile (Fu) Strength ksi/MPa	Elong (%) based on 8" gauge	Fy/Fu	Temp F/C	Sample 1 ft. lb/ftoules	Sample 2 ft. lb/ftoules	Sample 3 ft. lb/ftoules	
10a	1	59/405	71/489	.83	.27	1				
10a	2	57/394	71/490	.80	.28	2				
10b	1	61/424	76/527	.80	.23	1				
10b	2	57/391	75/520	.76	.23	2				
11	1	61/424	76/527	.80	.23	1				
11	2	57/391	75/520	.76	.23	2				
12	1	61/424	76/527	.80	.23	1				
12	2	57/391	75/520	.76	.23	2				

NY# B034457 is used to Fab items: B446 to B448, B450, B451

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed:  Quality Assurance

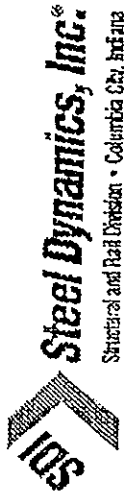
Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_, 2007.

Signed: \_\_\_\_\_ Notary Public

My commission expires: \_\_\_\_\_

State of Indiana, County of Whitley

Special Comments/Information:  
\* Fully Killed Steel  
† Cast and Rolled to a Fine Grain Practice



Structural and Rail Division • Columbia City, Indiana

# CERTIFIED MILL TEST REPORT

Date: 09 / 11 / 2007

Customer # 000191

Ship to:  
**Triad Metals Intl**  
 1951 Bessemer Road  
 CSX-Collier Yard  
 Petersburg VA, 23805 US  
 Attn: Rock McGovern

Bill to:  
**TRIAD METALS INTERNATIONAL**  
 A-1 2300 Computer Avenue  
 Petersburg VA, 23805 US  
 Attn: Fred White

Quality Steel 100% Melted  
 and Manufactured in the USA

## GENERAL INFORMATION

Product Wide Flange Beam

Size W 24 x 76

W 570 x 143

Heat Number A036440

Condition(s) A-Rolled

F - Grained

## SPECIFICATIONS

Standards

ASTM A6/A6M

\* ASTM A992/A992M - 06a

ASTM A709/A709M - 06a

ASTM A572/A572M - 06

ASTM A709/A709M - 06a

Grades

A992 / A992M

A709 gr50/gr345

A572 gr50/gr345

A709 gr50S/gr345S

## SHIPMENT DETAILS

BOL # 0000124020

Bundle / ASN # Length pcs Customer PO

020953445 70' 0" 4 105

020953444 70' 0" 4 105

## CHEMICAL ANALYSIS (weight percent)

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analysis Type
.08	1.14	.013	.020	.23	.45	.12	.12	.039	.021	.034	.001	.0082	.0003	.35	.39	.19	5.73	Heat

## MECHANICAL TESTING

Test	Yield (fy)		Tensile (fu)		fy / fu ratio	% Elong. {8" gage}
	ksi / MPa	ksi / MPa	ksi / MPa	ksi / MPa		
1	60 / 412	73 / 507	73 / 507	74 / 511	.81	26
2	61 / 418	74 / 511	74 / 511		.82	26
3						
4						
5						
6						
7						

Charpy Impact Tests (available only when specified at time of order)

Temp F / C	Absorbed Energy ft-lbf / J		
	Specimen 1	Specimen 2	Specimen 3
	Average	Minimum	

HK # A036440 is used to Fab item: B445, B460

Notes: \* Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC), Corrosion Index (I)  
 CE1 (IIV) = C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15  
 CE2 (AWS) = C + (Mn + Si)/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15  
 PCm (AWS) = C + Si/30 + Mn/20 + Cu/20 + Ni/60 + Cr/20 + Mo/15 + V/10 + 5B  
 I (ASTM G101) = 26.01(Cu) + 3.88(Ni) + 1.20(Cr) + 1.49(Si) + 17.29(P) - 7.29(Cu)(Ni) - 9.10(Ni)(P) - 33.39(Cu)

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: Doug Rees-Evans

Form F-6100-002-054 Manager of Technical Services

Signed: \_\_\_\_\_ My commission expires: \_\_\_\_\_

Notary Public

ASTM A6 - 14.6: A signature is not required on the test report; however, the document shall clearly identify the organization submitting the report. Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report.

Load #: 13

Shipping Date:

Waybill #: 898-13

Customer:	Pizzagalli Construction Company		Prepared By:	Approved By:	Date: 24-01-01
Job Title:	84 Marginal Way	Job Progress Report Sheet	Bathurst Machine Shop Ltd. 1040 Route 430		
Date Sent to Shop:	X	SHEET: 1	Mandate Erectors & Welding Ltd. Big River Road		
Job Number:	898	X	MQM Ltd., Tracadie E2A 6P9		

Attach.	Material	Rev.	Mark #	Qty	Weight	C=COLOR GALV.				Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped				
						Paint	Galv	Camber	Level	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date		
A	W12X19	A	B304	2	791																							
A	W08X15	A	B305	1	162																							
A	W12X19	A	B308	1	220																							
A	W18X35	A	B317	1	958																							
A	W24X68	A	B338	1	2991																							
A	W08X15	A	B340	1	155																							
A	W24X62	A	B344	1	3196																							
A	W24X62	A	B345	1	3203																							
A	W18X50	A	B356	1	1812																							
A	W21X44	A	B365	1	1741																							
A	U.S.S. 8X4X1/4	A	B383	1	153																							
A	W18X40	0	B400	1	1434																							
A	W10X17	0	B408	1	322																							
A	W12X19	0	B409	1	654																							
A	W12X19	0	B410	1	166																							
A	W12X19	0	B415	1	495																							
A	W08X10	0	B416	1	34																							
A	W18X35	0	B419	1	564																							
A	W21X44	0	B428	1	502																							
A	W08X10	0	B438	1	30																							

Pieces 21 19583 Total Weight( Lbs) ( 9.8 TONS)



Load #: 13

Customer: Pizzagalli Construction Company  
 Job Title: 84 Marginal Way  
 Date Sent to Shop: X  
 Job Number: 898

SHEET: 2

Prepared By: Approved By: Date: 24-01-01  
 Bathurst Machine Shop Ltd.  
 Mandate Erectors & Welding Ltd.  
 MIQM Ltd., Tracadie  
 10-10 Route 430  
 Big River Road  
 E2A 6P9

Form#12 Rev. 4

\* = SEE SHOP DWG C=COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped				
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date
A	H.S.S. 8X6X5/16	0	B440	1	295																							
A	W16X26	0	B458	1	1213																							
A	W12X19	0	B463	1	122																							
A	W24X55	0	B464	1	2071																							
A	W18X35	0	B466	1	689																							
A	W12X19	0	B481	1	378																							
A	W12X19	0	B486	1	281																							
A	W12X19	0	B489	2	173																							
A	W12X19	0	B491	1	682																							
A	H.S.S. 6X6X1/2	0	D207	1	403																							
A	H.S.S. 6X6X1/2	0	D208	1	440																							
A	H.S.S. 6X6X1/2	0	D209	2	881																							
A	H.S.S. 6X6X3/8	0	D212	2	754																							
A	H.S.S. 8X8X5/8	0	D217	1	992																							
A	H.S.S. 6X6X1/2	0	D220	1	440																							
A	H.S.S. 10X10X5/8	0	D309	1	1260																							
A	H.S.S. 8X8X5/8	0	D312	1	939																							
H	BENT PL 13 1/4	0	M203	1	312																							
A	C06C8.2	0	M205	1	178																							
A	BENT PL 9 1/2	0	M213	1	478																							

Pieces 23 Total Weight( Lbs) ( 6.5 TONS)

Load #: 13

Customer: Pizzagalli Construction Company  
 Job Title: 84 Marginal Way  
 Date Sent to Shop: X  
 Job Number: 898

SHEET: 3

Prepared By: Approved By: Date: 24-01-01  
 Bathurst Machine Shop Ltd. 10-10 Route 430  
 Mandate Erectors & Welding Ltd. Big River Road  
 MQM Ltd., Tracadie E2A 6P9

Form# 12 Rev. 4 \* = SEE SHOP DWG C=COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped				
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date		
H	BENT PL 14"	0	M216	1	70																							
A	BENT PL 9 1/2"	0	M218	1	268																							
A	BENT PL 11"	0	M219	1	320																							
N/A	PL 1/4"X2	0	M241	57	16																							
A	BENT PL 14 1/2"	0	M243	1	59																							
A	BENT PL 18 1/2"	0	M244	1	322																							
A	BENT PL 14 1/2"	0	M245	1	62																							
A	BENT PL 9 1/2"	0	M246	1	204																							
N/A	BENT PL 11"	0	M248	1	469																							
H	BENT PL 11"	0	M249	1	458																							
H	BENT PL 11"	0	M251	1	460																							
H	BENT PL 12 1/4"	0	M252	1	74																							
H	BENT PL 9 1/2"	0	M253	1	62																							
H	BENT PL 11"	0	M254	1	413																							
H	BENT PL 10"	0	M255	1	435																							
H	BENT PL 11"	0	M256	1	432																							
H	BENT PL 11"	0	M261	1	244																							
H	BENT PL 10"	0	M265	1	612																							
A	C06C8.2	0	M266	1	303																							
A	C06C8.2	0	M267	1	141																							

Pieces 76 5424 Total Weight(Lbs) ( 2.7 TONS)

Load #: 13

Customer: Pizzagalli Construction Company  
 Job Title: 84 Marginal Way  
 Date Sent to Shop: X  
 Job Number: 898

SHEET: 4

Prepared By: Approved By: Date: 24-01-01

Bathurst Machine Shop Ltd. 1040 Route 430  
 Mandate Erectors & Welding Ltd. Big River Road  
 MIQM Ltd., Tracadie E2A 6P9

Attach.	Material	Rev.	Mark #	Qty	Weight	C=COLOR GALV.				Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped					
						Paint	Galv	Camber	Level	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date			
H	BENT PL 11"	0	M269	1	283																								
A	C06C8.2	0	M270	1	132																								
H	BENT PL 10 3/4"	0	M271	1	423																								
H	BENT PL 12 3/8"	0	M273	1	285																								
H	BENT PL 10"	0	M274	1	147																								
H	BENT PL 10"	0	M275	1	144																								
H	BENT PL 10"	0	M276	1	132																								
H	BENT PL 10	0	M277	1	44																								
H	BENT PL 14 1/2"	0	M278	1	96																								
H	BENT PL 10"	0	M279	1	435																								
H	BENT PL 10"	0	M280	1	220																								
H	BENT PL 14"	0	M281	1	472																								
A	C06C8.2	0	M323	1	141																								
A	C06C8.2	0	M324	1	133																								
A	C06C8.2	0	M325	1	287																								
A	C06C8.2	0	M326	1	178																								
N/A	C06C8.2	0	M327	1	1517																								
A	C06C8.2	0	M329	1	282																								
A	C06C8.2	0	M333	1	218																								

Pieces 19 5569 Total Weight(Lbs) ( 2.8 TONS)



# Test Certificate

Form TCI: Revision 1: Date: 31 Oct 2000

Customer:  
**SAMUEL & FILS (QUEBEC) L**  
 2125 FRANÇOIS HUGHES  
 AVENUE  
 LAVAL  
 PQ H9S1N5

Customer P.O. No.: C40480  
 Product Description: CSA G40.21 (98, 00) 44W/300V / ASTM A36 (04)  
 A709 (01A) 36/A: ME SA36 (01ED)

Mill Order No.: 41-091456-01  
 Shipping Manifest: 11022717  
 Ship Date: 15 Feb 05  
 Cert No: 0211020845  
 Ship Date: 15 Feb 05

Size: 0.250 X 96.00 X 240.0 (IN)

Heat Id	Tested Pieces		Tensiles		Charpy		Impact Tests			
	Piece Id	Dimensions	YS (PSI)	UTS (TSI)	Elong % of 2in	Bend Test	Average Hardness	Absorbed Energy (FTLB)	Temp	Test Size
E50A111	037:3	0.250 X 96.00 (T.L.C)	51000 60000	70000 70000	31 28			1 2 3 Avg	1 2 3 Avg	Test Size

Heat Id	Chemical Analysis										
	C	Mn	P	S	Si	Tot Al	Cu	Ni	Cr	Mo	Cl
E50A111	16	83	012	008	02	028	29	14	10	03	003
											003
											0001
											0074

Heat Id: E50A111 is used to fabricate items: 11263, 11215, 11217, 11241, 11244, 11248, 11249, 11251, 11256, 11261, 11265, 11269, 11274, 11282

ORGN: USA

MATERIAL MARKED WITH AN ASTERISK IS PRODUCED FROM COIL  
 0178  
 PCS: 16, NET: 29404

WE HEREBY CERTIFY THAT THIS MATERIAL WAS TESTED IN ACCORDANCE WITH THE APPROPRIATE SPECIFICATION

Orlando Angeli, Lab Technician

CUSTOMER - CLIENTE: WIRTH STEEL		TOLERANCES - TOLERÂNCIAS	
PRODUCT - PRODUTO: HOT ROLLED STEEL PLATE		ASTM A5 - 2004B	
SPECIFICATION - ESPECIFICAÇÃO: ASTM A572 1150 - 2004 CSA		ASTM A5 - 2004D	
G40 21 50W - 2004		Ultrasom test - Ensaio de Ultrasom:	
DIMENSIONS - DIMENSÕES		35.00mm	
THICKNESS - espessura		- 0.001 - 0.000mm	
WIDTH - largura		- 0.001 - 0.000mm	
FLATNESS - APLACAMENTO:		35.00mm	

PACKAGING N° - VOL/UNE	HEIGHT - PESO		SAMPLE No N° AMOSTRA	HEAT No N° CORRIDO	TENSILE TEST ENSAIO DE TRAÇÃO		IMPACT TEST ENSAIO DE IMPACTO		METALLOGRAPHIC TESTS ENSAIOS METALOGRAFICOS					
	NET LÍQUIDO	GROSS BRUTO			YIELD STRENGTH ESP. LARG. - COMP Inch	TENSILE ESTRÉS (N)	ELONGATION ESTRÉC (N)	TEMPERATURE TEMPERATURA °C		GAUGE LENGTH BASE MEDIDA	TEST METHOD MÉTODO LE	UNIT/UNIDADE	NOTCH - ENTAHE	TEST DIRECTION DIREÇÃO DO TESTE
79422001	2,700	2,700	225676	610734	TO EN T SUP	20	303,43	518,74	0,76	21,50				
79426001	2,700	2,700	225675	"	TO EN T SUP	20	304,58	526,53	0,75	21,00				
79432001	2,700	2,700	225677	"	TO EN T SUP	20	307,92	532,56	0,74	21,50				
79428001	2,700	2,700	225678	"	TO EN T SUP	20	427,47	546,38	0,78	25,00				
79438001	2,700	2,700	225676	"	TO EN T SUP	20								
79435001	2,700	2,700	225677	"	TO EN T SUP	20								
79439001	2,700	2,700	225676	"	TO EN T SUP	20								
79437001	2,700	2,700	225675	"	TO EN T SUP	20								
79436001	2,700	2,700	225676	"	TO EN T SUP	20								
79430001	2,700	2,700	225675	"	TO EN T SUP	20								
79431001	2,700	2,700	225676	"	TO EN T SUP	20								
79432001	2,700	2,700	225677	"	TO EN T SUP	20								
79433001	2,700	2,700	225678	"	TO EN T SUP	20								
79434001	2,700	2,700	225676	"	TO EN T SUP	20								
79435001	2,700	2,700	225677	"	TO EN T SUP	20								
79436001	2,700	2,700	225678	"	TO EN T SUP	20								

CHEMICAL COMPOSITION (%) - COMPOSIÇÃO QUÍMICA (%)													
HEAT No N° CORRIDO	C	Mn	P	S	SI	Al	Cu	Mo	Cr	Ni	Nb	V	Ti
610734	0,14	1,16	0,020	0,010	0,032	0,039	0,007	0,002	0,050	0,018	0,019	0,002	0,018
600585	0,12	1,12	0,020	0,008	0,224	0,027	0,005	0,002	0,022	0,011	0,028	0,000	0,010

Remarks - Observações: GOODS: PRIME QUALITY, NEVILY PRODUCED HOT ROLLED KILLED STEEL PLATES TO ASTM A572-50CSA G40 21 50W. TOLERANCES TO AS (LATEST EDITIONS) - THE GRADE AND HEAT NUMBERS ARE DESTAMPED IN EACH PLATE AND TRACEABLE TO QUALITY CERTIFICATE/PACKING LIST. APPLICANTS ORDER NUMBER 77354 - THIS MATERIAL COMPLIES WITH THE ASTM A 709 GRADE 50 STANDARD

HT # 670734 is used for Fab item: 19213.0218, 19243, 19245, 19246

WE HEREBY CERTIFY THAT THE LATEST EDITIONS OF THE SPECIFICATIONS REFERRED TO IN THIS CERTIFICATE HAVE BEEN USED IN THE MANUFACTURE OF THE PRODUCT. THE PRODUCT IS CONSIDERED TO BE IN CONFORMANCE WITH THE SPECIFICATIONS REFERRED TO IN THIS CERTIFICATE. THE PRODUCT IS PROVIDED AS DESCRIBED AND ACCEPTED AS SHOWN ON THE DRAWINGS AND SPECIFICATIONS REFERRED TO IN THIS CERTIFICATE. THE PRODUCT IS PROVIDED AS DESCRIBED AND ACCEPTED AS SHOWN ON THE DRAWINGS AND SPECIFICATIONS REFERRED TO IN THIS CERTIFICATE. THE PRODUCT IS PROVIDED AS DESCRIBED AND ACCEPTED AS SHOWN ON THE DRAWINGS AND SPECIFICATIONS REFERRED TO IN THIS CERTIFICATE.

*[Signature]*



Atlas Tube Canada LLC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 NOR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537



Ref.B/L: 80263316  
 Date: 10.24.2007  
 Customer: 1751

**Sold to**  
 Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

**MATERIAL TEST REPORT**

**Shipped to**  
 Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Material: 8.0x8.0x625x50"0"(2x1).  
 Sales order: 335491  
 Material No: 80080625  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Ch	Mo	Ni	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002
Bundle No	Yield	Tensile	Eln.2in		Certification								
M200482103	063150 Psi	076440 Psi	34.3 %		ASTM A500-03A GRADE B&C								

Material Note:  
 Sales Or.Note:

Material: 8.0x8.0x625x50"0"(2x1).  
 Sales order: 335491  
 Material No: 80080625  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Ch	Mo	Ni	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002
Bundle No	Yield	Tensile	Eln.2in		Certification								
M200482102	063150 Psi	076440 Psi	34.3 %		ASTM A500-03A GRADE B&C								

Material Note:  
 Sales Or.Note:

Material: 10.0x10.0x625x18"0"(2x2).  
 Sales order: 335491  
 Material No: 100100625  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Ch	Mo	Ni	Cr	V
583750	4	0.200	0.810	0.011	0.002	0.160	0.034	0.015	0.006	0.002	0.007	0.022	0.002
Bundle No	Yield	Tensile	Eln.2in		Certification								
M200483575	054920 Psi	073670 Psi	38.5 %		ASTM A500-03A GRADE B&C								

Material Note:  
 Sales Or.Note: *417# 583750 10 used to fabricate D.A. 91*

Material: 10.0x10.0x625x18"0"(2x2).  
 Sales order: 335491  
 Material No: 100100625  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Ch	Mo	Ni	Cr	V
583750	4	0.200	0.810	0.011	0.002	0.160	0.034	0.015	0.006	0.002	0.007	0.022	0.002
Bundle No	Yield	Tensile	Eln.2in		Certification								
M200483574	054920 Psi	073670 Psi	38.5 %		ASTM A500-03A GRADE B&C								

Material Note:  
 Sales Or.Note:

Authorized by Quality Assurance: *M. Wilson*

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.



P.O. 32912

COPPERWELD CANADA INC.  
14 HOLBY AVENUE  
BRAMPTON, ONTARIO L6X 2M3  
CANADA



Customer Order No.

87827

Internal Order No. 536796

Invoice No. 17049030

TEST REPORT

Customer:				Specification: 6 IN. SQ, 1/2 48 Ft CSA G40.21									
HEAT NO.			CHEMICAL ANALYSIS, %										
6469T	C.E.	.33	C	Mn	P	S	SI	AL	CB	V	CU	NI	CR
			.18	.66	.011	.005	.22	.034	.005	.03	.020	.010	.020
MECHANICAL PROPERTIES													
HEAT NO.	LAB NO.	YIELD STRENGTH PSI		TENSILE STRENGTH PSI		ELONGATION %		HARDNESS Rb					
6469T	7	71300		87300		34							
YIELD STRENGTH IS 0.2% OFFSET - ELONGATION IN 2 INCHES													
Other Tests 117 # 2469T re used to fab items D207 D208, D209 D220							 JIM CLARK, METALLURGIST						
LTV Copperweld certifies that the material purchased on this order meets all chemical and physical requirements in accordance with the latest applicable ASTM standards.													



0027003

Atlas Tube (U.S.) Inc.  
13101 Eckles Road  
Plymouth, Michigan, USA  
48170  
Tel: 313-454-5600  
Fax: 313-454-1474



Ref.B/L: 80243954  
Date: 06.19.2007  
Customer: 1774

**Sold to**

Acier Altitude Inc.  
2555 Francis-Hugues Avenue  
LAVAL QC H7S 2H7  
CANADA

**MATERIAL TEST REPORT**

**Shipped to**

Acier Altitude Inc.  
2555 Francis-Hugues Avenue  
LAVAL QC H7S 2H7  
CANADA

Material: 8.0x6.0x375x4810 C13x21  
Sales order: 307546  
Material No: 600603754800  
Purchase Order: 3138  
Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
420060	0.130	0.730	0.009	0.002	0.150	0.027	0.020	0.005	0.002	0.008	0.028	0.000

Bundle No: M100639733  
Yield: 061820 Psi  
Tensile: 073360 Psi  
Elon. 2in: 34.5 %  
Certification: ASTM A500-03A GRADE C & B

Material Note:  
Sales Or. Note:

*HTH 420060 is used to fab form D312*

Material: 8.0x6.0x375x4810 C13x21  
Sales order: 307546  
Material No: 600603754800  
Purchase Order: 3135  
Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
420060	0.130	0.730	0.009	0.002	0.150	0.027	0.020	0.005	0.002	0.008	0.028	0.000

Bundle No: M100639731  
Yield: 061820 Psi  
Tensile: 073360 Psi  
Elon. 2in: 34.5 %  
Certification: ASTM A500-03A GRADE C & B

Material Note:  
Sales Or. Note:

Material: 7.0x4.0x250x400 C13x31  
Sales order: 310882  
Material No: 700402504000  
Purchase Order: 3177  
Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
0135580	0.220	0.830	0.009	0.006	0.027	0.042	0.030	0.000	0.000	0.000	0.000	0.000

Bundle No: M100630116  
Yield: 059550 Psi  
Tensile: 072540 Psi  
Elon. 2in: 35.4 %  
Certification: ASTM A500-03A GRADE C & B

Material Note:  
Sales Or. Note:

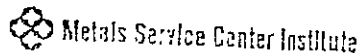
Material: 7.0x4.0x250x400 C13x31  
Sales order: 310882  
Material No: 700402504000  
Purchase Order: 3177  
Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
0135580	0.220	0.830	0.009	0.006	0.027	0.042	0.030	0.000	0.000	0.000	0.000	0.000

Bundle No: M100630116  
Yield: 059550 Psi  
Tensile: 071140 Psi  
Elon. 2in: 37.9 %  
Certification: ASTM A500-03A GRADE C & B

Material Note:  
Sales Or. Note:

Authorized by Quality Control



10/29/2007 MON 14:15 FAX

001/003

Atlas Tube Canada ULC  
200 Clark St  
NOR 1GC  
Tel: 514-738-3541  
Fax: 514-738-3537

**MATERIAL TEST REPORT**

Ref./L: 80248589  
Date: 10.29.2007

*Attn: Denis Guitera.*

*300.540-1629*

Sold to

Mandate Erectors & Welding Lt  
1040 Route 430  
BIG RIVER NB E2A 6P9  
CANADA

Shipped to

Mandate Erectors & Welding Lt  
1040 Route 430  
BIG RIVER NB E2A 6P9  
CANADA

Material: 8.3x4.0x250x26" (2x2) Material No: 80040250 Made in: Canada  
Sales order: 314780 Purchase Order: 31077

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
749730	4	0.200	0.820	0.011	0.007	0.011	0.049	0.021	0.004	0.002	0.010	0.035	0.000
<u>Bundle No</u>	<u>Yield</u>	<u>Tensile</u>	<u>Eln.2in</u>	<u>Certification</u>									
M100648382	058250 Psi	069520 Psi	33.2 %	ASTM A500-03A GRADE B&C									

Material Note:

Sales Or.Note:

*HT# 749730 is used to fabricate 3383*

Material: 12.0x12.0x375x32" (2x2) Material No: 120120375 Made in: Canada  
Sales order: 314238 Purchase Order: 31072

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582786	4	0.200	0.790	0.011	0.003	0.150	0.035	0.026	0.005	0.002	0.013	0.040	0.002
<u>Bundle No</u>	<u>Yield</u>	<u>Tensile</u>	<u>Eln.2in</u>	<u>Certification</u>									
M200457870	063170 Psi	076790 Psi	30.7 %	ASTM A500-03A GRADE B&C									

Material Note:

Sales Or.Note:

Material: 12.0x12.0x375x32" (2x2) Material No: 120120375 Made in: Canada  
Sales order: 314238 Purchase Order: 31072

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582788	4	0.200	0.790	0.011	0.003	0.150	0.035	0.026	0.005	0.002	0.013	0.040	0.002
<u>Bundle No</u>	<u>Yield</u>	<u>Tensile</u>	<u>Eln.2in</u>	<u>Certification</u>									
M200457871	063170 Psi	076790 Psi	30.7 %	ASTM A500-03A GRADE B&C									

Material Note:

Sales Or.Note:

Material: 12.0x12.0x375x32" (2x2) Material No: 120120375 Made in: Canada  
Sales order: 314238 Purchase Order: 31072

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582787	2	0.200	0.780	0.011	0.003	0.150	0.029	0.038	0.005	0.004	0.015	0.045	0.000
<u>Bundle No</u>	<u>Yield</u>	<u>Tensile</u>	<u>Eln.2in</u>	<u>Certification</u>									
M200457868	059840 Psi	075430 Psi	35.9 %	ASTM A500-03A GRADE B&C									

Material Note:

Sales Or.Note:

Authorized by Quality Assurance:

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.

10/13/2007 SAT 22:48 FAX

2006/013

Atlas Tubo Canada LLC  
 200 Clerk St  
 Montreal, Quebec, Canada  
 H3R 1G0  
 Tel: 514-738-3641  
 Fax: 514-738-3637



Ref.B/L: 80261880  
 Date: 10.13.2007  
 Customer: 1774

Sold to

Acier Altitude Inc.  
 2555 Francis-Hugues Avenue  
 LAVAL QC H7S 2H7  
 CANADA

MATERIAL TEST REPORT

Shipped to

Acier Altitude Inc.  
 2555 Francis-Hugues Avenue  
 LAVAL QC H7S 2H7  
 CANADA

*T-S 5X6X.313 Heat 681186*

Material: 8 Dk6 QAZ0375x20 0.12x1PE0  
 Sales order: 338385  
 Material No: 80050375  
 Purchase Order: 3426  
 Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
8E0408	0.200	0.300	0.010	0.003	0.160	0.044	0.033	0.005	0.002	0.014	0.043	0.000

Bundle No	Yield	Tensile	El. 2in	Certification
0001720788	069149 Psi	080350 Psi	29.8 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Material: 8 Dk6 QAZ0385x20 0.12x1PE0  
 Sales order: 327352  
 Material No: 80050252  
 Purchase Order: 3409  
 Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
000048	0.150	0.300	0.008	0.005	0.021	0.049	0.051	0.005	0.005	0.013	0.027	0.000

Bundle No	Yield	Tensile	El. 2in	Certification
0200478177	063370 Psi	075300 Psi	31.3 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Material: 8 Dk6 QAZ0400x20 0.12x1PE0  
 Sales order: 338386  
 Material No: 80050313  
 Purchase Order: 3426  
 Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
8E1198	0.100	0.30	0.014	0.000	0.150	0.034	0.031	0.005	0.002	0.013	0.031	0.000

Bundle No	Yield	Tensile	El. 2in	Certification
0200471436	060750 Psi	073280 Psi	32.6 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note: *HT# 681186 is used to fabrications. 11441*

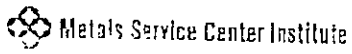
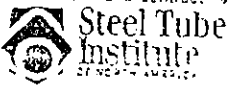
Material: 8 Dk6 QAZ0400x20 0.12x1PE0  
 Sales order: 338386  
 Material No: 80050313  
 Purchase Order: 3426  
 Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
8E1198	0.100	0.300	0.014	0.000	0.160	0.035	0.033	0.005	0.003	0.013	0.042	0.000

Bundle No	Yield	Tensile	El. 2in	Certification
0200470216	060950 Psi	073280 Psi	32.8 %	CSA S40.21-04 S0W CLASS C

Material Note:  
 Sales Or.Note:

Assurance...  
 The Institute...  
 The actual results of the material furnished and indicate full compliance with all applicable specifications and contract requirements.





Metals Service Center Institute

The results reported on this report represent the actual attributes of the material and indicate full compliance with all applicable specification and contract requirements.

Authorized by Quality Assurance: *[Signature]*

Material: 8.0x8.0x625x48" (0.012x1)

Material No: 800806254800      Made In: Canada

Sales order: 335191      Purchase Order: 30519-698

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002
Bundle No	Certification												
M250432111	ASTM A500-03A GRADE B&C												
Material Note:	063150 Psi      076440 Psi      34.3 %												
Sales Order:	IT # 582766 is used to fabricate forms: 10017, 10012												

MATERIAL TEST REPORT



Sold to  
Mandate Erectors & Welding  
1040 Route 430  
BIG RIVER NB E2A 6P9  
CANADA

Atlas Tube Canada ULC  
200 Clark St.  
Harrow, Ontario, Canada  
N0R 1G0  
Tel: 519-738-3541  
Fax: 519-738-3537

Shipped to  
Mandate Erectors & Welding  
1040 Route 430  
BIG RIVER NB E2A 6P9  
CANADA

Ref./B/L: 80263316  
Date: 10.24.2007  
Customer: 1751

WVVC/VVC

# ACIER PACIFIQUE INC.

P.O./Rel

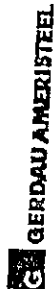
## Certificate of Mill Test Results

PAI-000000-000

Page 1 of 5

PART NO

Attn:



### CHEMICAL AND PHYSICAL TEST REPORT

MADE IN U.S.A.

CARTERSVILLE STEEL MILL,  
METALLURGICAL DEPARTMENT

384 OLD GRASSDALE RD NE, CARTERSVILLE, GA 30121

PRODUCING MILL IS KNOWN BY HEAT ID PREFIX B=CARTERSVILLE BB, C=CHARLOTTE, G=CARTERSVILLE, J=JACKSONVILLE, K=KNOXVILLE,  
NECAMBRIDGE, O=ORRVILLE BB, P=PERTH AMBOY, S=SAYREVILLE, V=JACKSON TN, W=WHITBY

Shipper's Name: GERDAU AMERISTEEL

Shipper's Number: 033212

SHIP TO: APPROXIMATE IDEAL CH 65000 B076  
770 ACER PACIFIC  
2345 DE LA METROPOLE  
LONGUEUIL

INVOICE TO: PACIFIQUE STEEL INC  
845 MUNCK ST.  
LAVAL

SHIP DATE: 05/09/04  
CUST. ACCOUNT NO.: 6003632

PO JK154 PO 175 149

HEAT NO.	ACTUAL TAG/HEAT NO.	GRADE	C	MN	P	S	V	SI	CR	CU	N	SN	AL	MO	N	H	B	ZI	PI	C*	ZN	C	ESQ	
64-0381	64-0381	A36/A992	.15	.91	.008	.025	.015	.20	.00	.28	.11	.009	.001	.030	.0110	.001	.000	.000	.000	.000	.000	.000	.000	.000
YIELD PT LBS/SQ IN: 58000; TENSILE LBS/SQ IN: 74000; % ELONG 8 IN 21.4; REHD: DEF: % UCHTM-HEAVY; METRIC EQUIVALENT: YIELD = 410.83 MPA; TENSILE = 521.83 MPA; % ELONG 200MM=23.6 DEF: % UCHTM-HEAVY																								
64-0382	64-0382	A36/A992	.13	.92	.008	.025	.015	.20	.00	.28	.11	.009	.001	.030	.0110	.001	.000	.000	.000	.000	.000	.000	.000	.000
YIELD PT LBS/SQ IN: 56000; TENSILE LBS/SQ IN: 72000; % ELONG 8 IN 21.6; REHD: DEF: % UCHTM-HEAVY; METRIC EQUIVALENT: YIELD = 399.25 MPA; TENSILE = 521.83 MPA; % ELONG 200MM=23.6 DEF: % UCHTM-HEAVY																								
64-0383	64-0383	A36/A992	.14	.90	.010	.025	.017	.19	.06	.35	.10	.010	.002	.032	.010	.001	.000	.000	.000	.000	.000	.000	.000	.000
YIELD PT LBS/SQ IN: 57700; TENSILE LBS/SQ IN: 74000; % ELONG 8 IN 21.1; REHD: DEF: % UCHTM-HEAVY; METRIC EQUIVALENT: YIELD = 407.83 MPA; TENSILE = 521.83 MPA; % ELONG 200MM=22.4 DEF: % UCHTM-HEAVY																								
64-0384	64-0384	A36/A992	.14	.90	.010	.025	.017	.19	.06	.35	.10	.010	.002	.032	.010	.001	.000	.000	.000	.000	.000	.000	.000	.000
YIELD PT LBS/SQ IN: 60200; TENSILE LBS/SQ IN: 78000; % ELONG 8 IN 21.1; REHD: DEF: % UCHTM-HEAVY; METRIC EQUIVALENT: YIELD = 415.06 MPA; TENSILE = 544.80 MPA; % ELONG 200MM=21.1 DEF: % UCHTM-HEAVY																								
64-0385	64-0385	A36/A992	.14	.90	.010	.025	.017	.19	.06	.35	.10	.010	.002	.032	.010	.001	.000	.000	.000	.000	.000	.000	.000	.000
YIELD PT LBS/SQ IN: 57700; TENSILE LBS/SQ IN: 74400; % ELONG 8 IN 22.4; REHD: DEF: % UCHTM-HEAVY; METRIC EQUIVALENT: YIELD = 407.83 MPA; TENSILE = 533.85 MPA; % ELONG 200MM=22.4 DEF: % UCHTM-HEAVY																								

117 # 64-0384 is used to fabricate 6416, 6418

This material, including the labels, was produced and manufactured in the United States of America.  
A. J. Turner  
Quality Assurance Manager  
M/I Group

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST REPORTS CONTAINED IN THE PERMANENT RECORDS OF THE COMPANY.

Vendor  
Gerdau Ameristeel - Cartersville

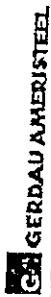
Heat Number  
G705132

Page 3 of 3

G-100414

Chemical and Physical Test Report

MADE IN UNITED STATES



CARTERSVILLE STEEL MILL  
384 OLD GRASSDALE ROAD  
CARTERSVILLE GA 31211 USA  
(770) 387-3300

PRODUCED IN: CARTERSVILLE

SHIP TO  
TRACO METAL  
1061 INESSFAGER ROAD  
804-732-5000  
PETERSBURG, VA 23805

MYOCETO  
TRACO METALS INTERNATIONAL  
METAL TRACERS INC  
2900 COMPUTER AVENUE-A-1  
WILLIAM GROVE, PA 10090

SHIP DATE  
09/24/07

SALES ORDER  
7619342

SALES ORDER  
7619342

SHAPE & SIZE	GRADE	SPECIFICATION	YIELD STRENGTH	TENSILE STRENGTH	ELONGATION	SHIP DATE	SALES ORDER	SALES ORDER
W8 X 15A	A572-50	ASTM A572 GR50-07, ASTM A572-04	485 MPa	620 MPa	21%	09/24/07	7619342	7619342

HEAT NO.	C	Mn	P	S	Si	Cu	N	Ca	Al	Fe	B	Ni	Sn	As	Pb	Bi	Se	Te	Mo	Cr	Co	W	Si	Other	
G705132	.11	.37	.013	.029	.18	.31	.10	.05	.029	.0008	.0008	.011	.002	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000

SHAPE & SIZE	GRADE	SPECIFICATION	YIELD STRENGTH	TENSILE STRENGTH	ELONGATION	SHIP DATE	SALES ORDER	SALES ORDER
W8 X 15A	A572-50	ASTM A572 GR50-07, ASTM A572-04	485 MPa	620 MPa	21%	09/24/07	7619342	7619342

HT# G705132 is used for job items: 0305, 0340

This material, including the labels, was produced and manufactured in the United States of America

Shawnee, VA 22086  
Quality Division  
Gerdau Ameristeel

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE CERTIFIED COPY AND ORIGINAL TEST REPORTS AS CONTAINED IN THE RETAINING RECORDS OF GERDAU

*[Signature]*

W. Mackey  
CAPITOL CITY STEEL CO.

Other written test of materials included that comply with the above subject to standard industry manufacturing practices. NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE MADE BY THE SELLER, AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Any claims for damages for materials that do not conform to the technical data must be made from date of delivery to date of receipt after delivery of same in order to allow for the necessary to extend the material in standard.

**GERDAU AMERISTEEL**

CARTERSVILLE STEEL MILL  
384 CLO GRASSDALE RD NE  
CARTERSVILLE GA 30121 USA  
(770) 387-3390

Chemical and Physical Test Report  
MADE IN UNITED STATES

G 082142

PRODUCED IN: CARTERSVILLE

SHIP TO TRUAD METAL 1951 BESSNER ROAD 803-732-5000 PETERSBURG, VA 23105		INVOICE TO TRUAD METALS INTERNATIONAL METAL TRADERS INC 2300 COMPUTER AVE STE-A-1 WILLOW GROVE, PA 19090		SHIP DATE 1/20/06	CUSTOMER ACCOUNT NO 41271915
---	--	--	--	----------------------	---------------------------------

MARKER SIZE	GRADE	SPECIFICATION	YIELD STRENGTH	TENSILE STRENGTH	ELONGATION	REDUCED SECTION	WELDABLE	SALES ORDER #	CUSTOMER ORDER #
10	A572092	A572092	410	510	21	0.25	Y	505460 11	124786 11

Mechanical Test: Yield 41000 PSI, 418 MPa  
Tensile 62000 PSI, 415 MPa  
Customer Requirements: CASTING STRAIGHT CAST

MARKER SIZE	GRADE	SPECIFICATION	YIELD STRENGTH	TENSILE STRENGTH	ELONGATION	REDUCED SECTION	WELDABLE	SALES ORDER #	CUSTOMER ORDER #
10	A572092	A572092	410	510	21	0.25	Y	505460 11	124786 11

Mechanical Test: Yield 62000 PSI, 418 MPa  
Tensile 87600 PSI, 544 MPa  
Customer Requirements: CASTING STRAIGHT CAST

A11# G650611's used to fab item: A408

This material per ASME III, Part 5, was produced and manufactured in the United States of America.

*MacKay*  
Quality Director  
(e-data@ameristeel.com)

This notice requires that certified practices from the original manufacturer be followed as contained in the appropriate requirements of ASME III.

*Young*  
Quality Director  
(e-data@ameristeel.com)

Vendor  
Gerdau Ameristeel - Cartersville

Heat Number  
G704824

**GERDAU AMERISTEEL**  
 CARTERSVILLE STEEL MILL  
 334 OLD GRASSDALE RD NE  
 CARTERSVILLE GA 30121 USA  
 (770) 267-3000

Chemical and Physical Test Report  
 MADE IN UNITED STATES

G-1000081

PRODUCED IN: CARTERSVILLE

SHIP TO TRIAD METAL 1931 BESSEMER ROAD 864-732-6000 PETERSBURG, VA 23105		INVOICE TO TRIAD METALS INTERNATIONAL METAL TRADERS INC 7300 COMPUTER AVENUE-A-1 WILLOW GROVE, PA 19090		SHIP DATE 08/21/97	CUST. ACCOUNT NO 48213025
SHAPE & SIZE W12X25	GRADE ASTM A572 G50-07	SPECIFICATION ASTM A572 G50-07, ASTM A572-02A	SALES ORDER 307691-13	CERT. NO. RETURN 1112 13	
HEAT ID. G704786	C M1 P S 9 11 115 223 77 24	CU NI CR MO V Nb B N Sn Cu 009 007 0007 0100 00250 015			
Mechanical Test: Yield 53700 PSI, 361.78 MPa Tensile 71500 PSI, 491.04 MPa	Customer Requirements: CASTING STRAND CAST	Yield 53700 PSI, 361.78 MPa Tensile 71500 PSI, 491.04 MPa			
Mechanical Test: Yield 57200 PSI, 394.26 MPa Tensile 73700 PSI, 508.11 MPa	Customer Requirements: CASTING STRAND CAST	Yield 57200 PSI, 394.26 MPa Tensile 73700 PSI, 508.11 MPa			
SHAPE & SIZE W12X18	GRADE ASTM A572 G50-07	SPECIFICATION ASTM A572 G50-07, ASTM A572-02A	SALES ORDER 307691-13	CERT. NO. RETURN 1112 13	
HEAT ID. G704824	C M1 P S 9 11 115 223 77 24	CU NI CR MO V Nb B N Sn Cu 009 007 0007 0100 00250 015			
Mechanical Test: Yield 53700 PSI, 361.78 MPa Tensile 71500 PSI, 491.04 MPa	Customer Requirements: CASTING STRAND CAST	Yield 53700 PSI, 361.78 MPa Tensile 71500 PSI, 491.04 MPa			
Mechanical Test: Yield 57200 PSI, 394.26 MPa Tensile 73700 PSI, 508.11 MPa	Customer Requirements: CASTING STRAND CAST	Yield 57200 PSI, 394.26 MPa Tensile 73700 PSI, 508.11 MPa			

*477-4670-4824 is used to Fab items 6384, 6388, 6409, 6410, 6415  
 6463, 6471, 6486, 6489, 6491*

This material, including the label, was produced and manufactured in the United States of America.

*Shackley*  
 Product Manager  
 Quality Control  
 Central America

*Young*  
 Sales Manager  
 Cartersville, GA

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE DATA ANALYTICAL LABORATORY REPORT AND ARE NOT TO BE USED IN ANY MANNER OTHER THAN THAT SPECIFIED IN THE REPORT.

Customer Requirements: This material is intended for use in the manufacture of structural steel members. It is not to be used for applications where high strength is required. The material is not to be used for applications where high strength is required. The material is not to be used for applications where high strength is required.



A01

**ACERALIA PERFILES**  
 Grupo Arcelor  
 CARRETERA TOLEDO, KM. 9  
 28021 MADRID  
 TELEF. (91) 797.23.00 - FAX (91) 505.02.57



### QUALITY CERTIFICATE

**APS 5393**

DISCHARGE ADDRESS				CUSTOMER			
ARCELOR INTERNATIONAL AMERICA, INC. 350 HUDSON STREET 4TH FLOOR NEW YORK, NY 10014 EE.UU.				ARCELOR INTERNATIONAL AMERICA, INC. 350 HUDSON STREET 4TH FLOOR NEW YORK, NY 10014 EE.UU.			
SHIPPED AND CERTIFIED BY				PORT OF DISCHARGE		PORT OF LOADING	
ACERALIA PERFILES OLABERRIA, S.L. CARRETERA MADRID - IRUN, KM. 419 20212 OLABERRIA (Guipúzcoa) TELEF. (943) 80.50.00 - FAX (943) 88.04.04				80		PASAJES, SPAIN	
				PORT OF DISCHARGE		VESSELS	
				NEW HAVEN, CT		ACACIA	
OUR REFERENCE	CONTRACT NUMBER	ORDER NUMBER	DATE				
MERCHE	E-14284 LOT 4	3° TRIM. 05	30/09/2005				
MATERIAL: AMERICAN WIDE FLANGE BEAMS W, AS PER ASTM TRI-CERT. ASTM A36/ASTM A 572 GR 50 CSA G. 40.21 50 W / ASTM A992.							
MARKINGS: SIZE / QUALITY / WEIGHT / HEAT NO. / ORDER NO. / COLOR MARKINGS / MADE IN SPAIN.							
SIZE	LENGTH	BUNDLES	PIECES BUNDLES	TOTAL PIECES	WEIGHT BUNDLES	TOTAL WEIGHT	MARKINGS
10042526 - P.O. C17922 + / GREEN / WHITE							
WF BEAMS 8x24 LBS/FT	30'	3	10	30	3266	9.798	54969,54971,54972
WF BEAMS 8x24 LBS/FT	35'	3	10	30	3811	11.433	54977
WF BEAMS 8x24 LBS/FT	40'	9	10	90	4355	39.195	54957,54958,54959,54960,54982,54984
WF BEAMS 8x24 LBS/FT	45'	4	10	40	4899	19.596	54966,54973,54976
WF BEAMS 8x24 LBS/FT	50'	7	8	56	4355	30.485	54957,54958,54959
WF BEAMS 8x24 LBS/FT	55'	2	8	16	4790	9.580	54963
WF BEAMS 8x24 LBS/FT	60'	2	8	16	5226	10.452	54972,54973
WF BEAMS 8x28 LBS/FT	30'	3	10	30	3810	11.430	54990
WF BEAMS 8x28 LBS/FT	35'	2	10	20	4445	8.890	54988
WF BEAMS 8x28 LBS/FT	40'	4	10	40	5080	20.320	54991
WF BEAMS 8x28 LBS/FT	45'	4	8	32	4572	18.288	54988,54989,54990
WF BEAMS 8x28 LBS/FT	50'	4	8	32	5080	20.320	54993,54994
WF BEAMS 8x28 LBS/FT	55'	4	6	24	4191	16.764	54988,54989
WF BEAMS 8x28 LBS/FT	60'	3	6	18	4572	13.716	54970
WF BEAMS 16x26 LBS/FT	30'	14	6	84	2123	29.722	54668,54770,54786,54787,54788
WF BEAMS 16x26 LBS/FT	32'	4	6	24	2264	9.056	54669
WF BEAMS 16x26 LBS/FT	35'	8	6	48	2476	19.808	54777,54782,54785,54786
WF BEAMS 16x26 LBS/FT	40'	14	6	84	2830	39.620	54666,54770,54771,54788,54789

Item 54958 is used to fab item 0455

**ACERIALIA PERFILES**  
 Grupo Arcelor  
 CARRETERA TOLEDO, KM. 9  
 28021 MADRID  
 TELEF. (91) 797.23.00 - FAX (91) 505.02.57



**QUALITY CERTIFICATE**

**APS 5393**

SIZE	LENGTH	BUNDLES	PIECES BUNDLES	TOTAL PIECES	WEIGHT BUNDLES	TOTAL WEIGHT	HEAD
WF BEAMS 16x26 LBS/FT	45'	9	6	54	3184	28.656	54784,54785
WF BEAMS 16x26 LBS/FT	50'	11	6	66	3538	38.918	54786,54787,54789
WF BEAMS 16x26 LBS/FT	55'	5	6	30	3892	19.460	54775
WF BEAMS 16x26 LBS/FT	60'	12	6	72	4245	50.940	54667,54668,54669,54770
WF BEAMS 16x31 LBS/FT	30'	12	6	72	2531	30.372	54777,54796,54797
WF BEAMS 16x31 LBS/FT	32'	7	6	42	2700	18.900	54790,54795
WF BEAMS 16x31 LBS/FT	35'	10	6	60	2953	29.530	54780,54781
WF BEAMS 16x31 LBS/FT	40'	9	6	54	3375	30.375	54777,54792,54793,54796
WF BEAMS 16x31 LBS/FT	45'	5	6	30	3796	18.980	54780,54781
WF BEAMS 16x31 LBS/FT	50'	7	6	42	4218	29.526	54778,54779
WF BEAMS 16x31 LBS/FT	55'	3	6	18	4640	13.920	54789
WF BEAMS 16x31 LBS/FT	60'	6	6	36	5062	30.372	54793,54794

TOTAL BUNDLES 190 TOTAL WEIGHT 678.422 Kg.

EN 10204/3.1.B CSA G40.21 50W/ASTM A36-04/A572 G50-04/A992-04/A6-04 (801902/003) A03

COLADA HEAT	COMPOSICION QUIMICA (%) CHEMICAL COMPOSITION (%)													
	C	Mn	Si	P	S	V	Cr	Ni	Mo	Cu	Nb	Al	Ca	Fe
54686	.080	1,210	.170	.019	.031	.003	.100	.120	.025	.450	.025	.35		
54667	.090	1,270	.150	.019	.032	.003	.080	.130	.025	.480	.021	.36		
54668	.080	1,250	.150	.016	.031	.003	.080	.140	.025	.490	.023	.35		
54669	.090	1,190	.200	.021	.031	.003	.100	.100	.019	.500	.026	.35		
54770	.097	1,230	.220	.019	.028	.002	.170	.300	.048	.500	.024	.40		
54773	.090	1,220	.210	.017	.021	.003	.140	.180	.045	.500	.022	.38		
54775	.090	1,140	.200	.021	.029	.003	.170	.190	.049	.520	.027	.37		
54777	.090	1,150	.180	.018	.023	.003	.150	.200	.050	.540	.025	.37		
54778	.090	1,130	.180	.016	.020	.003	.160	.200	.053	.530	.021	.37		
54779	.100	1,190	.180	.021	.028	.003	.140	.210	.054	.530	.024	.39		
54780	.090	1,130	.200	.017	.024	.003	.140	.200	.051	.530	.021	.37		
54781	.100	1,110	.170	.019	.032	.003	.170	.190	.047	.510	.020	.38		
54782	.110	1,200	.210	.033	.014	.003	.200	.170	.042	.530	.022	.41		
54784	.120	1,130	.210	.027	.015	.003	.210	.190	.049	.550	.021	.41		
54785	.100	1,120	.210	.023	.015	.003	.190	.180	.048	.540	.022	.38		
54786	.080	1,210	.200	.018	.014	.003	.160	.190	.047	.530	.021	.37		
54787	.080	1,210	.160	.016	.016	.003	.150	.190	.047	.540	.020	.37		
54788	.080	1,240	.200	.018	.022	.003	.130	.200	.050	.520	.020	.37		
54789	.100	1,250	.180	.015	.019	.003	.140	.200	.050	.540	.022	.40		
54790	.100	1,240	.190	.023	.019	.003	.180	.200	.050	.510	.026	.40		
54792	.100	1,220	.180	.014	.020	.003	.170	.200	.051	.550	.023	.40		
54793	.110	1,140	.180	.014	.024	.003	.150	.190	.044	.510	.022	.39		
54794	.100	1,170	.180	.022	.024	.003	.160	.190	.045	.520	.023	.38		
54795	.110	1,180	.170	.019	.031	.003	.150	.200	.046	.530	.022	.40		
54796	.090	1,210	.190	.016	.023	.003	.140	.180	.043	.510	.023	.37		

A01

**ACERIALIA PERFILES**  
Grupo Arcelor

CARRETERA TOLEDO, KM. 9  
28021 MADRID  
TELEF. (91) 797.23.00 - FAX (91) 505.02.57



### QUALITY CERTIFICATE

APS 5393

COLADA HEAT	COMPOSICION QUÍMICA (%) CHEMICAL COMPOSITION (%)													PROPIEDADES MECÁNICAS MECHANICAL PROPERTIES	
	C	Mn	Si	P	S	V	Cr	Ni	Mo	Cu	Nb	CEV	R <sub>m</sub> MPa	R <sub>0,2</sub> MPa	
54797	.080	1.130	.200	.020	.030	.003	.150	.170	.034	.490	.025	.35			
54957	.110	1.190	.190	.014	.024	.003	.130	.160	.034	.490	.020	.39			
54958	.100	1.210	.220	.016	.023	.003	.140	.140	.031	.470	.021	.38			
54959	.110	1.230	.220	.023	.022	.003	.150	.130	.026	.460	.019	.39			
54960	.110	1.220	.230	.027	.022	.003	.200	.120	.025	.470	.020	.40			
54963	.110	1.200	.210	.031	.021	.003	.190	.110	.021	.520	.021	.39			
54966	.100	1.190	.210	.032	.026	.003	.160	.120	.025	.510	.021	.38			
54969	.110	1.200	.220	.020	.028	.003	.110	.110	.024	.500	.022	.38			
54970	.090	1.090	.190	.019	.027	.003	.130	.110	.024	.530	.021	.35			
54971	.110	1.180	.190	.030	.026	.003	.100	.110	.025	.530	.022	.37			
54972	.110	1.210	.200	.021	.028	.003	.100	.120	.025	.450	.021	.38			
54973	.110	1.190	.210	.021	.024	.003	.110	.120	.024	.430	.022	.37			
54976	.110	1.170	.210	.016	.030	.003	.100	.100	.024	.370	.023	.36			
54977	.110	1.210	.200	.013	.026	.003	.090	.100	.032	.330	.023	.37			
54982	.120	1.280	.180	.014	.023	.003	.110	.110	.027	.390	.023	.39			
54984	.110	1.230	.220	.033	.024	.003	.120	.100	.022	.410	.023	.38			
54988	.110	1.160	.190	.028	.024	.003	.140	.100	.022	.410	.023	.37			
54989	.120	1.170	.220	.029	.015	.003	.150	.090	.020	.430	.022	.39			
54990	.110	1.240	.210	.033	.017	.003	.150	.080	.018	.420	.022	.38			
54991	.110	1.210	.210	.022	.017	.003	.130	.090	.019	.430	.022	.38			
54993	.100	1.210	.220	.018	.020	.003	.120	.090	.021	.500	.021	.37			
54994	.100	1.200	.220	.019	.032	.003	.110	.110	.025	.530	.022	.37			
MATERIAL SIZE	COLADA HEAT	R <sub>m</sub> MPa		R <sub>0,2</sub> MPa		Elongation %									
W-16x26	54666	353	353	547	536	29,8	29,2								
W-16x26	54667	376	366	546	534	31,	30,7								
W-16x26	54668	422	416	545	544	31,7	31,2								
W-16x26	54669	425	425	549	543	31,2	30,1								
W-16x26	54770	427	415	546	547	32,6	32,6								
W-16x26	54773	361	360	539	538	29,2	28,4								
W-16x26	54775	399	395	539	517	33,9	33,8								
W-16x26	54777	424	412	544	542	27,8	27,6								
W-16x26	54782	396	392	543	536	28,4	28,1								
W-16x26	54784	375	369	544	540	30,2	29,7								
W-16x26	54785	384	370	545	547	28,6	28,4								
W-16x26	54786	369	367	549	529	29,1	28,5								
W-16x26	54787	373	363	542	551	29,1	28,5								
W-16x26	54788	374	374	548	529	30,2	29,4								
W-16x26	54789	385	371	546	539	30,7	29,8								
W-16x31	54777	367	357	545	543	29,	28,7								
W-16x31	54778	379	365	539	554	28,7	27,8								
W-16x31	54779	376	364	546	533	27,9	27,3								
W-16x31	54780	380	379	544	556	30,4	29,5								
W-16x31	54781	377	371	549	528	28,3	27,7								
W-16x31	54789	379	363	548	537	27,1	26,2								

AG1

**ACERIALIA PERFILES**  
Grupo Arcelor

CARRETERA TOLEDO, KM. 9  
28021 MADRID  
TELEF. (91) 797 23 00 - FAX (91) 505.02.57



### QUALITY CERTIFICATE

APS 5393

MATERIAL SIZE	COLADA HEAT	PROPIEDADES MECANICAS / MECHANICAL PROPERTIES					
		ReH MPa	ReL MPa	ReT MPa	ReB MPa	ELONGATION %	ELONGATION %
W-16x31	54790	381	375	548	539	28,4	28,2
W-16x31	54792	375	373	548	537	30,5	29,4
W-16x31	54793	385	375	545	541	30,1	29
W-16x31	54794	389	385	541	538	30,2	29,4
W-16x31	54795	381	367	541	542	28	27,7
W-16x31	54796	403	397	538	537	32,3	31,3
W-16x31	54797	414	408	545	545	30,7	29,7
W-8x24	54957	399	385	543	527	31,7	30,6
W-8x24	54958	398	384	533	560	31,9	31,3
W-8x24	54959	390	390	546	552	29,1	28,3
W-8x24	54960	402	391	546	534	31	30,7
W-8x24	54963	412	411	549	537	30	29
W-8x24	54966	402	390	523	515	31,4	30,4
W-8x24	54969	386	376	550	533	30,3	30,3
W-8x24	54971	397	397	541	557	29,5	29,1
W-8x24	54972	404	392	548	534	28	27,9
W-8x24	54973	403	397	543	521	33,9	33,1
W-8x24	54976	400	396	507	501	29,4	28,3
W-8x24	54977	418	400	547	542	29,8	29,6
W-8x24	54982	377	375	549	539	30,8	30,1
W-8x24	54994	390	388	544	538	28,7	28,3
W-8x28	54970	383	369	542	549	28,3	27,8
W-8x28	54988	392	384	544	532	31,4	30,6
W-8x28	54989	378	368	546	548	29,5	29,3
W-3x28	54990	383	377	548	540	31,1	30,9
W-8x28	54991	414	400	545	554	27,9	27
W-8x28	54993	373	371	548	534	29,5	28,5
W-8x28	54994	392	392	528	515	31,7	31,2

47 análisis

001 Certificamos que los aceros antes indicados han sido satisfactoriamente probados de acuerdo con la especificación.  
002 Marco APO

*Luis María Lakunza*  
Luis María Lakunza



# CERTIFIED MILL TEST REPORT

Structural and Flat Products • Columbia City, Indiana  
 Ship to:  
 Triad Metals Intl  
 1951 Bessemer Road  
 CSX-Collier Yard  
 Petersburg VA, 23805 US  
 Attn: Rock McGovern

# CERTIFIED MILL TEST REPORT

Customer # 000191  
 Bill to:  
 TRIAD METALS INTERNATIONAL  
 A-1 2300 Computer Avenue  
 Petersburg VA, 23805 US  
 Attn: Fred White

Date: 09 / 12 / 2007

Vendor  
Steel Dynamics

Heat Number  
A036022

Steel Dynamics, In 260 625 8950

Page 11 of 13

Wed Sep 12 2007 13:45:44 EDT

GENERAL INFORMATION		SPECIFICATIONS		SHIPMENT DETAILS		BOL # 0000124256	
Product	Wide Flange Beam	Standards	ASTM A661/A6M	Bundle / ASN #	Length	PCS	Customer PO
Size	W 18 x 35			020946006	40' 0"	6	164105
Heat Number	W 460 x 52			020946069	40' 0"	6	164105
Condition(s)	A036022 As-rolled Flt. Grained			020946071	40' 0"	6	164105
				020946076	40' 0"	6	164105
				020946064	40' 0"	6	164105

### CHEMICAL ANALYSIS (weight percent)

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analysis Type
.08	.95	.018	.035	.23	.33	.11	.09	.029	.013	.005	.011	.0062	.0004	.29	.33	.16	5.85	Heat

### MECHANICAL TESTING

Test	Yield (fy) ksi / MPa	Tensile Strength ksi / MPa	fy / fu ratio	% Elong. (8" gage)	Charpy Impact Tests (available only when specified at time of order)		
					Temp F / C	Absorbed Energy ft-lb / J	Minimum
1	61 / 424	75 / 516	.82	26	Specimen 1	Specimen 2	Specimen 3
2	62 / 425	75 / 514	.83	25			Average
3							
4							
5							
6							
7							

Notes: \*Calculated Chemistry Values; Carbon Equivalents (C1, C2, PC), Corrosion Index (I)

CE1 [(W)P+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15]      CE2 [(AWS)C+(Mn+Si)/6+(Cr+Mo+V)/5+(Ni+Cu)/15]      Perm (AWS) = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+mo/15+V/10+5B  
 I [(ASTM)G101]= 26.01(Cu)+3.88(Ni)+1.20(Cr)+1.49(Si)+17.28(P)+7.28(Co)(Mn)+9.10(Nb)(P)+33.38(Cu)

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: Doug Rees-Evans

Form 5-100-002-054      Manager of Technical Services

Notary Public      My commission expires: \_\_\_\_\_

ASTM A6 - 14.6: A signature is not required on the test report; however, the document shall clearly identify the organization submitting the report.  
 Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report



DATE 5/07/07  
 INVOICE NO 136389  
 BILL OF LADING 845096  
 CUSTOMER NO 9310  
 CUSTOMER P.O. C20741

NUCOR-YAMATO STEEL CO.  
 P.O. BOX 1228 • BLYTHEVILLE AR 72316

CERTIFIED MILL TEST REPORT

100% MELTED AND MANUFACTURED IN U.S.A.  
 All shapes produced by Nucor-Yamato Steel are cast and rolled to a fully killed and fine grain practice.

S H I P T O  
 INFRA-METALS CORP  
 8 PENT HIGHWAY  
 TRACK # 953  
 WALLINGFORD, CT 06492

S P E C I F I C A T I O N S  
 ASTM A992/A992M-06a A572/A572M GR50-04  
 ASTM A709/A709M-03a GR50 (345)  
 ASTM A709/A709M-03a GR50S (345S)  
 ASTM A6/A6M-05a

S O L D T O  
 INFRA-METALS CORP.  
 8 PENT HIGHWAY  
 WALLINGFORD, CT 06492

ITEM #	ITEM DESCRIPTION	QTY	HEAT #	MECHANICAL PROPERTIES						CHEMICAL PROPERTIES												
				YIELD TO TENSILE RATIO	YIELD STRENGTH PSI MPa	TENSILE STRENGTH PSI MPa	ELONG. %	CHARPY IMPACT TEMP °F °C	CHARPY IMPACT ENERGY FT-LBS Joules	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Cb	CE	
1	W18 - 50.0 40'	10	295209	.74	52000	70000	26				.07	1.11	.021	.035	.27	.26	.10	.13	.03	.00	.016	.31
	W460 x 74.0 12.192 M			.74	51000	69000	27												.01	.16		
2	W18 - 50.0 40'	8	295211	.73	51000	70000	27				.06	1.10	.018	.032	.29	.37	.12	.11	.03	.00	.015	.30
	W460 x 74.0 12.192 M			.73	52000	71000	27												.01	.16		
3	W18 - 55.0 30'	1	295159	.76	55000	72000	25				.08	1.26	.019	.036	.31	.28	.11	.09	.03	.00	.023	.34
	W460 x 82.0 9.144 M			.74	55000	74000	23												.01	.16		
4	W18 - 55.0 30'	3	295161	.76	55000	72000	25				.07	1.22	.020	.035	.30	.25	.11	.10	.03	.00	.024	.32
	W460 x 82.0 9.144 M			.74	53000	72000	25												.01	.16		
5	W18 - 55.0 30'	7	295167	.75	52000	69000	26				.08	1.20	.019	.038	.30	.28	.10	.09	.03	.00	.025	.33
	W460 x 82.0 9.144 M			.74	51000	69000	25												.01	.16		
6	W18 - 55.0 30'	4	295168	.76	56000	74000	23				.07	1.21	.015	.033	.33	.35	.11	.07	.03	.00	.024	.32
	W460 x 82.0 9.144 M			.76	56000	74000	23												.02	.16		
7	W18 - 55.0 30'	1	295170	.75	55000	73000	24				.07	1.21	.016	.036	.32	.32	.11	.08	.03	.00	.024	.32
	W460 x 82.0 9.144 M			.77	53000	69000	25												.01	.16		
8	W18 - 55.0 30'	4	295172	.75	54000	72000	24				.07	1.22	.017	.038	.29	.28	.11	.09	.03	.00	.021	.32
	W460 x 82.0 9.144 M			.75	53000	71000	24												.01	.15		
9	W18 - 55.0 30'	7	295174	.72	55000	76000	23				.07	1.21	.016	.039	.32	.27	.11	.09	.03	.00	.024	.32
	W460 x 82.0 9.144 M			.73	53000	73000	25												.01			

CARBON EQUIVALENT: CE = CIPM = C + Mn/6 + Cr/5 + Ni/16 + Mo/4 + V/5 + (Cu + Nb) /10

ELONGATION BASED ON 8.00 INCH GAUGE LENGTH

I hereby certify that the contents of this report are accurate and correct. All test results and operations performed by this material manufacturer are in compliance with the requirements of the material specifications, and when designated by the purchaser, meet the applicable specifications.

*Angie Russell*

QUALITY ASSURANCE

CUSTOMER COPY

STATE OF ARKANSAS COUNTY OF MISSISSIPPI

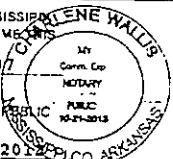
SWORN TO AND SUBSCRIBED BEFORE ME

7 Day of 05/07

*Chadene Wallis*

NOTARY PUBLIC

MY COMMISSION EXPIRES 10/21/2012



Heat 295209 is used to fab item: 1336



**Steel Dynamics, Inc.**  
 2801 S. County Road 700 East  
 Columbia City, IN 46725  
 (280) 825-8100

**Certified Mill Test Report**  
 100% Melted and Manufactured in USA

Date: 7/23/2007  
 Customer No: 000191  
 Bill of Lading No: 0000119461  
 MTR #: 000011025

Ship to:  
 Triad Metals International  
 Triad Customer P/U  
 Attn: Sally

Bill to:  
 TRIAD METALS INTERNATIONAL  
 A-1 2390 Computer Avenue  
 Willow Grove, PA 19090  
 Attn: Fred Whittier

Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
020908432	W21X44	42' 0"	4	A034738	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
020908437	W21X44	42' 0"	4	A034738	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
020908539	W21X44	42' 0"	4	A034728	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
020908578	W21X44	42' 0"	4	A034727	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
020908643	W21X44	42' 0"	4	A034743	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
020908707	W21X44	42' 0"	4	A034745	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495

C	Mn	P	S	SI	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
.08	1.03	.016	.031	.22	.32	.022	.080	.13	.04	.016	.007	.0004	.00	.31	0.3500	0.1700	HEAT
.08	1.03	.016	.031	.22	.32	.022	.080	.13	.04	.016	.007	.0004	.00	.31	0.3500	0.1700	HEAT
.07	1.04	.016	.029	.19	.36	.023	.120	.13	.04	.019	.010	.0003	.00	.30	0.3400	0.1600	HEAT
.07	1.04	.019	.029	.21	.31	.021	.100	.11	.03	.015	.009	.0003	.00	.30	0.3400	0.1600	HEAT
.06	1.01	.018	.038	.18	.31	.021	.080	.10	.03	.013	.007	.0003	.00	.28	0.3100	0.1400	HEAT
.08	1.05	.017	.042	.20	.31	.022	.100	.10	.03	.014	.008	.0004	.00	.31	0.3400	0.1600	HEAT

Lot # 0034738 is used to fabricate items 13365-13438

The contents of this report are accurate and all tests and operations performed by this material user are in compliance with the requirements of the specifications and applicable purchaser designated.

Quality Assurance

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
 Signed: \_\_\_\_\_ Notary Public

Special Comments/Information

My commission expires: \_\_\_\_\_

State of Indiana, County of Whitley



Vendor  
Steel Dynamics

Heat Number  
A036411

**CERTIFIED MILL TEST REPORT**  
 Date: 09/04/2007  
 Customer # 000191  
 Bill to:  
 TRIAD METALS INTERNATIONAL  
 A-1 2300 Computer Avenue  
 Pittsburgh PA, 15225 US  
 Attn: Fred White

**Steel Dynamics, Inc.**  
 Structural and Flat Division • Columbia City, Indiana  
 Ship to:  
 Triad Metals International  
 2480 Grand Avenue  
 Pittsburgh PA, 15225 US  
 Attn: Craig Borrelli

Quality Steel 100% Melted  
and Manufactured in the USA

GENERAL INFORMATION		SPECIFICATIONS		SHIPMENT DETAILS	
Product	Wide Flange Beam	Standards	ASTM A616/A617	Bundle / ASN #	RCN #0001123176
Size	W 24 x 55		A992 / A992M - 06a	Length	40' 0"
	W 610 x B2		A709 Gr 50 / Gr 345	Pcs	4
Heat Number	A036411		A572 Gr 50 / Gr 345	Customer PO	100
Condition(s)	As-Rolled		A709 50S / Gr 345S		
	Fine Grained				

**CHEMICAL ANALYSIS** (weight percent)

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analysis Type
.08	1.04	.014	.031	.22	.30	.13	.09	.031	.012	.034	.002	.0099	.0003	.31	.35	.16	5.65	Heat

**MECHANICAL TESTING**

Test	Yield (fy) ksi / MPa	Tensile (ft) Strength ksi / MPa	Elong. % (8" gage)	Charpy Impact Tests (available only when specified at time of order)	
				Temp F / C	Absorbed Energy ft-lbf / J
1	59 / 406	70 / 485	84	Specimen 1	Minimum
2	60 / 414	73 / 505	82	Specimen 2	Minimum
3				Specimen 3	Minimum
4					
5					
6					
7					

Heat # A036411 is used to fabricate: A464

**Notes:**  
 \* Calculated Chemistry Values: Carbon Equivalents (C1, C2, FC), Corrosion Index (I)  
 CE1 (Hf)+C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15  
 CE2 (AWS)=C+(Mn+Si)/8+(Cr+Mo+V)/5+(Ni+Cu)/15  
 I (ASTM G10.1)=26.01(Cu)+3.88(Ni)+1.20(Co)+1.49(Si)+17.28(P)+7.29(Cu)(Ni)+9.10(Ni)(P)+33.39(Cu+P)  
 Perm (AWS) = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+mp/15+V/10+P/5

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: Doug Rees-Evans Manager of Technical Services  
 My commission expires: \_\_\_\_\_  
 this \_\_\_\_\_ day of \_\_\_\_\_  
 State of Indiana, County of Whitley Sworn to and subscribed before me

ASTM A6 - 14 6: A signature is not required on the test report, however, the document shall clearly identify the organization submitting the report  
 Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report

Vendor  
Steel Dynamics

Heat Number  
B036562

Steel Dynamics, Inc. 200 625 6556

Page 4 of 6

Sun Sep 02 2007 05:00:37 EDT

**Steel Dynamics, Inc.**  
2501 S. County Road 700 E-14  
Columbi, IN 46725  
(260) 823-8100

**Certified Mill Test Report**  
100% Melted and Manufactured in USA

**Customer No:** 000191  
**Bill of Lading No:** 0000123446  
**MTR #:** 0000123655

**Date:** 06/02/2007

**Ship to:**  
Triad Metals Int'l  
1851 Bassett Road  
CSX-Collier Yard  
Petersburg, VA 23105  
Attn: Rock McGovern

**Bill to:**  
TRIAD METALS INTERNATIONAL  
A-1 2300 Conyngham Avenue  
Willow Grove, PA 19090  
Attn: Fred White

Item	Bundle	Section	Length	Pcs	Grade(s)	Specifications(s)	Customer P.O.
7†	020955203	W24X82	60' 0"	4	A9921 A992M A709 G50/G345 A709 G50S/G345S A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A572/A572M - 06	185
8†	020955273	W24X82	60' 0"	4	A036570	A9921 A992M A709 G50/G345 A709 G50S/G345S A572 G50/G345	185
9†	020955275	W24X82	60' 0"	4	A036576	A9921 A992M A709 G50/G345 A709 G50S/G345S A572 G50/G345	185

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	PC	Analysis	
7	.06	1.11	.016	.028	.20	.36	.032	.08	.11	.023	.013	.0089	.0003	.30	.34	.15
8	.08	1.16	.013	.026	.24	.52	.032	.07	.11	.023	.015	.0089	.0003	.34	.30	.19
9	.09	1.19	.014	.018	.24	.51	.032	.06	.11	.023	.016	.0093	.0003	.35	.39	.19

**MECHANICAL**

Item	Test	Yield (Fy)		Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp T/C	Charpy Impact Testing Results			ASTM Grain Size No (per ASTM E117)
		ksi/MPa	Fy/Fu					Sample 1 fl. ft./joules	Sample 2 fl. ft./joules	Sample 3 fl. ft./joules	
7	1	52359	60473	20		1					
7	2	55261	73503	22		2					
8	1	57393	75516	20		1					
8	2	57396	75518	22		2					
9	1	60416	78536	21		1					
9	2	59407	78527	20		2					

*117# B036562 is used to fabricate...*

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by the mill or the manufacturer are in compliance with the purchase order and the material specifications and applicable purchase agreements.

State of Indiana, County of Whitley  
Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
Signed: \_\_\_\_\_  
My commission expires: \_\_\_\_\_

Special Comments/Information:  
\* Fully Killed Sled  
1 Cast and Rolled to a Fine Grain Practice


Vendor  
Steel Dynamics

Heat Number  
B034457

Steel Dynamics, Inc 266 625 8950

Page 5 of 6

Sun Jun 24 2007 02:59:49 EDT

 <p><b>Steel Dynamics, Inc.</b> 2601 S. County Road 700 East Columbia City, IN 46725 (260) 825-8100</p>		<p><b>Customer No:</b> 000191 <b>Bill of Lading No:</b> 0000116623 <b>MTR #:</b> 0000115208</p>		<p><b>Date:</b> 6/24/2007 <b>Customer No:</b> 000191 <b>Bill of Lading No:</b> 0000116623 <b>MTR #:</b> 0000115208</p>		<p><b>Ship to:</b> Tried Metals Ltd 1851 Bossamer Road CSX-Collier Yard Petersburg, VA 23805</p>		<p><b>Bill to:</b> TRIAD METALS INTERNATIONAL A 1 23rd Computer Avenue Willow Grove, PA 19090 Attn: Fred White</p>	
<p align="center"><b>Certified Mill Test Report</b> 100% Milled and Manufactured in USA</p>									
Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.	
10a	020901457	W24X68	60'0"	2	A034337	A992/A992M A709 g'05/g345S A572 g'50/g345	ASTM A992/A992M - 06 ASTM A709/A709M - 06 ASTM A572/A572M - 06	15R08	
10b	020901457	W24X68	60'0"	2	B034457	A992/A992M A709 g'05/g345S A572 g'50/g345	ASTM A992/A992M - 06 ASTM A709/A709M - 06 ASTM A572/A572M - 06	15R08	
11	020901458	W24X68	60'0"	4	B034457	A992/A992M A709 g'05/g345S A572 g'50/g345	ASTM A992/A992M - 06 ASTM A709/A709M - 06 ASTM A572/A572M - 06	15R08	
12	020901480	W24X68	60'0"	4	B034457	A992/A992M A709 g'05/g345S A572 g'50/g345	ASTM A992/A992M - 06 ASTM A709/A709M - 06 ASTM A572/A572M - 06	15R08	


  

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
10a	.08	1.04	.014	.020	.21	.33	.033	.10	.10	.037	.013	.0081	.0003	.001	.31	.35	.17	HEAT
10b	.08	1.06	.017	.040	.26	.34	.035	.10	.09	.019	.011	.0112	.0004	.002	.33	.37	.18	HEAT
11	.09	1.06	.017	.040	.26	.34	.035	.10	.09	.019	.011	.0112	.0004	.002	.33	.37	.18	HEAT
12	.09	1.06	.017	.040	.26	.34	.035	.10	.09	.019	.011	.0112	.0004	.002	.33	.37	.18	HEAT

Tension Testing Results				Charpy Impact Testing Results								
Item	Test	Yield Strength ksi/MPa	Tensile Strength ksi/MPa	Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp F/C	Sample 1 ft. lb/joules	Sample 2 ft. lb/joules	Sample 3 ft. lb/joules	% Sherr	ASTM Grain Size No (per ASTM E112)
10a	1	58405	71400	.83	27	1						
10a	2	57394	71490	.80	28	2						
10b	1	61424	76527	.80	23	1						
10b	2	57291	75520	.76	23	2						
11	1	61424	76527	.80	23	1						
11	2	57391	75520	.76	23	2						
12	1	61424	76527	.80	23	1						
12	2	57391	75520	.76	23	2						

<p>I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchase order.</p> <p>Signed:  Quality Assurance</p>		<p>State of Indiana, County of Wayne Sworn to and subscribed before me this _____ day of _____ Signed: _____ Notary Public</p>	
<p>My commission expires: _____</p>		<p>Special Comment/Information: * Fully Killed Steel † Cast and Rolled to a Fine Grain Practice</p>	

Load #: Drop

Shipping Date:

Waybill #: 898-Drop

Customer: Pizzagalli Construction Company

Job Title: 84 Marginal Way

Date Sent to Shop: X

Job Number: 898

Job Progress Report Sheet

SHEET: 1

X

Prepared By: Approved By: Date: 24-01-01

Bathurst Machine Shop Ltd.

Mandate Erectors & Welding Ltd.

MQM Ltd., Tracadie

1040 Route 430

Big River Road

E2A 6P9

Form# 12 Rev. 4

\* = SEE SHOP DWG

C=COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped					
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date	
	H.S.S. 18X6X3/8			1	465																								
	L6X4X5/16			1	82		X																						

Pieces 2 547 Total Weight( Lbs) ( 0.3 TONS)

Atlas Tube Canada LLC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 NOR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537

Ref.B/L: 80261880  
 Date: 10.13.2007  
 Customer: 1774



**MATERIAL TEST REPORT**

Shipped to

Acier Altitude Inc.  
 2555 Francis-Hugues Avenue  
 LAVAL QC H7S 2H7  
 CANADA

Sold to

Acier Altitude Inc.  
 2555 Francis-Hugues Avenue  
 LAVAL QC H7S 2H7  
 CANADA

Material: 18.0x6.0x375x48"O(1x3)PB  
 Sales order: 339283

Material No: 180060375  
 Purchase Order: 3428  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
583526		0.120	0.810	0.008	0.002	0.150	0.035	0.035	0.005	0.002	0.013	0.034	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M200461406	052880 Psi	065000 Psi	34.1 %	ASTM A500-03A GRADE B&C

Material Note  
 Sales Or.Note:

*HT # 583526 is used to fab. tem. HSS-1*

Material: 5.0x5.0x250x48"O(4x2)  
 Sales order: 331874

Material No: 500502504800  
 Purchase Order: 3337  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
894931	8	0.200	0.840	0.017	0.008	0.014	0.046	0.050	0.006	0.005	0.016	0.044	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M100674709	063940 Psi	074640 Psi	30.2 %	ASTM A500-03A GRADE B&C

Material Note  
 Sales Or.Note:

Material: 5.0x5.0x250x48"O(4x2)  
 Sales order: 331874

Material No: 500502504800  
 Purchase Order: 3337  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
894931	8	0.200	0.840	0.017	0.008	0.014	0.046	0.050	0.006	0.005	0.016	0.044	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M100674708	063940 Psi	074640 Psi	30.2 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Material: 7.0x7.0x250x48"O(3x2)  
 Sales order: 331852

Material No: 700702504800  
 Purchase Order: 3331  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
583549	6	0.180	0.830	0.008	0.005	0.021	0.049	0.051	0.006	0.005	0.013	0.027	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M200479593	062770 Psi	075930 Psi	31.4 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Authorized by Quality Assurance: *[Signature]*

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.



MILL TEST CERTIFICATE

AMESI  
C20419

原单位: BALLI STEEL P.L.C.

INSIGNEE: 产品名称: 热轧角钢  
DATE OF ISSUING: FEB23, 2007  
原日期: 2007年2月23日  
ATE OF ISSUING: FEB23, 2007  
DESC OF GOODS: PRIME NEWLY PRODUCED STEEL ANGLES ORIGIN: CHINA  
订单号: C20419  
牌号 (标识代号): ASTM A572 GR50/A5-55A  
STEEL GRADE: ASTM A572 GR50/A5-55A

原产地: 中国  
生产单位: TANGSHAN GRANG FAITH STEEL CO., LTD  
MILL: 编号: 019  
NO.:

CONTRACT NO: 05E1020144

规格 SPEC.	炉号 HEAT NO.	长度 LENGTH	支数 OR SIZE BUNDLE	重量 NO. OF BUNDLES	化学成分 (%)											机械性能			
					C	SI	Mn	P	S	NI	CR	CU	V	MO	Nb	屈服强度 YIELD STRENGTH Mpa	抗拉强度 TENSILE STRENGTH Mpa	延伸率 ELONGATION % 1"	冷弯 COLD BENDING (180°) 3-5°
5*3 1/2*3/8	H7629	12.2	26	17	0.13	0.25	1.34	0.025	0.016	0.09	0.16	0.32	0.028	0.022	0.008	365	480	27	GOOD
5*3 1/2*3/16	H7942	12.2	31	17	0.13	0.26	1.35	0.025	0.020	0.11	0.14	0.27	0.020	0.024	0.007	360	475	25	GOOD
6*4 1/2	T-5788	12.2	17	12	0.15	0.26	1.33	0.015	0.021	0.11	0.15	0.25	0.013	0.020	0.004	361	476	26	GOOD
6*4 3/8	T-4908	12.2	22	30	0.19	0.25	1.34	0.017	0.020	0.10	0.14	0.23	0.014	0.020	0.005	363	465	24	GOOD
6*4 5/16	T-4408	12.2	26	16	0.20	0.24	1.33	0.020	0.017	0.13	0.13	0.24	0.015	0.023	0.005	373	465	23	GOOD
7*4 1/2	T-6709	12.2	15	10	0.17	0.32	1.32	0.020	0.018	0.12	0.11	0.23	0.010	0.021	0.006	364	468	24	GOOD
7*4 3/8	T-5123	12.2	20	22	0.18	0.30	1.30	0.018	0.017	0.12	0.12	0.20	0.008	0.021	0.005	365	487	25	GOOD
8*4 1/2	T-7322	12.2	14	42	0.18	0.33	1.22	0.019	0.025	0.13	0.12	0.20	0.008	0.023	0.005	365	467	26	GOOD
8*6 1/2	F7348	12.2	11	36	0.16	0.29	1.24	0.016	0.025	0.08	0.16	0.21	0.008	0.022	0.007	368	480	23	GOOD
8*6 3/4	F7639	12.2	8	11	0.13	0.23	1.34	0.025	0.026	0.09	0.15	0.31	0.008	0.020	0.01	369	461	27	GOOD

尊敬的客户: 用前请先验证: 如有异议请保留实物并未损坏  
日期: 2007年2月23日  
发货日期: 2007年2月23日  
DATE OF ISSUING: FEB23, 2007  
For Customers: TEST BEFORE USED. CLAIM FOR DISCREPANCIES WITH DEFAULT GOODS

Load #: 12

Shipping Date:

Waybill #: 862-12

Customer:	Pizzagalli Construction Company	Prepared By:	Approved By:	Date: 24-01-01
Job Title:	84 Marginal Way	Bathurst Machine Shop Ltd. 1040 Route 430 Mandate Erectors & Welding Ltd. Big River Road MOM Ltd., Traralgon VIC 3240		
Date Sent to Shop:	X			
Job Number:	898	Job Progress Report Sheet SHEET: 1		

Attach.	Material	Rev.	Mark #	Qty	Weight	C-COLOR GALV.				Tined		Mk. Insp.		Punch Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped				
						Paint	Galv	Camber	Level	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date
A	W08X35	0	B300	1	1009																							
A	W24X62	0	B320	1	1878																							
A	W24X62	0	B326	1	1685																							
A	W24X68	0	B330	1	2035																							
A	W21X55	0	B334	6	14703																							
A	W18X35	0	B342	1	734																							
A	W24X76	0	B346	1	3202																							
H	W14X22	0	B352	1	504																							
H	W21X55	0	B353	1	2374																							
H	W21X55	0	B354	1	2373																							
A	W21X44	0	B361	1	1740																							
A	W21X101	0	B362	1	5685																							
A	W21X44	0	B367	1	1761																							
H	W24X94	0	B373	1	4040																							
A	W12X19	0	B379	1	192																							
A	W12X19	0	B385	1	328																							
A	W12X19	0	B386	1	289																							
A	W12X19	0	B389	1	68																							
H	W12X19	0	B390	1	49																							
A	H.S.S. 7X7X1/2	0	D204	1	647																							

Pieces 25      45296 Total Weight (Lbs)      ( 22.6 TONS)





Atlas Tube Inc.  
 309 Clark St.  
 Barrow, Ontario, Canada  
 N0B 1G0  
 Tel: 519-738-3641  
 Fax: 519-738-3637



Ref. B/L: 80195001  
 Date: 06.13.2006  
 Customer: 216

**MATERIAL TEST REPORT**

Shipped to

York Steel  
 550 Wilsey Road  
 FREDERICTON NB E3B 7K2  
 CANADA

Sold to

York Steel  
 550 Wilsey Road  
 FREDERICTON NB E3B 7K2  
 CANADA

Material: 4.0x4.0x250x48" (3x2)  
 Sales order: 230424

Material No: 400402504800 Made in: Canada  
 Purchase Order: 7527FB

Heat No	C	Mn	P	S	Si	Al	Cu	Cr	Mo	Ni	Cr	V
745898	0.180	0.630	0.011	0.004	0.011	0.048	0.022	0.000	0.000	0.000	0.000	0.000

Bundle No	Yield	Tensile	Elm. 2in	Certification
M100517181	066650 Psi	074170 Psi	27.3 %	ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or. Note:

Material: 6.0x6.0x500x48" (3x1)  
 Sales order: 222541

Material No: 600605004800 Made in: Canada  
 Purchase Order: 7295FB

Heat No	C	Mn	P	S	Si	Al	Cu	Cr	Mo	Ni	Cr	V
2359E	0.210	0.650	0.017	0.008	0.020	0.037	0.020	0.000	0.010	0.020	0.000	0.000

Bundle No	Yield	Tensile	Elm. 2in	Certification
M100520570	068750 Psi	077630 Psi	28.5 %	ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or. Note:

Material: 6.0x6.0x500x48" (3x1)  
 Sales order: 222541

Material No: 600605004800 Made in: Canada  
 Purchase Order: 7295FB

Heat No	C	Mn	P	S	Si	Al	Cu	Cr	Mo	Ni	Cr	V
578629	0.210	0.780	0.011	0.004	0.140	0.037	0.012	0.006	0.000	0.021	0.000	0.000

Bundle No	Yield	Tensile	Elm. 2in	Certification
M100520575	070350 Psi	079740 Psi	27.5 %	ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or. Note:

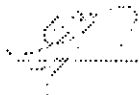
Material: 2.0x2.0x125x24" (10x5) -D  
 Sales order: 230424

Material No: 0200201252400-0 Made in: USA  
 Purchase Order: 7527FB

Heat No	C	Mn	P	S	Si	Al	Cu	Cr	Mo	Ni	Cr	V
0179945	0.160	0.760	0.013	0.002	0.024	0.040	0.045	0.000	0.000	0.010	0.000	0.000

Bundle No	Yield	Tensile	Elm. 2in	Certification
M300245735	069100 Psi	077334 Psi	25.0 %	ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or. Note:

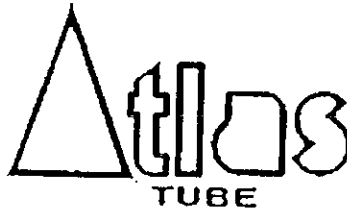
Authorized by Quality Assurance: 



HT# 578629 is used to fab items: 10210.

Atlas Tube Canada ULC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 NOR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537

Ref.B/L: 80263316  
 Date: 10.24.2007  
 Customer: 1751



**MATERIAL TEST REPORT**

Sold to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Shipped to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Material: 10.0x10.0x625x18"0"0(1x1).  
 Sales order: 335491

Material No: 100100625  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
480370	1	0.200	0.800	0.010	0.003	0.170	0.039	0.036	0.003	0.004	0.014	0.041	0.002
Bundle No	Yield	Tensile	Eln.2in	Certification									
M200480196	056550 Psi	070670 Psi	37.5 %	ASTM A500-03A GRADE B&C									

Material Note:  
 Sales Or.Note:

Material: 7.0x7.0x500x40"0"0(3x1).  
 Sales order: 335491

Material No: 700705004000  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
5511G	3	0.190	0.840	0.011	0.004	0.020	0.028	0.010	0.000	0.010	0.010	0.020	0.000
Bundle No	Yield	Tensile	Eln.2in	Certification									
M200479469	060730 Psi	071910 Psi	38.0 %	ASTM A500-03A GRADE B&C									

Material Note:  
 Sales Or.Note:

*HT # 5511G is used to fab item. Dooy*

Material: 8.0x8.0x625x48"0"0(2x1).  
 Sales order: 335491

Material No: 800806254800  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002
Bundle No	Yield	Tensile	Eln.2in	Certification									
M200482110	063150 Psi	076440 Psi	34.3 %	ASTM A500-03A GRADE B&C									

Material Note:  
 Sales Or.Note:

Material: 8.0x8.0x625x48"0"0(2x1).  
 Sales order: 335491

Material No: 800806254800  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002
Bundle No	Yield	Tensile	Eln.2in	Certification									
M200482112	063150 Psi	076440 Psi	34.3 %	ASTM A500-03A GRADE B&C									

Material Note:  
 Sales Or.Note:

Authorized by Quality Assurance: *M. White*

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.



**Steel Dynamics, Inc.**  
 2601 S. County Road 700 East  
 Columbia City, IN 46725  
 (260) 625-8100

**Certified Mill Test Report**  
 100% Method and Manufactured in USA

**Ship to:**  
 Triad Metals Intl  
 1951 Bassemmer Road  
 CSX-Collier Yard  
 Petersburg, VA 23805  
 Attn: Rock McGovern

**Bill to:**  
 TRIAD METALS INTERNATIONAL  
 A-1 2300 Computer Avenue  
 Willow Grove, PA 19090  
 Attn: Fred White

**Date:** 10/07/2007  
**Customer No:** 000191  
**Bill of Lading No:** 0000126644  
**MTR #:** 0000126132

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
8†	020981250	W8X35	40'0"	6	B037566	A992/A992M A709 g50/gr345 A709 g50S/gr345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	544
9†	020981251	W8X35	40'0"	6	B037566	A992/A992M A709 g50/gr345 A709 g50S/gr345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	544
10†	020981283	W8X35	50'0"	6	B037568	A992/A992M A709 g50/gr345 A709 g50S/gr345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	541

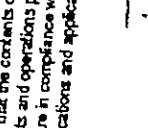
**CHROMIUM**

Item	C	Mn	P	S	SI	Cu	V	Gr	NI	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
8*	.07	.95	.020	.029	.21	.35	.001	.09	.09	.018	.012	.0086	.0003	.012	.28	.31	.15	HEAT
9*	.07	.95	.020	.029	.21	.35	.001	.09	.09	.018	.012	.0086	.0003	.012	.28	.31	.15	HEAT
10*	.06	.87	.020	.031	.21	.36	.001	.08	.09	.021	.012	.0105	.0004	.012	.26	.30	.14	HEAT

**MECHANICAL**

Item	Test	Yield (Fy)		Tensile Strength	Elong (%) based on g-gauge	ROA (%)	Bend Test Result	Temp F/C	Charpy Impact Testing Results			ASTM Grain Size No (per ASTM E112)
		ksi/MPa	ksi/MPa						Fy/Fu	Sample 1 ft. lb/oules	Sample 2 ft. lb/oules	
8	1	54370	70483	.77	24							
8	2	56384	72494	.78	22							
9	1	54370	70483	.77	24							
9	2	56384	72494	.78	22							
10	1	56385	70488	.80	27							
10	2	58401	70485	.83	26							

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed:  Quality Assurance

My commission expires: \_\_\_\_\_

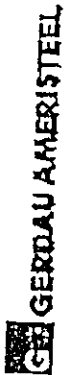
State of Indiana, County of Whitley

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_ Notary Public

Special Comments/Information:  
 \* Fully Killed Steel  
 † Cast and Rolled to a Fine Grain Practice

*HT = B037566 is used to fab item: B330*



CARTERSVILLE STEEL MILL  
384 OLD GRASSDALE RD NE  
CARTERSVILLE GA 30121 USA  
[770] 367-3300

Chemical and Physical Test Report

MADE IN UNITED STATES

G-0999999

PRODUCED IN: CARTERSVILLE

SHIP TO  
TRIAD METAL  
1851 BESSEMER ROAD  
804-732-5000  
PETERSBURG, VA 23805

RYDICE TO  
TRIAD METALS INTERNATIONAL  
METAL TRADERS INC  
2200 COMPUTER AVE STE-A-1  
YELLOW GROVE, PA 19090

SHIP DATE  
09/19/07

CUST. ACCOUNT NO  
40213035

SALES ORDER  
7074477-13

CUST P.O. NUMBER  
1108-13

SHAPE & SIZE	GRADE	SPECIFICATION	Yield	Tensile	Elong	Reduc Area	Charpy	Temp
W12 X 29	A572-50	ASTM A572 GR50-07, ASTM A592-08A	50	65	22	100	27	50
HEAT ID.	G704837							
Mechanical Test	Yield 54,700 PSI, 404.72 MPa	Tensile 70,000 PSI, 504.7 MPa	54.7	70.0	21.2	100	27	50
Mechanical Test	Yield 80,000 PSI, 413.2 MPa	Tensile 144,000 PSI, 1012.7 MPa	80.0	144.0	25.0	100	27	50
Customer Requirements	CASTING: STRAND CAST							
Customer Requirements	CASTING: STRAND CAST							

SHAPE & SIZE	GRADE	SPECIFICATION	Yield	Tensile	Elong	Reduc Area	Charpy	Temp
W12 X 194	A572-50	ASTM A572 GR50-07, ASTM A592-08A	50	65	22	100	27	50
HEAT ID.	G704837							
Mechanical Test	Yield 54,900 PSI, 378.52 MPa	Tensile 88,100 PSI, 614.43 MPa	54.9	88.1	21.5	100	27	50
Customer Requirements	CASTING: STRAND CAST							
Customer Requirements	CASTING: STRAND CAST							

HT # G704837 is used to fab items: B379, B385, B386, B389, B390

This material, including the blank, was produced and manufactured in the United States of America

By: [Signature] Y. Almond  
Quality Director  
Gerdau Ameristeel

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

[Signature]

By: [Signature] Sinc  
CARTERSVILLE STEEL MILL

Seller warrants that all material furnished shall comply with specifications subject to standard published manufacturing variations. NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, ARE MADE BY THE SELLER AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. In the event that under the above conditions, consequential or punitive damages arising out of or related to the materials furnished by Seller. Any claim for damages for materials that do not conform to specifications must be made from buyer to seller immediately after delivery of same in order to allow the opportunity to inspect the material in question.

Name: Gerdau Ameristeel | AutoFax System | Ph: (909) 237-0230

**Steel Dynamics, Inc.**  
2801 S. County Road 700 East  
Columbiana, IN 46725  
(361) 625-8100

**Certified Mill Test Report**  
100% Made and Manufactured in USA

Date: 8/22/2007  
Customer No: 000191  
Bill of Lading No: 0000122072  
MTR #: 0000121600

Ship to:  
Tried Metals Int  
1951 Bessemer Road  
CSX-Collier Yard  
Petersburg, VA 23805  
Attn: Rock McGovern

Bill to:  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

Customer P.O.  
163013

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
41	020936730	W14X22	50' 0"	8	A035733	A992/A992M A709 g50/g345 A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A572/A572M - 06 ASTM A992/A992M ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	163013
51	020936733	W14X22	50' 0"	8	A035733	A992/A992M A709 g50/g345 A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06a ASTM A572/A572M - 06 ASTM A992/A992M ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	163013

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
4	.07	.75	.016	.041	.24	.30	.011	.08	.10	.026	.014	.0111	.0003	.002	.24	.28	.14	HEAT
5	.07	.75	.016	.041	.24	.30	.011	.08	.10	.026	.014	.0111	.0003	.002	.24	.28	.14	HEAT

**MECHANICAL**

Item	Test	Tension Test (Ind Results)				Charpy Impact Testing Results				ASTM Grain Size No (per ASTM E112)									
		Yield Strength ksi/MPa	Tensile Strength ksi/MPa	Elongation (%) based on 8" gauge	Fy/Fu	Temp F/C	Sample 1 ft. lb/oules	Sample 2 ft. lb/oules	Sample 3 ft. lb/oules		% Shear								
4	1	56380	72495	26	.78														
4	2	56389	71490	29	.79														
5	1	56390	72495	26	.78														
5	2	56389	71490	29	.79														

HT # A035733 is used to fab item: B35a

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed: \_\_\_\_\_  
Quality Assurance

State of Indiana, County of Whitley  
Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
Signed: \_\_\_\_\_  
My commission expires: \_\_\_\_\_

Special Comments/Information:  
\* Fully Killed Steel  
† Cast and Rolled to a Fine Grain Practice

PART NO.

Altir:

Bill To:  
PACIFIC STEEL, INC.  
845 MUNCK  
CHICKDEY  
LAVAL  
M7S1A9

Ship To: 1  
PACIFIC STEEL, INC.  
845 MUNCK  
BO76 LONGUEUIL  
MONTERAL  
H7S-1A9

Order Date: 02/21/2007  
PO No: 18704  
Mill Order No: 3261903  
Load No: 1099564  
Manifest No: 1813880

CERTIFIED MATERIAL TEST REPORT  
CHAPARRAL STEEL  
300 Ward Rd.  
Midlothian, TX  
76065-9651  
(972) 775-8241

SPECIFICATIONS ?  
ASTM A6-05a, A992-06a, A572-06

GRADE 992/572-50  
LENGTH 45 FT / 13.716 M

PRODUCT WP BEMG

HEAT NO: 30350920

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Al	Nb	CE
.07	.93	.010	.031	.21	.35	.10	.09	.016	.002	.001	.020	.28

CHEMICAL ANALYSIS

Specimen Area	Sq In	8sq cm
Elongation	%	
Gage Length	8 In	200 mm
	8 In	200 mm

Yield Strength

KSI	MPa
55.3	381.3
53.3	367.5

Tensile Strength

KSI	MPa
69.7	480.6
68.1	469.5

PHYSICAL PROPERTIES

Specimen Area	Sq In	8sq cm
Elongation	%	
Gage Length	8 In	200 mm
	8 In	200 mm

Bend Test  
Dia. Result

ROA

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A.  
CMTR complies with DIN EN 10204 3.1.B

"I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements."

Signed: *Tom L. Harrington* Date: Mar 23, 2007  
Tom L. Harrington: Quality Assurance Manager  
Notary Public (if applicable)

Date: \_\_\_\_\_  
Page: 2 of 2

AT 4 30350920 is used to fabricate B34Z

**TRAD METALS INTERNATIONAL**  
 A-1 2300 Computer Avenue  
 Willow Grove, PA 19090  
 Attn: Fred White

Triad Metals International  
 Triad Customer P/U  
 Attn: Sally

Customer No: 000191  
 Bill of Lading No: 0000119486  
 MTR #: 0000119049

**TRAD METALS INTERNATIONAL, INC.**  
 2601 S. County Road 700 East  
 Columbia City, IN 46725  
 (260) 625-8100

**Certified Mill Test Report**  
 100% Melted and Manufactured in USA


Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1†	020863720	W21X44	42' 0"	1	B032910	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
2†	020864110	W21X44	42' 0"	4	B032800	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
3†	020896755	W21X101	42' 0"	2	A034248	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	494
4†	020907997	W21X50	42' 0"	4	A034717	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
5†	020908626	W21X44	42' 0"	4	A034742	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
6†	020909967	W21X50	42' 0"	4	A034715	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1*	.08	1.10	.025	.043	.20	.33	.023	.100	.11	.03	.013	.009	.0004	.00	.32	0.3500	0.1700	HEAT
2*	.06	1.11	.030	.026	.20	.46	.024	.130	.10	.02	.016	.010	.0003	.00	.32	0.3600	0.1600	HEAT
3*	.08	1.17	.017	.039	.24	.41	.034	.090	.10	.02	.017	.011	.0004	.00	.34	0.3800	0.1800	HEAT
4*	.07	1.08	.022	.039	.19	.37	.033	.110	.10	.02	.013	.010	.0004	.00	.32	0.3500	0.1600	HEAT
5*	.09	1.04	.017	.021	.18	.36	.023	.090	.10	.02	.014	.010	.0003	.00	.32	0.3500	0.1800	HEAT
6*	.08	1.05	.019	.037	.20	.34	.032	.080	.11	.03	.012	.009	.0004	.00	.31	0.3400	0.1600	HEAT

*HT # A034248 is used to Lab item: B362*

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed:  Quality Assurance

State of Indiana, County of Whitley  
 Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
 Signed: \_\_\_\_\_ Notary Public

My commission expires: \_\_\_\_\_

Special Comments/Information: \_\_\_\_\_



**Steel Dynamics**  
2601 S. County Road 700 East  
Columbia City, IN 46725  
(260) 625-8100

**Certified Mill Test Report**  
100% Melted and Manufactured in USA

Date: 7/19/2007  
Customer No: 000191  
Bill of Lading No: 0000118681  
MTR #: 0000118254

Ship to:  
Triad Metals International  
Triad Customer P/U  
Attn: Sally

Bill to:  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1	.08	1.06	.019	.030	.25	.36	.033	.12	.11	.029	.014	.0083	.0003	.001	.32	.37	.17	HEAT
2	.06	1.06	.014	.028	.20	.36	.031	.09	.11	.041	.015	.0096	.0003	.000	.32	.35	.17	HEAT
3	.07	1.19	.014	.035	.23	.29	.033	.07	.09	.016	.014	.0118	.0004	.002	.32	.36	.17	HEAT
4	.07	1.15	.014	.032	.26	.33	.033	.08	.10	.022	.012	.0087	.0003	.001	.32	.36	.16	HEAT
5	.08	1.26	.012	.034	.22	.36	.047	.10	.12	.039	.014	.0122	.0004	.001	.36	.39	.18	HEAT
6a	.09	1.25	.012	.022	.21	.37	.041	.09	.12	.038	.014	.0116	.0004	.000	.36	.40	.19	HEAT
6b	.08	1.30	.023	.028	.22	.39	.042	.12	.12	.035	.014	.0091	.0004	.002	.37	.40	.19	HEAT
7a	.08	1.22	.014	.017	.19	.31	.041	.10	.11	.059	.012	.0077	.0003	.001	.35	.38	.18	HEAT
7b	.08	1.30	.023	.028	.22	.39	.042	.12	.12	.035	.014	.0091	.0004	.002	.37	.40	.19	HEAT

**MECHANICAL**

Tension Testing Results				Charpy Impact Testing Results									
Item	Test	Yield (Fy) Strength ksi/MPa	Tensile (Fu) Strength ksi/MPa	Fy/Fu	Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp F/C	Sample 1 ft. lb/joules	Sample 2 ft. lb/joules	Sample 3 ft. lb/joules	% Shear	ASTM Grain Size No (per ASTM E112)
1	1	56/383	71/493	.79	25			1					
1	2	61/420	74/510	.82	26			2					
2	1	52/357	72/494	.72	24			1					
2	2	57/390	73/506	.78	24			2					
3	1	56/388	74/511	.76	24			1					
3	2	56/383	77/532	.73	23			2					
4	1	55/380	73/505	.75	22			1					
4	2	53/369	73/502	.73	22			2					
5	1	61/418	74/509	.82	20			1					
5	2	60/416	74/512	.81	22			2					
6a	1	62/430	76/521	.82	25			1					
6a	2	63/432	76/525	.83	25			2					
6b	1	62/429	75/520	.83	22			1					
6b	2	57/396	74/509	.77	23			2					
7a	1	56/386	71/489	.79	21			1					
7a	2	56/384	71/492	.79	21			2					

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed: Terrell A. C. ...  
Quality Assurance

State of Indiana, County of Whiteley  
Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
Signed: \_\_\_\_\_  
Notary Public

My commission expires \_\_\_\_\_

Special Comments/Information:



**Steel Dynamics, Inc.**  
 2601 S. County Road 700 East  
 Columbia City, IN 46725  
 (260) 625-8100

Customer No: 000191  
 Bill of Lading No: 0000119461  
 MTR #: 0000119025

Triad Metals International  
 Triad Customer P/U  
 Attn: Sally

Triad Metals International  
 A-1 2300 Computer Avenue  
 Willow Grove, PA 19090  
 Attn: Fred White

**Certified Mill Test Report**  
 100% Melted and Manufactured in USA


Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1†	020908432	W21X44	42' 0"	4	A034738	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
2†	020908437	W21X44	42' 0"	4	A034738	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
3†	020908539	W21X44	42' 0"	4	A034729	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
4†	020908578	W21X44	42' 0"	4	A034727	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
5†	020908643	W21X44	42' 0"	4	A034743	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
6†	020908707	W21X44	42' 0"	4	A034745	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1*	.08	1.03	.016	.031	.22	.32	.022	.080	.13	.04	.016	.007	.0004	.00	.31	0.3500	0.1700	HEAT
2*	.08	1.03	.016	.031	.22	.32	.022	.080	.13	.04	.016	.007	.0004	.00	.31	0.3500	0.1700	HEAT
3*	.07	1.04	.016	.029	.19	.36	.023	.120	.13	.04	.019	.010	.0003	.00	.31	0.3400	0.1600	HEAT
4*	.07	1.04	.019	.029	.21	.31	.021	.100	.11	.03	.015	.009	.0003	.00	.30	0.3400	0.1600	HEAT
5*	.06	1.01	.018	.038	.18	.31	.021	.080	.10	.03	.013	.007	.0003	.00	.28	0.3100	0.1400	HEAT
6*	.08	1.05	.017	.042	.20	.31	.022	.100	.10	.03	.014	.008	.0004	.00	.31	0.3400	0.1600	HEAT

HT # A034738 is used to fabrications: B361, B367

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed:  Notary Public

My commission expires: \_\_\_\_\_

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_ Notary Public

State of Indiana, County of Whitley

Special Comments/Information: \_\_\_\_\_

2601 S. County Road 700 East  
Columbia City, IN 46725  
(260) 625-8100

Customer No: 000191  
Bill of Lading No: 0000118975  
MTR #: 0000118546

Triad Metals International  
Triad Customer P/U  
Attn: Sally

Customer No: 000191  
Triad Customer P/U  
Attn: Sally

Customer No: 000191  
Triad Customer P/U  
Attn: Sally

Customer No: 000191  
Triad Customer P/U  
Attn: Sally

Customer No: 000191  
Triad Customer P/U  
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Customer No: 000191  
Triad Customer P/U  
Attn: Sally

Customer No: 000191  
Triad Customer P/U  
Attn: Sally

Customer No: 000191  
Triad Customer P/U  
Attn: Sally

Customer No: 000191  
Triad Customer P/U  
Attn: Sally

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1†	020896786	W21X101	41' 6"	2	A034247	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	494
2†	020896787	W21X101	41' 6"	2	A034247	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	494
3†	020906653	W21X55	43' 6"	2	A034662	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	459
4†	020906657	W21X55	43' 6"	4	A034662	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	459
5†	020906658	W21X55	43' 6"	4	A034662	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	459


**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Analysis
1*	.08	1.15	.015	.032	.21	.36	.033	.070	.09	.02	.015	.011	.0003	HEAT
2*	.08	1.15	.015	.032	.21	.36	.033	.070	.09	.02	.015	.011	.0003	HEAT
3*	.07	1.04	.011	.029	.20	.35	.023	.070	.11	.04	.022	.008	.0003	HEAT
4*	.07	1.04	.011	.029	.20	.35	.023	.070	.11	.04	.022	.008	.0003	HEAT
5*	.07	1.04	.011	.029	.20	.35	.023	.070	.11	.04	.022	.008	.0003	HEAT

**MECHANICAL**

Item	Test	Tension Testing Results			Charpy Impact Testing Results			ASTM Grain Size No (per ASTM E112)
		Yield (Fy) Strength ksi/MPa	Tensile (Fu) Strength ksi/MPa	Elong (%) based on 8" gauge	Sample 1 ft. lb/joules	Sample 2 ft. lb/joules	Sample 3 ft. lb/joules	
1	1	58/401	71/489	26				
1	2	59/409	72/499	24				
2	1	58/401	71/489	26				

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed:  Quality Assurance

State of Indiana, County of Whitley

Sworn to and subscribed before me this \_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_ Notary Public

My commission expires: \_\_\_\_\_

Special Comments/Information:  
HT & A034662 is used to fabricate B334, B353, B354

**Steel Dynamics, Inc.**  
2601 S. County Road 700 East  
Columbia City, IN 46725  
(260) 625-8100

**Bill to:**  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

**Ship to:**  
Triad Metals Intl  
1951 Bessemer Road  
CSX-Collier Yard  
Petersburg, VA 23805  
Attn: Rock McGovern

**Date:** 09/02/2007  
**Customer No:** 000191  
**Bill of Lading No:** 0000123446  
**MTR #:** 0000122965

**Certified Mill Test Report**  
100% Melted and Manufactured in USA

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
7†	020955203	W24X62	60' 0"	4	B036562	A992 / A992M A709 Gr50/Gr345 A709 Gr50S/Gr345S A572 Gr50/Gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A572/A572M - 06 ASTM A572/A572M - 06	186
8†	020955273	W24X62	60' 0"	4	A036576	A992 / A992M A709 Gr50/Gr345 A709 Gr50S/Gr345S A572 Gr50/Gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A572/A572M - 06 ASTM A572/A572M - 06	185
9†	020955275	W24X62	60' 0"	4	A036576	A992 / A992M A709 Gr50/Gr345 A709 Gr50S/Gr345S A572 Gr50/Gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A572/A572M - 06 ASTM A572/A572M - 06	185

**CHEMICAL**


Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
7*	.06	1.11	.016	.028	.20	.36	.032	.08	.11	.023	.013	.0089	.0003	.002	.30	.34	.15	HEAT
8*	.06	1.16	.013	.026	.24	.52	.032	.07	.11	.023	.015	.0089	.0003	.001	.34	.38	.19	HEAT
9*	.09	1.19	.014	.018	.24	.51	.032	.06	.11	.023	.016	.0093	.0003	.001	.35	.39	.19	HEAT

**MECHANICAL**

Item	Test	Tension Testing Results			Charpy Impact Testing Results			ASTM Grain Size No (per ASTM E112)											
		Yield Strength ksi/MPa	Tensile Strength ksi/MPa	Elong (%) based on 8" gauge	Temp F/C	Sample 1 ft. lb./joules	Sample 2 ft. lb./joules		Sample 3 ft. lb./joules	% Shear									
7	1	52/359	69/473	.75															
7	2	55/381	73/503	.75															
8	1	57/393	75/519	.76															
8	2	57/396	75/518	.76															
9	1	60/416	78/536	.77															
9	2	59/407	76/527	.78															

*HTI = B036562 is used to fab items: B320, B326.*

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designations.

Signed:  Quality Assurance

State of Indiana, County of Whitley  
Sworn to and subscribed before me this \_\_\_ day of \_\_\_\_\_  
Signed: \_\_\_\_\_ Notary Public

My commission expires: \_\_\_\_\_

Special Comments/Information:  
• Fully Killed Steel  
1 Cast and Rolled to a Fine Grain Practice



**Steel Dynamics**  
2601 S. County Road 700 East  
Columbia City, IN 46725-  
(260) 625-8100

**Certified Mill Test Report**  
100% Melted and Manufactured in USA

Date: 7/19/2007  
Customer No: 000191  
Bill of Lading No: 0000118681  
MTR #: 0000118254

Ship to:  
Triad Metals International  
Triad Customer P/U  
Attn: Sally

Bill to:  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1	000023481	W24X68	44' 0"	1	A034343	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	459
2	020999518	W24X68	44' 0"	4	A034352	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	459
3	020903310	W24X62	42' 0"	4	B034524	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	459
4	020903399	W24X62	42' 0"	1	B034528	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	459
5	020906903	W21X83	41' 6"	1	A034612	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	459
6a	020907114	W21X83	41' 6"	1	A034610	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	459
6b	020907114	W21X83	41' 6"	1	A034680	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	459
7a	020907123	W21X83	41' 6"	1	A034678	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	459
7b	020907123	W21X83	41' 6"	1	A034680	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	459

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed: Henry Kern  
Quality Assurance

C:\HW\C-Mr6-(C-Me-V0)5-(N-Cuy)5 C2(AWS)=C-(Mn-S)15-(C-Me-V)5-(N-Cuy)15 FC=C-Su30-MnZn-Cu20-Ni60-Cr20-Mer15-V10-S8 Icon=26 01(CU)-3 88(NP)-1 20(CI)-1 49(SI)-17 25(P)-7 25(CU)9-9 10(N)P-33 38(Cu)2 Per ASTM G101

State of Indiana, County of Whitley  
Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
Signed: \_\_\_\_\_  
Notary Public

Special Comments/Information:  
*HT # A034352 is used to fab item B335*



**Steel Dynamics**  
2601 S County Road 700 East  
Columbia City, IN 46725  
(260) 625-8100

**Certified Mill Test Report**  
100% Melted and Manufactured in USA

**Date:** 7/19/2007  
**Customer No:** 000191  
**Bill of Lading No:** 0000118681  
**MTR #:** 0000118254

**Ship to:**  
Triad Metals International  
Triad Customer P/U  
Attn: Sally

**Bill to:**  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1	.08	1.06	.019	.030	.25	.36	.033	.12	.11	.029	.014	.0083	.0003	.001	.32	.37	.17	HEAT
2	.08	1.06	.014	.028	.20	.36	.031	.09	.11	.041	.015	.0096	.0003	.000	.32	.35	.17	HEAT
3	.07	1.19	.014	.035	.23	.29	.033	.07	.09	.016	.014	.0118	.0004	.002	.32	.36	.17	HEAT
4	.07	1.15	.014	.032	.26	.33	.033	.08	.10	.022	.012	.0087	.0003	.001	.32	.36	.16	HEAT
5	.08	1.26	.012	.034	.22	.36	.047	.10	.12	.039	.014	.0122	.0004	.001	.36	.39	.18	HEAT
6a	.09	1.25	.012	.022	.21	.37	.041	.09	.12	.038	.014	.0116	.0004	.000	.36	.40	.19	HEAT
6b	.08	1.30	.023	.028	.22	.39	.042	.12	.12	.035	.014	.0091	.0004	.002	.37	.40	.19	HEAT
7a	.08	1.22	.014	.017	.19	.31	.041	.10	.11	.059	.012	.0077	.0003	.001	.35	.38	.18	HEAT
7b	.08	1.30	.023	.028	.22	.39	.042	.12	.12	.035	.014	.0091	.0004	.002	.37	.40	.19	HEAT

**MECHANICAL**

Tension Testing Results				Charpy Impact Testing Results									
Item	Test	Yield (Fy) Strength ksi/MPa	Tensile (Fu) Strength ksi/MPa	Fy/Fu	Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp F/C	Sample 1 ft. lb./joules	Sample 2 ft. lb./joules	Sample 3 ft. lb./joules	% Shear	ASTM Grain Size No (per ASTM E112)
1	1	56/383	71/493	.79	25								
1	2	61/420	74/510	.82	26								
2	1	52/357	72/494	.72	24								
2	2	57/390	73/506	.78	24								
3	1	56/388	74/511	.76	24								
3	2	56/383	77/532	.73	23								
4	1	55/380	73/505	.75	22								
4	2	53/369	73/502	.73	22								
5	1	61/418	74/509	.82	20								
5	2	60/416	74/512	.81	22								
6a	1	62/430	76/521	.82	25								
6a	2	63/432	76/525	.83	25								
6b	1	62/429	75/520	.83	22								
6b	2	57/396	74/509	.77	23								
7a	1	56/386	71/489	.77	21								
7a	2	56/384	71/492	.79	21								

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed: *Sally Aves Green*  
Quality Assurance

State of Indiana, County of Whitley  
Sworn to and subscribed before me this \_\_\_ day of \_\_\_\_\_  
Signed: \_\_\_\_\_  
Notary Public  
My commission expires: \_\_\_\_\_

Special Comments/Information:



**Steel Dynamics, Inc.**  
 Structural and Reel Division - Columbia City, Indiana

**CERTIFIED MILL TEST REPORT**

Customer # 000191

Date: 09/11/2007

Ship to:  
 Triad Metals Intl  
 1951 Bessemer Road  
 CSX-Collier Yard  
 Petersburg VA, 23805 US  
 Attn: Rock McGovern

Bill to:  
 TRIAD METALS INTERNATIONAL  
 A-1 2300 Computer Avenue  
 Petersburg VA, 23805 US  
 Attn: Fred White

Quality Steel 100% Melted  
 and Manufactured in the USA

**GENERAL INFORMATION**

Product Wide Flange Beam  
 Size W 24 x 76

Heat Number A036440  
 Condition(s) As-Rolled  
 Fine Grained

**SPECIFICATIONS**

Standards  
 ASTM A6/A6M  
 ▶ ASTM A992/A992M - 06a  
 ASTM A709/A709M - 06a  
 ASTM A572/A572M - 06  
 ASTM A709/A709M - 06a

**Grades**

A992/A992M  
 A709 Gr50/Gr345  
 A572 Gr50/Gr345  
 A709 Gr50S/Gr345S

**SHIPMENT DETAILS**

Bundle / ASN # Length Pcs Customer PO  
 020953445 70' 0" 4 186  
 020953444 70' 0" 4 185

BOL # 0000124020

**CHEMICAL ANALYSIS** (weight percent)

C	Mn	P	S	SI	Cu	NI	Cr	Mo	V	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analysis Type
.08	1.14	.013	.020	.23	.45	.12	.12	.039	.034	.001	.0082	.0003	.35	.39	.19	5.73	Heat

**MECHANICAL TESTING**

Test	Yield (fy)		Tensile Strength	fy / fu ratio	% Elong. [8" gage]
	ksi / MPa	ksi / MPa			
1	60 / 412	73 / 507		.81	26
2	61 / 418	74 / 511		.82	26
3					
4					
5					
6					
7					

**Charpy Impact Tests** (available only when specified at time of order)

Temp	Absorbed Energy ft-lbf / J	
F / C	Specimen 1	Specimen 2
	Average	Minimum

*HT & A036440 is used to fabricate: B346*

**Notes:**

\*Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC), Corrosion Index (I)  
 CE1 (IIV) = C+Mn/8+(Cr+Mo+V)/5+(Ni+Cu)/15  
 CE2 (AWS) = C+(Mn+Si)/8+(Cr+Mo+V)/5+(Ni+Cu)/15  
 Pcm (AWS) = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5B  
 I (ASTM G101) = 26.01(Cu)+3.88(Ni)+1.20(Cr)+1.49(Si)+17.29(P)+7.28(Cu)(Ni)-8.10(Ni)(P)-33.38(Cu)<sup>2</sup>

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

State of Indiana, County of Whitley Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: Doug Rees-Evans  
 Manager of Technical Services

Signed: \_\_\_\_\_ My commission expires: \_\_\_\_\_  
 Notary Public

ASTM A6 - 14.6: A signature is not required on the test report; however, the document shall clearly identify the organization submitting the report. Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report.

Customer No: 0000118729  
 Bill of Lading No: 0000118729  
 MTR #: 0000118302

Triad Metals International  
 A-1 2300 Computer Avenue  
 Willow Grove, PA 19090  
 Attn: Fred White

Customer No: 0000118729  
 Bill of Lading No: 0000118729  
 MTR #: 0000118302

2601 S. County Road 700 East  
 Columbia City, IN 46725  
 (260) 625-8100

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1†	000023536	W21X62	44' 0"	1	A034653	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
2†	020902071	W24X94	43' 6"	2	B034476	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
3†	020902073	W24X94	43' 6"	2	B034476	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
4†	020902113	W24X94	43' 6"	1	B034477	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
5†	020906203	W21X62	44' 0"	4	A034635	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
6†	020906434	W21X62	44' 0"	4	A034653	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459


**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1*	.08	1.17	.012	.036	.27	.32	.034	.070	.13	.04	.012	.009	.0004	.00	.33	0.3800	0.1800	HEAT
2*	.07	1.35	.017	.028	.22	.50	.046	.130	.13	.04	.016	.010	.0003	.00	.38	0.4200	0.1900	HEAT
3*	.07	1.35	.017	.028	.22	.50	.046	.130	.13	.04	.016	.010	.0003	.00	.38	0.4200	0.1900	HEAT
4*	.07	1.35	.020	.038	.20	.49	.043	.120	.12	.03	.014	.010	.0003	.00	.38	0.4100	0.1900	HEAT
5*	.08	1.15	.016	.038	.25	.40	.035	.120	.12	.05	.015	.009	.0004	.00	.34	0.3900	0.1800	HEAT
6*	.08	1.17	.012	.036	.27	.32	.034	.070	.13	.04	.012	.009	.0004	.00	.33	0.3800	0.1800	HEAT

**MECHANICAL**

Item	Test	Tension Testing Results			Charpy Impact Testing Results			ASTM Grain Size No (per ASTM E112)											
		Yield (Fy) Strength ksi/MPa	Tensile (Fu) Strength ksi/MPa	Elong (%) based on 8" gauge	Temp F/C	Sample 1 ft. lb/joules	Sample 2 ft. lb/joules		Sample 3 ft. lb/joules	% Shear									
1	1	55/376	75/519	.73															
1	2	62/431	77/533	.81															
2	1	59/408	76/521	.78															

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed:  Quality Assurance

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_ Notary Public

My commission expires \_\_\_\_\_

State of Indiana, County of Whitley

Special Comments/Information  
 HT # B034476 is used to fab item B373

Customer No: 0000118729  
 Bill of Lading No: 0000118729  
 MTR #: 0000118302

Customer No: 0000118729  
 Bill of Lading No: 0000118729  
 MTR #: 0000118302

Customer No: 0000118729  
 Bill of Lading No: 0000118729  
 MTR #: 0000118302

Customer No: 0000118729  
 Bill of Lading No: 0000118729  
 MTR #: 0000118302

Load #: 11

Shipping Date:

Waybill #: 862-11

Customer:	Pizzagalli Construction Company		Prepared By:	Approved By:	Date: 24-01-01
Job Title:	84 Marginal Way	Job Progress Report Sheet	Balfour Machine Shop Ltd.		1010 Route 430
Date Sent to Shop:	X	SHEET: 1	Mandate Erectors & Welding Ltd.		Big River Road
Job Number:	898	X	MQM Ltd., Truroville		1,2A 619

Attach.	Material	Qty	Weight	Paint	Galv	Camber	Level	Fitted		ML Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped			
								By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date	
A	W08X15	0	B301	6	1467																				
A	W10X17	0	B302	1	313																				
A	W14X22	0	B307	1	539																				
A	W18X35	0	B312	1	1649																				
A	W18X40	0	B313	1	1816																				
A	W18X35	0	B316	1	862																				
A	W18X35	0	B318	1	626																				
A	W16X26	0	B319	1	500																				
A	W24X68	0	B321	1	2063																				
A	W24X76	0	B322	1	2314																				
A	W24X68	0	B323	1	2080																				
A	W12X19	0	B331	1	173																				
A	W12X19	0	B333	1	203																				
A	W21X44	0	B336	1	1838																				
A	W12X19	0	B337	1	122																				
A	W16X26	0	B339	1	552																				
A	W16X26	0	B343	1	1111																				
H	W24X44	0	B349	1	1691																				
H	W21X44	0	B350	1	1805																				
A	W16X36	0	B355	1	1365																				

Pieces 25 23089 Total Weight (Lbs.)

( 11.5 TONS)



Load #:

11

Customer:	Pizzagalli Construction Company		Prepared By:	Approved By:	Date: 24-01-01
Job Title:	84 Marginal Way	Job Progress Report Sheet	Bathurst Machine Shop Ltd.		1010 Route 450
Date Sent to Shop:	X	SHEET: 2	Mandate Erectors & Welding Ltd.		Big River Road
Job Number:	898		MQM Ltd., Traralgon		12A 61 <sup>st</sup>

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. In-p.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped					
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date	
A	W18X35	0	B357	1	1063																								
H	W08X15	0	B358	1	224																								
H	W08X15	0	B359	1	224																								
H	W08X15	0	B360	1	224																								
A	H.S.S. 12X6X3/8	0	B364	1	1445																								
A	W21X44	0	B366	1	485																								
A	W21X44	0	B368	1	1873			C 3.4"																					
A	W21X83	0	B374	1	3916																								
A	W21X44	0	B375	1	1873			C 1.12"																					
A	W12X19	0	B378	1	192																								
A	H.S.S. 8X6X5/16	0	B381	1	277																								
A	H.S.S. 8X4X1/4	0	B382	1	248																								
A	W12X19	0	B387	1	218																								
A	W12X19	0	B388	1	158																								
H	W12X19	0	B394	1	399																								
A	W21X44	0	B395	1	1894			C 1.12"																					
A	W10X39	0	C 228	1	1731																								
A	H.S.S. 10X10X5/8	0	D200	1	1341																								
A	H.S.S. 10X10X5/8	0	D201	1	1331																								
A	H.S.S. 6X6X1/2	0	D205	1	486																								

Pieces 20      19632 Total Weight (Lbs)      ( 9.8 TONS)

Load #: 11

Customer:

Pizzagalli Construction Company

Job Title:

84 Marginal Way

Job Progress Report Sheet

Date Sent to Shop:

X

SHEET: 3

Job Number:

898

Prepared By: Approved By: Date: 24-01-01

Bathurst Machine Shop Ltd.

1010 Route 430

Mandate Erectors & Welding Ltd.

Big River Road

MQM Ltd., Truandic

12A 619

Form # 12 Rev. 1

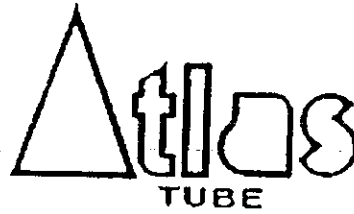
SET SHOP DWG C- COLOR GALV.

Atch.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped									
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date					
A	H.S.S. 8X8X5/8	0	D215	1	827																												
A	H.S.S. 8X8X5/8	0	D216	1	827																												
A	H.S.S. 8X8X5/8	0	D218	1	1068																												
A	H.S.S. 8X8X5/8	0	D219	1	1068																												

Pieces: 4 (3790 Total Weight Libs)

( 1.9 TONS)

Atlas Tube Canada ULC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 NOR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537



Ref.B/L: 80263316  
 Date: 10.24.2007  
 Customer: 1751

**MATERIAL TEST REPORT**

Sold to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Shipped to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Material: 8.0x8.0x625x50'0"(2x1).  
 Sales order: 335491

Material No: 80080625  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002

Bundle No	Yield	Tensile	Eln.2in	Certification
M200482103	063150 Psi	076440 Psi	34.3 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

*HT # 582766 is used to fab items: D215, D216, D218, D219*

Material: 8.0x8.0x625x50'0"(2x1).  
 Sales order: 335491

Material No: 80080625  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002

Bundle No	Yield	Tensile	Eln.2in	Certification
M200482102	063150 Psi	076440 Psi	34.3 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Material: 10.0x10.0x625x18'0"(2x2).  
 Sales order: 335491

Material No: 100100625  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
583750	4	0.200	0.810	0.011	0.002	0.160	0.034	0.015	0.006	0.002	0.007	0.022	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M200483575	054920 Psi	073670 Psi	38.5 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

*HT # 583750 is used to fab items: D200, D201*

Material: 10.0x10.0x625x18'0"(2x2).  
 Sales order: 335491

Material No: 100100625  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
583750	4	0.200	0.810	0.011	0.002	0.160	0.034	0.015	0.006	0.002	0.007	0.022	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M200483574	054920 Psi	073670 Psi	38.5 %	ASTM A500-03A GRADE B&C

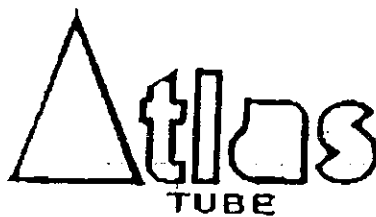
Material Note:  
 Sales Or.Note:

Authorized by Quality Assurance: *[Signature]*

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.



Atlas Tube Canada ULC  
 7000 Clark St  
 Harrow, Ontario, Canada  
 N0R 1G0  
 Tel 519-738-3641  
 Fax 519-738-3537



MATERIAL TEST REPORT

Material: 4.0x2.0x375x24'0"0(5x4)  
 Sales order: 285068

Material No: 400203752400  
 Purchase Order: 1837

Made In: Canada

Heat No	C	Mn	P	S	SI	Al	Cu	Cb	Mo	NI	Cr	V
581385	0.200	0.500	0.011	0.002	0.180	0.046	0.012	0.006	0.002	0.007	0.047	0.000

Bundle No	Yield	Tensile	Eln.2In
M100607399	072400 Psi	080310 Psi	23.0 %

Certification  
 ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or.Note:

Material: 12.0x6.0x375x20'0"0(2x4)  
 Sales order: 290340

Material No: 1200603752000  
 Purchase Order: 1926

Made In: Canada

Heat No	C	Mn	P	S	SI	Al	Cu	Cb	Mo	NI	Cr	V
0324G	0.210	0.530	0.011	0.007	0.030	0.031	0.020	0.000	0.010	0.010	0.020	0.003

Bundle No	Yield	Tensile	Eln.2In
M200409289	060730 Psi	075540 Psi	33.3 %

Certification  
 ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or.Note:

Material: 12.0x8.0x375x20'0"0(2x4)  
 Sales order: 290340

Material No: 1200603752000  
 Purchase Order: 1926

Made In: Canada

Heat No	C	Mn	P	S	SI	Al	Cu	Cb	Mo	NI	Cr	V
520961	0.150	0.200	0.012	0.002	0.150	0.038	0.015	0.005	0.002	0.008	0.031	0.000

Bundle No	Yield	Tensile	Eln.2In
M200409289	065170 Psi	078190 Psi	32.9 %

Certification  
 ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or.Note:

HT# 520961 is used to fabricate B364

Material: 5.0x3.0x375x48'0"0(2x2)-CSA  
 Sales order: 284461

Material No: 0800303754800-CSA  
 Purchase Order: 1803

Made In: Canada

Heat No	C	Mn	P	S	SI	Al	Cu	Cb	Mo	NI	Cr	V
0728G	0.200	0.540	0.011	0.003	0.030	0.030	0.030	0.000	0.020	0.030	0.030	0.002

Bundle No	Yield	Tensile	Eln.2In
M100802146	065450 Psi	076450 Psi	33.3 %

Certification  
 CSA G40.21-04 50W CLASS C

Material Note:  
 Sales Or.Note:

Authorized by Quality Assurance:



Atlas Tube Canada U.C.  
200 Clark St  
Miramichi, Ontario, Canada  
N0R 1G0  
Tel 519-738-3541  
Fax 519-738-3537



Ref.B/L: 80261880  
Date: 10.13.2007  
Customer: 1774

Sold to

Acier Altitude Inc.  
2555 Francis-Hugues Avenue  
LAVAL QC H7S 2H7  
CANADA

MATERIAL TEST REPORT

Shipped to

Acier Altitude Inc.  
2555 Francis-Hugues Avenue  
LAVAL QC H7S 2H7  
CANADA

Material: 3.0x6.0x375x20"0"0(1x1)REC  
Sales order: 309396

Material No: 50050375  
Purchase Order: 3426

Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
850406	0.200	0.300	0.010	0.003	0.160	0.044	0.033	0.005	0.002	0.014	0.043	0.000

Bundle No	Yield	Tensile	Elm.2in	Certification
0001720788	069140 Psi	080350 Psi	28.8 %	ASTM A500-03A GRADE B&C

Material Note:  
Sales Or.Note:

Material: 3.0x6.0x350x38"0"0(1x1)REC  
Sales order: 337352

Material No: 80060250  
Purchase Order: 3408

Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
100000	0.180	0.330	0.008	0.005	0.021	0.049	0.051	0.006	0.005	0.013	0.027	0.000

Bundle No	Yield	Tensile	Elm.2in	Certification
M200479177	063370 Psi	075300 Psi	31.3 %	ASTM A500-03A GRADE B&C

Material Note:  
Sales Or.Note:

Material: 3.0x6.0x313x32"0"0(1x1)REC  
Sales order: 338356

Material No: 80060313  
Purchase Order: 3426

Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
831186	0.200	0.300	0.011	0.002	0.150	0.034	0.031	0.005	0.002	0.013	0.031	0.000

Bundle No	Yield	Tensile	Elm.2in	Certification
M200471436	060750 Psi	073280 Psi	32.5 %	ASTM A500-03A GRADE B&C

Material Note:  
Sales Or.Note:

HT 4 6811% is used to fab item. 0381

Material: 3.0x6.0x313x46"0"0(1x1)REC-CSA  
Sales order: 339366

Material No: 80060313  
Purchase Order: 3426

Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
580568	0.180	0.290	0.014	0.005	0.160	0.035	0.033	0.005	0.003	0.013	0.042	0.000

Bundle No	Yield	Tensile	Elm.2in	Certification
0001727316	062950 Psi	077320 Psi	32.6 %	CSA G40.21-04 50W CLASS C

Material Note:  
Sales Or.Note:

Authorized by Quality Assurance: *[Signature]*

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.



# MATERIAL TEST REPORT

Allas Tube Canada ULC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 N0R 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537

Ref./L: 80248589  
 Date: 10.29.2007  
 Customer: 1751

Denis Guitera.

**Sold to**

Mandate Erectors & Welding Lt  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

**Shipped to**

Mandate Erectors & Welding Lt  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Material: 8.0x4.0x250x26"0"(2x2).  
 Sales order: 314780

Material No: 80040250  
 Purchase Order: 31077  
 Made In: Canada

Heat No	Pcs	C	Mn	P	S	SI	Al	Cu	Cb	Mo	Ni	Cr	V
749730	4	0.200	0.820	0.011	0.007	0.011	0.049	0.021	0.004	0.002	0.010	0.035	0.000

Bundle No	Yield	Tensile	Eln.2In	Certification
M100648382	058250 Psi	069520 Psi	33.2 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

HT # 749730 is used to fab item: 8382

Material: 12.0x12.0x375x32"4"0(2x2).  
 Sales order: 314238

Material No: 120120375  
 Purchase Order: 31072  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	SI	Al	Cu	Cb	Mo	NI	Cr	V
582788	4	0.200	0.790	0.011	0.003	0.150	0.035	0.026	0.005	0.002	0.013	0.040	0.002

Bundle No	Yield	Tensile	Eln.2In	Certification
M200457870	063170 Psi	076790 Psi	30.7 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Material: 12.0x12.0x375x32"4"0(2x2).  
 Sales order: 314238

Material No: 120120375  
 Purchase Order: 31072  
 Made In: Canada

Heat No	Pcs	C	Mn	P	S	SI	Al	Cu	Cb	Mo	NI	Cr	V
582788	4	0.200	0.790	0.011	0.003	0.150	0.035	0.026	0.005	0.002	0.013	0.040	0.002

Bundle No	Yield	Tensile	Eln.2In	Certification
M200457871	063170 Psi	076790 Psi	30.7 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Material: 12.0x12.0x375x32"4"0(2x1).  
 Sales order: 314238

Material No: 120120375  
 Purchase Order: 31072  
 Made In: Canada

Heat No	Pcs	C	Mn	P	S	SI	Al	Cu	Cb	Mo	Ni	Cr	V
582787	2	0.200	0.780	0.011	0.003	0.150	0.029	0.038	0.005	0.004	0.015	0.046	0.000

Bundle No	Yield	Tensile	Eln.2In	Certification
M200457868	059840 Psi	075430 Psi	35.9 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Authorized by Quality Assurance:

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.

Atlas Tube Inc.  
 209 Clark St.  
 Barrow, Ontario, Canada  
 N0R 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537

Ref. B/L: 80195001  
 Date: 06.13.2006  
 Customer: 216



**MATERIAL TEST REPORT**

Sold to

York Steel  
 550 Wilsey Road  
 FREDERICTON NB E3B 7K2  
 CANADA

Shipped to

York Steel  
 550 Wilsey Road  
 FREDERICTON NB E3B 7K2  
 CANADA

Material: 4.0x4.0x250x48"0"0(5x2)  
 Sales order: 230424

Material No: 600402504800 Made in: Canada  
 Purchase Order: 7527FB

Heat No	C	Mn	P	S	Si	Al	Cu	Cr	Mo	Ni	Cr	V
745898	0.180	0.630	0.011	0.004	0.011	0.048	0.022	0.000	0.000	0.000	0.000	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M100517181	066650 Psi	074170 Psi	27.3 %	ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or.Note:

Material: 6.0x6.0x500x48"0"0(3x1)  
 Sales order: 222541

Material No: 600605004800 Made in: Canada  
 Purchase Order: 7295FB

Heat No	C	Mn	P	S	Si	Al	Cu	Cr	Mo	Ni	Cr	V
2359E	0.210	0.650	0.017	0.008	0.020	0.027	0.020	0.000	0.010	0.020	0.000	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M100520570	069750 Psi	077630 Psi	28.5 %	ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or.Note:

*Item # 2359E is used to for item: D205*

Material: 8.0x8.0x500x48"0"0(3x1)  
 Sales order: 222541

Material No: 600605004800 Made in: Canada  
 Purchase Order: 7295FB

Heat No	C	Mn	P	S	Si	Al	Cu	Cr	Mo	Ni	Cr	V
578629	0.210	0.780	0.011	0.004	0.140	0.037	0.012	0.005	0.000	0.021	0.000	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M100520575	070350 Psi	079740 Psi	27.5 %	ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or.Note:

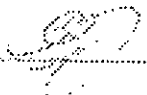
Material: 2.0x2.0x125x24"0"0(10x5)-D  
 Sales order: 230424

Material No: 0200201252400-D Made in: USA  
 Purchase Order: 7527FB

Heat No	C	Mn	P	S	Si	Al	Cu	Cr	Mo	Ni	Cr	V
G129945	0.160	0.780	0.013	0.008	0.024	0.040	0.040	0.000	0.000	0.010	0.000	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M300245735	068103 Psi	077334 Psi	25.0 %	ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or.Note:

Authorized by Quality Assurance: 



G-100404

Chemical and Physical Test Report

MADE IN UNITED STATES

**GERDAU AMERISTEEL**  
CARTERSVILLE STEEL MILL  
384 OLD GRASSDALE RD NE  
CARTERSVILLE GA 30121 USA  
(770) 387-3300

PRODUCED IN: CARTERSVILLE

SHIP TO  
TRIAD METAL  
1901 BESSEMER ROAD  
804-7-2-5000  
PETERSBURG, VA 23805

INVOICE TO  
TRIAD METALS INTERNATIONAL  
METAL TRADERS INC  
2000 COMPUTER AVE STE-A-1  
WILLOW GROVE, PA 19090

SHIP DATE  
09/24/07

CUST. ACCOUNT NO  
40213005

SALES ORDER  
7001934-02

CUST P.O. NUMBER  
1483-02

SHAPE & SIZE	GRADE	SPECIFICATION	Yield	Tensile	Elong	Sh	A	Ti	Ca	C Eqv
W8 X 15#	A5720992	ASTM A572 GR50-97, ASTM A582-06A	44.0 MPa	548 MPa	20.5%	0.004	0.002	0.0030	0.0030	0.0030
HEAT ID.	G705131									
Mechanical Test:										
Customer Requirements:										

SHAPE & SIZE	GRADE	SPECIFICATION	Yield	Tensile	Elong	Sh	A	Ti	Ca	C Eqv
W8 X 15#	A5720992	ASTM A572 GR50-97, ASTM A582-06A	44.5 MPa	567 MPa	20.3%	0.004	0.002	0.0030	0.0030	0.0030
HEAT ID.	G705132									
Mechanical Test:										
Customer Requirements:										

HT # G705132 is used to Lab Items: B30 B35E, B359, B36C.

This material, including the labels, was produced and manufactured in the United States of America

*Maskay*  
Elastic Elements Ltd  
Quality Director  
Cartersville, Georgia

*Zhang*  
Met. Metallurgy Dept  
CARTERSVILLE STEEL MILL

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY

Customer warrants that all material furnished shall comply with specifications subject to standard published manufacturing variations. NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, ARE MADE BY THE SELLER AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Any claim for damages for materials that do not conform to specifications shall be made from buyer to seller immediately after delivery of same in order to allow the opportunity to inspect the material in question.





**GERDAU AMERISTEEL**

CARTERSVILLE STEEL MILL  
384 OLD GRASSDALE RD NE  
CARTERSVILLE GA 30121 USA  
(770) 367-3300

Chemical and Physical Test Report

MADE IN UNITED STATES

G-082342

PRODUCED IN: CARTERSVILLE

SHIP TO

TRIAD METAL  
1951 BESSEMER ROAD  
804-732-5000  
PETERSBURG, VA 23085

INVOICE TO  
TRIAD METALS INTERNATIONAL  
METAL TRADERS INC  
2300 COMPUTER AVE, STE-A-1  
WILLOW GROVE, PA 19090

SHIP DATE  
12/11/90

CUST. ACCOUNT NO  
40213035

SHAPE & SIZE	GRADE	SPECIFICATION	YIELD	TENSILE	ELONG.	REDUCED SECTION	STRAIGHTENING	CASTING	ITEM NUMBER
W10 X 17	A572-50	ASTM A572 GR 50-01	47.8	57.5	21	0.20	AS 1708M	NOV	121289-31
HEAT ID	C	S	Si	Ca	Cr	Mn	P	S	
6605061	17	.029	.28	.75	.11	.06	.015	.010	001000
MECHANICAL TEST	Yield	59600 PSI, 410.97 MPA	Tensile	81700 PSI, 559.45 MPA	%EL	21.17%	24.1700004	SIG Dev 0	1st Dam 635
CUSTOMER REQUIREMENTS	CASTING: STRAHD CAST								
MECHANICAL TEST	Yield	60000 PSI, 415.75 MPA	Tensile	78100 PSI, 542.82 MPA	%EL	21.27%	21.2020044	SIG Dev 0	1st Dam 635
CUSTOMER REQUIREMENTS	CASTING: STRAHD CAST								
CUSTOMER ITEM NUMBER	NOV								

SHAPE & SIZE	GRADE	SPECIFICATION	YIELD	TENSILE	ELONG.	REDUCED SECTION	STRAIGHTENING	CASTING	ITEM NUMBER
W10 X 17	A572-50	ASTM A572 GR 50-01	47.8	57.5	21	0.20	AS 1708M	NOV	174249-11
HEAT ID	C	S	Si	Ca	Cr	Mn	P	S	
6625032	17	.029	.28	.75	.11	.06	.015	.010	001000
MECHANICAL TEST	Yield	62200 PSI, 428.83 MPA	Tensile	82600 PSI, 569.51 MPA	%EL	21.40%	21.4708014	SIG Dev 0	1st Dam 376
CUSTOMER REQUIREMENTS	CASTING: STRAHD CAST								
MECHANICAL TEST	Yield	61100 PSI, 421.27 MPA	Tensile	81900 PSI, 564.68 MPA	%EL	21.17%	21.1706014	SIG Dev 0	1st Dam 376
CUSTOMER REQUIREMENTS	CASTING: STRAHD CAST								
CUSTOMER ITEM NUMBER	NOV								

HT # 6605061 is used to fab item: B302

This material, including the blanks, was produced and manufactured in the United States of America.

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY

*Shackleton*  
Plant Manager  
Quality Director  
Customer Administrator

*January*

New Milling Dept  
CARTERSVILLE STEEL MILL

Bill To: TRIAD METALS INTERNATIONAL  
2300 COMPUTER AVENUE  
SUITE A-1  
WILLOW GROVE  
19090 PA US

Ship To: 6 TRIAD METALS INTERNATIONAL  
1951 BESSEMER ROAD  
PETERSBURG  
23803 VA US

Order Date: 09/10/2007  
PO No: 2142  
Mill Order No: 3365496  
Load No: 1137432  
Manifest No: 1848849

CERTIFIED MATERIAL TEST REPORT  
CHAPARRAL STEEL  
300 Ward Rd.  
Midlothian, TX  
76065-9651  
(972) 775-8241

CHAPARRAL  
WF BEAMS

SIZE W 10 X 39# / W250 X 58  
GRADE 992/572-50  
LENGTH 45 FT / 13.716 M

SPECIFICATIONS  
ASTM A6-05a, A992-06a, A572-06

HEAT NO. 30360460

CHEMICAL ANALYSIS													
C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Al	Nb	CE
.08	.95	.011	.041	.23	.40	.11	.10	.019	.016	.002	.003	.018	.3

Yield Strength				Tensile Strength				PHYSICAL PROPERTIES					
KSI	MPa	KSI	MPa	Specimen Area	Elongation	Specimen Area	Elongation	Bend Test	ROA	Specimen Area	Elongation	Specimen Area	Elongation
53.1	366.1	68.7	473.7	Sq In	%	Sq Cm	%	Dia. Result	%	Sq In	%	Sq Cm	%
50.6	348.9	67.2	463.3	0.806	28.4	5.20	28.4	8 In	200 mm	0.877	26.8	5.66	26.8
								8 In	200 mm				

HT # 30360460 is used to fab item: 0328

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A.  
CMTR complies with DIN EN 10204 3.1.B

"I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements."

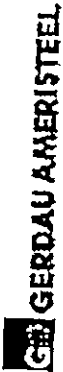
Signed: Tom L. Harrington Date: Sep. 12, 2007 Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
Tom L. Harrington: Quality Assurance Manager Notary Public (if applicable)

Page: 1 of 2

G-099999

Chemical and Physical Test Report

MADE IN UNITED STATES



CARTERSVILLE STEEL MILL  
384 OLD GRASSDALE RD NE  
CARTERSVILLE GA 30121 USA  
(770) 387-3300

PRODUCED IN: CARTERSVILLE

INVOICE TO  
TRIAD METALS INTERNATIONAL  
METAL TRADERS INC  
2200 COMPTON AVE STE A 1  
WILLOW GROVE, PA 18980

SHIP DATE  
09/19/07

CUST. ACCOUNT NO  
40213035

SALES ORDER  
7074477-13

CUST P.O. NUMBER  
1108-13

SHAPE + SIZE	GRADE	SPECIFICATION	Yield	Tensile	Elong	Reduc Area	Charpy
W12 X 24	A572-50	ASTM A572 GR50-07, ASTM A362-08A	50	65	22	100	27
HEAT ID: G704790	C	S: .028, P: .008, Mn: 1.12, Si: .028, Cu: .01, Ni: .01, Nb: .0002, V: .007, Ti: .011, Al: .002, N: .0012, In: .002, Ca: .00100, C: .00190, S: .0021	50.7 MPA	64.3 MPA	25.0%	14.0%	27 J
Mechanical Test	Yield 50700 PSI, 404.72 MPA	Tensile 73000 PSI, 504.7 MPA	54.3	75.0%	25.0%	14.0%	27 J
Customer Requirements CASTING: STRAND CAST	Yield 80000 PSI, 419.2 MPA	Tensile 74400 PSI, 512.97 MPA	74.0	75.0%	25.0%	14.0%	27 J
Mechanical Test	Yield 80000 PSI, 419.2 MPA	Tensile 74400 PSI, 512.97 MPA	74.0	75.0%	25.0%	14.0%	27 J
Customer Requirements CASTING: STRAND CAST	Yield 54900 PSI, 379.52 MPA	Tensile 68100 PSI, 471.43 MPA	54.3	71.5%	27.5%	14.0%	27 J
Mechanical Test	Yield 54900 PSI, 379.52 MPA	Tensile 68100 PSI, 471.43 MPA	54.3	71.5%	27.5%	14.0%	27 J
Customer Requirements CASTING: STRAND CAST	Yield 55700 PSI, 384.04 MPA	Tensile 70100 PSI, 483.30 MPA	54.1	75.7%	25.7%	14.0%	27 J
Mechanical Test	Yield 55700 PSI, 384.04 MPA	Tensile 70100 PSI, 483.30 MPA	54.1	75.7%	25.7%	14.0%	27 J
Customer Requirements CASTING: STRAND CAST							

SHIP TO  
TRIAD METALS INTERNATIONAL  
METAL TRADERS INC  
2200 COMPTON AVE STE A 1  
WILLOW GROVE, PA 18980

SHIP DATE  
09/19/07

CUST. ACCOUNT NO  
40213035

SALES ORDER  
7074477-11

CUST P.O. NUMBER  
1108-11

SHAPE + SIZE	GRADE	SPECIFICATION	Yield	Tensile	Elong	Reduc Area	Charpy
W12 X 18	A572-50	ASTM A572 GR50-07, ASTM A362-08A	50	65	22	100	27
HEAT ID: G704837	C	S: .028, P: .008, Mn: 1.14, Si: .028, Cu: .01, Ni: .01, Nb: .0002, V: .007, Ti: .011, Al: .002, N: .0012, In: .002, Ca: .00100, C: .00190, S: .0021	50.7 MPA	64.3 MPA	25.0%	14.0%	27 J
Mechanical Test	Yield 50700 PSI, 404.72 MPA	Tensile 73000 PSI, 504.7 MPA	54.3	75.0%	25.0%	14.0%	27 J
Customer Requirements CASTING: STRAND CAST	Yield 80000 PSI, 419.2 MPA	Tensile 74400 PSI, 512.97 MPA	74.0	75.0%	25.0%	14.0%	27 J
Mechanical Test	Yield 80000 PSI, 419.2 MPA	Tensile 74400 PSI, 512.97 MPA	74.0	75.0%	25.0%	14.0%	27 J
Customer Requirements CASTING: STRAND CAST	Yield 54900 PSI, 379.52 MPA	Tensile 68100 PSI, 471.43 MPA	54.3	71.5%	27.5%	14.0%	27 J
Mechanical Test	Yield 54900 PSI, 379.52 MPA	Tensile 68100 PSI, 471.43 MPA	54.3	71.5%	27.5%	14.0%	27 J
Customer Requirements CASTING: STRAND CAST	Yield 55700 PSI, 384.04 MPA	Tensile 70100 PSI, 483.30 MPA	54.1	75.7%	25.7%	14.0%	27 J
Mechanical Test	Yield 55700 PSI, 384.04 MPA	Tensile 70100 PSI, 483.30 MPA	54.1	75.7%	25.7%	14.0%	27 J
Customer Requirements CASTING: STRAND CAST							

ASTM A572-50 is used to fabricate items: B331, B333, B337, B372, B387, B388, B389

THE ABOVE VALUES ARE CHEMICAL ANALYSES FOR THE PERMANENT RECORDS OF COMPANY.

AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

*Maskay*  
By: *Maskay*  
CARTERSVILLE STEEL MILL

Other elements that all material furnished shall comply with specifications as set forth in the contract and shall be subject to standard procedures for testing. NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE MADE BY THE SELLER AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Any claim for damages for materials that do not conform to specifications must be made immediately after delivery of same in order to allow the opportunity to inspect the material in question.

**Steel Dynamics, Inc.**  
2601 S. County Road 700 East  
Columbia City, IN 46725  
(360) 625-8100

**Steel Dynamics, Inc.**  
2601 S. County Road 700 East  
Columbia City, IN 46725  
(360) 625-8100

**Customer No: 000191**  
**Bill of Lading No: 0000122072**  
**MTR #: 0000121600**

**Date: 8/22/2007**

**Ship to:**  
Triad Metals Intl  
1951 Bessemer Road  
CSX-Coffier Yard  
Petersburg, VA 23805  
Attn: Rock McGovern

**Bill to:**  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

**Certified Mill Test Report**  
100% Meltd and Manufactured in USA

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
4†	020936730	W14X22	50' 0"	8	A035733	A992/A992M - 06a A709 gr50/gr345 A709 gr50S/gr345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	163013
5†	020936733	W14X22	50' 0"	8	A035733	A992/A992M A709 gr50/gr345 A709 gr50S/gr345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	163013

**CHEMICAL**


Item	C	Mn	P	S	SI	Cu	V	Cr	NI	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
4*	.07	.75	.016	.041	.24	.30	.011	.09	.10	.026	.014	.0111	.0003	.002	.24	.28	.14	HEAT
5*	.07	.75	.016	.041	.24	.30	.011	.09	.10	.026	.014	.0111	.0003	.002	.24	.28	.14	HEAT

**MECHANICAL**

Item	Test	Tension Testing Results				Charpy Impact Testing Results				ASTM Grain Size No (per ASTM E112)										
		Yield (FY) Strength ksi/MPa	Tensile (Fu) Strength ksi/MPa	Elong (%) based on 8" gauge	Fy/Fu	Temp F/C	Sample 1 ft. lb/joules	Sample 2 ft. lb/joules	Sample 3 ft. lb/joules		% Shear									
4	1	56/390	72/495	.26	.78	1														
4	2	56/389	71/490	.29	.79	2														
5	1	56/390	72/495	.26	.78	1														
5	2	56/389	71/490	.29	.79	2														

HT 4035733 is used to fab item 1307

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed:  Quality Assurance


My commission expires: \_\_\_\_\_

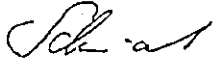
State of Indiana, County of Whitley  
Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
Signed: \_\_\_\_\_ Not Public

Special Comments/Information:  
\* Fully Killed Steel  
† Cast and Rolled to a Fine Grain Practice

PART NO

Att

		<b>Certificate Nr 2789/12-2003</b> Advice Nr A2012085								
Order Nr: 1700001356 Customer Nr: 10927		Stahlwerk Thüringen GmbH Postfach 1163 07331 Unterwellenborn Germany								
Quality: A892-A572/50TB3 according to: ASTM A992/98 - A572 GR50 PER AISC TB3 FINE GRAIN SILICON KILLED		Arcelor Intern   Canada Inc. Mill business, Long Products 5500 North Service Road, 7th Floor  CAN-L7L 6W6 BURLINGTON								
Inspection certificate  ASTM A6 par18.										
Lot Nr	Heat Nr	Dimension	Length	Pieces	Weight (t)	Customer Nr				
048	93072	W 16X5,5X28	60'	35	24.767	000048				
048	93073	W 16X5,5X28	60'	25	17.690	000048				
Heat Analysis [%]										
Heat Nr	C	Si	Mn	P	S	N	Nb	V	Cr	Cu
	max 0.23 min	0.40 0.10	1.50 0.80	0.035	0.045	0.012	0.050	0.110	0.35	0.60
93072	0.10	0.20	1.13	0.015	0.018	0.008	0.016	0.008	0.08	0.30
93073	0.09	0.20	1.14	0.019	0.021	0.009	0.014	0.007	0.10	0.25
Heat Analysis [%]										
Heat Nr	Ni	Mo	CEV1	Sn						
	max 0.45 min	0.15	0.45							
93072	0.12	0.03	0.33	0.018						
93073	0.12	0.03	0.33	0.013						
Heat Nr	Tensile test Yield stress [PSI]		Tensile strength [PSI]	Elongation 50 mm [%]						
	max 65000 min 50000		65000	21.0						
93072	56260		75880	24.6						
93073	55245		73805	23.8						

Renate Schmidt  
 Works inspector  
  
 2003-12-22



HT 493073 is used to fab items: B3319, B3339, B343



**STAHLWERK THÜRINGEN**  
Arcelor Gruppe

**Certificate Nr 1443/3-2004**

Advice Nr A0803217

Stahlwerk Thüringen GmbH  
Postfach 1163  
07331 Unterwellenborn  
Germany

Order Nr: 1700001653  
Customer Nr: M95000283

Arcelor Intern I Canada Inc.  
Mill business, Long Products  
5500 North Service Road, 7th Floor

Quality: A992 DUAL  
according to: ASTM A992/98 - A572 GR50  
PER AISC TB3 - ASTM A572/97C GR50  
FINE GRAIN SILICON KILLED

CAN-L7L 6W6 BURLINGTON

Inspection certificate

ASTM A6 par18.

Lot Nr	Heat Nr	Dimension	Length	Pieces	Weight [t]	Customer Nr
013	11656	W 16X7X36	45'	30	21.915	

Heat Analysis [%]											
Heat Nr	C	Si	Mn	P	S	N	Nb	V	Cr	Cu	
11656	max	0.23	0.40	1.50	0.035	0.045	0.012	0.050	0.110	0.35	0.60
	min		0.10	0.50				0.005			
	0.09	0.21	1.16	0.025	0.025	0.009	0.014	0.007	0.11	0.43	

Heat Analysis [%]				
Heat Nr	NI	Mo	CEV1	Sn
11656	max	0.45	0.15	0.45
	min			
	0.13	0.04	0.35	0.017

Heat Nr	Tensile test Yield stress [PSI]	Tensile strength [PSI]	Elongation 50 mm [%]
11656/1	max	65000	21.0
	min	50000	23.0
11656/2	53650	74530	23.0
	55680	72355	32.0

HT 14 11656 is used to fab item: B355

Renate Schmidt  
Works inspector

2004-03-09



Altir:

**Bill To:**  
 PACIFIC STEEL, INC.  
 845 MUNCK  
 CHROMEY  
 LAVAL  
 H7SLA9  
 PQ  
 CA

**Ship To:**  
 PACIFIC STEEL, INC.  
 845 MUNCK  
 H076 LONGUBIL  
 MONTREAL  
 H7S-LA9  
 PQ  
 CA

**ORDER INFORMATION:**  
 Order Date: 02/21/2007  
 PO NO: 18704  
 Mill Order No: 1261903  
 Load No: 1099564  
 Manifest No: 1813840

**ORDER INFORMATION:**  
 CERTIFIED MATERIAL TEST REPORT  
 CHAPARRAL STEEL  
 300 WARD RD  
 Midlothian, TX  
 76065-9651  
 (972) 775-8241

**PRODUCT:**  
 WP BEAMS

**SIZE:**  
 W 18 X 35# / M460 X 52  
 LENGTH  
 45 FT / 13.716 M

**GRADE:**  
 992/572-50

**HEAT NO:** 30350920

**DESCRIPTIONS:**  
 ASTM A6-05a, A992-06a, A572-06

CHEMICAL ANALYSIS

	C	Mn	P	S	Si	CU	NI	Cr	Mo	V	Al	Nb	CE
	.07	.93	.010	.031	.21	.35	.10	.09	.016	.002	.001	.020	.28

PHYSICAL PROPERTIES


Yield Strength	Tensile Strength		Elongation	Gage Length	MOA
	KSI	MPa			
59.3	381.3	69.7	4.43	23.8	8 In 200 mm
53.3	367.5	68.1	4.45	26.0	8 In 200 mm

Specimen Area	Specimen Area	Specimen Area
Sq In	Bq cm	Bq cm
0.686	4.43	23.8
0.689	4.45	26.0

Bend Test  
Dia. Result

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A.  
CMTR complies with DIN EN 10204 3.1.1.B

"I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements."

Signed:  Date: Mar. 23, 2007  
 Tom L. Harrington: Quality Assurance Manager  
 Notary Public (if applicable) \_\_\_\_\_ Date: \_\_\_\_\_

HT 4 30350920 is used to fabricate: 8312, 8316, 8318, 8357

**Certified Mill Test Report**  
 100% Melted and Manufactured in USA

Customer No: 000191  
 Bill of Lading No: 0000119461  
 MTR #: 0000119025

Triad Metals International  
 Triad Customer P/U  
 Attn: Sally

Triad Metals International  
 A-1 2300 Computer Avenue  
 Willow Grove, PA 19090  
 Attn: Fred White

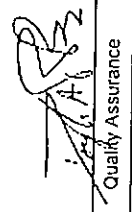
Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1†	020908432	W21X44	42' 0"	4	A034738	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
2†	020908437	W21X44	42' 0"	4	A034738	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
3†	020908539	W21X44	42' 0"	4	A034729	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
4†	020908578	W21X44	42' 0"	4	A034727	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
5†	020908643	W21X44	42' 0"	4	A034743	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
6†	020908707	W21X44	42' 0"	4	A034745	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1*	.08	1.03	.16	.031	.22	.32	.022	.080	.13	.04	.016	.007	.0004	.00	.31	0.3500	0.1700	HEAT
2*	.08	1.03	.16	.031	.22	.32	.022	.080	.13	.04	.016	.007	.0004	.00	.31	0.3500	0.1700	HEAT
3*	.07	1.04	.16	.029	.19	.36	.023	.120	.13	.04	.019	.010	.0003	.00	.31	0.3400	0.1600	HEAT
4*	.07	1.04	.19	.029	.21	.31	.021	.100	.11	.03	.015	.009	.0003	.00	.30	0.3400	0.1600	HEAT
5*	.06	1.01	.18	.038	.18	.31	.021	.080	.10	.03	.013	.007	.0003	.00	.28	0.3100	0.1400	HEAT
6*	.08	1.05	.017	.042	.20	.31	.022	.100	.10	.03	.014	.008	.0004	.00	.31	0.3400	0.1600	HEAT

HT & A034738 is used to fab items B3361B366, B368, B375, B395, B399, B35

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed:   
 Notary Public  
 Quality Assurance

State of Indiana, County of Whitley

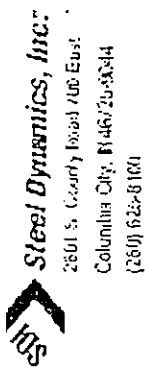
Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_

My commission expires: \_\_\_\_\_

Special Comments/Information:





**Certified Mill Test Report**  
100% Mutual and Identified in UTS

**Ship to:**  
Triad Metals, International  
1951 Pleasanton Road  
CSX-Offier Yard  
Petersburg, VA 23105  
Attn: Fred White

**Customer No:** 000181  
**Bill of Lading No:** 0001056305  
**MTR #:** 01X00055659

**Bill to:**  
TRIAD METALS INTERNATIONAL  
A-1 2100 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
21	020-133258	W21X83	60' 0"	2	A016313	A992 / A992M A709 G50S/G345S A572 Gr50W/345	ASTM A992/A992M - C4a ASTM A709/A709M - U4a ASTM A572/A572M - U4	76702

**CHEMICAL**


Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Si	N	U	Cl	G2	PC	Analysis
21	07	1.16	0.10	0.32	.23	.41	.002	.09	12	.033	.014	.0077	0.003	0.21	.33	.17	HEAT

**MECHANICAL**

Item	Test	Yield (Fy) ksi/MPa	Tensile (Fu) Strength ksi/MPa	Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp F/C	Charpy Impact Testing Results			ASTM Grain Size No (per ASTM E112)								
								Fy/Fu	Fy/Fu	Fy/Fu		Sample 1 ft. lb/joules	Sample 2 ft. lb/joules	Sample 3 ft. lb/joules	% Shear				
21	1	57391	71487	24															
21	2	55380	68470	26															

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

**Quality Assurance**

Signed:    
Quality Assurance

My examination expires \_\_\_\_\_ day of \_\_\_\_\_ Signed: \_\_\_\_\_

State of Indiana, County of Whitley

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Special Comments/Information:

4T & A016313 is used to fabricate: B374





**Steel Dynamics, Inc.**  
Structural and Rail Division • Columbia City, Indiana

# CERTIFIED MILL TEST REPORT

Date: 09 / 11 / 2007

Ship to: **Triad Metals Intl**  
1951 Bessemer Road  
CSX-Collier Yard  
Petersburg VA, 23805 US  
Attn: Rock McGovern

Customer # 000191  
Bill to: **TRIAD METALS INTERNATIONAL**  
A-1 2300 Computer Avenue  
Petersburg VA, 23805 US  
Attn: Fred White

Quality Steel 100% Melted  
and Manufactured in the USA

## GENERAL INFORMATION

Product **Wide Flange Beam**  
Size **W 24 x 76**

Heat Number **A036440**  
Condition(s) **As-Rolled**  
*W 610 x 143*  
*Fine Grained*

## SPECIFICATIONS

Standards  
ASTM A6A6M

- \* ASTM A992/A992M - 06a
- ASTM A709/A709M - 06a
- ASTM A572/A572M - 06
- ASTM A709/A709M - 06a

## SHIPMENT DETAILS

Bundle / ASN # **020953445** Length **70' 0"** pcs **4** Customer PO **186**  
**020953444** Length **70' 0"** pcs **4** Customer PO **185**

Grades  
A992 / A992M  
A709 gr50/gr345  
A572 gr50/gr345  
A709 gr50S/gr345S

BOL # 0000124020

## CHEMICAL ANALYSIS (weight percent)

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analysis Type
.08	1.14	.013	.020	.23	.45	.12	.12	.039	.021	.034	.001	.0082	.0003	.35	.39	.19	5.73	Heat

## MECHANICAL TESTING

Test	Yield (fy) Strength	Tensile (fu) Strength	fy / fu ratio	% Elong. {8" gage}
1	60 / 412	73 / 507	.81	26
2	61 / 418	74 / 511	.82	26
3				
4				
5				
6				
7				

## Charpy Impact Tests (available only when specified at time of order)

Temp F / C	Absorbed Energy ft-lbf / J	Specimen 1	Specimen 2	Specimen 3	Average	Minimum

*HT 1 = A036440 is used to fabricate: B332*

## Notes:

- \* Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC), Corrosion Index (I)
- CE1 (I<sub>W</sub>) = C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15
- CE2 (AWS) = C + (Mn + Si)/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15
- I (ASTM G101) = 26.01(Cu) + 3.88(Ni) + 1.20(Cr) + 1.49(Si) + 17.28(P) + 7.28(Cu/Ni) + 9.10(Ni)(P) + 33.39(Cu)
- Pcm (AWS) = C + Si/30 + Mn/20 + Cu/20 + Ni/60 + Cr/20 + Mo/15 + V/10 + 5B

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

State of Indiana, County of Whitley Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: **Doug Rees-Evans**  
Manager of Technical Services

Signed: \_\_\_\_\_ My commission expires: \_\_\_\_\_  
Notary Public

Form 5-6100-002-054

ASTM A6 - 14.6: A signature is not required on the test report; however, the document shall clearly identify the organization submitting the report. Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report.

Enjaune.

MitTest S.u.p.

Load #: 10

Shipping Date:

Waybill #: 898-10

Customer: Pizzagalli Construction Company  
 Job Title: 84 Marginal Way  
 Date Sent to Shop: N  
 Job Number: 898

Job Progress Report Sheet

Prepared By: Approved By: Date: 24-01-01  
 Bathurst Machine Shop Ltd. 10-10 Route 430  
 Mandate Erectors & Welding Ltd. Big River Road  
 MQM Ltd., Tracadie 62A 6P9

SHEET 1

Attach	Material	Rev.	Mark #	Qty	Weight	C- COLOR GALV.				Fitted		Mk. Insp.		Punch Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped				
						Paint	Gable	Camber	Level	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	
A	W10X17	0	B303	2	616																							
A	W10X17	0	B306	3	925																							
A	W10X17	0	B309	1	308																							
A	W12X19	0	B310	1	495																							
A	W12X19	0	B311	1	161																							
A	W18X40	0	B314	1	1427																							
A	W24X68	0	B324	1	2073																							
A	W24X68	0	B325	2	4123																							
A	W24X62	0	B327	1	2627																							
A	W24X68	0	B328	1	2035																							
A	W24X68	0	B329	1	2028																							
A	W24X55	0	B332	1	1667																							
A	W21X44	0	B335	1	1873																							
A	W21X62	0	B347	1	1545																							
H	W10X17	0	B363	2	573																							
A	H.S.S. 8X4X1/4	0	B370	2	279																							
A	H.S.S. 12X4X3/16	0	B372	1	648																							
A	W21X44	0	B376	4	7492																							
A	W12X19	0	B377	1	192																							
A	W12X106	0	C202	1	5242																							

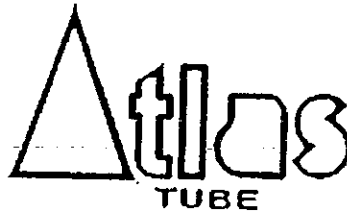
Pieces 29 3633 Total Weight (Lbs)

( 18.2 TONS)



Atlas Tube Canada ULC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 NOR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537

Ref.B/L: 80263316  
 Date: 10.24.2007  
 Customer: 1751



**MATERIAL TEST REPORT**

Sold to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Shipped to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Material: 10.0x10.0x625x18'0"0(1x1).  
 Sales order: 335491

Material No: 100100625  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
480370	1	0.200	0.800	0.010	0.003	0.170	0.039	0.036	0.003	0.004	0.014	0.041	0.002
Bundle No	Yield	Tensile	Eln.2in	Certification									
M200480196	056550 Psi	070670 Psi	37.5 %	ASTM A500-03A GRADE B&C									

Material Note:  
 Sales Or.Note:

*HT # 480370 is used to fab item: D211*

Material: 7.0x7.0x500x40'0"0(3x1).  
 Sales order: 335491

Material No: 700705004000  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
5511G	3	0.190	0.840	0.011	0.004	0.020	0.028	0.010	0.000	0.010	0.010	0.020	0.000
Bundle No	Yield	Tensile	Eln.2in	Certification									
M200479469	060730 Psi	071910 Psi	38.0 %	ASTM A500-03A GRADE B&C									

Material Note:  
 Sales Or.Note:

Material: 8.0x8.0x625x48'0"0(2x1).  
 Sales order: 335491

Material No: 800806254800  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002
Bundle No	Yield	Tensile	Eln.2in	Certification									
M200482110	063150 Psi	076440 Psi	34.3 %	ASTM A500-03A GRADE B&C									

Material Note:  
 Sales Or.Note:

Material: 8.0x8.0x625x48'0"0(2x1).  
 Sales order: 335491

Material No: 800806254800  
 Purchase Order: 30519-898  
 Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002
Bundle No	Yield	Tensile	Eln.2in	Certification									
M200482112	063150 Psi	076440 Psi	34.3 %	ASTM A500-03A GRADE B&C									

Material Note:  
 Sales Or.Note:

Authorized by Quality Assurance: *M. Wheeler*

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.



Atlas ABC Corp (Atlas Tube Chicago)  
 1855 East 122nd Street  
 Chicago, Illinois, USA  
 60633  
 Tel: 773-846-4500  
 Fax: 773-846-6128



## MATERIAL TEST REPORT

Material: 3.0x2.0x188x24'0"0(7x5).

Material No: 300201882400

Made In: USA

Melted & Manufactured In USA

Sales order: 338321

Purchase Order: 2899

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Co	Mo	Ni	Cr	V
D41939	38	0.200	0.840	0.016	0.010	0.016	0.034	0.020	0.001	0.003	0.010	0.030	0.001

Bundle No	Yield	Tensile	Eln.2in	Certification
M700060598	067430 Psi	078170 Psi	31 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Material: 12.0x4.0x376x48'0"0(2x2).

Material No: 1200403754800

Made In: USA

Melted & Manufactured In USA

Sales order: 338321

Purchase Order: 2899

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Co	Mo	Ni	Cr	V
Y47414	4	0.200	0.780	0.009	0.012	0.010	0.037	0.020	0.001	0.002	0.010	0.030	0.001

Bundle No	Yield	Tensile	Eln.2in	Certification
M900120082	057940 Psi	070880 Psi	35 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

*HT # Y47414 is used to fab item: B372*

Material: 14.000x800x40'0"0(1x1).

Material No: R14000500

Made In: USA

Melted & Manufactured In USA

Sales order: 338314

Purchase Order: 2888

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Co	Mo	Ni	Cr	V
B18880	1	0.200	0.460	0.012	0.002	0.060	0.038	0.020	0.000	0.000	0.010	0.040	0.001

Bundle No	Yield	Tensile	Eln.2in	Certification
M900116509	060780 Psi	074170 Psi	38 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Authorized by Quality Assurance: *[Signature]*

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.



Atlas Tube Inc.  
 200 Clark St.  
 Farrow, Ontario, Canada  
 N0R 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537

Ref. B/L: 80195001  
 Date: 06.13.2006  
 Customer: 216



**MATERIAL TEST REPORT**

Sold to

York Steel  
 550 Wilsey Road  
 FREDERICTON NB E3B 7K2  
 CANADA

Shipped to

York Steel  
 550 Wilsey Road  
 FREDERICTON NB E3B 7K2  
 CANADA

Material: 4.0x4.0x250x48"O(3x2)  
 Sales order: 230424

Material No: 400402504800 Made in: Canada  
 Purchase Order: 7527FB

Heat No	C	Mn	P	S	Si	Al	Cu	Cr	Mo	Ni	Cr	V
795898	0.180	0.830	0.011	0.004	0.011	0.048	0.022	0.000	0.000	0.000	0.000	0.000

Bundle No	Yield	Tensile	Elon. 2in	Certification
M100517181	066650 Psi	074170 Psi	27.3 %	ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or. Note:

Material: 6.0x6.0x500x48"O(3x1)  
 Sales order: 222541

Material No: 600605004800 Made in: Canada  
 Purchase Order: 7295FB

Heat No	C	Mn	P	S	Si	Al	Cu	Cr	Mo	Ni	Cr	V
2354E	0.210	0.850	0.017	0.008	0.020	0.027	0.020	0.000	0.010	0.020	0.030	0.000

Bundle No	Yield	Tensile	Elon. 2in	Certification
M100520570	069750 Psi	077650 Psi	28.5 %	ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or. Note:

Material: 6.0x6.0x500x48"O(3x1)  
 Sales order: 222541

Material No: 600605004800 Made in: Canada  
 Purchase Order: 7295FB

Heat No	C	Mn	P	S	Si	Al	Cu	Cr	Mo	Ni	Cr	V
578629	0.210	0.780	0.011	0.004	0.140	0.037	0.012	0.005	0.000	0.021	0.050	0.000

Bundle No	Yield	Tensile	Elon. 2in	Certification
M100520575	070350 Psi	079740 Psi	27.5 %	ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or. Note:

HT 4-578629 is used to fab item:

Material: 2.0x2.0x125x24"O(10x5)-D  
 Sales order: 230424

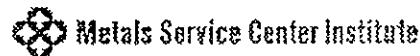
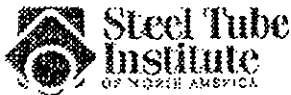
Material No: 0200201252400-D Made in: USA  
 Purchase Order: 7527FB

Heat No	C	Mn	P	S	Si	Al	Cu	Cr	Mo	Ni	Cr	V
Q129845	0.180	0.780	0.013	0.008	0.024	0.040	0.040	0.000	0.000	0.010	0.030	0.000

Bundle No	Yield	Tensile	Elon. 2in	Certification
M300245735	069103 Psi	077334 Psi	25.0 %	ASTM A500-03A GRADE C & B

Material Note:  
 Sales Or. Note:

Authorized by Quality Assurance:





# MATERIAL TEST REPORT

Atlas Tube Canada ULC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 NOR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537

Ref.B/L: 80248589  
 Date: 10.29.2007  
 Customer: 1751

Attn: Denis Guitera.

300-540-1829

**Sold to**

Mandate Erectors & Welding Lt  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

**Shipped to**

Mandate Erectors & Welding Lt  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Material: 8.0x4.0x250x26"0"0(2x2).  
 Sales order: 314780

Material No: 80040250  
 Purchase Order: 31077

Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
749730	4	0.200	0.820	0.011	0.007	0.011	0.049	0.021	0.004	0.002	0.010	0.035	0.000
<b>Bundle No</b>	<b>Yield</b>		<b>Tensile</b>		<b>Eln.2in</b>		<b>Certification</b>						
M100648382	058250 Psi		069520 Psi		33.2 %		ASTM A500-03A GRADE B&C						

Material Note:  
 Sales Or.Note:

HT 4 749730 is used to fab item: B370

Material: 12.0x12.0x375x32"4"0(2x2).  
 Sales order: 314238

Material No: 120120375  
 Purchase Order: 31072

Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582788	4	0.200	0.790	0.011	0.003	0.150	0.035	0.026	0.005	0.002	0.013	0.040	0.002
<b>Bundle No</b>	<b>Yield</b>		<b>Tensile</b>		<b>Eln.2in</b>		<b>Certification</b>						
M200457870	063170 Psi		076790 Psi		30.7 %		ASTM A500-03A GRADE B&C						

Material Note:  
 Sales Or.Note:

Material: 12.0x12.0x375x32"4"0(2x2).  
 Sales order: 314238

Material No: 120120375  
 Purchase Order: 31072

Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582788	4	0.200	0.790	0.011	0.003	0.150	0.035	0.026	0.005	0.002	0.013	0.040	0.002
<b>Bundle No</b>	<b>Yield</b>		<b>Tensile</b>		<b>Eln.2in</b>		<b>Certification</b>						
M200457871	063170 Psi		076790 Psi		30.7 %		ASTM A500-03A GRADE B&C						

Material Note:  
 Sales Or.Note:

Material: 12.0x12.0x375x32"4"0(2x1).  
 Sales order: 314238

Material No: 120120375  
 Purchase Order: 31072

Made in: Canada

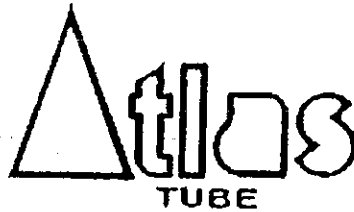
Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582787	2	0.200	0.780	0.011	0.003	0.150	0.029	0.038	0.005	0.004	0.015	0.045	0.000
<b>Bundle No</b>	<b>Yield</b>		<b>Tensile</b>		<b>Eln.2in</b>		<b>Certification</b>						
M200457868	059840 Psi		075430 Psi		35.9 %		ASTM A500-03A GRADE B&C						

Material Note:  
 Sales Or.Note:

Authorized by Quality Assurance:

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.

Atlas Tube Canada ULC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 NOR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537



Ref.B/L: 80263316  
 Date: 10.24.2007  
 Customer: 1751

Sold to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

**MATERIAL TEST REPORT**

Shipped to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Material: 8.0x8.0x625x50"0"(2x1).  
 Sales order: 335491

Material No: 80080625  
 Purchase Order: 30519-898

Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002

Bundle No	Yield	Tensile	Eln.2in	Certification
M200482103	063150 Psi	076440 Psi	34.3 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

*HT # 582766 is used to fab items: D202, D203, D214*

Material: 8.0x8.0x625x50"0"(2x1).  
 Sales order: 335491

Material No: 80080625  
 Purchase Order: 30519-898

Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582766	2	0.200	0.810	0.009	0.002	0.160	0.028	0.025	0.005	0.003	0.011	0.035	0.002

Bundle No	Yield	Tensile	Eln.2in	Certification
M200482102	063150 Psi	076440 Psi	34.3 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Material: 10.0x10.0x625x18"0"(2x2).  
 Sales order: 335491

Material No: 100100625  
 Purchase Order: 30519-898

Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
583750	4	0.200	0.810	0.011	0.002	0.160	0.034	0.015	0.006	0.002	0.007	0.022	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M200483575	054920 Psi	073670 Psi	38.5 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Material: 10.0x10.0x625x18"0"(2x2).  
 Sales order: 335491

Material No: 100100625  
 Purchase Order: 30519-898

Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
583750	4	0.200	0.810	0.011	0.002	0.160	0.034	0.015	0.006	0.002	0.007	0.022	0.000

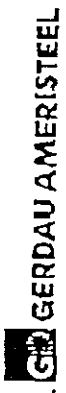
Bundle No	Yield	Tensile	Eln.2in	Certification
M200483574	054920 Psi	073670 Psi	38.5 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Authorized by Quality Assurance: *M. Wilson*

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.





CARTERSVILLE STEEL MILL  
384 OLD GRASSDALE RD NE  
CARTERSVILLE GA 30121 USA  
(770) 367-3300

Chemical and Physical Test Report  
MADE IN UNITED STATES

G-082342

PRODUCED IN: CARTERSVILLE

SHIP TO  
TRIAD METAL  
1951 BESSEMER ROAD  
804-732-5000  
PETERSBURG, VA 23865

INVOICE TO  
TRIAD METALS INTERNATIONAL  
METAL TRADERS INC  
2300 COMPUTER AVE, STE-A-1  
WILLOW GROVE, PA 19090

SHIP DATE  
12/09/06

CUST. ACCOUNT NO  
40213035

SHAPE & SIZE	GRADE	SPECIFICATION	Yield	Tensile	% El.	Min	P	S	Si	Cu	Ni	Cr	Mn	Mo	V	Nb	B	N	Sn	Al	Ti	Ca	C Eqv.	SALES ORDER	CUST P.O. NUMBER
W10 X 17 1/2	A57250/992	A57250/992 ASTM A572 GR50-04 ASTM A592-04A	410.93 MPA	559.85 MPA	24.18%	.94	.019	.28	.25	.05	.11	.05	.028	.020	.015	.003	.0005	.010	.001	.00100	.00130	.373	6053480-11	124288-11	

Mechanical Test: Yield 59600 PSI, 410.93 MPA  
Customer Requirements CASTING: STRAIGHT CAST

Mechanical Test: Yield 60000 PSI, 415.75 MPA  
Customer Requirements CASTING: STRAIGHT CAST

CUST ITEM NUMBER: NOV

SHAPE & SIZE	GRADE	SPECIFICATION	Yield	Tensile	% El.	Min	P	S	Si	Cu	Ni	Cr	Mn	Mo	V	Nb	B	N	Sn	Al	Ti	Ca	C Eqv.	SALES ORDER	CUST P.O. NUMBER
W10 X 17 1/2	A57250/992	A57250/992 ASTM A572 GR50-04 ASTM A592-04A	428.85 MPA	569.51 MPA	21.43%	1.14	.017	.021	.29	.26	.11	.07	.040	.028	.001	.0005	.0093	.010	.001	.00100	.00110	.322	6053480-11	124288-11	

Mechanical Test: Yield 62200 PSI, 428.85 MPA  
Customer Requirements CASTING: STRAIGHT CAST

Mechanical Test: Yield 61100 PSI, 421.27 MPA  
Customer Requirements CASTING: STRAIGHT CAST

CUST ITEM NUMBER: NOV

HT # G605061 is used to fab items: B303, B306, B309, B363

This material, including the billets, was produced and manufactured in the United States of America

*Maskary*  
Phakar Yabumethill  
Quality Director  
Gerdau Ameristeel

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY

*J. J. J.*

Alor Metallurgy Svcs  
CARTERSVILLE STEEL MILL

**CERTIFIED MATERIAL TEST REPORT**  
**GERDAU AMERISTEEL**  
 Petersburg Mill  
 25801 Hofheimer Way  
 Petersburg, VA 23803  
 (804) 524-2855

Order Date: 10/15/2007  
 PO No: 2869  
 Mill Order No: 3380640  
 Load No: 1144950  
 Manifest No: 1855999

Ship To: 6  
 TRIAD METALS INTERNATIONAL  
 TRIAD METALS INTERNATIONAL  
 1951 BESSEMER ROAD  
 PETERSBURG VA US  
 23803

Bill To:  
 TRIAD METALS INTERNATIONAL  
 2300 COMPUTER AVENUE  
 SUITE A-1  
 WILLOW GROVE PA US  
 19090

PRODUCT  
WF BEAMS

SIZE  
W 12 X 106# / W310 X 106

SPECIFICATIONS  
ASTM A6-05a, A992-06a, A572-06

GRADE  
992/572-50

CHEMICAL ANALYSIS

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Al	Nb	CE
.08	1.24	.012	.031	.21	.35	.11	.06	.014	.014	.004	.004	.024	.33

LENGTH  
45 FT / 13.716 M

PHYSICAL PROPERTIES

Yield Strength	Tensile Strength	Specimen Area		Elongation		Bend Test	ROA	
		KSI	MPa	Sq In	Sq cm			%
50.3	346.8	71.2	490.9	1.761	11.36	22.9	8 In 200 mm	200 mm
50.4	347.5	71.0	489.5	1.756	11.33	23.8	8 In 200 mm	200 mm

HT # 30319340 is used to fab item: C202

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A. CMTR complies with DIN EN 10204 3.1.B

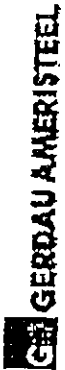
"I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements."

Signed: Tom L. Harrington Date: Oct. 18, 2007 Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
 Tom L. Harrington: Quality Assurance Manager Notary Public (if applicable) Page: 1 of 1

G-099999

Chemical and Physical Test Report

MADE IN UNITED STATES



CARTERSVILLE STEEL MILL  
384 OLD GRASSDALE RD NE  
CARTERSVILLE GA 30121 USA  
(770) 387-3000

PRODUCED IN: CARTERSVILLE

SHIP TO  
TRIAD METAL  
1851 BESSEMER ROAD  
904-732-5000  
PETERSBURG, VA 23805

INVOICE TO  
TRIAD METALS INTERNATIONAL  
METAL TRADERS INC  
2300 COMPUTER AVE. STE-A-1  
WILLOW GROVE, PA 19090

SHIP DATE  
09/19/07  
CUST. ACCOUNT NO  
40213035

SHAPE & SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST P.O. NUMBER
W12 X 22#	A572-50	ASTM A572 GR50-07, ASTM A592-08A	7074477-13	1108-13
HEAT ID.	C Mn P S Si Cu Ni Cr Mo V Nb B N Sn Al Ti Ca C Eq			
G704730	.09 1.12 .023 .028 29 .26 .07 .07 .011 .027 .001 .0007 .0121 .012 .002 .00100 .00190 .324	Tensile: 70200 PSI, 504.7 MPA Yield: 59700 PSI, 404.72 MPA Customer Requirements: CASTING: STRAND CAST		

Mechanical Test: Yield 59700 PSI, 404.72 MPA Tensile: 70200 PSI, 504.7 MPA %EL: 26.05%, 26.070004M Sid Deyo Sid Diam: .305  
Mechanical Test: Yield 69600 PSI, 419.2 MPA Tensile: 74400 PSI, 512.97 MPA %EL: 26.05%, 26.070004M Sid Deyo Sid Diam: .305  
Customer Requirements: CASTING: STRAND CAST

SHAPE & SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST P.O. NUMBER
W12 X 18#	A572-50	ASTM A572 GR50-07, ASTM A592-08A	7074477-11	1108-11
HEAT ID.	C Mn P S Si Cu Ni Cr Mo V Nb B N Sn Al Ti Ca C Eq			
G704837	.08 1.14 .016 .028 25 .24 .07 .08 .018 .028 .002 .0005 .0089 .009 .001 .00100 .00090 .312	Tensile: 69100 PSI, 474.43 MPA Yield: 54900 PSI, 378.52 MPA Customer Requirements: CASTING: STRAND CAST		

Mechanical Test: Yield 54900 PSI, 378.52 MPA Tensile: 69100 PSI, 474.43 MPA %EL: 21.53%, 21.520004M Sid Deyo Sid Diam: .307  
Mechanical Test: Yield 55700 PSI, 384.04 MPA Tensile: 70100 PSI, 483.32 MPA %EL: 25.76%, 25.720004M Sid Deyo Sid Diam: .307  
Customer Requirements: CASTING: STRAND CAST

This material, including the labels, was produced and manufactured in the United States of America

*Maskay*  
Brazos Valverde  
Quality Director  
Gerdau Ameristeel

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

*Jawling*

W. Jawling Sves  
CARTERSVILLE STEEL MILL

Customer represents that all material furnished shall comply with specifications and be subject to standard published procedures for testing. NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, ARE MADE BY THE SELLER, AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. In the event steel shall be found to be defective, consequential or punitive damages arising out of or related to the materials furnished by seller. Any claim for damages for materials that do not conform to specifications must be made immediately after delivery of same in order to allow the opportunity to inspect the material in question.

HT # G-704837 is used to fab clems: B310, B311, B377

**Steel Dynamics, Inc.**  
2601 S. County Road 700 East  
Columba City, IN 46725  
(260) 625-8100

**Certified Mill Test Report**  
100% Melted and Manufactured in USA

**Date:** 5/19/2007  
**Customer No:** 000191  
**Bill of Lading No:** 0000113222  
**MTR #:** 0000112821

**Ship to:**  
Triad Metals Intl  
1951 Bessemer Road  
CSX Collier Yard  
Petersburg, VA 23805

**Bill to:**  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
6a†	020872800	W12X58	60' 0"	2	A033267	A992 / A992M A709 G50S/G345S A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	154732B
6b†	020872880	W12X58	60' 0"	2	A033268	A992 / A992M A709 G50S/G345S A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	154732B
7†	020872883	W12X58	40' 0"	4	A033267	A992 / A992M A709 G50S/G345S A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	154732B
8†	020873121	W12X53	40' 0"	4	A033059	A992 / A992M A709 G50S/G345S A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	154732B

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
6a*	.06	1.23	.023	.033	.21	.31	.033	.10	.10	.021	.014	.0118	.0004	.003	.32	.36	.15	HEAT
6b*	.07	1.24	.025	.034	.20	.35	.031	.12	.11	.018	.017	.0116	.0004	.003	.34	.38	.17	HEAT
7*	.06	1.23	.023	.033	.21	.31	.033	.10	.10	.021	.014	.0118	.0004	.003	.32	.36	.15	HEAT
8*	.08	1.14	.019	.030	.21	.30	.033	.21	.16	.067	.013	.0076	.0004	.001	.37	.40	.19	HEAT

**MECHANICAL**


Item	Test	Yield (Fy)		Tensile (Fu)	Elong (%)	ROA (%)	Bend Test Result	Temp FIC	Sample 1	Sample 2	Sample 3	ASTM Grain Size No (per ASTM E112)
		ksi/MPa	ksi/MPa									
6a	1	51351	71490	72	18							
6a	2	52355	69474	75	22							
6b	1	53378	69476	80	24							
6b	2	55378	69477	80	22							
7	1	51351	71490	72	18							
7	2	52355	69474	75	22							
8	1	54369	73504	74	25							
8	2	58398	74511	78	25							

**Charpy Impact Testing Results**

Item	Temp FIC	Test	Bend Test Result	ROA (%)	Elong (%)	Yield (Fy) ksi/MPa	Tensile (Fu) ksi/MPa	ASTM Grain Size No (per ASTM E112)
6a	1	1			18	51351	71490	
6a	2	2			22	52355	69474	
6b	1	1			24	53378	69476	
6b	2	2			22	55378	69477	
7	1	1			18	51351	71490	
7	2	2			22	52355	69474	
8	1	1			25	54369	73504	
8	2	2			25	58398	74511	

HT # A033059 is used to fabricate item: C015

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchase designated.

Signed:  Quality Assurance

State of Indiana, County of Whitley

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_ Harry Puz

My commission expires: \_\_\_\_\_

Special Comments/Information:  
\* Fully Killed Steel  
1 Cast and Rolled to a Fine Grain Practice

**CERTIFIED MATERIAL TEST REPORT**  
**GERDAU AMERISTEEL**  
Petersburg Mill  
25801 Hofheimer Way  
Petersburg, VA 23803  
(804) 524-2855

Order Date: 09/19/2007  
PO No: 2342  
Mill Order No: 3370485  
Load No: 1140441  
Manifest No: 1651685

Ship To: 6  
TRIAD METALS INTERNATIONAL  
TRIAD METALS INTERNATIONAL  
1951 BESSEMER ROAD  
PETERSBURG VA US  
23803

SIZE: W 12 X 65# / #310 X 97  
GRADE: 992/572-50  
LENGTH: 50 FT / 15.24 M  
PRODUCT: WF BEAMS

Bill To:  
TRIAD METALS INTERNATIONAL  
2300 COMPUTER AVENUE  
SUITE A-1  
WILLOW GROVE PA US  
19090

SPECIFICATIONS  
ASTM A6-05a, A992-06a, A572-06

HEAT NO: 30362430

CHEMICAL ANALYSIS													
C	Mn	P	S	Si	Cu	Ni	Cr	Mg	Sn	V	Al	Nb	As
.09	1.09	.008	.032	.21	.32	.09	.08	.018	.013	.003	.003	.017	.12

Yield Strength				Tensile Strength				Elongation				Bend Test	
KSI		MPa		KSI		MPa		%		%		Dia. Result	
51.0	351.6	66.8	460.6	1.110	7.16	26.5	8 In	200 MP	8 In	200 MP			
52.0	358.5	68.5	472.3	1.087	7.01	26.6	8 In	200 mm	8 In	200 mm			

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A. CNTR complies with DIN EN 10204 3.1.1.R

I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: Tom L. Harrington Date: Sep. 27, 2007 Signed: Notary Public (if applicable) Date: \_\_\_\_\_  
Tom L. Harrington: Quality Assurance Manager  
HT # 30362430 is used to fab item: C230.  
Page: 1 of 1

**Steel Dynamics, Inc.**  
 2001 S. County Road 700 East  
 Columbia City, IN 46725  
 (317) 625-9100

**Certified Mill Test Report**  
 100% Milled and Manufactured in USA

Date: 7/1/2007  
 Customer No: 000305  
 Bill of Lading No: 0000117029  
 MTR #: 0000117209

Ship to:  
 PACIFIC STEEL INC.  
 845 Rue Munck, Charnedey  
 C/O Valport Maritime Services  
 Track V86  
 Vile De Lavrel, PQ H7S1A9  
 Attn: John Pimentel

Bill to:  
 PACIFIC STEEL INC.  
 845 Rue Munck,  
 Laval Quebec, PQ H7S1A9  
 Attn: John Pimentel

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specificatio n(s)	Customer P.O.
1†	020891565	W16X40	40' 0"	6	A034046	A992/A992M A709 G50S/G345S A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	18730
2†	020891566	W16X40	40' 0"	6	A034046	A992/A992M A709 G50S/G345S A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	18730
3†	020891567	W16X40	40' 0"	6	A034046	A992/A992M A709 G50S/G345S A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	18730
4†	020891568	W16X40	40' 0"	6	A034046	A992/A992M A709 G50S/G345S A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	18730

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sh	H	B	Co	C1	C2	PC	Analysis
1*	.08	.94	.021	.021	.15	.29	.001	.13	.14	.044	.011	.0095	.0002	.019	.30	.33	.16	HEAT
2*	.08	.94	.021	.021	.15	.29	.001	.13	.14	.044	.011	.0095	.0002	.019	.30	.33	.16	HEAT
3*	.08	.94	.021	.021	.15	.29	.001	.13	.14	.044	.011	.0095	.0002	.019	.30	.33	.16	HEAT
4*	.08	.94	.021	.021	.15	.29	.001	.13	.14	.044	.011	.0095	.0002	.019	.30	.33	.16	HEAT

**MECHANICAL**

Item	Test	Tension Testing Results				Charpy Impact Testing Results				ASTM Grain Size No (per ASTM E112)
		Yield Strength ksi/MPa	Tensile Strength ksi/MPa	Elong (%) based on g' gauge	FyFu	Temp F/C	Sample 1 ft. Defoules	Sample 2 ft. Defoules	Sample 3 ft. Defoules	
1	1	60/416	76/527	.79	.79	23	1			
1	2	63/434	75/518	.84	.84	22	2			
2	1	60/416	76/527	.79	.79	23	1			
2	2	63/434	75/518	.84	.84	22	2			
3	1	60/416	76/527	.79	.79	23	1			
3	2	63/434	75/518	.84	.84	22	2			
4	1	60/416	76/527	.79	.79	23	1			
4	2	63/434	75/518	.84	.84	22	2			

HT & A034046 is used to fab item: B314

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

State of Indiana, County of Whitley  
 Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
 Signed: \_\_\_\_\_ Notary Public

Special Comments/Information:  
 \* Fully Killed Steel  
 † Cast and Rolled to a Fine Grain Practice

Signed: \_\_\_\_\_  
 Quality Assurance



**Certified Mill Test Report**  
 100% Melted and Manufactured in USA

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1†	020908432	W21X44	42' 0"	4	A034738	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
2†	020908437	W21X44	42' 0"	4	A034738	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
3†	020908539	W21X44	42' 0"	4	A034729	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
4†	020908578	W21X44	42' 0"	4	A034727	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
5†	020908643	W21X44	42' 0"	4	A034743	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
6†	020908707	W21X44	42' 0"	4	A034745	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1*	.08	1.03	.016	.031	.22	.32	.022	.080	.13	.04	.016	.007	.0004	.00	.31	0.3500	0.1700	HEAT
2*	.08	1.03	.016	.031	.22	.32	.022	.080	.13	.04	.016	.007	.0004	.00	.31	0.3500	0.1700	HEAT
3*	.07	1.04	.016	.029	.19	.36	.023	.120	.13	.04	.019	.010	.0003	.00	.31	0.3400	0.1600	HEAT
4*	.07	1.04	.019	.029	.21	.31	.021	.100	.11	.03	.015	.009	.0003	.00	.30	0.3400	0.1600	HEAT
5*	.06	1.01	.018	.038	.18	.31	.021	.080	.10	.03	.013	.007	.0003	.00	.28	0.3100	0.1400	HEAT
6*	.08	1.05	.017	.042	.20	.31	.022	.100	.10	.03	.014	.008	.0004	.00	.31	0.3400	0.1600	HEAT

HT # A034738 is used to fab items: B335, B376

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

State of Indiana, County of Whitley  
 Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
 Signed: \_\_\_\_\_  
 Notary Public

Special Comments/Information:  
 My commission expires: \_\_\_\_\_

*[Signature]*  
 Quality Assurance

2601 S. County Road 700 East  
Columbia City, IN 46725  
(260) 625-8100

Customer No: 000018729  
Bill of Lading No: 0000118302  
MTR #: 0000118302

Triad Customer P/U  
Attn: Sally

IRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

**Certified Mill Test Report**  
100% Melted and Manufactured in USA

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1†	000023536	W21X62	44' 0"	1	A034653	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
2†	020902071	W24X94	43' 6"	2	B034476	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
3†	020902073	W24X94	43' 6"	2	B034476	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
4†	020902113	W24X94	43' 6"	1	B034477	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
5†	020906203	W21X62	44' 0"	4	A034635	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
6†	020906434	W21X62	44' 0"	4	A034653	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459

**HEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1*	.08	1.17	.012	.036	.27	.32	.034	.070	.13	.04	.012	.009	.0004	.00	.33	0.3800	0.1800	HEAT
2*	.07	1.35	.017	.028	.22	.50	.046	.130	.13	.04	.016	.010	.0003	.00	.38	0.4200	0.1900	HEAT
3*	.07	1.35	.017	.028	.22	.50	.046	.130	.13	.04	.016	.010	.0003	.00	.38	0.4200	0.1900	HEAT
4*	.07	1.35	.020	.038	.20	.49	.043	.120	.12	.03	.014	.010	.0003	.00	.38	0.4100	0.1900	HEAT
5*	.08	1.15	.016	.038	.25	.40	.035	.120	.12	.05	.015	.009	.0004	.00	.34	0.3900	0.1800	HEAT
6*	.08	1.17	.012	.036	.27	.32	.034	.070	.13	.04	.012	.009	.0004	.00	.33	0.3800	0.1800	HEAT

**MECHANICAL**

Item	Test	Tension Testing Results				Charpy Impact Testing Results				ASTM Grain Size No (per ASTM E112)		
		Yield Strength ksi/MPa	Tensile Strength ksi/MPa	Elong (%) based on 8" gauge	Fy/Fu	Sample 1 ft. lb/joules	Sample 2 ft. lb/joules	Sample 3 ft. lb/joules	% Shear			
1	1	55/376	75/519	24	.73							
1	2	62/431	77/533	22	.81							
2	1	59/408	76/521	18	.78							

hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.


*[Signature]*  
Quality Assurance

State of Indiana, County of Whitley  
Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
Signed: \_\_\_\_\_  
Notary Public

Special Comments/Information:

HT # A034653 is used to fab item: B347

My commission expires \_\_\_\_\_

 <p><b>Steel Dynamics, Inc.</b> 2601 S. County Road 700 East Columbia City, IN 46725- (260) 625-9100</p> <p><b>Certified Mill Test Report</b> 100% Made and Manufactured in USA</p>	<p><b>Date:</b> 6/29/2007 <b>Customer No:</b> 000191 <b>Bill of Lading No:</b> 0000117394 <b>MTR #:</b> 0000116974</p>	<p><b>Ship to:</b> Triad Metals Intl 1951 Bessemer Road CSX-Collier Yard Petersburg, VA 23805 Attn: Rock McGovern</p>	<p><b>Bill to:</b> TRIAD METALS INTERNATIONAL A-1 2300 Computer Avenue Willow Grove, PA 19090 Attn: Fred White</p>
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Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1†	02089748	W24X68	65'0"	4	A034363	A992/A892M A709 G50S/G345S A572 G50/G345	ASTM A992/A892M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	706
2†	020902967	W24X62	50'0"	4	B034507	A992/A892M A709 G50S/G345S A572 G50/G345	ASTM A992/A892M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	158396
3†	020903809	W24X55	45'0"	4	B034490	A992/A892M A709 G50S/G345S A572 G50/G345	ASTM A992/A892M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	158396
4†	020903811	W24X55	45'0"	4	B034490	A992/A892M A709 G50S/G345S A572 G50/G345	ASTM A992/A892M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	158396


**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1*	.07	1.12	.020	.027	.24	.36	.033	.14	.12	.037	.018	.0098	.0004	.002	.33	.37	.17	HEAT
2*	.08	1.12	.020	.028	.23	.39	.032	.11	.13	.029	.013	.0112	.0003	.002	.33	.37	.18	HEAT
3*	.08	1.04	.014	.033	.19	.39	.034	.09	.14	.030	.014	.0109	.0003	.002	.32	.35	.17	HEAT
4*	.08	1.04	.014	.033	.19	.39	.034	.09	.14	.030	.014	.0109	.0003	.002	.32	.35	.17	HEAT

**MECHANICAL**

Item	Test	Tension Testing Results				Charpy Impact Testing Results				ASTM Grain Size No (per ASTM E112)										
		Yield Strength ksi/MPa	Tensile Strength ksi/MPa	Fy/Fu	Elong (%) based on 8" gauge	Temp F/C	Sample 1 ft. lb/ftoules	Sample 2 ft. lb/ftoules	Sample 3 ft. lb/ftoules		% Shear									
1	1	55/377	71/491	.77	23															
1	2	53/365	70/481	.76	24															
2	1	60/417	76/527	.79	25															
2	2	64/442	77/532	.83	24															
3	1	64/440	79/544	.81	26															
3	2	57/395	81/556	.70	26															
4	1	64/440	79/544	.81	26															
4	2	57/395	81/556	.70	26															

HT# B034490 is used to fab item: B332

<p>I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designations.</p> <p>Signed:  Quality Assurance</p>	<p>State of Indiana, County of Whitley</p> <p>Sworn to and subscribed before me this _____ day of _____</p> <p>Signed: _____ Notary Public</p> <p>My commission expires: _____</p>	<p>Special Comments/Information:</p> <p>* Fully Killed Steel † Cast and Rolled to a Fine Grain Practice</p>
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**Steel Dynamics, Inc.**  
2601 S. County Road 700 East  
Columbia City, IN 46725  
(260) 625-8100

**Certified Mill Test Report**  
100% Melted and Manufactured in USA

**Date:** 09/02/2007  
**Customer No:** 000191  
**Bill of Lading No:** 0000123446  
**MTR #:** 0000122965

**Ship to:**  
Triad Metals Intl  
1851 Bessemer Road  
CSX-Collier Yard  
Petersburg, VA 23805  
Attn: Rock McGovern

**Bill to:**  
TRIAD METALS INTERNATIONAL  
A-1 2309 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
7†	020955203	W24X62	60' 0"	4	B036562	A992/A992M A709 gr50/gr345 A709 gr50S/gr345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	186
8†	020955273	W24X62	60' 0"	4	A036578	A992/A992M A709 gr50/gr345 A709 gr50S/gr345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	185
9†	020955275	W24X62	60' 0"	4	A036576	A992/A992M A709 gr50/gr345 A709 gr50S/gr345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	185

**CHEMICAL**


Item	C	Mn	P	S	SI	Cu	V	Gr	NI	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
7*	.06	1.11	.016	.028	.20	.36	.032	.08	.11	.023	.013	.0089	.0003	.002	.30	.34	.15	HEAT
8*	.08	1.16	.013	.026	.24	.52	.032	.07	.11	.023	.015	.0099	.0003	.001	.34	.36	.19	HEAT
9*	.09	1.19	.014	.018	.24	.51	.032	.06	.11	.023	.016	.0093	.0003	.001	.35	.39	.19	HEAT

**MECHANICAL**

Item	Test	Tension Testing Results				Charpy Impact Testing Results				ASTM Grain Size No (per ASTM E112)										
		Yield Strength ksi/MPa	Tensile Strength ksi/MPa	Elong (%) based on 8" gauge	Fy/Fu	Temp F/C	Sample 1 ft. lb/ftoules	Sample 2 ft. lb/ftoules	Sample 3 ft. lb/ftoules		% Shear									
7	1	52/359	69/473	20	.75															
7	2	55/381	73/503	22	.75															
8	1	57/393	75/519	20	.76															
8	2	57/396	75/518	22	.76															
9	1	60/416	78/536	21	.77															
9	2	59/407	76/527	20	.78															

HT # B036562 is used to fab item: B327

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

**Signed:**  Quality Assurance

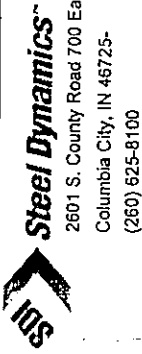
My commission expires: \_\_\_\_\_

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_ Notary Public

State of Indiana, County of Whitley

Special Comments/Information:  
\* Fully Killed Steel  
† Cast and Rolled to a Fine Grain Practice



2601 S. County Road 700 East  
Columbia City, IN 46725-  
(260) 625-8100

**Certified Mill Test Report**  
100% Melted and Manufactured in USA

Date: 7/19/2007  
Customer No: 000191  
Bill of Lading No: 0000118681  
MTR #: 0000118254

Ship to:  
Triad Metals International  
Triad Customer P/U  
Attn: Sally

Bill to:  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1	000023481	W24X68	44' 0"	1	A034343	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	459
2	020899518	W24X68	44' 0"	4	A034352	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	459
3	020903310	W24X62	42' 0"	4	B034524	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	459
4	020903399	W24X62	42' 0"	1	B034528	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	459
5	020906903	W21X83	41' 6"	1	A034612	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	459
6a	020907114	W21X83	41' 6"	1	A034610	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	459
6b	020907114	W21X83	41' 6"	1	A034680	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	459
7a	020907123	W21X83	41' 6"	1	A034678	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	459
7b	020907123	W21X83	41' 6"	1	A034680	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	459

HT # A034343 is used to fab items: B324, B325, B328, B329

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed: Darryl Kees Quality Assurance

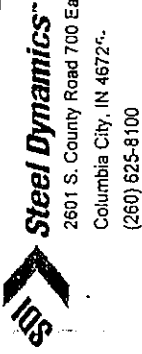
State of Indiana, County of Whitley

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_ Notary Public

My commission expires: \_\_\_\_\_

Special Comments/Information: \_\_\_\_\_



2601 S. County Road 700 East  
Columbia City, IN 46722  
(260) 625-8100

**Certified Mill Test Report**  
100% Melted and Manufactured in USA

Date: 7/19/2007  
Customer No: 000191  
Bill of Lading No: 0000118681  
MTR #: 0000118254

Ship to:  
Triad Metals International  
Triad Customer PIU  
Attn: Sally

Bill to:  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1	.08	1.06	.019	.030	.25	.36	.033	.12	.11	.029	.014	.0083	.0003	.001	.32	.37	.17	HEAT
2	.08	1.06	.014	.028	.20	.36	.031	.09	.11	.041	.015	.0096	.0003	.000	.32	.35	.17	HEAT
3	.07	1.19	.014	.035	.23	.29	.033	.07	.09	.016	.014	.0118	.0004	.002	.32	.36	.17	HEAT
4	.07	1.15	.014	.032	.26	.33	.033	.08	.10	.022	.012	.0087	.0003	.001	.32	.36	.16	HEAT
5	.08	1.26	.012	.034	.22	.36	.047	.10	.12	.039	.014	.0122	.0004	.001	.36	.39	.18	HEAT
6a	.09	1.25	.012	.022	.21	.37	.041	.09	.12	.038	.014	.0116	.0004	.000	.36	.40	.19	HEAT
6b	.08	1.30	.023	.028	.22	.39	.042	.12	.12	.035	.014	.0091	.0004	.002	.37	.40	.19	HEAT
7a	.08	1.22	.014	.017	.19	.31	.041	.10	.11	.059	.012	.0077	.0003	.001	.35	.38	.18	HEAT
7b	.08	1.30	.023	.028	.22	.39	.042	.12	.12	.035	.014	.0091	.0004	.002	.37	.40	.19	HEAT

**MECHANICAL**

Tension Testing Results				Charpy Impact Testing Results									
Item	Test	Yield (Fy) Strength ksi/MPa	Tensile (Fu) Strength ksi/MPa	Fy/Fu	Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp F/C	Sample 1 ft. lb/joules	Sample 2 ft. lb/joules	Sample 3 ft. lb/joules	% Shear	ASTM Grain Size No (per ASTM E112)
1	1	56/383	71/493	.79	25								
1	2	61/420	74/510	.82	26								
2	1	52/357	72/494	.72	24								
2	2	57/390	73/506	.78	24								
3	1	56/388	74/511	.76	24								
3	2	56/383	77/532	.73	23								
4	1	55/380	73/505	.75	22								
4	2	53/369	73/502	.73	22								
5	1	61/418	74/509	.82	20								
5	2	60/416	74/512	.81	22								
6a	1	62/430	76/521	.82	25								
6a	2	63/432	76/525	.83	25								
6b	1	62/429	75/520	.83	22								
6b	2	57/396	74/509	.77	23								
7a	1	56/386	71/489	.79	21								
7a	2	56/384	71/492	.79	21								

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed: Shirley A. News Quality Assurance  
Nancy Public  
My commission expires: \_\_\_\_\_

State of Indiana, County of Whitley  
Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
Signed: \_\_\_\_\_  
Notary Public

Special Comments/Information:

Load #:

Drop

Shipping Date:

Waybill #: 898-Drop

Customer:

Pizzagalli Construction Company

Job Title:

84 Marginal Way

Date Sent to Shop:

X

SHEET: 1

Job Number:

898

X

Prepared By:

Approved By:

Date: 24-01-01

Bathurst Machine Shop Ltd.

1040 Route 430

Mandate Erectors & Welding Ltd.

Big River Road

MQM Ltd., Tracadie

E2A 6P9

Form# 12 Rev. 4

\* = SEE SHOP DWG

C=COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped							
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date	
	I.L.S.S. 5X2 1/2X1/4	0	M220	1	91																										
	I.L.S.S. 5X2 1/2X1/4	0	M222	1	150																										
	I.L.S.S. 5X2 1/2X1/4	0	M223	1	96																										
	I.L.S.S. 5X2 1/2X1/4	0	M224	1	91																										
	I.L.S.S. 5X2 1/2X1/4	0	M226	1	90																										
	I.L.S.S. 5X2 1/2X1/4	0	M227	1	97																										
	I.L.S.S. 5X2 1/2X1/4	0	M228	2	182																										
	I.L.S.S. 5X2 1/2X1/4	0	M229	1	91																										
	I.L.S.S. 5X2 1/2X1/4	0	M230	1	98																										
	I.L.S.S. 5X2 1/2X1/4	0	M257	1	170																										
	I.L.S.S. 5X2 1/2X1/4	0	M258	3	446																										
	I.L.S.S. 5X2 1/2X1/4	0	M259	1	113																										
	I.L.S.S. 5X2 1/2X1/4	0	M260	1	87																										
	PL 3/8X9X8	0	SKS34	6	92																										
	PL 3/8X3X7	0	SKS34A	6	54																										
	PL 3/8X11X8	0	SKS34B	2	38																										
	PL 3/8X3X7	0	SKS34C	2	18																										

Pieces

32

2004 Total Weight (Lbs)

( 1.0 TONS)

Atlas Tube Inc.  
200 Clark St.  
Harrow, Ontario, Canada  
N0H 1G0  
Tel: 519-738 3541  
Fax: 519-738 3537

Ref.B/L: 80213103  
Date: 10.23.2006  
Customer: 193



**MATERIAL TEST REPORT**

Sold to

Tubular Steel  
1031 Executive Parkway  
ST. LOUIS MO 63141  
USA

Shipped to

Tubular Steel  
7220 Polson Lane  
HAZELWOOD MO 63144  
USA

Material: 5.0x2.5x188x40"0"0(4x5)NMH D  
Sales order: 253538

Material No: 50025188  
Purchase Order: 2582

Made in: USA

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
4368537	0.190	0.810	0.013	0.010	0.019	0.036	0.050	0.000	0.000	0.030	0.030	0.000

Bundle No	Yield	Tensile	Eln.2in
M300270963	067045 Psi	079496 Psi	28.6 %

Certification  
ASTM A500-03A GRADE C & B

Material Note:  
Sales Or.Note:

Material: 5.0x2.5x188x40"0"0(4x7)NMH D  
Sales order: 253538

Material No: 50025188  
Purchase Order: 2582

Made in: USA

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
0412128	0.173	0.520	0.007	0.003	0.060	0.037	0.000	0.000	0.000	0.000	0.000	0.000

Bundle No	Yield	Tensile	Eln.2in
M300270962	064606 Psi	074965 Psi	28.1 %

Certification  
ASTM A500 03A GRADE C & B

Material Note:  
Sales Or.Note:

*m224 to m230, m257 to m260  
H# C169425 is used to fab. items: m220, m222 to m224*

Material: 5.0x2.5x250x40"0"0(4x4)NMH D  
Sales order: 253538

Material No: 50025250  
Purchase Order: 2582

Made in: USA

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
0169425	0.180	0.780	0.012	0.005	0.017	0.043	0.020	0.000	0.000	0.010	0.020	0.000

Bundle No	Yield	Tensile	Eln.2in
M200270981	056143 Psi	067465 Psi	35.5 %

Certification  
ASTM A500 03A GRADE C & B

Material Note:  
Sales Or.Note:

Material: 5.0x2.5x250x40"0"0(4x6)NMH D  
Sales order: 253538

Material No: 50025250  
Purchase Order: 2582

Made in: USA

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
0169425	0.180	0.780	0.012	0.005	0.017	0.043	0.020	0.000	0.000	0.010	0.020	0.000

Bundle No	Yield	Tensile	Eln.2in
M300270979	056143 Psi	067465 Psi	35.5 %

Certification  
ASTM A500 03A GRADE C & B

Material Note:  
Sales Or.Note:

Authorized by Quality Assurance:







IPSCO

1051 Tapscott Road, Toronto, ON M1X 1A1

# Test Certificate

Form 10-1 Revision 1 Date 31 Oct 2000

Customer: SAMUEL & FILS & CIE (QUEBEC) L  
2225 FRANCOIS HUGHES AVENUE  
LAVAL  
PO H7S1N5

Customer P.O. No.: C50069  
Product Description: CSA G40.21(2004)44W/300W / ASTM A36(05)  
A709(01A)36/ASME SA36(01ED)

Mill Order No.: 41-51980-02

Shipping Manifest: TT029054

Ship Date: 12 Dec 06  
Cert Date: 12 Dec 06  
Cert No: 021031999  
(Page 1 of 1)

Size: 0.375 X 84.00 X 240.0 (IN)

Heat Id	Piece Id	Piece Dimensions	Tensiles				Charpy Impact Tests								
			YS (PSI)	UTS (PSI)	%RA	Abs. Energy(FT/LB)	% Shear	Test Temp	Test Dir	Test Size (mm)	RPWT Temp & Shr				
ASK104	0530	0.375 X 84.00 (T.L.C)	L62000	79000	24	1	2	3	Avg	1	2	3	Avg	Temp	Shr
E5H196	0754	0.375 X 84.00 (T.L.C)	C51000	68000	30	1	2	3	Avg	1	2	3	Avg	Temp	Shr
E5H196	0756	0.250 X 84.00 (T.L.C)	C56000	71000	32	1	2	3	Avg	1	2	3	Avg	Temp	Shr
			L55000	75000	31	1	2	3	Avg	1	2	3	Avg	Temp	Shr
			C57000	72000	27	1	2	3	Avg	1	2	3	Avg	Temp	Shr

Heat Id	C	Mn	P	S	Si	Chemical Analysis									
						Tot Al	Cu	Ni	Cr	Mo	Co	V	Ti	B	N
ASK104	.15	.83	.012	.006	.02	.017	.26	.09	.10	.02	.001	.006	.012	.0000	.0079
E5H196	.15	.83	.015	.006	.03	.025	.25	.12	.14	.03	.002	.006	.030	.0001	.0086

MERCURY IS NOT A METALLURGICAL COMPONENT OF THE STEEL AND NO MERCURY WAS INTENTIONALLY ADDED DURING THE MANUFACTURE OF THIS PRODUCT

MATERIAL MARKED WITH AN ASTERISK IS PRODUCED FROM COIL

\* ASK104 PCS: 0530 PCES: 15, WGT: 32160 \* E5H196 PCS: 0753 PCES: 3, WGT: 10226

HT #ASK104 is used to fab items: SKS 34, SKS34A, SKS 34B, SKS 34C

WE HEREBY CERTIFY THAT THIS MATERIAL WAS TESTED IN ACCORDANCE WITH THE APPROPRIATE SPECIFICATION

Paul Perrone

11/17/06

Cust Part # :

Load #: 9

Shipping Date:

Waybill #: 862-9

Customer: Pizzagalli Construction Company  
 Job Title: 54 Marginal Way  
 Date Sent to Shop: X  
 Job Number: 898

SHEET: 1

Prepared By: Approved By: Date: 24-01-01  
 Bathurst Machine Shop Ltd.  
 Mandate Erectors & Welding Ltd.  
 MQM Ltd., Tralee  
 1040 Route 430  
 Big River Road  
 E2A 6P9

Alt. h.	Material	Rev.	Mat. #	Qty	Weight	C - COLOR GALV.				Tilted		Mtl. Insp.		Punch Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped			
						Paint	Gals	Chamber	Level	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date
A	W21X62	0	B222	2	5602			C 1 1/2"																			
A	W18X38	0	B228	1	1633																						
A	W21X62	0	B249	2	5506			C 1 1/2"																			
A	W24X68	0	B250	1	2358																						
A	W21X62	0	B272	1	2648			C 1 1/2"																			
A	W21X62	0	B285	2	5524			C 1 1/2"																			
A	W18X35	0	B315	1	558																						
A	W8X10	0	B341	1	30																						
A	W24X55	0	B348	1	2861																						
A	W18X35	0	B351	1	689																						
A	W8X10	0	B360	1	30																						
A	W12X19	0	B384	1	375																						
H	W12X19	0	B391	2	131																						
A	W12X19	0	B392	1	83																						
A	W12X19	0	B393	1	86																						
A	W12X106	0	C201	1	4613																						
A	W12X65	0	C203	1	3565																						
A	W12X106	0	C209	1	6403																						
A	W12X53	0	C214	1	2303																						
A	W12X53	0	C230	1	2697																						

Pieces: 21 46895 Total Weight (Lbs)

( 23.4 TONS)

Attn:



CHEMICAL AND PHYSICAL TEST REPORT  
MADE IN U.S.A.

Page 4 of 5  
Shippers Number: G-033212

CARTERSVILLE STEEL MILL  
METALLURGICAL DEPARTMENT

384 OLD GRASSDALE RD NE, CARTERSVILLE, GA 30121  
N=CAMBRIDGE, O=ORRVILLE BB, P=PERTH AMBOY, S=SAYREVILLE, V=JACKSONVILLE, W=WHITBY

JACKSONVILLE, K=KNOWVILLE,

SHIP TO:		INVOICE TO:		SHIP DATE		CUST. ACCOUNT NO.		SALES ORDER		CUSTOMER P.O. NUMBER													
ARRIMAGE IDEAL ON EDING B078 77D ACER PACIFIC 2345 DE LA METROPOLE LONGUEUIL		PACIFIQUE STEEL INC 845 MUNCK ST. LAVAL		05/08/04		60030632		PQ HTS 1A9															
HEAT ID. NO.	ACTUAL TAG HEAT NO.	GRADE	SPECIFICATION																				
W. 8 X 10W	A36/A992	A36/A992	C	MN	P	S	V	SI	CR	CU	N	SH	AL	MO	N	NB	B	ZR	Ti	CA	ZN	C	
G4-0388	G4-0388	A36/A992	.15	.97	.008	.025	.018	.20	.08	.28	.11	.009	.001	.030	.0110	.001	.0004						11035
YIELD PT LBS/SQ IN: 56500; TENSIL LBS/SQ IN: 78400; % ELONG 8 IN: 23.8; BEND: DEF: % LIGHT-HEAVY; METRIC EQUIVALENT: YIELD = 410.83 MPa; TENSILE = 540.85 MPa; %ELONG./200MM=23.8 DEF. = MM																							
G4-0388	G4-0388	A36/A992	.15	.92	.008	.025	.015	.20	.08	.28	.11	.009	.001	.030	.0110	.001	.0004						11035
YIELD PT LBS/SQ IN: 56500; TENSIL LBS/SQ IN: 77400; % ELONG 8 IN: 23.6; BEND: DEF: % LIGHT-HEAVY; METRIC EQUIVALENT: YIELD = 389.55 MPa; TENSILE = 521.83 MPa; %ELONG./200MM=23.6 DEF. = MM																							
G4-0389	G4-0389	A36/A992	.14	.90	.010	.025	.017	.19	.06	.35	.10	.010	.002	.032	.0090	.008	.0004						11035
YIELD PT LBS/SQ IN: 57000; TENSIL LBS/SQ IN: 77400; % ELONG 8 IN: 22.4; BEND: DEF: % LIGHT-HEAVY; METRIC EQUIVALENT: YIELD = 387.83 MPa; TENSILE = 553.85 MPa; %ELONG./200MM=22.4 DEF. = MM																							
G4-0389	G4-0389	A36/A992	.14	.90	.010	.025	.017	.19	.06	.35	.10	.010	.002	.032	.0090	.008	.0004						11035
YIELD PT LBS/SQ IN: 60200; TENSIL LBS/SQ IN: 79000; % ELONG 8 IN: 21.1; BEND: DEF: % LIGHT-HEAVY; METRIC EQUIVALENT: YIELD = 415.06 MPa; TENSILE = 644.88 MPa; %ELONG./200MM=21.1 DEF. = MM																							
G4-0390	G4-0390	A36/A992	.14	.80	.010	.025	.017	.19	.06	.35	.10	.010	.002	.032	.0090	.008	.0004						11110
YIELD PT LBS/SQ IN: 57000; TENSIL LBS/SQ IN: 77400; % ELONG 8 IN: 22.4; BEND: DEF: % LIGHT-HEAVY; METRIC EQUIVALENT: YIELD = 387.83 MPa; TENSILE = 493.85 MPa; %ELONG./200MM=22.4 DEF. = MM																							

HT 4 G4-0388 is used to fab items: B341, B380.

This material, including the blanks, was produced and manufactured in the United States of America.  
A. J. Turner  
Quality Assurance Manager  
ARL Group

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST REPORT AS CONTAINED IN THE PERMANENT RECORDS OF THE COMPANY.

Bill To: TRIAD METALS INTERNATIONAL  
2300 COMPUTER AVENUE  
SUITE A-1  
WILLOW GROVE PA 19090  
US

Ship To: 6  
TRIAD METALS INTERNATIONAL  
TRIAD METALS INTERNATIONAL  
1951 BESSEMER ROAD  
PETERSBURG VA 23803  
US

Order Date: 10/15/2007  
PO No: 2869  
Mill Order No: 3380640  
Load No: 1144950  
Manifest No: 1855999

GERDAU AMERISTEEL  
Petersburg Mill  
25801 Hofheimer Way  
Petersburg, VA 23803  
(804) 524-2855

CERTIFIED MATERIAL TEST REPORT  
GERDAU AMERISTEEL  
Petersburg Mill

SIZE W 12 X 106# / W310 X 106 GRADE 992/572-50 LENGTH 45 FT / 13.716 M  
PRODUCT WF BEAMS

SPECIFICATIONS  
ASTM A6-05a, A992-06a, A572-06

HEAT NO: 30319340

CHEMICAL ANALYSIS													
C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Al	Nb	CE
.08	1.24	.012	.031	.21	.35	.11	.06	.014	.014	.004	.004	.024	.33

PHYSICAL PROPERTIES				
Yield Strength		Tensile Strength		Elongation %
KSI	MPa	KSI	MPa	
50.3	346.8	71.2	490.9	22.9
50.4	347.5	71.0	489.5	23.8

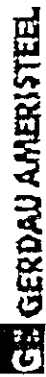
Bend Test		ROA %
Dia.	Result	
8 In	200 mm	
8 In	200 mm	

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A.  
CMTR complies with DIN EN 10204 3.1.B

"I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements."

Signed: Tom L. Harrington Date: Oct. 18, 2007 Signed: Notary Public (if applicable) Date: \_\_\_\_\_  
Tom L. Harrington: Quality Assurance Manager

HT # 30319340 is used to fab items: CA01, C209



CARTERSVILLE STEEL MILL  
384 OLD GRASSDALE RD NE  
CARTERSVILLE GA 30121 USA  
(770) 387-0000

Chemical and Physical Test Report

MADE IN UNITED STATES

G-100895

PRODUCED IN: CARTERSVILLE

SHIP TO TRIAD METAL 1961 BESSEMER ROAD 804-732-6000 PETERSBURG, VA 23105	INVOICE TO TRIAD METALS INTERNATIONAL METAL TRADERS INC 2300 COMPUTER AVE. STE A-1 WILLOW GROVE, PA 18090	SAMP DATE 06/04/07	CUST. ACCOUNT NO 40213000
--	---	-----------------------	------------------------------

SHAPE & SIZE W12 X 159	GRADE A57200590	SPECIFICATION ASTM A572 GR60-67, ASTM A592-06A	SALES OFFICER 7074477-10	CUST. P.O. NUMBER 1125-10
---------------------------	--------------------	---	-----------------------------	------------------------------

MECHANICAL TEST: Yield 59100 PSI, 407.48 MPa Tensile 75000 PSI, 517.11 MPa %EL: 25.45% 25.4200MM 251 Div 0 14 Char: 423

Customer Requirements CASTING: STRAND CAST  
Mechanical Test: Yield 62100 PSI, 428.18 MPa Tensile 77500 PSI, 537.1 MPa %EL: 23.7% 25.7700MM 251 Div 0 14 Char: 423

Customer Requirements CASTING: STRAND CAST

SHAPE & SIZE W12 X 159	GRADE A57200590	SPECIFICATION ASTM A572 GR60-67, ASTM A592-06A	SALES OFFICER 7028549-04	CUST. P.O. NUMBER 2151-04
---------------------------	--------------------	---	-----------------------------	------------------------------

MECHANICAL TEST: Yield 63100 PSI, 436.06 MPa Tensile 77400 PSI, 538.05 MPa %EL: 25.35% 25.3200MM 251 Div 0 14 Char: 300

Customer Requirements CASTING: STRAND CAST

Mechanical Test: Yield 61600 PSI, 424.72 MPa Tensile 75500 PSI, 523.55 MPa %EL: 25.05% 25.0200MM 251 Div 0 14 Char: 300

Customer Requirements CASTING: STRAND CAST

This material, including the label, was produced and manufactured in the United States of America

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS OBTAINED IN THE PERMANENT RECORDS OF CONSUMER

*Mashkov*  
Irina Y. Mashkov  
Quality Control  
Cartersville, Georgia

*Young*  
My Hauling, Inc.  
Cartersville, Georgia

Supplier warrants that all material furnished shall comply with specifications, subject to standard published manufacturing tolerances. NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE MADE BY THE SELLER, AND STATUTORILY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. In no event shall seller be liable for indirect, consequential or punitive damages arising out of or related to the products furnished by seller. Any claim for damage, loss or injury, that does not conform to specifications, shall be made by the buyer to seller immediately after delivery of same in order to take the claim for opportunity to inspect the material in question.

HT # 0704613 is used to fab items: B384, B392, B393, B391

# ACIER PACIFIQUE INC.

PO/Rel

# Certificate of Mill Test Results

PAC-000000-000

Pg 1/1

PART NO.

7-OCT-2005 07:12

TXI - MILLRAX 1-800-645-4155

Page 24/

**Bill To:** PACIFIC STEEL, INC.  
 845 MUMCK  
 CHOMEDET  
 LAVAL  
 H7S1A9  
 PQ CA  
 Ship To: 1  
 PACIFIC STEEL, INC.  
 845 Mumck  
 8076 LOBQUEUIL  
 MONTREAL  
 H7S-1A9  
 PQ CA  
**Order Date:** 09/08/2005  
**PO No:** 17992  
**Mill Order No:** 299499C  
**Load No:** 980118  
**Manifest No:** 1707331

**CHAPARRAL STEEL**  
**CERTIFIED MATERIAL TEST REPORT**  
**CHAPARRAL STEEL**  
 300 Ward Rd.  
 Midlothian, TX  
 76065-9651  
 (972) 775-8241  
**GRADE:** 992/572-50  
**LENGTH:** 50 FT / 15.24 M  
**FACE/END:** HF HELMS

**SIZE:** H 12 X 53# / H310 X 79  
**SPECIFICATION:** ASTM A6-02, A992-02, A572 01  
**HEAT NO:** 30261370

**CHEMICAL ANALYSIS**  

C	Mn	P	S	SI	Cu	NI	CF	Mo	Sn	V	Al	MB	CE
.05	.96	.011	.07	.25	.32	.09	.08	.013	.014	.000	.001	.020	.3

**PHYSICAL PROPERTIES**  

Yield Strength	MPa	ksi	Specimen Area	Sq cm	Sq In	Elongation	%	Charpy Length	8in	200 mm	Bend Test	ROA
54.4	375.1	71.0	5.54	5.54	0.859	24.7	24.7	8in	200 mm	200 mm	Result	%
52.7	363.4	70.7	5.85	5.85	0.906	22.3	22.3	8in	200 mm	200 mm		

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A. CMTX complies with DIN EN 10204 3.1.2

"I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements."

Signed: Tom L. Harrington Date: Oct. 07, 2005 Signed: Tom L. Harrington Date: Oct. 07, 2005  
 Title: Quality Assurance Manager

Date: \_\_\_\_\_  
 Page: 24 of 24

HT 4 30061370 is used to fabricate items. C241, C230  
 Notary Public (if applicable)

# ACIER PACIFIQUE INC.

PO/Rel

# Certificate of Mill Test Results

PAC-000000-0000

PART NO.

8 1/1

Attn:

PAGE:01

Feb. 15, 2007

訂貨日期

DATE OF ORDER

H01501

訂貨單號碼

CERTIFICATE NO.



## 材質證明書 (MILL TEST CERTIFICATE)

客戶名稱

CUSTOMER

ACCELAR (BUJIE)

訂貨單號

ORDER NO.

AJC REF. #: 81288

訂貨單號碼

MILL ORDER NO.

ASTM A592

訂貨單號碼

ORDER NO.

000110080623288

訂貨單號碼

ORDER NO.

000110080623288

訂貨單號碼

ORDER NO.

000110080623288

訂貨單號碼

ORDER NO.

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訂貨單號碼

ORDER NO.

000110080623288

訂貨單號碼

ORDER NO.

000110080623288

訂貨單號碼

ORDER NO.

000110080623288

台北市10441東區東區第一路9號6樓  
6F, No.9, Sec.1, Chungshan E. Rd., Taipei City 10441, Taiwan  
Tel: +886-2-2511 1100 Fax: +886-2-2562 6670

MILCO, I WORKS

ADDRESS: 22 Ping-ting Erh-tai Village,  
Hsishu Hsiang, Miaoli, Taiwan

交貨日期

DELIVERY DATE

Feb. 15, 2007

產品名稱

COMMODITY

WIDE FLANGE BEAMS

合計重量

TOTAL WEIGHT

170 (170.000)

合計捆包數

TOTAL BUNDLES

170 (170.000)

交貨日期

DELIVERY DATE

Feb. 15, 2007

產品名稱

COMMODITY

WIDE FLANGE BEAMS

合計重量

TOTAL WEIGHT

170 (170.000)

合計捆包數

TOTAL BUNDLES

170 (170.000)

(BHP PARIBAS CANADA)

CREDIT NO (ISSUING BANK): 000110080623288

尺寸 SIZE in. x in. x (lbs./ft.)	長度 LENGTH ft	重量 WEIGHT kg	鋼號 HEAT NO.	屈服 YIELD POINT N/mm <sup>2</sup>	抗拉 TENSILE STRENGTH N/mm <sup>2</sup>	伸長率 ELONGATION % in 200mm	轉位 V. R.	化學成分 (%) CHEMICAL COMPOSITION (%)										磅 RAO TEST µS/A					
								C	Si	Mn	P	S	Cr	Ni	Mo	V	Nb		As	Sn	Ca	N	
V 12.0x 12.00x 65	45.0	19915	H80337	345.0 450.0	450.0	18.0	85	23	40	150	35	45	60	45	35	150	110	50	20	15	1000.000		
V 12.0x 12.00x 65	50.0	22185	H80342	412.4	503.0	24.9	81	10	26	102	19	36	30	9	11	21	21	13	19	335	10	1000.000	
V 12.0x 12.00x 65	55.0	18524	H80338	395.7	512.8	26.1	77	15	19	86	13	23	28	10	8	19	18	14	18	346	9	1000.000	
V 12.0x 12.00x 65	60.0	21300	H80338	387.1	503.8	26.5	76	13	18	88	13	27	31	9	5	21	18	15	19	331	11	1000.000	
V 14.0x 14.50x 90	40.0	29430	H80785	380.7	498.8	26.3	76	15	19	88	13	23	28	10	6	19	18	14	18	346	9	1000.000	
			H80787	399.0	504.1	25.5	80	13	19	98	13	23	24	8	8	13	15	13	18	347	9	1000.000	
			H80787	416.8	525.5	28.0	79	14	20	99	12	25	25	8	8	13	15	15	17	355	10	1000.000	
			H80787	423.4	516.1	24.2	82																



品質管理監督 品質控制 MANAGER

李元龍 RECEIVED

MAR 05 2007

PS: MATERIAL IS IN ACCORDANCE WITH  
ASTM A592 SIMPLE CERTIFIED

HT 4 # 60337 is used to fab item: C008

# ACIER PACIFIQUE INC.

PO/Rd

## Certificate of Mill Test Results

PAC-000000-000

Pg 1/1

PART NO.

Altir:

Bill To:  
 PACIFIC STEEL, INC.  
 845 MUNCK  
 CROCKEY  
 LAVAL  
 H7SLR9

Ship To: 1  
 PACIFIC STEEL, INC.  
 845 MUNCK  
 BO76 LONGURIL  
 MONTERAL  
 H7S-1A9

Order Date: 02/21/2007  
 PO No: 18704  
 Mill Order No: 3261903  
 Load No: 1099564  
 Manifest No: 1813840

**CERTIFIED MATERIAL TEST REPORT**  
**CHAPARRAL**  
 CHAPARRAL STEEL  
 300 Ward Rd.  
 Midlothian, TX  
 76065-9651  
 (972) 775-8241

SPECIFICATIONS  
 ASTM A6-05a, A992-06a, A572-06

GRADE  
 992/572-50

LENGTH  
 45 FT / 13.716 M

PRODUCT  
 HP BEAMS

HEAT NO: 30350920

C	Mn	P	S	SI	CU	NI	CR	Mo	Su	V	Al	Nb	CE
.07	.93	.010	.031	.21	.35	.10	.09	.016	.013	.002	.001	.020	.28

### CHEMICAL ANALYSIS

Yield Strength	
KSI	Mpa
55.3	381.3
53.3	367.5

Tensile Strength	
KSI	Mpa
69.7	480.6
68.1	469.5

### PHYSICAL PROPERTIES

Specimen Area		Elongation	
Sq In	Sq Cm	%	Gage Length
0.686	4.43	23.8	8 In 200 mm
0.689	4.45	26.0	8 In 200 mm

Bend Test	
Dia. Result	KOA
	4

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A.  
 CMTB complies with DIN EN 10204 3.1.B

"I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements."

Signed: *Tom L. Harrington*  
 Tom L. Harrington: Quality Assurance Manager

Signed:

Date: Mar. 23, 2007

Notary Public (if applicable)

Date:

HT # 30350920 is used to fabricate items: B315, B351



**Steel Dynamics, Inc.**  
2601 S. County Road 700 East  
Columbia City, IN 46725  
(260) 625-8100

**Certified Mill Test Report**  
100% Killed and Manufactured in USA

**Ship to:**  
PACIFIC STEEL INC.  
645 Rue Murdoch,  
C/O Velpert Maritime Services  
Track V66  
Vile De Laval, PQ H7S1A9  
Attn: John Pimentel

**Customer No:** 000005  
**Bill of Lading No:** 0000117629  
**MTR #: 0000117209**

**Date:** 7/1/2007

**Customer No:** 000005  
**Bill No:** PACIFIC STEEL INC.  
645 Rue Murdoch,  
Laval Quebec, PQ H7S1A9  
Attn: John Pimentel

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1†	020891565	W18X40	40' 0"	6	A034046	A992 / A992M A709 G50S/G345 A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	18730
2†	020891566	W18X40	40' 0"	6	A034046	A992 / A992M A709 G50S/G345 A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	18730
3†	020891567	W18X40	40' 0"	6	A034046	A992 / A992M A709 G50S/G345 A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	18730
4†	020891568	W18X40	40' 0"	6	A034046	A992 / A992M A709 G50S/G345 A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	18730

**CHEMICAL**

Item	C	Mn	P	S	SI	Cu	V	Cr	Ni	Mo	Sn	N	B	As	PC	Analysis
1*	.08	.94	.021	.021	.15	.29	.001	.13	.14	.044	.011	.0095	.0002	.019	.33	.16
2*	.08	.94	.021	.021	.15	.29	.001	.13	.14	.044	.011	.0085	.0002	.019	.33	.16
3*	.08	.94	.021	.021	.15	.29	.001	.13	.14	.044	.011	.0085	.0002	.019	.33	.16
4*	.08	.94	.021	.021	.15	.29	.001	.13	.14	.044	.011	.0085	.0002	.019	.33	.16

**Tension Testing Results**

Item	Yield (Fy) ksi/MPa	Tensile (Fu) ksi/MPa	Elong (%) based on 5" gauge	ROA (%)	Band Test Result	Temp F/C	Sample 1 Fl. Bolts/Inches	Sample 2 Fl. Bolts/Inches	Sample 3 Fl. Bolts/Inches	% Shear	ASTM Grain Size No (per ASTM E112)
1	60416	76527	.79								
2	63434	75518	.84								
3	60416	76527	.79								
4	60416	76527	.79								

**Charpy Impact Testing Results**

Item	Temp F/C	Temp F/C	Temp F/C	Temp F/C	Temp F/C	Temp F/C	Temp F/C	Temp F/C	Temp F/C	Temp F/C
1										
2										
3										
4										

**MECHANICAL**

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed: \_\_\_\_\_  
Quality Assurance

State of Indiana, County of Whitley  
Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
Signed: \_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

Special Comments/Information:  
\* Fully Killed Steel  
1 Cast and Rolled to a Fine Grain Practice



**Steel Dynamics, Inc.**  
2601 S. County Road 700 East  
Columbia City, IN 46725  
(260) 625-8100

**Certified Mill Test Report**  
100% Melted and Manufactured in USA

Date: 11/11/2007  
Customer No: 0000191  
Bill of Lading No: 0000118729  
MTR #: 0000118302

Ship To:  
Triad Metals International  
Triad Customer P/U  
Attn: Sally

Bill To:  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1†	000023536	W21X62	44' 0"	1	A034653	A992 / A992M A709 50S/g345S A572 gr50/g345	ASTM A992/A992M - 05a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
2†	020902071	W24X94	43' 6"	2	B034476	A992 / A992M A709 50S/g345S A572 gr50/g345	ASTM A992/A992M - 05a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
3†	020902073	W24X94	43' 6"	2	B034476	A992 / A992M A709 50S/g345S A572 gr50/g345	ASTM A992/A992M - 05a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
4†	020902113	W24X94	43' 6"	1	B034477	A992 / A992M A709 50S/g345S A572 gr50/g345	ASTM A992/A992M - 05a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
5†	020906203	W21X62	44' 0"	4	A034635	A992 / A992M A709 50S/g345S A572 gr50/g345	ASTM A992/A992M - 05a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
6†	020906434	W21X62	44' 0"	4	A034653	A992 / A992M A709 50S/g345S A572 gr50/g345	ASTM A992/A992M - 05a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459

**EMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1*	.08	1.17	.012	.036	.27	.32	.034	.070	.13	.04	.012	.009	.0004	.00	.33	0.3800	0.1800	HEAT
2*	.07	1.35	.017	.028	.22	.50	.046	.130	.13	.04	.016	.010	.0003	.00	.38	0.4200	0.1900	HEAT
3*	.07	1.35	.017	.028	.22	.50	.046	.130	.13	.04	.016	.010	.0003	.00	.38	0.4200	0.1900	HEAT
4*	.07	1.35	.020	.038	.20	.49	.043	.120	.12	.03	.014	.010	.0003	.00	.38	0.4100	0.1900	HEAT
5*	.08	1.15	.016	.038	.25	.40	.035	.120	.12	.05	.015	.009	.0004	.00	.34	0.3900	0.1800	HEAT
6*	.08	1.17	.012	.036	.27	.32	.034	.070	.13	.04	.012	.009	.0004	.00	.33	0.3800	0.1800	HEAT

**CHANICAL**

Item	Test	Tension Testing Results			Charpy Impact Testing Results			ASTM Grain Size No (per ASTM E112)
		Yield (Fy) Strength ksi/MPa	Tensile Strength ksi/MPa	Elong (%) based on 8" gauge	Sample 1 ft. lb/joules	Sample 2 ft. lb/joules	Sample 3 ft. lb/joules	
1	1	55/376	75/519	.73				
2	2	62/431	77/533	.81				
3	1	59/408	76/521	.78				

we certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

*[Signature]*  
Quality Assurance

State of Indiana, County of Whitley

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed \_\_\_\_\_  
Notary Public

My commission expires \_\_\_\_\_

Special Comments/Information

ATL A034653 is used to fab items:  
6202  
62449  
6272  
6285

ted:

**Steel Dynamics, Inc.**  
 2601 S. County Road 700 East  
 Columbia City, IN 46725-  
 (260) 625-9100

**Certified Mill Test Report**  
 100% Melted and Manufactured in USA

**Customer No:** 000191  
**Bill of Lading No:** 0000117394  
**MTR #:** 0000116974

**Date:** 6/29/2007

**Ship to:**  
 Triad Metals Int'l  
 1951 Bessemer Road  
 CSX-Coffler Yard  
 Petersburg, VA 23805  
 Attn: Rock McGovern

**Bill to:**  
 TRIAD METALS INTERNATIONAL  
 A-1 2300 Computer Avenue  
 Willow Grove, PA 19090  
 Attn: Fred White

Ln	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1†	020999748	W24X68	65' 0"	4	A034363	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	706
2†	020902967	W24X62	50' 0"	4	B034507	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	158396
3†	020903809	W24X55	45' 0"	4	B034490	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	158396
4†	020903811	W24X55	45' 0"	4	B034490	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	158396


**CHEMICAL**

Item	C	Mn	P	S	SI	Cu	V	Cr	NI	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1*	.07	1.12	.020	.027	.24	.36	.033	.14	.12	.037	.018	.0098	.0004	.002	.33	.37	.17	HEAT
2*	.08	1.12	.020	.028	.23	.39	.032	.11	.13	.029	.013	.0112	.0003	.002	.33	.37	.18	HEAT
3*	.08	1.04	.014	.033	.19	.39	.034	.09	.14	.030	.014	.0109	.0003	.002	.32	.35	.17	HEAT
4*	.08	1.04	.014	.033	.19	.39	.034	.09	.14	.030	.014	.0109	.0003	.002	.32	.35	.17	HEAT

**MECHANICAL**

Item	Test	Tension Testing Results				Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp F/C	Charpy Impact Testing Results			ASTM Grain Size No (per ASTM E112)
		Yield Strength ksi/MPa	Tensile Strength ksi/MPa	FyFu	Ft					Sample 1 ft. lb./joules	Sample 2 ft. lb./joules	Sample 3 ft. lb./joules	
1	1	55/377	71/491	.77	23								
1	2	53/365	70/481	.76	24								
2	1	60/417	76/527	.79	25								
2	2	64/442	77/532	.83	24								
3	1	64/440	79/544	.81	26								
3	2	57/395	81/556	.70	26								
4	1	64/440	79/544	.81	26								
4	2	57/395	81/556	.70	26								

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed:  Quality Assurance

State of Indiana, County of Whitley  
 Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
 Signed: \_\_\_\_\_ Notary Public

My commission expires: \_\_\_\_\_

Special Comments/Information:  
 \* Fully Killed Steel  
 1 Cast and Rolled to a Fine Grain Practice

HT # B034490 is used to fabricate B348



**Steel Dynamics**  
 2601 S. County Road 700 East  
 Columbia City, IN 46725  
 (260) 625-8100

**Certified Mill Test Report**  
 100% Melted and Manufactured in USA

Date: 7/19/2007  
 Customer No: 000191  
 Bill of Lading No: 0000118681  
 MTR #: 0000118254

Ship to:  
 Triad Metals International  
 Triad Customer P/U  
 Attn: Sally

Bill to:  
 TRIAD METALS INTERNATIONAL  
 A-1 2300 Computer Avenue  
 Willow Grove, PA 19090  
 Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1	000023481	W24X68	44' 0"	1	A034343	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	459
2	020899518	W24X68	44' 0"	4	A034352	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	459
3	020903310	W24X62	42' 0"	4	B034524	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	459
4	020903399	W24X62	42' 0"	1	B034528	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	459
5	020906903	W21X83	41' 6"	1	A034612	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	459
6a	020907114	W21X83	41' 6"	1	A034610	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	459
6b	020907114	W21X83	41' 6"	1	A034680	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	459
7a	020907123	W21X83	41' 6"	1	A034678	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	459
7b	020907123	W21X83	41' 6"	1	A034680	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	459

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed: Henry Jones  
 Quality Assurance

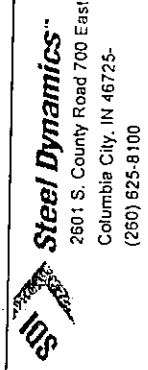
State of Indiana, County of Whitley

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_  
 Notary Public

My commission expires: \_\_\_\_\_

Special Comments/Information:



2601 S. County Road 700 East  
Columbia City, IN 46725  
(250) 625-8100

**Certified Mill Test Report**  
100% Melted and Manufactured in USA

Date: 7/19/2007  
Customer No: 000191  
Bill of Lading No: 0000118681  
MTR #: 0000118254

Ship to:  
Triad Metals International  
Triad Customer P/U  
Attn: Sally

Bill to:  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1	.08	1.06	.019	.030	.25	.36	.033	.12	.11	.029	.014	.0083	.0003	.001	.32	.37	.17	HEAT
2	.08	1.06	.014	.028	.20	.36	.031	.09	.11	.041	.015	.0096	.0003	.000	.32	.35	.17	HEAT
3	.07	1.19	.014	.035	.23	.29	.033	.07	.09	.016	.014	.0118	.0004	.002	.32	.36	.17	HEAT
4	.07	1.15	.014	.032	.26	.33	.033	.08	.10	.022	.012	.0087	.0003	.001	.32	.36	.16	HEAT
5	.08	1.26	.012	.034	.22	.36	.047	.10	.12	.039	.014	.0122	.0004	.001	.36	.39	.18	HEAT
6a	.09	1.25	.012	.022	.21	.37	.041	.09	.12	.038	.014	.0116	.0004	.000	.36	.40	.19	HEAT
6b	.08	1.30	.023	.028	.22	.39	.042	.12	.12	.035	.014	.0091	.0004	.002	.37	.40	.19	HEAT
7a	.08	1.22	.014	.017	.19	.31	.041	.10	.11	.059	.012	.0077	.0003	.001	.35	.38	.18	HEAT
7b	.08	1.30	.023	.028	.22	.39	.042	.12	.12	.035	.014	.0091	.0004	.002	.37	.40	.19	HEAT

**Tension Testing Results**

Item	Test	Yield (Fy) Strength ksi/MPa	Tensile (Fu) Strength ksi/MPa	Fy/Fu	Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp F/C	Sample 1 ft. lb/joules	Sample 2 ft. lb/joules	Sample 3 ft. lb/joules	% Shear	ASTM Grain Size No (per ASTM E112)
1	1	56/383	71/493	.79	25								
1	2	61/420	74/510	.82	26								
2	1	52/357	72/494	.72	24								
2	2	57/390	73/506	.78	24								
3	1	56/388	74/511	.76	24								
3	2	56/383	77/532	.73	23								
4	1	55/380	73/505	.75	22								
4	2	53/369	73/502	.73	22								
5	1	61/418	74/509	.82	20								
5	2	60/416	74/512	.81	22								
6a	1	62/430	76/521	.82	25								
6a	2	63/432	76/525	.83	25								
6b	1	62/429	75/520	.83	22								
6b	2	57/396	74/509	.77	23								
7a	1	56/386	71/489	.79	21								
7a	2	56/384	71/492	.79	21								

**Charpy Impact Testing Results**

Item	Temp F/C	Sample 1 ft. lb/joules	Sample 2 ft. lb/joules	Sample 3 ft. lb/joules	% Shear
1	1				
1	2				
2	1				
2	2				
3	1				
3	2				
4	1				
4	2				
5	1				
5	2				
6a	1				
6a	2				
6b	1				
6b	2				
7a	1				
7a	2				

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed: Henry Public  
Quality Assurance

State of Indiana, County of Whitley

Sworn to and subscribed before me this \_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_  
My commission expires: \_\_\_\_\_

Special Comments/Information.

**Steel Dynamics, Inc.**  
2601 S. County Road 700 East  
Columbis City, IN 46725-  
(260) 625-8100

**Certified Mill Test Report**  
100% Made and Manufactured in USA

**Ship to:**  
Triad Metals Intl  
1951 Bessemer Road  
CSX-Coffier Yard  
Petersburg, VA 23805

**Customer No:** 000191  
**Bill of Lading No:** 0000116623  
**MTR #:** 0000116208

**Date:** 6/24/2007

**Bill to:**  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat#	Grade(s)	Specification(s)	Customer P.O.
10a†	020901457	W24X68	60' 0"	2	A034337	A992 / A992M A709 G50S/g345S A572 G50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	156398
10b†	020901457	W24X68	60' 0"	2	B034457	A992 / A992M A709 G50S/g345S A572 G50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	156398
11†	020901458	W24X68	60' 0"	4	B034457	A992 / A992M A709 G50S/g345S A572 G50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	156398
12†	020901460	W24X68	60' 0"	4	B034457	A992 / A992M A709 G50S/g345S A572 G50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	156398


**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Analysis
10a*	.08	1.04	.014	.020	.21	.33	.033	.10	.10	.037	.013	.0091	.0003	HEAT
10b*	.09	1.06	.017	.040	.26	.34	.035	.10	.09	.019	.011	.0112	.0004	HEAT
11*	.09	1.06	.017	.040	.26	.34	.035	.10	.09	.019	.011	.0112	.0004	HEAT
12*	.09	1.06	.017	.040	.26	.34	.035	.10	.09	.019	.011	.0112	.0004	HEAT

**MECHANICAL**

Item	Test	Tension Testing Results				Charpy Impact Testing Results				ASTM Grain Size No (per ASTM E112)			
		Yield Strength ks/MPa	Tensile Strength ks/MPa	Elong (%) based on 8" gauge	FyFu	Temp F/C	Sample 1 ft. lb/ftoules	Sample 2 ft. lb/ftoules	Sample 3 ft. lb/ftoules		% Shear		
10a	1	59/405	71/489	.83	.27	1							
10a	2	57/394	71/490	.80	.28	2							
10b	1	61/424	76/527	.80	.23	1							
10b	2	57/391	75/520	.76	.23	2							
11	1	61/424	76/527	.80	.23	1							
11	2	57/391	75/520	.76	.23	2							
12	1	61/424	76/527	.80	.23	1							
12	2	57/391	75/520	.76	.23	2							

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchase order designated.

Signed:  Quality Assurance

My commission expires: \_\_\_\_\_

State of Indiana, County of Whitley

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_ Notary Public

Special Comments/Information:  
\* Fully Killed Steel  
1 Cast and Rolled to a Fine Grain Practice

AT # B034457 is used to fab item: B0350

Load #: 8

Shipping Date:

Waybill #: 862-8

Prepared By: Approved By: Date: 24-01-01

Customer: Pizzagalli Construction Company  
 Job Title: 84 Marginal Way  
 Date Sent to Shop: X  
 Job Number: 898

Job Progress Report Sheet  
 Bathurst Machine Shop Ltd.  
 Mandate Erectors & Welding Ltd.  
 MQM Ltd., Traralgon

1040 Route 430  
 Big River Road  
 T2A 6P9

SHEET: 1

Form 12 Rev. 4

C - SEE SHOP DWG C - COLOR GALV.

Attach.	Material	Rev.	Matl. #	Qty	Weight	Paint	Galv	Camber	Level	Titled		Mtl. Insp.		Punch Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped				
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date
A	W12X19	0	B201	2	791																							
A	W10X17	0	B203	2	557																							
A	W08X15	0	B205	1	154																							
A	W16X26	0	B209	1	510																							
A	W16X26	0	B210	1	612																							
A	W24X68	0	B212	1	1359																							
A	W21X44	0	B215	1	1740																							
A	W21X44	0	B218	1	1741																							
H	W24X55	0	B223	1	1429																							
A	W21X44	0	B225	1	1678																							
A	W18X35	0	B230	1	1491																							
H	W24X68	0	B234	1	1956																							
A	W21X44	0	B235	1	909																							
A	W21X62	0	B239	1	2648																							
A	W08X21	0	B247	1	321																							
A	W10X17	0	B251	4	1112																							
A	W08X24	0	B252	1	256																							
A	W18X40	0	B257	1	944																							
A	W21X44	0	B259	1	1751																							
A	W24X68	0	B268	1	2332																							

Pieces 25 24791 Total Weight (Lbs)

( 12.4 TONS)

Load #: 8

Customer: Pizzagalli Construction Company  
 Job Title: 84 Marginal Way  
 Date Sent to Shop: X  
 Job Number: 898

SHEET: 2

Prepared By: Bathurst Machine Shop Ltd. 1040 Route 430  
 Approved By: Mandate Erectors & Welding Ltd. Big River Road  
 Date: 24-01-01 MQM Ltd., Tracadie 112A 6P9

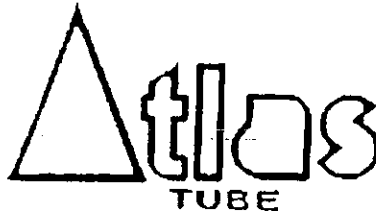
Atch.	Material	Rev.	Mat. #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mtl. Insp.		Punch/Drill		Weld		Surface		Paint		Shipped				
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date
A	W24X68	0	B270	2	3836																					
A	W18X50	0	B276	1	1367																					
A	W08X24	0	B278	1	66																					
A	H.S.S. 18X6X3/8	0	B281	1	1591																					
A	W08X15	0	B284	1	154																					
A	W12X96	0	C211	1	5885																					
A	W12X96	0	C212	1	5902																					
A	H.S.S. 6X6X5/16	0	C231	1	1130																					

Pieces 9 19931 Total Weight (Lbs) ( 10.0 TONS)



Atlas Tube Canada ULC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 NOR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537

Ref.B/L: 80261880  
 Date: 10.13.2007  
 Customer: 1774



**MATERIAL TEST REPORT**

Sold to

Acier Altitube Inc.  
 2555 Francis-Hugues Avenue  
 LAVAL QC H7S 2H7  
 CANADA

Shipped to

Acier Altitube Inc.  
 2555 Francis-Hugues Avenue  
 LAVAL QC H7S 2H7  
 CANADA

Material: 18.0x6.0x375x48"O"O(1x3)P3  
 Sales order: 329266

Material No: 180060375  
 Purchase Order: 3428  
 Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
583526	0.120	0.510	0.003	0.002	0.150	0.035	0.035	0.005	0.002	0.013	0.034	0.000

Bundle No	Yield	Tensile	Eln.2In	Certification
M2C0467-006	052580 Psi	365000 Psi	34.1 %	ASTM A500-03A GRADE B&C

Material Note  
 Sales Or. Note:

*HT #583526 is used to fab item: B281*

Material: 5.0x5.0x250x48"O"O(4x2)  
 Sales order: 331874

Material No: 500502504800  
 Purchase Order: 3337  
 Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
394931	0.200	0.840	0.017	0.008	0.014	0.046	0.050	0.006	0.005	0.016	0.044	0.000

Bundle No	Yield	Tensile	Eln.2In	Certification
M100674709	063940 Psi	074640 Psi	30.2 %	ASTM A500-03A GRADE B&C

Material Note  
 Sales Or. Note:

Material: 5.0x5.0x250x48"O"O(4x2)  
 Sales order: 331874

Material No: 500502504600  
 Purchase Order: 3337  
 Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
394931	0.200	0.840	0.017	0.008	0.014	0.046	0.050	0.006	0.005	0.016	0.044	0.000

Bundle No	Yield	Tensile	Eln.2In	Certification
M100574708	063940 Psi	074640 Psi	30.2 %	ASTM A500-03A GRADE B&C

Material Note  
 Sales Or. Note:

Material: 7.0x7.0x250x48"O"O(12x2)  
 Sales order: 331832

Material No: 700702504800  
 Purchase Order: 3331  
 Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
303543	0.180	0.930	0.003	0.005	0.021	0.049	0.051	0.006	0.005	0.013	0.027	0.000

Bundle No	Yield	Tensile	Eln.2In	Certification
200479583	062770 Psi	075930 Psi	31.4 %	ASTM A500-03A GRADE B&C

Material Note  
 Sales Or. Note:

Authorized by Quality Assurance: *[Signature]*

The results reported on this report represent the actual attributes of the material furnished and indicate full compliance with all applicable specification and contract requirements.



Atlas Tube Canada ULC  
 200 Clerk St.  
 Harrow, Ontario, Canada  
 NOR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537

Ref.B/L: 80248253  
 Date: 07.20.2007  
 Customer: 81



**MATERIAL TEST REPORT**

Sold to

Infra-Metals Corporation  
 8 Pent Highway  
 WALLINGFORD CT 06492  
 USA

Shipped to

Infra-Metals Corporation (Rail  
 Track #953 - 8 Pent Highway  
 WALLINGFORD CT 06492  
 USA

Material: 8.0x8.0x313x24'0"0(3x3).  
 Sales order: 288177

Material No: 600603132400 Made In: Canada  
 Purchase Order: C21309MF FF AUGUST

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
4446G	9	0.200	0.850	0.012	0.006	0.030	0.027	0.030	0.000	0.020	0.020	0.030	0.001

Bundle No	Yield	Tensile	Eln.2In	Certification
M100649232	067680 Psi	071350 Psi	35.5 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Material: 8.0x8.0x313x48'0"0(3x2).  
 Sales order: 288177

Material No: 600603134800 Made in: Canada  
 Purchase Order: C21309MF FF AUGUST

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
480062	6	0.210	0.810	0.010	0.004	0.160	0.042	0.027	0.006	0.002	0.012	0.032	0.002

Bundle No	Yield	Tensile	Eln.2In	Certification
M100649278	061750 Psi	075850 Psi	33.3 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

*HT #480062 is used to fab item: C031*

Material: 8.0x6.0x313x48'0"0(3x2).  
 Sales order: 288177

Material No: 600603134800 Made in: Canada  
 Purchase Order: C21309MF FF AUGUST

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
480062	6	0.210	0.810	0.010	0.004	0.160	0.042	0.027	0.006	0.002	0.012	0.032	0.002

Bundle No	Yield	Tensile	Eln.2In	Certification
M100649277	061750 Psi	075850 Psi	33.3 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Material: 7.0x4.0x375x40'0"0(3x2).  
 Sales order: 288177

Material No: 700403754000 Made in: Canada  
 Purchase Order: C21309MF FF AUGUST

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
480402	6	0.190	0.790	0.012	0.005	0.150	0.041	0.034	0.005	0.003	0.011	0.046	0.000

Bundle No	Yield	Tensile	Eln.2In	Certification
M100649514	066770 Psi	078250 Psi	30.0 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Authorized by Quality Assurance: \_\_\_\_\_



G-100404

Chemical and Physical Test Report

MADE IN UNITED STATES



CARTERSVILLE STEEL MILL  
384 OLD GRASSDALE RD NE  
CARTERSVILLE GA 30121 USA  
(770) 347-3000

PRODUCED IN: CARTERSVILLE

SHIP TO  
TRIAD METAL  
1961 BESSMER ROAD  
804-732-5000  
PETERSBURG, VA 23806

INVOICE TO  
TRIAD METALS INTERNATIONAL  
METAL TRADERS INC  
2300 COMPUTER AVE, STE-A-1  
WILLOW GROVE, PA 19090

SHIP DATE  
06/24/07  
CUST. ACCOUNT NO  
40213005

SHAPE & SIZE		GRADE		SPECIFICATION																SALES ORDER		CUST P.O. NUMBER	
W8 X 15#		A5720092		ASTM A572 GR50-07, ASTM A582-06A																7081534-02		1483-02	
HEAT ID.	C	Mn	P	S	Si	Cu	Ni	Cr	Mg	V	Nb	B	N	Sn	Al	Ti	Ca	C	Eq				
G705132	.18	.91	.015	.028	.19	.21	.10	.05	.028	.021	.028	.0028	.0084	.011	.002	.00200	.00180	.379					
Mechanical Test	Yield 58000 PSI, 404.09 MPa																						
Customer Requirements	CASTING STRAND CAST																						
Mechanical Test	Yield 60000 PSI, 413.69 MPa																						
Customer Requirements	CASTING STRAND CAST																						
Mechanical Test	Tensile: 81900 PSI, 562.01 MPa																						
Customer Requirements	Tensile: 81900 PSI, 562.01 MPa																						
Mechanical Test	Tensile: 81900 PSI, 562.01 MPa																						
Customer Requirements	Tensile: 81900 PSI, 562.01 MPa																						

SHAPE & SIZE		GRADE		SPECIFICATION																SALES ORDER		CUST P.O. NUMBER	
W8 X 15#		A5720092		ASTM A572 GR50-07, ASTM A582-06A																7081534-02		1483-02	
HEAT ID.	C	Mn	P	S	Si	Cu	Ni	Cr	Mg	V	Nb	B	N	Sn	Al	Ti	Ca	C	Eq				
G705132	.17	.90	.015	.023	.20	.20	.10	.07	.024	.022	.015	.0024	.0088	.012	.002	.00100	.00120	.369					
Mechanical Test	Yield 64800 PSI, 453.4 MPa																						
Customer Requirements	CASTING STRAND CAST																						
Mechanical Test	Yield 62000 PSI, 428.4 MPa																						
Customer Requirements	CASTING STRAND CAST																						
Mechanical Test	Tensile: 81100 PSI, 559.16 MPa																						
Customer Requirements	Tensile: 81100 PSI, 559.16 MPa																						
Mechanical Test	Tensile: 81100 PSI, 559.16 MPa																						
Customer Requirements	Tensile: 81100 PSI, 559.16 MPa																						

This material, including the labels, was produced and manufactured in the United States of America

*Maackay*  
Sharon Yalowitz  
Quality Director  
Gerdau Ameristeel

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

*Yalowitz*

By: Manufacturing Specs  
CARTERSVILLE STEEL MILL

Customer warrants that all materials furnished that comply with these specifications are warranted to conform to the specifications and fitness for a particular purpose. No other warranties, expressed or implied, are made by the seller, and specifically excluded are warranties of merchantability and fitness for a particular purpose. Any claim for damages for materials that do not conform to specifications must be made from the date of purchase to the date of receipt of the materials.

HT # G-705132 is used to fab items: B205, B284.

**Steel Dynamics, Inc.**  
2601 S. County Road 700 East  
Columbia City, IN 46725  
(260) 625-8100

**Certified Mill Test Report**  
100% Milled and Manufactured in USA

**Customer No:** 000191  
**Bill of Lading No:** 0000114369  
**MTR #:** 0000113965

**Date:** 5/31/2007

**Ship to:**  
Triad Metals Intl  
1951 Bessemer Road  
CSX-Collier Yard  
Petersburg, VA 23805  
Attn: Rick McGovern

**Bill to:**  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specifications	Customer P.O.
4a	020881618	W8X21	50' 0"	4	A033592	A992/A992M A709 q50S/q345S A572 q50/q345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	156189
4b	020881618	W8X21	50' 0"	8	A033593	A992/A992M A709 q50S/q345S A572 q50/q345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	156189
5f	020881619	W8X21	50' 0"	12	A033591	A992/A992M A709 q50S/q345S A572 q50/q345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	156189
6f	020881634	W8X21	40' 0"	12	A033591	A992/A992M A709 q50S/q345S A572 q50/q345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	156189

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
4a	.06	.76	.017	.027	.17	.34	.013	.08	.09	.015	.014	.0102	.0002	.002	.24	.27	.13	HEAT
4b	.07	.80	.019	.026	.18	.36	.014	.09	.09	.016	.012	.0106	.0002	.002	.26	.29	.14	HEAT
5	.06	.74	.019	.034	.18	.30	.014	.09	.09	.017	.011	.0100	.0002	.002	.23	.26	.13	HEAT
6	.06	.74	.018	.034	.18	.30	.014	.09	.09	.017	.011	.0100	.0002	.002	.23	.26	.13	HEAT

**MECHANICAL**


Item	Test	Tension Testing Results				Charpy Impact Testing Results				ASTM Grain Size No (per ASTM E112)
		Yield (Fy) ksi/MPa	Tensile (Fu) Strength ksi/MPa	Elong (%) based on 8" gauge	Fy/Fu	Temp F/C	Sample 1 ft. lb/joules	Sample 2 ft. lb/joules	Sample 3 ft. lb/joules	
4a	1	59408	73520	.79	.79	1				
4a	2	57095	74507	.77	.77	2				
4b	1	60413	75318	.80	.80	1				
4b	2	60416	75516	.80	.80	2				
5	1	58386	71489	.79	.79	1				
5	2	58399	73504	.79	.79	2				
6	1	58386	71489	.79	.79	1				
6	2	58399	73504	.79	.79	2				

*HT # A033591 is used to fab item: B247*

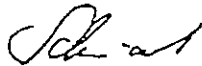
I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Special Comments/Information:  
\* Fully Killed Steel  
1 Cast and Rolled to a Fine Grain Practice

State of Indiana, County of Whitley  
Sworn to and subscribed before me this \_\_\_ day of \_\_\_\_\_  
S. Medel \_\_\_\_\_ Heavy Trade  
My commission expires: \_\_\_\_\_  
Quality Assurance

		<b>Certificate Nr 2926/2-2005</b> Advice Nr A2002029								
		Stahlwerk Thüringen GmbH Postfach 1163 07331 Unterwellenborn Germany								
Order Nr:	1700003138	Arcelor Intern I Canada Inc. Mill business, Long Products 5500 North Service Road, 7th Floor  <b>CAN-L7L 6W6 BURLINGTON</b>								
Customer Nr:	11851									
Quality:	A992-A572/50T83									
according to:	ASTM A992/98 - A572 GR50									
PER AJSC TB3 FINE GRAIN SILICON KILLED										
Inspection certificate										
ASTM A6 par18.										
Lot Nr	Heat Nr	Dimension	Length	Pieces	Weight (t)	Customer Nr				
002	22560	W 8X8,5X24	50'	40	21.773					
Heat Analysis [%]										
Heat Nr	C	Si	Mn	P	S	N	Nb	V	Cr	Cu
	max 0.23	0.40	1.50	0.035	0.045	0.012	0.050	0.110	0.35	0.60
	min 0.07	0.10	0.50							
22560	0.07	0.22	1.12	0.024	0.025	0.007	0.017	0.007	0.10	0.38
Heat Analysis [%]										
Heat Nr	Ni	Mo	CEV1	Sn						
	max 0.45	0.15	0.45							
	min 0.15	0.04	0.33	0.017						
22560										
Tensile test										
Heat Nr	Yield stress [PSI]	Tensile strength [PSI]	Elongation 50 mm [%]	Y/Ts						
	max 65000			0.85						
	min 50000	65300	21.0							
22560/1	55535	73515	40.9	0.76						
22560/2	56280	72835	41.6	0.77						

Renate Schmidt  
Works Inspector



2005-02-21



HT # 22560 is used to fab items: B253, B278.

110000

**GERDAU AMERISTEEL**  
 CARTERSVILLE STEEL MILL  
 384 OLD GRASSDALE RD NE  
 CARTERSVILLE GA 30121 USA  
 (770) 387-3300

Chemical and Physical Test Report  
 MADE IN UNITED STATES

G-082342

PRODUCED IN: CARTERSVILLE

SHIP TO  
 TRIAD METAL  
 1951 BESSEMER ROAD  
 804-732-5000  
 PETERSBURG, VA 23805

INVOICE TO  
 TRIAD METALS INTERNATIONAL  
 METAL TRADERS INC  
 2300 COMPUTER AVE. STE-A-1  
 WILLOW GROVE, PA 19090

SHIP DATE  
 12/09/06

CUST. ACCOUNT NO  
 40213035

SALES ORDER  
 6053480-11

CUST P. O. NUMBER  
 124280-11

SHAPE & SIZE: 40  
 W10 X 17 1/2

GRADE: A57250992  
 SPECIFICATION: ASTM A572 GR50-04, ASTM A992-04

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Ti	Al	Sh	N	B	As	C	Eqv.	
.17	.94	.019	.029	.28	.25	.11	.06	.020	.015	.001	.001	.010	.010	.0005	.010	.001	.00100	.00130

Mechanical Test: Yield 59600 PSI, 410.91 MPA  
 Customer Requirements CASTING: STRAND CAST

Mechanical Test: Yield 60000 PSI, 415.75 MPA  
 Customer Requirements CASTING: STRAND CAST

CUSTOMER NUMBER: NOV

Tensile: 81200 PSI, 559.85 MPA %EL: 24.178in, 24.1700MIL Sid Dev: 0 Mid Dev: 635

Tensile: 78100 PSI, 542.62 MPA %EL: 21.278in, 21.2700MIL Sid Dev: 0 Mid Dev: 635

SHAPE & SIZE: 40  
 W10 X 17 1/2

GRADE: A57250992  
 SPECIFICATION: ASTM A572 GR50-04, ASTM A992-04

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Ti	Al	Sh	N	B	As	C	Eqv.
.08	1.14	.017	.021	.29	.26	.11	.07	.040	.026	.001	.001	.010	.010	.0005	.010	.001	.00100

Mechanical Test: Yield 62200 PSI, 428.85 MPA  
 Customer Requirements CASTING: STRAND CAST

Mechanical Test: Yield 61100 PSI, 421.27 MPA  
 Customer Requirements CASTING: STRAND CAST

CUSTOMER NUMBER: NOV

Tensile: 81900 PSI, 564.08 MPA %EL: 21.178in, 21.1700MIL Sid Dev: 0 Mid Dev: 376

Tensile: 81900 PSI, 564.08 MPA %EL: 21.178in, 21.1700MIL Sid Dev: 0 Mid Dev: 376

HT # G605061 is used to fab items: B203, B251

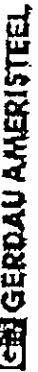
This material, including the billets, was produced and manufactured in the United States of America

*Maskary*  
 Director  
 Quality Director  
 Gerdau Ameristeel

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

*J. J. J.*

New Millery SACS  
 CARTERSVILLE STEEL MILL



CARTERSVILLE STEEL MILL  
384 OLD GRASSDALE RD NE  
CARTERSVILLE GA 30121 USA  
(770) 387-3000

Chemical and Physical Test Report

MADE IN UNITED STATES

G-080999

PRODUCED IN: CARTERSVILLE

SHIP TO TRIAD METALS INTERNATIONAL METAL TRADERS INC 2000 COMPUTER AVE. STE-A-1 YELLOW GROVE, PA 19090	SHIP DATE 08/19/07 CUST. ACCOUNT NO 40210035
--	---

SHAPE & SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST P.O. NUMBER
W12 X 27	A572-50	ASTM A572 GR50-07, ASTM A592-08A	7074477-13	1108-13
HEAT ID. G704790	C Mn P S Si Cu Ni Cr Mo V Nb B Ti Al Sn N Ca C Equ			
	.08 1.12 .023 .028 .028 .29 .26 .07 .07 .011 .027 .001 .0007 .0121 .002 .00100 .00190 .324			

Mechanical Test: Yield 58700 PSI, 404.72 MPA Tensile: 73200 PSI, 504.7 MPA %EB: 26.18%, 28.07% Sld Dev: 14.0 Dism: 385  
 Mechanical Test: Yield 60800 PSI, 419.2 MPA Tensile: 74400 PSI, 512.97 MPA %EB: 26.09%, 26.07% Sld Dev: 14.0 Dism: 385  
 Customer Requirements CASTING: STRAND CAST  
 Customer Requirements CASTING: STRAND CAST

SHAPE & SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST P.O. NUMBER
W12 X 19#	A572-50	ASTM A572 GR50-07, ASTM A592-08A	7074477-11	1109-11
HEAT ID. G704807	C Mn P S Si Cu Ni Cr Mo V Nb B Ti Al Sn N Ca C Equ			
	.08 1.14 .016 .028 .25 .24 .07 .08 .018 .028 .002 .0003 .0089 .009 .001 .00100 .00290 .212			

Mechanical Test: Yield 54900 PSI, 378.52 MPA Tensile: 69100 PSI, 478.43 MPA %EB: 21.58%, 27.57% Sld Dev: 14.0 Dism: 337  
 Mechanical Test: Yield 57000 PSI, 394.04 MPA Tensile: 70100 PSI, 483.32 MPA %EB: 25.78%, 25.77% Sld Dev: 14.0 Dism: 337  
 Customer Requirements CASTING: STRAND CAST  
 Customer Requirements CASTING: STRAND CAST

This material, including the labels, was produced and manufactured in the United States of America

*Maskary*  
 Blake Yalowitz  
 Quality Director  
 Gerdau Ameristeel

*Young*  
 My Marketing Sys  
 CARTERSVILLE STEEL MILL

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

Order warrants that all material furnished will comply with specifications subject to standard published manufacturing variations. NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, ARE MADE BY THE SELLER, AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. In the event steel is found to be defective, contaminated or purchase drawings are not followed or related to the materials furnished by seller. Any claim for damages for materials that do not conform to specifications must be made from buyer to seller immediately after delivery of same in order to allow the opportunity to inspect the material in question.

HT # G-704837 is used to fab item: B.001



**Steel Dynamics, Inc.**  
2601 S. County Road 700 East  
Columbia City, IN 46725  
(260) 625-8100

**Certified Mill Test Report**  
100% Melted and Manufactured in USA

Date: 10/10/2007  
Customer No: 000191  
Bill of Lading No: 0000127533  
MTR #: 0000127015

Ship to:  
Triad Metals International  
Triad Customer P/U  
Attn: Sally

Bill to:  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White


Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1†	020972028	W12X96	50' 0"	2	B037194	A992 / A992M A709 gr50/gr345 A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A61/A6M	2873
2†	020972101	W12X96	50' 0"	2	B037190	A992 / A992M A709 gr50/gr345 A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A61/A6M	2873
3†	020972102	W12X96	50' 0"	2	B037190	A992 / A992M A709 gr50/gr345 A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A61/A6M	2873
4†	020972132	W12X96	50' 0"	2	B037189	A992 / A992M A709 gr50/gr345 A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A61/A6M	2873
5†	020977623	W10X77	50' 0"	2	B037401	A992 / A992M A709 gr50/gr345 A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A61/A6M	2873

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1*	.07	1.36	.017	.032	.20	.36	.041	.100	.11	.04	.014	.011	.0004	.00	.36	0.3900	0.1800	HEAT
2*	.07	1.30	.017	.018	.17	.34	.043	.070	.10	.03	.017	.011	.0004	.00	.34	0.3700	0.1700	HEAT
3*	.07	1.30	.017	.018	.17	.34	.043	.070	.10	.03	.017	.011	.0004	.00	.34	0.3700	0.1700	HEAT
4*	.07	1.34	.015	.026	.19	.39	.045	.080	.10	.03	.016	.012	.0004	.00	.35	0.3800	0.1700	HEAT
5*	.08	1.30	.009	.013	.18	.31	.043	.090	.09	.03	.013	.009	.0004	.00	.35	0.3800	0.1800	HEAT

*HT # B037194 is used to fabric items: call, CZ12*

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed:  Quality Assurance

My commission expires: \_\_\_\_\_

State of Indiana, County of Whitley


Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

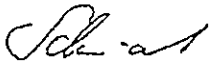
Signed: \_\_\_\_\_ Notary Public

Special Comments/Information:



PART NO

		<b>Certificate Nr 2789/12-2003</b> Advice Nr A2012085									
		Stahlwerk Thüringen GmbH Postfach 1163 07331 Unterwellenborn Germany									
Order Nr:	1700001356	Arcelor Intern   Canada Inc. Mill business, Long Products 5500 North Service Road, 7th Floor  CAN-L7L 6W6 BURLINGTON									
Customer Nr:	10927										
Quality:	A992-A572/50TB3										
according to:	ASTM A992/98 - A572 GR50										
PER AISC TB3 FINE GRAIN SILICON KILLED											
Inspection certificate											
ASTM A6 par1B.											
Lot Nr	Heat Nr	Dimension	Length	Pieces	Weight (t)	Customer Nr					
048	93072	W 16X5,5X28	60'	35	24.767	000048					
048	93073	W 16X5,5X28	60'	25	17.690	000048					
Heat Analysis [%]											
Heat Nr	C	Si	Mn	P	S	N	Nb	V	Cr	Cu	
	max 0.23	0.40	1.50	0.035	0.045	0.012	0.050	0.110	0.25	0.60	
	min 0.10	0.10	0.50								
93072	0.10	0.20	1.13	0.015	0.018	0.008	0.016	0.008	0.08	0.30	
93073	0.09	0.20	1.14	0.019	0.021	0.009	0.014	0.007	0.10	0.25	
Heat Analysis [%]											
Heat Nr	Ni	Mo	CEV1	Sn							
	max 0.45	0.15	0.45								
	min										
93072	0.12	0.03	0.33	0.016							
93073	0.12	0.03	0.33	0.013							
Heat Nr	Tensile test	Tensile strength	Elongation								
	Yield stress [PSI]	[PSI]	50 mm [%]								
	max 65000										
	min 50000	65000	21.0								
93072	56260	75980	24.6								
93073	55245	73805	23.8								

Renate Schmidt  
 Works inspector  
  
 2003-12-22



HT # 93072 is used to fab items: B209; B210

Attn:

Bill To:  
PACIFIC STEEL, INC.  
845 MUNCK  
CROSBY  
LAVAL  
K7SLA9

Ship To: 1  
PACIFIC STEEL, INC.  
845 MUNCK  
R076 LONGURIL  
MONTREAL  
H7S-LAS

PQ CA  
CA

Order Date: 02/21/2007  
PO No: 18704  
Mill Order No: J26190J  
Load No: 1099564  
Manifest No: 1813840

CERTIFIED MATERIAL TEST REPORT  
CHAPARRAL STEEL  
300 Ward Rd.  
Midlothian, TX  
76065-9651  
(972) 775-8241

SIZE: W 18 X 35# / M460 X 53  
SPECIFICATIONS: ASTM A6-05a, A992-06a, A572-06  
HEAT NO: 30350920


GRADE: 992/572-50  
LENGTH: 45 FT / 13.716 M  
PRODUCT: RP BEMYS

CHEMICAL ANALYSIS													
C	MO	P	S	SI	CU	NI	CR	MO	SU	V	AL	NB	CE
.07	.93	.010	.031	.21	.35	.10	.09	.016	.013	.002	.001	.020	.28

Yield Strength				Tensile Strength				PHYSICAL PROPERTIES				
KSI	MPa	Sq In	Sq cm	KSI	MPa	Sq In	Sq cm	Specimen Area	Elongation	Gage Length	Bend Test	ROA
55.3	381.3	0.686	4.43	69.7	480.6	0.686	4.43	0.689	23.8	8 In 200 mm	4	4
53.3	367.5	0.689	4.45	68.1	469.5	0.689	4.45	0.689	26.0	8 In 200 mm		

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A.  
CMTR complies with DIN EN 10204 3.1.B

"I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements."

Signed:  Date: Mar. 23, 2007  
Tom L. Harrington: Quality Assurance Manager  
Notary Public (if applicable)

HT # 30350920 is used to fab item: B230

PO/Ret

Certificate of Mill Test Results

PART NO.

Attn:



Steel Dynamics, Inc.  
2801 S. Conroy Road 700 East  
Columbia City, IN 46725  
(765) 825-4100

Certified Mill Test Report  
100% Made and Manufactured in USA.

Date: 7/1/2007  
Customer No: 0000305  
Bill of Lading No: 0000117828  
MTR #: 0000117200

Ship to:  
PACIFIC STEEL, INC.  
645 Rue Marck, Chomechy  
C/O Vaport Maritime Services  
Track V68  
Vale De Laval, PQ H7S1A9  
Attn: John Pimerthal

Bill to:  
PACIFIC STEEL, INC.  
645 Rue Marck,  
Laval Quebec, PQ H7S1A9  
Attn: John Pimerthal

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1T	020891565	W18X40	40'0"	6	A034046	A992 / A992M A709 G50S/G345 A572 G50/G345	ASTM A992/A992M - 08a ASTM A709/A709M - 08a ASTM A572/A572M - 05	18730
2T	020891566	W18X40	40'0"	6	A034046	A992 / A992M A709 G50S/G345 A572 G50/G345	ASTM A992/A992M - 08a ASTM A709/A709M - 08a ASTM A572/A572M - 05	18730
3T	020891567	W18X40	40'0"	6	A034046	A992 / A992M A709 G50S/G345 A572 G50/G345	ASTM A992/A992M - 08a ASTM A709/A709M - 08a ASTM A572/A572M - 05	18730
4T	020891568	W18X40	40'0"	6	A034046	A992 / A992M A709 G50S/G345 A572 G50/G345	ASTM A992/A992M - 08a ASTM A709/A709M - 08a ASTM A572/A572M - 05	18730

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	CD	C1	C2	PC	Analysis
1*	.08	.04	.021	.021	.15	.28	.001	.13	.14	.044	.011	.0095	.0002	.019	.30	.33	.16	HEAT
2*	.08	.04	.021	.021	.15	.28	.001	.13	.14	.044	.011	.0095	.0002	.019	.30	.33	.16	HEAT
3*	.08	.04	.021	.021	.15	.28	.001	.13	.14	.044	.011	.0095	.0002	.019	.30	.33	.16	HEAT
4*	.08	.04	.021	.021	.15	.28	.001	.13	.14	.044	.011	.0095	.0002	.019	.30	.33	.16	HEAT

**MECHANICAL**

**Tension Test Results**

Item	Test	Yield (Fy) ksi/MPa	Tensile (Fu) ksi/MPa	Fy/Fu	Elong (%) based on 8" gauge	ROA (%)	Band Test Result	Temp F/C	Sample 1 R. Boles	Sample 2 R. Boles	Sample 3 R. Boles	% Shrink	ASTM Grain Size No (per ASTM E112)
1	1	60/418	78/527	.79	23		1						
2	2	63/434	75/518	.84	22		2						
3	3	63/434	75/518	.84	22		1						
4	4	63/434	75/518	.84	22		1						
4	1	60/418	78/527	.79	23		2						
4	2	63/434	75/518	.84	22		2						

*LT A A034046 is used to fab item: B254*

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by the metallurgical manufacturer are in compliance with the requirements of the material specifications and applicable purchaser drawings.

State of Indiana, County of Waihsby

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

My commission expires: \_\_\_\_\_

\* Fully Killed Steel  
1 Card and Rolled to a Fine Grain Practice

Special Comments/Information:

Signed:

Signed: \_\_\_\_\_  
Heavy Plate

Attn:

Bill To:  
PACIFIC STEEL, INC.  
845 MUNCK  
CHOMBDEY  
LAVAL  
H761A9

Ship To: 1  
PACIFIC STEEL, INC.  
845 Munck  
3076 LONGUEUIL  
MONTREAL  
H7S-1A9

Order Date: 03/15/2006  
PO No: 18165  
Mill Order No: 110159  
Load No: 105978  
Manifest No: 1773154

CERTIFIED MATERIAL TEST REPORT  
CHAPARRAL STEEL  
300 Ward Rd.  
Midlothian, TX  
76065-9651  
(972) 775-8241

SPCIFICATIONS  
ASTM A6-05a, A992-06a, A572-06  
HEAT NO: 30313380

SIZE  
W 18 X 50# / M460 X 74  
GRADE  
992/572-50

LENGTH  
60 FT / 18.288 M

PRODUCT  
WF 8MM6

C	Mn	P	S	SI	Cu	NI	CR	Mo	V	Al	Nb	CE
.08	.97	.014	.035	.19	.46	.11	.11	.018	.003	.003	.022	.31

CHEMICAL ANALYSIS

Yield Strength	
KSI	MPA
55.3	381.3
54.8	377.8

Tensile Strength	
KSI	MPa
70.7	487.5
70.0	482.6

Specimen Area		Elongation	
Sq In	Sq cm	%	Gage Length
0.909	5.86	26.9	8 In 200 mm
0.924	5.96	27.1	8 In 200 mm

PHYSICAL PROPERTIES

Bend Test	ROA
Dia. Result	3

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A. CMTR complies with DIN EN 10204 3.1.B

"I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements."

Signed: *Tom L. Harrington* Date: Sep. 03, 2006  
Tom L. Harrington: Quality Assurance Manager

Date: \_\_\_\_\_  
Page: 1 of 2

HT # 30313380 is used to fab item: B096

**SWISS DYNAMICS, INC.**  
 2601 S. County Road 700 East  
 Columbia City, IN 46725  
 (260) 625-8100

Customer No: 000191  
 Bill of Lading No: 0000119461  
 MTR #: 0000119025

Triad Metals International  
 Triad Customer P/U  
 Attn: Sally

TRIAD METALS INTERNATIONAL  
 A-1 2300 Computer Avenue  
 Willow Grove, PA 19090  
 Attn: Fred White

**Certified Mill Test Report**  
 100% Melted and Manufactured in USA

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1†	020908432	W21X44	42' 0"	4	A034738	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
2†	020908437	W21X44	42' 0"	4	A034738	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
3†	020908539	W21X44	42' 0"	4	A034729	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
4†	020908578	W21X44	42' 0"	4	A034727	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
5†	020908643	W21X44	42' 0"	4	A034743	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
6†	020908707	W21X44	42' 0"	4	A034745	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1*	.08	1.03	.016	.031	.22	.32	.022	.080	.13	.04	.016	.007	.0004	.00	.31	0.3500	0.1700	HEAT
2*	.08	1.03	.016	.031	.22	.32	.022	.080	.13	.04	.016	.007	.0004	.00	.31	0.3500	0.1700	HEAT
3*	.07	1.04	.016	.029	.19	.36	.023	.120	.13	.04	.019	.010	.0003	.00	.31	0.3400	0.1600	HEAT
4*	.07	1.04	.019	.029	.21	.31	.021	.100	.11	.03	.015	.009	.0003	.00	.30	0.3400	0.1600	HEAT
5*	.06	1.01	.018	.038	.18	.31	.021	.080	.10	.03	.013	.007	.0003	.00	.28	0.3100	0.1400	HEAT
6*	.08	1.05	.017	.042	.20	.31	.022	.100	.10	.03	.014	.008	.0004	.00	.31	0.3400	0.1600	HEAT

*HT # A034738 is used to fab items: B215, B218, B225, B235, B259*

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

*[Signature]*  
 Quality Assurance

State of Indiana, County of Whitley

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_  
 Notary Public

My commission expires: \_\_\_\_\_

Special Comments/Information:

2601 S. County Road 700 East  
Columbia City, IN 46725-  
(260) 625-8100

**Certified Mill Test Report**  
100% Milled and Manufactured in USA

Bill of Lading No: 0000118729  
MTR #: 0000118302

Triad Customer PIU  
Attn: Sally

11111 WILLOW IN TERMINAL AVENUE  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1T	000023536	W21X62	44' 0"	1	A034653	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
2T	020902071	W24X94	43' 6"	2	B034476	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
3T	020902073	W24X94	43' 6"	2	B034476	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
4T	020902113	W24X94	43' 6"	1	B034477	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
5T	020906203	W21X62	44' 0"	4	A034635	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
6T	020906434	W21X62	44' 0"	4	A034653	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1*	.08	1.17	.012	.036	.27	.32	.034	.070	.13	.04	.012	.009	.0004	.00	.33	0.3800	0.1800	HEAT
2*	.07	1.35	.017	.028	.22	.50	.046	.130	.13	.04	.016	.010	.0003	.00	.38	0.4200	0.1900	HEAT
3*	.07	1.35	.017	.028	.22	.50	.046	.130	.13	.04	.016	.010	.0003	.00	.38	0.4200	0.1900	HEAT
4*	.07	1.35	.020	.038	.20	.49	.043	.120	.12	.03	.014	.010	.0003	.00	.38	0.4100	0.1900	HEAT
5*	.08	1.15	.016	.038	.25	.40	.035	.120	.12	.05	.015	.009	.0004	.00	.34	0.3900	0.1800	HEAT
6*	.08	1.17	.012	.036	.27	.32	.034	.070	.13	.04	.012	.009	.0004	.00	.33	0.3800	0.1800	HEAT

**MECHANICAL**

Item	Test	Tension Testing Results			Charpy Impact Testing Results														
		Yield (Fy) Strength ksi/MPa	Tensile (Fu) Strength ksi/MPa	Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp F/C	Sample 1 ft. lb/joules	Sample 2 ft. lb/joules	Sample 3 ft. lb/joules	% Shear	ASTM Grain Size No (per ASTM E112)							
1	1	55/376	75/519	.73															
1	2	62/431	77/533	.81															
2	1	59/408	76/521	.78															

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed:   
Quality Assurance

State of Indiana, County of Whitley  
Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
Signed: \_\_\_\_\_  
My commission expires: \_\_\_\_\_

Special Comments/Information:

HT 4 A034653 is used to fabricate : B239

2601 S. County Road 700 East  
Columbia City, IN 46725.  
(260) 625-8100

Customer No: 000191  
Bill of Lading No: 0000118729  
MTR #: 0000118302

Triad Metals International  
Triad Customer P/U  
Attn: Sally


TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

**Certified Mill Test Report**  
100% Milled and Manufactured in USA

**MECHANICAL**


Tension Testing Results				Charpy Impact Testing Results										
Item	Test	Yield (Fy) ksi/MPa	Tensile Strength (Fu) ksi/MPa	Fy/Fu	Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Test	Temp F/C	Sample 1 ft. lb/joules	Sample 2 ft. lb/joules	Sample 3 ft. lb/joules	% Shear	ASTM Grain Size No (per ASTM E112)
2	2	61/418	75/520	.81	18			2						
3	1	59/408	76/521	.78	18			1						
3	2	61/418	75/520	.81	18			2						
4	1	60/416	77/531	.78	21			1						
4	2	61/419	77/531	.79	21			2						
5	1	62/425	75/515	.83	25			1						
5	2	59/405	76/522	.78	23			2						
6	1	55/376	75/519	.73	24			1						
6	2	62/431	77/533	.81	22			2						

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed:   
Quality Assurance

State of Indiana, County of Whitley  
Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
Signed: \_\_\_\_\_ Notary Public  
My commission expires \_\_\_\_\_

Special Comments/Information:



**Steel Dynamics, Inc.**  
2601 S. County Road 700 East  
Columbia City, IN 46725  
(260) 625-8100

**Certified Mill Test Report**  
100% Milled and Manufactured in USA

**Date:** 6/29/2007  
**Customer No:** 000191  
**Bill of Lading No:** 0000117394  
**MTR #:** 0000116974

**Ship to:**  
Triad Metals Intl  
1951 Bessemer Road  
CSX-Collier Yard  
Petersburg, VA 23805  
Attn: Rock McGovern

**Bill to:**  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1†	020899748	W24X58	65' 0"	4	A034363	A992 / A992M A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	706
2†	020902967	W24X62	50' 0"	4	B034507	A992 / A992M A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	158396
3†	020903809	W24X55	45' 0"	4	B034490	A992 / A992M A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	158396
4†	020903811	W24X55	45' 0"	4	B034480	A992 / A992M A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	158396

**CHEMICAL**


Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Ca	C1	C2	PC	Analysis
1*	.07	1.12	.020	.027	.24	.36	.033	.14	.12	.037	.018	.0098	.0004	.002	.33	.37	.17	HEAT
2*	.08	1.12	.020	.028	.23	.39	.032	.11	.13	.029	.013	.0112	.0003	.002	.33	.37	.18	HEAT
3*	.08	1.04	.014	.033	.19	.39	.034	.09	.14	.030	.014	.0109	.0003	.002	.32	.35	.17	HEAT
4*	.08	1.04	.014	.033	.19	.39	.034	.09	.14	.030	.014	.0109	.0003	.002	.32	.35	.17	HEAT

**MECHANICAL**

Item	Test	Tension Testing Results				Charpy Impact Testing Results				ASTM Grain Size No (per ASTM E112)									
		Yield Strength (Fy) ks/MPa	Tensile Strength (Fu) ks/MPa	Elong (%) based on 8" gauge	Fy/Fu	Temp F/C	Sample 1 ft. ft./joules	Sample 2 ft. ft./joules	Sample 3 ft. ft./joules		% Shear								
1	1	55377	71491	.77	23														
1	2	53365	70481	.76	24														
2	1	60417	76527	.78	25														
2	2	64442	77532	.83	24														
3	1	64440	79544	.81	26														
3	2	57395	81556	.70	26														
4	1	64440	79544	.81	26														
4	2	57395	81556	.70	26														

HY # 8034490 is used to fab item: B233

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed:  Quality Assurance

My commission expires: \_\_\_\_\_

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_ Heavy Public

State of Indiana, County of Whitley

Special Comments/Information:  
 \* Fully Killed Steel  
 † Cast and Rolled to a Fine Grain Practice





**Steel Dynamics™**  
 2601 S. County Road 700 East  
 Columbia City, IN 46725-  
 (260) 625-8100

**Certified Mill Test Report**  
 100% Melted and Manufactured in USA

Date: 7/19/2007  
 Customer No: 000191  
 Bill of Lading No: 0000118681  
 MTR #: 0000118254

Ship to:  
 Triad Metals International  
 Triad Customer P/U  
 Attn: Sally

Bill to:  
 TRIAD METALS INTERNATIONAL  
 A-1 2300 Computer Avenue  
 Willow Grove, PA 19090  
 Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1	000023481	W24X68	44' 0"	1	A034343	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
2	020899518	W24X68	44' 0"	4	A034352	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
3	020903310	W24X62	42' 0"	4	B034524	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
4	020903399	W24X62	42' 0"	1	B034528	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
5	020906903	W21X83	41' 6"	1	A034612	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
6a	020907114	W21X83	41' 6"	1	A034610	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
6b	020907114	W21X83	41' 6"	1	A034680	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
7a	020907123	W21X83	41' 6"	1	A034678	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
7b	020907123	W21X83	41' 6"	1	A034680	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459

HT # A034343 is used to fabric items: B012, B068, B070, B074

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed: Anthony A. Jones Quality Assurance  
 Notary Public

State of Indiana, County of Whitley  
 Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
 Signed: \_\_\_\_\_  
 My commission expires: \_\_\_\_\_

Special Comments/Information:



**Steel Dynamics™**  
2601 S. County Road 700 East  
Columbia City, IN 46725-  
(260) 625-8100

**Certified Mill Test Report**  
100% Melted and Manufactured in USA

Date: 7/19/2007  
Customer No: 000191  
Bill of Lading No: 0001118681  
MTR #: 0001118254

Ship to:  
Triad Metals International  
Triad Customer P/U  
Attn: Sally

Bill to:  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1	.08	1.06	.019	.030	.25	.36	.033	.12	.11	.029	.014	.0083	.0003	.001	.32	.37	.17	HEAT
2	.08	1.06	.014	.028	.20	.36	.031	.09	.11	.041	.015	.0096	.0003	.000	.32	.35	.17	HEAT
3	.07	1.19	.014	.035	.23	.29	.033	.07	.09	.016	.014	.0118	.0004	.002	.32	.36	.17	HEAT
4	.07	1.15	.014	.032	.26	.33	.033	.08	.10	.022	.012	.0087	.0003	.001	.32	.36	.16	HEAT
5	.08	1.26	.012	.034	.22	.36	.047	.10	.12	.039	.014	.0122	.0004	.001	.36	.39	.18	HEAT
6a	.09	1.25	.012	.022	.21	.37	.041	.09	.12	.038	.014	.0116	.0004	.000	.36	.40	.19	HEAT
6b	.08	1.30	.023	.028	.22	.39	.042	.12	.12	.035	.014	.0091	.0004	.002	.37	.40	.19	HEAT
7a	.08	1.22	.014	.017	.19	.31	.041	.10	.11	.059	.012	.0077	.0003	.001	.35	.38	.18	HEAT
7b	.08	1.30	.023	.028	.22	.39	.042	.12	.12	.035	.014	.0091	.0004	.002	.37	.40	.19	HEAT

**MECHANICAL**

Item	Test	Tension Testing Results			Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp F/C	Charpy Impact Testing Results			ASTM Grain Size No (per ASTM E112)
		Yield (Fy) Strength ksi/MPa	Tensile (Fu) Strength ksi/MPa	Fy/Fu					Sample 1 ft. lb/ftoules	Sample 2 ft. lb/ftoules	Sample 3 ft. lb/ftoules	
1	1	56/383	71/493	.79	25							
1	2	61/420	74/510	.82	26							
2	1	52/357	72/494	.72	24							
2	2	57/390	73/506	.78	24							
3	1	56/388	74/511	.76	24							
3	2	56/383	77/532	.73	23							
4	1	55/380	73/505	.75	22							
4	2	53/369	73/502	.73	22							
5	1	61/418	74/509	.82	20							
5	2	60/416	74/512	.81	22							
6a	1	62/430	76/521	.82	25							
6a	2	63/432	76/525	.83	25							
6b	1	62/429	75/520	.83	22							
6b	2	57/396	74/509	.77	23							
7a	1	56/386	71/489	.79	21							
7a	2	56/384	71/492	.79	21							

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed: Debbie A. ...  
Quality Assurance

State of Indiana, County of Whitley  
Sworn to and subscribed before me this \_\_\_ day of \_\_\_\_\_  
Signed: \_\_\_\_\_  
Notary Public

Special Comments/Information:

My commission expires: \_\_\_\_\_

Load #:

7

Shipping Date:

Waybill #: 862-7

Customer:	Pizzagalli Construction Company		Prepared By:	Approved By:	Date: 21-01-01
Job Title:	81 Marginal Way	Job Progress Report Sheet	Bathurst Machine Shop Ltd.		1010 Route 430
Date Sent to Shop:	X	SHEET 1	Mandate Erectors & Welding Ltd.		Big River Road
Job Number:	898	X	MQM Ltd., Traeudie		12A 619

Attach.	Material	Qty	Weight	C COLOR GALV						Tiled		ME In-p.		Punch Drill		Welded		Weld In-p.		Surface Prep In-p.		Paint Inspection		Shipped			
				Mark #	Paint	Galv	Camber	Level	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date		
A	W12X120	0	C200	1	7045																						
A	W12X96	0	C203	1	5042																						
A	W12X96	0	C204	2	10084																						
A	W12X170	0	C205	1	9565																						
A	W10X77	0	C210	1	4550																						
A	W12X152	0	C213	1	8613																						
A	W10X77	0	C223	1	4531																						
A	W10X112	0	C226	1	6231																						
A	W10X68	0	C227	1	4095																						
A	W10X68	0	C229	1	4230																						

Pieces: 11 63989 Total Weight (Lbs)

( 32.0 TONS)

DATE 7/27/07  
 INVOICE NO 156500  
 BILL OF LADING 859026  
 CUSTOMER NO 9310  
 CUSTOMER P O C21381

**NUCOR-YAMATO STEEL CO.**  
 P.O. BOX 1228 • BLYTHEVILLE, AR 72316

**CERTIFIED MILL TEST REPORT**

100% MELTED AND MANUFACTURED IN U.S.A.  
 All shapes produced by Nucor-Yamato Steel are cast and rolled to a fully killed and fine grain practice.

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 INFRA-METALS CORP  
 8 PENT HIGHWAY  
 TRACK # 953  
 WALLINGFORD, CT 06492

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 ASTM A992/A992M-06a A572/A572M GR50-06  
 ASTM A709/A709M-07 GR50 (345)  
 ASTM A709/A709M-07 GR50S (345S)  
 ASTM A6/A6M-07

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 INFRA-METALS CORP.  
 8 PENT HIGHWAY  
 WALLINGFORD, CT 06492

ITEM #	ITEM DESCRIPTION	QTY	HEAT #	MECHANICAL PROPERTIES						CHEMICAL PROPERTIES													
				YIELD TO TENSILE RATIO	YIELD STRENGTH	TENSILE STRENGTH	ELONG	CHARPY IMPACT		C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Cb	CE		
					PSI	PSI		%	TEMP													IMPACT ENERGY	
					MPa	MPa		%	°F													FT-LBS	
1	W10 -112.0 50' W250 x167.0 15.240 M	3	300636	.71 .70	54000 53000	76000 76000	28 27 28 27					.08	1.31	.018	.033	.31	.25	.12	.15	.03 .01	.00 .18	.022	.36

CARBON EQUIVALENT: CE = C + (Mn)/6 + (Cr)/5 + (Ni)/15 + (Cu)/15

ELONGATION BASED ON 8.00 INCH GAGE LENGTH

I hereby certify that the contents of this report are accurate and correct. All test results and operations performed by this material manufacturer are in compliance with the requirements of the material specifications listed in the Specifications Block above.

*Ray Powell*

QUALITY ASSURANCE

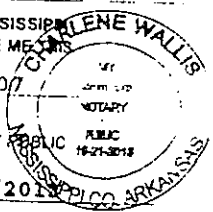
CUSTOMER COPY

STATE OF ARKANSAS COUNTY OF MISSISSIPPI  
 SWORN TO AND SUBSCRIBED BEFORE ME

27 Day of 07/07

*Charlene Wallis*

NOTARY PUBLIC



MY COMMISSION EXPIRES

10/21/2012

HT # 300636 is used to fabricate: C 236

Date: 10 / 03 / 2007

# CERTIFIED MILL TEST REPORT

Customer # 000191

Bill to:

TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Petersburg VA, 23805 US  
Attn: Fred White

Ship to:

Triad Metals Intl  
1951 Bessemer Road  
CSX-Collier Yard  
Petersburg VA, 23805 US  
Attn: Rock McGovern

Quality Steel 100% Melted  
and Manufactured in the USA

GENERAL INFORMATION		SPECIFICATIONS		SHIPMENT DETAILS	
Product	Wide Flange Beam	Standards	ASTM A6A6M	Bundle / ASN #	Length
Size	W 10 x 68			020976853	60' 0"
	W 250 x 101			020976839	40' 0"
Heat Number	B037382		A992 / A992M		pcs
Condition(s)	As-Rolled		A709 or 50/gr345		4
	Fine Grained		A572 or 50/gr345		Customer PO
			A709 or 50S/gr345S		435
					435

**CHEMICAL ANALYSIS** (weight percent)

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*1	Analysis Type
.08	1.35	.015	.021	.18	.43	.10	.06	.017	.016	.044	.002	.0095	.0004	.36	.39	.18	5.67	Heat

**MECHANICAL TESTING**

Test	Yield (fy) ksi / MPa	Tensile (fu) Strength ksi / MPa	fy / fu ratio	% Elong. (8" gage)	Charpy Impact Tests (available only when specified at time of order)		
					Temp F / C	Absorbed Energy ft-lbf / J	Average Minimum
1	57 / 390	78 / 539	.72	22	Specimen 1	Specimen 2	Specimen 3
2	57 / 394	80 / 551	.71	23			
3							
4							
5							
6							
7							

**Notes:**

\*Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC), Corrosion Index (I)  
 CE1 (IMV) = C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15  
 CE2 (AWS) = C+(Mn+Si)/6+(Cr+Mo+V)/5+(Ni+Cu)/15  
 I (ASTM G101) = 28.01(Cu)+3.88(Ni)+1.20(Cr)+1.49(Si)+17.29(P)-7.29(Cu)(Ni)+6.10(Ni)(P)-33.39(Cu)

Perm (AWS) = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5B

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

State of Indiana, County of Whitley Sworn to and subscribed before me  
 this \_\_\_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_ My commission expires: \_\_\_\_\_  
 Notary Public

Signed: Doug Rees-Evans  
 Manager of Technical Services

ASTM A6 - 14.6: A signature is not required on the test report; however, the document shall clearly identify the organization submitting the report. Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report.

HT # B037382 to USA-10-10b chems B037382

2601 S County Road 700 East  
Columbia City, IN 46725  
(260) 625-8100

**Certified Mill Test Report**  
100% Milled and Manufactured in USA

Customer No: 000191  
Bill of Lading No: 0000127533  
MTR #: 0000127015

Triad Metals International  
Triad Customer P/II  
Attn: Sally

TRIAID METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove PA 19090  
Attn: Fred White

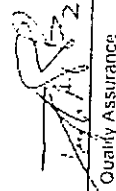
Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1†	020972028	W12X96	50' 0"	2	B037194	A992 / A992M A709 gr50/gr345 A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	2873
2†	020972101	W12X96	50' 0"	2	B037190	A992 / A992M A709 gr50/gr345 A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	2873
3†	020972102	W12X96	50' 0"	2	B037190	A992 / A992M A709 gr50/gr345 A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	2873
4†	020972132	W12X96	50' 0"	2	B037189	A992 / A992M A709 gr50/gr345 A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	2873
5†	020977623	W10X77	50' 0"	2	B037401	A992 / A992M A709 gr50/gr345 A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	2873

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1*	.07	1.36	.017	.032	.20	.36	.041	100	11	.04	.014	.011	.0004	.00	.36	0.3900	0.1800	HFAT
2*	.07	1.30	.017	.018	.17	.34	.043	070	10	.03	.017	.011	.0004	.00	.34	0.3700	0.1700	HFAT
3*	.07	1.30	.017	.018	.17	.34	.043	070	10	.03	.017	.011	.0004	.00	.34	0.3700	0.1700	HFAT
4*	.07	1.34	.015	.026	.19	.39	.045	080	10	.03	.016	.012	.0004	.00	.35	0.3800	0.1700	HEAT
5*	.08	1.30	.009	.013	.18	.31	.043	090	09	.03	.013	.009	.0004	.00	.35	0.3800	0.1800	HEAT

*HT 4 B037401 is used to fabricate items C2101, C203*

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated

Signed:   
Quality Assurance

State of Indiana, County of Whitley  
Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
Signed \_\_\_\_\_  
My commission expires \_\_\_\_\_

Special Comments/Information

**CERTIFIED MILL TEST REPORT**

Date: 10/19/2007

Customer # (X00191) Bill to:

TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Alto, Free, White

Steel Dynamics, Inc. Ship to:

Specialty and Rod Division - Customer # 00000  
Triad Metals International  
Triad Customer (P/U)  
Attn: Sally

Quality Steel 100% Melted  
and Manufactured in the USA

GENERAL INFORMATION		SPECIFICATIONS		SHIPMENT DETAILS	
Product	Wide Flange Beam	Standards		Bundle / ASN #	Length
Size	W 12 x 120	ASTM A709		PCS	Subcontract P/O
Heat Number	W 310 x 119 B037181	ASTM A709 A992M-07a	A572-50		
Condition(s)	7 - Reheat	ASTM A709 A709M-06a	A572-50		
	7 - Coiled	ASTM A572 A572M-06	A572-50		
		ASTM A709 A709M-06a	A709-50		

**CHEMICAL ANALYSIS (weight percent)**

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analysis Type
06	1.34	0.18	0.24	.18	.39	.11	.09	.032	.017	.060	.001	.0111	.0004	35	38	17	5.84	Heat

**MECHANICAL TESTING**

Test	Yield (fy) ksi / MPa	Tensile (fu) ksi / MPa	fy / fu ratio	% Elong. (8" gage)	Charpy Impact Tests (available only when specified at time of order)		
					Temp F/C	Absorbed Energy ft-lb / J	Temp
1	59 / 407	78 / 541	.75	.21	Specimen 1	Specimen 2	Specimen 3
2	60 / 415	78 / 538	.77	.22	Average	Min	Max
3							
4							
5							
6							
7							

**Notes:** Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC), Corrosion Index (I)  
 $CE1 (W\%) = C + Mn/8 + (Cr + Mo + V)/5 + (Ni + Cu)/15$   
 $CE2 (W\%) = C + (Mn + Si)/8 + (Cr + Mo + V)/5 + (Ni + Cu)/15$   
 $I (ASTM G101) = 26.01(Cu) + 3.88(Ni) + 1.22(Cr) + 1.49(Si) + 17.22(P) + 29(Co)(Ni) + 9.10(Mn)(P) + 33.38(Cr)$

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

State of Indiana, County of Whitley Sworn to and subscribed before me  
 this \_\_\_\_\_ day of \_\_\_\_\_  
 Signed: \_\_\_\_\_ My commission expires: \_\_\_\_\_  
 Notary Public

**Doug Rees-Evans**  
 Manager of Technical Services

ASTM A8 - 14.9 A signature is not required on this test report, however, the document shall clearly identify the organization submitting this report  
 Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report  
 HT # 0037181 IS USED TO IDENTIFY C 200

DATE	9/26/07
INVOICE NO	171618
BILL OF LADING	869292
CUSTOMER NO.	7717
CUSTOMER P.O.	C1070A

**NUCOR-YAMATO STEEL CO.**  
P.O. BOX 1228 • BLYTHEVILLE, AR 72316

**CERTIFIED MILL TEST REPORT**  
100% MELTED AND MANUFACTURED IN U.S.A.  
All shapes produced by Nucor-Yamato Steel are cast and rolled to a fully killed and fine grain practice.

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INFRA-METALS CORP.  
8 PENT HIGHWAY  
TRACK# 953  
WALLINGFORD, CT 06492

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ASTM A992/A992M-06a A572/A572M GR50-06  
ASTM A709/A709M-07 GR50 (345)  
ASTM A709/A709M-07 GR50S (345S)  
ASTM A6/A6M-07

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INFRA-METALS CORP.  
8 PENT HIGHWAY  
WALLINGFORD, CT 06492

ITEM #	ITEM DESCRIPTION	QTY	HEAT #	MECHANICAL PROPERTIES							CHEMICAL PROPERTIES											
				YIELD TO TENSILE RATIO	YIELD STRENGTH	TENSILE STRENGTH	ELONG	CHARPY IMPACT		C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Cb	CE	
					PSI	PSI		%	TEMP													IMPACT ENERGY
					MPa	MPa		%	* F													FT-LBS
1	W12 -152.0 40' W310 x226.0 12.192 M	1	303438	.76	54000	71000	27				.07	1.31	.018	.024	.21	.32	.13	.11	.03	.01	.021	.35
2	W12 -152.0 60' W310 x226.0 18.288 M	1	303435	.75	54000	72000	27				.07	1.31	.015	.021	.31	.27	.10	.09	.03	.00	.019	.33
3	W12 -152.0 60' W310 x226.0 18.288 M	1	303438	.76	54000	71000	27				.07	1.31	.018	.024	.21	.32	.13	.11	.03	.01	.021	.35
4	W12 -170.0 50' W310 x253.0 15.240 M	1	300923	.76	54000	71000	30				.08	1.35	.016	.018	.22	.23	.18	.08	.02	.05	.001	.36
5	W12 -190.0 35' W310 x282.8 10.668 M	1	303538	.74	54000	73000	28				.07	1.36	.018	.020	.26	.24	.09	.06	.02	.06	.001	.35
6	W12 -210.0 30' W310 x312.5 9.144 M	1	297789	.77	56000	73000	26				.07	1.38	.023	.020	.25	.28	.10	.10	.03	.05	.001	.37
7	W12 -210.0 50' W310 x312.5 15.240 M	1	300913	.78	58000	74000	24				.08	1.36	.016	.020	.28	.31	.08	.09	.02	.05	.001	.37
8	W12 -210.0 50' W310 x312.5 15.240 M	1	303528	.75	54000	72000	26				.08	1.39	.023	.020	.25	.29	.10	.10	.03	.06	.003	.38

ELONGATION BASED ON 8 (0) INCH GAUGE LENGTH

I hereby certify that the contents of this report are accurate and correct. All test results and operations performed by this material manufacturer are in compliance with the requirements of the material specifications listed in the Specifications Block above.

*Greg Linnell*  
QUALITY ASSURANCE

STATE OF ARKANSAS COUNTY OF MISSISSIPPI  
SWORN TO AND SUBSCRIBED BEFORE ME THIS

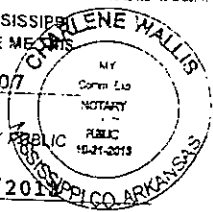
26 Day of 09/07

CUSTOMER COPY

*Charlene Wallis*  
NOTARY PUBLIC

MY COMMISSION EXPIRES

10/21/2012



HI# 303435 is used to lab item C213



DATE	9/14/07
INVOICE NO	169751
BILL OF LADING	867912
CUSTOMER NO	9310
CUSTOMER P.O.	C21394

**NUCOR-YAMATO STEEL CO.**  
P.O. BOX 1228 • BLYTHEVILLE, AR 72316

**CERTIFIED MILL TEST REPORT**

100% MELTED AND MANUFACTURED IN U.S.A.  
All shapes produced by Nucor-Yamato Steel are cast and rolled to a fully killed and fine grain practice.

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INFRA-METALS CORP  
8 PENT HIGHWAY  
TRACK # 953  
WALLINGFORD, CT 06492

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ASTM A992/A992M-06a A572/A572M GR50-06  
ASTM A709/A709M-07 GR50 (345)  
ASTM A709/A709M-07 GR50S (345S)  
ASTM A6/A6M-07

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INFRA-METALS CORP.  
8 PENT HIGHWAY  
WALLINGFORD, CT 06492

ITEM #	ITEM DESCRIPTION	QTY	HEAT #	MECHANICAL PROPERTIES						CHEMICAL PROPERTIES												
				YIELD TO TENSILE RATIO	YIELD STRENGTH	TENSILE STRENGTH	ELONG	CHARPY IMPACT		C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Cb	CE	
					PSI	PSI		TEMP	IMPACT ENERGY													
					MPa	MPa		* F	FT-LBS													
1	W12 -170.0 30' W310 x253.0 9.144 M	1	303557	.76	55000	72000	26				.07	1.36	.015	.019	.25	.27	.08	.08	.02	.05	.002	.35
2	W12 -170.0 35' W310 x253.0 10.668 M	1	303559	.74	55000	74000	26				.07	1.36	.022	.020	.23	.31	.12	.12	.03	.05	.001	.37
3	W12 -170.0 40' W310 x253.0 12.192 M	2	303559	.74	55000	74000	26				.07	1.36	.022	.020	.23	.31	.12	.12	.03	.05	.001	.37
4	W12 -170.0 45' W310 x253.0 13.716 M	1	303557	.76	55000	72000	26				.07	1.36	.015	.019	.25	.27	.08	.08	.02	.05	.002	.35
5	W12 -170.0 45' W310 x253.0 13.716 M	2	303559	.74	55000	74000	26				.07	1.36	.022	.020	.23	.31	.12	.12	.03	.05	.001	.37
6	W12 -170.0 50' W310 x253.0 15.240 M	1	300925	.75	55000	73000	25				.07	1.35	.014	.019	.24	.28	.09	.08	.02	.05	.001	.35
7	W12 -170.0 60' W310 x253.0 18.288 M	1	303549	.79	58000	73000	29				.07	1.35	.022	.017	.24	.33	.09	.12	.03	.05	.002	.37
8	W12 -190.0 30' W310 x282.8 9.144 M	1	303547	.74	54000	73000	28				.07	1.36	.026	.020	.22	.33	.09	.13	.03	.06	.001	.37
9	W12 -190.0 35' W310 x282.8 10.668 M	1	303543	.77	57000	74000	29				.08	1.35	.017	.016	.26	.29	.09	.09	.03	.05	.002	.37

CARBON EQUIVALENT: (C) + (Mn)/12 + (Cr)/5 + (Ni)/15 + (Cu)/13

ELONGATION BASED ON 8.00 INCH GAUGE LENGTH

I hereby certify that the contents of this report are accurate and correct. All test results and operations performed by this material manufacturer are in compliance with the requirements of the material specifications listed in the Specifications Block above.

*Doug Linnell*

QUALITY ASSURANCE

CUSTOMER COPY

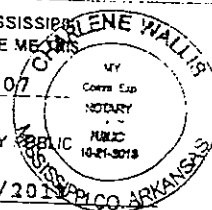
STATE OF ARKANSAS COUNTY OF MISSISSIPPI  
SWORN TO AND SUBSCRIBED BEFORE ME THIS

14 Day of 09/07

*Charlene Wallis* NOTARY PUBLIC

MY COMMISSION EXPIRES

10/21/2011



HT # 300925 is used to fabricate 0205

**WELLS SYNTHETICS, INC.**  
 2601 S. County Road 700 East  
 Columbia City, IN 46725-  
 (260) 625-8100

Customer No: 000191  
 Bill of Lading No: 0000127533  
 MTR #: 0000127015

Triad Metals International  
 Triad Customer P/U  
 Attn: Sally

BILL TO:  
 TRIAD METALS INTERNATIONAL  
 A-1 2300 Computer Avenue  
 Willow Grove, PA 19090  
 Attn: Fred White


Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1†	020972028	W12X96	50' 0"	2	B037194	A992 / A992M A709 gr50/gr345 A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	2873
2†	020972101	W12X96	50' 0"	2	B037190	A992 / A992M A709 gr50/gr345 A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	2873
3†	020972102	W12X96	50' 0"	2	B037190	A992 / A992M A709 gr50/gr345 A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	2873
4†	020972132	W12X96	50' 0"	2	11037189	A992 / A992M A709 gr50/gr345 A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	2873
5†	020977623	W10X77	50' 0"	2	B037401	A992 / A992M A709 gr50/gr345 A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	2873

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1*	.07	1.36	.017	.032	.20	.36	.041	.100	.11	.04	.014	.011	.0004	.00	.36	0.3900	0.1800	HEAT
2*	.07	1.30	.017	.018	.17	.34	.043	.070	.10	.03	.017	.011	.0004	.00	.34	0.3700	0.1700	HEAT
3*	.07	1.30	.017	.018	.17	.34	.043	.070	.10	.03	.017	.011	.0004	.00	.34	0.3700	0.1700	HEAT
4*	.07	1.34	.015	.026	.19	.39	.045	.080	.10	.03	.016	.012	.0004	.00	.35	0.3800	0.1700	HEAT
5*	.08	1.30	.009	.013	.18	.31	.043	.090	.09	.03	.013	.009	.0004	.00	.35	0.3800	0.1800	HEAT

HT 4 2037401 is used to fab stems. 02097623

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed:  Quality Assurance

My commission expires \_\_\_\_\_

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_ Notary Public

State of Indiana, County of Whitley

Special Comments: Information

Load #: 6

Shipping Date:

Waybill #: 898-6

Customer: Pizzagalli Construction Company  
 Job Title: 84 Marginal Way  
 Date Sent to Shop: X  
 Job Number: 898

Job Progress Report Sheet  
 SHEET: 1

Prepared By: Approved By: Date: 24-01-01  
 Bathurst Machine Shop Ltd.  
 Mandate Erectors & Welding Ltd.  
 MQM Ltd., Traralgon

1010 Route 430  
 Big River Road  
 E2A 6P9

Form#12 Rev. 1

SLE SHOP DWG

C COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		ML Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped				
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date
A	W12X136	0	C206	1	7905																							
A	W12X120	0	C207	1	6709																							
A	W12X106	0	C216	1	6441																							
A	W10X49	0	C217	1	3030																							
A	W12X120	0	C218	1	6160																							
A	W12X120	0	C219	1	6875																							
A	W10X60	0	C221	1	3337																							
A	W12X96	0	C222	1	6214																							
A	W12X120	0	C224	1	7019																							
A	W12X120	0	C225	1	6641																							
A	W10X49	0	C232	1	2677																							

Pieces: 11 62978 Total Weight (Lbs)

( 31.5 TONS)

**Steel Dynamics, Inc.**  
2601 S. County Road 700 East  
Columbus, OH 43125  
(260) 625-8100

**Customer No:** 0000115142  
**Bill of Lading No:** 0000114736  
**MTR #:** 0000114736

**Date:** 6/9/2007  
**Customer No:** 0000115142

**Ship to:**  
Triad Metals Int'l  
1951 Bessemer Road  
CSX Collier Yard  
Petersburg, VA 23805

**Bill to:**  
TRIAD METALS INTERNATIONAL  
A-1 2200 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

Item	Bundle	Section	Length	Pos	Heat #	Grade(s)	Specification(s)	Customer P.O.
91	020873756	W10X49	50' 0"	4	A033328	A992/A992M A709 G50S/G345S A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	154731B
10a1	020873766	W10X49	50' 0"	2	A033328	A992/A992M A709 G50S/G345S A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	154731B
10b1	020873766	W10X49	50' 0"	2	A033329	A992/A992M A709 G50S/G345S A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	154731B

**CHEMICAL**


Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sh	N	B	Cb	C1	C2	PC	Analysis
9*	.08	1.02	.018	.033	.21	.33	.033	.09	.10	.022	.033	.0084	.0003	.003	.31	.34	.16	HEAT
10a*	.08	1.02	.018	.033	.21	.33	.033	.09	.10	.022	.033	.0084	.0003	.003	.31	.34	.16	HEAT
10b*	.09	1.07	.018	.036	.20	.30	.034	.10	.12	.024	.015	.0086	.0003	.003	.33	.36	.18	HEAT

**MECHANICAL**

Item	Test	Tension Testing Results				Charpy Impact Testing Results				ASTM Grain Size No (per ASTM E112)
		Yield Strength ksi/MPa	Tensile Strength ksi/MPa	Elong (%) based on 8" gauge	Fy/Fu	Temp F/C	Sample 1 ft lb/joules	Sample 2 ft lb/joules	Sample 3 ft lb/joules	
9	1	57391	74508	.77	.77	1				
9	2	56363	71190	.79	.79	2				
10a	1	57391	74508	.77	.77	1				
10a	2	56383	71190	.79	.79	2				
10b	1	56388	72497	.78	.78	1				
10b	2	56384	71191	.79	.79	2				

**Quality Assurance**

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designations.

Signed:  Quality Assurance

State of Indiana, County of Whitley  
Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
Signed: \_\_\_\_\_ Notary Public

My commission expires: \_\_\_\_\_

Special Comments/Information:  
\* Fully Killed Steel  
† Cast and Pooled to a Fine Grain Practice

HT # A033329 is used to fabricate items. C217, C2322



**Steel Dynamics, Inc.**  
Structural and Mill Division • Columbia City, Indiana

**CERTIFIED MILL TEST REPORT**

Date: 10 / 03 / 2007  
Customer # 000191  
Bill to:  
**TRIAD METALS INTERNATIONAL**  
A-1 2300 Computer Avenue  
Petersburg VA, 23805 US  
Attn: Fred White

Ship to:  
**Triad Metals Intl**  
1951 Bessemer Road  
CSX-Collier Yard  
Petersburg VA, 23805 US  
Attn: Rock McGovern

Quality Steel 100% Melted  
and Manufactured in the USA

**GENERAL INFORMATION**

Product Wide Flange Beam  
Size W 10 x 60  
W 250 x 89

Heat Number **B037384**  
Condition(s) AS-Rolled  
Fine Grained  
Fully Killed

**SPECIFICATIONS**

Standards  
ASTM A6/A6M  
A992 / A992M - 06a  
A709 Gr 50 / Gr 345  
A572 Gr 50 / Gr 345  
A709 Gr 50S / Gr 345S

**SHIPMENT DETAILS**

Bundle / ASN # Length pcs Customer PO  
020976956 60' 0" 4 435

BOL # 0000126354

**CHEMICAL ANALYSIS** (weight percent)

C	Min	P	S	SI	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*I	Analysis Type
.08	1.25	.017	.024	.16	.33	.09	.09	.016	.012	.034	.002	.0105	.0004	.34	.36	.17	5.69	Heat

**MECHANICAL TESTING**

Test	Yield (fy) Strength ksi / MPa	Tensile Strength ksi / MPa	fy / fu ratio	% Elong. {8" gage}	Charpy Impact Tests (available only when specified at time of order)		
					F / C	Specimen 1	Specimen 2
1	53 / 367	75 / 520	.71	21	Average	Minimum	
2	57 / 393	74 / 511	.77	23			
3							
4							
5							
6							
7							

HT # B037384 is used to fabricate steel

**Notes:**

\*Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC), Corrosion Index (I)  
 CE1 ((W)-C+Mn)/6+(Cr+Mo+V)/5+(Ni+Cu)/15  
 CE2 ((W)-C+(Mn+Si)/6+(Cr+Mo+V)/5+(Ni+Cu)/15  
 I ((ASTM G101)-28.01(Cu)+3.88(Ni)+1.20(Cr)+1.49(Si)+17.28(P)-7.29(Cu)(Ni)-9.10(Ni)(P)-33.39(Cr))  
 Pcm (AWS) = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+mo/15+V/10+5B

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

State of Indiana, County of Whitley Sworn to and subscribed before me this \_\_\_ day of \_\_\_\_\_

Signed: **Doug Rees-Evans**  
Manager of Technical Services

Signed: \_\_\_\_\_ My commission expires: \_\_\_\_\_  
Notary Public

Form 5-100-002-064

ASTM A6 - 14.6: A signature is not required on the test report; however the document shall clearly identify the organization submitting the report. Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report.

**CERTIFIED MATERIAL TEST REPORT**  
**GERDAU AMERISTEEL**  
Petersburg Mill  
25801 Hofheimer Way  
Petersburg, VA 23803  
(804) 524-2855

Order Date: 10/15/2007  
PO No: 2869  
Order No: 3380640  
Load No: 1144950  
Manifest No: 1855993

Ship To: 6  
TRIAD METALS INTERNATIONAL  
TRIAD METALS INTERNATIONAL  
1951 BESSEMER ROAD  
PETERSBURG VA US

SIZE W 12 X 106# / W310 X 106 GRADE 992/572-50 LENGTH 45 FT / 13.716 M PRODUCT WF BEAMS

SPECIFICATIONS  
ASTM A6-05a, A992-06a, A572-06

HEAT NO: 30319340

CHEMICAL ANALYSIS												
C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Al	Nb	CE
.08	1.24	.012	.031	.21	.35	.11	.06	.014	.004	.004	.024	.33

PHYSICAL PROPERTIES				
Yield Strength		Tensile Strength		Elongation %
KSI	MPa	KSI	MPa	
50.3	346.8	71.2	490.9	22.9
50.4	347.5	71.0	489.5	
		Specimen Area		Gage Length
		Sq In	Sq cm	
		1.761	11.36	8 In 200 mm
		1.756	11.33	8 In 200 mm

Bend Test  
Dia. Result  
ROA %

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A.  
CMTR complies with DIN EN 10204 3.1.B

"I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements."

Signed: Tom L. Harrington Date: Oct. 18, 2007  
Tom L. Harrington: Quality Assurance Manager  
Notary Public (if applicable)  
Date: \_\_\_\_\_  
Page: 1 of 1

HT # 30319340 is used to fabricate: C216

**CERTIFIED MILL TEST REPORT**

Date: 10/19/2007

Customer # 100131

Bill to:  
TRIAD METALS INTERNATIONAL  
A 1200 Computer Avenue  
Alli Fort Wayne

Ship to:  
Triad Metals International  
Triad Customer P/U  
Alli Sally

Quality Steel 100% Melted  
and Manufactured in the USA

GENERAL INFORMATION		SPECIFICATIONS		SHIPMENT DETAILS			
Product	Wide Flange Beam	Standards		Bundle / ASN #	Length	ES	Customer P/U
Size	W 310 X 170	ASTM A992		1-007181	50.0'	2	2073
Heat Number	0037181	ASTM A992/A992M-05	A472 (50ksi)	1-007181	50.0'	2	2073
Condition(s)	As Rolled Fire Coated	ASTM A709/A709M-05	A572 (50ksi)	1-007181	50.0'	2	2073
			A709 (50ksi)				

**CHEMICAL ANALYSIS (weight percent)**

	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	H	B	*C1	*C2	*PC	*I	Analysis Type
06	1.34	0.18	0.024	0.024	1.8	0.33	1.1	0.09	0.32	0.17	0.68	0.01	0.11	0.004	35	38	17	5.84	Heat

**MECHANICAL TESTING**

Test	Yield (fy)		Tensile (fu)		Elong. ratio (8" gage)
	ksi / MPa	ksi / MPa	ksi / MPa	ksi / MPa	
1	50 / 407	78 / 541	78 / 541	78 / 538	23
2	60 / 415	78 / 541	78 / 541	78 / 538	22
3					
4					
5					
6					
7					

Charpy Impact Tests (available only when specified at time of order)

Temp	Absorbed Energy	Specimen 1	Specimen 2	Specimen 3	Average	Minimum
F / C						

**Notes:** \*Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC), Corrosion Index (I)  
 CE1 (IIR) = C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15  
 CE2 (A/R/S) = C + (Mn + Si)/8 + (Cr + Mo + V)/5 + (Ni + Cu)/15  
 I (ASTM G10) = 26.0 [(Cu) + 3.80(Ni) + 1.20(Cr) + 1.40(Si) + 17.20(P)] / 7.20 [(Cu)(Ni) + 10(Ni)(P) + 33.90(Cu)]  
 Perm (AWS) = C + Si/30 + Mn/20 + Cu/20 + Ni/60 + Cr/20 + Mo/15 + V/10 + S/8

I hereby certify that the content of this report is accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: **Doug Rees-Evans**  
 Manager of Technical Services  
 Form # 10000-304

Signed: \_\_\_\_\_ My commission expires: \_\_\_\_\_  
 this \_\_\_\_\_ day of \_\_\_\_\_  
 State of Indiana, County of Whitley Sworn to and subscribed before me

HT # BC37181 is used to -fab dems: C207, C218, C219, C224, C225

Page 2 of 2

Bill To:

INFRA-METALS CORPORATION-CT, R INFRA-METALS CORPORATION-CT  
DIV PREUSSAG INTERNATIONAL CO 8 PENT HIGHWAY  
8 PENT HWY TRACK# 953  
WALLINGFORD CT WALLINGFORD CT  
06492 US 06492 US

Ship To: 1  
Order Date: 05/22/2007  
PO No: C21425  
Mill Order No: 3312948  
Load No: 1136732  
Manifest No: 1848487

CHAPARRAL STEEL  
CERTIFIED MATERIAL TEST REPORT  
CHAPARRAL STEEL  
300 Ward Rd.  
Midlothian, TX  
76065-9651  
(972) 775-8241

SIZE  
W 12 X 136# / W310 X 202  
GRADE  
992/572-50  
LENGTH  
50 FT / 15.24 M

PRODUCT  
WF BEAMS

SPECIFICATION  
ASTM A6-05a, A992-06a, A572-06

HEAT NO: 30380720

CHEMICAL ANALYSIS

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Al	Nb	CE
.09	1.19	.011	.026	.26	.38	.09	.06	.015	.013	.001	.000	.021	.33

PHYSICAL PROPERTIES

Yield Strength	Tensile Strength	Specimen Area	Elongation	Bend Test	ROA
KSI	KSI	Sq In	%	Dia. Result	%
53.2	72.2	1.859	21.6	8In	
53.0	72.6	1.868	20.4	8In	
				200 mm	
				200 mm	

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A. CMTR complies with DIN EN 10204 3.1.B

"I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements."

Signed: Tom L. Harrington Date: Sep. 12, 2007 Signed: Notary Public (if applicable) Date: \_\_\_\_\_  
Tom L. Harrington, Quality Assurance Manager Page: 10 of 38

HT # 30380720 is used to fabricate CAC



**WILLIAMS, INC.**  
 2601 S. County Road 700 East  
 Columbia City, IN 46725  
 (260) 625-8100

Customer No: 010191  
 Bill of Lading No: 0000127533  
 MTR #: 0000127015

Triad Metals International  
 Triad Customer P/U  
 Attn: Sally

THRU TO:  
 TRIAD METALS INTERNATIONAL  
 A-1 2300 Computer Avenue  
 Willow Grove, PA 19098  
 Attn: Fred White


**Certified Mill Test Report**  
 100% Made and Manufactured in USA

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1†	020972028	W12X96	50' 0"	2	B037194	A992 / A992M A709 gr50/gr345 A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	2873
2†	020972101	W12X96	50' 0"	2	B037190	A992 / A992M A709 gr50/gr345 A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	2873
3†	020972102	W12X96	50' 0"	2	B037190	A992 / A992M A709 gr50/gr345 A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	2873
4†	020972132	W12X96	50' 0"	2	B037189	A992 / A992M A709 gr50/gr345 A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	2873
5†	020977623	W10X77	50' 0"	2	B037401	A992 / A992M A709 gr50/gr345 A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	2873

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1*	.07	1.36	.017	.032	.20	.36	.041	100	11	.04	.014	.011	.0001	.00	.36	0.3900	0.1800	HEAT
2*	.07	1.30	.017	.018	.17	.34	.043	070	10	.03	.017	.011	.0001	.00	.34	0.3700	0.1700	HEAT
3*	.07	1.30	.017	.018	.17	.34	.043	070	10	.03	.017	.011	.0001	.00	.34	0.3700	0.1700	HEAT
4*	.07	1.34	.015	.026	.19	.39	.045	080	10	.03	.016	.012	.0001	.00	.35	0.3800	0.1700	HEAT
5*	.08	1.30	.009	.013	.18	.31	.043	090	09	.03	.013	.009	.0004	.00	.35	0.3800	0.1800	HEAT

hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed:   
 Henry Palmer  
 Quality Assurance

State of Indiana, County of Whitley  
 Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
 Signed: \_\_\_\_\_  
 My commission expires \_\_\_\_\_

Special Comments/Information

HT # B037194 is used to fabric item 0002

Load #: 5

Customer: Pizzagalli Construction Company  
 Job Title: 84 Marginal Way  
 Date Sent to Shop: X  
 Job Number: 898

Job Progress Report Sheet

SHEET: 2

Prepared By: Approved By: Date: 24-01-01  
 Bathurst Machine Shop Ltd. 1040 Route 430  
 Mandate Erectors & Welding Ltd. Big River Road  
 MQM Ltd., Tracadie E2A 6P9

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped					
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date	
A	W08X28	0	B282	1	287																								
A	W21X62	0	B286	1	2136			C=1 1/2																					
II	PL 1/2X4X4	0		64	145																								
II	PL 1/2X4X4	0		24	54																								
II	PL 1/2X4X4	0		20	45																								
II	PL 1/2X4X4	0		6	14																								

Pieces 116 2681 Total Weight(Lbs) ( 1.3 TONS)

Load #:

5

Shipping Date:

Waybill #: 898-5

Customer:	Pizzagalli Construction Company	Prepared By:	Approved By:	Date: 24-01-01
Job Title:	84 Marginal Way	Bathurst Machine Shop Ltd.		1040 Route 430
Date Sent to Shop:	X	Mandate Erectors & Welding Ltd.		Big River Road
Job Number:	898	MIQM Ltd., Tracadie		E2A 6P9

Job Progress Report Sheet

SHEET: 1

Form#12 Rev. 4

\* = SEE SHOP DWG C=COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped				
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date		
A	W14X22	0	B204	1	546																							
A	W18X35	0	B208	1	874																							
A	W21X44	0	B216	1	1838			C=1 1/2"																				
A	W21X50	0	B217	1	2116			C=1 1/2"																				
A	W21X50	1	B221	1	2136			C=1 1/2"																				
A	W21X93	0	B226	1	4361																							
A	W18X40	0	B227	1	666																							
A	W27X94	0	B229	1	4785																							
A	W14X22	0	B232	1	501																							
H	W12X50	0	B238	1	2040			C=1 1/2"																				
A	W27X84	0	B240	1	2473																							
A	W21X101	0	B243	1	5173																							
A	W12X19	0	B245	1	350																							
H	W08X21	0	B246	1	354																							
A	W08X24	0	B253	1	219																							
A	W21X44	0	B260	1	1873			C=1 1/2"																				
A	W21X50	0	B263	4	8598			C=1 1/2"																				
A	W24X68	0	B267	1	2649																							
A	W08X24	0	B279	1	99																							

Pieces 22 41651 Total Weight( Lbs)

( 20.8 TONS)

**Steel Dynamics, Inc.**  
2601 S. County Road 700 East  
Columbia City, IN 46725  
(260) 625-8100

**Customer No:** 000191  
**Bill of Lading No:** 0000114369  
**MTR #:** 0000113965

**Ship to:**  
Tread Metals Int'l  
1951 Bascamer Road  
CSX-Collar Yard  
Petersburg VA 23905  
Attn: Rick McGovern

**Bill to:**  
TRON METALS INTERNATIONAL  
A-12369 Compadre Avenue  
Willow Grove, PA 19080  
Attn: Fred Whyte

**Date:** 5/31/2007  
**Customer No:** 000191  
**Bill of Lading No:** 0000114369  
**MTR #:** 0000113965

**Certified Mill Test Report**  
100% Method and Manufactured in USA

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specifications	Customer P.O.
4a†	020881618	W8X21	50'0"	4	A033592	A992/A992M A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 05a ASTM A709/A709M - 06a ASTM A572/A572M - 05	155189
4b†	020881618	W8X21	50'0"	8	A033593	A992/A992M A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 05a ASTM A709/A709M - 06a ASTM A572/A572M - 05	155189
5†	020881619	W8X21	50'0"	12	A033591	A992/A992M A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 05a ASTM A709/A709M - 06a ASTM A572/A572M - 06	155189
6†	020881634	W8X21	40'0"	13	A033591	A992/A992M A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 05a ASTM A709/A709M - 06a ASTM A572/A572M - 06	155189

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Ca	C1	C2	PC	Analysis
4a*	.06	.76	.017	.027	.17	.34	.013	.08	.09	.015	.014	.0102	.0002	.002	.24	.27	.13	HEAT
4b*	.07	.80	.019	.026	.18	.36	.014	.09	.09	.016	.012	.0106	.0002	.002	.26	.29	.14	HEAT
5*	.06	.74	.019	.034	.18	.30	.014	.09	.09	.017	.011	.0100	.0002	.002	.23	.26	.13	HEAT
6*	.06	.74	.019	.034	.18	.30	.014	.09	.09	.017	.011	.0100	.0002	.002	.23	.26	.13	HEAT

**MECHANICAL**

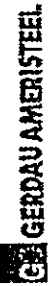
Item	Test	Tension Testing Results				Charpy Impact Testing Results				ASTM Grain Size No (per ASTM E117)											
		Yield Strength ksi/MPa	Tensile Strength (Fu) ksi/MPa	Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp F/C	Sample 1 ft. Ibf/ftoules	Sample 2 ft. Ibf/ftoules		Sample 3 ft. Ibf/ftoules	% Shear									
4a	1	59408	75520	25																	
4a	2	57395	74507	28																	
4b	1	60413	75518	25																	
4b	2	60416	75516	24																	
5	1	56396	71489	28																	
5	2	58799	73504	27																	
6	1	56396	71489	28																	
6	2	58399	73504	27																	

**INT # HC 33591**

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

State of Indiana, County of Whitley  
Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
Signed: \_\_\_\_\_  
My commission expires \_\_\_\_\_

Special Comments/Information:  
Fully Killed Steel  
Cast and Rolled to a Fine Grain Practice



CARTERSVILLE STEEL MILL  
384 OLD GRASSDALE RD NE  
CARTERSVILLE GA 30121 USA  
(770) 387-3300

Chemical and Physical Test Report

MADE IN UNITED STATES

G-092006

PRODUCED IN: CARTERSVILLE

SHIP TO TRIAD METAL 1951 BESSEMER ROAD 804-732-6000 PETERSBURG, VA 23805	INVOICE TO TRIAD METALS INTERNATIONAL METAL TRADERS INC 2300 COMPUTER AVE, STE-A-1 WILLOW GROVE, PA 19080	SHIP DATE 05/17/07 CUST. ACCOUNT NO 402131035
--	---	--

SHAPE & SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST P.O. NUMBER
W8 X 24	A5720992	A5720992, ASTM A572 GR50 04, ASTM A592-04A	810196043	110351-40
HEAT ID.	C	Mn P S Si Cu Ni C Mo V Nb B N Sn Al Ti Ca C Eps		
G701604	.08	1.13 .011 .013 .26 .26 .08 .04 .021 .028 .001 .0008 .0085 .009 .002 .00100 .00030 .311		

Mechanical Test: Yield 52000 PSI, 360.0 MPA Tensile: 68400 PSI, 471.6 MPA %EL: 25.3%N, 25.3200MM Sd Dev=0 Hl Dev= 33  
Customer Requirements CASTING: STRAND CAST  
Mechanical Test: Yield 52000 PSI, 360.0 MPA Tensile: 69300 PSI, 477.81 MPA %EL: 23.9%N, 23.9200MM Sd Dev=0 Hl Dev= 33  
Customer Requirements CASTING: STRAND CAST  
CUST ITEM NUMBER: MAR

SHAPE & SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST P.O. NUMBER
W8 X 24	A5720992	A5720992, ASTM A572 GR50 04, ASTM A592-04A	810196043	110351-40
HEAT ID.	C	Mn P S Si Cu Ni C Mo V Nb B N Sn Al Ti Ca C Eps		
G701602	.08	1.13 .011 .013 .26 .26 .08 .04 .021 .028 .001 .0008 .0085 .009 .002 .00100 .00030 .311		

Mechanical Test: Yield 52000 PSI, 360.0 MPA Tensile: 68300 PSI, 477.81 MPA %EL: 23.9%N, 23.9200MM Sd Dev=0 Hl Dev= 33  
Customer Requirements CASTING: STRAND CAST  
Mechanical Test: Yield 52000 PSI, 360.0 MPA Tensile: 68400 PSI, 471.6 MPA %EL: 25.3%N, 25.3200MM Sd Dev=0 Hl Dev= 33  
Customer Requirements CASTING: STRAND CAST  
CUST ITEM NUMBER: MAR

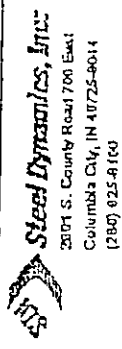
HT# G-701604 used to fabricate into B314, B3079

This material, including the billets, was produced and manufactured in the United States of America

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

*Shaskany*  
Bresler Valamanchi  
Quality Director  
Gerdau Ameristeel

*Jankov*  
Mg. Marketing Spec  
CARTERSVILLE STEEL MILL



2801 S. County Road 700 East  
 Columbus, IN 47225-8014  
 (281) 925-8100

**Certified Mill Test Report**  
 100% Made and Manufactured in USA

Date: 5/27/2003  
 Customer No: 000305  
 Bill of Lading No: 000004960  
 MTL# : P00M04101

Bill to:  
 PACIFIC STEEL INC.  
 845 Rue Munde, Chomodoy  
 CKJ Valpar Matrimo Services  
 Track V06  
 Villa De Laval, PO 1751A9  
 Altuz John Pimentel

Bill to:  
 PACIFIC STEEL INC.  
 845 Rue Munde, Chomodoy  
 Villa De Laval, PO 1751A9  
 Altuz John Pimentel

MAY. 27. 2003 2:36PM SDI SALES N AMERICA 260-625-8770

NO. 4637 - P. 5/6

Item	Bundle	Section	Length	Pcs	Heat#	Grade(s)	Specification(s)	Customer P.O.
11	020052957	WBX26	95'0"	4	A001994	A992	A992 - 01	10-46
12	020052955	WBX26	95'0"	4	A001994	A992	A992 - 01	10546
13	020052954	WBX26	95'0"	4	A001994	A992	A992 - 01	10546
14	020051864	WBX24	66'0"	0	A001980	A992	A992 - 01	10546
15	020051862	WBX24	65'0"	6	A001980	A992	A992 - 01	10546

**CHEMICAL**

Item	C	Mn	P	S	Si	Cr	Ni	Mo	Co	N	Fe	C1	C2	PC	Analysis
11	.07	1.02	.014	.029	.25	.09	.10	.035	.002	.016	.0057	.29	0.3349	0.1538	HEAT
12	.07	1.02	.014	.029	.25	.09	.10	.035	.002	.016	.0057	.29	0.3349	0.1538	HEAT
13	.07	1.02	.014	.029	.25	.09	.10	.035	.002	.016	.0057	.29	0.3349	0.1538	HEAT
14	.07	1.02	.014	.029	.25	.09	.10	.035	.002	.016	.0057	.29	0.3349	0.1538	HEAT
15	.07	1.02	.014	.029	.25	.09	.10	.035	.002	.016	.0057	.29	0.3349	0.1538	HEAT

**MECHANICAL**

Item	Test	Yield (Fy) ksi/MPa	Tensile (Fu) ksi/MPa	Elong (%) based on 8" gauge	RCA (%)	Bend Test Result	Temp F/C	Charpy Impact Testing Results			ASTM Grain Size No (per ASTM E112)				
								Sample 1 ft. lb/joules	Sample 2 ft. lb/joules	Sample 3 ft. lb/joules		% Shear			
11	1	55	69	27											
11	2	55	69	29											
12	1	55	65	27											
12	2	55	66	29											
13	1	55	65	27											
13	2	55	65	29											
14	1	55	65	27											
14	2	55	66	29											
15	1	55	65	27											
15	2	55	66	29											

THIS ACCEPTANCE IS ISSUED TO THE CLIENT BY THE MANUFACTURER. THE MANUFACTURER'S RESPONSIBILITY IS LIMITED TO THE TECHNICAL SPECIFICATIONS AND APPLICABLE PURCHASE ORDER. THE BUYER'S RESPONSIBILITY IS TO VERIFY THE MATERIALS AND SPECIFICATIONS BEFORE USE.

Shibui, County of Whitley  
 State of Indiana  
 Signed: \_\_\_\_\_  
 Quality Assurance  
 My commission expires: \_\_\_\_\_  
 day of \_\_\_\_\_, 2003

Shibui, County of Whitley, State of Indiana



CARTERSVILLE STEEL MILL  
384 OLD GRASSDALE RD NE  
CARTERSVILLE GA 30121 USA  
(770) 387-3300

Chemical and Physical Test Report  
MADE IN UNITED STATES

G-099993

PRODUCED IN: CARTERSVILLE

SHIP TO: TRIAD METAL TRADING INTERNATIONAL, METAL TRADERS INC, 2300 COMPUTER AVE, STE. A-1, YELLOW GROVE, PA 19070

SHIP DATE: 03/17/07

CUSTOMER ACCOUNT NO: 40210015

SALES ORDER: 70741110

CUSTOMER P.O. NUMBER: 111910

SHAPE & SIZE	GRADE	SPECIFICATION	C	Mn	P	S	Si	Cu	Ni	Cr	Mn	V	Mo	Nb	B	N	Sb	Al	Ti	Ca	CEq
W12 X 14	A572-50-92	ASTM A572 GR50-07, ASTM A592-06A	.08	1.15	.020	.025	.75	.74	.07	.06	.11	.07	.01	.003	.003	.045	.008	.001	.00100	.00170	.01

Mechanical Test: Yield 59100 PSI, 407.48 MPA Tensile 72700 PSI, 699.87 MPA %EL 21.95%, 21.95% Sd Dev: 0.001337  
Customer Requirements CASTING: STRAND CAST

Mechanical Test: Yield 69700 PSI, 415.06 MPA Tensile 73500 PSI, 597.43 MPA %EL 21.58%, 21.87% Sd Dev: 0.001337  
Customer Requirements CASTING: STRAND CAST

SHAPE & SIZE	GRADE	SPECIFICATION	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	B	N	Sb	Al	Ti	Ca	CEq
W12 X 14	A572-50-92	ASTM A572 GR50-07, ASTM A592-06A	.07	1.00	.015	.021	.78	.72	.07	.05	.070	.07	.003	.004	.0108	.008	.001	.00100	.00160	.079

Mechanical Test: Yield 59100 PSI, 411.67 MPA Tensile 72100 PSI, 691.11 MPA %EL 21.95%, 21.95% Sd Dev: 0.001337  
Customer Requirements CASTING: STRAND CAST

Mechanical Test: Yield 57100 PSI, 399.69 MPA Tensile 72500 PSI, 699.87 MPA %EL 25.58%, 25.57% Sd Dev: 0.001337  
Customer Requirements CASTING: STRAND CAST

HT # G704808 is used to identify this material.

This material, including the labels, was produced and manufactured in the United States of America

Shackley  
Quality Director  
Gerdau Ameristeel

Buyer: Yuhua Wang  
Quality Director  
Gerdau Ameristeel

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RESULTS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY

Seller warrants that all material furnished shall comply with specifications subject to standard procedures of inspection and testing. NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE MADE BY THE SELLER AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL SELLER BE LIABLE FOR INDIRECT, CONSEQUENTIAL OR PUNITIVE DAMAGES resulting out of or related to the marketing of material by seller. Any claim for damages for material that does not conform to specifications shall be limited to the purchase price of such material. Any claim for damages shall be made within 90 days of the date of delivery of such material.

# ACIER PACIFIQUE INC.

PO/Rcl

## Certificate of Mill Test Results

PAC-000000-000

Pg 1/1

PART NO.

Attn:

12-JUN-2004 03:48

TXI - MILLFAX 1-800-645-4155

Page 22/40

Bill To:  
PACIFIC STEEL, INC.  
845 MUNCH  
CHOMEDEY  
LAVAL  
H7S1A9

FR  
CA

Ship To:  
PACIFIC STEEL, INC.  
845 MUNCH  
H076 LONGUEUIL  
MONTREAL  
H7S-1A9

FR  
CA

Order Date: 01/28/2004  
PO No: 11069  
Mill Order No: 2719992  
Load No: 885693  
Manifest No: 1611692

CHAPARRAL STEEL  
CERTIFIED MATERIAL TEST REPORT  
300 Ward Rd.  
Midlothian, TX  
76065-9651  
(972) 775-8241

PRODUCT  
HF BEAMS

GRADE  
992/572-50

LENGTH  
60 FT

SIZE  
H 12 X 50#

SPECIFICATION  
ASTM A6-02, A992-02, A572-01

HEAT NO: 30158240

C Mn P S  
.09 .58 .014 .033

PHYSICAL PROPERTIES  
Yield Strength KSI

56.1 386.8  
52.7 390.9

Tensile Strength KSI

73.2 504.7  
73.6 508.0

CHEMICAL ANALYSIS

Cr .05 Ni .07 Cu .32  
Mn .009 Mo .009 V .000 Al .000  
Sb .018 Nb .018 CE .29

Specimen Area  
Sq In Sq cm

0.917 5.92  
0.911 4.01

Elongation  
% Gage Length

23.0 23.0  
22.5 22.5

Hard Test  
Dia. Result

ROA  
%

PORTIONS OF THIS HEAT WERE INCORRECTLY BAR MARKED AS HEAT NUMBER 3015823 AND THE SIZE OF H 12 X 53#. SILVER STICKERS WITH THE CORRECT HEAT NUMBER AND SIZE HAVE BEEN APPLIED TO EACH AFFECTED BEAM.  
D AS HEAT NUMBER 30158230 AND THE INCORRECT SIZE OF H 12 X 53#. SILVER STICKERS WITH THE CORRECT HEAT NUMBER AND SIZE HAVE BEEN APPLIED TO EACH AFFECTED BEAM.

HT # 30158240 is used to fab #400 1238

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A.

"I heroby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements."

Signed: *Tom L. Harrington*

Tom L. Harrington, Quality Assurance Manager

Date: Jun. 17, 2004 Signed:

Notary Public (if applicable)

Date:

Page: 22 of 40



**Steel Dynamics, Inc.**  
2601 S. County Road 700 East  
Columbia City, IN 46725  
(260) 625-8100

**Certified Mill Test Report**  
100% Method and Manufactured in USA

**Bill to:**  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19080  
Attn: Fred White

**Ship to:**  
Triad Metals Intl  
1951 Bessemer Road  
CSX-Collier Yard  
Petersburg, VA 23805  
Attn: Rock McGovern

**Date:** 8/22/2007  
**Customer No:** 000191  
**Bill of Lading No:** 0000122072  
**MTR #:** 0000121600

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
41	020936730	W14X22	50' 0"	8	A035733	A992/A992M A709 gr50/gr345 A709 gr50S/gr345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	163013
51	020936733	W14X22	50' 0"	8	A035733	A992/A992M A709 gr50/gr345 A709 gr50S/gr345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	163013

**CHEMICAL**


Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Ch	C1	C2	PC	Analysis
4*	.07	.75	.016	.041	.24	.30	.011	.09	.10	.026	.014	.0111	.0003	.002	.24	.28	.14	HEAT
5*	.07	.75	.016	.041	.24	.30	.011	.09	.10	.026	.014	.0111	.0003	.002	.24	.28	.14	HEAT

**MECHANICAL**

Item	Test	Tension Testing Results				Charpy Impact Testing Results				ASTM Grain Size No (per ASTM E112)										
		Yield Strength ks/MPa	Tensile Strength ks/MPa	Elong based on 8" gauge	Fy/Fu	Temp F/C	Sample 1 ft. lbf/ftoules	Sample 2 ft. lbf/ftoules	Sample 3 ft. lbf/ftoules		% Shear									
4	1	56390	72495	26	.78	1														
4	2	56389	71490	29	.79	2														
5	1	56390	72495	26	.78	1														
5	2	56389	71490	29	.79	2														

MTR # A035733 is used to fabricate item B224

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed:  Quality Assurance

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
Signed: \_\_\_\_\_ Notary Public

My commission expires: \_\_\_\_\_

State of Indiana, County of Whitley

Special Comments/Information:  
\* Fully Killed Steel  
1 Cast and Rolled to a Fine Grain Practice

# ACIER PACIFIQUE INC.

PO/Rel

## Certificate of Mill Test Results

PAC-000000-000

Fig 1/1

PART NO.

Alt:

Bill To:  
PACIFIC STEEL, INC.  
845 Munch  
CHOMBREY  
LAVAL  
H7SLA9

Ship To: 1  
PACIFIC STEEL, INC.  
845 Munch  
B076 LONGURIL  
MONTRERL  
H7S-LA9

Order Date: 07/21/2007  
PO No: 18704  
Mill Order No: 3261903  
Load No: 1099564  
Manifest No: 1813840

**CERTIFIED MATERIAL TEST REPORT**  
**CHAPARRAL**  
CHAPARRAL STEEL  
300 Ward Rd.  
Midlothian, TX  
76065-9651  
(972) 775-9241

SPECIFICATIONS :  
ASTM A6-05a, A992-06a, A571-06

GRADE  
992/572-50

LENGTH  
45 FT / 13.716 M

PRODUCT  
WF BEAM#

HEAT NO: 30350920

C	Mn	P	S
.07	.93	.010	.031

Si	Cu	Ni	Cr	Mo	Su	V	Al	Nb	CE
.21	.35	.10	.09	.016	.013	.002	.001	.020	.28

CHEMICAL ANALYSIS

Yield Strength

KSI	MPa
55.3	381.3
53.3	367.5

Tensile Strength

KSI	MPa
69.7	480.6
68.1	469.5

PHYSICAL PROPERTIES

Specimen Area	Elongation	Gage Length
Sq In	%	8 In
0.686	4.43	23.8
0.699	4.45	26.0
		8 In
		200 mm

Bend Test	ROA
Dia. Result	%

HT # 30350920 is used to fabricate plates

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A.  
CMTR complies with DIN EN 10204 3.1.1.B

"I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements."

Signed: Tom L. Harrington Date: Mar. 23, 2007

Tom L. Harrington: Quality Assurance Manager

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
Notary Public (if applicable)

# ACIER PACIFIQUE INC.

PO/Rel

PART NO.

# Certificate of Mill Test Results

PAC-000000 (01)

Pg 1/1

Steel Dynamics, Inc. 268 625 8950

Page 2 of 6

Sun Jul 01 2007 09:13:39 EDT

Attn:



2501 S. County Road 700 East  
Columbia City, IN 46725  
(200) 625-8100

**Certified Mill Test Report**  
100% Made and Manufactured in USA

Date: 7/1/2007  
Customer No: 000305  
Roll of Lading No: D000117209  
MTR #: 0000117209

Ship to:  
PACIFIC STEEL INC  
645 Rue Munch, Chomedeley  
C/O Valport Maritime Services  
Track V06  
Vale De Larni, PQ H7S1A9  
Attn: John Pimenta

Bill to:  
PACIFIC STEEL INC  
645 Rue Munch,  
Laval Quebec, PQ H7S1A9  
Attn: John Pimenta

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
11	020891505	W18X40	40' 0"	6	A034046	A992/A992M A709 950S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	10730
21	020891506	W18X40	40' 0"	6	A034046	A992/A992M A709 950S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	10730
31	020891507	W18X40	40' 0"	6	A034046	A992/A992M A709 950S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	10730
41	020891508	W18X40	40' 0"	6	A034046	A992/A992M A709 950S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	10730

## CHEMICAL

Item	C	Mn	P	S	Si	Cu	Ni	Mo	Sn	N	B	Co	C1	C2	PC	Analysis
1*	.08	.04	.021	.021	.15	.29	.14	.044	.011	.0085	.0002	.010	.30	.33	.18	HEAT
2*	.08	.04	.021	.021	.15	.29	.14	.044	.011	.0085	.0002	.010	.30	.33	.18	HEAT
3*	.08	.04	.021	.021	.15	.29	.14	.044	.011	.0085	.0002	.010	.30	.33	.18	HEAT
4*	.08	.04	.021	.021	.15	.29	.14	.044	.011	.0085	.0002	.010	.30	.33	.18	HEAT

## MECHANICAL

Item	Test	Yield (Fy) Strength				Elong (%) based on 0" gauge	ROA (%)	Band Test Result	Temp FIC	Charpy Impact Testing Results			ASTM Grain Size No (per ASTM E112)
		ksi/MPa	ksi/MPa	ksi/MPa	ksi/MPa					Sample 1 Ft. In/ftoules	Sample 2 Ft. In/ftoules	Sample 3 Ft. In/ftoules	
1	1	60/418	76/527	76/527	76/527	23	1						
1	2	63/434	75/518	75/518	75/518	22	2						
2	1	60/418	76/527	76/527	76/527	23	1						
2	2	63/434	75/518	75/518	75/518	22	2						
3	1	60/418	76/527	76/527	76/527	23	1						
3	2	63/434	75/518	75/518	75/518	22	2						
4	1	60/418	76/527	76/527	76/527	23	1						
4	2	63/434	75/518	75/518	75/518	22	2						

Mill AC 34046 is used for Full Heat B307

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designations.

Signed:   
Quality Assurance

State of Indiana, County of Whitley

Sworn to and subscribed before me this day of \_\_\_\_\_, 2007.

Signed: \_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

Special Comments/Information:

\* Fully Killed Steel  
† Cold and Rolled to a Fine Grain Practice





**Steel Dynamics, Inc.**  
 2601 S. County Road 700 East  
 Columbia City, IN 46725  
 (260) 625-8100

**Certified Mill Test Report**  
 100% Melted and Manufactured in USA

Date: 7/23/2007  
 Customer No: 000191  
 Bill of Lading No: 0000119486  
 MTR #: 0000119049

Ship to:  
 Triad Metals International  
 Triad Customer P/U  
 Attn: Sally

Bill to:  
 TRIAD METALS INTERNATIONAL  
 Attn: 2300 Computer Avenue  
 Willow Grove, PA 19090  
 Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1†	020863720	W21X44	42' 0"	1	B032910	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
2†	020864110	W21X44	42' 0"	4	B032800	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
3†	020896755	W21X101	42' 0"	2	A034248	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	494
4†	020907997	W21X50	42' 0"	4	A034717	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
5†	020908626	W21X44	42' 0"	4	A034742	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495
6†	020909967	W21X50	42' 0"	4	A034715	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M	495

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1*	.08	1.10	.025	.043	.20	.33	.023	.100	.11	.03	.013	.009	.0004	.00	.32	0.3500	0.1700	HEAT
2*	.06	1.11	.030	.026	.20	.46	.024	.130	.10	.02	.016	.010	.0003	.00	.32	0.3600	0.1600	HEAT
3*	.08	1.17	.017	.039	.24	.41	.034	.090	.10	.02	.017	.011	.0004	.00	.34	0.3800	0.1800	HEAT
4*	.07	1.08	.022	.039	.19	.37	.033	.110	.10	.02	.013	.010	.0004	.00	.32	0.3500	0.1500	HEAT
5*	.09	1.04	.017	.021	.18	.36	.023	.090	.10	.02	.014	.010	.0003	.00	.32	0.3500	0.1800	HEAT
6*	.08	1.05	.019	.037	.20	.34	.032	.080	.11	.03	.012	.009	.0004	.00	.31	0.3400	0.1600	HEAT

Wt# A034715 is used to fabricate items B-17, B-20, B-21, B-22, B-23

hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed:

Quality Assurance

State of Indiana, County of Whitley

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed \_\_\_\_\_  
 Notary Public

My commission expires \_\_\_\_\_

Special Comments/Information:



**Steel Dynamics, Inc.**

2601 S County Road 700 East  
Columbia City, IN 46725.  
(260) 625-8100

**Certified Mill Test Report**

100% Melted and Manufactured in USA

Date: 7/23/2007  
Customer No: 000191  
Bill of Lading No: 0000119486  
MTR #: 0000119049

Ship to:  
Triad Metals International  
Triad Customer P/U  
Attn: Sally

Bill to  
TRIAD METALS INTERNATIONAL  
A-1700 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

**MECHANICAL**

**Tension Testing Results**

Item	Test	Yield (Fy) Strength ksi/MPa	Tensile (Fu) Strength ksi/MPa	Fy/Fu	Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Test	Temp F/C	Sample 1 ft. lb/foules	Sample 2 ft. lb/foules	Sample 3 ft. lb/foules	% Shear	ASTM Grain Size No (per ASTM E112)
1	1	55/377	73/506	.75	24			1						
1	2	57/390	76/527	.75	25			2						
2	1	54/371	68/472	.79	27			1						
2	2	61/418	74/512	.82	27			2						
3	1	57/395	72/498	.79	23			1						
3	2	58/400	72/498	.81	25			2						
4	1	54/372	72/493	.75	23			1						
4	2	57/393	70/484	.81	27			2						
5	1	58/403	75/519	.77	24			1						
5	2	59/404	77/531	.77	24			2						
6	1	54/373	69/478	.78	22			1						
6	2	55/377	70/482	.79	23			2						

**Charpy Impact Testing Results**

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed: \_\_\_\_\_

Quality Assurance

State of Indiana, County of Whitley

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_

Notary Public

My commission expires: \_\_\_\_\_

Special Comments/Information

**Certified Mill Test Report**  
 100% Tested and Manufactured in USA

Customer No: 000191  
 Bill of Lading No: 0000118729  
 MTR #: 0000118302

Triad Metals International  
 Triad Customer P/U  
 Attn: Sally

TRIAD METALS INTERNATIONAL  
 A-1 2300 Computer Avenue  
 Willow Grove, PA 19090  
 Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grades(s)	Specification(s)	Customer P.O.
1†	000023536	W21X62	44' 0"	1	A034653	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
2†	010902071	W24X94	43' 6"	2	B034476	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
3†	020902073	W24X94	43' 6"	2	B034476	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
4†	020902113	W24X94	43' 6"	1	B034477	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
5†	020906203	W21X62	44' 0"	4	A034635	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459
6†	020906434	W21X62	44' 0"	4	A034653	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	459

**HEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Ch	C1	C2	PC	Analysis
1*	08	17	012	036	27	32	034	070	13	04	012	009	0004	00	33	0.3800	0.1800	HEAT
2*	07	135	017	028	22	50	046	130	13	04	016	010	0003	00	38	0.4200	0.1900	HEAT
3*	07	135	017	028	22	50	046	130	13	04	016	010	0003	00	38	0.4200	0.1900	HEAT
4*	07	135	020	038	20	49	043	120	12	03	014	010	0003	00	38	0.4100	0.1900	HEAT
5*	08	115	016	038	25	40	035	120	12	05	015	009	0004	00	34	0.3900	0.1800	HEAT
6*	08	117	012	036	27	32	034	070	13	04	012	009	0004	00	33	0.3800	0.1800	HEAT

**Tension Testing Results**

Item	Test	Yield (Fy)	Tensile (Fu)	Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp F/C	Sample 1 ft. lb/joules	Sample 2 ft. lb/joules	Sample 3 % Shear	ASTM Grain Size No (per ASTM E112)
1	1	55/376	75/519	24		1					
1	2	62/431	77/533	22		2					
2	1	59/418	76/521	18		1					

**Charpy Impact Testing Results**

ereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and as applicable purchaser designated.

gneo

Verify Assurance

State of Indiana, County of Whitley

Sworn to and subscribed before me this \_\_\_ day of \_\_\_\_\_

Signed \_\_\_\_\_  
 Notary Public

My commission expires \_\_\_\_\_

Special Comments/Information  
 ATT# A034653 (0000118729) Triad Customer P/U

**WALSH INDUSTRIES, INC.**  
 2601 S. County Road 700 East  
 Columbia City, IN 46725  
 (317) 825-8100

Customer No. 000191  
 Bill of Lading No: 0000118729  
 MTR #: 0000118302

Triad Metals International  
 Triad Customer P/U  
 Attn: Sally

TRIAD METALS INTERNATIONAL  
 A-1 2300 Computer Avenue  
 Willow Grove, PA 19090  
 Attn: Fred White

**Certified Mill Test Report**  
 100% Heat Treated and Manufactured in USA

MECHANICAL				Tension Testing Results				Charpy Impact Testing Results					
Item	Test	Yield Strength ksi/MPa	Tensile Strength ksi/MPa	Fy/Fu	Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp F/C	Sample 1 ft. lb/joules	Sample 2 ft. lb/joules	Sample 3 ft. lb/joules	% Shear	ASTM Grain Size No (per ASTM E112)
2	2	61/41.8	75/520	.81	18								
3	1	59/41.8	76/521	.78	18								
3	2	61/41.8	75/520	.81	18								
4	1	60/41.6	77/531	.78	21								
4	2	61/41.9	77/531	.79	21								
5	1	62/41.9	75/515	.83	25								
5	2	59/41.5	76/522	.78	23								
6	1	55/37.6	75/519	.71	24								
6	2	62/43.1	77/533	.81	22								

I hereby certify that the contents of this report are accurate and correct. All tests and by products performed by this material manufacturer are in conformance with the requirements of the material specifications and applicable purchaser designated

*[Signature]*  
 Quality Assurance

State of Indiana, County of Whitley


Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed \_\_\_\_\_  
 Notary Public

My commission expires \_\_\_\_\_

Specimen Comments/Information



 <b>Steel Dynamics, Inc.</b> 2601 S. County Road 700 East Columbia City, IN 46725- (260) 625-8100		Date: 6/24/2007 Customer No: 000191 Bill of Lading No: 0000116623 MTR #: 0000116208		Ship to: Triad Metals Int 1951 Bassemmer Road CSX-Collier Yard Petersburg, VA 23805		Bill to: TRIAD METALS INTERNATIONAL A-1 2300 Computer Avenue Willow Grove, PA 19090 Attn: Fred White									
<b>Certified Mill Test Report</b> 100% Melted and Manufactured in USA		Section W24X68		Length 60' 0"		Pcs 2		Heat # A034337		Grade(s) A992/A992M A709 G50S/g345S A572 G50/g345		Specification(s) ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06		Customer P.O. 158398	
Bundle 020901457		W24X68		60' 0"		2		B034457		A992/A992M A709 G50S/g345S A572 G50/g345		ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06		158398	
020901458		W24X68		60' 0"		4		B034457		A992/A992M A709 G50S/g345S A572 G50/g345		ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06		158398	
020901460		W24X68		60' 0"		4		B034457		A992/A992M A709 G50S/g345S A572 G50/g345		ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06		158398	

**CHEMICAL**


Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
10a	.08	1.04	.014	.020	.21	.33	.033	.10	.10	.037	.013	.0091	.0003	.001	.31	.35	.17	HEAT
10b	.09	1.06	.017	.040	.26	.34	.035	.10	.09	.019	.011	.0112	.0004	.002	.33	.37	.18	HEAT
11	.09	1.06	.017	.040	.25	.34	.035	.10	.09	.019	.011	.0112	.0004	.002	.33	.37	.18	HEAT
12	.09	1.06	.017	.040	.26	.34	.035	.10	.09	.019	.011	.0112	.0004	.002	.33	.37	.18	HEAT

**MECHANICAL**

Item	Test	Tension Testing Results				Charpy Impact Testing Results				ASTM Gr/In Size No (per ASTM E112)
		Yield Strength ksi/MPa	Tensile Strength ksi/MPa	Elong (%) based on g gauge	Fy/Fu	Temp F/C	Sample 1 ft. lb/joules	Sample 2 ft. lb/joules	Sample 3 ft. lb/joules	
10a	1	59/405	71/469	.83	.27	1				
10a	2	57/394	71/490	.80	.28	2				
10b	1	61/424	76/527	.80	.23	1				
10b	2	57/391	75/520	.76	.23	2				
11	1	61/424	76/527	.80	.23	1				
11	2	57/391	75/520	.76	.23	2				
12	1	61/424	76/527	.80	.23	1				
12	2	57/391	75/520	.76	.23	2				

**STATE OF INDIANA**

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of this material specifications and applicable purchaser designated.

Signed:  Quality Assurance

State of Indiana, County of Whitley

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_ Notary Public

My commission expires: \_\_\_\_\_

Special Comments/Information:  
 \* Fully Killed Steel  
 1 Cast and Rolled to a Fine Grain Practice

Customer Name

Customer PO#

Shipper No

Heat Number

Mandate Erectors & Welding Ltd.

30527

3797

30368350

CERTIFIED MATERIAL TEST REPORT

CHAPARRAL STEEL

300 Ward Rd.  
Midlothian, TX  
76065-9651  
(972) 775-8241

CHAPARRAL

PRODUCT  
WF BEAMS

Order Date: 05/15/2007

PO No: 263

Mill Order No: 1304868

Load No: 1120488

Manifest No: 1833332

LENGTH  
45 FT / 13.716 M

Ship To: 6

TRIAD METALS INTERNATIONAL  
TRIAD METALS INTERNATIONAL  
1951 BESSEMER ROAD  
PETERSBURG  
VA  
US

PA  
US

GRADE  
992/572-50

SIZE  
W 27 X 84# / W690 X 125

SPECIFICATIONS

ASTM A6-05a, A992-06a, A572-06

HEAT NO: 30368350

CHEMICAL ANALYSIS													
	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Al	Nb	CE
	.08	1.12	.011	.033	.22	.35	.09	.08	.015	.014	.001	.020	.32

Yield Strength				Tensile Strength				PHYSICAL PROPERTIES			
KSI	MPa	Specimen Area	Elongation	KSI	MPa	Sq In	%	Specimen Area	Elongation	Bend Test	ROA
54.0	372.3	Sq cm	%	69.3	477.8	Sq In <td>%</td> <td>Sq cm</td> <td>%</td> <td>8 In</td> <td>200 mm</td>	%	Sq cm	%	8 In	200 mm
55.0	379.2	6.56	29.0	70.5	486.1	1.017	29.0	6.50	25.8	8 In	200 mm
		6.50	25.8			1.007	25.8			8 In	200 mm

HR# 30368350 is used to fab. beam base

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A. CMTR complies with DIN EN 10204 3.1.B

I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: Tom L. Harrington: Quality Assurance Manager Date: Jun. 27, 2007 Signed: Notary Public (if applicable) Date:

Customer Name

Customer PO#

Shipper No

Heat Number

Mandate Erectors & Welding Ltd.

30527

3797

30367960

CERTIFIED MATERIAL TEST REPORT

Order Date: 05/15/2007

Ship To: 6

Bill To: TRIAD METALS INTERNATIONAL  
2300 COMPUTER AVENUE  
SUITE A-1  
WILLOW GROVE PA US  
19090

CHAPARRAL STEEL  
300 Ward Rd.  
Midlothian, TX  
76065-9651  
(972) 775-8241

CHAPARRAL

PO No: 263  
Mill Order No: 3304881  
Load No: 1123513  
Manifest No: 1835927

TRIAD METALS INTERNATIONAL  
1951 BESSEMER ROAD  
PETERSBURG VA US  
23803

PRODUCT  
WF BEAMS

LENGTH  
50 FT / 15.24 M

GRADE  
992/572-50

SIZE  
W 27 X 94# / W690 X 140

HEAT NO: 30367960

CHEMICAL ANALYSIS

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Al	Nb	CE
.08	1.19	.013	.034	.23	.33	.10	.11	.016	.014	.001	.002	.020	.33

PHYSICAL PROPERTIES

Yield Strength		Tensile Strength		Specimen Area		Elongation		Bend Test		POA %
KSI	MPa	KSI	MPa	Sq In	Sq cm	%	Gage Length	Dia.	Result	
58.3	402.0	74.5	513.7	1.078	6.95	24.8	8 In	200 mm		
58.3	402.0	72.4	499.2	1.137	7.34	25.3	8 In	200 mm		

HT # 30367960 is used to produce item 3024

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A. CMTR complies with DIN EN 10204 3.1.B

I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: Tom L. Harrington Date: Jul. 12, 2007 Signed: Notary Public (if applicable) Date: \_\_\_\_\_  
Tom L. Harrington: Quality Assurance Manager

**Steel Dynamics, Inc.**  
 2601 S County Road 700 East  
 Columbia City, IN 46725  
 (260) 625-8100

**Certified Mill Test Report**  
 100% Melted and Manufactured in USA

**Date:** 11/26/2006  
**Customer No:** 000191  
**Bill of Lading No:** 000096633  
**MTR #:** 000096248

**Ship to:**  
 Tnad Metals Int Bay II  
 1951 Bessmer Road  
 CSX-Collier Yard  
 Petersburg, VA 23805

**Bill to:**  
 TRIAD METALS INTERNATIONAL  
 A-1 2300 Computer Avenue  
 Willow Grove, PA 19090  
 Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
9	020732206	W21X83	40' 0"	2	A027695	A992 / A992M A709 g50S/g345S A572 gr50/g345	ASTM A992/A992M - 04a ASTM A709/A709M - 05 ASTM A572/A572M - 04	132096
10	020732302	W21X93	60' 0"	2	A027698	A992 / A992M A709 g50S/g345S A572 gr50/g345	ASTM A992/A992M - 04a ASTM A709/A709M - 05 ASTM A572/A572M - 04	132096
11	020732303	W21X93	60' 0"	2	A027698	A992 / A992M A709 g50S/g345S A572 gr50/g345	ASTM A992/A992M - 04a ASTM A709/A709M - 05 ASTM A572/A572M - 04	132096
12	020732337	W21X93	40' 0"	2	A027699	A992 / A992M A709 g50S/g345S A572 gr50/g345	ASTM A992/A992M - 04a ASTM A709/A709M - 05 ASTM A572/A572M - 04	13209F

**CHEMICAL**

Item	C	Mn	P	S	SI	Cu	V	Cr	Ni	Mo	Sn	N	B	Ch	C1	C2	PC	Analysis
9	07	1.25	0.18	0.36	20	34	.044	07	11	0.22	0.12	0.076	0.003	0.03	33	.37	17	HEAT
10	09	1.32	0.19	0.37	20	37	.041	10	12	0.26	0.18	0.092	0.003	0.03	37	.40	.19	HEAT
11	09	1.32	0.19	0.37	20	37	.041	10	12	0.26	0.18	0.092	0.003	0.03	37	.40	.19	HEAT
12	07	1.33	0.18	0.39	19	32	.042	09	10	0.23	0.13	0.091	0.003	0.03	36	.38	18	HEAT


**MECHANICAL**

Item	Test	Tension Testing Results				Charpy Impact Testing Results				ASTM Grain Size No (per ASTM E112)								
		Yield Strength ksi/MPa	Tensile Strength ksi/MPa	Elong (%) based on 8" gauge	Fy/Fu	Temp F/C	Sample 1 ft. lb/ftoules	Sample 2 ft. lb/ftoules	Sample 3 ft. lb/ftoules		% Shear							
9	1	58/602	74/511	23	76	1												
9	2	57/591	73/503	24	78	2												
10	1	60/414	78/538	20	77	1												
10	2	63/437	80/549	22	79	2												
11	1	60/414	78/538	20	77	1												
11	2	63/437	80/549	22	79	2												
12	1	60/412	77/529	26	78	1												
12	2	57/590	74/512	23	77	2												

AT # A027698 is used to fabricate 132096

State of Indiana, County of Whitley

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the national specifications and applicable purchaser designated

Signed:  Quality Assurance

Signed: \_\_\_\_\_ My commission expires: \_\_\_\_\_

Special Comments/Information

Attn: Denis



**Steel Dynamics, Inc.**  
 2601 S. County Road 700 East  
 Columbia City, IN 46725.  
 (260) 625-8100

**Certified Mill Test Report**  
 100% Melted and Manufactured in USA

Date: 7/23/2007  
 Customer No: 000191  
 Bill of Lading No: 0000119486  
 MTR #: 0000119049

Ship to  
 Triad Metals International  
 Triad Customer ID#  
 Attn: Sally

Bill to  
 TRIAD METALS INTERNATIONAL  
 A-1 2300 Crumpler Avenue  
 Willow Grove, PA 19090  
 Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)
1†	020863720	W21X44	42' 0"	1	B032910	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M
2†	020864110	W21X44	42' 0"	4	B032800	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M
3†	020896755	W21X101	42' 0"	2	A034248	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M
4†	020907997	W21X50	42' 0"	4	A034717	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M
5†	020908626	W21X44	42' 0"	4	A034742	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M
6†	020909967	W21X50	42' 0"	4	A034715	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1*	.08	1.10	.025	.043	.20	.33	.023	.100	.11	.03	.013	.009	.0004	.00	.32	0.3500	0.1700	HEAT
2*	.06	1.11	.030	.026	.20	.46	.024	.130	.10	.02	.016	.010	.0003	.00	.32	0.3600	0.1600	HEAT
3*	.08	1.17	.017	.039	.24	.41	.034	.090	.10	.02	.017	.011	.0004	.00	.34	0.3800	0.1800	HEAT
4*	.07	1.08	.022	.039	.19	.37	.033	.110	.10	.02	.013	.010	.0004	.00	.32	0.3500	0.1600	HEAT
5*	.09	1.04	.017	.021	.18	.36	.023	.090	.10	.02	.014	.010	.0003	.00	.32	0.3500	0.1600	HEAT
6*	.08	1.05	.019	.037	.20	.34	.032	.080	.11	.03	.012	.009	.0004	.00	.31	0.3400	0.1600	HEAT

HT # A034248 is used to fabric item: B343

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed:   
 Quality Assurance

State of Indiana, County of Whitley  
 Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
 Signed: \_\_\_\_\_  
 Notary Public

My commission expires \_\_\_\_\_

Special Comments/Information

PC=C-S420-V420-V420-C420-H420-M425-V420-19

11/07/07-C-Mn8-Cr-Mo-V015-19-Cu-15



**IPSCO**  
A DIVISION OF SSAB

1051 Tapscott Road, Toronto, ON M1X 1A1

# Test Certificate

Form TC1: Revision 1: Date 31 Oct 2000

Customer: SAMUEL & FILS & CIE (QUEBEC) L. 2225 FRANCIS HUGHES AVENUE LAYAL PQ H7S1NS	Customer P.O. No.: C50869	Mill Order No.: 41-197677-03	Shipping Manifest: TT032748
Product Description: CSA G40.21(2004)44W/303W / ASTM A36(06) A709(01A)36/ASME SA-36(01ED)	Ship Date: 19 Oct 07	Cert No: 021040013 (Page 1 of 1)	
Size: 0.500 X 96.00 X 240.0 (IN)			

Heat Id	Piece Id	Piece Dimensions	Tensiles				Charpy Impact Tests				BDWTT Temp %Shr	
			YS (PSI)	UTS (PSI)	%RA 2in 8in	Elong % 2in 8in	Abs. Energy(FILB) 1 2 3 Avg	% Shear 1 2 3 Avg	Tst Temp (mm)	Tst Dir (mm)		
A7F215	0308	0.502 X 96.00 (T.L.C)	L 57000 C 55000	74000 71000	29 30							
A7F215	0311	0.502 X 96.00 (T.L.C)	L 53000 C 53000	72000 71000	35 34							

Heat Id	Chemical Analysis											ORGN USA			
	C	Mn	P	S	Si	Tot Al	Co	Ni	Cr	Mo	Ch		V	Ti	B
A7F215	.17	.89	.014	.001	.10	.029	.29	.17	.13	.06	.001	.004	.007	.0000	.0077

MERCURY IS NOT A METALLURGICAL COMPONENT OF THE STEEL AND NO MERCURY WAS INTENTIONALLY ADDED DURING THE MANUFACTURE OF THIS PRODUCT

MATERIAL MARKED WITH AN ASTERISK IS PRODUCED FROM COIL  
\* A7F215 0309  
PCES: 9, WGT: 29402

\* A7F215 0310  
PCES: 8, WGT: 26136

*HT # A7F215 is used to fab Jems. 1/1/2*

Cust Part #:

WE HEREBY CERTIFY THAT THIS MATERIAL WAS TESTED IN ACCORDANCE WITH THE APPROPRIATE SPECIFICATION

Paul Beaudon  
CHECKED BY

Load #: 4

Shipping Date:

Waybill #: 898-4

Customer: Pizzagalli Construction Company  
 Job Title: 84 Marginal Way  
 Date Sent to Shop: X  
 Job Number: 898

Job Progress Report Sheet

SHEET: 1

Prepared By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: 24-01-01  
 Bathurst Machine Shop Ltd.  
 Mandate Erectors & Welding Ltd.  
 MQM Ltd., Treadie

1040 Route 430  
 Big River Road  
 E2A 6P9

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped					
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date			
A	W24X55	0	B200	1	1767																								
A	W12X19	0	B202	1	350																								
A	W21X44	0	B206	1	1574			C=1"																					
A	W18X35	0	B207	1	555																								
A	W24X68	0	B211	1	2062																								
A	W24X68	0	B213	1	2027																								
A	W24X68	0	B214	1	2072																								
A	W24X55	0	B219	1	2344																								
A	W24X55	0	B220	1	2278																								
A	W10X17	0	B224	1	308																								
A	W18X35	0	B231	1	675																								
A	W14X22	0	B233	1	575																								
H	W12X19	0	B236	1	319																								
H	W12X19	0	B237	1	319																								
A	W12X19	0	B241	4	1419																								
H	W12X19	0	B242	1	64																								
A	W12X19	0	B244	1	353																								
A	H.S.S.8X4X1/4	0	B248	2	269																								
A	W12X22	0	B254	1	187																								
A	W12X22	0	B255	1	141																								

Pieces 21 19658 Total Weight (lbs)

( 9.8 TONS)

Load #: 4

Customer:	Pizzagalli Construction Company		Prepared By:	Approved By:	Date: 24-01-01
Job Title:	84 Marginal Way	Job Progress Report Sheet	Bathurst Machine Shop Ltd.		
Date Sent to Shop:	X	SHEET: 2	Mandate Erectors & Welding Ltd.		
Job Number:	S98		MQM Ltd., Treadie		

1040 Route 430  
Big River Road  
E2A 6P9

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped					
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date	
A	W08X10	0	B256	1	30																								
A	W18X40	0	B258	1	696																								
A	W21X44	0	B261	1	485																								
A	W24X55	0	B262	1	1599																								
A	W12X19	0	B264	1	192																								
A	W08X10	0	B265	1	30																								
A	W18X40	0	B266	1	1008																								
A	W27X84	0	B269	1	3151																								
A	W18X40	0	B271	1	1271																								
A	W12X19	0	B273	1	218																								
II	W12X19	0	B274	1	164																								
II	W12X19	0	B275	1	399																								
A	W12X22	0	B280	1	96																								
A	W12X22	0	B283	1	99																								

Pieces: 11      Total Weight (Lbs): 9438      ( 4.7 TONS)



Field Bolts List, 10% added in Qty.

Load 4  
Sheet 7

Type	Description	Qty.	Weight	=	Kegs	+	Bolts
A325-TC	3/4"X1 3/4"	832	525				
A325-TC	3/4"X2"	3835	2570				
A325-TC	3/4"X2 1/4"	1620	1134				
A325-TC	3/4"X2 1/2"	2250	1643				
A325-TC	3/4"X2 3/4"	140	107				
A325-TC	3/4"X4 1/4"	5	5				
A325-TC	3/4"X6 1/2"	32	39				
A325	3/4"X7 1/2"	152	200				
A325	3/4"X8 1/2"	27	40				
A325	3/4"X9 1/2"	120	191				
A325	3/4"X11 1/2"	23	40				
A490-TC	3/4"X2 1/4"	11	77				
A490-TC	3/4"X2 1/2"	16	12				
A490-TC	3/4"X2 3/4"	19	15				
A490-TC	3/4"X3 1/4"	32	28				
A490-TC	3/4"X3 1/2"	140	124				
A490	3/4"X7 1/2"	8	11				
A490-TC	7/8"X2"	400	408				
A490-TC	7/8"X2 1/4"	212	225				
A490-TC	7/8"X2 1/2"	25	28				
A490-TC	7/8"X3"	104	124	<			
A490-TC	1"X2 1/2"	300	447				
A490-TC	1"X2 3/4"	270	416				
A490-TC	1"X3"	1130	1808				
A490-TC	1"X3 1/4"	2025	3362				
A490-TC	1"X3 1/2"	880	1505				
A490-TC	1"X3 3/4"	514	910				
A490-TC	1"X4"	240	440				
A490-TC	1"X4 1/4"	190	358				
A490-TC	1"X4 1/2"	78	152				
<b>Total</b>		#####	16944	lbs			

Field Bolts List, 10% added in Qty.

Load 4  
Sheet 7

Type	Description	Qty.	Weight	=	Kegs	+	Bolts
A490-TC	1"X4 3/4"	38	76				
A490-TC	1 1/8"X3 1/2"	10	25				
EDGE ANCH	1/2"X2 3/4"	540	270				
<b>Total</b>		588	371 lbs				

24Sep07 10:59

T E S T C E R T I F I C A T E

No: MAR 467588

Sold By:  
INDEPENDENCE TUBE CORPORATION  
6226 W. 74TH STREET  
CHICAGO, IL 60638  
Tel: 708-496-0380 Fax: 708-563-1950

P/O No C1081H  
Rel  
S/O No MAR 130444-001  
B/L No MAR 78643-002 Shp 21Sep07  
Inv No MAR -001 Inv 24Sep07

Sold To: ( 914)  
INFRA-METALS  
8 PENT HIGHWAY  
WALLINGFORD, CT 06492

Ship To: ( 1)  
INFRA-METALS (TRUCK)  
8 PENT HIGHWAY  
WALLINGFORD, CT

Tel: 203-294-2980 Fax: 203 294-2993

CERTIFICATE of ANALYSIS and TESTS

Cert. No: MAR 467588  
24Sep07

Part No  
TUBING A500C  
8" X 4" X 1/4" X 48'

Pcs Wgt  
16 14,508

Heat Number Tag No  
47657 361165  
47657 YLD=57670/TEN=72680/ELG=34.1  
361166

Pcs Wgt  
8 7,304  
8 7,304

Heat Number 47657 \*\*\* Chemical Analysis \*\*\*  
C=0.2000 Mn=0.7900 P=0.0090 S=0.0050 Si=0.0160 Al=0.0370  
Cu=0.0200

MANUFACTURED IN USA  
MEETS THE REQUIREMENTS ASTM A-500 GRADE B(C)-03a

HT # 47657 is used to fab item R-248



CHEMICAL AND PHYSICAL TEST REPORT

MADE IN U.S.A.

Page 4 of 5  
Shippers Number: G-033272

CARTERSVILLE STEEL MILL  
METALLURGICAL DEPARTMENT

384 OLD GRASSDALE RD NE, CARTERSVILLE, GA 30121  
N=CAMBRIDGE, O=ORRVILLE BB, C=CHARLOTTE, G=CARTERSVILLE, J=JACKSONVILLE, K=KNOXVILLE,  
S=SAYREVILLE, V=JACKSON TN, W=WHITBY

SHIP TO:  
ARMAGNE IEAL CH BLDG B076  
110 ACIER PACIFIC  
2345 DE LA METROPOLIS  
LORQUETUL

INVOICE TO:  
PACIFIQUE STEEL INC  
845 MUNDX S.T.  
LAVAL

SHIP DATE: 05/08/04  
CUST. ACCOUNT NO.: 60000632

HEAT NO.	ACTUAL TAG HEAT NO.	GRADE	C	MN	P	S	V	SI	CR	CU	Ni	SN	AL	MO	N	MB	B	ZR	TI	CA	ZN	C		
64-0348	A36/A992	A36/A992	.15	.92	.008	.025	.015	.20	.08	.28	.11	.009	.001	.030	.0119	.001	.0004	.0004	.0004	.0004	.0004	.0004	.35	
YIELD PT LBS/SQ IN: 56000; TENSILE LBS/SQ IN: 78400; % ELONG 8 IN: 23.6; BEND: DEF: % LIGHT/HEAVY: METRIC EQUIVALENT: YIELD = 410.83 MPA; TENSILE = 541.85 MPA; % ELONG / 200MM = 23.8 DEF. = MM																								
64-0349	A36/A992	A36/A992	.15	.92	.008	.025	.015	.20	.08	.29	.11	.009	.001	.030	.0110	.001	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.35
YIELD PT LBS/SQ IN: 56000; TENSILE LBS/SQ IN: 75700; % ELONG 8 IN: 23.6; BEND: DEF: % LIGHT/HEAVY: METRIC EQUIVALENT: YIELD = 399.45 MPA; TENSILE = 521.83 MPA; % ELONG / 200MM = 23.6 DEF. = MM																								
64-0350	A36/A992	A36/A992	.14	.90	.010	.028	.017	.18	.06	.35	.10	.010	.002	.032	.0080	.001	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.34
YIELD PT LBS/SQ IN: 57100; TENSILE LBS/SQ IN: 77400; % ELONG 8 IN: 22.4; BEND: DEF: % LIGHT/HEAVY: METRIC EQUIVALENT: YIELD = 397.83 MPA; TENSILE = 533.86 MPA; % ELONG / 200MM = 22.4 DEF. = MM																								
64-0351	A36/A992	A36/A992	.14	.90	.010	.025	.017	.19	.06	.35	.10	.010	.002	.032	.0080	.001	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.34
YIELD PT LBS/SQ IN: 60200; TENSILE LBS/SQ IN: 79000; % ELONG 8 IN: 21.1; BEND: DEF: % LIGHT/HEAVY: METRIC EQUIVALENT: YIELD = 415.06 MPA; TENSILE = 544.06 MPA; % ELONG / 200MM = 21.1 DEF. = MM																								
64-0352	A36/A992	A36/A992	.14	.90	.010	.025	.017	.19	.06	.35	.10	.010	.002	.032	.0080	.001	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.34
YIELD PT LBS/SQ IN: 57100; TENSILE LBS/SQ IN: 77400; % ELONG 8 IN: 22.4; BEND: DEF: % LIGHT/HEAVY: METRIC EQUIVALENT: YIELD = 397.83 MPA; TENSILE = 533.86 MPA; % ELONG / 200MM = 22.4 DEF. = MM																								

11746250288 is used to make 1000 2036 2036

The material, including the labels, was produced and manufactured in the United States of America.

G. J. Hunter  
Quality Assurance Manager  
Steel Group

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST REPORT AS CONTAINED IN THE PERMANENT RECORDS OF THE COMPANY.

BUCOR STEEL - BERKELEY  
 P.O. Box 2759  
 MC, Pleasanton, S.C. 29664  
 Phone (843) 336-6000

Sold To: ACIER LEROUX, INC.  
 1331 GRAND BELL

BOUCHERVILLE, PQ J4B 6A1

SHIP TO: ACIER LEROUX, INC.  
 BOUCHERVILLE RAIL FOR CHAQUEE  
 Customer No.: 610 R  
 B.O.L. No.: 32837A

DUCHERVILLE, PQ J4B 6A1  
 SPECIFICATIONS: Insulated in accordance with ASTM specification A616/A617 and A370.  
 ASTM: A370-36-00/A270-50-00  
 ASME: SA-36  
 ASTM: A992-02/A36-01A/A572-01-50/A709-01-36/A709-01-50  
 CSA: CSA-44W/G40.21-50U

Description	Batch Grade(s) Test	Yield/ Tensile Ratio	Yield (MPa)	Tensile (PSI)	Elong %	C		Ma		P		S		SI		Cu		CE1		CE2	CEM		
						CE	Pb	Mo	Ti	Sh	Ca	Si	Al	Al	Al	Al	Al	Al	Al			Al	Al
S3X5.7	1531502 040' 00.00' 0992-02	.85	64200	75600	22.85	.0800	.8600	.0100	.0100	.0200	.0200	.0200	.0200	.0200	.1800	.0000	.0200	.0200	.0200	.0200	.0200	.0200	.0200
S75X8.5	1306175 040' 00.00' 0992-02	.76	54600	71800	29.96	.0750	.6720	.0078	.0078	.0205	.0205	.0205	.0205	.0205	.0021	.0123	.0000	.0000	.0000	.0000	.0000	.0000	.0000
S150X18.6	2305121 040' 00.00' 0992-02	.81	57700	70900	20.23	.0670	.8420	.0076	.0076	.0207	.0207	.0207	.0207	.0207	.0030	.0273	.0000	.0000	.0000	.0000	.0000	.0000	.0000
S6X12.5	2305117 040' 00.00' 0992-02	.83	57600	71300	27.39	.0750	.8610	.0068	.0068	.0177	.0177	.0177	.0177	.0177	.0030	.0272	.0000	.0000	.0000	.0000	.0000	.0000	.0000
W10x15	1307934 050' 00.00' 0992-02	.78	52700	67200	29.86	.0790	.8700	.0088	.0088	.0250	.0250	.0250	.0250	.0250	.0040	.0150	.0000	.0000	.0000	.0000	.0000	.0000	.0000
W250x22.3	1303558 030' 00.00' 0992-02	.79	53000	67300	27.51	.0860	.8010	.0050	.0050	.0011	.0011	.0011	.0011	.0011	.0059	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
W10x17	1303558 030' 00.00' 0992-02	.80	53500	66900	29.94	.0670	.8270	.0054	.0054	.0171	.0171	.0171	.0171	.0171	.0000	.0138	.0000	.0000	.0000	.0000	.0000	.0000	.0000
W250x25.3	1109.1' 40m 040' 00.00' 0992-02	.79	51900	65300	29.11	.0844	.8011	.0003	.0003	.0007	.0007	.0007	.0007	.0007	.0072	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
W10x17	1109.1' 40m 040' 00.00' 0992-02	.80	53500	66900	29.94	.0670	.8270	.0054	.0054	.0171	.0171	.0171	.0171	.0171	.0000	.0138	.0000	.0000	.0000	.0000	.0000	.0000	.0000

Handwritten notes: "used to sub item B224"

G-1900000

**GERDAU AMERISTEEL**  
 CARTERSVILLE STEEL MILL  
 384 OLD GRASSDALE RD NE  
 CARTERSVILLE GA 30121 USA  
 (770) 387-3000

Chemical and Physical Test Report  
 MADE IN UNITED STATES

PRODUCED IN: CARTERSVILLE

SHIP TO  
 TRIAD METAL  
 1951 BESSEMER ROAD  
 804-732-5000  
 PETERSBURG, VA 23805

INVOICE TO  
 TRIAD METALS INTERNATIONAL  
 METAL TRADERS INC  
 2300 COMPUTER AVE, STE A 1  
 YELLOW GROVE, PA 19690

SHIP DATE  
 09/19/97  
 CUST. ACCOUNT NO  
 49211035

SHAPE & SIZE	GRADE	SPECIFICATION	SALES ORDER	CUSTOMER NUMBER													
W12 X 22 1/2	A57250/302	ASTM A572 GR60-07, ASTM A592-08A	701447113	110913													
HEAT ID:	C	S	SI	CU	NI	CR	MO	V	Nb	N	Sn	Al	TI	CL	CEN		
G704790	.08	1.12	.028	.29	.75	.07	.07	.07	.011	.027	.001	.0007	.0171	.012	.00100	.00190	.324

Mechanical Test: Yield 50700 PSI, 404.72 MPA  
 Mechanical Test: Yield 60800 PSI, 419.2 MPA  
 Customer Requirements CASTING: STRAND CAST  
 Tensile: 714000 PSI, 512.97 MPA  
 Tensile: 714000 PSI, 512.97 MPA  
 Yield: 75.05%, 26.072000MM  
 Yield: 75.05%, 26.072000MM  
 Std Dev: 0.14 Duct: 385  
 Std Dev: 0.14 Duct: 385

SHAPE & SIZE	GRADE	SPECIFICATION	SALES ORDER	CUSTOMER NUMBER											
W12 X 19 1/4	A57250/302	ASTM A572 GR60-07, ASTM A592-08A	701447111	110911											
HEAT ID:	C	S	SI	CU	NI	CR	MO	V	Nb	N	Sn	Al	TI	CL	CEN
G704837	.08	1.14	.018	.029	.24	.07	.08	.018	.028	.002	.0009	.009	.00100	.00700	.312

Mechanical Test: Yield 54900 PSI, 378.53 MPA  
 Mechanical Test: Yield 55700 PSI, 384.04 MPA  
 Customer Requirements CASTING: STRAND CAST  
 Tensile: 69100 PSI, 476.43 MPA  
 Tensile: 70100 PSI, 483.12 MPA  
 Yield: 27.53%, 27.57000MM  
 Yield: 25.74%, 25.70000MM  
 Std Dev: 0.14 Duct: 377  
 Std Dev: 0.14 Duct: 377

ATT # G-704837 is used to pub items B24 B23 B22 B21 B20 B19 B18 B17 B16 B15 B14 B13 B12 B11 B10 B09 B08 B07 B06 B05 B04 B03 B02 B01 B00

This material, including the label, was produced and manufactured in the United States of America

*Shackley*  
 Regional Sales Manager  
 Quality Director  
 Gerdau Ameristeel

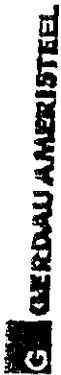
THE ABOVE FIGURES ARE CERTIFIED EXACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RESULTS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY

*J. J. ...*  
 CONFIDENTIAL ITEM !!!

Customer warrants that all material furnished shall comply with specifications, subject to the usual limitations of MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. No other warranties, express or implied, are made by the seller, and SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Any claim for damages for materials that do not conform to specifications must be made, in writing, to the manufacturer immediately upon delivery of same in order to allow for investigation to report the material question.

Attn:

Page 8 of 10



CARTERSVILLE STEEL MILL  
384 OLD GRASSDALE RD NE  
CARTERSVILLE GA 30121 USA  
(770) 387-3300

Chemical and Physical Test Report  
MADE IN THE UNITED STATES

G-043980

SHIP TO  
ARMAGE DEAL ON 60WS 8078  
TUD ACER PACIFIC  
2346 DE LA METROPOLE  
LONGUEUIL, PQ J4K 1S4

INVOICE TO  
PACIFIQUE STEEL INC  
845 MUNDOS ST.  
LAVAL, PQ H7S 1A9

SHIP DATE  
01/04/05

CUST. ACCOUNT NO  
60030632

SALES ORDER  
4093875

CUST. P.O. NUMBER  
11802

SHAPE & SIZE	GRADE	SPECIFICATION	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	N	Sn	Al	C Equ	
W12 X 22W	A36/A992	ASTM A36-01, ASTM A992-02, ASTM A708 G36-01B	.070	1.15	.008	.026	.19	.33	.08	.08	.023	.025	.003	.0006	.0099	.010	.001	.31
Mechanical Test:			Yield 55700 PSI, 384.04 MPA Tensile: 68300 PSI, 470.81 MPA %E: 22.0%, 22.0/200MM															
Mechanical Test:			Yield 50200 PSI, 387.48 MPA Tensile: 70800 PSI, 488.15 MPA %E: 23.0%, 23.0/200MM															

SHAPE & SIZE	GRADE	SPECIFICATION	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	N	Sn	Al	C Equ	
W4 X 13W	A36/A992	ASTM A36-01, ASTM A992-02, ASTM A708 G36-01B	.160	.81	.013	.033	.25	.33	.11	.14	.026	.017	.001	.0005	.0100	.011	.002	.37
Mechanical Test:			Yield 56600 PSI, 390.24 MPA Tensile: 76600 PSI, 528.14 MPA %E: 24.7%, 24.7/200MM															
Mechanical Test:			Yield 50700 PSI, 404.72 MPA Tensile: 75300 PSI, 518.10 MPA %E: 24.5%, 24.5/200MM															

HT Heat-treat is used to produce low yield strength bars

This material, including the label, was produced and manufactured in the United States of America

A. J. Turner  
Quality Assurance Manager  
MIGroup

THE ABOVE FOUND ANALYSES EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

*[Signature]*

Mgt. Warehouse, Dept.  
CARTERSVILLE STEEL MILL

**Steel Dynamics, Inc.**  
2601 S. County Road 700 East  
Columbia City, IN 46725  
(260) 625-8100

**Steel Dynamics, Inc.**  
2601 S. County Road 700 East  
Columbia City, IN 46725  
(260) 625-8100

**Certified Mill Test Report**  
100% Melted and Manufactured in USA

Date: 8/22/2007  
Customer No: 000191  
Bill of Lading No: 0000122072  
MTR #: 0000121600

Ship to:  
Triad Metals Intl  
1951 Bessemer Road  
CSX-Collier Yard  
Petersburg, VA 23805  
Attn: Rock McGovern

Bill to:  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19080  
Attn: Fred White

Customer P.O.  
163013

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
41	020936730	W14X22	50' 0"	8	A035733	A992/A992M A709 gr50/gr345 A709 gr50S/gr345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A572/A572M - 06 ASTM A572/A572M - 06	163013
51	020936733	W14X22	50' 0"	8	A035733	A992/A992M A709 gr50/gr345 A709 gr50S/gr345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A572/A572M - 06 ASTM A572/A572M - 06	163013

**CHEMICAL**


Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Ch	C1	C2	PC	Analysis
4*	.07	.75	.016	.041	.24	.30	.011	.09	.10	.026	.014	.0111	.0003	.002	.24	.28	.14	HEAT
5*	.07	.75	.016	.041	.24	.30	.011	.09	.10	.026	.014	.0111	.0003	.002	.24	.28	.14	HEAT

**MECHANICAL**

Item	Test	Tension Testing Results			Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp F/C	Charpy Impact Testing Results			ASTM Grain Size No (per ASTM E112)
		Yield Strength ksi/MPa	Tensile Strength ksi/MPa	Fy/Fu					Sample 1 ft. lb/ftoules	Sample 2 ft. lb/ftoules	Sample 3 ft. lb/ftoules	
4	1	56/390	72/495	.78	26		1					
4	2	56/389	71/490	.79	29		2					
5	1	56/390	72/495	.78	26		1					
5	2	56/389	71/490	.79	29		2					

With A035733 is used to Fabricate 163013

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designations.

Signed:   
Quality Assurance

State of Indiana, County of Whitley  
Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
Signed: \_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

Special Comments/Information:  
\* Fully Killed Steel  
† Cast and Rolled to a Fine Grain Practice

10/19/07-C:\46-1075-MC-Cy15 CRAMS-C:\In-Exp\Com-y19-04-Cy15 #C-5508-WG-Cy15-WG-Cy15-V10-08 Item-26-0101013-0001-22(Cy15-14-51-17-29(F720CUN)91019P0330(Cy15-10-101013-0101))



Bill To:  
PACIFIC STEEL, INC.  
845 MUNCK  
CROMBIEY  
LAVAL  
H761A9  
PQ  
CA

Ship To: 1  
PACIFIC STEEL, INC.  
845 MUNCK  
BO76 LONGUBIL  
MONTREAL  
H75-LAS  
PQ  
CA

DESCRIPTIONS  
ASTM A6-05a, A992-06a, A572-06  
HEAT NO: 30150920

SIZE  
W 18 X 35# / W160 X 52  
GRADE  
992/572-50

Order Date: 02/21/2007  
PO NO: 18704  
Mill Order No: 32261903  
Load No: 1099564  
Manifest No: 1813840

CERTIFIED MATERIAL TEST REPORT  
CHAPARRAL STEEL  
300 Ward Rd.  
Midlothian, TX  
76065-9651  
(972) 775-8241

PRODUCT  
RP BEAMS

C	NO	P	S	S1	Cu	Ni	Cr	Mo	Sn	V	Al	Nb	CR
.07	.93	.010	.031	.21	.35	.10	.09	.016	.013	.002	.001	.020	.28

CHEMICAL ANALYSIS

Yield Strength

KSI	MPa
55.3	381.3
53.3	367.5

Tensile Strength

KSI	MPa
69.7	480.6
68.1	469.5

PHYSICAL PROPERTIES

Specimen Area	Y	W	W	W	W
Sq In	Sq Cm	K	Gauge Length	8 In	200 mm
0.686	4.43	23.0	8 In	200 mm	
0.689	4.45	26.0	8 In	200 mm	

Bend Test  
Dia. Result  
ROA

*47# 25' 12" used to fab items 1000, 1001, 1002*

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A.  
CMTR complies with DIN EN 10204 3.1.R

"I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements."

Signed: *[Signature]* Date: Mar. 23, 2007  
Tom L. Harrington: Quality Assurance Manager

Notary Public (if applicable)

Date: \_\_\_\_\_  
Page: 2 of 2

Attn:

**Steel Dynamics, Inc.**  
 2601 S. County Road 700 East  
 Columbia City, IN 46725  
 (200) 625-4100

**Certified Mill Test Report**  
 100% Method and Manufactured in USA

Date: 7/1/2007  
 Customer No: 000305  
 Bill of Lading No: 0000117028  
 MTR #: 0000117209

Ship to:  
 PACIFIC STEEL INC  
 845 Rue Munch, Chomedey  
 C/O Valport Maritime Services  
 Track V88  
 Vile De Leval, PQ H7S1A9  
 Attn: John Pimentel

Bill to:  
 PACIFIC STEEL INC.  
 845 Rue Munch,  
 Leval Quebec, PQ H7S1A9  
 Attn: John Pimentel

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specifications(s)	Customer P.O.
1†	020891565	W18X40	40' 0"	6	A034046	A992 / A992M A709 (50S) (345S) A572 (50) (345)	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	18730
2†	020891566	W18X40	40' 0"	6	A034046	A992 / A992M A709 (50S) (345S) A572 (50) (345)	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	18730
3†	020891567	W18X40	40' 0"	6	A034046	A992 / A992M A709 (50S) (345S) A572 (50) (345)	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	18730
4†	020891568	W18X40	40' 0"	6	A034046	A992 / A992M A709 (50S) (345S) A572 (50) (345)	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	18730


**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	NI	Mo	Sn	N	B	Ca	C1	C2	PC	Analysis
1†	.08	.94	.021	.021	.15	.29	.001	.13	.14	.044	.011	.0095	.0002	.019	.30	.33	.16	HEAT
2†	.08	.94	.021	.021	.15	.28	.001	.13	.14	.044	.011	.0085	.0002	.019	.30	.33	.16	HEAT
3†	.08	.94	.021	.021	.15	.29	.001	.13	.14	.044	.011	.0085	.0002	.019	.30	.33	.16	HEAT
4†	.08	.94	.021	.021	.15	.29	.001	.13	.14	.044	.011	.0085	.0002	.019	.30	.33	.16	HEAT

**MECHANICAL**

Item	Test	Tension Test Results				Charpy Impact Testing Results				ASTM Grain Size No. (per ASTM E112)											
		Yield (Fy) ksi/MPa	Tensile (Fu) ksi/MPa	Elong (%) based on 8" gauge	ROA (%)	Temp FIC	Sample 1 ft. Ibf/ftoules	Sample 2 ft. Ibf/ftoules	Sample 3 ft. Ibf/ftoules		% Shear										
1	1	60416	76527	.79	.79	23															
1	2	63434	79518	.84	.84	22															
2	1	60416	76527	.79	.79	23															
2	2	63434	79518	.84	.84	22															
3	1	60416	76527	.79	.79	23															
3	2	63434	79518	.84	.84	22															
4	1	60416	76527	.79	.79	23															
4	2	63434	79518	.84	.84	22															

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchase order designated.

Signed:   
 Quality Assurance

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
 Signed: \_\_\_\_\_  
 My commission expires: \_\_\_\_\_

Special Comments/Information:  
 - Fully Killed Steel  
 - Cast and Rolled in a Fine Grain Practice

2601 S. County Road 700 East  
Columbia City, IN 46725  
(260) 625-8100

Customer No: 000191  
Bill of Lading No: 0000119461  
MTR #: 0000119025

Bill to  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

Customer P.O.  
495

**Certified Mill Test Report**  
100% Melted and Manufactured in USA

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)
1†	020908432	W21X44	42' 0"	4	A034738	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M
2†	020908437	W21X44	42' 0"	4	A034738	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M
3†	020908539	W21X44	42' 0"	4	A034729	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M
4†	020908578	W21X44	42' 0"	4	A034727	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M
5†	020908643	W21X44	42' 0"	4	A034743	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M
6†	020908707	W21X44	42' 0"	4	A034745	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06 ASTM A6/A6M

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
1*	.08	1.03	.016	.031	.22	.32	.022	.080	.13	.04	.016	.007	.0004	.00	.31	0.3500	0.1700	HEAT
2*	.08	1.03	.016	.031	.22	.32	.022	.080	.13	.04	.016	.007	.0004	.00	.31	0.3500	0.1700	HEAT
3*	.07	1.04	.016	.029	.19	.36	.023	.120	.13	.04	.019	.010	.0003	.00	.31	0.3100	0.1600	HEAT
4*	.07	1.04	.019	.029	.21	.31	.021	.100	.11	.03	.015	.009	.0003	.00	.30	0.3400	0.1600	HEAT
5*	.06	1.01	.018	.038	.18	.31	.021	.080	.10	.03	.013	.007	.0003	.00	.28	0.3100	0.1400	HEAT
6*	.08	1.05	.017	.042	.20	.31	.022	.100	.10	.03	.014	.008	.0004	.00	.31	0.3400	0.1600	HEAT

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated

*[Signature]*  
Quality Assurance

State of Indiana, County of Whitley

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_  
Notary Public

My commission expires \_\_\_\_\_

Special Comments/Information

HT # A034738 is used to Fabricate  
Page 6 of 6

C:\NWJ-C-Mn0-Cr-Mo-V015-IN-Cu15 C21AWB-Cr-Mn-V015-IN-Cu15 FC-C-5 10-Min20-Cu20-Ni20-Mo15-V10-58 1mm26 011Cu15 841111 20/2/11 4:55:17 PM 11/11/11 11:39:02 (pp. 1 of 1)



**Steel Dynamics, Inc.**  
Structural and Rail Division • Columbia City, Indiana

**CERTIFIED MILL TEST REPORT**

Customer # 000191  
Date 09 / 04 / 2007  
Bill to:  
**TRIAD METALS INTERNATIONAL**  
A-1 2300 Computer Avenue  
Pittsburgh PA, 15225 US  
Attn: Fred White

Ship to:  
**Triad Metals International**  
3480 Grand Avenue  
Pittsburgh PA, 15225 US  
Attn: Craig Borrelli

Quality Steel 100% Melted  
and Manufactured in the USA

**GENERAL INFORMATION**

Product Wide Flange Beam  
Size W 24 x 55  
W 610 x 82

Heat Number **A036411**  
Condition(s) As-Rolled  
Fine Grained

**SPECIFICATIONS**

Standards  
ASTM A6/A6M

- ASTM A992/A992M - 06a
- ASTM A709/A709M - 06a
- ASTM A572/A572M - 06
- ASTM A709/A709M - 06a

**SHIPMENT DETAILS**

Bundle / ASN #	Length	pcs	Customer PO
020954875	40' 0"	4	182
020954872	40' 0"	4	182

BOL # 0000123476

**CHEMICAL ANALYSIS** (weight percent)

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Nb/Cb	N	B	*C1	*C2	*PC	*1	Analysis Type
.08	1.04	.014	.031	.22	.30	.13	.09	.031	.012	.034	.002	.0099	.0003	.31	.35	.16	5.65	Heat

**MECHANICAL TESTING**

Test	Yield (fy)		Tensile Strength		% Elong. {8" gage}
	ksi / MPa	ksi / MPa	ksi / MPa	ksi / MPa	
1	59 / 406	70 / 485	84	28	
2	60 / 414	73 / 505	82	26	
3					
4					
5					
6					
7					

Charpy Impact Tests (available only when specified at time of order)

Temp F / C	Specimen 1	Specimen 2	Specimen 3	Average	Minimum

**Notes:**

\* Calculated Chemistry Values: Carbon Equivalents (C1, C2, PC). Corrosion Index (I)  
 CE1 [(W)-C+Mn/6+(Cr+Mo+V)/5+(Ni+Cu)/15]  
 CE2 [AWS]=C+(Mn+Si)/6+(Cr+Mo+V)/5+(Ni+Cu)/15  
 I [(ASTM G101)= 26.01(Cu)+3.88(Ni)+1.20(Cr)+1.49(Si)+17.28(P)-7.29(Cu)(Ni)+9.10(Ni)(P)-33.39(Cu)]  
 Pcm [AWS] = C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+mo/15+V/10+5B

I hereby certify that the content of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: **Doug Rees-Evans**  
Manager of Technical Services

Signed: \_\_\_\_\_  
Notary Public

ASTM A6 - 14.6: A signature is not required on the test report, however, the document shall clearly identify the organization submitting the report. Notwithstanding the absence of a signature, the organization submitting the report is responsible for the content of the report.

**Steel Dynamics, Inc.**  
2601 S. County Road 700 East  
Columbia City, IN 46725-  
(260) 625-8100

**Bill of Lading No: 0000116623**  
**MTR #: 0000116208**

**Date: 6/21/2007**  
**Customer No: 000191**

**Ship to:**  
Triad Metals, Inc  
1951 Bessemer Road  
CSX-Colliery Yard  
Petersburg, VA 23805

**Bill to:**  
TRIAD METALS INTERNATIONAL,  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

**Certified Mill Test Report**  
100% Made and Manufactured in USA

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
10a†	020901457	W24X68	60'0"	2	A034337	A992 / A992M A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	158398
10b†	020901457	W24X68	60'0"	2	B034457	A992 / A992M A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	158398
11†	020901458	W24X68	60'0"	4	B034457	A992 / A992M A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	158398
12†	020901460	W24X68	60'0"	4	B034457	A992 / A992M A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	158398

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
10a*	.08	1.04	.014	.020	.21	.33	.033	.10	.10	.037	.013	.0091	.0003	.001	.31	.35	.17	HEAT
10b*	.09	1.06	.017	.040	.26	.34	.035	.10	.09	.019	.011	.0112	.0004	.002	.33	.37	.18	HEAT
11*	.09	1.06	.017	.040	.26	.34	.035	.10	.09	.019	.011	.0112	.0004	.002	.33	.37	.18	HEAT
12*	.09	1.06	.017	.040	.26	.34	.035	.10	.09	.019	.011	.0112	.0004	.002	.33	.37	.18	HEAT

**MECHANICAL**

Item	Test	Yield (Fy)		Tensile (Fu)		Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp F/C	Charpy Impact Testing Results			ASTM Grain Size No (per ASTM E112)
		ksi/MPa	Fy/Fu	ksi/MPa	Fy/Fu					ft. lb/ftoules	Sample 2 ft. lb/ftoules	Sample 3 ft. lb/ftoules	
10a	1	59/405	.83	71/488	.83	27							
10a	2	57/394	.80	71/490	.80	28							
10b	1	61/424	.80	76/527	.80	23							
10b	2	57/391	.76	75/520	.76	23							
11	1	61/424	.80	76/527	.80	23							
11	2	57/391	.76	75/520	.76	23							
12	1	61/424	.80	76/527	.80	23							
12	2	57/391	.76	75/520	.76	23							

**SWORN TO AND SUBSCRIBED before me this** \_\_\_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_  
Nancy Pulec

My commission expires: \_\_\_\_\_

State of Indiana, County of Whitley

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_  
Nancy Pulec

My commission expires: \_\_\_\_\_

Special Comments/Information:  
\* Fully Killed Steel  
† Cast and Rolled to a Fine Grain Practice

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designations.

Quality Assurance

30527

3797

30368350

Bill To: TRIAD METALS INTERNATIONAL  
2300 COMPUTER AVENUE  
SUITE A-1  
WILLOW GROVE  
19090 PA  
US

Ship To: 6 TRIAD METALS INTERNATIONAL  
1951 BESSEMER ROAD  
PETERSBURG  
23803 VA  
US

Order Date: 05/15/2007  
PO No: 263  
Mill Order No: 3306868  
Load No: 1120488  
Manifest No: 1833332

CERTIFIED MATERIAL TEST REPORT  
CHAPARRAL STEEL  
300 Ward Rd.  
Midlothian, TX  
76065-9651  
(972) 775-8241

CHAPARRAL

PRODUCT  
WF BEAMS

LENGTH  
45 FT / 13.716 M

GRADE  
992/572-50

SIZE  
W 27 X 84# / W690 X 125

HEAT NO: 30368350

CHEMICAL ANALYSIS													
C	Mn	P	S	Si	Cu	Ni	Cr	%	V	Al	Mb	CF	
.08	1.12	.011	.033	.22	.35	.09	.08	.015	.014	.001	.002	.020	.32

PHYSICAL PROPERTIES					
Yield Strength		Tensile Strength		Elongation	
KSI	MPa	KSI	MPa	%	%
54.0	372.3	69.3	477.8	29.0	29.0
55.0	379.2	70.5	486.1	25.8	25.8

Bend Test  
Dia. Result  
POA  
%

HT # 30368350 13.716 M Length To Pick items 13.716 M

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A. CMTR complies with DIN EN 10204 3.1.B

I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: *Tom L. Harrington*  
Tom L. Harrington: Quality Assurance Manager  
Date: Jun. 27, 2007  
Notary Public (if applicable)  
Date: \_\_\_\_\_

# INSPECTION CERTIFICATE

**UNYTITE, INC.**  
 One Unytite Drive  
 Peru, Illinois 61354

815-224-2221 — FAX # 815-224-3434



SET LOT NO. JS721A

Specification	Size	Quantity
ASTM F1852 Type 1		
ASTM A563 Grade DH	3/4-10 UNC X 1-3/4	35,100 pcs.
ASTM F436 Type 1		

Mechanical properties tested in accordance to ASTM F606/F606M, ASTM A370, ASTM E18

BOLT LOT NO. JS721

Date: Jan. 31, '07

Mechanical Property of Full Size Bolts	Chemical Composition %																		
	Tensile Strength		Proof Load		Hardness		Heat Treatment		IDENTIFICATION										
	Load (lbf)	Position of fracture	28400 (Length Method)	Max.	HRC	Quench	Temper	Min.	C	Si	Mn	P	S	Cu	Ni	Cr	Mo	B	
Spec.	40100	Part of Screw	+/- 0.0005 in	34 MAX				800	30	15	60	40	50						
Average	47125	Part of Screw	ALL PASS	31.9	1580	890		456690	31	26	76	8	9	8	6	7	2	27	

NUT LOT NO. JS272

Mechanical Property of Full Size Nuts	Chemical Composition %															
	Tensile Strength		Proof Load		Hardness		Heat Treatment		IDENTIFICATION							
	Load (lbf)	Position of fracture	58450 (Length Method)	Max.	HRC	Quench	Temper	Min.	C	Si	Mn	P	S	Cu	Ni	Cr
Spec.	24-38	HRB 89	58450				800		20		60	40	50			
Mean/5pcs	29.5		ALL PASS	1562	1202	M630018		44	22	71	8	26	17	10	14	

WASHER LOT NO. WB8947

Mechanical Property of Full Size Washers	Chemical Composition %															
	Tensile Strength		Proof Load		Hardness		Heat Treatment		IDENTIFICATION							
	Load (lbf)	Position of fracture	39553 (Length Method)	Max.	HRC	Quench	Temper	Min.	C	Si	Mn	P	S	Cu	Ni	Cr
Spec.	38-45		39553													
Mean/5 Pcs.	42.0		C39553	40	13			3								

Material used for the bolt, nut and washer were melted & manufactured in the USA. The product was manufactured in the USA to ASTM specifications. The bolt and nut are manufactured by Unytite. We hereby certify that the material described has been manufactured and inspected satisfactory with requirement of the above specification.

Thread Accuracy (Bolt & Nut)		REMARKS
Bolt	ASME B1.1 Class 2A	
Nut	ANSI B1.1 Class 2B	

### Fastener Tension

Fastener Tension	Fastener Tension
Spec. (lbf)	29000
Mean / 6 sets.	36116
Standard Deviation	1686

Chief of Quality Assurance Section

*[Signature]*

SET LOT NO. KR221


# INSPECTION CERTIFICATE

Specification	Size	Quantity
ASTM F1852 Type 1	3/4-10 UNC X 2	35,280 pcs.
ASTM A563 Grade DH		
ASTM F436 Type 1		


Mechanical properties tested in accordance to ASTM F606/F606M, ASTM A370, ASTM E18

BOLT LOT NO. KR221


Date: Aug. 23, '07

Mechanical Property of Full Size Bolts				Chemical Composition %											
Tensile Strength	Proof Load 28400 (Length Method)	Hardness		Heat Treatment		IDENTIFICATION									
		Load (lbf)	Position of fracture	Quench	Temper										
Spec. 40100	Min. Part of Screw	Max. +/- 00005 in.	34 MAX		Min. 800	C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100	Mo x 100	B x 10,000
Average 49650	Part of Screw	ALL PASS	32.0	1580	890	33	22	84	9	9	9	5	7	1	28

NUT LOT NO. KM332

Mechanical Property of Full Size Nuts				Chemical Composition %											
Hardness (HRC)	Proof Load (Lbf)	Heat Treatment		IDENTIFICATION		IDENTIFICATION									
		Hardness A (ref 24 hr x 1000° F HRB)	Min.	Quench	Temper										
Spec. 24-38	Min. HRB 89	58450	800		Min. 800	C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100		
Mean/Specs 29.7	—	ALL PASS	1562	1184	M25257	46	25	82	9	29	10	4	9		

WASHER LOT NO. WB9063

Mechanical Property of Full Size Washers				Chemical Composition %											
Hardness (HRC)	Proof Load (Lbf)	Heat Treatment		IDENTIFICATION		IDENTIFICATION									
		Hardness A (ref 24 hr x 1000° F HRB)	Min.	Quench	Temper										
Spec. 38-45	Min. HRB 89	30640050	800		Min. 800	C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100		
Mean/5 Pcs. 41.5	—	ALL PASS	1562	1184	M25257	46	25	82	9	29	10	4	9		

Material used for the bolt, nut and washer were melted & manufactured in the USA. The product was manufactured in the USA to ASTM specifications. The bolt and nut are manufactured by Unytite. We hereby certify that the material described has been manufactured and inspected satisfactory with requirement of the above specification.

Chief of Quality Assurance Section

REMARKS

JEAN MARGHERIO  
OFFICIAL SEAL  
NOTARY PUBLIC - STATE OF ILLINOIS  
MY COMMISSION EXPIRES 10/18/08

08-28-07

Thread Accuracy (Bolt & Nut)  
Bolt ASME B1.1 Class 2A  
Nut ANSI B1.1 Class 2B



KD881A

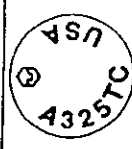
# INSPECTION CERTIFICATE

Specification	Size	Quantity
ASTM F1852 Type 1	3/4-10 UNC X 2-1/4	34,045 pcs.
ASTM A563 Grade DH		
ASTM F436 Type 1		

Mechanical properties tested in accordance to ASTM F606/F606M, ASTM A370, ASTM E18

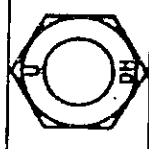
**BOLT LOT NO.** KD881

Date: May 01, '07

Mechanical Property of Full Size Bolts	IDENTIFICATION	Chemical Composition %									
		C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100	Mo x 100	B x 10,000
Tensile Strength	 Heat No. 473230	30	15	60	40	50	-	-	-	-	-
Load (lbf)		52	30	60	40	50	-	-	-	-	-
Position of Fracture		31	27	85	9	7	8	5	7	2	22
Min. Part of Screw											
Average Part of Screw											

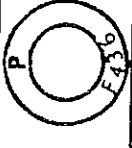
KC672

**NUT LOT NO.**

Mechanical Property of Full Size Nuts	IDENTIFICATION	Chemical Composition %									
		C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100	Mo x 100	B x 10,000
Hardness After 24 hr x 1000° F HRB	 Heat No. M633307	20	-	60	40	50	-	-	-	-	-
Min. HRB		55	-	60	40	50	-	-	-	-	-
Proof Load (Lbf)		46	21	71	6	24	22	9	9	9	9
Min. Part of Nut											
Average Part of Nut											

WB8949

**WASHER LOT NO.**

Mechanical Property of Full Size Washers	IDENTIFICATION	Chemical Composition %									
		C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100	Mo x 100	B x 10,000
Hardness (HRC)	 Heat No. B17013	-	-	-	40	50	-	-	-	-	-
Spec. HRC		43	18	76	7	1	-	-	-	-	-
Mean/5 Pcs.		4.1	9	43	18	76	7	1	-	-	-

Material used for the bolt, nut and washer were melted & manufactured in the USA. The product was manufactured in the USA to ASTM specifications. The bolt and nut are manufactured by Unytite. We hereby certify that the material described has been manufactured and inspected satisfactory with requirement of the above specification.

Chief of Quality Assurance Section

**UNYTITE, INC.**  
 One Unytite Drive  
 Peru, Illinois 61354

815-224-2221 — FAX # 815-224-3434



Thread Accuracy	REMARKS
Bolt	ASME B1.1 Class 2A
Nut	ANSI B1.1 Class 2B
OFFICIAL SEAL JEAN MARGHERIO MAYA PUBLIC STATE OF ILLINOIS MY COMMISSION EXPIRES 10/18/08	

SET LOT NO. KG501A

# INSPECTION CERTIFICATE

Specification	Size	Quantity
ASTM F1852 Type 1	3/4-10 UNC X 2-1/2	35,866 pcs.
ASTM A563 Grade DH		
ASTM F436 Type 1		

Mechanical properties tested in accordance to ASTM F606/F606M, ASTM A370, ASTM E18

BOLT LOT NO. KG501

Date: May 22, '07

Mechanical Property of Full Size Bolts	Heat Treatment		IDENTIFICATION	Chemical Composition %										
	Proof Load	Hardness		Quench	Temper	C	Si	Mn	P	S	Cu	Ni	Cr	Mo
Tensile Strength	28400													
Load (lbf)														
Min.	40100													
Part of Screw														
Max.														
Part of Screw														
Spec.														
Average	49725	ALL PASS	1580	890	31	26	85	10	10	10	5	6	1	25

NUT LOT NO. KG401

Hardness (HRC)	Hardness After 24 hr x 1000° F HRB	Proof Load (Lbf)	Heat Treatment		IDENTIFICATION	Chemical Composition %								
			Quench	Temper		C	Si	Mn	P	S	Cu	Ni	Cr	
Spec.	24-38	58450												
Mean/5pcs	28.2	ALL PASS	1562	1202	M24367	43	24	80	9	36	14	5	11	

WASHER LOT NO. WB9015

Hardness (HRC)	Proof Load (Lbf)	Heat Treatment		IDENTIFICATION	Chemical Composition %									
		Quench	Temper		C	Si	Mn	P	S	Cu	Ni	Cr		
Spec.	38-45													
Mean/5 Pcs.	42.0	ALL PASS	1562	1202	B17016	44	21	79	7	1				

Material used for the bolt, nut and washer were melted & manufactured in the USA. The product was manufactured in the USA to ASTM specifications. The bolt and nut are manufactured by Unytite. We hereby certify that the material described has been manufactured and inspected satisfactory with requirement of the above specification.



**UNYTITE, INC.**  
 One Unytite Drive  
 Peru, Illinois 61354  
 815-224-2221 — FAX # 815-224-3434

Thread Accuracy (Roll & Nut)	Bolt ASME B1.1 Class 2A Nut ANSI B1.1 Class 2B
REMARKS	OFFICIAL SEAL JEAN MARGHERIO NOTARY PUBLIC - STATE OF ILLINOIS MY COMMISSION EXPIRES 10/18/08

Fastener Tension	
Spec. (lbf.)	29000
Mean / 6 sets.	39170
Standard Deviation	1474

Chief of Quality Assurance Section

*[Signature]*

# INSPECTION CERTIFICATE

SET LOT NO. JX661A

Specification	Size	Quantity
ASTM F1852 Type 1 ASTM A563 Grade DH ASTM F436 Type 1	3/4-10 UNC X 2-3/4	33,775 pcs.



**UNYTITE, INC.**

One Unytite Drive  
Peru, Illinois 61354

815-224-2221 -- FAX # 815-224-3434

Mechanical properties tested in accordance to ASTM F606/F606M, ASTM A370, ASTM E18

BOLT LOT NO. JX661

Date: MAR. 09, '07

Mechanical Property of Full Size Bolts				Chemical Composition %													
Tensile Strength	Proof Load 28400 (Length Method)	Hardness	HRC	Heat Treatment		IDENTIFICATION	C x 100	SI x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	NI x 100	Cr x 100	Mn x 100	P x 10,000	
				Quench	Temper												
Min.	40100	Part of Screw	34 MAX	1580	800		30	15	60	40	50						
Max.	+/- 0.0005 in.						52	30	60	40	50						
Average	51975	Part of Screw	32.3	1580	869	464130	32	26	84	9	6	8	5	7	2	26	26

NUT LOT NO. JT601

Mechanical Property of Full Size Washers				Chemical Composition %													
Hardness (HRC)	Hardness After 24 hr x 1000° F HRB	Proof Load (Lbf)	Heat Treatment	Heat Treatment		IDENTIFICATION	C x 100	SI x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	NI x 100	Cr x 100			
				Quench	Temper												
Min.	HRB 89	58450	1184	800			20		60	40	50						
Max.							55		60	40	50						
Average	28.7	ALL PASS	1562	1184	1184	M23196	46	25	80	11	30	17	9	15			

WASHER LOT NO. WB8954

Mechanical Property of Full Size Washers				Chemical Composition %													
Hardness (HRC)	Hardness 30-45	Proof Load (Lbf)	Heat Treatment	Heat Treatment		IDENTIFICATION	C x 100	SI x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	NI x 100	Cr x 100			
				Quench	Temper												
Min.	41.5	17014	18	76	7					40	50						
Max.							43										
Average	41.5	B17014	18	76	7	B17014	43	18	76	7	1						

Material used for the bolt, nut and washer were melted & manufactured in the USA. The product was manufactured in the USA to ASTM specifications. The bolt and nut are manufactured by Unytite. We hereby certify that the material described has been manufactured and inspected satisfactory with requirement of the above specification.

Thread Accuracy	
Bolt	ASME B1.1 Class 2A
Nut	ANSI B1.1 Class 2B

REMARKS: *JEAN MARGHERIO*  
 OFFICIAL SEAL  
 JEAN MARGHERIO  
 NOTARY PUBLIC - STATE OF ILLINOIS  
 MY COMMISSION EXPIRES: 10/1/08  
 2-27-07

### Fastener Tension

Fastener Tension	
Spec. (lbf.)	29000
Mean / 6 sets.	38134
Standard Deviation	1635

Chief of Quality Assurance Section

*[Signature]*

# INSPECTION CERTIFICATE

SET LOT NO. AT301A

Specification	Size	Quantity
ASTM F1852 Type 1	3/4-10 UNC X 4-1/4	3,265 pcs.
ASTM A563 Grade DH		
ASTM F436 Type 1		

Mechanical properties tested in accordance to ASTM F606/F606M, ASTM A370, ASTM E18

BOLT LOT NO. AT301

Date: Jul. 08, '06

Mechanical Property of Full Size Bolts				Chemical Composition %																	
Tensile Strength	Proof Load 28400 (Length Method)	Hardness	Heat Treatment *F (°C)	IDENTIFICATION																	
				C		Si		Mn		P		S		Ni		Cr		Mo		B	
Spec. 40100	Min. 40100	Part of Screw	Min. 800	30	15	30	60	40	50	7	8	5	7	1	30						
Average 50675	Max. +/- 0.0005 in.	ALL PASS	869	52	30	32	26	11	7	8	5	7	1	30							

NUT LOT NO. AT032

Mechanical Property of Full Size Nuts				Chemical Composition %																
Tensile Strength	Proof Load 58450 (Length Method)	Hardness	Heat Treatment *F (°C)	IDENTIFICATION																
				C		Si		Mn		P		S		Ni		Cr				
Spec. 24-38	Min. 118889	Part of Nut	Min. 800	20	—	60	40	50	34	29	11	15								
Average 27.6	ALL PASS	ALL PASS	1220	45	21	71	7	7	34	29	11	15								

WASHER LOT NO. WB8069

Mechanical Property of Full Size Washers				Chemical Composition %																
Tensile Strength	Proof Load 35 (Length Method)	Hardness	Heat Treatment *F (°C)	IDENTIFICATION																
				C		Si		Mn		P		S		Ni		Cr				
Spec. 38-45	Min. 38000	Part of Washer	Min. 800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average 41.5	ALL PASS	ALL PASS	1562	35	8	68	8	4	8	8	4	—	—	—	—	—	—	—	—	—

Material used for the bolt, nut and washer were melted & manufactured in the USA. The product was manufactured in the USA to ASTM specifications. The bolt and nut are manufactured by Unytite. We hereby certify that the material described has been manufactured and inspected satisfactory with requirement of the above specification.



**UNYTITE, INC.**  
One Unytite Drive  
Peru, Illinois 61354  
815-224-2221 — FAX # 815-224-3434

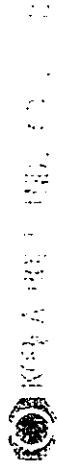
Thread Accuracy		REMARKS
Bolt	ASME B1.1 Class 2A	
Nut	ANSI B1.1 Class 2B	

Fastener Tension	
Spec. (lbf.)	29000
Mean / 6 sets.	34962
Standard Deviation	715

Chief of Quality Assurance Section

*Handwritten signature*

# INSPECTION CERTIFICATE



KOSHA RESEARCH LAB. CO. LTD.

001

1. Name of the product

2. Name of the manufacturer

3. Address of the manufacturer

4. Name of the importer

5. Address of the importer

1. Description of the product

No.	Part	Material	Quantity	Remarks
1	...	...	...	...
2	...	...	...	...
3	...	...	...	...
4	...	...	...	...
5	...	...	...	...
6	...	...	...	...
7	...	...	...	...
8	...	...	...	...
9	...	...	...	...
10	...	...	...	...

2. Date of inspection

3. Name of the inspector

4. Signature of the inspector

*Handwritten signature*

# NUCOR

LOT NO.  
226940A

Post Office Box 6100  
Saint Joe, Indiana 46785  
Telephone 260/337-1600

## FASTENER DIVISION

CUSTOMER NO/NAME

5614 AMCAN THREADED PRODUCTS

NUCOR ORDER # 596733

TEST REPORT SERIAL# - FB290735

CUST PART-#

TEST REPORT ISSUE DATE 6/04/07

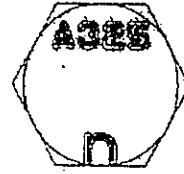
DATE SHIPPED 6/14/07

CUSTOMER P.O. # L-010804

NAME OF LAB SAMPLER: Bobbie Comment, LAB TECHNICIAN

\*\*\*\*\*CERTIFIED MATERIAL TEST REPORT\*\*\*\*\*

NUCOR PART NO	QUANTITY	LOT NO.	DESCRIPTION
160780	405	226940A	3/4-10 X 7 1/2 A325 HVY HX
MANUFACTURE DATE 5/24/07			STRUC SCREW PLAIN



### --CHEMISTRY

MATERIAL NUMBER	HEAT NUMBER	MATERIAL GRADE -1039ML1					MATERIAL SUPPLIER	
		**CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER						
		C	MN	P	S	SI		
RM023615	NU 741807	.40	.90	.011	.008	.24	NUCOR STEEL - NEBRASKA	
	MIN	.30	.60			.10	A2LA NO: 780.01 EXP: 2008-11-30	
	MAX	.52		.040	.050	.30	FOR CHEMICAL TESTING	

### --MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM A325-06

SURFACE HARDNESS (R30N)	CORE HARDNESS (RC)	PROOF LOAD 28400 LBS	TENSILE STRENGTH 10 DEG-WEDGE (LBS)	STRESS (PSI)
N/A	25.4	PASS	46690	139790
N/A	25.0	PASS	47300	141617
N/A	26.0	PASS	46080	137964
N/A	25.5			
AVERAGE VALUES FROM TESTS		PRODUCTION LOT SIZE	3575 PCS	
25.5		46690	139790	

--VISUAL INSPECTION IN ACCORDANCE WITH ASTM A325-06 4 PCS. SAMPLED LOT PASSED  
HEAT TREATMENT - AUSTENITIZED, OIL QUENCHED & TEMPERED (MIN 800 DEG F)

### --DIMENSIONS PER ASME B18.2.6-2003

CHARACTERISTIC	#SAMPLES TESTED	MINIMUM	MAXIMUM
Width Across Corners	8	1.4030	1.4060
Grip Length	8	6.0400	6.0700
Head Height	8	0.4630	0.4770
Threads	8	PASS	PASS

ALL TESTS ARE IN ACCORDANCE WITH THE LATEST REVISIONS OF THE METHODS PRESCRIBED IN THE APPLICABLE SAE AND ASTM SPECIFICATIONS. THE SAMPLES TESTED CONFORM TO THE SPECIFICATIONS AS DESCRIBED/LISTED ABOVE AND WERE MANUFACTURED FREE OF MERCURY CONTAMINATION. NO HEATS TO WHICH BISMUTH, SELENIUM, TELLURIUM, OR LEAD WAS INTENTIONALLY ADDED HAVE BEEN USED TO PRODUCE THE BOLTS. THE STEEL WAS MELTED AND MANUFACTURED IN THE U.S.A. AND THE PRODUCT WAS MANUFACTURED AND TESTED IN THE U.S.A. WE CERTIFY THAT THIS DATA IS A TRUE REPRESENTATION OF INFORMATION PROVIDED BY THE MATERIAL SUPPLIER AND OUR TESTING LABORATORY. THIS CERTIFIED MATERIAL TEST REPORT RELATES ONLY TO THE ITEMS LISTED ON THIS DOCUMENT AND MAY NOT BE REPRODUCED EXCEPT IN FULL.



NUCOR FASTENER  
A DIVISION OF NUCOR CORPORATION

*Chris Ramer*  
CHRIS RAMER  
QUALITY ASSURANCE SUPERVISOR

MECHANICAL FASTENER  
CERTIFICATE NO. A2LA 139-01  
EXPIRATION DATE 12/31/07

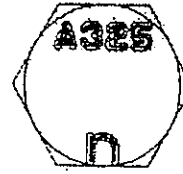
# NUCOR

LOT NO.  
226942A

Post Office Box 6100  
Saint Joe, Indiana 46785  
Telephone 260/337-1800

## FASTENER DIVISION

CUSTOMER NO/NAME  
5614 AMCAN THREADED PRODUCTS  
TEST REPORT SERIAL# FB290737  
TEST REPORT ISSUE DATE 6/07/07  
DATE SHIPPED 6/14/07  
NAME OF LAB SAMPLER: Jeff Hoaring, LAB TECHNICIAN  
\*\*\*\*\*CERTIFIED MATERIAL TEST REPORT\*\*\*\*\*  
NUCOR PART NO QUANTITY LOT NO. DESCRIPTION  
160820 720 226942A 3/4-10 X 8 1/2 A325 HVY HX  
MANUFACTURE DATE 5/25/07 STRUC SCREW PLAIN



### --CHEMISTRY

MATERIAL GRADE -1039ML1  
MATERIAL HEAT \*\*CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER  
NUMBER NUMBER C MN P S SI  
RM023615 NU 741807 .40 .90 .011 .008 .24  
MIN .30 .60 .10  
MAX .52 .040 .050 .30  
NUCOR STEEL - NEBRASKA  
A2LA NO: 780.01 EXP: 2008-11-30  
FOR CHEMICAL TESTING

### --MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM A325-06

SURFACE HARDNESS (R30N)	CORE HARDNESS (RC)	PROOF LOAD		TENSILE STRENGTH	
		28400 LBS	10 DEG-WEDGE	(LBS)	STRESS (PSI)
N/A	25.3	PASS		48790	146078
N/A	26.9	PASS		49330	147695
N/A	25.3	PASS		48540	145329
N/A	24.8				
AVERAGE VALUES FROM TESTS		PRODUCTION LOT SIZE		7700 PCS	
25.6		48887		146367	

--VISUAL INSPECTION IN ACCORDANCE WITH ASTM A325-06 4 PCS. SAMPLED LOT PASSED  
HEAT TREATMENT - AUSTENITIZED, OIL QUENCHED & TEMPERED (MIN 800 DEG F)

### --DIMENSIONS PER ASME B18.2.6-2003

CHARACTERISTIC	#SAMPLES TESTED	MINIMUM	MAXIMUM
Width Across Corners	8	1.4030	1.4080
Grip Length	8	7.0400	7.0500
Head Height	8	0.4670	0.4760
Threads	8	PASS	PASS

ALL TESTS ARE IN ACCORDANCE WITH THE LATEST REVISIONS OF THE METHODS PRESCRIBED IN THE APPLICABLE SAE AND ASTM SPECIFICATIONS. THE SAMPLES TESTED CONFORM TO THE SPECIFICATIONS AS DESCRIBED/LISTED ABOVE AND WERE MANUFACTURED FREE OF MERCURY CONTAMINATION. NO HEATS TO WHICH BISMUTH, SELENIUM, TELLURIUM, OR LEAD WAS INTENTIONALLY ADDED HAVE BEEN USED TO PRODUCE THE BOLTS. THE STEEL WAS MELTED AND MANUFACTURED IN THE U.S.A. AND THE PRODUCT WAS MANUFACTURED AND TESTED IN THE U.S.A. WE CERTIFY THAT THIS DATA IS A TRUE REPRESENTATION OF INFORMATION PROVIDED BY THE MATERIAL SUPPLIER AND OUR TESTING LABORATORY. THIS CERTIFIED MATERIAL TEST REPORT RELATES ONLY TO THE ITEMS LISTED ON THIS DOCUMENT AND MAY NOT BE REPRODUCED EXCEPT IN FULL.



NUCOR FASTENER  
A DIVISION OF NUCOR CORPORATION

*Chris Ramer*  
CHRIS RAMER  
QUALITY ASSURANCE SUPERVISOR

MECHANICAL FASTENER  
CERTIFICATE NO. A2LA 139-01  
EXPIRATION DATE 12/31/07

# NUCOR

LOT NO.  
226944A

Post Office Box 6100  
Saint Joe, Indiana 46785  
Telephone 260/337-1600

## FASTENER DIVISION

### CUSTOMER NO/NAME

5614 AMCAN THREADED PRODUCTS

NUCOR ORDER # 598907

TEST REPORT SERIAL# FB290739

CUST PART #

TEST REPORT ISSUE DATE 6/07/07

DATE SHIPPED 6/14/07

CUSTOMER P.O. # L-010748

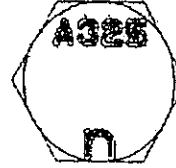
NAME OF LAB SAMPLER: Jeff Hoering, LAB TECHNICIAN

\*\*\*\*\*CERTIFIED MATERIAL TEST REPORT\*\*\*\*\*

NUCOR PART NO QUANTITY LOT NO. DESCRIPTION

160860 720 226944A 3/4-10 X 9 1/2 A325 HVY HX

MANUFACTURE DATE 5/29/07 STRUC SCREW PLAIN



### --CHEMISTRY

MATERIAL GRADE -1039ML1

MATERIAL HEAT \*\*CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER

NUMBER NUMBER C MN P S SI NUCOR STEEL - NEBRASKA

RM023618 NU 741805 .41 .88 .010 .012 .24 A2LA NO: 780.01 EXP: 2008-11-30

MIN .30 .60 .10

MAX .52 .040 .050 .30

FOR CHEMICAL TESTING

### --MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM A325-06

SURFACE CORE PROOF LOAD TENSILE STRENGTH  
HARDNESS HARDNESS 28400 LBS 10 DEG-WEDGE  
(R30N) (RC) (LBS) STRESS (PSI)

N/A 26.0 PASS 46700 139820

N/A 24.2 PASS 46950 140569

N/A 24.0

AVERAGE VALUES FROM TESTS PRODUCTION LOT SIZE 3000 PCS

24.7 46825 140195

--VISUAL INSPECTION IN ACCORDANCE WITH ASTM A325-06 4 PCS. SAMPLED LOT PASSED  
HEAT TREATMENT - AUSTENITIZED, OIL QUENCHED & TEMPERED (MIN 800 DEG F)

### --DIMENSIONS PER ASME B18.2.6-2003

CHARACTERISTIC	#SAMPLES TESTED	MINIMUM	MAXIMUM
Width Across Corners	4	1.4020	1.4050
Grip Length	4	8.0400	8.0500
Head Height	4	0.4700	0.4770
Threads	4	PASS	PASS

ALL TESTS ARE IN ACCORDANCE WITH THE LATEST REVISIONS OF THE METHODS PRESCRIBED IN THE APPLICABLE SAE AND ASTM SPECIFICATIONS. THE SAMPLES TESTED CONFORM TO THE SPECIFICATIONS AS DESCRIBED/LISTED ABOVE AND WERE MANUFACTURED FREE OF MERCURY CONTAMINATION. NO HEATS TO WHICH BISMUTH, SELENIUM, TELLURIUM, OR LEAD WAS INTENTIONALLY ADDED HAVE BEEN USED TO PRODUCE THE BOLTS. THE STEEL WAS MELTED AND MANUFACTURED IN THE U.S.A. AND THE PRODUCT WAS MANUFACTURED AND TESTED IN THE U.S.A. WE CERTIFY THAT THIS DATA IS A TRUE REPRESENTATION OF INFORMATION PROVIDED BY THE MATERIAL SUPPLIER AND OUR TESTING LABORATORY. THIS CERTIFIED MATERIAL TEST REPORT RELATES ONLY TO THE ITEMS LISTED ON THIS DOCUMENT AND MAY NOT BE REPRODUCED EXCEPT IN FULL.



NUCOR FASTENER  
A DIVISION OF NUCOR CORPORATION

*Chris Ramer*  
CHRIS RAMER  
QUALITY ASSURANCE SUPERVISOR

MECHANICAL FASTENER  
CERTIFICATE NO. A2LA 139-01  
EXPIRATION DATE 12/31/07



## GLOVER'S THREADED PRODUCTS INC.

124 Princess Street  
P.O. Box 3458, Station C  
Hamilton, Ontario L8H 7M1  
Telephone (905) 549-7678  
Fax (905) 549-3505

### CERTIFIED TEST RESULTS

CUSTOMER	<u>AMCAN JUMAX</u>	DATE	<u>25-Apr-07</u>
G.T.P. ORDER NUMBER	<u>40823</u>	LOT NO.	<u>05132</u>
PURCHASE ORDER	<u>L-010642</u>	QUANTITY	<u>104</u>
PART DESCRIPTION	<u>3/4-10 x 11 1/2 A325 BOLT ONLY</u>		
MATERIAL	<u>1045</u>	HEAT NO.	<u>E65864</u>
ORIGINAL FORGING	<u>3/4 x 12 ASTM A325 TYPE 1 HEAVY HEX BLANK</u>		

#### CHEMICAL ANALYSIS

#### MECHANICAL PROPERTIES

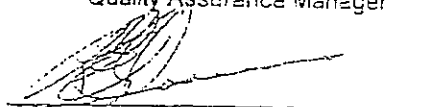
"Machined Sample"

Element	Symbol	Value
CARBON	C	0.460
MANGANESE	Mn	0.780
PHOSPHORUS	P	0.006
SULFUR	S	0.027
SILICON	Si	0.180
CHROMIUM	Cr	0.160
MOLYBDENUM	Mo	0.030
VANADIUM	V	0.036
TITANIUM	Ti	
COPPER	Cu	0.240
NICKEL	Ni	0.110
COLUMBIUM	Cb	0.002
ALUMINIUM	Al	

Area of Cross Section	.199 sq in
Yield Strength	129,000 psi
Tensile Strength	139,000 psi
Elongation	19.40%
Reduction of Area	56.70%
Core Hardness (HRC)	31,30,30,32

We certify the above results to be a true and accurate copy of  
actual test results on file at Glover's Threaded Products inc.

Quality Assurance Manager



# MIDAS UNION TRADING, ||, LTD.

#25, 30th Lane, Chia-Hsing West Road, Kangshan, Kaohsiung 820, Taiwan.

TEL/886-7-6213959

FAX/886-7-6214466, 6212466

EMAIL: service@midas.com.tw

## INSPECTION & QUALITY ASSURANCE REPORT

Date : 2006/10/26 IQAR NO. : MUT-001287

Customer : AMCAN PRODUCTS FILETES INC.

Part Name/No. : 3/4-10 A563 GR. C HEAVY HEX NUTS COARSE THREAD PLAIN.

Drawing No. : \_\_\_\_\_ Rev. : \_\_\_\_\_ Date : \_\_\_\_\_

P/O No. : L-008868 Lot Size : 205,200 MPC(S LOT NO: A601-690102B46.)

### NONDESTRUCTIVE INSPECTION

DIM. KEY	REQUIREMENT				FINDING	Nos. Rejected	RESULT	
	REQUIRED MIN. MAX	UNITS [IN]	Level	Sample Size				Acc. Nbr.
A	WIDTH A/F: 1.212 - 1.250		B	32	1	1.225 - 1.228	0	OK
B	WIDTH A/C: 1.382 - 1.443		C	8	0	1.406 - 1.409	0	OK
C	THICKNESS: .710 - .758		C	8	0	.716 - .722	0	OK
D	MINOR DIA: .642 - .663		C	8	0	.659 - .661	0	OK
E	3/4-10 THREAD		A	100	0	GO-NOGO	0	OK

### DESTRUCTIVE INSPECTION

CHARACTERISTIC	Level	Sample Size	Acc. Nbr.	FINDING	Nos. Rejected	RESULT
HARDNESS: 38 HRC (MAX)	A	8	0	18 - 20	0	OK
PROOF LOAD: 144,000 PSI (MIN)	A	8	0	144,347 - 144,657	0	OK
PLAIN	B	4	0	OK	0	OK

OTHERS :

MATERIAL : C-1018 (CERTIFICATE NO: 950826B0227, HEAT NO: 2B985.) OK

VISUAL : FINISH & APPEARANCE : OK

COMMENT ON SHIPMENT

ACCEPTED & SHIP  REJECTED, USE AS IS, IMPROVE NEXT SHIPMENT.

REJECTED, SORT BEFORE SHIPMENT.  REJECTED, SCRAP & REPRODUCE.

Inspected by : [Signature] Checked by : [Signature] Approved by : \_\_\_\_\_



**TECHNICAL STAMPING, INC.**

151  
EST. 1991  
3815 HENSLEY AVE. SUITE 100  
CHESLER, OHIO 44016  
PHONE: 440.334.1515 FAX: 440.334.1516

**MATERIAL  
CERTIFICATION**

CUSTOMER NAME		CUSTOMER ORDER NUMBER				DATE		
Amcan Products		L-000057				9/11/06		
PART NUMBER - CUSTOMER LOT NO.		LOT NUMBER				QUANTITY		
5/4" P136		0806-311				20,000		
STEEL GRADE	HEAT	C	MN	P	S	SI	AL	REVISION
	0169841	.28	1.15	.012	.006	.21	.040	

SPECIFICATION	ACTUAL	GAUGE
YIELD	150-150	CALIPER
T.D.	115-144	CALIPER, PIN GAUGE
THICKNESS	.122-.177	MICROMETER
HAZ	Max .010	CALIPER
PHOSPHORUS	Max .010	
PLATING		
COATING		

# INSPECTION CERTIFICATE

SET LOT NO. AP071A

**UNYTITE, INC.**  
One Unytite Drive  
Peru, Illinois 61354

815-224-2221 — FAX # 815-224-3434



Specification	Size	Quantity
ASTM A490 F2280 Type 1 ASTM A563 Grade DH ASTM F436 Type 1	3/4-10 UNC X 2-1/4	16,631 pcs.

Mechanical properties tested in accordance to ASTM F606/F606M, ASTM A370, ASTM E18

BOLT LOT NO. AP071

Date: Sep. 16, '06

Mechanical Property of Full Size Bolts	Tensile Strength		Heat Treatment *F (°C)	Chemical Composition %												
	Load (lb)	Position of fracture		Proof Load (Lbf)	Hardness (HRC)	C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100	Mo x 100	B x 10,000	
																Max.
Spec. 50100																
57800	Part of Screw															
Average 8 pcs	Part of Screw	ALL PASS	1580	1013	38	24	85	11	11	8	6	84	21	1		

NUT LOT NO. AX031

Mechanical Property of Full Size Nuts	Tensile Strength		Heat Treatment *F (°C)	Chemical Composition %									
	Load (lb)	Position of fracture		Proof Load (Lbf)	Hardness (HRC)	C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100
Spec. 24-38													
Mean/Specs. 29.2		ALL PASS	1562	1193	44	20	74	12	18	27	12	19	

WASHER LOT NO. WB8227

Mechanical Property of Full Size Washers	Tensile Strength		Heat Treatment *F (°C)	Chemical Composition %									
	Load (lb)	Position of fracture		Proof Load (Lbf)	Hardness (HRC)	C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100
Spec. 38-45													
Mean/5 Pcs. 43.5		ALL PASS	1562	1193	38	20	62	9	4	50	4	1282	

Material used for the bolt, nut and washer were melted & manufactured in the USA. The product was manufactured in the USA to ASTM specifications. The bolt and nut are manufactured by Unytite. We hereby certify that the material described has been manufactured and inspected satisfactory with requirement of the above specification.

Thread Accuracy (Bolt & Nut)	REMARKS
Bolt ASME B1.1 Class 2A Nut ASME B1.1 Class 2B	THESE BOLTS HAVE BEEN MAGNETIC PARTICLE INSPECTION IN ACCORDANCE WITH THE REQUIREMENTS OF SPECIFICATION ASTM A490

Chief of Quality Assurance Section

*[Signature]*

# NUCOR

## FASTENER DIVISION

LOT NO.  
216573A

Post Office Box 6100  
Saint Joe, Indiana 46785  
Telephone 260/337-1800

NUCOR ORDER#: 590014  
SERIAL#: FB277984 CUST PO: L-010351 CUST #/NAME: 5614 AMCAN THREADED PRODUCTS  
ISSUE DATE: 12/01/06 DATE SHIPPED: 3/21/07 LAB SAMPLER: STEVEN A. JENNINGS, LAB TECHNICIAN  
\*\*\*\*\* CERTIFIED MATERIAL TEST REPORT \*\*\*\*\*

PART NO. LOT NO. DESCRIPTION  
165585 216573A 3/4-10 X 2 1/2 A490TRU-TENSION STRUC DOME HEAD ASSBY PLAIN  
CUST PART #:

\*\*\*\*\* TRU-TENSION ASSEMBLY TENSION QUANTITY: 2250 \*\*\*\*\*  
#PCS TESTED: 8 AVG TENSION: 39,000 (LBS) STD DEVIATION: 1,506  
\*\*\*\*\* BOLT \*\*\*\*\*

PART NO. LOT NO. DESCRIPTION: MANUFACTURE DATE  
716685 216563A 3/4-10 X 2 1/2 A490 TRUTENSION 11/01/06  
STRUC SCREW PLAIN DOME HEAD TT

--MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM A490-02

CORE HARDNESS: 34.8 (RC) AVERAGE VALUES OF 4 TESTS  
PROOF LOAD: 40,100 (LBS) TENSILE STRENGTH AXIAL 10 DEGREE WEDGE  
ELONGATION: .0004 (IN) LOAD: 56,237 (LBS)  
STRESS: 168,375 (PSI)

--DIMENSIONS PER ASME B18.2.6-2003

--CHEMISTRY MATERIAL GRADE -5039LV  
MATERIAL HEAT \*\*CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER  
NUMBER NUMBER C MN P S SI CR V  
RM023007 NU 737524 .40 .78 .009 .011 .23 .66 .020 NUCOR STEEL - NEBRASKA  
MIN .30 A2LA NO: 780.01 EXP: 2006-12-30  
MAX .48 .040 .040 FOR CHEMICAL TESTING

--WET MAGNETIC PARTICLE INSPECTION IN ACCORDANCE WITH ASTM A490 200 PCS. SAMPLED LOT PASSED



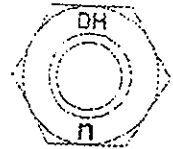
\*\*\*\*\* NUT \*\*\*\*\*  
PART NO. LOT NO. DESCRIPTION MANUFACTURE DATE  
716350 208438C 3/4-10 GR DH HVY HX NUT 3/30/06  
T.T. BOLT NUT, STD. TAP

--MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM A563-04A

CORE HARDNESS: 34.0 (RC) PROOF LOAD: 58,500(LBS) AVERAGE VALUES OF 2 TESTS  
--DIMENSIONS PER ASME B18.2.6-2003

--CHEMISTRY MATERIAL GRADE -1026L  
MATERIAL HEAT \*\*CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER  
NUMBER NUMBER C MN P S SI  
RM022669 NU 833016 .24 .68 .013 .022 .24 NUCOR STEEL - NEBRASKA  
MIN .20 .60 A2LA NO: 780.01 EXP: 2006-12-30  
MAX .55 .040 .050 FOR CHEMICAL TESTING

--VISUAL INSPECTION IN ACCORDANCE WITH ASTM A563 32 PCS. SAMPLED LOT PASSED

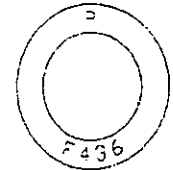


\*\*\*\*\* WASHER \*\*\*\*\*  
PART NO. LOT NO. DESCRIPTION MANUFACTURE DATE  
180020B 023179 3/4 STRUCTURAL WASHER TYPE 1  
ASTM F436

--MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM F436-04

CORE HARDNESS: 41.0 (RC)

--CHEMISTRY MATERIAL GRADE -1050  
HEAT \*\*CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER  
NUMBER NUMBER C MN P S SI  
9501779 .35 .72 .010 .002 .08 PRESTIGE STAMPING, INC.  
MIN .30 .50 P.O. BOX 1086  
MAX .80 .050 .50 WARREN, MI 48090  
A2LA NO: EXP:  
FOR CHEMICAL TESTING



THE SAMPLES, TESTED IN ACCORDANCE WITH THE APPLICABLE SPECIFICATIONS LISTED ABOVE, CONFORM TO THESE SPECIFICATIONS AND WERE MANUFACTURED FREE OF MERCURY CONTAMINATION. NO HEATS TO WHICH BISMUTH, SELENIUM, TELLURIUM, OR LEAD WAS INTENTIONALLY ADDED HAVE BEEN USED TO PRODUCE THE BOLTS. THE STEEL WAS MELTED AND MANUFACTURED IN THE U.S.A. AND THE PRODUCT WAS MANUFACTURED AND TESTED IN THE U.S.A. WE CERTIFY THAT THIS DATA IS A TRUE REPRESENTATION OF INFORMATION PROVIDED BY THE MATERIAL SUPPLIER AND OUR TESTING LABORATORY. THIS CERTIFIED MATERIAL TEST REPORT RELATES ONLY TO THE ITEMS LISTED ON THIS DOCUMENT AND MAY NOT BE REPRODUCED EXCEPT IN FULL.



MECHANICAL FASTENER  
Certificate No. A2LA 139-01  
Expiration Date 12/31/07

NUCOR FASTENER  
A DIVISION OF NUCOR CORPORATION

CHRIS RAMER  
QUALITY ASSURANCE SUPERVISOR

# INSPECTION CERTIFICATE

SET LOT NO. 93931A

Specification	Size	Quantity
ASTM A490 Type 1		
ASTM A563 Grade DH		
ASTM F436 Type 1	3/4-10 UNC X 2-3/4	9,025 pcs.

Mechanical properties tested in accordance to ASTM F606/F606M, ASTM A370, ASTM E18

BOLT LOT NO. 93931

Date: Nov. 09, '04

	Mechanical Property of Full Size Bolts			Heat Treatment °F (°C)	IDENTIFICATION	Chemical Composition %												
	Tensile Strength	Proof Load	Hardness			C	Si	Mn	P	S	Cu	Ni	Cr	Mo				
Spec.	50100 57000	40100 +/- 0.0005 in.	HRC Max.	Quench Min. 800		30 48	Max. 40	Max. 40										
Average 8 pcs	53300	ALL PASS	35.0	1580		40	25	88	13	11	9	5	100	22				1

NUT LOT NO. 24792

	Hardness (HRC)	Hardness After 24 hr x 1000° F HRB	Proof Load (Lbf)	Heat Treatment °F (°C)			IDENTIFICATION	Chemical Composition %										
				Quench	Temper	Min.		C	Si	Mn	P	S	Cu	Ni	Cr			
Spec.	24-38	HRB 89	85450	850				20 55	Max. 40	Max. 50								
Mean/Specs	27.7	—	ALL PASS	1562	1220			44	23	71	15	24	28	9	12			

WASHER LOT NO. J950

	Hardness (HRC)	IDENTIFICATION	Chemical Composition %								Fastener Tension				
			C	Si	Mn	P	S	Cu	Ni	Cr	Spec. (lbf)	Min.			
Spec.	36-45					Max. 40								36750	
Mean/5 Pcs.	40.2	40323010	33	18	77	9	4	4	50	4	4	4	41482	2562	

Material used for the bolt, nut and washer were melted & manufactured in the USA. The product was manufactured in the USA to ASTM specifications. The bolt and nut are manufactured and inspected satisfactory with requirement of the above specification.

*Jean Margheiro*  
"OFFICIAL SEAL"  
JEAN MARGHEIRO  
Notary Public, State of Illinois  
My Commission Expires 10-18-2005

11-30-04

Chief of Quality Assurance Section

*[Signature]*



**UNYTITE, INC.**  
One Unytite Drive  
Peru, Illinois 61354  
815-224-2221 — FAX # 815-224-3434

Thread Accuracy (Bolt & Nut)	REMARKS
Bolt ASME B1.1 Class 2A	THESE BOLTS HAVE BEEN MAGNETIC PARTICLE INSPECTION IN ACCORDANCE WITH THE REQUIREMENTS OF SPECIFICATION ASTM A490
Nut ASME B1.1 Class 2B	

SET LOT NO. 29601A

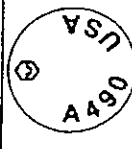
# INSPECTION CERTIFICATE

Specification	Size	Quantity
ASTM A490 Type 1	3/4-10 UNC X 3-1/4	8,305 pcs.
ASTM A563 Grade DH		
ASTM F436 Type 1		

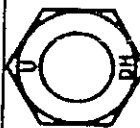
Mechanical properties tested in accordance to ASTM F606/F606M, ASTM A370, ASTM E18

BOLT LOT NO. 29601


Date: Jun. 01, '05

Mechanical Property of Full Size Bolts	Tensile Strength	Proof Load (Length Method)	HRC	Heat Treatment °F (°C)	IDENTIFICATION	Chemical Composition %													
						Load (lbf)	Position of fracture	Quench	Temper	C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100	Mo x 100	
						Max.	Part of Screw	Min.	Min.	30	48	800	1031	42	26	91	12	14	9
Spec.	50100	40100																	
Average 8 pcs	57800	40100				Heat No.													
	54875	ALL PASS	34.1	1580		348190													

NUT LOT NO. 28601

Hardness (HRC)	Hardness After 24 hr x 1000° F HRB	Proof Load (lbf)	Heat Treatment °F (°C)	IDENTIFICATION	Chemical Composition %														
					Quench	Temper	C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100					
					Min.	Min.	20	55	60	40	50	25	10	11					
Spec.	24-38	58450	800																
Mean/5pcs	28.2	ALL PASS	1202		Heat No.														
			1562		S68752														

WASHER LOT NO. WB6424

Hardness (HRC)	IDENTIFICATION	Chemical Composition %								Fastener Tension			
		C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100	Spec. (lbf)	Min.	Mean / .6 sets.	Standard deviation
		36	20	64	9	4	40	50	4	36750	43724	919	
Spec.													
Mean/5 Pcs.		40.7	40500320	40500320	40500320	40500320	40500320	40500320	40500320	40500320	40500320	40500320	40500320

Material used for the bolt, nut and washer were melted & manufactured in the USA. The product was manufactured in the USA to ASTM specifications. The bolt and nut are manufactured and inspected satisfactory with requirement of the above specification.

06-04-05

Chief of Quality Assurance Section

*[Signature]*



**UNYTITE, INC.**  
 One Unytite Drive  
 Peru, Illinois 61354  
 815-224-2221 — FAX # 815-224-3434

Thread Accuracy (Bolt & Nut)	REMARKS
Bolt: ASME B1.1 Class 2A	THESE BOLTS HAVE BEEN MAGNETIC PARTICLE INSPECTION IN ACCORDANCE WITH THE REQUIREMENTS OF SPECIFICATION ASTM A490
Nut: ANSI B1.1 Class 2B	



BOLTS, NUTS AND FASTENER PRODUCTS

SET NO.: 002178

**FASTENER TEST REPORT**  
(THIS DOCUMENT MAY BE REPRODUCED, BUT ONLY IN ITS ENTIRETY)

13081  
AMCAN PRODUITS FILETES INC  
1350 MARIE-VICTORIN  
ST-BRUNO-DE-MONTARVILLE, QC  
CANADA, J3V 6B9

ATTN: M. Jean Calgaxo

PART NO.	DATE
CUSTOMER P.O. NO.	REFERENCE NO.
INVOICE DATE	INVOICE NO.
L-000353	07-9829
2001-07-04	Infasco 659104

DESCRIPTION	ASSY A490TC1+A563-DE+F436-1	GRADE
	3/4-10 X 3 1/2	4042M

**BOLT**

A490 ROUND HEAD T.C. BOLT MARKING HOLLOW TRIANGLE, A490 TC

LOT NO.	MANUFACTURED BY			HARDNESS (ROCKWELL)		PROOF LOAD (LBS)	TENSILE STRENGTH (LBS)	
0005-57842	INFASCO			C 33.0 - C 38.0		MIN: 40,100	MIN: 50,100 MAX: 50,300	
MEAN VALUE				34.0		PASS	53,625	
HEAT NO.	C%	MN%	P%	S%	SI%	MO%		
A49303	0.41	0.99	0.011	0.003	0.24	0.260		

**NUT**

HVY HEX NUT A563 GR DH UNC MARKING TRIANGLE & DH

LOT NO.	MANUFACTURED BY			HARDNESS (ROCKWELL)		PROOF LOAD (LBS)	
0005-57966	INFASCO			C 24.0 - C 38.0		MIN: 58,450	
MEAN VALUE				27.9		PASS	
HEAT NO.	C%	MN%	P%	S%	SI%		
C29467	0.44	0.78	0.008	0.012	0.22		

**WASHER**

F-436-1 STRUCTURAL WASHER MARKING F436, TRIANGLE & MANUFACTURER'S I.D.

LOT NO.	MANUFACTURED BY			HARDNESS (ROCKWELL)		
0005-90445	TECHNICAL STAMPING INC USA			C 26.0 - C 45.0		
MEAN VALUE				39.8		
HEAT NO.	C%	MN%	P%	S%	SI%	
941090	0.26	0.75	0.009	0.008	0.03	

ASSEMBLY TENSION (A490)	
MINIMUM	15,000 LBS
MEAN VALUE	40,060

Metallurgical Engineer

Gabriel Landry



**AMCAN  
JUMAX**

1350, rue Marie-Victorin  
Saint-Bruno-de-Montarville, Québec, Canada, J3V 6B9  
Tél. : (450) 441-6011  
Fax : (450-441-5511  
Toll free : 1-800-661-2658

## CORRECTION

PLEASE TAKE NOTE THAT THE BOLT 3/4 X 7 1/2 HAVE  
BEEN CUT AND THREADED FROM BOLT 3/4 X 9 1/2 LOT#

133606A

WE REGRET THIS INCONVENIENCE.

THANK YOU FOR YOUR COMPREHENSION.

# MIDAS UNION TRADING CO., LTD.

#25, 30th Lane, Chia-Hsing West Road, Kangshan, Kaohsiung 820, Taiwan.

TEL/886-7-6213959

FAX/886-7-6214466, 6212466

EMAIL: service@midas.com.tw

## INSPECTION & QUALITY ASSURANCE REPO

Date : 2007/6/25

IQAR NO. : MUT-00P958

Customer : AMCAN JUMAX INC.

Part Name/No. : 3/4-10 A563 GR.C HEAVY HEX NUTS COARSE THREAD PLAIN.

Drawing No. :

Rev. :

Date :

P/O No. : L-010231

3

Lot Size : 63.000 MPCS (LOT NO: N07060230.)

### NONDESTRUCTIVE INSPECTION

DIM. KEY	REQUIREMENT					FINDING	Nos. Rejected	RESULT
	REQUIRED MIN - MAX	UNITS [IN]	Level	Sample Size	Acc. Nbr.			
A	WIDTH A/F: 1.210 - 1.250		B	32	1	1.225 - 1.229	0	OK
B	WIDTH A/C: 1.382 - 1.443		C	8	0	1.405 - 1.412	0	OK
C	THICKSS: .710 - .758		C	8	0	.721 - .728	0	OK
D	3/4-10 UNC-2B		A	100	2	GO-NOGO	0	OK

### DESTRUCTIVE INSPECTION

CHARACTERISTIC	Level	Sample Size	Acc. Nbr.	FINDING	Nos. Rejected	RESULT
HARDNESS: 38 HRC (MAX)	A	8	0	3-4	0	OK
PROOF LOAD: 48096 LBF (MIN)	A	8	0	OK	0	OK
PLAIN	B	4	0	OK	0	OK

OTHERS :

MATERIAL : C-1015 (CERTIFICATE NO: 07018553, HEAT: 330703559.) OK

VISUAL FINISH & APPEARANCE. OK

COMMENT ON SHIPMENT

ACCEPTED & SHIP  REJECTED, USE AS IS, IMPROVE NEXT SHIPMENT.

REJECTED, SORT BEFORE SHIPMENT  REJECTED SCRAP & REPRODUCE



**TECHNICAL STAMPING, INC.**

50600 E. RUSSELL SCHMIDT BLVD.  
 CHESTERFIELD TWP., MI 48051  
 PH(586)948-3285 / FX(586)948-3286

**MATERIAL  
 CERTIFICATION**

CUSTOMER NAME	CUSTOMER ORDER NUMBER	DATE
Amcan Products Filetes Inc.	L-009057	5/1/07

PART NUMBER	CUSTOMER LOT NO.	LOT NUMBER	QUANTITY
3/4" F436	F436N449*T	0407-583	131,250

STEEL GRADE	HEAT	C	MN	P	S	SI	AL	REVISION
	0168763	.34	.71	.011	.010	.022	.067	2004

SPECIFICATION	ACTUAL	GAUGE
O.D - 1.438 - 1.500	1.455 - 1.458	CALIPER
I.D - .813 - .844	.828 - .831	CALIPER, PIN GAUGE
THICKNESS- .122 - .177	.122 - .124	MICROMETER
FLAT- Max .010	.004	CALIPER
HEAT TREAT - 38 - 45 HRC	41 - 44	
PLATING-	N/A	
OTHER	N/A	

WE HEREBY CERTIFY THIS PRODUCT WAS PRODUCED UNDER A ISO-9001:2000 QUALITY ASSURANCE SYSTEM. ISO-9001:2000 CERTIFICATION NUMBER-1265 - DATE OF REGIS. JAN. 3, 2003  
 ALL MATERIALS ARE MADE AND MELTED IN THE U.S.A. THIS PRODUCT WAS MANUFACTURED IN CHESTERFIELD, MICHIGAN, U.S.A. THIS PRODUCT CONFORMS TO ALL REQUIREMENTS  
 FOR WASHERS AS PRODUCED ACCORDING TO A.S.T.M. F-425-04. THE ABOVE TEST RESULTS APPLY ONLY TO THE ITEMS TESTED. THIS TEST REPORT MUST NOT BE REPRODUCED  
 EXCEPT IN FULL WITHOUT PRIOR WRITTEN APPROVAL.

*[Handwritten Signature]*  
 AUTHORIZED SIGNATURE

CERTIFIED ISO 9001:2000

# NUCOR

LOT NO.  
208049B

Post Office Box 6100  
Saint Joe, Indiana 46785  
Telephone 260/337-1600

## FASTENER DIVISION

NUCOR ORDER#: 590390  
 SERIAL#: FB269765 CUST PO: L-010351 CUST #/NAME: 5614 AMCAN THREADED PRODUCTS  
 ISSUE DATE: 4/06/06 DATE SHIPPED: 3/14/07 LAB SAMPLER: PHILLIP A. TITLER, LAB TECHNICIAN  
 \*\*\*\*\* CERTIFIED MATERIAL TEST REPORT \*\*\*\*\*

PART NO. LOT NO. DESCRIPTION  
 165405 208049B 7/8-9 X 2 A490 TRU-TENSION STRUC DOME HEAD ASSBY PLAIN

CUST PART #: QUANTITY: 1200

\*\*\*\*\* TRU-TENSION ASSEMBLY TENSION \*\*\*\*\*  
 #PCS TESTED: 6 AVG TENSION: 65,000 (LBS) STD DEVIATION: 2,449

\*\*\*\*\* BOLT \*\*\*\*\*  
 PART NO. LOT NO. DESCRIPTION MANUFACTURE DATE  
 716835 208031A 7/8-9 X 2 A490 TRUTENSION 3/08/06  
 STRUC SCREW PLAIN DOME HEAD TT

### --MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM A490-02

AVERAGE VALUES OF 3 TESTS  
 CORE HARDNESS: 33.3 (RC) TENSILE STRENGTH AXIAL 4 DEGREE WEDGE  
 PROOF LOAD: 55,450 (LBS) LOAD: 75,650 (LBS)  
 ELONGATION: .0004 (IN) STRESS: 163,745 (PSI)

--DIMENSIONS PER ASME B18.2.6-2003

### --CHEMISTRY

MATERIAL HEAT NUMBER \*CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER  
 RM022468 NS 599916 .34 .85 .012 .011 .19 .95 .16 .005 MITTAL  
 MIN .30 .040 .040 3300 DICKEY ROAD  
 MAX .48 .040 .040 EAST CHICAGO, IN 46312  
 A2LA NO: 0111-01 EXP: 2006-12-31  
 FOR CHEMICAL TESTING

--WET MAGNETIC PARTICLE INSPECTION IN ACCORDANCE WITH ASTM A490 125 PCS. SAMPLED LOT PASSED

\*\*\*\*\* NUT \*\*\*\*\*  
 PART NO. LOT NO. DESCRIPTION MANUFACTURE DATE  
 706500 209728A 7/8-9 GR DH HVY HX NUT 6/06/05  
 T.T. BOLT NUT, STD. TAP

### --MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM A563-04A

CORE HARDNESS: 31.3 (RC) PROOF LOAD: 80,900(LBS) AVERAGE VALUES OF 5 TESTS

--DIMENSIONS PER ASME B18.2.3-2003

### --CHEMISTRY

MATERIAL HEAT NUMBER \*CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER  
 RM020870 IN 393603 .46 .67 .024 .027 .18 INLAND STEEL  
 MIN .20 .60 P. O. BOX 360518H  
 MAX .55 .040 .050 PITTSBURGH, PA 15251  
 A2LA NO: 111.01 EXP: 2006-12-31  
 FOR CHEMICAL TESTING

\*\*\*\*\* WASHER \*\*\*\*\*  
 PART NO. LOT NO. DESCRIPTION MANUFACTURE DATE  
 180030 022156 7/8 STRUCTURAL WASHER TYPE 1  
 ASTM F436

### --MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM F436-04

CORE HARDNESS: 40.4 (RC)

### --CHEMISTRY

MATERIAL HEAT NUMBER \*CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER  
 30500270 .36 .66 .009 .001 .18 PRESTIGE STAMPING, INC.  
 MIN .30 .50 P.O. BOX 1086  
 MAX .80 .050 .50 WARREN, MI 48090  
 A2LA NO: EXP:  
 FOR CHEMICAL TESTING

THE SAMPLES, TESTED IN ACCORDANCE WITH THE APPLICABLE SPECIFICATIONS LISTED ABOVE, CONFORM TO THESE SPECIFICATIONS AND WERE MANUFACTURED FREE OF MERCURY CONTAMINATION. NO HEATS TO WHICH BISMUTH, SELENIUM, TELLURIUM, OR LEAD WAS INTENTIONALLY ADDED HAVE BEEN USED TO PRODUCE THE BOLTS. THE STEEL WAS MELTED AND MANUFACTURED IN THE U.S.A. AND THE PRODUCT WAS MANUFACTURED AND TESTED IN THE U.S.A. WE CERTIFY THAT THIS DATA IS A TRUE REPRESENTATION OF INFORMATION PROVIDED BY THE MATERIAL SUPPLIER AND OUR TESTING LABORATORY. THIS CERTIFIED MATERIAL TEST REPORT RELATES ONLY TO THE ITEMS LISTED ON THIS DOCUMENT AND MAY NOT BE REPRODUCED EXCEPT IN FULL.



NUCOR FASTENER  
 A DIVISION OF NUCOR CORPORATION

*Chris Raher*  
 CHRIS RAHER  
 QUALITY ASSURANCE SUPERVISOR

MECHANICAL FASTENER  
 Certificate No. A2LA 139-01  
 Expiration Date 12/31/07



BOULONS, ÉCROUS ET AUTRES ÉLÉMENTS DE FIXATION

N° DE JEU : 002179

**ATTESTATION D'ESSAI DES ÉLÉMENTS DE FIXATION**  
(REPRODUCTION AUTORISÉE POURVU QUÉ LE DOCUMENT SOIT INTÉGRAL)

DATE

DESIGNATION	ASS. A490SL1+A563-DH:F436-1	FINANCE
	7/8-9 X 2 1/4	4042MS

**BOULON** BOULON 3.L. A490 A TETE RONDE MARQUAGE: TRIANGLE VIDE, A490 TC

N° DE LOT	FABRICANT	DURETÉ À MI-RAYON (ROCKWELL)	CHARGE D'ÉPREUVE (LB)	RÉSISTANCE À LA TRACTION (LB)			
0005-57226	INFASCO	C 33.0 - C 38.0	MIN 55,450	MIN: 69,300 MAX: 79,950			
VALEUR MOYENNE		34.3					
N° DE COULEE	C%	Mn%	P%	S%	SI%	Cr%	Mo%
A50058	0.41	0.75	0.008	0.007	0.24	0.25	0.232

**ÉCROU** ÉCROU HEX LARGE A563 CL. DH DMC MARQUAGE: TRIANGLE & DH

N° DE LOT	FABRICANT	DURETÉ (ROCKWELL)	CHARGE D'ÉPREUVE (LB)		
0005-57327	INFASCO	C 24.0 - C 38.0	MIN. 80,850		
VALEUR MOYENNE		27.3	PASSE		
N° DE COULEE	C%	Mn%	P%	S%	SI%
C17062	0.46	0.67	0.008	0.011	0.28

**RONDELLE** RONDELLE DE CONSTRUCTION F-436-1 MARQUAGE: F436, ID. DU MANUFACTURIER ST UN TRIANGLE (OPT.)

N° DE LOT	FABRICANT	DURETÉ (ROCKWELL)			
0005-90446	TECHNICAL STAMPING INC USA	C 26.0 - C 45.0			
VALEUR MOYENNE		41.2			
N° DE COULEE	C%	Mn%	P%	S%	SI%
2164492	0.40	0.67	0.011	0.009	0.13

TENSION PROD. ABS (MAX)	49,000 LB
VALEUR MOYENNE	60,080



BOLTS, NUTS AND FASTENER PRODUCTS

SET NO.: 002194

**FASTENER TEST REPORT**  
(THIS DOCUMENT MAY BE REPRODUCED, BUT ONLY IN ITS ENTIRETY)

13081  
AMCAN PRODUCTS FILETES INC  
1350 MARIE-VICTORIN  
ST-BRUNO-DE-MONTARVILLE (QUEBEC)  
CANADA J3V 6B9

ATTN: M. Jean Calgario

PART NO.	DATE 2000-11-24
CUSTOMER P.O. NO.	REFERENCE NO.
INVOICE DATE	INVOICE NO.

DESCRIPTION ASSY A490TC1+A563-DH+F436-1 7/8-9 X 2 1/2	GRADE 4042MS
---	-----------------

**BOLT** A490 ROUND HEAD T.C. BOLT MARKING: HOLLOW TRIANGLE, TCB AND A490

LOT NO. 0005-57227	MANUFACTURED BY INFASCO			HARDNESS (ROCKWELL) C 33.0 - C 38.0		PROOF LOAD (LBS) MIN: 55,450		TENSILE STRENGTH (LBS) MIN: 69,300 MAX: 78,550	
MEAN VALUE				34.3		PASS			
HEAT NO.	C%	MIN%	P%	S%	SE%	OU%	MO%		
A50058	0.41	0.75	0.008	0.007	0.24	0.17	1.002		

**NUT** HVX HEX NUT A563 GR DH UNC MARKING: TRIANGLE & DH

LOT NO. 0005-57326	MANUFACTURED BY INFASCO			HARDNESS (ROCKWELL) C 24.0 - C 38.0		PROOF LOAD (LBS) MIN: 80,850			
MEAN VALUE				27.5		PASS			
HEAT NO.	C%	MIN%	P%	S%	SE%				
D26319	0.45	0.80	0.009	0.012	0.22				

**WASHER** F-436-1 STRUCTURAL WASHER MARKING: F436, TRIANGLE & MANUFACTURER'S I.D.

LOT NO. 0006-90229	MANUFACTURED BY TECHNICAL STAMPING INC.			HARDNESS (ROCKWELL) C 28.0 - C 46.0					
MEAN VALUE				40.3					
HEAT NO.	C%	MIN%	P%	S%	SE%				
2132464	0.24	1.25	0.011	0.002	0.23				

ASSEMBLY TENSION (A490) MINIMUM	49,000 LBS
MEAN VALUE	57,250

Original test report signed:  
by JEAN-CLAUDE LECAULT,  
Quality assurance manager  
Copy of this test report signed

By:   
Gabriel Landry

SET LOT NO. 48391A

# INSPECTION CERTIFICATE

Specification	Size	Quantity
ASTM A490 Type 1 ASTM A563 Grade DH ASTM F436 Type 1	7/8 - 9 UNC X 3	6,145 pcs.

Mechanical properties tested in accordance to ASTM F606/F606M, ASTM A370, ASTM E18

BOLT LOT NO. 48391

Date: Apr. 13, '05

Mechanical Property of Full Size Bolts	Tensile Strength		Proof Load (Lbf)	HRC	Heat Treatment °F (°C)	Quench	Temper Min. 800	Chemical Composition %									
	Load (lbf)	Position of fracture						C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100	Mo x 100	R x 10,000
	69300 79950	Part of Screw						30 48	23	93	Max. 40	Max. 40	4	4	98	22	0
Spec. Average 8 pcs	75550	Part of Screw	ALL PASS	34.9	1580		1050	41	23	93	12	5	4	4	98	22	0

NUT LOT NO. 28453

Mechanical Property of Full Size Nuts	Hardness After 24 hr x 1000° F HRB	Proof Load (Lbf)	HRC	Heat Treatment °F (°C)	Quench	Temper Min. 800	Chemical Composition %								
							C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100	
							20	Max. 40	60	Max. 40	50	Max. 40	50	26	27
Spec. Mean/5pcs	28.7	ALL PASS	1562	1220	1562	800	44	20	70	9	26	27	11	8	

WASHER LOT NO. WB6214

Mechanical Property of Full Size Washers	Hardness (HRC)	Proof Load (Lbf)	HRC	Heat Treatment °F (°C)	Quench	Temper Min. 800	Chemical Composition %								
							C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100	
							35	18	79	11	2	Max. 40	50	Max. 40	50
Spec. Mean/5 Pcs.	40.1	140451	35	18	79	11	2	Max. 40	50	2	Max. 40	50	2		

Material used for the bolt, nut and washer were melted & manufactured in the USA. The product was manufactured in the USA to ASTM specifications. The bolt and nut are manufactured by Unytite. We hereby certify that the material described has been manufactured and inspected satisfactory with requirement of the above specification.



**UNYTITE, INC.**  
One Unytite Drive  
Peru, Illinois 61354

815-224-2221 — FAX # 815-224-3434

Thread Accuracy (Bolt & Nut)	Bolt ASME B1.1 Class 2A Nut ANSI B1.1 Class 2B
REMARKS	THESE BOLTS HAVE BEEN MAGNETIC PARTICLE INSPECTION IN ACCORDANCE WITH THE REQUIREMENTS OF SPECIFICATION ASTM A490

### Fastener Tension

Fastener Tension	Spec. (lbf.)	Min.
	51450	59938
		4881

Chief of Quality Assurance Section

04-21-05

*[Signature]*

# NUCOR

LOT NO.  
205138E

Post Office Box 6100  
Saint Joe, Indiana 46785  
Telephone 260/337-1600

## FASTENER DIVISION

NUCOR ORDER#: 549288

SERIAL#: FB269218

CUST PO: L-007779

CUST N/NAME: 5614 AMCAN THREADED PRODUCTS

ISSUE DATE: 4/21/06

DATE SHIPPED: 6/15/06

LAB SAMPLER: FRANKLIN A. NEAL, LAB TECHNICIAN

\*\*\*\*\*  
PART NO. LOT NO. DESCRIPTION

CERTIFIED MATERIAL TEST REPORT \*\*\*\*\*

166315 205138E 1-8 X 2 1/2

A490 TRU-TENSION STRUC DOME HEAD ASSBY PLAIN

CUST PART #:

QUANTITY: 910

\*\*\*\*\*  
#PCS TESTED: 8

TRU-TENSION ASSEMBLY TENSION

\*\*\*\*\*

AVG TENSION: 78,000 (LBS)

STD DEVIATION: 2,588

\*\*\*\*\*  
PART NO. LOT NO. DESCRIPTION

BOLT \*\*\*\*\*

MANUFACTURE DATE

717025 205132B 1-8 X 2 1/2

A490 TRUTENSION

STRUC SCREW PLAIN DOME HEAD TT

12/13/05

--MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM A490-02

AVERAGE VALUES OF 4 TESTS

CORE HARDNESS: 34.2 (RC) TENSILE STRENGTH AXIAL 4 DEGREE WEDGE

PROOF LOAD: 72,700 (LBS) LOAD: 95,327 (LBS)

ELONGATION: .0004 (IN) STRESS: 157,305 (PSI)

--DIMENSIONS PER ASME B18.2.6-2003

--CHEMISTRY

MATERIAL GRADE -4135M0D

MATERIAL HEAT \*\*CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER

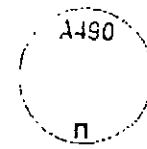
NUMBER NUMBER C MN P S SI CR MO V MITTAL

RH022382 MS 599491 .35 .84 .014 .011 .17 .96 .16 .006 3300 DICKEY ROAD

MIN .30 .60 EAST CHICAGO, IN 46312

MAX .48 .040 .040 A2LA NO: 0111-01 EXP: 2006-12-31

FOR CHEMICAL TESTING



\*\*\*\*\* NUT \*\*\*\*\*

PART NO. LOT NO. DESCRIPTION MANUFACTURE DATE

707420 202150A 1-8 GR DH HVY HX NUT 11/02/05

T.T. BOLT NUT, STD. TAP

--MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM A563-04A

CORE HARDNESS: 31.0 (RC) PROOF LOAD: 106,100(LBS) AVERAGE VALUES OF 5 TESTS

--DIMENSIONS PER ASME B18.2.6-2003

--CHEMISTRY

MATERIAL GRADE -1045

MATERIAL HEAT \*\*CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER

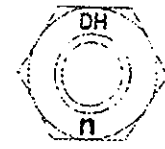
NUMBER NUMBER C MN P S SI MITTAL

RH022355 MS 599137 .47 .74 .017 .020 .21 3300 DICKEY ROAD

MIN .20 .60 EAST CHICAGO, IN 46312

MAX .55 .040 .050 A2LA NO: 0111-01 EXP: 2006-12-31

FOR CHEMICAL TESTING



\*\*\*\*\* WASHER \*\*\*\*\*

PART NO. LOT NO. DESCRIPTION MANUFACTURE DATE

180040 022707 1 STRUCTURAL WASHER TYPE 1

ASTM F436

--MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM F436-04

CORE HARDNESS: 44.4 (RC)

--CHEMISTRY

MATERIAL GRADE -1035

HEAT \*\*CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER

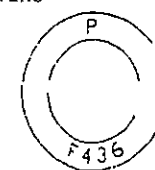
NUMBER NUMBER C MN P S SI PRESTIGE STAMPING, INC.

9400563 .35 .75 .014 .003 .04 P.O. BOX 1086

MIN .30 .50 WARREN, MI 48090

MAX .80 .050 .50 A2LA NO: EXP:

FOR CHEMICAL TESTING



THE SAMPLES, TESTED IN ACCORDANCE WITH THE APPLICABLE SPECIFICATIONS LISTED ABOVE, CONFORM TO THESE SPECIFICATIONS AND WERE MANUFACTURED FREE OF MERCURY CONTAMINATION. NO HEATS TO WHICH BISMUTH, SELENIUM, TELLURIUM, OR LEAD WAS INTENTIONALLY ADDED HAVE BEEN USED TO PRODUCE THE BOLTS. THE STEEL WAS MELTED AND MANUFACTURED IN THE U.S.A. AND THE PRODUCT WAS MANUFACTURED AND TESTED IN THE U.S.A. WE CERTIFY THAT THIS DATA IS A TRUE REPRESENTATION OF INFORMATION PROVIDED BY THE MATERIAL SUPPLIER AND OUR TESTING LABORATORY. THIS CERTIFIED MATERIAL TEST REPORT RELATES ONLY TO THE ITEMS LISTED ON THIS DOCUMENT AND MAY NOT BE REPRODUCED EXCEPT IN FULL.



NUCOR FASTENER  
A DIVISION OF NUCOR CORPORATION

*Chris Raher*

CHRIS RAHER  
QUALITY ASSURANCE SUPERVISOR

MECHANICAL FASTENER  
Certificate No. A2LA 139-01  
Expiration Date 12/31/07



**FASTENER DIVISION**

205139C

Post Office Box 6100  
Saint Joe, Indiana 46785  
Telephone 260/337-1800

NUCOR ORDER#: 549291  
SERIAL#: FB265173 CUST PO: L-007779 CUST #/NAME: 5614 AMCAN THREADED PRODUCTS  
ISSUE DATE: 1/10/06 DATE SHIPPED: 4/12/06 LAB SAMPLER: PHILLIP A. TYTLER, LAB TECHNICIAN  
\*\*\*\*\* CERTIFIED MATERIAL TEST REPORT \*\*\*\*\*

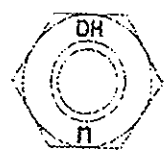
PART NO. 166325 LOT NO. 205139C DESCRIPTION: --1-8 X 2 3/4 --A490 TRU-TENSION STRUC DOME HEAD ASSBY PLAIN  
CUST PART #: QUANTITY: 2860  
\*\*\*\*\* TRU-TENSION ASSEMBLY TENSION \*\*\*\*\*  
MPCS TESTED: 8 AVG TENSION: 77,000 (LBS) STD DEVIATION: 4,175  
\*\*\*\*\* BOLT \*\*\*\*\*  
PART NO. 717035 LOT NO. 205133C DESCRIPTION: 1-8 X 2 3/4 A490 TRUTENSION STRUC SCREW PLAIN DOME HEAD TT  
MANUFACTURE DATE: 12/17/05

--MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM A490-02  
AVERAGE VALUES OF 4 TESTS  
CORE HARDNESS: 34.2 (RC) TENSILE STRENGTH AXIAL 4 DEGREE WEDGE  
PROOF LOAD: 72,700 (LBS) LOAD: 97,660 (LBS)  
ELONGATION: .0004 (IN) STRESS: 161,155 (PSI)



--DIMENSIONS PER ASME B18.2.6-2003  
--CHEMISTRY MATERIAL GRADE -4135MOD  
MATERIAL HEAT \*\*CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER  
NUMBER NUMBER C MN P S SI CR MO V  
RM022489 MS 599917 .33 .87 .013 .011 .19 .99 .16 .006  
MIN .30  
MAX .48 .040 .040  
ISPAT INLAND BAR PRODUCTS  
3300 DICKEY ROAD  
EAST CHICAGO, IN 46312  
A2LA NO: 0111-01 EXP: 2006-12-31  
FOR CHEMICAL TESTING

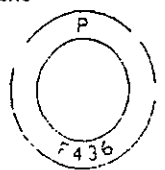
\*\*\*\*\* NUT \*\*\*\*\*  
PART NO. 707420 LOT NO. 1975580 DESCRIPTION: 1-8 GR DH HVY HX NUT T.T. BOLT NUT, STD. TAP  
MANUFACTURE DATE: 6/24/05



--MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM A563-04A  
CORE HARDNESS: 31.3 (RC) PROOF LOAD: 106,100(LBS) AVERAGE VALUES OF 5 TESTS  
--DIMENSIONS PER ASME B18.2.6-2003

--CHEMISTRY MATERIAL GRADE -1045  
MATERIAL HEAT \*\*CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER  
NUMBER NUMBER C MN P S SI  
RM021130 IN 494301 .48 .79 .013 .025 .21  
MIN .20 .60  
MAX .55 .040 .050  
ISPAT INLAND BAR PRODUCTS  
3300 DICKEY ROAD  
EAST CHICAGO, IN 46312  
A2LA NO: 0111-01 EXP: 2006-12-31  
FOR CHEMICAL TESTING

\*\*\*\*\* WASHER \*\*\*\*\*  
PART NO. 180040 LOT NO. 022515 DESCRIPTION: 1 STRUCTURAL WASHER TYPE 1  
MANUFACTURE DATE:  
ASTM F436



--MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM F436-04  
CORE HARDNESS: 39.4 (RC)  
--CHEMISTRY MATERIAL GRADE -1035  
MATERIAL HEAT \*\*CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER  
NUMBER NUMBER C MN P S SI  
146471A .31 .90 .011 .005 .02  
MIN .30 .50  
MAX .80 .050 .50  
PRESTIGE STAMPING, INC  
P.O. BOX 1086  
WARREN, MI 48090  
A2LA NO: EXP:  
FOR CHEMICAL TESTING

THE SAMPLES, TESTED IN ACCORDANCE WITH THE APPLICABLE SPECIFICATIONS LISTED ABOVE, CONFORM TO THESE SPECIFICATIONS AND WERE MANUFACTURED FREE OF MERCURY CONTAMINATION. NO HEATS TO WHICH BISMUTH, SELENIUM, TELLURIUM, OR LEAD WAS INTENTIONALLY ADDED HAVE BEEN USED TO PRODUCE THE BOLTS. THE STEEL WAS MELTED AND MANUFACTURED IN THE U.S.A. AND THE PRODUCT WAS MANUFACTURED AND TESTED IN THE U.S.A. WE CERTIFY THAT THIS DATA IS A TRUE REPRESENTATION OF INFORMATION PROVIDED BY THE MATERIAL SUPPLIER AND OUR TESTING LABORATORY. THIS CERTIFIED MATERIAL TEST REPORT RELATES ONLY TO THE ITEMS LISTED ON THIS DOCUMENT AND MAY NOT BE REPRODUCED EXCEPT IN FULL.



MECHANICAL FASTENER  
Certificate No. A2LA 139-01  
Expiration Date 12/31/07

NUCOR FASTENER  
A DIVISION OF NUCOR CORPORATION  
*Chris Ramer*  
CHRIS RAMER  
QUALITY ASSURANCE SUPERVISOR

SET LOT NO. KR691

# INSPECTION CERTIFICATE



**UNYTITE, INC.**  
 One Unytite Drive  
 Peru, Illinois 61354  
 815-224-2221 — FAX # 815-224-3434

Specification	Size	Quantity
ASTM A490 Type 1	1 - 8 UNC X 3	10,612 pcs.
ASTM A563 Grade DH		
ASTM F436 Type 1		

Mechanical properties tested in accordance to ASTM F606/F606M, ASTM A370, ASTM E18

**BOLT LOT NO.** KR691

Date: Aug. 31, '07

Mechanical Property of Full Size Bolts				Chemical Composition %														
Tensile Strength	Position of Fracture	Part of Screw	Part of Screw	Proof Load (Lbf)	HRC	Heat Treatment *F (°C)	IDENTIFICATION	C x 100	Mn x 100	Si x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100	Mo x 100	B x 10,000	
																		Load (lbf)
90900				72900				30										
104850						800		48			Max. 40	Max. 40						
98725				ALL PASS	35.2	1031	480430	39	24	95	12	11	8	4	85	21	2	

**NUT LOT NO.** KR341

Mechanical Property of Full Size Nuts				Chemical Composition %											
Hardness After 24 hr x 1000° F HRB	Min.	HRB 89	Proof Load (Lbf)	HRC	Heat Treatment *F (°C)	IDENTIFICATION	C x 100	Mn x 100	Si x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100	
															Quench
106050							20								
1184					850		55			Max. 40	Max. 50				
ALL PASS			1562	11.84	1184	M635733	45	24	6	31	26	10	4		

**WASHER LOT NO.** W89591

Mechanical Property of Washers				Chemical Composition %										
Hardness (HRC)	Min.	HRB 89	Proof Load (Lbf)	HRC	Heat Treatment *F (°C)	IDENTIFICATION	C x 100	Mn x 100	Si x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100
41.0							50	16	69	2	1			
38-45					40		Max. 50			Max. 40	2			
Mean/5 Pcs.			1562	11.84	1184	M635733	45	24	6	31	26	10	4	

Material used for the bolt, nut and washer were melted & manufactured in the USA. The product was manufactured in the USA to ASTM specifications. The bolt and nut are manufactured by Unytite. We hereby certify that the material described has been manufactured and inspected satisfactory with requirement of the above specification.

Thread Accuracy (Bolt & Nut)	REMARKS
Bolt ASME B1.1 Class 2A	THESE BOLTS HAVE BEEN MAGNETIC PARTICLE INSPECTION IN ACCORDANCE WITH THE REQUIREMENTS OF SPECIFICATION ASTM A490
Nut ASME B1.1 Class 2B	

Fastener Tension	
Spec. (lbf.)	Min. 67200
Mean / 5 sets.	79404
Standard Deviation	2474

Chief of Quality Assurance Section

*[Signature]*

# INSPECTION CERTIFICATE

SET LOT NO. JX07 LA



**UNYTITE, INC.**  
One Unytite Drive  
Peru, Illinois 61354  
815-224-2221 — FAX # 815-224-3434

Specification	Size	Quantity
ASTM A490 F2280 Type 1	1 - 8 UNC X 3-1/4	20,519 pcs.
ASTM A563 Grade DH		
ASTM F436 Type 1		

Mechanical properties tested in accordance to ASTM F606/F606M, ASTM A370, ASTM E18

BOLT LOT NO. JX071

Date: Mar. 09, '07

Mechanical Property of Full Size Bolts	Tensile Strength		Proof Load (Lbf)	Hardness After 24 hr x 1000° F HRB	Heat Treatment	IDENTIFICATION	Chemical Composition %												
	Load (lbs)	Position of fracture					*F (°C)		C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100	Mo x 100	B x 10,000	
							Quench	Temper											HRC
Spec. 90900	104850	Part of Screw	Max. +/- 0.0005 in.	Min. 850	1580		30												
Average 8 pcs	101475	Part of Screw	ALL PASS	850	995		48												
				Min. 1031			40	27	89	9	10	9	5	96	17	1			

NUT LOT NO. JT1401

Mechanical Property of Full Size Bolts	Tensile Strength		Proof Load (Lbf)	Hardness After 24 hr x 1000° F HRB	Heat Treatment	IDENTIFICATION	Chemical Composition %												
	Load (lbs)	Position of fracture					*F (°C)		C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100			
							Quench	Temper									HRC	HRC	
Spec. 24-30			106050	Min. 850	692997		20												
Mean/spcs	28.4		ALL PASS	1031			55												
				Min. 1562			44	20	24	8	4	5							

WASHER LOT NO. WB5912

Mechanical Property of Full Size Bolts	Tensile Strength		Proof Load (Lbf)	Hardness After 24 hr x 1000° F HRB	Heat Treatment	IDENTIFICATION	Chemical Composition %												
	Load (lbs)	Position of fracture					*F (°C)		C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100			
							Quench	Temper									HRC	HRC	
Spec. 3B-45			140451	Min. 850			35	20	78	12	2								
Mean/5 pcs	40.3			1031			44	20	78	12	2								

Material used for the bolt, nut and washer were melted & manufactured in the USA. The product was manufactured in the USA to ASTM specifications. The bolt and nut are manufactured by Unytite. We hereby certify that the material described has been manufactured and inspected satisfactory with requirement of the above specification.

Thread Accuracy (Bolt & Nut)	REMARKS
Bolt ASME B1.1 Class 2A	THESE BOLTS HAVE BEEN MAGNETIC PARTICLE INSPECTION IN ACCORDANCE WITH THE REQUIREMENTS OF SPECIFICATION ASTM A490
Nut ASME B1.1 Class 2B	

Fastener Tension	Fastener Tension	
	Spec. (lbf.)	Mean / sets.
	67000	80266
		2156

*Official Seal*  
JEAN MARGHERIO  
NOTARY PUBLIC - STATE OF ILLINOIS  
MY COMMISSION EXPIRES: 10/18/09  
Standard Deviation

Chief of Quality Assurance Section

*[Signature]*

# INSPECTION CERTIFICATE

**UNYTITE, INC.**  
 One Unytite Drive  
 Peru, Illinois 61354

815-224-2221 — FAX # 815-224-3434



SET LOT NO. KR711

Specification	Size	Quantity
ASTM A490 Type 1	1 - 8 UNC X 3-1/2	7,233 pcs.
ASTM A563 Grade DH		
ASTM F436 Type 1		

Mechanical properties tested in accordance to ASTM F606/F606M, ASTM A370, ASTM E18

BOLT LOT NO. KR711

Date: Sep. 06, '07

Mechanical Property of Full Size Bolts	Chemical Composition %																				
	Tensile Strength		Proof Load		Hardness		Heat Treatment		IDENTIFICATION		C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100	Mo x 100	B x 10,000	
	Load (lbf)	Position of fracture	lb. (Length Method)	HRC	Quench	Temper	Min.	Heat No.													
Spec. 10900	30	48	30	48	39	24	95	12	11	8	4	85	21	2							
Average 8 pcs	97350	Part of Screw	ALL PASS	35.0	1580	1031	480430														

NUT LOT NO. KQ591

Mechanical Property of Full Size Nuts	Chemical Composition %																				
	Hardness		Proof Load		Heat Treatment		IDENTIFICATION		C x 100		Si x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100				
	HRB	Min.	lb. (Length Method)	HRC	Quench	Temper	Min.	Heat No.													
Spec. 24.38	HRB 89	06050	850	55	20	60	40	50	24	16	9	7									
Mean/Specs	29.1	—	1067	1562	45	22	68	11	24	16	9	7									

WASHER LOT NO. WB9591

Mechanical Property of Full Size Washers	Chemical Composition %																				
	Hardness		Proof Load		Heat Treatment		IDENTIFICATION		C x 100		Si x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100				
	HRC	Min.	lb. (Length Method)	HRC	Quench	Temper	Min.	Heat No.													
Spec. 38-45	HRB 89	06050	850	55	20	60	40	50	24	16	9	7									
Mean/5 Pcs.	41.0	—	1067	1562	45	22	68	11	24	16	9	7									

Material used for the bolt, nut and washer were melted & manufactured in the USA. The product was manufactured in the USA to ASTM specifications. The bolt and nut are manufactured by Unytite. We hereby certify that the material described has been manufactured and inspected satisfactory with requirement of the above specification.

Thread Accuracy	REMARKS
Bolt ASME B1.1 Class 2A	THESE BOLTS HAVE BEEN MAGNETIC PARTICLE INSPECTION IN ACCORDANCE WITH THE REQUIREMENTS OF SPECIFICATION ASTM A490
Nut ASME B1.1 Class 2B	

Chief of Quality Assurance Section:

*[Signature]*



Boulons, écrous et autres éléments de fixation

N° DE JEU 2006-26261

ATTESTATION D'ESSAI DES ÉLÉMENTS DE FIXATION  
 (REPRODUCTION AUTORISÉE POUR UOQUE LE DOCUMENT SOIT INTÉGRAL)

DATE 2006-05-15

DESIGNATION A SL A490-1+A563-DH NA+F436-1  
 1-8 x 3 3/4

**BOULON**

BOULON S.L. A490 A TETE RONDE  
 MARQUAGE: TRIANGLE VIDE, A490 TC

N° DE LOT	FABRICANT	DURETE A MI-RAYON (ROCKWELL)	CHARGE D'EPREUVE (LBS)	RESISTANCE A LA TRACTION (LBS)
0611-50046	INFASCO	HRC 33.0 - HRC 39.0	MIN 70,700	MIN 90,900 MAX 104,550
VALEUR MOYENNE		37.0	PASSE	104,133
N° DE COULEE	MIN	MAX	MIN	MAX
057337	0.44	0.90	0.011	0.010

**ECROU**

ECROU HEX LARGE A563 DL DH UNO  
 MARQUAGE: TRIANGLE & DH

N° DE LOT	FABRICANT	DURETE (ROCKWELL)	CHARGE D'EPREUVE (LBS)
0601-50549 6675G	INFASCO	HRC 24.0 - HRC 36.0	MIN 106,000
VALEUR MOYENNE		30.0	PASSE
N° DE COULEE	MIN	MAX	MIN
00107	0.4	0.09	0.011

**RONDELLE**

RONDELLE DE CONSTRUCTION P-436-1  
 MARQUAGE: P436, ID. DU MANUFACTURIER ET UN TRIANGLE OPT.

N° DE LOT	FABRICANT	DURETE (ROCKWELL)
0605-90027 6675G	TECHNICAL STAMPING INC USA	HRC 39.0 - HRC 45.0
VALEUR MOYENNE		41.5
N° DE COULEE	MIN	MAX
0148734	0.08	0.08

TENSILS FFL 145 4400  
 04/01/06  
 VALEUR MOYENNE 79,563

2006-05-15 14:30:00  
 2006-05-15 14:30:00

Gabriel Landry, Inc.  
 Ingénieur en assurance qualité

JX112A

# INSPECTION CERTIFICATE

**UNYTITE, INC.**  
 One Unytite Drive  
 Peru, Illinois 61354



815-224-2221 — FAX # 815-224-3434

SET LOT NO. \_\_\_\_\_

Specification	Size	Quantity
ASTM A490 Type 1 ASTM A563 Grade DH ASTM F436 Type 1	1 - 8 UNC X 4	3,605 pcs.

Mechanical properties tested in accordance to ASTM F606/F606M, ASTM A370, ASTM E18

BOLT LOT NO. JX112

Date: Jun. 01, '07

Mechanical Property of Full Size Bolts	Chemical Composition %												
	Tensile Strength	Proof Load	Hardness	IDENTIFICATION							Heat Treatment		
Load (lbf)	Position of fracture	(Length Method)	HRC	A 490			S 150				Quench	Temper	
90900		Max.		C	Si	Mn	P	S	Cu	Ni	Cr	Mo	B
104850	Part of Screw	+/- 0.0005 in.		x 100	x 100	x 100	x 1000	x 1000	x 100	x 100	x 100	x 100	x 10,000
103350	Part of Screw	ALL PASS	34.7	41	25	85	1.1	7	8	5	84	23	1
Average 8 pcs				Heat No.	464470		995	1580					

KE001

NUT LOT NO. \_\_\_\_\_

Hardness (HRC)	Hardness After 24 hr x 1000° F HRB	Proof Load (Lbf)	Heat Treatment	Chemical Composition %											
				Quench	Temper	Min.	IDENTIFICATION							Fastener Tension	
24 - 38	HRB 89	06050	850												
28.9	—	ALL PASS	1193	46	25	81	7	31	15	8	12				
Mean/Specs.			1562	Heat No.	M23198										

WB8675

WASHER LOT NO. \_\_\_\_\_

Hardness (HRC)	IDENTIFICATION	Chemical Composition %										Fastener Tension		
		C	Si	Mn	P	S	Cu	Ni	Cr	Spec. (lbf.)	Min.			
38 - 45														
42.5	B15522	38	17	73	10	5	40	50	79186	1.445				
Mean/5 Pcs.														

Material used for the bolt, nut and washer were melted & manufactured in the USA. The product was manufactured in the USA to ASTM specifications. The bolt and nut are manufactured by Unytite. We hereby certify that the material described has been manufactured and inspected satisfactory with requirement of the above specification.

**OFFICIAL SEAL**  
 JEAN MARGHERIO  
 NOTARY PUBLIC - STATE OF ILLINOIS  
 MY COMMISSION EXPIRES 10/10/08

DL-18-07

Chief of Quality Assurance Section

*[Signature]*

Thread Accuracy (Bolt & Nut)	REMARKS
Bolt ASME B1.1 Class 2A	THESE BOLTS HAVE BEEN MAGNETIC PARTICLE INSPECTION IN ACCORDANCE WITH THE REQUIREMENTS OF SPECIFICATION ASTM A490
Nut ASME B1.1 Class 2B	

SET LOT NO. 33671A

# INSPECTION CERTIFICATE



**UNYRITE, INC.**  
 One Unyrite Drive  
 Peru, Illinois 61354  
 815-224-2221 — FAX # 815-224-3434

Specification	Size	Quantity
ASTM A490 Type 1 ASTM A563 Grade DH ASTM F436 Type 1	1 - 8 UNC X 4-1/4	8,894 pcs.

Mechanical properties tested in accordance to ASTM F606/F606M, ASTM A370, ASTM E18

**BOLT LOT NO.** 33671

Date: Jul. 20, '05

	Mechanical Property of Full Size Bolts			Heat Treatment °F (°C)	IDENTIFICATION	Chemical Composition %													
	Tensile Strength		Hardness			C	Si	Mn	P	S	Cu	Ni	Cr	Mo	B				
	Load (lbf)	Position of fracture																	
Spec.	90900	Part of Screw	72700 (Length Method) Max. +/- 0.0005 in.	HRC		30			Max. 40										
Average 8 pcs	104850	Part of Screw	ALL PASS	33.4	7285720	41	23	93	12	5	4	98	22	0					

**NUT LOT NO.** 32282

	Hardness (HRC)	Hardness After 24 hr x 1000° F HRB	Proof Load (Lbf)	Heat Treatment °F (°C)		IDENTIFICATION	Chemical Composition %												
				Quench	Temper		C	Si	Mn	P	S	Cu	Ni	Cr					
				Min.	Max.														
Spec	24-38	HRB 89	106050	800	800		20												
Mean/Specs	28.7	—	ALL PASS	1562	1193	501365	46	23	73	9	28	19	8	10					

**WASHER LOT NO.** WB6554

	Hardness (HRC)	IDENTIFICATION	Chemical Composition %								Fastener Tension		REMARKS						
			C	Si	Mn	P	S	Cu	Ni	Cr	Spec. (lbf.)	Min.							
														Max.	Mean / 6 sets.				
Spec.	30-45																		
Mean/5 Pcs.	40.7	740032	35	0	66	12	5												

Material used for the bolt, nut and washer were melted & manufactured in the USA. The product was manufactured in the USA to ASTM specifications. The bolt and nut are manufactured and inspected satisfactory with requirement of the above specification.

Notary Public, State of Illinois  
 My Commission Expires 10-18-2008

*Jean Margherio*  
 "OFFICIAL SEAL"  
 JEAN MARGHERIO

Chief of Quality Assurance Section

*[Signature]*

Thread Accuracy (Bolt & Nut)	REMARKS
Bolt ASME B1.1 Class 2A Nut ANSI B1.1 Class 2B	THESE BOLTS HAVE BEEN MAGNETIC PARTICLE INSPECTION IN ACCORDANCE WITH THE REQUIREMENTS OF SPECIFICATION ASTM A490



Boulons, écrous et autres éléments de fixation

N° DE JEU 2006-28463

**ATTESTATION D'ESSAI DES ÉLÉMENTS DE FIXATION**  
 (REPRODUCTION AUTORISÉE POUR LU QUE LE DOCUMENT SOIT INTÉGRAL)

DATE 2006-11-17

DESIGNATION A F2280-1SL+A563-DH NA+F436-1 UNC N  
 1-8 X 4 1/2

**BOULON**

BOULON F2280-1SL TETE RONDE UNC N NOIR  
 MARQUAGE: TRIANGLE WIDE, A480 TC

N° DE LOT	FABRICANT	DURETE A 90° (HRC)		CHARGE D'EPREUVE (LB)	RESISTANCE A LA TRACTION (MPa)	
		MIN	MAX		MIN	MAX
0610-60101	INFASCO	HRC 33.0	HRC 35.0	MIN 72,700	MIN 90,900	MAX 104,950
	VALEUR MOYENNE	35.0		PASSE	101,366	
N° DE SÉRIE	MIN	MAX	MIN	MAX	MIN	MAX
411350	0.43	0.47	0.011	0.009	0.05	0.030

**ECROU**

ECROU HEX LARGE A563-DH UNC N NOIR  
 MARQUAGE: TRIANGLE & DH

N° DE LOT	FABRICANT	DURETE (HRC)		CHARGE D'EPREUVE (LB)
		MIN	MAX	
0610-60049	INFASCO	HRC 24.0	HRC 26.0	MIN 109,100
07150		29.9		PASSE
N° DE SÉRIE	MIN	MAX	MIN	MAX
063104	0.43	0.40	0.013	0.010

**RONDELLE**

RONDELLE DE CONSTRUCTION F436-1 STD NOIR  
 MARQUAGE: F436, ID. DU MANUFACTURIER ET UN TRIANGLE OPT

N° DE LOT	FABRICANT	DURETE (HRC)	
		MIN	MAX
0603-00006	TECHNICAL STAMPING INC USA	HRC 43.0	HRC 45.0
92260		42.3	
N° DE SÉRIE	MIN	MAX	MIN
120010	0.43	0.42	0.011

REVISION 1  
 04/11/06  
 04/11/06



# INSPECTION CERTIFICATE

**UNYTITE, INC.**  
 One Unytite Drive  
 Peru, Illinois 61354  
 815-224-2221 — FAX # 815-224-3434



SET LOT NO. AC521A

Specification	Size	Quantity
ASTM A490 Type 1		
ASTM A563 Grade DH		
ASTM F436 Type 1	1 - 8 UNC X 4-3/4	6,203 pcs.

Mechanical properties tested in accordance to ASTM F606/F606M, ASTM A370, ASTM E18

BOLT LOT NO. AC521

Date: Jan. 25, '06

Mechanical Property of Full Size Bolts			Chemical Composition %											
			IDENTIFICATION											
Tensile Strength	Proof Load (Lbf.)	Hardness	Heat Treatment		C	Si	Mn	P	S	Cu	Ni	Cr	Mo	B
			Quench	Temper										
Spec. 90900	72700				30									
104850	Max. +/- 0.0005 in.		Min. 800		48			Max. 40	Max. 40					
100225	ALL PASS	34.7	1580	1013	40	24	89	14	14	8	4	102	21	1

NUT LOT NO. AE592

Mechanical Property of Full Size Nuts			Chemical Composition %										
			IDENTIFICATION										
Hardness (HRC)	Hardness After 24 hr x 1000° F HRB	Proof Load (Lbf)	Heat Treatment		C	Si	Mn	P	S	Cu	Ni	Cr	
			Quench	Temper									x 100
Spec. 24-36	HRB 89	106050			20								
28.1	—	ALL PASS	Min. 800		55			Max. 40	50				
Mean/5pcs			1076	1562	44	20	68	6	23	8	4	4	

WASHER LOT NO. WB7406

Mechanical Property of Full Size Washers			Chemical Composition %										
			IDENTIFICATION										
Hardness (HRC)	Proof Load (Lbf)	Hardness	Heat Treatment		C	Si	Mn	P	S	Cu	Ni	Cr	
			Quench	Temper									x 100
Spec. 38-45													
41.1			Min. 800		35			Max. 40	8				
Mean/5 Pcs.			1562	1076	35	7	68	8	2				

Material used for the bolt, nut and washer were melted & manufactured in the USA. The product was manufactured in the USA to ASTM specifications. The bolt and nut are manufactured by Unytite. We hereby certify that the material described has been manufactured and inspected satisfactory with requirement of the above specification.

Fastener Tension	
Spec. (lbf)	Min. 67200
Mean / 6 sets.	75086
Standard Deviation	3454

Chief of Quality Assurance Section

*[Signature]*

Thread Accuracy (Bolt & Nut)	REMARKS
Bolt ASME B1.1 Class 2A Nut ANSI B1.1 Class 2B	THESE BOLTS HAVE BEEN MAGNETIC PARTICLE INSPECTION IN ACCORDANCE WITH THE REQUIREMENTS OF SPECIFICATION ASTM A490





**Certificat de conformité**  
**Certificate of compliance**

**ANCORAGE À BÉTON ZINC**  
**WEDGE ANCHOR ZINC**

**ASTM A-307**  
PLACAGE – PLATING ASTM A-153

**VOTRE / YOUR PO #: 31432**

**GRANDEUR / SIZE: ½ X 2 ¾**

Par la présente nous certifions que le matériel qui a été expédié est conforme aux normes fournies par nos manufacturiers.

We hereby certify that the products shipped conform to the specifications supplied by the manufacturer.

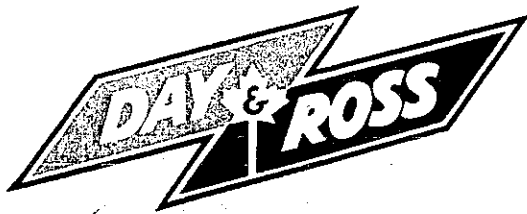
AMCAN JUMAX INC.  
1350, rue Marie-Victorin  
Saint-Bruno-de-Montarville, Québec, Canada  
J3V 6B9

Tél: (450) 441-6011

Fax: (450) 441-5511

Sans frais / toll free 1-800 661-2658

Site web: [amcanjumax.com](http://amcanjumax.com)



**STRAIGHT  
BILL OF LADING**

BTH 1211411 2



DATE MONTH DAY YEAR 10 26 07			LEVEL OF SERVICE <input type="checkbox"/> GENERAL <input type="checkbox"/> EXPEDITED (DRX)		C.O.D. AMOUNT _____ CURRENCY: <input type="checkbox"/> CDN. <input type="checkbox"/> U.S.
SPECIAL HANDLING (ADDITIONAL CHARGES APPLICABLE)					
<input type="checkbox"/> PROTECTIVE SERVICE		<input type="checkbox"/> PALLETS BEING RETURNED		<input type="checkbox"/> RETURN ALL PALLETS	
<input type="checkbox"/> DANGEROUS GOODS THIS SHIPMENT CONTAINS DANGEROUS GOODS (SET OUT IN THE ATTACHED SHIPPER'S DECLARATION)		<input type="checkbox"/> CONSOLIDATION (AT ORIGIN)		<input type="checkbox"/>	
		<input type="checkbox"/> DECONSOLIDATION (AT DESTINATION)			

SHIPPER

DAY & ROSS ACCT. NO. 289930 TEL. NO. 502.348.4431

SHIPPER'S NAME Mandate Erectors & Welding Ltd.

SHIP ADDRESS 1040 Route 430

CONSIGNEE

DAY & ROSS ACCT. NO. \_\_\_\_\_ TEL. NO. 807.761.1535

CONSIGNEE'S NAME Pizzagalli Construction

DELIVERY ADDRESS 84 Marginal Way

TY Big River PROV. NB POSTAL CODE E7A6P9

CITY Portland PROV. ME POSTAL CODE 04104

METHOD OF PAYMENT  
 PREPAID  COLLECT

CASH IN ADVANCE AMOUNT \_\_\_\_\_ CURRENCY:  CDN.  U.S.

THIRD PARTY BILL TO ACCOUNT NUMBER \_\_\_\_\_

VISA  M.C.  AMX EXPIRY DATE \_\_\_\_\_

OTHER BILL TO PARTICULARS

BILL TO: \_\_\_\_\_

BILL TO ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ PROV. \_\_\_\_\_ POSTAL CODE \_\_\_\_\_

T QUOTE NO. 28994061

ROUTING OR SPECIAL INSTRUCTIONS \_\_\_\_\_

MAXIMUM LIABILITY OF \$2.00/LB OR \$4.41/KG COMPUTED ON THE TOTAL ACTUAL WEIGHT UNLESS DECLARED VALUATION STATES OTHERWISE. PLEASE SEE ADDITIONAL TERMS AND CONDITIONS ON REVERSE.

NO. OF PCS.	DESCRIPTION OF ARTICLES AND SPECIAL MARKS	WEIGHT <input checked="" type="checkbox"/> LBS <input type="checkbox"/> KGS	DECLARED VALUATION <input checked="" type="checkbox"/> CDN. <input type="checkbox"/> U.S.	DIMENSIONS	CHARGES
1	Spec. Plate 3/8 (1 Pallet)	700	295.00	3'x3'x1'	

ALL USED HOUSEHOLD GOODS AND PERSONAL EFFECTS SHIPPED AT SHIPPER'S RISK OF DAMAGE

The uniform **TERMS OF CARRIAGE** apply to this **BILL OF LADING**. (See Term and Condition No. 1)

**NOTICE OF CLAIM** must be submitted in writing within sixty (60) days of delivery. (See Term and Condition No. 2)

The carrier's maximum liability is limited by the **TERMS AND CONDITIONS** of the Bill of Lading. (See Term and Condition No. 5)

SHIPPER'S REF. NO. J-898

SHIPPER'S SIGNATURE Annette Thériault

PRINT Annette Thériault

PICK-UP DATE 10-26-07

DAY & ROSS DRIVER H. P.

POWER NO. 13631

NO. OF PCS. 1

TRAILER NO. \_\_\_\_\_

**SHIPPER'S COPY**



USINA JOSÉ BONIFÁCIO DE ANDRADE E SILVA - CUBATÃO/SP  
 ZONE SP - AV. DO CAFÉ, 377 - TORRE A 8º ANDAR  
 13081-900 - VIA BANANAL (JARDIM) QUADRA 11 BR  
 INDICÇÃO ESTADUAL N.º 115.330.913.111

COMPANHIA SIDERÚRGICA PAULISTA - SÃO PAULO - BRASIL  
 QUALITY CERTIFICATE / PACKING LIST

CERTIFICATE No. Nº CERTIFICADO: 730288  
 CONTRATO No. Nº DO CONTRATO: 03531  
 ORDER - PEDIDO: 50176 - 05

DATE - DATA: 18/04/2009  
 Page: 1/1

ORIGINAL

CUSTOMER - CLIENTE: WIRTH STEEL  
 PRODUCT - PRODUTO: HOT ROLLED STEEL PLATE  
 SPECIFICATION - ESPECIFICAÇÃO: ASTM A572 50 - 2004 CSA  
 C40.21 50W - 2004

DIMENSIONS - DIMENSÕES  
 THICKNESS - ESPESSURA  
 WIDTH - LARGURA  
 LENGTH - COMPRIMENTO

TOLERANCES - TOLERÂNCIAS  
 THICKNESS - ESPESSURA  
 WIDTH - LARGURA  
 FLATNESS - ARLINHA/KERVO:

0.20 - 1.07mm  
 0.60 - 2.00mm  
 35.00mm

Dimensional Test - Ensaio de Urtz-sorm:  
 150 80011200

MECHANICAL TESTING - ENSAIOS MECÂNICOS

TENSILE TEST ENSAIO DE TRACÇÃO		IMPACT TEST ENSAIO DE IMPACTO	
UNIT - UNIDADE	MPa	FT/LB	FT/LB
YIELD STRENGTH RECORDED	353.42	513.51	0.75
TENSILE STRENGTH RECORDED	504.59	528.53	0.75
ELONGATION RECORDED	38.72	525.56	0.74
REDUCTION OF AREA RECORDED	42.74	548.38	0.78

PACKAGING Nº VOLUME	NET WEIGHT	GROSS WEIGHT	SALINITY Nº ANALISE	HEAT NO. Nº CONDIÇÃO	SAMPLER N. Nº AMOSTRA	SAMPLE LOCATION POS DA AMOSTRA		TEST CONDITION CONDIÇÃO DO TESTE	TEST DIRECTION DIREÇÃO DO TESTE	SPECIMEN LOCATION POS RETIRADA CP	TEMPERATURE TEMPERATURA	GAUGE LENGTH BASE MEDIDA	TEST METHOD METODO LE	YIELD STRENGTH RECORDED	TENSILE STRENGTH RECORDED	ELONGATION RECORDED	REDUCTION OF AREA RECORDED	IMPACT TEST ENSAIO DE IMPACTO	HARDNESS DUREZA	METALLOGRAPHIC TESTS METALOGRAFICOS	SCALE: ESCALA:	INCLUSIONS INCLUSOES		
						TO	EN																	
70823281	2.750	2.780	225879	110134	225876	TO	EN	T	SUP	20	20	20	353.42	513.51	0.75	21.50								
70823281	2.780	2.780	225875	110134	225875	TO	EN	T	SUP	20	20	20	364.59	528.53	0.75	27.00								
70823281	2.780	2.780	225877	110134	225877	TO	EN	T	SUP	20	20	20	38.72	525.56	0.74	27.50								
70823281	2.780	2.780	225877	110134	225878	TO	EN	T	SUP	20	20	20	42.74	548.38	0.78	25.00								

CHEMICAL COMPOSITION (%) - COMPOSIÇÃO QUÍMICA (%)

UNIT - UNIDADE	P	C	Mn	P	S	SI	AL	CU	MO	CR	NI	Nb	TI	OTHER
0.010	0.14	1.10	0.020	0.010	0.004	0.007	0.002	0.002	0.020	0.018	0.010	0.002	0.018	
0.0055	0.12	1.12	0.020	0.004	0.004	0.007	0.005	0.002	0.022	0.011	0.008	0.000	0.010	

SUPPLY CONDITION - CONDIÇÃO DE FORNECIMENTO  
 THERMO-MECHANICAL CONTROLLED PROCESS

REMARKS - OBSERVAÇÕES  
 REWAY PRODUCED HOT ROLLED STEEL PLATES TO ASTM A572-50CSA C40.21 50W. TOLERANCES TO A4 (UNTEST EDITIONS) - THE GRADE AND HEAT NUMBERS ARE DELETED IN EACH PLATE AND TRACEABLE TO QUALITY CERTIFICATE/PACKING LIST - APPLICANTS ORDER NUMBER 775454. THIS MATERIAL COMPLIES WITH THE ASTM A709 GRADE 50 STANDARD

DECLARATION: I HEREBY CERTIFY THAT THE INFORMATION CONTAINED HEREIN WAS OBTAINED BY THE LABORATORY AND THAT THE TESTS WERE CONDUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE STANDARD. THE RESULTS OF THE TESTS WERE OBTAINED BY THE LABORATORY AND ARE SUBJECT TO THE REQUIREMENTS OF THE APPLICABLE STANDARD. THIS MATERIAL COMPLIES WITH THE REQUIREMENTS OF THE APPLICABLE STANDARD.

*[Signature]*



**STRAIGHT BILL OF LADING**

BTH-1211410 4

DATE MONTH DAY YEAR 10 19 07			LEVEL OF SERVICE <input type="checkbox"/> GENERAL <input type="checkbox"/> EXPEDITED (DRX) <input type="checkbox"/>		C.O.D. AMOUNT _____ CURRENCY: <input type="checkbox"/> CDN. <input type="checkbox"/> U.S.
SPECIAL HANDLING (ADDITIONAL CHARGES APPLICABLE) <input type="checkbox"/> PROTECTIVE SERVICE <input type="checkbox"/> DANGEROUS GOODS <small>IF SHIPMENT CONTAINS DANGEROUS GOODS SET OUT IN THE ATTACHED SHIPPER'S DECLARATION.</small>			<input type="checkbox"/> PALLETS BEING RETURNED <input type="checkbox"/> RETURN ALL PALLETS <input type="checkbox"/> CONSOLIDATION (AT ORIGIN) <input type="checkbox"/> DECONSOLIDATION (AT DESTINATION)		

DAY & ROSS ACCT. NO. 289930  
SHIPPER'S NAME: MADDATE ERECTOR'S & WELDING LTD  
SHIPPER'S ADDRESS: 1040 Route 430  
CITY: Sig River, PROV. NB, POSTAL CODE F2A 6P9

METHOD OF PAYMENT:  PREPAID  COLLECT  
CASH IN ADVANCE AMOUNT \_\_\_\_\_ CURRENCY:  CDN.  U.S.

THIRD PARTY BILL TO: \_\_\_\_\_ ACCOUNT NUMBER: \_\_\_\_\_  
VISA  MC  AMX EXPIRY DATE: \_\_\_\_\_

DAY & ROSS ACCT. NO. \_\_\_\_\_ CONSIGNEE TEL. NO. 207 761 1535  
CONSIGNEE'S NAME: Pizzocalli Construction  
DELIVERY ADDRESS: 84 Marginal Way  
CITY: Portland, PROV. ME, POSTAL CODE 04104

BILL TO: OTHER BILL TO PARTICULARS  
BILL TO ADDRESS: \_\_\_\_\_  
CITY: \_\_\_\_\_ PROV. \_\_\_\_\_ POSTAL CODE \_\_\_\_\_

QUOTE NO. 12991735  
ROUTING OR SPECIAL INSTRUCTIONS: *10/19/07*

MAXIMUM LIABILITY OF \$2.00/LB OR \$4.41/KG COMPUTED ON THE TOTAL ACTUAL WEIGHT UNLESS DECLARED VALUATION STATES OTHERWISE. PLEASE SEE ADDITIONAL TERMS AND CONDITIONS ON REVERSE.

NO. OF PCS.	DESCRIPTION OF ARTICLES AND SPECIAL MARKS	WEIGHT <input checked="" type="checkbox"/> LBS <input type="checkbox"/> KGS	DECLARED VALUATION <input checked="" type="checkbox"/> CDN. <input type="checkbox"/> U.S.	DIMENSIONS	CHARGE
1	Wilox 26	25	8.95	16 x 24 x 12	
ALL USED HOUSEHOLD GOODS AND PERSONAL EFFECTS SHIPPED AT SHIPPER'S RISK OF DAMAGE					

uniform **TERMS OF CARRIAGE** apply to **BILL OF LADING**. (See Term and Condition 1)

SHIPPER'S REF. NO. F-898 (392)  
SHIPPER'S SIGNATURE: Pauline Biovet  
PRINT: Pauline Biovet

**NOTICE OF CLAIM** must be submitted in writing within sixty (60) days of delivery. (See Term and Condition No. 2)

The carrier's maximum liability is limited by the **TERMS AND CONDITIONS** of the Bill of Lading. (See Term and Condition No. 5)

PICK-UP DATE: 10-19  
DAY & ROSS DRIVER: *Alphonse*  
POWER NO. 1310608  
NO. OF PCS. 1  
TRAILER NO. \_\_\_\_\_

**SHIPPER'S COPY**

PART NO.

Attr:



Polskie Huty Stali



"POLSKIE HUTY STALI" S.A.  
Oddział Huta Katowice



41-308 DĄBROWA GÓRNICZA  
AL. JÓZEFA PIŁSUDSKIEGO 92

TEST REPORT

No 12633/E/2004

Centre: tel: (048-32) 734 53 33 TKL tel: (048-32) 792 80 52  
fax: (048-32) 795 52 00 fax: (048-32) 795 34 86

QUALITY SYSTEM OF OUR COMPANY HAS BEEN CERTIFIED BY THE TUV CERT ACC. DIN EN ISO 9002

Exporter : "POLSKIE HUTY STALI" S.A. DDDZIAL HUTA KATOWICE  
41-308 DĄBROWA GÓRNICZA AL. J. PIŁSUDSKIEGO 92  
Importer : SALZGITTER SCHWANNSTRASSE 12 D-40476 DUESSELDORF GERMANY  
Order : NR: P.O. NO.: 3-MWF-1712 SOREL, LOT 1 GERMANY

Contract no. : PL/277839653/04/6072

Manuf. Order No. : 1612772/04  
Advice No. : P-15/05277/3  
Vagon No. : 315139477774  
PKWU : 27.10.70-13.00  
KTX : 2710701200-DC0150-A9442-6.

Product description as per standard: "W" - SHAPES

Dimension : W16"X26

Length : SSFT

Steel grade : A 992

ASTM A 6/A 6H-01

THIS MATERIAL/GRADE COVERS - CSA 640.21 50W - ASTM A572 GR.50 TYPE 2

ASTM A 992/A 992H-01

Quantity Weight Heat No.

Chemical composition - X

Mechanical Properties

Bundles/Pieces	Qty	C	Mn	Si	P	S	Cr	Mo	Ni	N	Al	Sn	Nb	V	CE	Re	R <sub>m</sub>	A200	
																MPa	MPa	CO	
8/ 48	32550	421006	0,16	0,70	0,19	0,018	0,019	0,02	0,05	0,02	0,007	0,004	0,005	0,001	0,040	0,30	879	492	25,8
/		421006														382	492	26,4	
8/ 48	32550																		

THIS IS TO CERTIFY, THAT THE A.M. PRODUCTS HAVE BEEN MANUFACTURED AND TESTED IN ACCORDANCE WITH THE INDICATED SPECIFICATIONS AND COMPLY WITH THEIR REQUIREMENTS

Certificate Section HEAD OF ATTESTATION  
Prepared by: (08) DIVISION  
Checked by: (01) Jan RDEST

DĄBROWA GÓRNICZA  
29-Mar-2004

Chief Specialist  
Quality Control

Grzegorz Clichecki

BR

# Day & Ross

Load #: Drop Shipping Date: Waybill #: 898-Drop

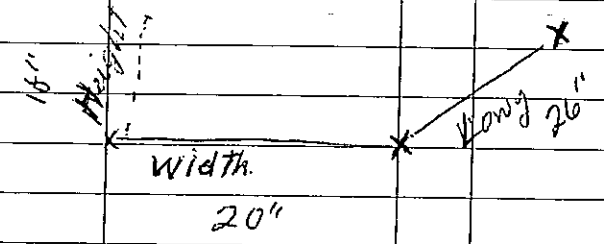
Customer: Pizzagalli Construction Company  
 Job Title: 84 Marginal Way Portland ME 04104  
 Date Sent to Shop: X *ATT: Mike Lapointe. Tel: 207-761-1535*  
 Job Number: 898 X

Prepared By: Approved By: Date: 24-01-01  
 Bathurst Machine Shop Ltd. 1040 Route 30  
 Mandate Erectors & Welding Ltd. Big River Road  
 MQM Ltd., Tracadie E2A 6P9

Job Progress Report Sheet SHEET: 1

Form#12 Rev. 4 \* = SEE SHOP DWG C=COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.	Punch/Drill	Welded	Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped				
										By	Date				By	Date	By	Date	By	Date	By	Date	Qty	By	Date
	L4X3X3/8		a2	4	43																				
	L4X3X3/8		a3	8	51																				
	L4X3X3/8		a5	24	204																				
	L4X3X3/8		a9	6	39																				
	L4X3X3/8		a73	8	34																				
	FL BAR 3/8"X4 1/2"		p86	2	15																				
	L5X5X3/8			4	56																				
<p><i># Account # 289930</i></p> <p><i>Job 898</i></p> <p><i># 155.02</i></p> <p><i>Quote # DRQ 991402</i></p> <p><i>Pickup # 507. April 1 AM</i></p>																									
				Pieces	56	442 Total Weight (Lbs)				( 0.2 TONS)															

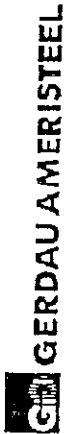




W-064592

Chemical and Physical Test Report

MADE IN CANADA



WHITBY STEEL MILL  
HOPKINS STREET SOUTH  
WHITBY ON L1N 5T1 CAN  
(905) 668-8811

PRODUCED IN: WHITBY

SHIP TO  
YORK STEEL INC  
INDUSTRIAL PARK

INVOICE TO  
YORK STEEL INC (FRED  
ACCTS PAYABLE  
550 WILSEY ROAD  
FREDERICTON, NB E3B 7K2

SHIP DATE  
04/25/07

FREDERICTON, NB E3B 5S4

CUST. ACCOUNT NO  
60125663

SALES ORDER  
6129280-46  
CUST P.O. NUMBER  
8527-46

Al Ti Zr Ca C E<sub>eq</sub>  
.000 .00000 .000 .00000 .378

ASTM: A36 - 97a ASTM A709 - 97b ASME: SA36 (A  
Nb B N Sn  
.000 .0000 .0163 .010  
Mo V  
.040 000  
Cr Ni  
.08 11  
Cu .25  
Si .20  
S .040  
P .012  
Mn .99  
C .16

GRADE SPECIFICATION  
44W C.S.A. G40.21-98 44W/50W  
Yield 50894 PSI, 350.9 MPA Tensile: 73947 PSI, 509.85 MPA %El: 25.0/6in, 25.0/2000M Red R 100  
Customer Requirements SOURCE: WHITBY BILLETS CASTING- STRAID CAST  
Mechanical Test: Yield 51671 PSI, 356.26 MPA Tensile: 74144 PSI, 511.2 MPA %El: 23.0/6in, 23.0/2000M Red R 100  
Customer Requirements SOURCE: WHITBY BILLETS CASTING STRAND CAST

This material, including the billets, was produced and manufactured in Canada  
Bhaskar Yalamanchili  
Quality Director  
Gerdau Ameristeel

*Bhaskar Yalamanchili*

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

*S. R. Singh*  
Mgr. Metallurg Svcs  
WHITBY STEEL MILL

HT 4 B41688 is used to fab items: a2, a3, a5, a9, a73

PO/REL

PART NO.

Attn:

Page 8 of 8



CAMBRIDGE STEEL MILL  
180 ORION PLACE  
CAMBRIDGE ON N1T 1R9 CAN  
(518) 740-2488

Chemical and Physical Test Report  
MADE IN UNITED STATES

N-049825

PRODUCED IN: JACKSON TN

SHIP TO  
PACIFIQUE STEEL  
845 MUNCK STREET CHOMEDEY

INVOICE TO  
PACIFIQUE STEEL INC  
845 MUNCK ST.

SHIP DATE  
03/01/07

LAVAL, PQ H7S 1A9

LAVAL, PQ H7S 1A9

CUST. ACCOUNT NO  
80030832

SALES ORDER  
7016392-02  
CUST P.O. NUMBER  
18672-02

SHAPE & SIZE: F12 X 1/2  
GRADE: 44W  
SPECIFICATION: ASTM A36-06, CSA G40.21-44W  
C: .15, Mn: .76, P: .010, S: .000, Si: .23, Cu: .31, Ni: .12, Cr: .15, Mo: .01, V: .016, Sn: .010, Sb: .001  
Mechanical Test: Yield 54100 PSI, 373.01 MPA; Tensile 76180 PSI, 525.31 MPA; El: 27.076%, 27.0200MM  
Mechanical Test: Yield 54070 PSI, 374.87 MPA; Tensile 77810 PSI, 538.48 MPA; El: 26.576%, 26.3200MM

SHAPE & SIZE: F38 X 1/2  
GRADE: 44W  
SPECIFICATION: ASTM A36-06, CSA G40.21-44W  
C: .14, Mn: .74, P: .010, S: .020, Si: .21, Cu: .30, Ni: .09, Cr: .09, Mo: .016, V: .016, Sn: .010, Sb: .013  
Mechanical Test: Yield 54050 PSI, 372.88 MPA; Tensile 74110 PSI, 510.97 MPA; El: 26.056%, 30.0200MM  
Mechanical Test: Yield 54170 PSI, 373.49 MPA; Tensile 74330 PSI, 512.48 MPA; El: 31.076%, 31.0200MM

SALES ORDER  
7016392-01  
CUST P.O. NUMBER  
18672-41

This material, including the blank, was produced and manufactured in the United States of America

Bruker Yamanchi  
Quality Director  
Gerdau Ameristeel

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

Mgr. Metallurg. Svcs  
JACKSON STEEL MILL

4T# V7-0761 is used to fab item. p89



WHITBY STEEL MILL  
 HOPKINS STREET SOUTH  
 WHITBY ON L1N 5T1 CAN  
 (905) 668-8811

Chemical and Physical Test Report

MADE IN CANADA

W-068988

PRODUCED IN: WHITBY

SHIP TO LLES ACIERS TRANSBEC 396 TEMISCOUATA STREET RIVIERE DU LOUP, PQ G5R 2ZZ	INVOICE TO LES ACIERS TRANSBEC 1997 LTE ACCTS PAYABLE 4054 BOUL LE CORBUSIER #201 LAVAL, PQ H7L 5R2	SHIP DATE 07/25/07	CUST. ACCOUNT NO 60074655
--	---	-----------------------	------------------------------

SHAPE + SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST P.O. NUMBER
W4 X 13#	A57250/992	A57250/992	7079231-01	BS25579-01
HEAT I.D.	C Mn P S Si Cu Ni Cr Mo V Nb B N Sn	.17 .88 .009 .026 .20 .26 .09 .06 .030 .000 .010 .0000 .0148 .011	C Eqv	
B42169			.361	

Mechanical Test: Yield 57493 PSI, 396.4 MPA Tensile: 80012 PSI, 551.66 MPA %EI: 20.0/8in, 20.0/200MM

Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST

Mechanical Test: Yield 57896 PSI, 399.18 MPA Tensile: 80912 PSI, 557.87 MPA %EI: 22.5/8in, 22.5/200MM

Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST

SHAPE + SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST P.O. NUMBER
A5 X 5 X 3/8	44W	C.S.A. G40.21-04 44W/50W; ASTM: A36 - 05a ASTM A709 - 05b ASME: SA36 (A	7079226-01	BS25578-01
HEAT I.D.	C Mn P S Si Cu Ni Cr Mo V Nb B N Sn	.15 .69 .008 .026 .19 .31 .11 .07 .031 .000 .014 .0000 .0000 .010	C Eqv	
B42415			.318	

Mechanical Test: Yield 51717 PSI, 356.58 MPA Tensile: 69659 PSI, 480.28 MPA %EI: 24.4/8in, 24.4/200MM

Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST

Mechanical Test: Yield 53086 PSI, 366.02 MPA Tensile: 71435 PSI, 492.53 MPA %EI: 23.6/8in, 23.6/200MM

Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST

*HT # 842415 is used to fab item*

This material, including the billets, was produced and manufactured in Canada

Bhaskar Yalamanchili  
 Quality Director  
 Gerdau Ameristeel

*Bhaskar*

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

Mgr. Metallurg. Svcs.  
 WHITBY STEEL MILL

*B. R. Singh*

Seller warrants that all material furnished shall comply with specifications subject to standard published manufacturing variations. NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, ARE MADE BY THE SELLER, AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. In no event shall seller be liable for indirect, consequential, or punitive damages arising out of or related to the materials furnished by seller.

Any claim for damages for materials that do not conform to specifications must be made from buyer to seller immediately after delivery of same in order to allow the seller the opportunity to inspect the material in question.

Load #: 3 Shipping Date: Waybill #: 898-3

Customer:	Pizzagalli Construction Company	Prepared By:	Approved By:	Date: 24-01-01
Job Title:	84 Marginal Way	Bathurst Machine Shop Ltd.		1040 Route 430
Date Sent to Shop:	X	Mandate Erectors & Welding Ltd.		Big River Road
Job Number:	898	MQM Ltd., Tracadie		E2A 6P9

Job Progress Report Sheet

SHEET: 1

Form#12 Rev. 4

\* = SEE SHOP DWG C=COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped						
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date		
A	W30X99	0	B102	1	3378	X																								
A	W18X35	0	B103	1	316	X																								
A	W18X35	0	B104	1	316	X																								
A	W24X62	0	B108	2	3986	X																								
A	W24X76	0	B111	1	2355	X																								
A	W24X76	0	B113	1	2353	X																								
A	W24X62	0	B116	1	1842	X																								
A	W24X76	0	B119	1	2268	X																								
A	W30X99	0	B121	1	3388	X																								
A	W30X99	0	B123	1	3270	X																								
A	H.S.S.6X6X1/4	0	B153	1	189	X																								
A	W12X152	0	C105	1	6455	X																								
A	W12X65	0	C113	1	2938	X																								
A	W12X65	0	C114	1	2955	X																								
A	W12X65	0	C115	1	2989	X																								
A	W8X35	0	C125	1	285	X																								
A	W8X35	0	C126	1	289	X																								
A	W8X35	0	C127	1	286	X																								
A	W8X35	0	C128	1	290	X																								
A	W8X35	0	C129	1	283	X																								

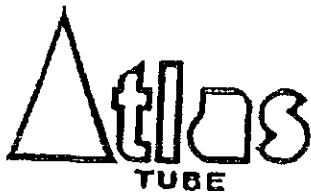
Pieces 21 40431 Total Weight (Lbs) ( 20.2 TONS)



Attn:

Atlas Tube Canada ULC  
200 Clark St.  
Harrow, Ontario, Canada  
NOR 1G0  
Tel: 519-738-3541  
Fax: 519-738-3637

Ref. B/L: 80246346  
Date: 07.04.2007  
Customer: 2



### MATERIAL TEST REPORT

Sold to

Acier Pacifique Incorporated  
845 Munck Street  
LAVAL QC H7S 1A9  
CANADA

Shipped to

Acier Pacifique Incorporated  
845 Munck Street  
LAVAL QC H7S 1A9  
CANADA

Material: 8.0x8.0x375x40\*0\*(3x2).CSA-H  
Sales order: 309772

Material No: 80080376  
Purchase Order: 18896

Made in: Canada

Heat No	C	Mn	P	S	SI	Al	Cu	Cb	Mo	NI	Cr	V
680401	0.190	0.600	0.017	0.002	0.150	0.032	0.042	0.005	0.002	0.012	0.044	0.000

Bundle No	Yield	Tensile	Eln.2In
H001898982	063610 Psi	070890 Psi	35.6 %

Certification - Heat lot - 20070630A  
CSA G40.21-04 50W CLASS H

Material Note:  
Sales Or.Note:

Material: 8.0x8.0x250x40\*0\*(3x3).  
Sales order: 306941

Material No: 800602504000  
Purchase Order: 18890

Made in: Canada

Heat No	C	Mn	P	S	SI	Al	Cu	Cb	Mo	NI	Cr	V
749730	0.200	0.820	0.011	0.007	0.011	0.049	0.021	0.004	0.002	0.010	0.035	0.000

Bundle No	Yield	Tensile	Eln.2In
M100644578	063750 Psi	077210 Psi	32.2 %

Certification  
ASTM A500-03A GRADE C & B

Material Note:  
Sales Or.Note:

Material: 8.0x6.0x250x40\*0\*(3x3).  
Sales order: 306941

Material No: 600602504000  
Purchase Order: 18890

Made in: Canada

Heat No	C	Mn	P	S	SI	Al	Cu	Cb	Mo	NI	Cr	V
749730	0.200	0.820	0.011	0.007	0.011	0.049	0.021	0.004	0.002	0.010	0.035	0.000

Bundle No	Yield	Tensile	Eln.2In
M100644580	063750 Psi	077210 Psi	32.2 %

Certification  
ASTM A500-03A GRADE C & B

Material Note:  
Sales Or.Note:

Material: 8.0x6.0x250x40\*0\*(3x3).  
Sales order: 308941

Material No: 500602504000  
Purchase Order: 18890

Made in: Canada

Heat No	C	Mn	P	S	SI	Al	Cu	Cb	Mo	NI	Cr	V
749730	0.200	0.820	0.011	0.007	0.011	0.049	0.021	0.004	0.002	0.010	0.035	0.000

Bundle No	Yield	Tensile	Eln.2In
M100644578	063750 Psi	077210 Psi	32.2 %

Certification  
ASTM A500-03A GRADE C & B

Material Note:  
Sales Or.Note:

Authorized by Quality Assurance:



HT # 749730 is used to fab item B153



### Steel Dynamics, Inc.

7501 S. County Road 700 East  
Columbia City, IN 46725  
(219) 631-8100

### Certified Mill Test Report

100% Field and Hazardous in USA

Date: 4/7/2017  
Customer No: 000193  
Bill of Lading No: 0000100003  
MTR #: 0000100265

Ship to:  
Inad Plant: Inad Pay B  
1954 Bessemer Road  
CSX Central Yard  
Petersburg, VA 23105

Bill to:  
TRIMJET AI S INTERNATIONAL  
P.O. Box 2300  
Wilkes-Barre, PA 18703  
Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Spec. Char. (1)	Customer P.O.	Analysis
11	020K05105	W6X35	60'-0"	6	A031032	A031A00234 A709 G90S/A03155 A572 G50/A03155 A031A00234	ASTM A572/A03155 - 050 ASTM A709/A03155 - 050 ASTM A572/A03155 - 050 ASTM A709/A03155 - 050	1447771	HEAT HEAT HEAT HEAT
21	020K05109	W6X35	60'-0"	6	A031039	A031A00234 A709 G90S/A03155 A572 G50/A03155 A031A00234	ASTM A572/A03155 - 050 ASTM A709/A03155 - 050 ASTM A572/A03155 - 050 ASTM A709/A03155 - 050	1447771	HEAT HEAT HEAT HEAT
31	020K05111	W6X35	60'-0"	6	A031630	A031A00234 A709 G90S/A03155 A572 G50/A03155 A031A00234	ASTM A572/A03155 - 050 ASTM A709/A03155 - 050 ASTM A572/A03155 - 050 ASTM A709/A03155 - 050	1447771	HEAT HEAT HEAT HEAT
41	020K05267	W6X31	55'-0"	6	A031616	A031A00234 A709 G90S/A03155 A572 G50/A03155 A031A00234	ASTM A572/A03155 - 050 ASTM A709/A03155 - 050 ASTM A572/A03155 - 050 ASTM A709/A03155 - 050	1447771	HEAT HEAT HEAT HEAT

#### MECHANICAL

Item	C	Mn	P	S	SI	CU	V	Ca	NI	Mo	Sn	N	A	CO	CI	C2	PC	Analysis
1'	03	.01	.016	.016	.32	.32	.001	.08	.09	.020	.012	.0057	14V1	0.11	.29	1.1	15	HEAT
2'	03	.01	.016	.016	.22	.32	.001	.03	.09	.020	.012	.0087	14V1	0.11	.20	3.1	15	HEAT
3'	08	.01	.016	.016	.22	.32	.001	.08	.09	.020	.012	.0087	14V1	0.11	.20	3.1	15	HEAT
4'	05	.07	.016	.037	.19	.26	.002	.07	.09	.016	.014	.0078	14V1	0.13	.24	2.7	17	HEAT

#### Tension Testing Results

Item	Yield Strength ksi/MPa	Tensile Strength ksi/MPa	Elong. (in) 8-gauge	ROA (%)	Hard Test Result	Temp. F/C	Sample 1 H. In./kg	Sample 2 H. In./kg	Sample 3 H. In./kg	Analysis
1	58402	71491	25	25	1					ASTM G301 SPE No (see ASTM E113)
1	58400	75515	26	25	2					
2	58407	71491	25	25	1					
2	591400	75515	26	25	2					
3	58402	71491	25	25	1					
3	58400	75515	26	25	2					
4	53345	68470	26	26	1					
4	57054	68477	26	26	2					

#### Charpy Impact Testing Results

Item	Temp. F/C	Sample 1 ft. lb./joules	Sample 2 ft. lb./joules	Sample 3 ft. lb./joules	Analysis
1					
2					
3					
4					

Industry copybook contents of this report are accurate and correct. All tests and operations performed by this industry member are in compliance with the requirements of the mill test specifications and applicable purchase agreement.

Quality Assurance  
  
 Signed \_\_\_\_\_

Customer and subject of letter case file  
 Signed \_\_\_\_\_  
 My submission number: \_\_\_\_\_

Temp. F/C  
 Sample 1 ft. lb./joules  
 Sample 2 ft. lb./joules  
 Sample 3 ft. lb./joules  
 Analysis

HT # A031838 is used to fabricate items: C125 to C130

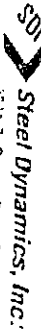
# ACIER PACIFIQUE INC.

PART NO.

PO/Ref

Certificate of Mill Test Results  
PAC-0000000-000

Pg 1/2



500 E. Duane Road  
Greenville, NC 27834  
919 825-8112

Certified Mill Test Report  
100% Melted and Manufactured in USA

Date: 03/11/13  
Customer No: 18646  
Bill of Lading No: 18646  
MTR #: 00000000

Ship to:  
SAF-C STEEL  
C/O SAF-C STEEL

Bill to:  
SAF-C STEEL  
225 RAILROAD  
LAURENS, SC 29553  
ATTN: SAF-C STEEL

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1*	020869473	W12X152	35'-0"	1	A033163	A992 / A992M A709 G50S/G345S A572 GF50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	18646
2†	020869474	W12X152	35'-0"	1	A033163	A992 / A992M A709 G50S/G345S A572 GF50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	18646
3†	020869483	W12X152	35'-0"	1	A033113	A992 / A992M A709 G50S/G345S A572 GF50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	18646
4†	020869484	W12X152	35'-0"	1	A033113	A992 / A992M A709 G50S/G345S A572 GF50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	18646
5†	020869509	W12X152	40'-0"	1	A033113	A992 / A992M A709 G50S/G345S A572 GF50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	18646
6†	020869510	W12X152	40'-0"	1	A033113	A992 / A992M A709 G50S/G345S A572 GF50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	18646
7†	020869517	W12X152	40'-0"	1	A033112	A992 / A992M A709 G50S/G345S A572 GF50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	18646
8†	020869518	W12X152	40'-0"	1	A033112	A992 / A992M A709 G50S/G345S A572 GF50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	18646

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated

State of Indiana County of Warren  
Signed: \_\_\_\_\_  
Quality Assurance

Signature: \_\_\_\_\_  
My commission expires: \_\_\_\_\_

Special Comments Information

HT 1# A033163 is used to fish item



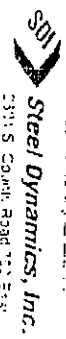
# ACIER PACIFIQUE INC.

PART NO.

PO/Ref

## Certificate of Mill Test Results

PAC-000000-000



2915 South Road  
Chattanooga, TN 37405  
388 325-1000

Date: 3/28/2012  
Customer No: 503105  
Bill of Lading No: 200314113  
MTR #: 200310242

Ship to  
PACIFIC STEEL  
Customer: 11/03

ASTM  
PACIFIC STEEL, INC  
155 RUELLE BLVD  
LAVERGNE, OH 43025  
ATTN: MTR Services

Certified Mill Test Report  
100% Melted and Manufactured in USA

### MECHANICAL

Item	Test	Yield (Fy) Strength ksi/MPa	Tension Testing Results			Elong (%) based on R gauge	ROA (%)	Bend Test Result	Temp F/C	Charpy Impact Testing Results			ASTM Grain Size No (per ASTM E112)
			Tensile Strength ksi/MPa	Fy/Fu	Rupture					Sample 1 ft. lb/fouls	Sample 2 ft. lb/fouls	Sample 3 ft. lb/fouls	
1	1	57/396	76/520	.76	22	23	1						
1	2	59/386	78/521	.74	21	22	1						
2	1	57/396	76/520	.76	22	23	1						
2	2	59/386	78/521	.74	23	23	1						
3	1	60/413	76/526	.79	23	20	2						
3	2	57/394	77/530	.74	20	23	1						
4	1	60/413	76/526	.79	23	20	2						
4	2	57/394	77/530	.74	20	23	1						
5	1	60/413	76/526	.79	23	20	2						
5	2	57/394	77/530	.74	20	23	1						
6	1	60/413	76/526	.79	23	20	2						
6	2	57/394	77/530	.74	20	23	1						
7	1	59/377	77/534	.71	22	21	2						
7	2	59/377	79/542	.70	21	22	1						
8	1	59/377	77/534	.71	22	21	2						
8	2	59/377	79/542	.70	21	22	1						

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

State of Indiana County of Warren  
Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
My commission expires \_\_\_\_\_  
Signed: \_\_\_\_\_  
Notary Public

Special Comments/Information

Signed: \_\_\_\_\_  
Quality Assurance

Client: ACIER PACIFIQUE INC. Q113 C1445VC - PW-S10010-010-0115

My commission expires

Special Comments/Information

Mandate Erectors & Welding Ltd.

30645

6517

30362620

Bill To:  
 TRIAD METALS INTERNATIONAL  
 2300 COMPUTER AVENUE  
 SUITE A-1  
 WILLOW GROVE  
 19090

Ship To: 6  
 TRIAD METALS INTERNATIONAL  
 TRIAD METALS INTERNATIONAL  
 1951 BESSEMER ROAD  
 PETERSBURG  
 23803

Order Date: 04/19/2007  
 PO No: 163596  
 Will Order No: 3292263  
 Load No: 1113364  
 Haul/Est No: 1826673

CERTIFIED MATERIAL TEST REPORT  
**CHAPARRAL STEEL**  
 300 Ward Rd.  
 Midlothian, TX  
 76065-9651  
 (972) 775-9241

SPECIFICATIONS  
 ASTM A6-06a, A992-06a, A572-06

SIZE  
 W 12 X 6 5/8 / W310 X 97

GRADE  
 992/572-50

LENGTH  
 35 FT / 10.668 M

PRODUCT  
 WF BEAMS

HEAT NO: 30362620

CHEMICAL ANALYSIS  
 C Mn P S Si Cu Ni Cr Mo Sn V Al Nb Ti  
 .09 1.09 .017 .037 .21 .47 .11 .10 .020 .021 .001 .009 .019 .33

PHYSICAL PROPERTIES

Yield Strength		Tensile Strength		Specimen Area		Elongation		Bend Test	
KSI	MPa	KSI	MPa	Sq In	Sq cm	%	Gage Length	180°	PO3
55.1	379.3	72.9	502.6	0.943	6.08	24.4	9 in 200 mm		
54.1	373.0	71.5	493.0	0.897	5.79	25.1	2 in 200 mm		

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A.  
 CONR complies with DIN EN 10204 3.1.B

"I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements."

Signed: [Signature] Date: May 24, 2007  
 For L. Harrington: Quality Assurance Manager

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
 Notary Public (if applicable)

HT # 30362620 IS USED TO FILE ITEMS CALL 310 C115

PART NO.

Att:



"POLSKIE HUTY STALI" S.A.  
Oddział Huta Katowice



TEST REPORT

41-308 DABROWA GÓRNICZA  
AL. JÓZEFA PIŁSUDSKIEGO 92

Centr. tel: (048-32) 794 53 33 TKJ tel: (048-32) 792 80 52  
fax: (048-32) 795 52 08 fax: (048-32) 795 54 86

No 7519/E/2004

QUALITY SYSTEM OF OUR COMPANY HAS BEEN CERTIFIED BY THE TÜV CERT ACC. DIN EN ISO 9001

Exporter : "POLSKIE HUTY STALI" S.A. ODDZIAŁ HUTA KATOWICE  
41-308 DABROWA GÓRNICZA AL. J. PIŁSUDSKIEGO 92  
Importer : OLBERT METAL SALES 888 CHERRY ROAD EAST, SUIT 306 MISSISSAUGA, ONTARIO  
L5T 1J8 CANADA  
Order : NR: P.O NO:SP 1027

Contract No. : PL/277888653/04/B071

Manuf. Order No.: 1613086/04  
Advice No. : P-15/03289/3  
Vagon No. : 315163282811  
PKWID : 27.10.70-13.00  
KTX : 2710701300-DC0030-AB442-6.

Product description as per standard: "W"- SHAPES

Dimension : W18 X85

ASTM A 6/A 6M-01

Length : 36FT

Steel grade: A 992

ASTM A 992/A 992M-01

THIS MATERIAL/GRADE COVERS - CSA G40.21 50W - ASTM A572 GR.50 TYPE 2

Quantity Weight Heat No.

Chemical composition - %

Mechanical Properties

Reel/Pieces	Lps	C	Mn	Si	P	S	Cu	Cr	Ni	N	Nb	Ti	Al	V	CH	Mechanical Properties			
																Re [MPa]	Rm [MPa]	EL [%]	
3/ 18	9885	431021	0,17	0,79	0,21	0,018	0,015	0,03	0,02	0,01	0,002	0,003	0,003	0,001	0,048	0,32	587	504	23,6
/		431021															382	513	28,0
3/ 18	9885																		

THIS IS TO CERTIFY, THAT THE A.P. PRODUCTS HAVE BEEN MANUFACTURED AND TESTED IN ACCORDANCE WITH THE INDICATED SPECIFICATIONS AND COMPLY WITH TEST REQUIREMENTS

Certificate Section  
Prepared by: (08)  
Checked by: (02)

FIELD OF ATTESTATION  
DIVISION  
JAN 2004

DABROWA GÓRNICZA  
1-Jan-2004

Chief Specialist  
Quality Control

Grzegorz Cichoński

HT 431021 is used to lab items: B103, B104



2601 S. County Road 700 East  
Columbia City, IN 46725-  
(260) 625-8100

**Certified Mill Test Report**  
100% Made and Manufactured in USA

Date: 6/29/2007  
Customer No: 000191  
Bill of Lading No: 0000117395  
MTR #: 0000116975

Ship to:  
Triad Metals Int'l  
1951 Bessmer Road  
CSX-Collier Yard  
Petersburg, VA 23805

Bill to:  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
5t	020904423	W24X62	60'0"	4	B034540	A992 / A992M A709 G50S/G345S A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	158398
6t	020904429	W24X62	60'0"	4	B034539	A992 / A992M A709 G50S/G345S A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	158398
7t	020904431	W24X62	80'0"	4	B034539	A992 / A992M A709 G50S/G345S A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	158398

**CHEMICAL**

Item	C	Mn	P	S	SI	Cu	V	Cr	NI	Mo	Sn	N	B	Ch	C1	C2	PC	Analysis
5*	.09	1.11	.015	.031	.26	.40	.032	.09	.10	.021	.019	.0111	.0004	.002	.33	.37	.18	HEAT
6*	.07	1.11	.017	.026	.23	.42	.033	.09	.11	.022	.016	.0104	.0003	.002	.32	.36	.17	HEAT
7*	.07	1.11	.017	.026	.23	.42	.033	.09	.11	.022	.016	.0104	.0003	.002	.32	.36	.17	HEAT

**MECHANICAL**

Item	Test	Tension Testing Results					Charpy Impact Testing Results											
		Yield (Fy) Strength KSI/MPa	Tensile (Fu) Strength KSI/MPa	Fy/Fu	Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp F/C	Sample 1 ft. lb/oules	Sample 2 ft. lb/oules	Sample 3 ft. lb/oules	% Shear	ASTM Grain Size No (per ASTM E112)					
5	1	57/394	74/510	.77	24													
5	2	62/427	78/540	.79	23													
6	1	57/395	74/512	.77	23													
6	2	59/404	74/513	.80	23													
7	1	57/395	74/512	.77	23													
7	2	59/404	74/513	.80	23													

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

State of Indiana, County of Whitley  
Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
Signed: \_\_\_\_\_  
Notary Public

Special Comments/Information:  
\* Fully Killed Steel  
† Cast and Rotted to a Fine Grain Practice

Signed: \_\_\_\_\_  
Quality Assurance

My commission expires: \_\_\_\_\_

HT # B034539 is used to fabricate items. B105. B116



Steel Dynamics, Inc.  
7601 S. County Road 700 East  
Columbus, OH, IN 45725  
(781) 633-4100

Certified Mill Test Report  
100% Milling and Manufactured in USA

Date: 5/21/2007  
Customer No: 000191  
Bill of Lading No: 0000112897  
MTR #: 0000112896

Ship to:  
Triad Metals Int'l  
1951 Bassener Road  
CSX Collier Yard  
Petersburg, VA 23805

Bill to:  
TRIAD METALS INTERNATIONAL  
A-1 2300 Conroyde Avenue  
Willow Grove, PA 19093  
Attn: Fred Vrhle

Item	Bundle	Section	Length	Pcs	Head #	Grade(s)	Specification(s)	Customer P.O.
6a1	020857507	W24X76	60' 0"	1	B032679	A992/A992M A709 G50S93455 A572 G50G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 05	1521158
6b1	020857507	W24X76	60' 0"	3	B032880	A992/A992M A709 G50S93455 A572 G50G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 05	1521158

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Ca	Cl	C2	PC	Analysis
6a1	.07	1.11	.019	.036	.22	.33	.030	.09	.11	.030	.013	.0108	.0003	.001	.32	.35	.17	HEAT
6b1	.08	1.16	.018	.028	.20	.36	.034	.10	.11	.038	.012	.0076	.0003	.001	.34	.37	.17	HEAT

**MECHANICAL**

Tension Test Results

Item	Test	Yield (Fy) ksi/MPa	Tensile (Fu) ksi/MPa	Fy/Fu	Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp F/C	Sample 1 Fl. Bol./oules	Sample 2 Fl. Bol./oules	Sample 3 Fl. Bol./oules	% Shear	ASTM Grain Size No (per ASTM E112)
6a	1	56333	73504	.77	23		Test 1						
6a	2	57094	75518	.76	24		Test 2						
6b	1	58403	73504	.79	24		Test 1						
6b	2	61418	73504	.84	27		Test 2						

Charpy Impact Testing Results

Item	Temp F/C	Sample 1	Sample 2	Sample 3
6a				
6b				

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this mill are in accordance with the requirements of the mill's specifications and applicable purchaser drawings.

Site of Issue: \_\_\_\_\_, County of \_\_\_\_\_, State of \_\_\_\_\_

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_, 2007.

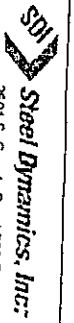
Signed: \_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

Quality Assurance

HT# B032679 is used to fcb items: B111, B113, B119

Customer Name: Mandate Erectors & Welding Ltd. Customer PO#: 30645 Shipper No: 6533 Heat Number: B032679



Steel Dynamics, Inc.  
2601 S. County Road 700 East  
Columbia City, IN 46725  
(250) 625-8100

**Certified Mill Test Report**  
100% Filled and Manufactured in USA

Date: 6/5/2007  
Customer No: 000191  
Bill of Lading No: 0000114666  
MTR #: 0000114261

Ship to:  
Tried Metals International  
3480 Grand Avenue  
Pittsburgh, PA 15225  
Attn: Craig Berrelli

Bill to:  
TRIED METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
71	020885893	W30X99	50' 0"	2	A033725	A992 / A992M A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	157163
81	020885895	W30X99	60' 0"	2	A033725	A992 / A992M A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	157163
91	020885896	W30X99	50' 0"	2	A033725	A992 / A992M A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	157163
101	020885902	W30X99	50' 0"	2	A033725	A992 / A992M A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	157163

Item	C	Mn	P	S	SI	Cu	V	Cr	NI	Mo	Sn	N	B	Co	C1	C2	PC	Analysis
71	.07	1.13	.023	.028	.20	.45	.034	.14	.12	.032	.017	.0105	.0003	.002	.34	.37	.18	HEAT
81	.07	1.13	.023	.028	.20	.45	.034	.14	.12	.032	.017	.0105	.0003	.002	.34	.37	.18	HEAT
91	.07	1.13	.023	.028	.20	.45	.034	.14	.12	.032	.017	.0105	.0003	.002	.34	.37	.18	HEAT
101	.07	1.13	.023	.028	.20	.45	.034	.14	.12	.032	.017	.0105	.0003	.002	.34	.37	.18	HEAT

**CHEMICAL**

**MECHANICAL**

**Tension Testing Results**

**Charpy Impact Testing Results**

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed:   
Quality Assurance

State of Indiana, County of Whitley  
Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
Signed: \_\_\_\_\_ Notary Public

Special Comments/Information:  
Fully Killed Steel  
Cast and Rolled to a Fine Grain Practice

HT A033725 is used to fab items. B102, B121, B123

The date of test is 6/5/07

Customer PO# 30645  
Shipper No 6497  
Heat Number A033725



**BAYOU STEEL CORPORATION**

RIVER ROAD P.O. BOX 5000  
LA PLACE, LOUISIANA 70069-1156  
Telephone 1985: 652-4900

**MATERIAL CERTIFICATION REPORT**

TRIAD METALS INTERNATIONAL  
SUITE A-1  
2300 COMPUTER AVENUE  
WILLOW GROVE, PA 19090

TRIAD METALS  
3480 GRAND AVE.  
NEVILLE ISLAND, PA 15225

TESTED IN ASTM A6

ACCORDANCE WITH

INVOICE NO. BSLP07205269  
PRODUCT ANGLES  
HEAT NO. 55574 63 PCS  
Length 40'0"  
DATE 05/29/07  
CUST T-4200 -0008  
GRADE A3652950  
SIZE L 5 X 5 X 3/8 X 12.3  
PO: 56

Customer Name  
Mandate Erectors & Welding Ltd.  
30645

Customer PO#  
30645

CHEMICAL ANALYSIS	MECHANICAL PROPERTIES		TEST 1		TEST 2		TEST 3	
	IMPERIAL	METRIC	IMPERIAL	METRIC	IMPERIAL	METRIC	IMPERIAL	METRIC
C	.12	50,738 PSI	50,592 PSI	349 MPa	PSI	PSI	MPa	MPa
Mn	.80	71,040 PSI	70,400 PSI	485 MPa	PSI	PSI	MPa	MPa
P	.014	34.0 %	34.0 %	203 mm	%	%	mm	mm
S	.029	8 in	8 in	203 mm	d	d	d	d
Si	.21	sq in	sq in	sq in	sq in	sq in	sq in	sq in
Cu	.35	%	%	%	%	%	%	%
Ni	.16	sq in	sq in	sq in	sq in	sq in	sq in	sq in
Cr	.13	%	%	%	%	%	%	%
Mo	.044	sq in	sq in	sq in	sq in	sq in	sq in	sq in
Cb	.004	%	%	%	%	%	%	%
V	.000	sq in	sq in	sq in	sq in	sq in	sq in	sq in
B		%	%	%	%	%	%	%
Al		sq in	sq in	sq in	sq in	sq in	sq in	sq in
Sn		%	%	%	%	%	%	%
N		sq in	sq in	sq in	sq in	sq in	sq in	sq in
TI	.005	%	%	%	%	%	%	%

Customer Grade & Specs: A36-04  
44W, CSA50W, A70936  
ASME SA36

A529-04 GRADE 50

IMPACT STRENGTH	IMPERIAL	METRIC	INTERNAL CLEANLINESS		GRAIN SIZE HARDNESS	GRAIN PRACTICE REDUCTION RATIO
			SEVERITY FREQUENCY RATING			
AVERAGE TEST TEMP	F	J				
ORIENTATION		C				

I HEREBY CERTIFY THAT THE MATERIAL TEST RESULTS PRESENTED HERE ARE FROM THE REPORTED HEAT AND ARE CORRECT. ALL TESTS WERE PERFORMED IN ACCORDANCE TO THE SPECIFICATIONS REPORTED ABOVE. ALL STEEL IS ELECTRIC FURNACE MELTED, MANUFACTURED, PROCESSED, AND TESTED IN THE U.S.A WITH SATISFACTORY RESULTS, AND IS FREE OF MERCURY CONTAMINATION IN THE PROCESS.

NOTARIZED UPON REQUEST:  
SWORN TO AND SUBSCRIBED BEFORE ME IN AND FOR ST. JOHN PARISH ON THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_

SIGNED Mark Edwards  
MARK EDWARDS, QUALITY ASSURANCE SUPERVISOR

Michael E. Soliveau, # 81887, Notary Public

DIRECT ANY QUESTIONS OR NECESSARY CLARIFICATIONS CONCERNING THIS REPORT TO THE SALES DEPARTMENT.

HT 4 55574 is used to fab item: mlyey

1-800-535-7697 (USA)

Shipper No 6495  
Heat Number 55574

Load #: 2

Shipping Date:

Waybill #: 898-2

Customer:	Pizzagalli Construction Company		Prepared By:	Approved By:	Date: 24-01-01
Job Title:	84 Marginal Way	Job Progress Report Sheet	Bathurst Machine Shop Ltd.		1040 Route 430 Big River Road E2A 6P9
Date Sent to Shop:	X	SHEET: 1	Mandate Erectors & Welding Ltd.		
Job Number:	898	X	MQM Ltd., Tracadie		

Attach.	Material	Rev.	Mark #	Qty	Weight	C=COLOR GALV.				Fitted	Mk. Insp.	Punch/Drill	Welded	Weld		Surface		Paint		Shipped			
						Paint	Galv	Camber	Level					By	Date	By	Date	By	Date	By	Date	By	Date
H	L4X3X3/8	0	A100	26	186																		
A	ROD 3/4"	0	AR100	52	114																		
A	ROD 3/4"	0	AR101	18	48																		
A	W30X99	0	B120	1	3434	X																	
A	W30X99	0	B122	1	3350	X																	
A	W30X99	0	B124	1	3318	X																	
A	W12X136	0	C100	1	3810	X																	
A	W12X152	0	C101	1	4847	X																	
A	W12X72	0	C102	1	2068	X																	
A	W12X72	0	C103	1	2090	X																	
A	W10X49	0	C111	1	1865	X																	
Y	L6X4X5/16"	0	M100	1	99	Y	Y																
Y	L6X4X5/16"	0	M101	1	333	Y	Y																
Y	L6X4X5/16"	0	M102	1	75	Y	Y																
Y	L6X4X5/16"	0	M103	1	82	Y	Y																
Y	TS6X6X1/2"	0	M104	6	4520	Y																	
Y	L6X4X5/16"	0	M105	1	125	Y	Y																
Y	L6X4X5/16"	0	M106	1	349	Y	Y																
Y	L6X4X5/16"	0	M107	1	162	Y	Y																
Y	L6X4X5/16"	0	M108	1	425	Y	Y																

Pieces 118 31300 Total Weight( Lbs)

( 15.7 TONS)



Load #: 2

Customer:	Pizzagalli Construction Company	Prepared By:	Approved By:	Date: 24-01-01
Job Title:	84 Marginal Way	Job Progress Report Sheet		1040 Route 430 Big River Road E2A 6P9
Date Sent to Shop:	X			
Job Number:	898			

Bathurst Machine Shop Ltd.
Mandate Erectors & Welding Ltd.
MQM Ltd., Tracadie

Form#12 Rev. 4

\* = SEE SHOP DWG  
C=COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped				
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date
N	L6X6X3/8"	0	M109	1	313		Y																					
N	L6X6X3/8"	0	M110	1	246		Y																					
N	L6X6X3/8"	0	M111	1	246		Y																					
N	L5X5X3/8"	0	M112	1	120		Y																					
N	L5X5X3/8"	0	M113	1	309		Y																					
N	L3X3X5/16"	0	M114	2	42	Y																						
N	L3X3X5/16"	0	M115	2	49	Y																						
N	L3X3X5/16"	0	M116	2	49	Y																						
N	L3X3X5/16"	0	M117	2	51	Y																						
N	L3X3X5/16"	0	M118	5	31	Y																						
N	L3X3X5/16"	0	M119	1	32	Y																						
N	BP 8X4X3/8	1	M120	11	38																							
Y	L6X4X5/16"	0	M121	1	381	Y	Y																					
Y	L6X4X5/16"	0	M122	1	77	Y	Y																					
N	FB 3/8" X 4"	0	M127	3	14	Y																						
N	FB 3/8" X 3"	0	M128	2	7	Y																						
N	FB 3/8" X 2.5"	0	M129	2	6	Y																						
N	FB 3/8" X 2.5"	0	M130	1	3	Y																						
N	L3X3X5/16"	0	M131	30	915	Y																						
N	L3X3X5/16"	0	M132	6	150	Y																						

Pieces 76      3079 Total Weight( Lbs)      ( 1.5 TONS)

Load #: 2

Customer:	Pizzagalli Construction Company			Prepared By:	Approved By:	Date: 24-01-01
Job Title:	84 Marginal Way	Job Progress Report Sheet		Bathurst Machine Shop Ltd. Mandate Erectors & Welding Ltd. MQM Ltd., Tracadie		1040 Route 430 Big River Road E2A 6P9
Date Sent to Shop:	X	SHEET: 3				
Job Number:	898					

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped				
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date
N	FB 3/8" X 2.5"	0	M133	2	6	Y																						
Y	L6X4X5/16"	0	M136	1	486	Y	Y																					
Y	L6X4X5/16"	0	M137	1	372	Y	Y																					
Y	L6X4X5/16"	0	M138	1	342	Y	Y																					
N	FB 3/8" X 2.5"	0	M139	2	6	Y																						
N	FB 3/8" X 5"	0	M141	12	70	Y																						
N	FB 3/8" X 3"	0	M142	9	32	Y																						
N	L4X4X5/16"	0	M160	1	38	Y																						
H	L4X4X5/16"		M161	1	46																							
N	L4X4X5/16"	0	M162	1	33	Y																						
N	L4X4X5/16"	0	M163	1	85	Y																						
N	L4X4X5/16"	0	M164	1	79	Y																						
N	L4X4X5/16"	0	M165	1	44	Y																						
N	L4X3X5/16"	0	M166	50	280	Y																						
N	L2X2X1/4"	0	M177	101	107	Y																						
N	L5X5X3/8"	0	M184	36	198	Y																						
N	L5X5X3/8"	0	M185	6	55	Y																						
N	L8X4X1/2"	0	M187	2	13	Y																						
N	PL 5/8"	0	P104	13	223		Y																					
Y	PL 5/8"	0	P104A	8	233		Y																					

Pieces 250      2748 Total Weight(Lbs)      ( 1.4 TONS)

Load #: 2

Customer:	Pizzagalli Construction Company	Prepared By:	Approved By:	Date: 24-01-01
Job Title:	84 Marginal Way	Job Progress Report Sheet		1040 Route 430 Big River Road E2A 6P9
Date Sent to Shop:	X			
Job Number:	898			

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped				
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date
Y	PL 5/8"	0	P104B	5	145		Y																					
Y	L6X4X5/16	0	M124	1	85		Y																					
Y	L6X4X5/16	0	M125	1	102		Y																					
N	H.S.S.4Z4Z1/4	0	M126	8	57		Y																					
N	L4X3X3/8	0	A101	6	51																							
N	L4X3X3/8	0	A102	2	9																							
N	L4X3X3/8	0	A105	6	51																							
N	L4X3X3/8	0	A106	6	64																							
N	FL3/8X4-1/2	0	P100	1	9																							
N	FL3/8X3-1/2	0	P101	1	2																							
N	PL3/8X3-3/8	0	P103	6	13																							
N	PL3/8X4-1/4	0	P108	12	28																							
				Pieces	55	616 Total Weight(Lbs)																						

( 0.3 TONS)

USINA JOSE BONIFÁCIO DE ANDRADE E SILVA - CUBATÃO/SP  
 SEDE: SP - AV. DO CAFÉ, 767 - JARDIM MOAK  
 CEP 04311-000 - VILA GUARANI (JARDIM GUARANI 1133)  
 INSCRIÇÃO C. O. (C. O. P.) Nº 0790.831.0001-41  
 INSCRIÇÃO ESTADUAL Nº 118.338.915.111

**COSIPA**  
 COMERCIAL SIDERURGICA S.A.

COMPANHIA SIDERÚRGICA PAULISTA - SÃO PAULO - BRASIL  
 QUALITY CERTIFICATE / PACKING LIST

CERTIFICATE NO. - Nº CERTIFICADO: 730288  
 CONTRACT NO. - Nº DO CONTRATO: 03631  
 ORDER - PEDIDO: 50178 - 05

DATE - DATA: 18/03/2004  
 Pág. 1/1

CUSTOMER - CLIENTE: WIRTH STEEL  
 PRODUCT - PRODUTO: HOT ROLLED STEEL PLATE  
 SPECIFICATION - ESPECIFICAÇÃO: ASTM A572 T150 - 2004 CSA  
 G40 21 50W - 2004

TOLERANCES - TOLERÂNCIAS  
 ASTM A6 - 2004B  
 THICKNESS-ESPESSURA 4 1/2 ± 1.07mm  
 WIDTH-LARGURA A 60 ± 2.00mm  
 FLATNESS - APLANAMENTO: 35.00mm  
 Ultrasonic Test - Ensaio de Ultra-som:

**MECHANICAL TESTING - ENSAIOS MECÂNICOS**

PACKAGE No Nº VOLUME	HEAT No Nº CORRIDA	SAMPLE No Nº AMOSTRA	GROSS WEIGHT PESO BRUTO	TENSILE TEST ENSAIO DE TRAÇÃO										IMPACT TEST ENSAIO DE IMPACTO										HARDNESS DUREZA			METALLOGRAPHIC TESTS ENSAIOS METALOGRAFICOS		
				TEST CONDITION CONDIÇÃO DO TESTE		TEMPERATURE TEMPERATURA	SPECIMEN LOCATION POS RETIRADA CP	GUAGE LENGTH BASE MÉDIA	TEST METHOD MÉTODO	UNIT-UNID			YIELD STRENGTH RESISTÊNCIA À TRAÇÃO	TENSILE ELONGATION ALONGAMENTO	REDUCTION OF AREA REDUÇÃO DE ÁREA	DIRECTION DIREÇÃO DO TESTE	UNITS UNIDADE	DIRECTION DIREÇÃO DO TESTE	UNITS UNIDADE	SPECMEN LOCATION POS RETIRADA CP	SCALE ESCALA	INCLUSIONS INCLUSÕES							
				TO EN	T					SUP	MPa	kgf/cm²											%	MPa	kgf/cm²	MPa	kgf/cm²		
79028001	"	225678	2.780	TO EN	T	SUP	20	TEST METHOD	MPa	kgf/cm²	%	MPa	kgf/cm²	MPa	kgf/cm²	MPa	kgf/cm²	MPa	kgf/cm²										
79028001	"	225675	2.780	TO EN	T	SUP	20	TEST METHOD	MPa	kgf/cm²	%	MPa	kgf/cm²	MPa	kgf/cm²	MPa	kgf/cm²	MPa	kgf/cm²										
79028001	"	225677	2.780	TO EN	T	SUP	20	TEST METHOD	MPa	kgf/cm²	%	MPa	kgf/cm²	MPa	kgf/cm²	MPa	kgf/cm²	MPa	kgf/cm²										
79028001	"	225678	2.780	TO EN	T	SUP	20	TEST METHOD	MPa	kgf/cm²	%	MPa	kgf/cm²	MPa	kgf/cm²	MPa	kgf/cm²	MPa	kgf/cm²										
79028001	"	225679	2.780	TO EN	T	SUP	20	TEST METHOD	MPa	kgf/cm²	%	MPa	kgf/cm²	MPa	kgf/cm²	MPa	kgf/cm²	MPa	kgf/cm²										
79028001	"	225680	2.780	TO EN	T	SUP	20	TEST METHOD	MPa	kgf/cm²	%	MPa	kgf/cm²	MPa	kgf/cm²	MPa	kgf/cm²	MPa	kgf/cm²										
79028001	"	225681	2.780	TO EN	T	SUP	20	TEST METHOD	MPa	kgf/cm²	%	MPa	kgf/cm²	MPa	kgf/cm²	MPa	kgf/cm²	MPa	kgf/cm²										
79028001	"	225682	2.780	TO EN	T	SUP	20	TEST METHOD	MPa	kgf/cm²	%	MPa	kgf/cm²	MPa	kgf/cm²	MPa	kgf/cm²	MPa	kgf/cm²										
79028001	"	225683	2.780	TO EN	T	SUP	20	TEST METHOD	MPa	kgf/cm²	%	MPa	kgf/cm²	MPa	kgf/cm²	MPa	kgf/cm²	MPa	kgf/cm²										
79028001	"	225684	2.780	TO EN	T	SUP	20	TEST METHOD	MPa	kgf/cm²	%	MPa	kgf/cm²	MPa	kgf/cm²	MPa	kgf/cm²	MPa	kgf/cm²										
79028001	"	225685	2.780	TO EN	T	SUP	20	TEST METHOD	MPa	kgf/cm²	%	MPa	kgf/cm²	MPa	kgf/cm²	MPa	kgf/cm²	MPa	kgf/cm²										

**CHEMICAL COMPOSITION (%) - COMPOSIÇÃO QUÍMICA (%)**

HEAT No Nº CORRIDA	C	Mn	P	S	Si	Al	Cu	Nb	V	Tr
870734	0.14	1.16	0.020	0.010	0.312	0.030	0.007	0.002	0.030	0.019
900585	0.17	1.12	0.020	0.006	0.224	0.027	0.005	0.002	0.022	0.011

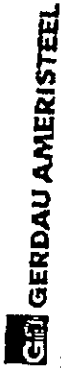
SUPPLY CONDITION - CONDIÇÃO DE FORNECIMENTO  
 THERMOMECHANICAL CONTROLLED PROCESS  
 Heat treatment: Soaking / Enchovado  
 Tem (min) Temp (°C)

Remarks - Observações: PRIME QUALITY, HEAVY PRODUCED HOT ROLLED KILLED STEEL PLATES TO ASTM A572-50/CSA G40 21 50W. TOLERANCES TO ASILAT/ST EDITIONS. THE GRADE AND HEAT NUMBERS ARE DIESTAMPED IN EACH PLATE AND TRACEABLE TO QUALITY CERTIFICATE/PACKING LIST. APPLICANT'S ORDER NUMBER 177534. THIS MATERIAL COMPLIES WITH THE ASTM A709 GRADE 50 STANDARD

HT # 670734 is used to fab items: M120, M129, M130, M133, M139, M128, M142, M127, M141  
 P100, P101, P103, P108

WE HEREBY CERTIFY THAT THE MATERIAL HAS BEEN MANUFACTURED AND TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ASTM SPECIFICATION AND THE CERTIFICATE IS VALID ONLY FOR THE MATERIAL MANUFACTURED BY THE ABOVE COMPANY.

PART NO.



CAMBRIDGE STEEL MILL  
160 ORION PLACE  
CAMBRIDGE ON N1T 1P8 CAN  
(519) 740-2488

Chemical and Physical Test Report  
MADE IN CANADA

Page 4 of 5

N-050254

PRODUCED IN: CAMBRIDGE

SHIP TO  
PACIFIQUE STEEL  
845 MUNCK STREET CHOMEDEY

INVOICE TO  
PACIFIQUE STEEL INC  
845 MUNCK ST.

SHIP DATE  
03/19/07

LAVAL, PQ H7S 1A9

CUST. ACCOUNT NO  
60030632

SHAPE + SIZE  
A2 X 2 X 1/4

HEAT I.D.  
N700337

GRADE  
44W  
SPECIFICATION  
CSA-G40.21-307W-98(44W); ASTM A36/A36M-05

MECHANICAL TEST  
Yield 51804 PSI, 357.18 MPA

CUSTOMER REQUIREMENTS  
CASTING, STRAND CAST

MECHANICAL TEST  
Yield 52907 PSI, 364.00 MPA

CUSTOMER REQUIREMENTS  
CASTING, STRAND CAST

SHAPE + SIZE  
A2 X 2 X 1/4

HEAT I.D.  
N700334

GRADE  
44W  
SPECIFICATION  
CSA-G40.21-307W-98(44W); ASTM A36/A36M-05

MECHANICAL TEST  
Yield 51801 PSI, 355.78 MPA

CUSTOMER REQUIREMENTS  
CASTING, STRAND CAST

MECHANICAL TEST  
Yield 49908 PSI, 344.5 MPA

CUSTOMER REQUIREMENTS  
CASTING, STRAND CAST

This material, including the billets, was produced and manufactured in Canada  
Bhaskar Yalamanchili  
Quality Director  
Gerdaul Ameristeel

*Maskan*

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS  
AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

Mgr. Metallurg. Svcs.  
CAMBRIDGE STEEL MILL

*Eric Hande*

HT # N700334 is used to fab item: m177



**BAYOU STEEL CORPORATION**  
 RIVER ROAD P.O. BOX 5000  
 LA PLACE, LOUISIANA 70069-1156  
 Telephone (985) 652-4900

**MATERIAL CERTIFICATION REPORT**  
 TRIAD METALS INTERNATIONAL  
 SUITE A-1  
 2300 COMPUTER AVENUE  
 WILLOW GROVE, PA 19090

TRIAD METALS  
 3480 GRAND AVE.  
 NEVILLE ISLAND, PA 15225

TESTED IN ASTM A6  
 ACCORDANCE WITH

INVOICE NO. BSLP07205269 DATE 05/29/07 PO:56  
 PRODUCT ANGLES CUST T-4200 -0008  
 HEAT NO. 55574 63 PCS GRADE A3652950 -  
 Length 40'0" SIZE L 5 X 5 X 3/8 X 12.3

Customer Name

Customer PO#

Shipper No

Heat Number

Mandate Erectors & Welding Ltd.

30645

6495

55574

CHEMICAL ANALYSIS	TEST 1		TEST 2		TEST 3	
	IMPERIAL	METRIC	IMPERIAL	METRIC	IMPERIAL	METRIC
C	.12					
Mn	.80					
P	.014					
S	.029					
Si	.21					
Cu	.35					
Ni	.16					
Cr	.13					
Mo	.044					
Cb	.004					
V	.000					
Al						
Sn	.005					
N						
Ti						

MECHANICAL PROPERTIES	TEST 1		TEST 2		TEST 3	
	IMPERIAL	METRIC	IMPERIAL	METRIC	IMPERIAL	METRIC
YIELD STRENGTH	50,738 PSI	350 MPa	50,592 PSI	349 MPa	PSI	MPa
TENSILE STRENGTH	71,040 PSI	490 MPa	70,400 PSI	485 MPa	PSI	MPa
ELONGATION	34.0 %	34.0 %	34.0 %	34.0 %	%	%
GAUGE LENGTH	8 in	203 mm	8 in	203 mm	in	mm
BEND TEST DIAMETER	d	d	d	d	d	d
BEND TEST RESULTS						
SPECIMEN AREA	sq in	sq mm	sq in	sq mm	sq in	sq mm
REDUCTION OF AREA	%	%	%	%	%	%
IMPACT STRENGTH	ft-lbs	J	ft-lbs	J	ft-lbs	J

IMPACT STRENGTH	INTERNAL CLEANLINESS	
	IMPERIAL	METRIC
AVERAGE	ft-lbs	SEVERITY
TEST TEMP	F	FREQUENCY
ORIENTATION		RATING

Customer Grade & Specs: A36-04 A529-04 GRADE 50  
 44W, CSA50W, A70936  
 ASME SA36

I HEREBY CERTIFY THAT THE MATERIAL TEST RESULTS PRESENTED HERE ARE FROM THE REPORTED HEAT AND ARE CORRECT. ALL TESTS WERE PERFORMED IN ACCORDANCE TO THE SPECIFICATIONS REPORTED ABOVE. ALL STEEL IS ELECTRIC FURNACE MELTED, MANUFACTURED, PROCESSED, AND TESTED IN THE U.S.A WITH SATISFACTORY RESULTS, AND IS FREE OF MERCURY CONTAMINATION IN THE PROCESS.

*Mark Edwards*  
 MARK EDWARDS, QUALITY ASSURANCE SUPERVISOR

SIGNED

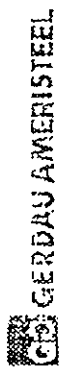
NOTARIZED UPON REQUEST:  
 SWORN TO AND SUBSCRIBED BEFORE ME IN AND FOR ST. JOHN  
 PARISH ON THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_

Michael E. Soileau, # 81887, Notary Public

DIRECT ANY QUESTIONS OR NECESSARY CLARIFICATIONS CONCERNING THIS REPORT TO THE SALES DEPARTMENT.

1-800-535-7692 (USA) remove 'onload 3'

HT # 55574 is used to fab items: m112, m113, (m184, m185)



YOUNG TOWN DEPOT  
382 ROCHEMONT RD  
NJACKSON OH 44451 USA  
(866) 658-2958

Commercial and Technical Test Report

MADE IN UNITED STATES

7-012637

PRODUCED IN: JACKSON TN

SHIP TO  
TRIAD METALS  
3450 GRAND AVE  
NEVILLE ISLAND  
PITTSBURGH, PA 15225

INVOICE TO  
TRIAD METALS INTERNATIONAL  
METAL TRADERS INC  
2300 COMPUTER AVE. STE. A-1  
WILLOW GROVE, PA 19090

SHIP DATE  
06/26/07  
CUST. ACCOUNT NO  
40213035

SHAPE + SIZE	GRADE	SPECIFICATION
A3 X 3 X 5/16	A36	ASTM A36-05
HEAT ID	C Mn P S Si Cu N Cr Mo V Nb Sn C Equ	
V7-1124	13 68 010 040 16 28 09 .07 020 <.008 010 281	

Mechanical Test: Yield 48400 PSI 333.71 MPA Tensile 68410 PSI 471.67 MPA %EL 31.5/80M  
 Mechanical Test: Yield 48950 PSI 337.5 MPA Tensile 68720 PSI 473.81 MPA %EL 32.2/80M 32.2/200MM

SALES ORDER 6117596-11  
CUST P.O. NUMBER 146068-11

Shipper No 6495  
Heat Number V7-1124

Customer PO# 30645

Mandate Erectors & Welding Ltd.

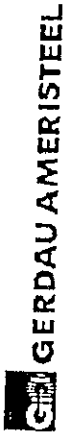
This material, including the test results, is the property of Mandate Erectors & Welding Ltd. It is to be used only for the purpose for which it was supplied. All other rights reserved.

This material, including the test results, is the property of Mandate Erectors & Welding Ltd. It is to be used only for the purpose for which it was supplied. All other rights reserved.

*Mandate Erectors & Welding Ltd.*

*Mandate Erectors & Welding Ltd.*

HF V7-1124 is used to fab items: m114 to m119  
m131, m132



WHITBY STEEL MILL  
HOPKINS STREET SOUTH  
WHITBY ON L1N 5T1 CAN  
(905) 668-8811

Chemical and Physical Test Report

MADE IN CANADA

W-064592

PRODUCED IN: WHITBY

SHIP TO  
YORK STEEL INC  
INDUSTRIAL PARK

INVOICE TO  
YORK STEEL INC (FRED)  
ACCTS PAYABLE  
550 WILSEY ROAD  
FREDERICTON, NB E3B 7K2

SHIP DATE  
04/25/07

FREDERICTON, NB E3B 5S4

CUST. ACCOUNT NO  
60125663

SHAPE + SIZE	GRADE	SPECIFICATION	SALES ORDER										CUST P.O. NUMBER									
A4 X 3 X 3/8	44W	C.S.A. G40.21-98 44W50W; ASTM: A36 - 97a ASTM709- 97b ASME: SA36 (A	6129280-46										8527-46									
HEAT I.D.			C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	B	N	Sn	Al	Ti	Zr	Ca	C	Eqv
B41688			.16	.99	.012	.040	.20	.25	.11	.08	.040	.000	.000	.0000	.0163	.010	.000	.00000	.000	.00000	.000	.378

Mechanical Test: Yield 50894 PSI, 350.9 MPA Tensile: 73947 PSI, 509.85 MPA %El: 25.0/8in, 25.0/200MM Red R 100  
 Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST  
 Mechanical Test: Yield 51671 PSI, 356.26 MPA Tensile: 74144 PSI, 511.2 MPA %El: 23.0/8in, 23.0/200MM Red R 100  
 Customer Requirements SOURCE: WHITBY BILLETS CASTING: STRAND CAST

This material, including the billets, was produced and manufactured in Canada  
 Bhaskar Yalamanchili  
 Quality Director  
 Gerdau Ameristeel

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS  
 AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

*[Signature]*  
 Mgr. Metallurg Svcs  
 WHITBY STEEL MILL

HT # B41688 is used to fab item. A100, A101, A102, A105, A106



Altir:

材质书

MILL TEST CERTIFICATE

订货单位: 浙江物产国际贸易有限公司  
CONSIGNEE: 浙江物产国际贸易有限公司  
发货日期: 2007年3月28日  
DATE OF ISSUING: 2007.03.28  
合同号: 07G10Z0003  
CONTRACT NO.

产品名称: 热轧卷钢  
DESC OF GOODS: PRIME HOT ROLLED STEEL ANGLE  
ORDER NO.: 8053-M  
牌号 (钢别代号): ASTM A572 GR50/A6-05a  
STEEL GRADE: ASTM A572 GR50/A6-05a

原产地: 中国  
ORIGIN: CHINA  
制造单位: 唐山宏润钢铁有限公司  
EDITED BY: TANGSHAN HONGRUN.  
编号: 2007-HZ-03-1  
NO.:

规格	炉号 HEAT NO.	重量 WEIGHT (MT)	支数 TOTAL PCS	件数 NO. OF BUNDLES	化学成分 (%)								机械性能						
					C	Si	Mn	P	S	Ni	Cr	Cu	V	Mo	Nb	屈服强度 YIELD STRENGTH H Min Ton/No.	抗拉强度 TENSILE STRENGTH H Max Ton/No.	伸长率 ELONGA TION % 2"	冷弯 COLD BENDING (180°) 4-D
4*3*1/4*40'	H-5498	55.596	528	12	0.17	0.26	1.25	0.030	0.028	0.10	0.12	0.22	0.010	0.020	0.005	350	490	24.0	OK
4*3*1/4*40'	H-2852	50.963	484	11	0.18	0.28	1.22	0.032	0.026	0.11	0.15	0.26	0.010	0.020	0.005	355	505	25.0	OK
4*3*1/4*40'	H-4761	50.963	484	11	0.16	0.30	1.20	0.031	0.030	0.13	0.13	0.28	0.010	0.022	0.006	365	495	25.0	OK
4*3*1/4*40'	H-8812	50.963	484	11	0.16	0.25	1.22	0.030	0.032	0.12	0.15	0.26	0.011	0.022	0.009	360	500	25.0	OK
4*3*5/16*40'	H-7931	14.901	114	3	0.16	0.30	1.23	0.028	0.030	0.11	0.15	0.28	0.011	0.025	0.005	355	510	25.0	OK
4*3*3/8*40'	H-9127	14.814	96	3	0.17	0.32	1.25	0.030	0.028	0.11	0.11	0.30	0.010	0.025	0.007	360	505	24.0	OK
3-1/2*3-1/2*5/16*40'	H-0369	54.791	616	11	0.17	0.28	1.23	0.028	0.026	0.13	0.12	0.30	0.012	0.022	0.006	365	495	24.0	OK
3-1/2*3-1/2*5/16*40'	H-8423	49.830	450	10	0.17	0.28	1.22	0.026	0.028	0.15	0.15	0.26	0.011	0.022	0.006	360	495	24.0	OK
3-1/2*3-1/2*5/16*40'	H-7326	49.830	450	10	0.18	0.30	1.20	0.028	0.026	0.11	0.10	0.25	0.012	0.025	0.006	360	500	25.0	OK
3-1/2*3-1/2*3/8*40'	H-3407	4.967	38	1	0.16	0.28	1.30	0.028	0.028	0.11	0.11	0.26	0.010	0.025	0.006	365	505	24.0	OK
4*3-1/2*5/16*40'	H-7623	24.465	175	5	0.17	0.30	1.32	0.028	0.030	0.12	0.10	0.25	0.010	0.022	0.005	365	510	26.0	OK
4*3-1/2*3/8*40'	H-1145	49.560	300	10	0.17	0.27	1.28	0.030	0.028	0.11	0.13	0.28	0.010	0.022	0.007	370	505	26.0	OK

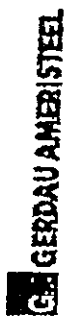
尊敬的客户, 用前请先验证, 如有异议请保留实物并未说明

For Customers, TEST BEFORE USED, CLAIM FOR DISCREPANCIES WITH DEFAULT GOODS

HT# H-7931 is used to fab item: m166

三 拾 肆 日  
2007年3月28日  
检验员: 王...  
检验人: 王...  
INSPECTOR:

日期: 2007.03.28  
DATED:



JACKSON STEEL MILL  
 901 AMERISTEEL ROAD  
 JACKSON TN 38305 USA  
 (731) 424-5500

Chemical and Physical Test Report

MADE IN UNITED STATES

V-613283

PRODUCED IN: JACKSON TN

SHIP TO TRAD METAL 1861 BESSEMER ROAD 804-72-8000 PETERSBURG, VA 23106	INVOICE TO TRAD METALS INTERNATIONAL METAL TRADERS INC 2000 COMPUTER AVENUE, #1 WILLOW GROVE, PA 19080	SHIP DATE 06/28/07	CUST. ACCOUNT NO 40211005
--	--	-----------------------	------------------------------

SHAPE & SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST PO NUMBER
A1 X 3 1/2 X 1/4	A36	ASTM A36-05	732781400	13270303

HEAT NO.	C	Mn	P	S	Si	Al	Ni	Cr	Cu	M	Ca	Fe	Other
V7-0011	.14	.71	.010	.048	.27	.29	.10	.11	.027	.007	.004	.0000	.311

SHAPE & SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST PO NUMBER
A1 X 4 X 3/16	A36	ASTM A36-05	811452425	13308129

HEAT NO.	C	Mn	P	S	Si	Al	Ni	Cr	Cu	M	Ca	Fe	Other
V7-0015	.16	.85	.014	.030	.20	.28	.10	.14	.029	.006	.001	.0000	.24

SHAPE & SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST PO NUMBER
A1 X 3 X 1/4	A36	ASTM A36-05	811452410	13308129

HEAT NO.	C	Mn	P	S	Si	Al	Ni	Cr	Cu	M	Ca	Fe	Other
V7-0014	.14	.70	.015	.040	.23	.25	.07	.11	.020	.006	.010	.0000	.311

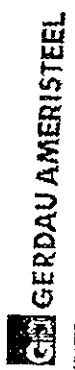
The material, including the blank, was produced and manufactured in the United States of America.

*Maskay*  
 Brian Yehorovich  
 Quality Director  
 Gerdau AmeriSteel

THE ABOVE FEATURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS IDENTIFIED IN THE MANAGEMENT SYSTEMS OF COMPANY

*[Signature]*  
 My Identity Sec.  
 JACKSON STEEL MILL

HT # V7-0815 is used to fab items: m160, m162 to m165  
 m161



Chemical and Physical Test Report

MADE IN CANADA

W-067534

WHITBY STEEL MILL  
HOPKINS STREET SOUTH  
WHITBY ON L1N 5T1 CAN  
(905) 658-8811

PRODUCED IN: WHITBY

SHIP TO  
TRIAD METALS  
3450 GRAND AVE  
NEVILLE ISLAND  
PITTSBURGH, PA 15225

INVOICE TO  
TRIAD METALS INTERNATIONAL  
METAL TRADERS INC  
2300 COMPUTER AVE, STE-A-1  
WILLOW GROVE, PA 19090

SHIP DATE  
06/25/07

CUST. ACCOUNT NO  
40213035

SALES ORDER  
7001861-18

CUST P.O NUMBER  
151570-18

SHAPE & SIZE	GRADE	SPECIFICATION
A6 X 4 X 5/16	A36	CSA-G40.21-04(44W) ASTM A36M-05a ASTM 09 05b ASME CA36 00a
HEAT ID B42529	C Mn P S Cu Ni Cr Mo V Nb B	0.18 0.31 0.11 0.004 0.26 0.09 0.08 0.28 <0.008 <0.008 0.004
	H Ti Al Si Ni Sn	0.000 0.000 0.000 0.11 0.000 0.000
	Zr C3 C45	0.000 0.00000 0.345

Mechanical Test Yield 47758 PSI, 379.39 MPA Tensile 72374 PSI, 499 MPA  
Customer Requirements SOURCE WHITBY BILLETS CASTING STRAND CAST  
Mechanical Test Yield 50147 PSI, 315.75 MPA Tensile 73276 PSI, 505.22 MPA  
Customer Requirements SOURCE WHITBY BILLETS CASTING STRAND CAST  
CUST ITEM NUMBER: JUN %El: 20.0 Min, 20.0 200MM %El: 22.5 Min, 22.5 200MM

This material was analyzed in accordance with the procedures specified in CANADA  
13 EN 10002-2  
Exhiby Welder  
Date: 06/25/07

THE ABOVE TESTS WERE PERFORMED AT THE ORIGINAL SOURCE AND PHYSICAL TESTS WERE  
AS PERFORMED BY THE WHITBY RECORDS COMPANY

My Medallion  
WHITBY STEEL MILL

HT # B42529 is used to fab items:

m100 to m103, m105 to m108  
m121, m122, m136 to m138.

Customer Name

Customer PO#

Shipper No

Heat Number

Mandate Erectors & Welding Ltd.

30645

6495

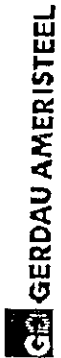
Y702489

Page 1 of 1

Y-032879

Chemical and Physical Test Report

MADE IN UNITED STATES



CALVERT CITY STEEL MILL  
1035 SHAR-CAL ROAD  
CALVERT CITY KY 42029 USA  
(270) 395-3100

PRODUCED IN: CALVERT CITY

SHIP TO  
TRIAD METALS  
3450 GRAND AVE  
NEVILLE ISLAND  
PITTSBURGH, PA 15225

INVOICE TO  
TRIAD METALS INTERNATIONAL  
METAL TRADERS INC  
2300 COMPUTER AVE, STE-A-1  
WILLOW GROVE, PA 19090

SHIP DATE  
07/06/07

CUST. ACCOUNT NO  
40213035

SHAPE * SIZE	GRADE	SPECIFICATION	SALES ORDER													CUST P. O. NUMBER	
A6 X 6 X 3/8	A36	ASTM A36-05, ASTM A709 GR36	6081238-02													136885-02	
HEAT I.D.	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Mb	B	N	Sn	Al	Ti	C Eqv
Y702489	.13	.67	.016	.031	.21	.27	.09	.08	.024	.001	<.008	.0004	.0081	.010	.002	.00100	.322

Corrosion Index: 5.43

Mechanical Test: Yield 48000 PSI, 330.95 MPA  
Tensile 65000 PSI, 448.16 MPA %EI: 26.06in, 26.0/203.2mm Std Dev:0

Mechanical Test: Yield 49000 PSI, 337.84 MPA  
Tensile 66000 PSI, 455.05 MPA %EI: 25.06in, 25.0/203.2mm Std Dev:0

Customer Requirements CASTING- STRAND CAST  
Customer Requirements CASTING- STRAND CAST  
CUST ITEM NUMBER MAY

This material, including the billets, was melted and manufactured in the United States of America

Dhaskar Yalamanchili  
Quality Director  
Gerdau Ameristeel

*Handwritten signature*

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY

Mgr Metallurg Svcs  
CALVERT CITY STEEL MILL

*Handwritten signature*

Seller warrants that all material furnished shall comply with specifications subject to standard published manufacturing variations. NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, ARE MADE BY THE SELLER. AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. In no event shall seller be liable for indirect, consequential or punitive damages arising out of or related to the materials furnished by seller. Any claim for damages for materials that do not conform to specifications must be made from buyer to seller immediately after delivery of same in order to allow the seller the opportunity to inspect the material in question.

HT # Y702489 is used to fab items; m109 to m111

Attn:

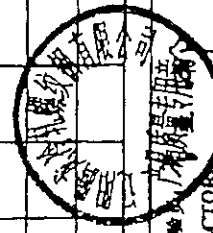
材质证书  
MILL TEST CERTIFICATE

订货单位: 浙江物产国际贸易有限公司  
CONSIGNEE: 浙江物产国际贸易有限公司  
发货日期: 2007年3月28日  
DATE OF ISSUING: 2007.03.28  
合同号: 07G10Z0003  
CONTRACT NO.

产品名称: 热轧角钢  
DESC OF GOODS: PRIME HOT ROLLED STEEL ANGLE  
ORDER NO.: 8053-M  
牌号 (标识代号): ASTM A572 GR50/A6-05a  
STEEL GRADE: ASTM A572 GR50/A6-05a

原产地: 中国  
ORIGIN: CHINA  
制造商: 辽阳龙腾轧钢有限公司  
EDITED BY: LIAOYANG TENG LONG  
编号: 2007-HZ-03-J  
NO.:

规格	SIZE	炉号 HEAT NO.	重量 WEIGHT (MT)	支数 TOTAL PCS	件数 NO OF BUNDLES	化学成分 (%)										机械性能				
						C	Si	Mn	P	S	Ni	Cr	Cu	V	Mo	Nb	屈服强度 YIELD STRENGTH H/Mpa Test No.1	抗拉强度 TENSILE STRENGTH H/Mpa Test No.1	延伸率 ELONGA TION % 1"	冷弯 COLD BENDING (180°) 4-5
✓	7*4*3/8*40'	T-7351	59.256	240	12	0.17	0.31	1.22	0.028	0.028	0.10	0.12	0.22	0.010	0.022	0.005	365	505	24.0	OK
✓	7*4*1/2*40'	T-0967	24.370	75	5	0.18	0.30	1.25	0.026	0.028	0.11	0.15	0.25	0.011	0.025	0.007	365	510	26.0	OK
✓	8*4*1/2*40'	T-3323	39.848	112	8	0.16	0.28	1.20	0.030	0.039	0.12	0.11	0.25	0.011	0.023	0.005	360	515	26.0	OK
✓	8*4*1/2*40'	T-7608	39.848	112	8	0.17	0.28	1.18	0.028	0.030	0.10	0.12	0.22	0.010	0.024	0.005	360	500	25.0	OK
✓	8*4*3/4*40'	T-4051	14.067	27	3	0.17	0.30	1.30	0.030	0.032	0.10	0.13	0.26	0.012	0.025	0.006	355	505	24.0	OK



尊敬的客户, 用前请先验证, 如有异议请保留实物并未说明  
For Customers, TEST BEFORE USED, CLAIM FOR DISCREPANCIES WITH DEFAULT GOODS

日期: 2007.03.28  
DATED:  
Inspector: 李强  
INSPECTOR

AT # T-3323 is used to fab item: m187

УКРАИНА  
UKRAINE



МАРИУПОЛЬСКИЙ МЕТАЛЛУРГИЧЕСКИЙ КОМБИНАТ  
ИМЕНИ ИЛЬИЧА  
ILYICH IRON & STEEL WORKS OF MARIUPOI.

Ф. 037К-9

87501 г. Мариуполь, ул. Ломоносова, 1. Тел. 115157 ДЕРУ СУ

Lovchevka str. 1, Mariupol, 87501 Telex 115157 DERO SU

ЗАВОДСКОЙ СЕРТИФИКАТ КАЧЕСТВА №  
MILL'S QUALITY CERTIFICATE №

5046

Дата  
Date

27.02.06

Лист  
Sheet

1

из  
of

1

Листов  
sheets

Свидетельство о приемочных испытаниях  
Inspection certificate

EN 10204-3.1 B



ISO  
9001



Контракт № Contract №	12EXP/007-06	Lot5	Заводской заказ № Manufacturer's Manufacture order №	LF6-007043010327
	LF600704301	Sp.301LF	works order №	

Заказчик  
Customer  
IMCA METALS LIMITED

Вагон № (Автомашина №)  
Freight Car № (Lorry №)

53589743

Количество штук  
Number of pieces

34

Наименование товара Description of goods	Прокат толстолистовой Heavy plates	Стандарт Standards	CSA G40.21-04
Марка стали Steel grade	300W	ASTM A6/A6M-02	
Состояние поставки Delivery condition	Горячекатанный лист Hot Rolled Plate		
Маркировка Marking			
Hard stamp			

Поли- ция № Item №	Номер плавки Cast number	Номер партии Test number	Размеры, мм Product dimensions, mm			К-во штук Number of pieces	Теоретич. масса, м.т. Theoret. mass, m.t.
			толщина thickness	ширина width	длина length		
5/8"	261089	4174	15,88	2438	6096	4	7,412
5/8" →	261090	4175	15,88	2438	6096	30	55,590
						34	63,002

HT в 261089 is used to fab items: P104A, P104B, P104

MILL'S QUALITY CERTIFICATE № 5046

Результаты испытаний

Test results

Номер партии Test number	Отбор образца Specimen		Температура испытания Test temperature °C	Испытание на растяжение и ударный изгиб Tensile and impact test				Размеры образца D.m. of specimen		1-Энергия удара / Impact energy, (J) 2-Ударная вязкость / Impact strength, (J/cm <sup>2</sup> ) 3-Механические свойства / Mechanical aging, (J/cm <sup>2</sup> ) R-количество вязкой составляющей в изломе / Number of toughness component in fracture: V: ISO-V; U: ISO-U	Испыт. Девид
	4) location	5) direction		Предел текучести Yield strength R <sub>0.2</sub> МПа	Предел прочности Tensile strength R <sub>m</sub> МПа	Относительное удлинение Elongation A <sub>5</sub> %	Сужение Reduction of area Z %	Толщина thickness mm	ширина width mm		
4174		T	20	361	499	25		15,88	40	--	
4175		T	20	350	488	26		15,88	40		
	341			489	25						
	358			497	26						

4) H — начало ползучести / Initial strain  
F — конец ползучести / end strain.

5) L — продольное / longitudinal  
T — поперечное / transverse.

10 — толщина образца / thickness of specimen;  
A — диаметр образца / diameter of the mandrel.

УЗК / Ultrasonic Examination

Выплавка / Steelmaking process

Конвертерный способ / Made by the BOF Process

Номер партии Сая №	Химическое содержание элементов / Chemical contents of elements, %																
	C	Mn	Si	S	P	Cr	Ni	Cu	Ti	Al	As	N	Mn	V	Nb	Co	Pcm
	x100			x1000			x100			x100			x10000				x100
261089	20	114	19	21	21	3	2	2	1,4	33	3	8	1	7	5	40	
261090	17	113	19	19	18	3	2	1	1,7	44	2	8	1	7	6	37	

Примечание / Note

Указанный в настоящем сертификате товар соответствует по качеству действующим стандартам и техническим условиям.

It is hereby certified that the quality of goods mentioned in this certificate is in conformity with the standards and specifications.

Подпись  
Signature

Дата

Штамп, подпись  
Receiving agent's stamp

# FASTENAL COMPANY

INDUSTRIAL & CONSTRUCTION SUPPLIES

## CERTIFICATE OF COMPLIANCE

CERTIFICATE NO:012002-2005

SOLD TO: MANDATE ERECTORS

PURCHASE ORDER NO.: 26894

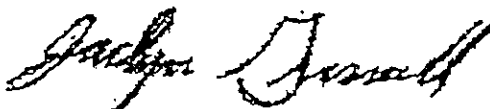
JOB NO:

DATE: 1/20/05

THIS IS TO CERTIFY THAT WE HAVE SUPPLIED YOU WITH THE FOLLOWING PARTS.  
THESE PARTS WERE PURCHASED TO THE FOLLOWING SPECIFICATIONS.

15 PCS 1/2" - 10 X 10, THREADED ROD, MANUFACTURED IN THE USA. PROVIDED UNDER OUR TRACE  
NUMBER FASTEN.

This is to certify that the above document is true  
and accurate to the best of my knowledge.



Jaclyn Grossell  
Fastenal Company  
Quality Assurance Dept.

Page 1 of 1 -

February 12, 2004

This document was printed on 1/20/2005 and was current at that time. Please check current Revision date to avoid using obsolete  
copies.

4T#

is used to fab items: AR100, AR101



PART NO.

Attr:



COPPERWELD

COPPERWELD CANADA INC.  
14 HOLTBY AVENUE  
BRAMPTON, ONTARIO L6X 2M3  
CANADA

TEST REPORT

Customer Order No.

11283

Internal Order No. 969968

Invoice No. 17139484

Date 08/04/04

Customer: ACIER PACIFIQUE INC. 845 MUNCK CHOMEDEY LAVAL, PQ H7S 1A8	Specification: 6 IN, SQ, 1/2 48 Ft ASTM A500 GRC 03A
---	---

HEAT NO.	CHEMICAL ANALYSIS. %											
	C	Mn	P	S	SI	AL	CB	V	CU	NI	CR	
3125C C.E.	.33	.19	.82	.011	.005	.23	.038	.005	.026	.010	.010	.010

MECHANICAL PROPERTIES					
HEAT NO.	C.I./D.I.	YIELD STRENGTH PSI	TENSILE STRENGTH PSI	ELONGATION %	HARDNESS Rb
3125C		71500	84300	35	

YIELD STRENGTH IS 0.2% OFFSET - ELONGATION IN 2 INCHES

Other Tests

Copperweld certifies that the material purchased on this order meets all chemical and physical requirements in accordance with the specification noted above.

*Jim Clark*  
JIM CLARK, METALLURGIST

HT # 3125C is used to fab item m104

Customer Name

Customer PO#

Shipper No

Heat Number

Mandate Erectors & Welding Ltd.

30645

6896

30360140

Bill To:  
TRIAD METALS INTERNATIONAL  
2300 COMPUTER AVENUE  
SUITE A-1  
WILLOW GROVE  
19090

Order Date: 07/03/2007  
PO No: 1012  
Mill Order No: 3334700  
Load No: 1122790  
Manifest No: 1835489

Ship To: 6  
TRIAD METALS INTERNATIONAL  
1951 BESSEMER ROAD  
PETERSBURG  
23803

VA  
US

PA  
US

SPECIFICATIONS  
ASTM A6-05a, A992-06a, A572-06

SIZE  
W 10 X 49# / W250 X 73

GRADE  
992/572-50

LENGTH  
30 FT / 9.144 M

HEAT NO: 30360140

C Mn P S Si Cu Ni Cr Mo Sh V Al Nb CE  
.07 1.02 .011 .033 .20 .42 .11 .09 .021 .014 .002 .001 .020 .020 .3

CHEMICAL ANALYSIS

PRODUCT  
WF BEAMS

Yield Strength  
KSI  
53.7 370.2  
52.4 361.3

Tensile Strength  
KSI  
71.7 494.4  
69.6 479.9

Specimen Area  
Sq In  
0.861  
0.861

Elongation  
%  
24.4  
24.6

Gage Length  
8 In 200 mm  
8 In 200 mm

Bend Test  
Dia. Result  
ROA  
%

CERTIFIED MATERIAL TEST REPORT  
CHAPARRAL STEEL  
300 Ward Rd.  
Midlothian, TX  
76065-9651  
(972) 775-8241

CHAPARRAL

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A. CMTR complies with DIN EN 10204 3.1.B

I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: *[Signature]* Date: Jul. 10, 2007  
Tom L. Harrington: Quality Assurance Manager

Notary Public (if applicable) Date: \_\_\_\_\_  
Page: 2 of 3

HIT # 30360140 is used to fab item: C111

Customer Name

Customer PO#

Shipper No

Heat Number

Mandate Erectors & Welding Ltd.

30645

6517

30362780

Bill To: TRIAD METALS INTERNATIONAL  
 2300 COMPUTER AVENUE  
 SUITE A-1  
 WILLOW GROVE  
 19090 PA US  
 Ship To: 6 TRIAD METALS INTERNATIONAL  
 TRIAD METALS INTERNATIONAL  
 1951 BESSEMER ROAD  
 PETERSBURG VA US  
 23803  
 Order Date: 06/18/2007  
 PO No: 742  
 Mill Order No: 3328676  
 Load No: 11119430  
 Manifest No: 1832291  
 CERTIFIED MATERIAL TEST REPORT  
 CHAPARRAL STEEL  
 300 Ward Rd.  
 Midlothian, TX  
 76065-9651  
 (972) 775-8241  
 CHAPARRAL  
 PRODUCT  
 WF BEAMS  
 LENGTH  
 35 FT / 10.668 M  
 GRADE  
 992/572-50  
 SIZE  
 W 12 X 136# / W310 X 202  
 SPECIFICATIONS  
 ASTM A6-05a, A992-06a, A572-06  
 HEAT NO: 30362780

CHEMICAL ANALYSIS

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Al	Nb	CE
.10	1.18	.008	.033	.23	.32	.10	.10	.021	.014	.003	.003	.019	.35

PHYSICAL PROPERTIES

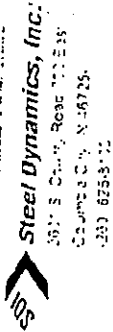
Yield Strength		Tensile Strength		Elongation		Bend Test	ROA
KSI	MPa	KSI	MPa	%	%		
51.0	351.6	70.5	486.1	24.0	24.0	8 In	200 mm
50.7	349.6	70.1	483.3	22.5	22.5	8 In	200 mm

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A. CMTR complies with DIN EN 10204 3.1.B

"I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements."

Signed: *Tom L. Harrington* Date: Jun. 21, 2007  
 Tom L. Harrington: Quality Assurance Manager  
 Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
 Notary Public (if applicable)

HT # 30362780 is used to fab item: C100



**Certified Mill Test Report**  
100% Melted and Manufactured in USA

Attn:

Date: 03/17/17  
Customer No: 18846  
Bill of Lading No: 18846  
MTR # 0000000000

Ship to:  
PACIFIC STEEL CO.  
245 BUCKLE RD.  
LAFAYETTE, IN 47904

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1†	020869473	W12X152	35' 0"	1	A033163	A992 / A992M A709 950S/g345S A572 950/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	18846
2†	020869474	W12X152	35' 0"	1	A033163	A992 / A992M A709 950S/g345S A572 950/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	18846
3†	020869483	W12X152	35' 0"	1	A033113	A992 / A992M A709 950S/g345S A572 950/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	18846
4†	020869484	W12X152	35' 0"	1	A033113	A992 / A992M A709 950S/g345S A572 950/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	18846
5†	020869509	W12X152	40' 0"	1	A033113	A992 / A992M A709 950S/g345S A572 950/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	18846
6†	020869510	W12X152	40' 0"	1	A033113	A992 / A992M A709 950S/g345S A572 950/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	18846
7†	020869517	W12X152	40' 0"	1	A033112	A992 / A992M A709 950S/g345S A572 950/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	18846
8†	020869518	W12X152	40' 0"	1	A033112	A992 / A992M A709 950S/g345S A572 950/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	18846

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	Cl	C2	PC	Analysis
1*	.08	1.44	.018	.042	.19	.29	.053	.100	.11	.03	.011	.007	.0004	.00	.38	0.4100	0.1900	HEAT
2*	.08	1.44	.018	.042	.19	.29	.053	.100	.11	.03	.011	.007	.0004	.00	.38	0.4100	0.1900	HEAT
3*	.08	1.44	.024	.077	.25	.33	.050	.120	.12	.04	.014	.007	.0003	.00	.39	0.4400	0.2000	HEAT
4*	.08	1.44	.024	.077	.25	.33	.050	.120	.12	.04	.014	.007	.0003	.00	.39	0.4400	0.2000	HEAT
5*	.08	1.44	.024	.077	.25	.33	.050	.170	.12	.04	.014	.007	.0003	.00	.39	0.4400	0.2000	HEAT
6*	.08	1.44	.024	.077	.25	.33	.050	.120	.12	.04	.014	.007	.0003	.00	.39	0.4400	0.2000	HEAT
7*	.09	1.43	.024	.029	.23	.38	.052	.140	.11	.04	.014	.008	.0003	.00	.41	0.4500	0.2100	HEAT
8*	.09	1.43	.024	.029	.23	.38	.052	.140	.11	.04	.014	.008	.0003	.00	.41	0.4500	0.2100	HEAT

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this mill/manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated

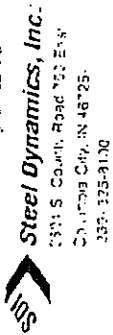
Signed: *[Signature]*  
Quality Assurance

State of Indiana County of Warren  
Signed to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
Signed: *[Signature]*  
My commission expires: \_\_\_\_\_

Special Comments Information

HT # A033163 is used to fabric item: C101

Attn:



Date: 8-29-2021  
 Customer No: 000305  
 Bill of Lading No: 300914143  
 MTR #: 002013742

Ship to:  
 PACIFIC STEEL  
 Customer: J. Ca.  
 Bill to:  
 PACIFIC STEEL, INC.  
 159 Rue Du Bois  
 Level 04000 2000 STINE  
 Attn: John Pimenta

### Certified Mill Test Report

100% Melted and Manufactured in USA

#### MECHANICAL

##### Tension Testing Results

Item	Test	Yield Strength ksi/MPa	Tensile Strength ksi/MPa	Fy/Fu	Elong (%) based on 11" gauge	ROA (%)	Bend Test Result	Test	Temp F/C	Charpy Impact Testing Results	Sample 1 ft. lb/ftoules	Sample 2 ft. lb/ftoules	Sample 3 ft. lb/ftoules	% Shear	ASTM Grain Size No (per ASTM E112)
1	1	57/396	75/520	.76	22			1							
1	2	58/388	76/521	.74	23			2							
2	1	57/396	75/520	.76	22			1							
2	2	58/386	76/521	.74	23			2							
3	1	60/413	76/526	.79	23			1							
3	2	57/394	77/530	.74	20			2							
4	1	60/413	76/526	.79	23			1							
4	2	57/394	77/530	.74	20			2							
5	1	60/413	76/526	.79	23			1							
5	2	57/394	77/530	.74	20			2							
6	1	60/413	76/526	.79	23			1							
6	2	57/394	77/530	.74	20			2							
7	1	55/377	77/534	.71	22			1							
7	2	55/377	79/542	.70	21			2							
8	1	55/377	77/534	.71	22			1							
8	2	55/377	79/542	.70	21			2							

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated

Signed:   
 Quality Assurance

State of Indiana, County of Whitley  
 Sworn to and subscribed before me this  
 \_\_\_ day of \_\_\_\_\_  
 Signed \_\_\_\_\_  
 Notary Public

My commission expires: \_\_\_\_\_

Special Comments/Information:

**Steel Dynamics, Inc.**  
 2601 S County Road 700 East  
 Columbia City, IN 46725  
 (260) 625-8100

**Certified Mill Test Report**  
 100% Heat and Manufactured in USA

Date: 4/23/2007  
 Customer No: 000181  
 Bill of Lading No: 0000110893  
 MTR #: 0000110485

Ship to:  
 Triad Metals International  
 3480 Grand Avenue  
 Pittsburgh, PA 15225  
 Attn: Craig Bonelli

Big to:  
 TRIAD METALS INTERNATIONAL  
 A-1 2300 Computer Avenue  
 Wilkes Grove, PA 18090  
 Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
11	020807357	W16X50	60' 0"	3	B030791	A992/A992M A709 G50S/G345S A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	151275
21	020807358	W16X50	60' 0"	3	B030791	A992/A992M A709 G50S/G345S A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	151275
31	020823085	W12X72	65' 0"	4	A031130	A992/A992M A709 G50S/G345S A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	167643
41	020841847	W16X67	65' 0"	3	B032323	A992/A992M A709 G50S/G345S A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	151275


**CHEMICAL**

Item	C	Mn	P	S	SI	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	C3	PC	ASTM Grade
1*	.09	1.17	.013	.023	.23	.28	.000	.08	.10	.025	.011	.0087	.0004	.017	.33	.36	.37	.17	HEAT
2*	.09	1.17	.013	.023	.23	.28	.000	.08	.10	.028	.011	.0087	.0004	.017	.33	.36	.37	.17	HEAT
3*	.08	1.25	.011	.024	.21	.23	.004	.06	.08	.020	.013	.0094	.0005	.001	.34	.37	.18	.18	HEAT
4*	.07	1.23	.014	.041	.25	.28	.000	.05	.03	.024	.011	.0110	.0000	.001	.32	.36	.16	.16	HEAT

**MECHANICAL**

Item	Test	Tensile Testing Results				Charpy Impact Testing Results				ASTM Grade											
		Yield (Fy) ksi/MPa	Tensile (Fu) Strength ksi/MPa	Elong (%) based on 8" gauge	Fy/Fu	Temp FIC	Sample 1 ft. lb/foules	Sample 2 ft. lb/foules	Sample 3 ft. lb/foules		% Shear										
1	1	58402	75518	22	.77	1															
1	2	62425	81557	24	.77	2															
2	1	58402	75518	22	.77	1															
2	2	62425	81557	24	.77	2															
3	1	55379	71491	24	.77	1															
3	2	53367	70483	26	.76	2															
4	1	58402	74508	27	.78	1															
4	2	57093	73505	27	.78	2															

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material testing laboratory are in complete accordance with the requirements of the pertinent specifications and applicable purchaser designated.

Signal:  Dale Anderson

Scale of Insects, County of Shelby  
 Seven to six subscribed below me this  
 City of \_\_\_\_\_  
 Signal: \_\_\_\_\_  
 My commission expires: \_\_\_\_\_

Special Comments: Form 8/04  
 \* Fully Killed Steel  
 1 Cast and Rolled to a Fine Grain Practice

HT # A031350 is used to label items. CINA, CIA

Customer Name

Customer PO#

Shipper No

Heat Number

Mandate Erectors & Welding Ltd.

30645

6497

A033725

Steel Dynamics, Inc. 2601 S. County Road 700 East

Page 3 of 3

Date: 6/5/2007

**Steel Dynamics, Inc.**  
2601 S. County Road 700 East  
Columbia City, IN 46725.  
(260) 625-8100

**Certified Mill Test Report**  
100% Melted and Manufactured in USA

Date: 6/5/2007  
Customer No: 000191  
Bill of Lading No: 0000114666  
MTR #: 0000114261

Ship to:  
Triad Metals International  
3480 Grand Avenue  
Pittsburgh, PA 15225  
Attn: Craig Borrelli

Bill to:  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
7†	020865893	W30X99	50' 0"	2	A033725	A992 / A992M A709 g50S/g345S A572 gr50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	157163
8†	020865895	W30X99	60' 0"	2	A033725	A992 / A992M A709 g50S/g345S A572 gr50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	157163
9†	020865896	W30X99	50' 0"	2	A033725	A992 / A992M A709 g50S/g345S A572 gr50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	157163
10†	020865902	W30X99	50' 0"	2	A033725	A992 / A992M A709 g50S/g345S A572 gr50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	157163


CHEMICAL

Item	C	Mn	P	S	SI	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
7*	.07	1.13	.023	.028	.20	.45	.034	.14	.12	.032	.017	.0105	.0003	.002	.34	.37	.18	HEAT
8*	.07	1.13	.023	.028	.20	.45	.034	.14	.12	.032	.017	.0105	.0003	.002	.34	.37	.18	HEAT
9*	.07	1.13	.023	.028	.20	.45	.034	.14	.12	.032	.017	.0105	.0003	.002	.34	.37	.18	HEAT
10*	.07	1.13	.023	.028	.20	.45	.034	.14	.12	.032	.017	.0105	.0003	.002	.34	.37	.18	HEAT

MECHANICAL

Item	Test	Tension Testing Results				Charpy Impact Testing Results				ASTM Grain Size No (per ASTM E112)										
		Yield (Fy) Strength ksi/MPa	Tensile (Fu) Strength ksi/MPa	Elong (%) based on 8" gauge	Fy/Fu	Temp F/C	Sample 1 ft. lb/ftoules	Sample 2 ft. lb/ftoules	Sample 3 ft. lb/ftoules		% Shear									
7	1	59406	73505	26	.81	1														
7	2	57394	70485	27	.81	2														
8	1	59406	73505	26	.81	1														
8	2	57394	70485	27	.81	2														
9	1	59406	73505	26	.81	1														
9	2	57394	70485	27	.81	2														
10	1	59406	73505	26	.81	1														
10	2	57394	70485	27	.81	2														

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed:  Quality Assurance

State of Indiana, County of Whitley

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_ Notary Public

My commission expires: \_\_\_\_\_

Special Comments/Information:  
\* Fully Killed Steel  
1 Cast and Rolled to a Fine Grain Practice

HT # A033725 is used to fab items: B180, B182, B184

# ACIER PACIFIQUE INC.

PO/Rel

# Certificate of Mill Test Results

PAC-000000-000

PART NO.

Pg 1/1

Alloy:

ATLANTIC TUBE & STEEL INC.  
 1580 RIVERSIDE DRIVE, MISSISSAUGA, ONTARIO, CANADA, L5T 1A3  
 PHONE: (905)670-1511 FAX: (905)670-1845  
 INVOICE TEST REPORT (PACK: 1)

Customer	160824 PACIFIC STEEL INC. 845 MORCK LAVAL, QUEBEC H7S 1A9	Ship To	02 PACIFIC STEEL INC. 845 MORCK LAVAL, QUEBEC H7S 1A9
Invoice Number	54543	Invoice Date	MAY232007
Order Number	739265	Order Date	MAY232007
		P/O Number	18631

Qty	Size	Gauge	Steel Type/Spec.	Length	Weight #	Yield	Tensile	Elong%	C	RM	P	B	SI	CU	NI	CR	V	CB	ASA	TI	MO	M2
18	4.000	4.000	.250 1021BLK ASTM-A500C	576.000	30625600	67600	79200	25.180		.840	010	009	010									
16	4.000	4.000	.250 1021BLK ASTM-A500C	288.000	30625600	67600	79200	25.180		.840	010	009	010									
18	4.000	4.000	.250 1021BLK ASTM-A500C	576.000	30625600	67600	79200	25.180		.840	010	009	010									
54	4.000	4.000	.250 1021BLK ASTM-A500C	1063310	66900	80200	80200	24.180		.830	011	004	030									
24	4.000	4.000	.250 1021BLK ASTM-A500C	480.000	30625600	67600	79200	25.180		.840	010	009	010									
							79200	25.180		.840	010	009	010									

Test conducted with ASTM A370-94.  
 Elongation in 2 inches.

The chemical and physical test reported above are correct as contained in the records of the company.  
 Yours truly,

*Frank Cuccilli*  
 Frank Cuccilli  
 President

HT # 30625600 is used to fab item: m126.

MP-56 Rev.1



Load #: DROP

Shipping Date:

Waybill #: DROP

Customer: X  
 Job Title: X  
 Date Sent to Shop: X  
 Job Number: 898

Job Progress Report Sheet

SHEET: 1

Prepared By: Approved By: Date: 24-01-01  
 Bathurst Machine Shop Ltd.  
 Mandate Erectors & Welding Ltd.  
 MQM Ltd., Tracadie

1040 Route 430  
 Big River Road  
 E2A 6P9

Form#12 Rev. 4

\* = SEE SHOP DWG

C=COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Mk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped															
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date											
A	1" DIA. A36 ROD	0	AB-1	44	245																																		
N/A	PL 1/4"X21"X21"	0	LP1	29	906																																		
N/A	PL 1/4"X18"X18"	0	LP2	8	184																																		
Pieces		81		1335 Total Weight( Lbs)																																			

( 0.7 TONS)

**GERDAU AMERISTEEL**  
 CAMBRIDGE STEEL MILL  
 THE GREEN PLACE  
 CAMBRIDGE ONTARIO CANADA  
 M5H 1A7

Chemical and Physical Test Report

MADE IN CANADA

N-0-1706

PRODUCED IN CAMBRIDGE

*N600868*

SHIP TO  
 YOUR STEEL INC  
 INDUSTRIAL PARK

INVOICE TO  
 YOUR STEEL INC (FRED  
 ACCTS PAYABLE  
 110 WILBY ROAD  
 FREDERICKTOWN ONTARIO

SHIP DATE  
05/20/80

CUST. ACCOUNT NO  
00125663

SALES ORDER  
00125663

SHIP TO NUMBER  
5680

SPECIFICATION  
CSA 540 Z130B1 (A508)

GRADE  
A508

HEAT NO  
N600868

Element	Symbol	Value	Unit	Remarks
Carbon	C	0.25	%	
Manganese	Mn	0.035	%	
Phosphorus	P	0.008	%	
Sulfur	S	0.005	%	
Silicon	Si	0.03	%	
Copper	CU	0.005	%	
Nickel	NI	0.005	%	
Aluminum	AL	0.005	%	
Chromium	CR	0.005	%	
Magnesium	MG	0.005	%	
Vanadium	V	0.005	%	
Titanium	TI	0.005	%	
Antimony	SB	0.005	%	
Lead	PB	0.005	%	
As	AS	0.005	%	
Sn	SN	0.005	%	
Bi	BI	0.005	%	
Mo	MO	0.005	%	
W	W	0.005	%	
Nb	NB	0.005	%	
Te	TE	0.005	%	
Se	SE	0.005	%	
Ag	AG	0.005	%	
Cd	CD	0.005	%	
Zn	ZN	0.005	%	
Hf	HF	0.005	%	
Ir	IR	0.005	%	
Co	CO	0.005	%	
Ni	NI	0.005	%	
Cu	CU	0.005	%	
Pb	PB	0.005	%	
B	B	0.005	%	
Ca	CA	0.005	%	
Mg	MG	0.005	%	
Al	AL	0.005	%	
Si	SI	0.005	%	
Mn	MN	0.005	%	
Fe	FE	0.005	%	

Chemical and Physical Test Report  
 Heat # N600868 is used to fab item: AB-1

GERDAU AMERISTEEL  
 CAMBRIDGE STEEL MILL  
 THE GREEN PLACE  
 CAMBRIDGE ONTARIO CANADA  
 M5H 1A7

TESTS INDICATE CERTIFIED ELEMENTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST REPORT  
 AS COMPARED TO THE PERMANENT RECORDS OF GERDAU

*Don Island*  
 Top Manager Sales  
 CAMBRIDGE STEEL MILL



1051 Tapscott Road, Toronto, ON M1X 1A1

# Test Certificate

Form TCI: Revision 1: Date 31 Oct 2000

Customer: SAMUEL & FILS & CIE (QUEBEC) L 2225 FRANCIS HUGHES AVENUE LAVAL PQ H7S1N5		Customer P.O. No.: C44568		Mill Order No.: 41-112751-01		Shipping Manifest: T11024162									
Product Description: CSA G40.21(98/M) 50WT/350WT - CAT 3 / 50W / ASTM A572-50(01) CVNL 20FT.I.BS.@-20F(27J@-30C)				Ship Date: 18 Aug 05		Cert No: 021023250									
Size: 0.250 X 96.00 X 240.0 (IN)															
Tested Pieces			Tensiles			Charpy Impact Tests									
Heat Id	Piece Id	Piece Dimensions	YS (PSI)	UTS (PSI)	Elong % of 2in 8in	Average Hardness	Absorbed Energy(FILB) 1 2 3 Avg	% Shear 1 2 3 Avg	Test Temp (mm) L L L L L L L L L L	Test Dir Size (mm) L 10. L 10. L 5.0 L 5.0	IDWTT Imp %Shr				
A5G009	0598	0.250 X 96.00 (T.L.C)	65000 71000 67000 75000	73000 78000 77000 80000	26 23 28 24	108 88 101 80	123 88 111 96	124 87 115 79	118.3 87.7 109.0 85.0	-22 F 22 F -40 F -40 F					
B5E735	0497	0.250 X 96.00 (T.L.C)													
Chemical Analysis															
Heat Id	C	Mn	P	S	Si	Tot Al	Sol Al	Cu	Ni	Cr	Mo	Ti	B	N	ORGN
A5G009	.04	1.43	.010	.005	.04	.023	.019	.32	.13	.15	.03	.011	.0002	.0090	USA
B5E735	.05	1.42	.010	.003	.07	.026	.025	.28	.11	.15	.04	.018	.0002	.0100	USA
* B5E735 0497 PCES: 4, WGT: 6534 MATERIAL MARKED WITH AN ASTERISK IS PRODUCED FROM COIL CHAPPY FULL SIZE EQUIVALENT = ABSORBED ENERGY AVG X 10 / TEST SIZE IN MM												PCES: 17, WGT: 27710			
Heat # A5G009 is used to fab items: LPI-LP2 Cust Part #:												ORLANDO ANGEL, Lab Technician CHECKED BY:			

*JA*  
*6/18/05*

Load #: 1

Shipping Date:

Waybill #: 898-1

Customer: Pizzagalli Construction Company  
 Job Title: 84 Marginal Way  
 Date Sent to Shop: X  
 Job Number: 898

Job Progress Report Sheet

SHEET: 1

Prepared By: Approved By: Date: 24-01-01

Bathurst Machine Shop Ltd.  
 Mandate Erectors & Welding Ltd.  
 MQM Ltd., Tracadie

1040 Route 430  
 Big River Road  
 E2A 6P9

Form#12 Rev. 4

\* = SEE SHOP DWG

C=COLOR GALV.

Attach.	Material	Rev.	Mark #	Qty	Weight	Paint	Galv	Camber	Level	Fitted		Nk. Insp.		Punch/Drill		Welded		Weld Inspection		Surface Prep Insp.		Paint Inspection		Shipped					
										By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	By	Date	Qty	By	Date	
A	HSS16X8X5/16	0	B100	1	770	X																							
A	HSS16X4X5/16	0	B101	1	636	X																							
A	W18X35	0	B105	1	376	X																							
A	W14X22	0	B106	1	372	X																							
A	W14X22	0	B107	1	557	X																							
A	W24X62	0	B109	1	1922	X																							
A	H.S.S.8X6X5/16	0	B110	1	272	X																							
A	W24X76	0	B112	1	2351	X																							
A	W24X62	0	B114	1	1841	X																							
A	W24X62	0	B115	1	1842	X																							
A	W24X76	0	B117	1	2266	X																							
A	W24X76	0	B118	1	2267	X																							
A	W8X15	0	B125	1	166	X																							
A	W8X35	0	B126	1	180	X																							
A	W8X35	0	B127	1	199	X																							
A	W8X40	0	B128	1	256	X																							
A	HSS16X8X5/16	0	B129	1	1027	X																							
A	HSS16X8X5/16	0	B130	1	962	X																							
A	HSS16X8X5/16	0	B131	1	1153	X																							
A	W16X26	0	B132	1	494	X																							

Pieces 20 19909 Total Weight(Lbs)

( 10.0 TONS)

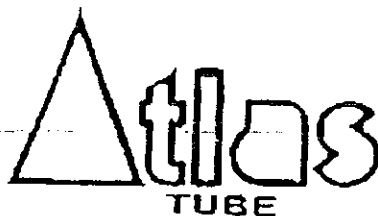






Atlas Tube (U.S.) Inc.  
 17101 Exeter Road  
 Plymouth, Michigan, USA  
 48170  
 Tel. 313-464-6600  
 Fax. 313-454-1474

Ref. B/L: 80252607  
 Date: 08.18.2007  
 Customer: 1774



MATERIAL TEST REPORT

Sold to

Acier Altitude Inc.  
 2555 Francis-Hugues Avenue  
 LAVAL QC H7S 2H7  
 CANADA

Shipped to

Acier Altitude Inc.  
 2555 Francis-Hugues Avenue  
 LAVAL QC H7S 2H7  
 CANADA

Material: 1.0x2.0x500x40\*0\*(2x1)PB  
 Sales order: 323282

Material No: 100100500  
 Purchase Order: 3257

Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
680482	0.210	0.810	0.011	0.002	0.160	0.029	0.020	0.005	0.002	0.010	0.029	0.000
Bundle No	Yield	Tensile	Eln.2in		Certification							
M200465163	059860 Psi	073660 Psi	35.4 %		ASTM A500-03A GRADE B&C							

Material Note:  
 Sales Or. Note:

Material: 1.6x4.0x313x34\*0\*(1x1)REC  
 Sales order: 323996

Material No: 1600403\*3  
 Purchase Order: 3261

Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
680487	0.200	0.830	0.010	0.002	0.180	0.034	0.018	0.006	0.002	0.010	0.036	0.000
Bundle No	Yield	Tensile	Eln.2in		Certification							
0001719000	051480 Psi	089620 Psi	36.3 %		ASTM A500-03A GRADE B&C							

Material Note:  
 Sales Or. Note:

HT # 680487 is used to fab item: B101

Material: 5.0x2.0x125x24\*0\*(14x6)  
 Sales order: 314372

Material No: 500201232400  
 Purchase Order: 3211

Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
679530	0.180	0.840	0.013	0.007	0.010	0.034	0.032	0.002	0.002	0.013	0.028	0.000
Bundle No	Yield	Tensile	Eln.2in		Certification							
M100E44032	053270 Psi	071830 Psi	31.0 %		ASTM A500-03A GRADE B&C							

Material Note:  
 Sales Or. Note:

Material: 5.0x2.0x125x48\*0\*(14x6)  
 Sales order: 314372

Material No: 500201254600  
 Purchase Order: 3211

Made in: Canada

Heat No	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
75900	0.180	0.920	0.011	0.005	0.011	0.042	0.015	0.002	0.002	0.007	0.029	0.000
Bundle No	Yield	Tensile	Eln.2in		Certification							
100628169	060550 Psi	071580 Psi	34.3 %		ASTM A500-03A GRADE B&C							

Material Note:  
 Sales Or. Note:

Authorized by Quality Assurance:





Atlas Tube Canada ULC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 NOR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537

Ref.B/L: 80248589  
 Date: 07.25.2007  
 Customer: 1751



**MATERIAL TEST REPORT**

Sold to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Shipped to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Material: 12.0x12.0x625x32'4"0(2x1).

Material No: 120120625

Made in: Canada

Sales order: 314238

Purchase Order: 31072

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
4890G	2	0.200	0.870	0.010	0.005	0.010	0.030	0.040	0.000	0.010	0.010	0.020	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M200457997	056580 Psi	070770 Psi	41.5 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Material: 12.0x12.0x625x33'8"0(2x1).

Material No: 120120625

Made in: Canada

Sales order: 314238

Purchase Order: 31072

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
4890G	2	0.200	0.870	0.010	0.005	0.010	0.030	0.040	0.000	0.010	0.010	0.020	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M200458000	056580 Psi	070770 Psi	41.5 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Material: 16.0x8.0x313x41'0"0(1x2).

Material No: 160080313

Made in: Canada

Sales order: 314780

Purchase Order: 31077

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582788	1	0.200	0.790	0.011	0.003	0.150	0.035	0.026	0.005	0.002	0.013	0.040	0.002

Bundle No	Yield	Tensile	Eln.2in	Certification
M200458279	050150 Psi	066160 Psi	36.2 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

*HT # 582788 is used to fab items: B100, B129, B130, B131*

Material: 16.0x8.0x313x41'0"0(1x2).

Material No: 160080313

Made in: Canada

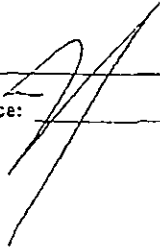
Sales order: 314780

Purchase Order: 31077

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
580623	1	0.190	0.800	0.012	0.004	0.150	0.039	0.034	0.005	0.002	0.012	0.035	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M200458279	054280 Psi	071140 Psi	35.0 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Authorized by Quality Assurance: 

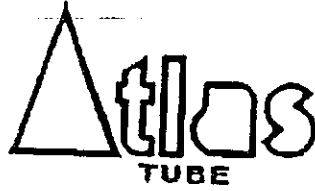


PART NO.

Attn:

Atlas Tube Canada ULC  
200 Clark St.  
Harrow, Ontario, Canada  
N0R 1G0  
Tel: 519-738-3541  
Fax: 519-738-3537

Ref./L: 80246345  
Date: 07.04.2007  
Customer: 2



MATERIAL TEST REPORT

Sold to

Acier Pacifique Incorporated  
845 Munck Street  
LAVAL QC H7S 1A9  
CANADA

Shipped to

Acier Pacifique Incorporated  
845 Munck Street  
LAVAL QC H7S 1A9  
CANADA

Material: 8.0x8.0x375x40'0"0(3x2).CSA-H

Material No: 80080376

Made in: Canada

Sales order: 309772

Purchase Order: 18896

Heat No	C	Mn	P	S	SI	Al	Cu	Cb	Mo	NI	Cr	V
680401	0.190	0.800	0.017	0.002	0.150	0.032	0.042	0.005	0.002	0.012	0.044	0.000

Bundle No	Yield	Tensile	Eln.2In
M001898982	053510 Psi	070890 Psi	35.6 %

Certification - Heat lot - 20070630A  
CSA G40.21-04 50W CLASS H

Material Note:  
Sales Or.Notes:

Material: 8.0x8.0x250x40'0"0(3x3).

Material No: 800602504000

Made in: Canada

Sales order: 306941

Purchase Order: 18890

Heat No	C	Mn	P	S	SI	Al	Cu	Cb	Mo	NI	Cr	V
749730	0.200	0.820	0.011	0.007	0.011	0.049	0.021	0.004	0.002	0.010	0.035	0.000

Bundle No	Yield	Tensile	Eln.2In
M100644578	063750 Psi	077210 Psi	32.2 %

Certification  
ASTM A500-03A GRADE C & B

Material Note:  
Sales Or.Notes:

HT # 749730 is used to fab items: B150, B151, B152

Material: 8.0x8.0x250x40'0"0(3x3).

Material No: 600602504000

Made in: Canada

Sales order: 308941

Purchase Order: 18890

Heat No	C	Mn	P	S	SI	Al	Cu	Cb	Mo	NI	Cr	V
749730	0.200	0.820	0.011	0.007	0.011	0.049	0.021	0.004	0.002	0.010	0.035	0.000

Bundle No	Yield	Tensile	Eln.2In
M100644580	063750 Psi	077210 Psi	32.2 %

Certification  
ASTM A500-03A GRADE C & B

Material Note:  
Sales Or.Notes:

Material: 6.0x6.0x250x40'0"0(3x3).

Material No: 600602504000

Made in: Canada

Sales order: 308941

Purchase Order: 18890

Heat No	C	Mn	P	S	SI	Al	Cu	Cb	Mo	NI	Cr	V
749730	0.200	0.820	0.011	0.007	0.011	0.049	0.021	0.004	0.002	0.010	0.035	0.000

Bundle No	Yield	Tensile	Eln.2In
M100644578	063750 Psi	077210 Psi	32.2 %

Certification  
ASTM A500-03A GRADE C & B

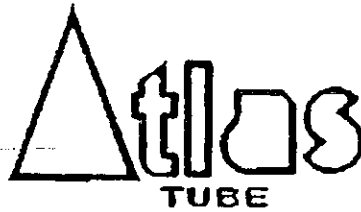
Material Note:  
Sales Or.Notes:

Authorized by Quality Assurance:



Atlas Tube Canada ULC  
 200 Clark St.  
 Harrow, Ontario, Canada  
 NOR 1G0  
 Tel: 519-738-3541  
 Fax: 519-738-3537

Ref.B/L: 80248589  
 Date: 07.25.2007  
 Customer: 1751



**MATERIAL TEST REPORT**

Sold to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Shipped to

Mandate Erectors & Welding  
 1040 Route 430  
 BIG RIVER NB E2A 6P9  
 CANADA

Material: 8.0x4.0x250x26"0(2x2).  
 Sales order: 314780

Material No: 80040250  
 Purchase Order: 31077

Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
749730	4	0.200	0.820	0.011	0.007	0.011	0.049	0.021	0.004	0.002	0.010	0.035	0.000

Bundle No	Yield	Tensile	Eln.2in	Certification
M100648382	058250 Psi	069520 Psi	33.2 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

*HT # 749730 is used to fab item : B143*

Material: 12.0x12.0x375x32'4"0(2x2).  
 Sales order: 314238

Material No: 120120375  
 Purchase Order: 31072

Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582788	4	0.200	0.790	0.011	0.003	0.150	0.035	0.026	0.005	0.002	0.013	0.040	0.002

Bundle No	Yield	Tensile	Eln.2in	Certification
M200457870	063170 Psi	076790 Psi	30.7 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Material: 12.0x12.0x375x32'4"0(2x2).  
 Sales order: 314238

Material No: 120120375  
 Purchase Order: 31072

Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582788	4	0.200	0.790	0.011	0.003	0.150	0.035	0.026	0.005	0.002	0.013	0.040	0.002

Bundle No	Yield	Tensile	Eln.2in	Certification
M200457871	063170 Psi	076790 Psi	30.7 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Material: 12.0x12.0x375x32'4"0(2x1).  
 Sales order: 314238

Material No: 120120375  
 Purchase Order: 31072

Made in: Canada

Heat No	Pcs	C	Mn	P	S	Si	Al	Cu	Cb	Mo	Ni	Cr	V
582787	2	0.200	0.780	0.011	0.003	0.150	0.029	0.038	0.005	0.004	0.015	0.046	0.000

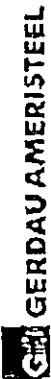
Bundle No	Yield	Tensile	Eln.2in	Certification
M200457868	059840 Psi	075430 Psi	35.9 %	ASTM A500-03A GRADE B&C

Material Note:  
 Sales Or.Note:

Authorized by Quality Assurance: \_\_\_\_\_







GERDAU AMERISTEEL  
CARTERSVILLE STEEL MILL  
384 OLD GRASSDALE RD NE  
CARTERSVILLE GA 30121 USA  
(770) 387-3300

Chemical and Physical Test Report

MADE IN UNITED STATES

G-090272

PRODUCED IN: CARTERSVILLE

SHIP TO TRIAD METAL 1951 BESSEMER ROAD 804-732-5000 PETERSBURG, VA 23805	INVOICE TO TRIAD METALS INTERNATIONAL METAL TRADERS INC 2300 COMPUTER AVE STE-A-1 WILLOW GROVE, PA 19090	SHIP DATE 04/20/07	CUST. ACCOUNT NO 40213005
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SHAPE & SIZE W8 X 13 1/2	GRADE A572500992	SPECIFICATION ASTM A572500992	SALES ORDER 6101980-16	CUST P.O. NUMBER 140351-16
HEAT ID G701445	C 15	S 91	Ca 0.0040	Si 0.027
Mechanical Test Yield 59700 PSI, 411.62 MPA	P 069	02Z 022	0.002	0.00100
Customer Requirements CASTING, STRAND CAST	Mn 0.010	0.039	0.0016	0.002
Mechanical Test Yield 57200 PSI, 394.38 MPA	Ni 0.004	0.018	0.001	0.002
Customer Requirements CASTING, STRAND CAST	Cu 0.001	0.018	0.001	0.002
	Cr 0.006	0.018	0.001	0.002
	Mg 0.001	0.018	0.001	0.002
	Al 0.002	0.018	0.001	0.002
	Sn 0.011	0.018	0.001	0.002
	N 0.005	0.018	0.001	0.002
	S 0.001	0.018	0.001	0.002
	P 0.001	0.018	0.001	0.002
	As 0.001	0.018	0.001	0.002
	Sb 0.001	0.018	0.001	0.002
	Bi 0.001	0.018	0.001	0.002
	Se 0.001	0.018	0.001	0.002
	Te 0.001	0.018	0.001	0.002
	Mo 0.001	0.018	0.001	0.002
	Cd 0.001	0.018	0.001	0.002
	Pb 0.001	0.018	0.001	0.002
	Ag 0.001	0.018	0.001	0.002
	Au 0.001	0.018	0.001	0.002
	Co 0.001	0.018	0.001	0.002
	Fe 0.001	0.018	0.001	0.002
	Ca 0.001	0.018	0.001	0.002
	Si 0.001	0.018	0.001	0.002
	Mn 0.001	0.018	0.001	0.002
	P 0.001	0.018	0.001	0.002
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	Si 0.001	0.018	0.001	0.002
	Mn 0.001	0.018	0.001	0.002
	P 0.0			

**Steel Dynamics, Inc.**  
 2601 S. County Road 700 East  
 Columbia City, IN 46725  
 (317) 624-8100

**HT # AC31838**  
 Certified Mill Test Report  
 100% Rolled and Manufactured in USA

**Customer No:** 000191  
**Bill of Lading No:** 0100100183  
**HT #:** 0100102265

**Date:** 4/7/2007  
**Ship to:** Inad Meak, Ind Bay B  
 1951 Dasselmer Road  
 CAS-Cohair Yard  
 Petersburg, VA 23805

**Bill to:** TRIND METALS INTERNATIONAL  
 A-12300 Conyngham Avenue  
 Willow Grove, PA 19080  
 Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
1	020K56105	WRX35	60' 0"	6	A031838	A992/A992M A709 g50sg3455 A572 g50sg345	ASTM A992/A992M - 05a ASTM A709/A709M - 05a ASTM A572/A572M - 05	1477610
2	070626109	WRX35	60' 0"	6	A031039	A992/A992M A709 g50sg3455 A572 g50sg345	ASTM A992/A992M - 05a ASTM A709/A709M - 05a ASTM A572/A572M - 05	1477610
3	020630111	WRX35	60' 0"	6	A031638	A992/A992M A709 g50sg3455 A572 g50sg345	ASTM A992/A992M - 05a ASTM A709/A709M - 05a ASTM A572/A572M - 05	1477610
4	020630267	WRX31	55' 0"	6	A031046	A992/A992M A709 g50sg3455 A572 g50sg345	ASTM A992/A992M - 05a ASTM A709/A709M - 05a ASTM A572/A572M - 05	1477610

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	R	Co	C1	C2	PC	Analysis
1	08	.91	.016	.018	.22	.32	.001	.08	.09	.020	.012	.0087	.0043	.011	.28	.11	.15	HEAT
2	08	.91	.016	.018	.22	.32	.001	.08	.08	.020	.012	.0087	.0043	.011	.28	.11	.15	HEAT
3	08	.91	.016	.018	.22	.32	.001	.08	.09	.020	.012	.0087	.0043	.011	.28	.11	.15	HEAT
4	05	.87	.018	.037	.19	.28	.002	.07	.13	.016	.014	.0078	.004	.013	.24	.27	.12	HEAT

**MECHANICAL**

Item	Test	Tension Testing Results				Charpy/Impact Testing Results				
		Yield Strength ksi/MPa	Tensile Strength ksi/MPa	Elong (%) based on 3" gage	Fy/Fu	Temp F/C	Sample 1 ft. lb/joules	Sample 2 ft. lb/joules	Sample J ft. lb/joules	ASTM Grade
1	1	58402	71491	25	1					
1	2	58409	75151	26	2					
2	1	58402	71491	25	1					
2	2	58408	75151	26	2					
3	1	58402	71491	25	1					
3	2	58409	75151	26	2					
4	1	58402	71491	25	1					
4	2	58409	75151	26	2					

**HT # AC31838 is used to fab items: B126, B127, B136 to B142**  
**C119 to C124**

Shrinkage: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Signed: \_\_\_\_\_  
 Title: \_\_\_\_\_

By commissioning: \_\_\_\_\_  
 Date: \_\_\_\_\_


Quality Assurance: \_\_\_\_\_

HT # AC31838 is used to fab items: B126, B127, B136 to B142  
 C119 to C124

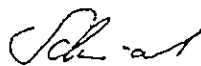
Shrinkage: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Signed: \_\_\_\_\_  
 Title: \_\_\_\_\_

By commissioning: \_\_\_\_\_  
 Date: \_\_\_\_\_

Quality Assurance: \_\_\_\_\_

		<b>Certificate Nr 3286/11-2004</b> Advice Nr A2811051								
Order Nr: 1700002869 Customer Nr: 11559		Stahlwerk Thüringen GmbH Postfach 1163 07331 Unterweilborn Germany								
Quality: A992-A572/50TB3 according to: ASTM A992/98 - A572 GR50 PER AISC TB3 FINE GRAIN SILICON KILLED		Arcelor Intern l Canada Inc. Mill business, Long Products 5500 North Service Road, 7th Floor  CAN-L7L 6W6 BURLINGTON								
Inspection certificate										
ASTM A6 par18.										
Lot Nr	Heat Nr	Dimension	Length	Pieces	Weight (l)	Customer Nr				
006	19826	W 8X8X40	55'	5	4.990					
007	19826	W 8X8X40	60'	9	9.798					
008	19830	W 8X8X48	55'	4	4.790					
Heat Analysis [%]										
Heat Nr	C	Si	Mn	P	S	N	NO	V	Cr	Cu
	max 0.23	0.40	1.50	0.035	0.045	0.012	0.060	0.110	0.35	0.60
	min	0.10	0.50							
19826	0.08	0.21	1.14	0.020	0.029	0.009	0.016	0.009	0.07	0.36
19830	0.08	0.20	1.13	0.024	0.019	0.007	0.015	0.011	0.10	0.39
Heat Analysis [%]										
Heat Nr	NI	Mo	CEV1	Sn						
	max 0.45	0.15	0.45							
	min									
19826	0.15	0.03	0.33	0.024						
19830	0.14	0.03	0.33	0.018						
Tensile test										
Heat Nr	Yield stress (PSI)	Tensile strength (PSI)	Elongation 50 mm (%)	Ys/Ts						
	max 55000			0.65						
	min 50000	65000	21.0							
19826	54085	74965	40.9	0.72						
19830	53215	71775	40.9	0.74						

Renate Schmidt  
Works Inspector



2004-11-29



HT# 19826 is used to fab items: B128, B144

Customer Name

Customer PO#

Shipper No

Heat Number

Mandate Erectors & Welding Ltd.

30645

6896

30360140

Bill To:  
 TRIAD METALS INTERNATIONAL  
 2300 COMPUTER AVENUE  
 SUITE A-1  
 WILLOW GROVE  
 19090  
 PA  
 US

Ship To: 6  
 TRIAD METALS INTERNATIONAL  
 TRIAD METALS INTERNATIONAL  
 1951 BESSEMER ROAD  
 PETERSBURG  
 23803  
 VA  
 US

Order Date: 07/03/2007  
 PO No: 1012  
 Mill Order No: 3334700  
 Load No: 1122790  
 Manifest No: 1835489

SPECIFICATIONS  
 ASTM A6-05a, A992-06a, A572-06

SIZE  
 W 10 X 49# / W250 X 73  
 GRADE  
 992/572-50

LENGTH  
 30 FT / 9.144 M

**CHAPARRAL**  
 300 Ward Rd.  
 Midlothian, TX  
 76065-9651  
 (972) 775-8241

PRODUCT  
 WF BEAMS

HEAT NO: 30360140

CHEMICAL ANALYSIS													
C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sh	V	Al	Nb	CE
.07	1.02	.011	.033	.20	.42	.11	.09	.021	.014	.002	.001	.020	.3

Yield Strength				Tensile Strength				PHYSICAL PROPERTIES					
KSI	MPa	KSI	MPa	Specimen Area	Sq Cm	Elongation	%	Gage Length	8 In	200 mm	Bend Test	8	ROA
53.7	370.2	71.7	494.4	0.861	5.55	24.4	8 In	200 mm	8 In	200 mm			
52.4	361.3	69.6	479.9	0.861	5.55	24.6	8 In	200 mm	8 In	200 mm			

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A. CMTR complies with DIN EN 10204 3.1.B

"I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements."

Signed: *Tom L. Harrington*  
 Tom L. Harrington: Quality Assurance Manager  
 Date: Jul. 10, 2007  
 Signed: \_\_\_\_\_  
 Notary Public (if applicable)  
 Date: \_\_\_\_\_

*HT # 30360140 is used to fab items: C108, C169*



2601 S. County Road 700 East  
Columbia City, IN 46725  
(765) 623-8100

**Certified Mill Test Report**  
100% Melted and Manufactured in USA

Customer No: 000191  
Bill of Lading No: 0000114640  
MTR #: 0000114235

Ship to:  
Triad Metals Int'l  
1951 Bessemer Road  
CSX-Collier Yard  
Petersburg, VA 23805

Bill to:  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
7a†	020868340	W12X79	70' 0"	1	A033124	A992 / A992M A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	154733B
7b†	020868340	W12X79	70' 0"	1	A033127	A992 / A992M A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	154733B
8a†	020868892	W12X106	70' 0"	1	A033116	A992 / A992M A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	154733B
8b†	020868892	W12X106	70' 0"	1	A033153	A992 / A992M A709 g50S/g345S A572 g50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	154733B

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
7a*	.08	1.22	.023	.033	.24	.35	.12	.032	.015	.0080	.0003	.001	.35	.39	.18	HEAT
7b*	.07	1.22	.020	.043	.22	.28	.09	.031	.012	.0076	.0004	.001	.33	.37	.17	HEAT
8a*	.07	1.31	.021	.033	.21	.34	.11	.033	.013	.0064	.0003	.001	.36	.39	.17	HEAT
8b*	.07	1.32	.017	.032	.20	.31	.10	.025	.012	.0090	.0003	.001	.35	.39	.17	HEAT

**MECHANICAL**

Item	Test	Tension Testing Results				Charpy Impact Testing Results												
		Yield (Fy) ksi/MPa	Tensile (Fu) Strength ksi/MPa	Elong (%) based on 8" gauge	Fy/Fu	Temp F/C	Sample 1 ft. lb/joules	Sample 2 ft. lb/joules	Sample 3 ft. lb/joules	% Shear								
7a	1	57390	75517	.76														
7a	2	53363	75516	.71														
7b	1	53365	71492	.75														
7b	2	52356	71489	.73														
8a	1	58398	72493	.81														
8a	2	55376	73501	.75														
8b	1	53367	71489	.75														
8b	2	59406	72500	.82														

HT # A033153 is used to fabricate item: C116

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed:   
Quality Assurance

State of Indiana, County of Whitley  
Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
Signed: \_\_\_\_\_  
My commission expires: \_\_\_\_\_

Special Comments/Information:  
\* Fully Killed Steel  
† Cast and Rolled to a Fine Grain Practice

Complete this section for all test results. Do not use for test results for ASTM 01011  
ASTM A992/A992M - 06a  
ASTM A709/A709M - 06a  
ASTM A572/A572M - 06

**Steel Dynamics, Inc.**  
 2801 S. County Road 700 East  
 Columbia City, IN 46725  
 (359) 625-8100

**Certified Mill Test Report**  
 100% Made and Manufactured in USA

Date: 6/5/2007  
 Customer No: 000191  
 Bill of Lading No: 0000114640  
 MTR #: 0000114235

Ship to:  
 Triad Metals Int'l  
 1951 Bessemer Road  
 CSX-Collier Yard  
 Petersburg, VA 23805

Bill to:  
 TRIAD METALS INTERNATIONAL  
 A-1 2300 Computer Avenue  
 Willow Grove, PA 19080  
 Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
11a†	020869290	W12X120	70'0"	1	A033156	A992/A992M A709 G50S/g345S A572 G50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	154733B
11b†	020869290	W12X120	70'0"	1	A033157	A992/A992M A709 G50S/g345S A572 G50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	154733B
12†	020876190	W10X100	70'0"	2	A033286	A992/A992M A709 G50S/g345S A572 G50/g345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	154732B

**CHEMICAL**

Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
11a*	.10	1.46	.031	.023	.17	.40	.055	.15	.12	.029	.013	.0104	.0003	.001	.42	.45	.22	HEAT
11b*	.08	1.43	.022	.021	.20	.40	.063	.12	.12	.036	.015	.0085	.0003	.001	.40	.43	.20	HEAT
12*	.07	1.33	.019	.025	.23	.33	.063	.09	.09	.019	.014	.0085	.0004	.003	.35	.39	.17	HEAT

**MECHANICAL**

Item	Test	Tension Testing Results										Charpy Impact Testing Results			ASTM Grain Size No (per ASTM E112)					
		Yield (Fy) Strength ksi/MPa	Tensile (Fu) Strength ksi/MPa	Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp F/C	Sample 1 ft. lb/oules	Sample 2 ft. lb/oules	Sample 3 ft. lb/oules	% Shear									
11a	1	61421	81557	.75	.22															
11a	2	61424	83674	.73	.22															
11b	1	60414	80551	.75	.22															
11b	2	53367	73503	.73	.22															
12	1	57392	73505	.78	.24															
12	2	57390	74509	.77	.25															

HT # A033157 is used to fab item: C112

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed:   
 Quality Assurance

State of Indiana, County of Whitley

Sworn to and subscribed before me this

day of

Signed:

Henry Pyle

My commission expires:

Special Comments/Information:

\* Fully Killed Steel  
 † Cast and Rolled to a Fine Grain Practice

C:\NWPC\DATA\GMA\625-8100\191 0000114640\MTR\0000114235\MTR0000114235.DWG (1) 20070605 07:32:18 EDT

Customer Name

Customer PO#

Shipper No

Heat Number

Mandate Erectors & Welding Ltd.

30645

6517

30362780

Order Date: 06/18/2007  
 CERTIFIED MATERIAL TEST REPORT  
 CHAPARRAL STEEL  
 300 Ward Rd.  
 Midlothian, TX  
 76065-9651  
 (972) 775-8241

Ship To: 6  
 TRIAD METALS INTERNATIONAL  
 MILL Order No: 3328676  
 Load No: 1119130  
 Manifest No: 1832291

Ship To: 6  
 TRIAD METALS INTERNATIONAL  
 1951 BESSEMER ROAD  
 PETERSBURG VA  
 23803 US

Bill To:  
 TRIAD METALS INTERNATIONAL  
 2300 COMPUTER AVENUE  
 SUITE A-1  
 WILLOW GROVE PA  
 19090 US

PRODUCT  
WF BEAMS

LENGTH  
35 FT / 10.668 M

GRADE  
992/572-50

SIZE  
W 12 X 136 / W310 X 202

SPECIFICATIONS  
ASTM A6-05a, A992-06a, A572-06

HEAT NO: 30362780

CHEMICAL ANALYSIS

	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Al	Nb	CE
	.10	1.18	.008	.033	.23	.32	.10	.10	.021	.014	.003	.003	.019	.35

PHYSICAL PROPERTIES

Yield Strength	Tensile Strength		Elongation	Bend Test	FOA
	KSI	MPa			
51.0	351.6	486.1	24.0	8 In	200 mm
50.7	349.6	483.3	22.5	8 In	200 mm

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A. CMTR complies with DIN EN 10204 3.1.B

"I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements."

Signed: Tom L. Harrington Date: Jun. 21, 2007 Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
 Tom L. Harrington: Quality Assurance Manager Notary Public (if applicable) Page: 1 of 1

HT # 30362780 is used to fab item: C107

**Steel Dynamics, Inc.**  
 2601 S. County Road 700 East  
 Columbus, IN 47225  
 (260) 625-8100

**Certified Mill Test Report**  
 100% Heat-treated and Manufactured in USA

Date: 4/23/2007  
 Customer No: 000191  
 Bill of Lading No: 0000110893  
 MTR #: 0000110495

Ship to:  
 Triad Metals International  
 3480 Grand Avenue  
 Pittsburgh, PA 15225  
 Attn: Craig Bonelli

Buy to:  
 TRIAD METALS INTERNATIONAL  
 A-1 2300 Computer Avenue  
 Willow Grove, PA 19090  
 Attn: Fred Whita

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
11	020807337	W16X50	60' 0"	3	B030791	A992/A992M A709 G50S/G345S A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	151275
21	020807388	W16X50	60' 0"	3	B030781	A992/A992M A709 G50S/G345S A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	151275
31	020823085	W12X72	65' 0"	4	A031350	A992/A992M A709 G50S/G345S A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	147743
41	020848487	W16X67	65' 0"	3	B032373	A992/A992M A709 G50S/G345S A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	151275

**CHEMICAL**

Item	C	Mn	P	S	SI	Cu	V	Cr	Ni	Mo	Sn	N	B	CD	C1	C2	PC	ASTM Grade
1*	.09	1.17	.013	.023	.23	.28	.000	.08	.10	.020	.011	.0087	.0004	.017	.33	.36	.17	HEAT
2*	.09	1.17	.013	.023	.23	.28	.000	.09	.10	.029	.011	.0087	.0004	.017	.33	.36	.17	HEAT
3*	.08	1.25	.011	.034	.21	.23	.004	.06	.08	.020	.013	.0094	.0005	.001	.34	.37	.18	HEAT
4*	.07	1.20	.014	.041	.25	.28	.030	.05	.03	.024	.011	.0110	.0003	.001	.32	.36	.16	HEAT

**MECHANICAL**

Item	Test	Tension Testing Results				Charpy Impact Testing Results													
		Yield Strength ksi/MPa	Tensile Strength ksi/MPa	Fy/Fu	Elong (%) based on 8" gauge	Temp F/C	Sample 1 ft. lb/joules	Sample 2 ft. lb/joules	Sample 3 ft. lb/joules	% Shear	ASTM Grade Size No (per ASTM E119)								
1	1	58402	75518	.77	22														
1	2	62425	81557	.77	24														
2	1	58402	75518	.77	22														
2	2	62425	81557	.77	24														
3	1	58378	71491	.77	24														
3	2	59367	70483	.76	26														
4	1	58402	74508	.78	27														
4	2	57393	73505	.78	27														

HT # A031350 is used to fab items: C104, C118.

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this mill and manufacturer are in compliance with the requirements of the material specifications and applicable purchase agreements.

Special Comments/Information:  
 \* Fully Killed Steel  
 † Cast and Rolled to a Fine Grain Practice

State of Indiana, County of Shelby  
 Signed: \_\_\_\_\_  
 Title: \_\_\_\_\_  
 Date: \_\_\_\_\_

**CERTIFIED MATERIAL TEST REPORT**  
**CHAPARRAL STEEL**  
 100 Ward Rd.  
 Midlothian, TX  
 76055-9651  
 (972) 775-8241

Order Date: 04/18/2007  
 FY No: 161595  
 Mill Order No: 3291589  
 Lead No: 1117218  
 Manifest No: 1927218

Ship To: 6  
 TRIJAD METALS INTERNATIONAL  
 TRIJAD METALS INTERNATIONAL  
 1951 BESSNER ROAD  
 PETERSPRING  
 23803  
 TX  
 75460

SHIP TO: 6  
 TRIJAD METALS INTERNATIONAL  
 TRIJAD METALS INTERNATIONAL  
 1951 BESSNER ROAD  
 PETERSPRING  
 23803  
 TX  
 75460

Order No: 30362660  
 Order Date: 04/18/2007  
 Order Qty: 19384

Order No: 30362660  
 Order Date: 04/18/2007  
 Order Qty: 19384

**MECHANICAL PROPERTIES**

Specimen Area	Elongation	Reduct. of Area
Sq In	%	%
8.78	26.0	8 In 760 mm
7.74	25.8	8 In 760 mm

**MECHANICAL PROPERTIES**

Specimen Area	Elongation	Reduct. of Area
Sq In	%	%
1.281	8.78	8 In 760 mm
1.200	7.74	8 In 760 mm

**MECHANICAL PROPERTIES**

Tensile Strength	Elongation	Reduct. of Area
KSI	%	%
53.5	168.9	481.3
51.6	369.6	486.1

**MECHANICAL PROPERTIES**

Tensile Strength	Elongation	Reduct. of Area
KSI	%	%
53.5	168.9	481.3
51.6	369.6	486.1

**MECHANICAL PROPERTIES**

Tensile Strength	Elongation	Reduct. of Area
KSI	%	%
53.5	168.9	481.3
51.6	369.6	486.1

**MECHANICAL PROPERTIES**

Tensile Strength	Elongation	Reduct. of Area
KSI	%	%
53.5	168.9	481.3
51.6	369.6	486.1

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A.  
 CGR complies with DIN EN 10204 3.1.B

I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements.

Signed: Tom L. Harrington Date: May 29, 2007  
 Title: Quality Assurance Manager  
 Signed: Wakay Public (if applicable)  
 Date: \_\_\_\_\_  
 Page: 1 of 1

HT # 30362660 is used to fab items: C106, C117

Customer Name

Customer PO#

30645

30645

30362660

30362660

30362660

30362660

30362660

**Steel Dynamics, Inc.**  
 2601 S. County Road 109 East  
 Columbia City, IN 46726  
 (260) 625-6100

**Certified Mill Test Report**  
 100% Made in USA Manufactured in USA

**Ship to:**  
 TRIAD METALS INTERNATIONAL  
 A-12300 Conifer Avenue  
 Willow Grove, PA 19090  
 Attn: Fred White

**Customer No:** 000191  
**Bill of Lading No:** 0000100007  
**MTR #:** 0000105811

**Date:** 3/5/2007

Item	Bundle	Section	Length	Pcs	Head #	Grades	Spec Refs (Q&Qs)	Customer P O
11	020797091	W14X22	45'0"	8	8030292	A992/A992H A719/A505/A345S A572/A505/A345	A51M/A992/A992H - 06a A51M/A709/A709H - 06a ASTM/A572/A572M - 06	141071A
21	020797091	W14X22	45'0"	8	8030292	A992/A992H A709/A505/A345S A992/A992H	A51M/A992/A992H - 06a ASTM/A709/A709H - 06a ASTM/A572/A572M - 06	141071A
31	020797091	W14X22	45'0"	3	8030292	A992/A992H A709/A505/A345S A992/A992H	A51M/A992/A992H - 06a ASTM/A709/A709H - 06a ASTM/A572/A572M - 06	141071A
41	020797037	W14X22	45'0"	8	8030292	A992/A992H A709/A505/A345S A992/A992H	A51M/A992/A992H - 06a ASTM/A709/A709H - 06a ASTM/A572/A572M - 06	141071A

**CHEMICAL**

Item	C	Mn	P	S	SI	Cu	V	Cr	Ni	Mo	Sn	Al	U	Ca	FC	Analysis
1	.08	.76	.016	.034	.20	.40	.012	.10	.11	.020	.014	.0014	.0014	.27	.11	HEAT
2	.08	.76	.016	.034	.20	.40	.012	.10	.11	.028	.014	.0001	.0014	.27	.16	HEAT
3	.08	.76	.016	.034	.20	.40	.012	.10	.11	.028	.014	.0004	.0014	.27	.18	HEAT
4	.08	.76	.016	.034	.20	.40	.012	.10	.11	.028	.014	.0004	.0014	.27	.18	HEAT

**MECHANICAL**

Item	Test	Tension Testing Results				Elong (%) based on 8" gauge	ROA (%)	Load Test Result	Temp F/C	Sample 1 (ft. thickness)	Sample 2 (ft. thickness)	Sample 3 (ft. thickness)	% Shear	ASTM Grain Size No (per ASTM E112)
		Ys (Fy) ksi/MPa	Tensile Strength ksi/MPa	FyFu	Reduction of Area (%)									
1	1	63437	80548	79	25	25	25	1	1	1	1	1		
1	2	81421	76520	80	35	35	35	2	2	2	2	2		
2	1	63437	80548	79	25	25	25	1	1	1	1	1		
2	2	61421	78520	80	30	30	30	2	2	2	2	2		
3	1	63437	80548	78	25	25	25	1	1	1	1	1		
3	2	61421	76520	80	30	30	30	2	2	2	2	2		
4	1	63437	80548	78	25	25	25	1	1	1	1	1		
4	2	61421	76520	80	30	30	30	2	2	2	2	2		

**Charpy Impact Testing Results**

Item	Temp F/C	Sample 1 (ft. thickness)	Sample 2 (ft. thickness)	Sample 3 (ft. thickness)	% Shear
1	1	1	1	1	
2	2	2	2	2	
3	1	1	1	1	
3	2	2	2	2	
4	1	1	1	1	
4	2	2	2	2	

**HT # 8030292 is used to fabricate items: 6106, 6107**

Date of Mill Test Report: 3/5/2007  
 Date of Charpy Impact Test: 3/5/2007  
 Date of Chemical Analysis: 3/5/2007

Prepared by: [Signature]  
 Quality Assurance

My commission expires: \_\_\_\_\_

Printed and E-mailed to: [Name]  
 City of \_\_\_\_\_  
 State of \_\_\_\_\_

Align

6-FEB-2004 04:49

TXI - MILLFAX 1-800-645-4155

Page 1/14

Bill To:  
PACIFIC STEEL, INC.  
845 MURCK  
CHOMEDET  
LAVAL  
H731A)

Ship To: 1  
PACIFIC STEEL, INC.  
845 MURCK  
8076 LONGUEUIL  
MONTREAL  
H73-LA9

CHAPARRAL STEEL  
CERTIFIED MATERIAL TEST REPORT  
300 Hard Rd.  
Midlothian, TX  
76065-9651  
(977) 775-8241

Order Date: 11/13/2003  
PO No: 10936  
Mill Order No: 2685510  
Load No: 856927  
Manifest No: 1584476

PQ  
CA

PQ  
CA

SIZE  
W 1.4 X 26#

GRADE  
992/S72-50

PRODUCT  
HV BEAMS

SPECIFICATION  
ASTM A6-02, A992-02, A572-01

HEAT NO: 30177140

C .08 Mn .96 P .010 S .030  
PHYSICAL PROPERTIES  
Yield Strength  
KSI 58.7 404.7  
MPa 58.4 402.7  
Tensile Strength  
KSI 72.1 497.1  
MPa 72.7 501.2

CHEMICAL ANALYSIS

Cr .05 Mo .012 Sn .013 V .000  
Ni .09 Cu .41  
Specimen Area  
Sq In 0.408  
Sq cm 2.63  
Elongation  
% 25.4  
Cage Length  
8In 200 mm  
8In 200 mm

Bend Test  
Dia. Result  
ROA

CE .29

All manufacturing processes of this product, including electric arc melting and continuous casting, occurred in the U.S.A.

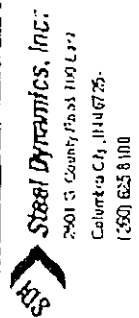
"I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its sub-contractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements."

Signed: *[Signature]*  
For L. Harrington, Quality Assurance Manager  
Date: Feb. 06, 2004

Date: \_\_\_\_\_  
Page: 1 of 14

Notary Public (if applicable)

HT # 30177140 is used to fab item: B134



**Certified Mill Test Report**  
100% Mill and Manufactured in USA

Customer No: 010011610  
Bill of Lading No: 010011610  
MTR No: 010011737

Ship to: The Peoples Infrastructure  
2480 Grand Avenue  
Pittsburgh, PA 15225  
Attn: Craig Perrelli

Bill to: IPAD, 10141 S. RIFLEMAN BLVD  
P.O. Box 2000 Computer Avenue  
Willetts Grove, PA 19090  
Attn: Fred Wingo

Item	Bundles	Section	Length	Pcs	Heat #	Grades	Specs (ASTM)	Customer P.O.
17	020911213	W16X24	30'-0"	6	0303959	A572 Gr 50 / A992M A572 Gr 50 / A992M	A572/A992M-06 A572/A992M-06	157388901
18	020911713	W16X26	40'-0"	9	0303944	A572 Gr 50 / A992M A572 Gr 50 / A992M	A572/A992M-06 A572/A992M-06	157388901
19	020911739	W16X26	40'-0"	6	0303943	A572 Gr 50 / A992M A572 Gr 50 / A992M	A572/A992M-06 A572/A992M-06	157388901

**CHEMICAL**

Item	C	Mn	P	S	SI	Cu	V	Cr	HI	Mo	Sh	H	B	Cb	C1	C2	PC	Analysis
17	09	.63	.017	.029	.18	.29	.012	1.3	10	.032	.011	.0105	0.002	.008	.25	.28	.15	HEAT
18	09	.68	.019	.023	.18	.34	.013	1.2	09	.034	.012	.0100	0.003	.001	.25	.28	.15	HEAT
19	09	.65	.015	.025	.20	.33	.014	1.0	10	.025	.013	.0106	0.003	.001	.26	.29	.18	HEAT

**MECHANICAL**

Item	Test	Yield (Fy) ksi	Tensile (Fu) ksi	Elong (%)	ROA (%)	Brnd Test Result	Temp F/C	Sample 1 fl. lb/ftoules	Sample 2 fl. lb/ftoules	Sample 3 fl. lb/ftoules	% Sheet	ASTM Grain Size No (per ASTM E112)
17	1	58409	74513	28		1						
17	2	51418	70524	29		2						
18	1	51422	78536	26		1						
18	2	51421	78536	26		2						
18	1	58409	76527	27		1						
19	2	51433	79545	25		2						

HT 4 A033958

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchase agreements.

Signed:   
Quality Assurance

State of Indiana, County of Whitely  
Sworn to and subscribed before me this 15th day of August, 2015.  
Signed: 1587487  
My commission expires: \_\_\_\_\_

Special Comments/Inspection:  
Fully Killed Steel  
Cast and Rolled to a Fine Grain Practice

Customer: 010011610, Shipper: 6896, Heat: A033858, MTR: 010011737, Date: 08/15/2015, Location: IPAD, 10141 S. RIFLEMAN BLVD, WILLETTS GROVE, PA 19090



**Steel Dynamics, Inc.**  
 2601 S. County Road 700 East  
 Columbia City, IN 46725  
 (764) 625-8100

**Certified Mill Test Report**  
 100% Mill and Manufactured in USA

**Date:** 5/18/2007  
**Customer No:** 000191  
**Bill of Lading No:** 0000113087  
**MTR #:** 0000112686

**Ship to:**  
 Triad Metals Int'l  
 1551 Bassett Road  
 CSX-Cobbler Yard  
 Petersburg, VA 23805

**Bill to:**  
 TRIAD METALS INTERNATIONAL  
 A-1 2300 Corporate Avenue  
 Willow Grove, PA 19090  
 Attn: Fred White

Item	Bundle	Section	Length	Pos	Heat #	Grade(s)	Specifications(s)	Customer P.O.
1a	020848058	V16X40	40'0"	2	8002281	A992/A992M A709 G50Sg345S A572 G50G345	ASTM A992/A992M - 05a ASTM A709/A709M - 05a ASTM A572/A572M - 05	1511308
1b	020848058	V16X40	40'0"	4	8002282	A992/A992M A709 G50Sg345S A572 G50G345	ASTM A992/A992M - 05a ASTM A709/A709M - 05a ASTM A572/A572M - 05	1511308
2	020848091	V16X40	40'0"	6	8002281	A992/A992M A709 G50Sg345S A572 G50G345	ASTM A992/A992M - 05a ASTM A709/A709M - 05a ASTM A572/A572M - 05	1511308
3	020848119	V16X40	60'0"	6	8002275	A992/A992M A709 G50Sg345S A572 G50G345	ASTM A992/A992M - 05a ASTM A709/A709M - 05a ASTM A572/A572M - 05	1511308

**CHEMICAL**

Item	C	Mn	P	S	Si	Cr	Mo	Ni	Sn	N	B	Ca	Al	PC	Analysis		
1a	06	53	027	036	20	33	002	10	10	023	011	0002	010	28	31	14	HEAT
1b	07	52	015	032	21	31	062	09	08	024	013	0031	011	27	31	15	HEAT
2	06	56	027	036	20	33	002	10	10	023	011	0002	010	28	31	14	HEAT
3	07	52	015	032	22	35	002	07	10	022	013	0062	013	27	31	15	HEAT

**MECHANICAL**

Item	Test	Tension Testing Results					Charpy Impact Testing Results					ASTM Grain Size No (per ASTM E112)	
		Yield (ksi)	Tensile (ksi)	Elong (%)	AOA (%)	Reduc Test Result	Temp (F)	Sample 1 ft. Deflection	Sample 2 ft. Deflection	Sample 3 ft. Deflection	% Strain		
1a	1	58405	72435	28	28	1	1						
1a	2	58404	73501	25	25	2	2						
1b	1	58406	71492	27	27	1	1						
1b	2	57082	71456	29	29	2	2						
2	1	58405	72456	28	28	1	1						
2	2	58404	73501	29	29	2	2						
3	1	58404	72499	28	28	1	1						
3	2	60413	70566	28	28	2	2						

HT 4 B030915 is used to fab items: B146, B17

**Signature:** \_\_\_\_\_  
**Quality Assurance**

**Customer Approval:** \_\_\_\_\_  
 M) Customer Rep

**Special Comments:**  
 \* Fully Killed Steel  
 | Cast and Rolled to a Fine Grain Practice

**Scale of Exam, Country of origin:** \_\_\_\_\_  
**Sworn to and subjected to the Penalties of perjury:** \_\_\_\_\_  
**By:** \_\_\_\_\_  
**Supervisor:** \_\_\_\_\_

PO/RH

Alt

Bill To:  
PACIFIC STEEL, INC.  
845 HUNCK  
LAVALE  
H751A9

SHIP TO: 1  
PACIFIC STEEL, INC.  
845 HUNCK  
8076 LONGHILL  
MONTREAL  
H75-1A9

Order Date: 10/22/2002  
PO No: 10457-3  
HILL Order No: 2407636  
Load No: 769156  
Manifest No: 1600652

CHAPARRAL STEEL  
CERTIFIED MATERIAL TEST REPORT  
300 Ward Rd.  
Midlothian, TX  
76065-9651  
(972) 775-8241

PQ  
CA

PQ  
CA

SIZE  
H 16 X 45#

GRADE  
992/572-50

LENGTH  
40 FT

PRODUCT  
WF BEAMS

SPECIFICATION  
ASTM A6-01, A992-00, A572-00a

HEAT NO: 30121880

CHEMICAL ANALYSIS

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	V	Al	Nb	CE
.08	.95	.007	.034	.22	.34	.10	.06	.015	.014	.000	.001	.016	.28

PHYSICAL PROPERTIES

Yield Strength	MPa	Tensile Strength	MPa	Specimen Area	Sq cm	Elongation	%	Original Length	mm	Round Test	ROA
52.5	362.0	68.2	470.7	0.792	5.11	26.5	81a	200	mm	Result	%
53.3	367.5	68.9	475.0	0.800	5.16	26.4	81a	200	mm		

All manufacturing processes of this product, including melting and casting, occurred in the U.S.A.

"I hereby certify that the contents of this report are correct and accurate. All tests and operations performed by this material manufacturer or its subcontractors, when applicable, are in compliance with the requirements of the material specifications and applicable purchaser designated requirements."

Signed: *Tom L. Harrington*  
Tom L. Harrington, Quality Assurance Manager

Date: Oct. 29, 2002  
Signed: Notary Public (if applicable)

Date: \_\_\_\_\_  
Page: 8 of 8

HT # 30121880 is used to fab item: B145

PART NO.

Aut:



"POLSKIE HUTY STALI" S.A.  
Oddział Huta Katowice



41-309 DABROWA GÓRNICZA  
AL. JÓZEFA PIŁSUDSKIEGO 92

TEST REPORT

Centr. tel: (048-32) 794 53 33 TKJ tel: (048-32) 792 80 52  
fax: (048-32) 795 52 00 fax: (048-32) 795 54 86

No 7519/E/2004

QUALITY SYSTEM OF OUR COMPANY HAS BEEN CERTIFIED BY THE TÜV CERT ACC. DIN EN ISO 9001

Exporter : "POLSKIE HUTY STALI" S.A. ODDZIAŁ HUTA KATOWICE  
41-309 DABROWA GÓRNICZA AL. J. PIŁSUDSKIEGO 92  
Importer : OLBERT METAL SALES 888 DERRY ROAD EAST, SUIT 305 MISSISSAUGA, ONTARIO  
L5T 1J8 CANADA  
Order : NR: P.O NO: SP 1027

Contract No. : PL/277839653/04/8071

Manuf. Order No.: 1613086/04  
Advice No. : P-15/03289/3  
Vagon No. : 315153282811  
PKWiD : 27.10.70-13.00  
KTY : 2710701300-DC0030-A8442-6.

Product description and standard: "W" - SHAPES  
Dimensions : W18 X85 ASTM A 6/A 6M-01  
Length : 86FT  
Steel grades : A 982 ASTM A 982/A 982M-01  
THIS MATERIAL/GRADE COVERS - CSA G40.21 50W - ASTM A572 GR.50 TYPE 2

Quantity	Weight	Mat No.	Chemical composition - %													Mechanical Properties			
			C	Mn	Si	P	S	Co	Cr	Ni	W	Mo	Cu	Nb	V	CE	Re	Rm	EL
3/ 18	9885	431021	0,17	0,78	0,21	0,018	0,013	0,03	0,02	0,01	0,008	0,003	0,003	0,001	0,048	0,32	387	604	23,6
		431021															388	613	26,0
3/ 18	9885																		

HT # 431021 is used to fab item. B105

THIS IS TO CERTIFY, THAT THE I.N. PRODUCTS HAVE BEEN MANUFACTURED AND TESTED IN ACCORDANCE WITH THE INDICATED SPECIFICATIONS AND COMPLY WITH THEIR REQUIREMENTS

Certificate Section: NR10 OF ATTESTATION  
Prepared by: (08) DIVISION  
Checked by: (01) Jan BOSTY

DABROWA GÓRNICZA  
1-1st-2004

Chief Specialist  
Quality Control  
Grzegorz Cichoński

**Steel Dynamics, Inc.**  
 2601 S. County Road 700 East  
 Columbia City, IN 46725  
 (260) 625-8100

**Bill of Lading No: 0000117395**  
**MTR #: 0000116975**

**Date: 6/29/2007**  
**Customer No: 000191**  
**Bill of Lading No: 0000117395**  
**MTR #: 0000116975**

**Ship to:**  
 Triad Metals Int'l  
 1951 Bessemer Road  
 CSX-Coffier Yard  
 Petersburg, VA 23805

**Bill to:**  
 TRIAD METALS INTERNATIONAL  
 A-1 2300 Computer Avenue  
 Willow Grove, PA 19090  
 Attn: Fred White

**Certified Mill Test Report**  
 100% Melting and Manufactured in USA

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
5†	020904423	W24X62	60' 0"	4	B034540	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	158398
6†	020904429	W24X62	60' 0"	4	B034539	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	158398
7†	020904431	W24X62	60' 0"	4	B034539	A992 / A992M A709 g50S/g345S A572 gr50/gr345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	158398

**CHEMICAL**


Item	C	Mn	P	S	SI	Cu	V	Cr	NI	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
5*	.09	1.11	.015	.031	.26	.40	.032	.09	.10	.021	.019	.0111	.0004	.002	.33	.37	.18	HEAT
6*	.07	1.11	.017	.026	.23	.42	.033	.09	.11	.022	.016	.0104	.0003	.002	.32	.36	.17	HEAT
7*	.07	1.11	.017	.026	.23	.42	.033	.09	.11	.022	.016	.0104	.0003	.002	.32	.36	.17	HEAT

**MECHANICAL**

Item	Test	Yield (Fy) Strength ksi/MPa	Tensile (Fu) Strength ksi/MPa	Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp F/C	Charpy Impact Testing Results			ASTM Grain Size No (per ASTM E112)	
								Fy/Fu	Sample 1 ft. lb./joules	Sample 2 ft. lb./joules		Sample 3 ft. lb./joules
5	1	57394	74/510	24				1				
5	2	62427	78/540	23				2				
6	1	57395	74/512	23				1				
6	2	59404	74/513	23				2				
7	1	57395	74/512	23				1				
7	2	59404	74/513	23				2				

HT # B034539 is used to fab items: B109, B114, B115

I hereby certify that the contents of this report are accurate and correct. All facts and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed:  Quality Assurance

State of Indiana, County of Whitley  
 Sworn to and subscribed before me this \_\_\_ day of \_\_\_  
 Signed: \_\_\_\_\_ Notary Public

My commission expires: \_\_\_\_\_

Special Comments/Information:  
 \* Fully Killed Steel  
 † Cast and Rolled to a Fine Grain Practice

**Steel Dynamics, Inc.**  
 2601 S. County Road 700 East  
 Columbus, IN 46725  
 (765) 623-8100

**Certified Mill Test Report**  
 100% Met and Manufactured in USA

Date: 5/21/2007  
 Customer No: 000191  
 Bill of Lading No: 0000113237  
 MTR #: 000012895

Ship to:  
 Triad Metals Int  
 1951 Bossener Road  
 CSX-Collier Yard  
 Petersburg, VA 23805

Bill to:  
 TRIAD METALS INTERNATIONAL  
 A-1 2300 Computer Avenue  
 Willow Grove, PA 19090  
 Attn: Fred White

Item	Bundle	Section	Length	Pos	Heat #	Grade(s)	Specification(s)	Customer P.O.
6a	020857507	W24X76	60' 0"	1	B032679	A992/A992M A709 G50S/G345 A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	152115B
6b	020857507	W24X76	60' 0"	3	B032680	A992/A992M A709 G50S/G345 A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	152115B

CHEMICAL

Item	C	Mn	P	S	Si	Cu	V	Cr	NI	Mo	Sn	N	B	Ca	C1	C2	PC	Analysis
6a	.07	1.11	.019	.036	.22	.33	.030	.09	.11	.030	.013	.0108	.0003	.001	.32	.35	.17	HEAT
6b	.08	1.16	.018	.028	.20	.36	.034	.10	.11	.038	.012	.0076	.0003	.001	.34	.37	.17	HEAT

MECHANICAL

Item	Test	Yield (FY)		Tensile (FU)		Elong (%) based on 8" gauge	ROA (%)	Bend Test Result	Temp FIC	Charpy Impact Testing Results			ASTM Grain Size No (per ASTM E112)
		ksi/MPa	ksi/MPa	ksi/MPa	ksi/MPa					ft. lb/ftoules	ft. lb/ftoules	ft. lb/ftoules	
6a	1	56283	73504	73504	.77	23	1	1	1				
6a	2	57094	75518	75518	.76	24	2	2	2				
6b	1	58403	73504	73504	.79	24	1	1	1				
6b	2	61418	73504	73504	.84	27	2	2	2				

*HT # B032680 is used to fabricate items: B112, B117, B118*

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchase agreements.

State of Indiana, County of Whitley  
 Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_  
 Signed: \_\_\_\_\_ Notary Public

My commission expires: \_\_\_\_\_

Special Comments/Information:  
 \* Fully Killed Steel  
 † Cast and Rolled to a Fine Grain Practice

**Steel Dynamics, Inc.**  
2601 S. County Road 700 East  
Columbus, IN 46725  
(260) 625-8100

**Certified Mill Test Report**  
100% Milled and Manufactured in USA

**Date:** 6/29/2007  
**Customer No.:** 0000191  
**Bill of Lading No.:** 0000117388  
**MTR #:** 0000116968

**Ship to:**  
Triad Metals Int'l  
1951 Bessmer Road  
CSX-Collier Yard  
Petersburg, VA 23805

**Bill to:**  
TRIAD METALS INTERNATIONAL  
A-1 2300 Computer Avenue  
Willow Grove, PA 19090  
Attn: Fred White

Item	Bundle	Section	Length	Pcs	Heat #	Grade(s)	Specification(s)	Customer P.O.
17†	020887722	W27X84	60' 0"	2	A033792	A992 / A992M A709 G50S/G345S A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	157052B/406
18†	020902687	W24X84	60' 0"	2	A034318	A992 / A992M A709 G50S/G345S A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	156398
19a†	020902702	W24X94	60' 0"	1	A033836	A992 / A992M A709 G50S/G345S A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	156398
19b†	020902702	W24X94	60' 0"	1	A034014	A992 / A992M A709 G50S/G345S A572 G50/G345	ASTM A992/A992M - 06a ASTM A709/A709M - 06a ASTM A572/A572M - 06	156398

CHEMICAL

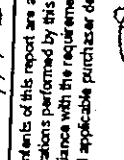
Item	C	Mn	P	S	Si	Cu	V	Cr	Ni	Mo	Sn	N	B	Cb	C1	C2	PC	Analysis
17*	.06	1.17	.019	.028	.20	.31	.032	.08	.12	.018	.011	.0088	.0003	.002	.31	.34	.15	HEAT
18*	.07	1.22	.014	.037	.16	.30	.031	.07	.11	.028	.011	.0117	.0004	.002	.32	.35	.16	HEAT
19a*	.10	1.23	.013	.022	.23	.40	.033	.10	.11	.041	.019	.0100	.0003	.000	.37	.41	.20	HEAT
19b*	.08	1.14	.011	.023	.25	.35	.001	.09	.13	.030	.012	.0108	.0003	.023	.33	.37	.17	HEAT

MECHANICAL

Item	Test	Tension Testing Results				Charpy Impact Testing Results				ASTM Grain Size No (per ASTM E112)										
		Yield Strength ksi/MPa	Tensile Strength ksi/MPa	Elong (%) based on g-gauge	Fy/Fu	Temp F/C	Sample 1 ft. lb/joules	Sample 2 ft. lb/joules	Sample 3 ft. lb/joules		% Shear									
17	1	60415	72495	.83	.83	26	1													
17	2	59407	71491	.83	.83	26	2													
18	1	53368	69473	.77	.77	27	1													
18	2	56384	70484	.80	.80	25	2													
19a	1	56383	73506	.77	.77	22	1													
19a	2	58399	71482	.82	.82	26	2													
19b	1	59407	73506	.81	.81	24	1													
19b	2	60416	75620	.80	.80	27	2													

HT # A034318 is used to fabricate: 6148

I hereby certify that the contents of this report are accurate and correct. All tests and operations performed by this material manufacturer are in compliance with the requirements of the material specifications and applicable purchaser designated.

Signed:  Quality Assurance

State of Indiana, County of Whitley

Sworn to and subscribed before me this \_\_\_ day of \_\_\_\_\_

Signed: \_\_\_\_\_ Notary Public

My commission expires: \_\_\_\_\_

Special Comments/Information:  
\* Fully Killed Steel  
† Cast and Rolled to a Fine Grain Practice

# FASTENAL COMPANY

INDUSTRIAL & CONSTRUCTION SUPPLIES

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## CERTIFICATE OF COMPLIANCE

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CERTIFICATE NO:012001-2005

---

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SOLD TO: MANDATE ERECTORS

PURCHASE ORDER NO.: 26893

JOB NO:

DATE: 1/20/05

THIS IS TO CERTIFY THAT WE HAVE SUPPLIED YOU WITH THE FOLLOWING PARTS.  
THESE PARTS WERE PURCHASED TO THE FOLLOWING SPECIFICATIONS.

12 PCS 1/2 - 13 X 12, THREADED ROD, MANUFACTURED IN THE USA, PROVIDED UNDER OUR TRACE  
NUMBER FASTEN.

This is to certify that the above document is true  
and accurate to the best of my knowledge.



Jaclyn Grossell  
Fastenal Company  
Quality Assurance Dept.

Page 1 of 1

February 12, 2004

This document was printed on 1/20/2005 and was current at that time. Please check current Revision date to avoid using obsolete  
copies.

# NUCOR

LOT NO.  
218703A

Post Office Box 6100  
Saint Joe, Indiana 46785  
Telephone 260/337-1600

## FASTENER DIVISION

NUCOR ORDER#: 595816

SERIAL#: FB280621 CUST PO: L-010687 CUST #/NAME: 5614 AMCAN THREADED PRODUCTS  
ISSUE DATE: 2/28/07 DATE SHIPPED: 5/14/07 LAB SAMPLER: PHILLIP A. TITLER, LAB TECHNICIAN  
\*\*\*\*\* CERTIFIED MATERIAL TEST REPORT \*\*\*\*\*

PART NO. LOT NO. DESCRIPTION  
160559 218703A 3/4-10 X 1 3/4 A325TRU-TENSION STRUC DOME HEAD ASSBY PLAIN

CUST PART #: QUANTITY: 8700  
\*\*\*\*\* TRU-TENSION ASSEMBLY TENSION \*\*\*\*\*

--IN ACCORDANCE WITH ASTM F1852-05  
#PCS TESTED: 10 AVG TENSION: 36,000 (LBS) STD DEVIATION: 516  
\*\*\*\*\* BOLT \*\*\*\*\*

PART NO. LOT NO. DESCRIPTION MANUFACTURE DATE  
714000 218690A 3/4-10 X 1 3/4 A325 TRUTENSION 2/15/07  
STRUC SCREW PLAIN DOME HEAD TT

--MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM A325-06  
AVERAGE VALUES OF 5 TESTS  
CORE HARDNESS: 28.8 (RC) TOO SHORT TO TEST

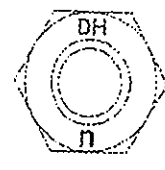


--DIMENSIONS PER ASME B18.2.6-2003

--CHEMISTRY MATERIAL GRADE -1039ML1  
MATERIAL HEAT \*\*CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER  
NUMBER NUMBER C MN P S SI NUCOR STEEL - NEBRASKA  
RM023316 NU 740091 .40 .91 .009 .013 .25 A2LA NO: 780.01 EXP: 2008-11-30  
MIN .30 .60 .10 FOR CHEMICAL TESTING  
MAX .52 .040 .050 .30

--VISUAL INSPECTION IN ACCORDANCE WITH ASTM A325-06 80 PCS. SAMPLED LOT PASSED

\*\*\*\*\* NUT \*\*\*\*\*  
PART NO. LOT NO. DESCRIPTION MANUFACTURE DATE  
716350 218982A 3/4-10 GR DH HVY HX NUT 11/21/06  
T.T. BOLT NUT, STD. TAP



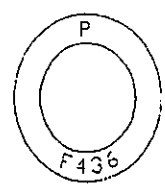
--MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM A563-04A  
CORE HARDNESS: 33.2 (RC) PROOF LOAD: 58,500(LBS) AVERAGE VALUES OF 5 TESTS

--DIMENSIONS PER ASME B18.2.6-2003

--CHEMISTRY MATERIAL GRADE -1026L  
MATERIAL HEAT \*\*CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER  
NUMBER NUMBER C MN P S SI NUCOR STEEL - NEBRASKA  
RM022948 NU 737263 .23 .68 .014 .024 .22 A2LA NO: 780.01 EXP: 2008-11-30  
MIN .20 .60 .10 FOR CHEMICAL TESTING  
MAX .55 .040 .050

--VISUAL INSPECTION IN ACCORDANCE WITH ASTM A563-04a 160 PCS. SAMPLED LOT PASSED

\*\*\*\*\* WASHER \*\*\*\*\*  
PART NO. LOT NO. DESCRIPTION MANUFACTURE DATE  
180020B 023253 3/4 STRUCTURAL WASHER TYPE 1  
ASTM F436



--MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM F436-04  
CORE HARDNESS: 43.5 (RC)

--CHEMISTRY MATERIAL GRADE -1035  
HEAT \*\*CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER  
NUMBER NUMBER C MN P S SI PRESTIGE STAMPING, INC.  
0166401 .38 .67 .013 .004 .20 P.O. BOX 1086  
MIN .30 .50 .050 .50 WARREN, MI 48090  
MAX .80 .050 .50 A2LA NO: EXP:  
FOR CHEMICAL TESTING

THE SAMPLES, TESTED IN ACCORDANCE WITH THE APPLICABLE SPECIFICATIONS LISTED ABOVE, CONFORM TO THESE SPECIFICATIONS AND WERE MANUFACTURED FREE OF MERCURY CONTAMINATION. NO HEATS TO WHICH BISMUTH, SELENIUM, TELLURIUM, OR LEAD WAS INTENTIONALLY ADDED HAVE BEEN USED TO PRODUCE THE BOLTS. THE STEEL WAS MELTED AND MANUFACTURED IN THE U.S.A. AND THE PRODUCT WAS MANUFACTURED AND TESTED IN THE U.S.A. WE CERTIFY THAT THIS DATA IS A TRUE REPRESENTATION OF INFORMATION PROVIDED BY THE MATERIAL SUPPLIER AND OUR TESTING LABORATORY. THIS CERTIFIED MATERIAL TEST REPORT RELATES ONLY TO THE ITEMS LISTED ON THIS DOCUMENT AND MAY NOT BE REPRODUCED EXCEPT IN FULL.



MECHANICAL FASTENER  
Certificate No. A2LA 139-01  
Expiration Date 12/31/07

NUCOR FASTENER  
A DIVISION OF NUCOR CORPORATION

CHRIS RAMER  
QUALITY ASSURANCE SUPERVISOR



# MIDAS UNION TRADING CO., LTD.

#25, 30th Lane, Chiu-Hsing West Road, Kangshan, Kaohsiung 820, Taiwan.

TEL/886-7-6213959

FAX/886-7-6214466, 6212466

EMAIL: service@midas.com.tw

A611704P1

## INSPECTION & QUALITY ASSURANCE REPO

Date : 2007/05/17

IQAR NO. : MUT-00P956

Customer : AMCAN JUMAX INC.

Part Name/No. : 3/4-10X2 A325 ROUND HEAD T.C.BOLT +1 NUT+1WASHER COARSE THREAD PLAIN.

Drawing No. : (IFI)

Rev. :

Date :

P/O No. : L-010230

2

Lot Size : 50.400 MSETS

(LOT NO: B611704P1/N540018P2/W520005P1.)

### NONDESTRUCTIVE INSPECTION

DIM. KEY	REQUIREMENT					FINDING	Nos. Rejected	RESULT
	REQUIRED MIN - MAX -	UNITS [IN]	Level	Sample Size	Acc. Nbr.			
A	HEAD DIA: 1.580 MAX		C	8	0	1.471 - 1.483	0	OK
B	BEARING DIA: 1.338 MIN		C	8	0	1.373 - 1.375	0	OK
C	HEAD HEIGHT: .455 - .483		C	8	0	.475 - .479	0	OK
D	SPLINE LENGTH: .65 REF		C	8	0	.667 - .673	0	OK
E	SPLINE WIDTH ACROSS FLATS: .53 REF		C	8	0	.530 - .531	0	OK
F	BODY DIA: .729 - .768		C	8	0	.746 - .747	0	OK
G	THREAD LENGTH: 1.38 REF		B	32	1	1.351 - 1.353	0	OK
H	3/4-10 (2A) THREAD		A	100	2	GO-NOGO	0	OK
I	SCREW LENGTH: 1.810 - 2.000		B	32	1	1.979 - 1.983	0	OK
J	NUT-WIDTH A/F: 1.212 - 1.250		B	32	1	1.220 - 1.223	0	OK
K	NUT-WIDTH A/C: 1.382 - 1.443		C	8	0	1.397 - 1.401	0	OK
L	NUT-THICKNESS: .710 - .758		C	8	0	.735 - .737	0	OK
M	NUT-3/4-10 (2B) THREAD		A	100	2	GO-NOGO	0	OK
N	WASHER-OUTSIDE DIA: 1.438 - 1.500		C	8	0	1.465 - 1.469	0	OK
O	WASHER-INSIDE DIA: .813 - .844		B	32	1	.837 - .840	0	OK
P	WASHER-THICKNESS: .122 - .177		C	8	0	.128 - .130	0	OK

### DESTRUCTIVE INSPECTION

CHARACTERISTIC	Level	Sample Size	Acc. Nbr.	FINDING	Nos. Rejected	RESULT
BOLT - CORE HARDNESS: 25 - 34 RC	A	8	0	31.5 - 32.0	0	OK
BOLT - TENSILE STRENGTH: 120 KSI (MIN)	B	4	0	141 - 142	0	OK
NUT - CORE HARDNESS: 24 - 38 RC	A	8	0	30.3 - 31.0	0	OK
WASHER - CORE HARDNESS: 38 - 45 RC	A	8	0	40.2 - 41.1	0	OK

OTHERS :

MATERIAL : 10B35/C-1045/10B20 (HENT NO: SA59240, /390490, /1K549.) OK

VISUAL : FINISH & APPEARANCE. : OK

COMMENT ON SHIPMENT

ACCEPTED & SHIP  REJECTED. USE AS IS. IMPROVE NEXT SHIPMENT.

# MIDAS UNION TRADING CO., LTD.

#25, 30th Lane, Chin-Hsing West Road, Kangshan, Kaohsiung 820, Taiwan.  
 TEL/886-7-6213959 FAX/886-7-6214466, 6212466  
 EMAIL: service@midas.com.tw

A611707P2

## INSPECTION & QUALITY ASSURANCE REPO

Date : 2007/05/17 IQAR NO. : MUT-00P956

Customer : AMCAN JUMAX INC.

Part Name/No. : 3/4-10X2-1/4 A325 ROUND HEAD T.C.BOLT +I NUT+IWASHER COARSE THREAD PLAIN.

Drawing No. : (1F1) Rev. : \_\_\_\_\_ Date : \_\_\_\_\_

P/O No. : L-010230 3 Lot Size : 24,300 MSETS

(LOT NO: B611707P2/N540018P3/W560011P6.)

### NONDESTRUCTIVE INSPECTION

DIM. KEY	REQUIREMENT					FINDING	Nos. Rejected	RESULT
	REQUIRED MIN - MAX	UNITS [IN]	Level	Sample Size	Acc. Nbr.			
A	HEAD DIA: 1.580 MAX		C	8	0	1.484 - 1.495	0	OK
B	BEARING DIA: 1.338 MIN		C	8	0	1.388 - 1.491	0	OK
C	HEAD HEIGHT: .455 - .483		C	8	0	.476 - .480	0	OK
D	SPLINE LENGTH: .65 REF		C	8	0	.671 - .676	0	OK
E	SPLINE WIDTH ACROSS FLATS: .53 REF		C	8	0	.530 - .531	0	OK
F	BODY DIA: .729 - .768		C	8	0	.746 - .747	0	OK
G	THREAD LENGTH: 1.38 REF		B	32	1	1.395 - 1.401	0	OK
H	3/4-10 (2A) THREAD		A	100	2	GO-NOGO	0	OK
I	SCREW LENGTH: 2.060 - 2.250		B	32	1	2.236 - 2.239	0	OK
J	NUT-WIDTH A/F: 1.212 - 1.250		B	32	1	1.220 - 1.223	0	OK
K	NUT-WIDTH A/C: 1.382 - 1.443		C	8	0	1.398 - 1.400	0	OK
L	NUT-THICKNESS: .710 - .758		C	8	0	.730 - .734	0	OK
M	NUT-3/4-10 (2B) THREAD		A	100	2	GO-NOGO	0	OK
N	WASHER-OUTSIDE DIA: 1.438 - 1.500		C	8	0	1.464 - 1.468	0	OK
O	WASHER-INSIDE DIA: .813 - .844		B	32	1	.836 - .839	0	OK
P	WASHER-THICKNESS: .122 - .177		C	8	0	.131 - .133	0	OK

### DESTRUCTIVE INSPECTION

CHARACTERISTIC	Level	Sample Size	Acc. Nbr.	FINDING	Nos. Rejected	RESULT
BOLT - CORE HARDNESS: 25 - 34 RC	A	8	0	30.8 - 31.3	0	OK
BOLT - TENSILE STRENGTH: 120 KSI (MIN)	B	4	0	145 - 147	0	OK
NUT - CORE HARDNESS: 24 - 38 RC	A	8	0	28.9 - 29.6	0	OK
WASHER - CORE HARDNESS: 38 - 45 RC	A	8	0	40.3 - 41.9	0	OK

OTHERS :

MATERIAL : 10B35/C-1045/10B20 (HENT NO: SA59240, /390490, /2B935.) OK

VISUAL : FINISH & APPEARANCE. : OK

COMMENT ON SHIPMENT

ACCEPTED & SHIP  REJECTED. USE AS IS. IMPROVE NEXT SHIPMENT.



晉禾企業股份有限公司

JINN HER ENTERPRISE CO., LTD

107, SHIH - LO ST. KANGSHAN KAOHSIUNG, TAIWAN, R.O.C.  
TEL: (07)6229801 FAX: (07)6229750, 521-503

ISO 9002:1994  
QS-9000:1998  
TQM 2000



INSPECTION CERTIFICATE  
ASTM F1552-00 TENSION CONTROL BOLT ASSEMBLIES

REPORT NUMBER : B20020412003

SIZE 3/4-10x2-1/2

Assembly Lot No. A611722P1  
Lot Quantity 17,640PCS  
Customer STAR-TECH CORPORATION  
P. O. Number 430

Date Tested : 05/26/2002  
Date Issued : 04/12/2002  
Date Manufactured : 01/23/2002  
Date Shipped : 04/04/2002

COPY

Chemical Composition

	C	Mn	P	S	Si	Ni	Cr	B
BOLT F1552	Spec. Min. 32	70			15			5
	Max. 36	100	30	35	35			
Heat No. 3M1465	34	82	18	7	22			22
NUT A563-DH	Spec. Min. 43	60						
	Max. 50	90	30	50				
Heat No. 3M1605	46	80	14	17	21			
WASHER F430	Spec. Min. 18	30						5
	Max. 23	60	30	35	10			
Heat No. 3M1346	20	40	14	7	6			18

Mechanical Properties

Bolt Lot No.	Spec. Min. / Max.	Tensile Strength kst	Proof Load kst	Hardness HRC
B111534P2	1	153.4	Good	32.8
	2	149.7	Good	32.4
	3	150.7	Good	32.0
	4	154.4	Good	32.4
	5	154.1	Good	32.0
Nut Lot No. N130001P1	Spec. Min. / Max.	175		24
	1	Good		38
	2	Good		31.7
	3	Good		31.9
	4	Good		31.9
Washer Lot No. W120060P1	Spec. Min. / Max.			35
	1			25
	2			40.6
	3			41.2
	4			41.6

Specifications	
Bolt	ASTM F1552-00 July 2000 Type 1
Nut	ASTM A563-00 March 2000 Grade DH
Washer	ASTM F430-93 May 2000 Type 1

Assembly Lot	
Installation Tension Specified lbf	
Minimum	29,000
1	33498
2	37095
3	37320
4	34847
5	34172

- The above product complies with all applicable dimensional and thread fit requirements specified in Section 10 of ASTM F1552.
- Heats of steel, having the elements listed in section 7.1.3 and 7.1.5 of ASTM F1552, intentionally added, were not used to produce the bolts in this Assembly lot.
- Inspection for heat bursts was conducted in accordance with the requirements of Section 12 of ASTM F1552.

This is to certify that the information on this certificate is true and correct.

*Signature*

Authorized TQM OFFICER

**MIDAS UNION TRADING CO., LTD.**

#25, 30th Lane, Chia-Hsiung West Road, Kangshan, Kaohsiung 820, Taiwan.  
 TEL/886-7-6213959 FAX/886-7-6214466, 6212466  
 EMAIL: service@midas.com.tw

A611723P2

**INSPECTION & QUALITY ASSURANCE REPO**

Date : 2007/05/17 IQAR NO. : MUT-00P956

Customer : AMCAN JUMAX INC.

Part Name/No. : 3/4-10X2-3/4 A325 ROUND HEAD T.C.BOLT +1 NUT+IWASHER COARSE THREAD PLAIN.

Drawing No. : (IFI) Rev. : \_\_\_\_\_ Date : \_\_\_\_\_

P/O No. : L-010230 5 Lot Size : 22.500 MSETS

(LOT NO: B611723P2/N540018P3/W560011P3.)

**NONDESTRUCTIVE INSPECTION**

DIM. KEY	REQUIREMENT					FINDING	Nos. Rejected	RESULT
	REQUIRED MIN - MAX	UNITS [IN]	Level	Sample Size	Acc. Nbr.			
A	HEAD DIA: 1.580 MAX		C	8	0	1.482 - 1.491	0	OK
B	BEARING DIA: 1.338 MIN		C	8	0	1.374 - 1.377	0	OK
C	HEAD HEIGHT: .455 - .483		C	8	0	.475 - .478	0	OK
D	SPLINE LENGTH: .65 REF		C	8	0	.665 - .671	0	OK
E	SPLINE WIDTH ACROSS FLATS: .53 REF		C	8	0	.530 - .531	0	OK
F	BODY DIA: .729 - .768		C	8	0	.745 - .746	0	OK
G	THREAD LENGTH: 1.38 REF		B	32	1	1.359 - 1.362	0	OK
H	3/4-10 (2A) THREAD		A	100	2	GO-NOGO	0	OK
I	SCREW LENGTH: 2.560 - 2.750		B	32	1	2.740 - 2.743	0	OK
J	NUT-WIDTH A/F: 1.212 - 1.250		B	32	1	1.220 - 1.223	0	OK
K	NUT-WIDTH A/C: 1.382 - 1.443		C	8	0	1.396 - 1.399	0	OK
L	NUT-THICKNESS: .710 - .758		C	8	0	.724 - .729	0	OK
M	NUT-3/4-10 (2B) THREAD		A	100	2	GO-NOGO	0	OK
N	WASHER-OUTSIDE DIA: 1.438 - 1.500		C	8	0	1.463 - 1.471	0	OK
O	WASHER-INSIDE DIA: .813 - .844		B	32	1	.837 - .840	0	OK
P	WASHER-THICKNESS: .122 - .177		C	8	0	.130 - .132	0	OK

**DESTRUCTIVE INSPECTION**

CHARACTERISTIC	Level	Sample Size	Acc. Nbr.	FINDING	Nos. Rejected	RESULT
BOLT - CORE HARDNESS: 25 - 34 RC	A	8	0	28.9 - 29.4	0	OK
BOLT - TENSILE STRENGTH: 120 KSI (MIN)	B	4	0	148 - 150	0	OK
NUT - CORE HARDNESS: 24 - 38 RC	A	8	0	28.9 - 29.6	0	OK
WASHER - CORE HARDNESS: 38 - 45 RC	A	8	0	41.0 - 41.5	0	OK

OTHERS :

MATERIAL : 10B35/C-1045/10B20 (HENT NO: SA59242../390490./2B935.) OK

VISUAL : FINISH & APPEARANCE. : OK

COMMENT ON SHIPMENT

ACCEPTED & SHIP  REJECTED, USE AS IS, IMPROVE NEXT SHIPMENT.



**JINN HER ENTERPRISE CO., LTD.**  
**INSPECTION CERTIFICATE**  
 ASTM F852-00 TENSION CONTROL BOLT WASHERS

REPORT NUMBER: JH03-91015-01

**Chemical Composition**

Element	Min	Max	C	Mn	P	S	Si	Cr	Ni
Fe	99.00	100.00	0.05	0.03	0.01	0.01	0.03	0.00	0.00
Mn	0.50	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Si	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ni	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**Mechanical Properties**

Tensile Strength: 495-515 MPa  
 Proof Load: 28,000 N

Property	Min	Max	Unit
Tensile Strength	495	515	MPa
Proof Load	28,000		N

Item	Value	Unit
Assembly Lot	200203	
Manufacturer	JINN HER ENTERPRISE CO., LTD.	
Material	ASTM A570-00 Grade 260-0	
Washer	ASTM A570-00 Grade 260-0	

**SIZE 3/4-10x3**

Assembly Lot No. A2120SP2  
 Lot Quantity 1000  
 Customer JINN HER ENTERPRISE CO., LTD.  
 P.O. Number 100

Date Issued: 16/07/2003  
 Date Manufactured: 06/06/2003  
 Date Shipped: 19/10/2003

Assembly Lot	Manufacturer
200203	JINN HER ENTERPRISE CO., LTD.

Item	Specifications
Bolt	ASTM A570-00 Grade 260-0
Nut	ASTM A570-00 Grade 260-0
Washer	ASTM A570-00 Grade 260-0

This inspection certificate is valid only for the material and quantity specified herein. It does not cover any other material or quantity. The material is supplied in accordance with the requirements of ASTM A570-00 Grade 260-0. The manufacturer is Jinn Her Enterprise Co., Ltd. The inspection was performed by Jinn Her Enterprise Co., Ltd. on 16/07/2003. The inspection report is available at the manufacturer's website.

JINN HER ENTERPRISE CO., LTD.  
 100, Jinn Her Road, Jinn Her Industrial Park, Jinn Her, Taiwan  
 Tel: +886-2-2612-1234 Fax: +886-2-2612-1235  
 E-mail: jh@jinnher.com.tw



SET NO.: 2007-29062

### FASTENER TEST REPORT

(THIS DOCUMENT MAY BE REPRODUCED, BUT ONLY IN ITS ENTIRETY)

DATE: 2007-01-10

DESCRIPTION	A F2280-1TC+A563-DH NA+F436-1 UNC N 3/4-10 X 2 1/2
-------------	---

**BOLT** F2280-1TC ROUND HD BOLT UNC N P  
MARKING: HOLLOW TRIANGLE, A490 TC

LOT NO. 0612-62038	MANUFACTURED BY INFASCO			HARDNESS (ROCKWELL) HRC 33.0 - HRC 39.0		PROOF LOAD (LBS) MIN: 40,100	TENSILE STRENGTH (LBS) MIN: 50,100 MAX: 57,800		
MEAN VALUE				35.6		PASS		53,970	
HEAT NO.	C %	Mn %	P %	S %	SI %	Cr %			
A84631	0.35	0.69	0.010	0.008	0.27	0.85			

HVY HEX NUT A563-DH FNA UNC N P  
MARKING: TRIANGLE & DH

**NUT**

LOT NO. 0610-59807 1147G	MANUFACTURED BY INFASCO			HARDNESS (ROCKWELL) HRC 24.0 - HRC 38.0		PROOF LOAD (LBS) MIN: 58,450			
MEAN VALUE				29.4		PASS			
HEAT NO.	C %	Mn %	P %	S %	SI %				
013409	0.44	0.85	0.004	0.016	0.21				

F436-1 STRUCTURAL WASHER FNA STD P  
MARKING: F436, MANUFACTURER'S I.D. AND A TRIANGLE (OPT.)

**WASHER**

LOT NO. 0510-90012 1650G	MANUFACTURED BY TECHNICAL STAMPING INC USA			HARDNESS (ROCKWELL) HRC 38.0 - HRC 45.0					
MEAN VALUE				40.1					
HEAT NO.	C %	Mn %	P %	S %	SI %				
2120695	0.26	1.43	0.009	0.003	0.21				

ASSEMBLY TENSION MINIMUM	35,000 LBS
MEAN VALUE	40,750

Daniel Guilbault  
Quality Assurance Foreman

INFASCO  
A division of Ifastgroupe LP 700 Ouellette, Marleville (Quebec) J3M 1P6  
A Helco Company Tel.: (450) 658-8741 Fax: (450) 460-5496





BOLTS, NUTS AND FASTENER PRODUCTS

SET NO.: 002178

**FASTENER TEST REPORT**  
(THIS DOCUMENT MAY BE REPRODUCED, BUT ONLY IN ITS ENTIRETY)

13081  
AMCAN PRODUCTS FILETES INC  
1350 MARIE-VICTORIN  
ST-BRUNO-DE-MONTARVILLE, QC  
CANADA, J3V 6B9

ATTN: M. Jean Calgaro

PART NO.	DATE
CUSTOMER P.O. NO.	REFERENCE NO.
INVOICE DATE	INVOICE NO.
L-000353	07-9829
2001-07-04	Infasco 659104

DESCRIPTION	ASSY A490TC1+A563-DH+F436-1	GRADE
	3/4-10 X 3 1/2	- 4042M

**BOLT** A490 ROUND HEAD T.C. BOLT MARKING HOLLOW TRIANGLE, A490 TC

LOT NO.	MANUFACTURED BY			HARDNESS (ROCKWELL)		PROOF LOAD (LBS)		TENSILE STRENGTH (LBS)	
0005-57842	INFASCO			C 33.0 - C 38.0		MIN: 40,100		MIN: 50,100 MAX: 56,800	
MEAN VALUE				34.0		PASS		53,625	
HEAT NO.	C %	MN %	P %	S %	SI %	MO %			
A49303	0.41	0.99	0.011	0.003	0.24	0.260			

**NUT** HVY HEX NUT A563 GR DH UNC MARKING TRIANGLE & DH

LOT NO.	MANUFACTURED BY			HARDNESS (ROCKWELL)		PROOF LOAD (LBS)			
0005-57966	INFASCO			C 24.0 - C 38.0		MIN: 58,450			
MEAN VALUE				27.9		PASS			
HEAT NO.	C %	MN %	P %	S %	SI %				
C29467	0.44	0.78	0.008	0.012	0.22				

**WASHER** F-436-1 STRUCTURAL WASHER MARKING F436, TRIANGLE & MANUFACTURER'S I.D.

LOT NO.	MANUFACTURED BY			HARDNESS (ROCKWELL)					
0005-90445	TECHNICAL STAMPING INC USA			C 25.0 - C 45.0					
MEAN VALUE				39.8					
HEAT NO.	C %	MN %	P %	S %	SI %				
941090	0.26	0.76	0.008	0.008	0.03				

ASSEMBLY TENSION (A490)	
MINIMUM	35,000 LBS
MEAN VALUE	40,060

Metallurgical Engineer

Gabriel Landry



SET NUMBER: D470405



LeJeune Bolt Company

3500 West Highway 13, Burnsville, MN 55337

Phone: 612-890-7700; WATS: 800-872-2658

Fax: 612-890-3544

QUALITY ASSURANCE CERTIFICATION  
A490 TENSION CONTROL BOLT ASSEMBLIES

DATE: 17-Feb-00

SET NUMBER: D470405

<b>BOLT PROPERTIES</b>		<b>WASHER PROPERTIES</b>	
Mfg: Lake Erie Screw Lot Number: 214600 Size: 7/8-9 x 2 Grade: A490 - Type I Finish: Plain		Mfg: Alpha Stamping Lot Number: 00141 Diameter: 7/8" Grade: F436 - Type I Finish: Plain	
<b>NUT PROPERTIES</b>		<b>WASHER PROPERTIES</b>	
Mfg: Unytite Lot Number: 03381 Diameter: 7/8-9 UNC Grade: A563 DH Finish: Plain		Mfg: Alpha Stamping Lot Number: 00141 Diameter: 7/8" Grade: F436 - Type I Finish: Plain	
<b>SET TENSION (Test Results at Tip Shear):</b>			
	Specification Minimum	51,450	lbs/tension
	<b>Torque</b>	<b>Tension</b>	
Set 1	548 ft/lbs @	63,000	lbs/tension
Set 2	588 ft/lbs @	65,000	lbs/tension
Set 3	580 ft/lbs @	65,000	lbs/tension
Set 4	596 ft/lbs @	64,000	lbs/tension
Set 5	576 ft/lbs @	66,000	lbs/tension
	Average tension at tip shear	64,600	lbs/tension
	Standard deviation at tip shear	1,140	lbs/tension

Customer \_\_\_\_\_

P.O. # \_\_\_\_\_

Quantity \_\_\_\_\_

We hereby certify that the results  
recorded above are accurate



SET NO. 2001-07079

OLTS, NUTS AND FASTENER PRODUCTS

**FASTENER TEST REPORT**

(THIS DOCUMENT MAY BE REPRODUCED BUT ONLY IN ITS ENTIRETY)

13081  
 AMCAN PRODUITS FILETES INC  
 1350 MARIE-VICTORIN  
 ST-BRUNO-DE-MONTARVILLE, QC  
 CANADA, J3V 6B9

PART NO.  
 CUSTOMER P.O. NO.  
 INVOICE DATE

DATE  
 2001-12-04  
 REFERENCE NO.  
 L-000353 07-9229  
 INVOICE NO.  
 2001-12-04 Infasco 733641

Att'n J FORTIN

DESCRIPTION ASSY A490TC1+A563-DH+F436-1  
 7/8-9 X 2 1/4

GRADE  
 4042ML

**OLT** A490 ROUND HEAD T.C. BOLT MARKING: HOLLOW TRIANGLE, A490 TC

LOT NO	MANUFACTURED BY	HARDNESS (ROCKWELL)		PROOF LOAD (LBS)	TENSILE STRENGTH (LBS)
106-55662	INFASCO	C 33.0	C 38.0	MIN 55,450	MIN 69,300 MAX 78,550
	MEAN VALUE	34.9			

HEAT NO.	C%	MN%	P%	S%	SI%	CU%
A55208	0.42	0.73	0.013	0.014	0.21	0.220

**JT** HVY HEX NUT A563 GR DH UNC MARKING: TRIANGLE & DH

LOT NO	MANUFACTURED BY	HARDNESS (ROCKWELL)		PROOF LOAD (LBS)
108-56918	INFASCO	C 24.0	C 38.0	MIN: 29,950
	MEAN VALUE	27.5		PASS

HEAT NO.	C%	MN%	P%	S%	SI%	CU%
K46412	0.45	0.74	0.010	0.018	0.20	0.16

**ASHER** F-436-1 STRUCTURAL WASHER MARKING: F436, MANUFACTURER'S I.D. AND A TRIANGLE (OPT.)

LOT NO	MANUFACTURED BY	HARDNESS (ROCKWELL)	
105-90389	TECHNICAL STAMPING INC USA	C 26.0	C 45.0
	MEAN VALUE	41.3	

HEAT NO.	C%	MN%	P%	S%	SI%
121910	0.22	1.25	0.008	0.001	0.25



**JINN HER ENTERPRISE CO., LTD.**  
**INSPECTION CERTIFICATE**  
 ASTM A490-00 TENSION CONTROL BOLT ASSEMBLIES

KR

REPORT NUMBER : B20030505033

**Chemical Composition**

	C	MN	P	S	SI	CU	NI	CR	MO	B
<b>BOLT</b>	Spec. $\times 100$	Spec. $\times 100$	Spec. $\times 1000$	Spec. $\times 1000$	Spec. $\times 100$	Spec. $\times 100$	Spec. $\times 100$	Spec. $\times 100$	Spec. $\times 100$	Spec. $\times 100$
A490	Min. 30	Max. 40	Min. 40	Max. 50	Min. 60	Max. 60	Min. 45	Max. 15		
Heat No.	3V848	36	75	22	10	20	1	2	99	20
<b>NUT</b>	Spec. Min.	20	60							
A563-DH	Max. 55									
Heat No.	361400	46	79	19	9	22				
<b>WASHER</b>	Spec. Min.									
F436	Max.									
Heat No.	3W797	20	39	13	12	5				

**Mechanical Properties**

Tensile Strength      Proof Load      Hardness  
 lbs                      lbs                      HRC

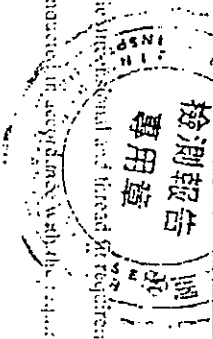
Bolt Lot No.	Spec.	Tensile Strength		Proof Load	Hardness
		Min.	Max.		
B1C1826P1	1	96051	103,000	Good	34.6
	2	95687		Good	34.7
	3	97202		Good	34.7
	4				35.3
	5				
Nut Lot No. N1B5052P1	Spec. Min.	106,050			24
	Max.	38			38
	1	Good			30.7
	2	Good			31.0
	3	Good			31.1
Washer Lot No. W1B5040P1	Spec. Min.	38			38
	Max.	45			45
	1	Good			41.3
	2	Good			41.7
	3	Good			41.3
4	Good			41.9	
5	Good			41.6	

**SIZE**      1-8x2-3/4  
**Assembly Lot No.**      A1C1466P2  
**Lot Quantity**      3,510SETS  
**Customer**      STAR-TECH. CORPORATION  
**P. O. Number**      508

**Date Tested**      : 03/24/2003  
**Date Issued**      : 05/05/2003  
**Date Manufactured**      : 01/15/2003  
**Date Shipped**      : 04/30/2003

Installation	Tension
Specified	67,000 lbf
Minimum	75536
1	75985
2	76885
3	72164
4	
5	

**Specifications**  
 Bolt      ASTM A490-00 May 2000  
 Type 1  
 Nut      ASI Max. Stock for March 2000  
 Grade DH  
 Washer      ASTM F436-93 May 2000  
 Type 1



This above product conforms with all applicable international and third party requirements specified in Section 10 of ASTM F1852. Inspection for surface discontinuities was conducted in accordance with the requirements of Section 13 of ASTM A490.

This is to certify that the information on this Certificate is true and correct.

*Yi Sun Chen*

Authorized/ YI SUNG CHEN



## FASTENER DIVISION

NUCOR ORDER#: 600855

SERIAL#: FB286196 CUST PO: L-011181 CUST #/NAME: 5614 AMCAN THREADED PRODUCTS  
 ISSUE DATE: 4/04/07 DATE SHIPPED: 7/13/07 LAB SAMPLER: PHILLIP A. TITLER, LAB TECHNICIAN  
 \*\*\*\*\* CERTIFIED MATERIAL TEST REPORT \*\*\*\*\*

PART NO. LOT NO. DESCRIPTION  
 166335 223253A 1-8 X 3 A490 TRU-TENSION STRUC DOME HEAD ASSBY PLAIN

CUST PART #: QUANTITY: 2760

\*\*\*\*\* TRU-TENSION ASSEMBLY TENSION \*\*\*\*\*

#PCS TESTED: 8 AVG TENSION: 75,000 (LBS) STD DEVIATION: 3,739

\*\*\*\*\* BOLT \*\*\*\*\*

PART NO. LOT NO. DESCRIPTION MANUFACTURE DATE

717045 223238A 1-8 X 3 A490 TRUTENSION 3/23/07

STRUC SCREW PLAIN DOME HEAD TT

--MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM A490-06

AVERAGE VALUES OF 4 TESTS

CORE HARDNESS: 31.9 (RC) TENSILE STRENGTH AXIAL 4 DEGREE WEDGE

PROOF LOAD: 72,700 (LBS) LOAD: 102,140 (LBS)

ELONGATION: .0005 (IN) STRESS: 168,548 (PSI)

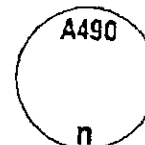
--DIMENSIONS PER ASME B18.2.6-2003

--CHEMISTRY MATERIAL GRADE -4135MLV

MATERIAL HEAT \*\*CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER

NUMBER	NUMBER	C	MN	P	S	SI	CR	MO	V	SUPPLIER
RM023387	NU 740457	.35	.86	.010	.023	.23	.96	.16	.020	NUCOR STEEL - NEBRASKA
	MIN	.30								A2LA NO: 780.01 EXP: 2008-11-30
	MAX	.48		.040	.040					FOR CHEMICAL TESTING

--WET MAGNETIC PARTICLE INSPECTION IN ACCORDANCE WITH ASTM A490 400 PCS. SAMPLED LOT PASSED



\*\*\*\*\* NUT \*\*\*\*\*

PART NO. LOT NO. DESCRIPTION MANUFACTURE DATE

707420 219033E 1-8 GR DH HVY HX NUT 12/02/06

T.T. BOLT NUT, STD. TAP

--MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM A563-04A

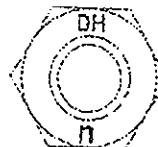
CORE HARDNESS: 30.7 (RC) PROOF LOAD: 106,100(LBS) AVERAGE VALUES OF 5 TESTS

--DIMENSIONS PER ASME B18.2.6-2003

--CHEMISTRY MATERIAL GRADE -1045L

MATERIAL HEAT \*\*CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER

NUMBER	NUMBER	C	MN	P	S	SI	SUPPLIER
RM023067	NU 738451	.44	.66	.012	.021	.17	NUCOR STEEL - NEBRASKA
	MIN	.20	.60				A2LA NO: 780.01 EXP: 2008-11-30
	MAX	.55		.040	.050		FOR CHEMICAL TESTING



\*\*\*\*\* WASHER \*\*\*\*\*

PART NO. LOT NO. DESCRIPTION MANUFACTURE DATE

80040 023508 1 STRUCTURAL WASHER TYPE 1

ASTM F436

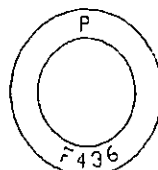
--MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM F436-04

CORE HARDNESS: 39.0 (RC)

--CHEMISTRY MATERIAL GRADE -1040

HEAT \*\*CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER

NUMBER	NUMBER	C	MN	P	S	SI	SUPPLIER
0867123		.43	.70	.010	.007	.15	PRESTIGE STAMPING, INC.
	MIN	.30	.50				P.O. BOX 1086
	MAX	.80	.050		.50		WARREN, MI 48090



THE SAMPLES, TESTED IN ACCORDANCE WITH THE APPLICABLE SPECIFICATIONS LISTED ABOVE, CONFORM TO THESE SPECIFICATIONS AND WERE MANUFACTURED FREE OF MERCURY CONTAMINATION. NO HEATS TO WHICH BISMUTH, SELENIUM, TELLURIUM, OR LEAD WAS INTENTIONALLY ADDED HAVE BEEN USED TO PRODUCE THE BOLTS. THE STEEL WAS MELTED AND MANUFACTURED IN THE U.S.A. AND THE PRODUCT WAS MANUFACTURED AND TESTED IN THE U.S.A. WE CERTIFY THAT THIS DATA IS A TRUE REPRESENTATION OF INFORMATION PROVIDED BY THE MATERIAL SUPPLIER AND OUR TESTING LABORATORY. THIS CERTIFIED MATERIAL TEST REPORT RELATES ONLY TO THE ITEMS LISTED ON THIS DOCUMENT AND MAY NOT BE REPRODUCED EXCEPT IN FULL.



MECHANICAL FASTENER  
 Certificate No. A2LA 139-01  
 Expiration Date 12/31/07

NUCOR FASTENER  
 A DIVISION OF NUCOR CORPORATION

CHRIS RAMER  
 QUALITY ASSURANCE SUPERVISOR



**JINN HER ENTERPRISE CO., LTD.**  
**INSPECTION CERTIFICATE**  
 ASTM A490-00 TENSION CONTROL BOLT ASSEMBLIES

KR

REPORT NUMBER : B20030115003

**Chemical Composition**

	C	MN	P	S	SI	CT	NI	CR	MO	B
<b>BOLT</b>	Max. 0.100	Max. 1.00	Max. 0.010	Max. 0.005	Max. 0.100	Max. 0.100	Max. 0.100	Max. 0.100	Max. 0.100	Max. 0.005
A490	30	40		50		60			45	15
<b>Heat No.</b>	3V845	36	75	22	10	20	1	2	99	20
<b>NUT</b>	Spec	Min.	20			60				
A563-DH	Max.	55				40			50	
<b>Heat No.</b>	3C380	44	54	19	6	26				
<b>WASHER</b>	Spec	Min.								
F436	Max.					40			50	
<b>Heat No.</b>	1D711	19	35	21	9	3				16

**SIZE** 1-8x3-1/2

Assembly Lot No. A1B1947P1

Lot Quantity

Customer

P. O. Number

STAR-TECH CORPORATION

480

**Mechanical Properties**

Tensile Strength      Proof Load      Hardness  
 lbf                      lbf                      HRC

Bolt Lot No.	Spec	Min.	90,900	72,700	33
		Max.	103,000		38
B1B1947P1	1		97505	Good	35.0
	2		98414	Good	35.5
	3		97990	Good	35.7
	4		98414	Good	34.8
	5		99202	Good	35.2
Nut Lot No.	Spec	Min.	106,050	24	
		Max.		38	
N1B5004P1	1		Good	29.1	
	2		Good	30.3	
	3		Good	29.9	
	4		Good	29.6	
	5		Good	29.0	
Washer Lot No.	Spec	Min.		38	
		Max.		45	
W1A0009P1	1			42.5	
	2			42.3	
	3			43.0	
	4			42.5	
	5			42.8	

Assembly Lot	Installation Section	Weight / lbf
	Minimum	67,000
	1	74187
	2	73757
	3	71264
	4	74412
	5	75761

	Specifications
Bolt	ASTM A490-00 May 2000 Type 1
Nut	ASTM A563-00 March 2000 Grade DH
Washer	ASTM F436-93 May 2000 Type 1

1. The above product complies with all applicable dimensional and thread fit requirements specified in Section 10 of ASTM F1852.  
 2. Inspection for surface discontinuities was conducted in accordance with the requirements of Section 15 of ASTM A490.

This is to certify that the information on this Certificate is true and correct.

*Yi Sun Chen*

Authorized: YI SUN CHEN



**JINX HER ENTERPRISE CO., LTD.**  
**INSPECTION CERTIFICATE**  
 ASTM A490-00 TENSION CONTROL BOLT ASSEMBLIES

KR

REPORT NUMBER : B20030115005

**Chemical Composition**

	C	MN	P	S	SI	CU	NI	CR	MO	B
<b>BOLT</b>	Max	30	40	40	50	60			45	15
<b>A490</b>	Spec. Min.	53	75	23	10	20	1	2	99	20
<b>Heat No.</b>	3V84E	36	75	23	10	20	1	2	99	20
<b>NUT</b>	Spec. Min.	20								
<b>A563-DH</b>	Max	55			40	50				
<b>Heat No.</b>	3U380	44	84	19	6	26				
<b>WASHER</b>	Spec. Min.									
<b>F436</b>	Max				40	50				
<b>Heat No.</b>	1D711	19	38	21	9	3				16

**SIZE** 1-8x4-1/2

Assembly Lot No : A1B1949P1

Lot Quantity : 900SETS

Customer : STAR-TECH CORPORATION

P. O. Number : 480

Date Tested : 01/07/2003

Date issued : 01/15/2003

Date Manufactured : 12/18/2002

Date Shipped : 01/09/2003

**Mechanical Properties**

Tensile Strength lbs  
 Proof Load lbs  
 Hardness HRC

Bolt Lot No.	Spec.	Min.	Max.	Tensile Strength	Proof Load	Hardness
		90,900	72,700			
B1B1949P1	1	98414		Good		38
	2	97505		Good		34.1
	3	97263		Good		35.2
	4	97384		Good		34.7
	5	98111		Good		35.2
Nut Lot No. N1B5004P1	Spec. Min.		106,050			24
	Max.		38			38
	1		Good			29.1
Washer Lot No. W1A0009P1	2		Good			30.3
	3		Good			29.9
	4		Good			29.6
Washer Lot No. W1A0009P1	Spec. Min.		38			38
	Max.		45			42.5
	1		42.3			43.0
	2		42.5			42.5
	3		42.8			42.8

Assembly Lot	Installation Tension	lbs
Specified		67,000
Minimum		74412
1		74861
2		71264
3		74861
4		71040
5		71040

	Specifications
Bolt	ASTM A490-00 May 2000 Type 1
Nut	ASTM A563-00 March 2000 Grade DH
Washer	ASTM F436-93 May 2000 Type 1

1. The above product complies with all applicable dimensional and thread fit requirements specified in Section 10 of ASTM F1852.
2. Inspection for surface discontinuities was conducted in accordance with the requirements of Section 13 of ASTM A490.

This is to certify that the information on this Certificate is true and correct.

*Yi Suno Chen*

Authorized: YI SUNO CHEN



Boulons, écrous et autres éléments de fixation

N° DE JEU: 2006-28223

**ATTESTATION D'ESSAI DES ÉLÉMENTS DE FIXATION**  
 (REPRODUCTION AUTORISÉE POUR TOUT QUE LE DOCUMENT SOIT INTÉGRAL)

DATE: 2006-11-02

DÉSIGNATION A F1852-1SL+A563-DH NA+F436-1 UNC N  
 3/4-10 X 3

**BOULON** BOULON F1852-1SL TÊTE RONDE UNC N NOIR  
 MARQUAGE: TRIANGLE VIDE, A325 TC

N° DE LOT	FABRICANT	DURETÉ À MI-RAYON (ROCKWELL)	CHARGE D'ÉPREUVE (LB)		RÉSISTANCE À LA TRACTION (LB)	
			MIN	PASSE	MIN	PASSE
0609-58812	INFASCO	HRC 25.0 - HRC 34.0	28,400		40,100	
	VALEUR MOYENNE	31.0		PASSE		48,600

N° DE COULÉE	C %	Mn %	P %	S %	SI %

**ÉCROU** ÉCROU HEX LARGE A563-DH UNC N NOIR  
 MARQUAGE: TRIANGLE & DH

N° DE LOT	FABRICANT	DURETÉ (ROCKWELL)	CHARGE D'ÉPREUVE (LB)	
			MIN	PASSE
0608-57863 0045G	INFASCO	HRC 24.0 - HRC 38.0	58,450	
	VALEUR MOYENNE	29.7		PASSE

N° DE COULÉE	C %	Mn %	P %	S %	SI %

**RONDELLE** RONDELLE DE CONSTRUCTION F436-1 STD NOIR  
 MARQUAGE: F436, ID. DU MANUFACTURIER ET UN TRIANGLE (OPT.)

N° DE LOT	FABRICANT	DURETÉ (ROCKWELL)	CHARGE D'ÉPREUVE (LB)	
			MIN	PASSE
0603-90027 9869G	TECHNICAL STAMPING INC USA	HRC 38.0 - HRC 45.0		
	VALEUR MOYENNE	43.0		

N° DE COULÉE	C %	Mn %	P %	S %	SI %

TENSION PROD. ASS. (F1852)  
 MINIMUM 29,000 LB  
 VALEUR MOYENNE 33,000

INFASCO  
 Une division d'Inast Groupe LP 790 Guellette, Variéville (Québec) Canada L3M 1P5  
 Une société du Groupe Heico Tél: (450) 658-6747 Téléc: (450) 460-5436  
 FD-318-3 Rév. 02

Abdelhaq El Ouardi, ing.  
 Coordonnateur ISO



# INSPECTION CERTIFICATE

KK921A,



**UNYRITE, INC.**  
One Unyrite Drive  
Peru, Illinois 61354

815-224-2221 — FAX # 815-224-3434

SET LOT NO.

Specification	Size	Quantity
ASTM F1852 Type 1 ASTM A563 Grade DH ASTM F436 Type 1	1 - 8 UNC X 3	10,145 pcs.

Mechanical properties tested in accordance to ASTM F606/F606M, ASTM A370, ASTM E18

**BOLT LOT NO.** KK921

Date: Jun. 28, '07

	Mechanical Property of Full Size Bolts				Heat Treatment *F (°C)	IDENTIFICATION	Chemical Composition %												
	Tensile Strength	Proof Load 51500 lb.f. (Length Method)	Hardness	HRC			Quench	Temper	Min.	800	C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Cu x 100	Ni x 100	Cr x 100	Mo x 100
Spec.	72700	Part of Screw +/- 0.0005 in.	34 MAX				30	15	60	Max.	Max.	40	50						
Average	88400	Part of Screw	32.0	1580	890	7240517	31	25	81	7	10	2	2	6	1	13			

**NUT LOT NO.** KD991

	Hardness After 24 hr x 1000° F HRB	Proof Load (Lbf)	Heat Treatment		IDENTIFICATION	Chemical Composition %												
			Quench	Temper		Min.	800	C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Ni x 100	Cr x 100				
Spec.	24-38	106050		800		20		60	Max.	Max.	40	50						
Mean/5 pcs.	28.9	ALL PASS	1562	1202	M23198	46	25	81	7	31	15	8	12					

**WASHER LOT NO.** WB8813

	Hardness (HRC)	Proof Load (Lbf)	Heat Treatment		IDENTIFICATION	Chemical Composition %												
			Quench	Temper		Min.	800 <th>C x 100</th> <th>Si x 100</th> <th>Mn x 100</th> <th>P x 1000</th> <th>S x 1000</th> <th>Ni x 100</th> <th>Cr x 100</th>	C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Ni x 100	Cr x 100				
Spec.	38-45																	
Mean/5 Pcs.	41.5	ALL PASS	1562	1202	B15523	39	74	74	12	5								

Material used for the bolt, nut and washer were melted & manufactured in the USA. The product was manufactured in the USA to ASTM specifications. The bolt and nut are manufactured by Unyrite. We hereby certify that the material described has been manufactured and inspected satisfactory with requirement of the above specification.

Thread Accuracy (Bolt & Nut)
Bolt ASME B1.1 Class 2A ANSI B1.1
Nut Class 2B

Fastener Tension
Spec. (lb.f.) 54000
Mean / 6 sets. 67432
Standard Deviation 5343

REMARKS
 OFFICIAL SEAL JUAN MARGHERIO NOTARY PUBLIC - STATE OF ILLINOIS MY COMMISSION EXPIRES 10/18/09 156-29-07

Chief of Quality Assurance Section



Boulons, écrous et autres éléments de fixation

N° DE JEU: 2005-24622

**ATTESTATION D'ESSAI DES ÉLÉMENTS DE FIXATION**  
 (REPRODUCTION AUTORISÉE POUR VU QUE LE DOCUMENT SOIT INTÉGRAL)

DATE: 2005-12-16

DÉSIGNATION A SL A490-1+A563-DH NA+F436-1  
 1-8 X 5

**BOULON**

BOULON S.L. A490 A TÊTE RONDE  
 MARQUAGE: TRIANGLE VIDE, A490 TC

N° DE LOT	FABRICANT	DURETÉ À MI-RAYON (ROCKWELL)	CHARGE D'ÉPREUVE (LB)	RÉSISTANCE À LA TRACTION (LB)
0511-60475	INFASCO	HRC 33.0 - HRC 39.0	MIN: 72,700	MIN: 90,900 MAX: 104,950
VALEUR MOYENNE		35.7	PASSE	100,350

N° DE COULÉE	C%	Mn%	P%	S%	Si%	Cr%
384560	0.41	0.79	0.013	0.013	0.24	0.90

**ÉCROU**

ÉCROU HEX LARGE A563 CL DH UNC  
 MARQUAGE: TRIANGLE & DH

N° DE LOT	FABRICANT	DURETÉ (ROCKWELL)	CHARGE D'ÉPREUVE (LB)
0512-80823 4125G	INFASCO	HRC 24.0 - HRC 38.0	MIN: 106,000
VALEUR MOYENNE		29.7	PASSE

N° DE COULÉE	C%	Mn%	P%	S%	Si%
IA76286	0.46	0.77	0.010	0.011	0.22

**RONDELLE**

RONDELLE DE CONSTRUCTION F-436-1  
 MARQUAGE: F436, ID. DU MANUFACTURIER ET UN TRIANGLE (OPT.)

N° DE LOT	FABRICANT	DURETÉ (ROCKWELL)
0503-90234 3997G	TECHNICAL STAMPING INC USA	HRC 38.0 - HRC 45.0
VALEUR MOYENNE		40.5

N° DE COULÉE	C%	Mn%	P%	S%	Si%
2144511	0.52	0.72	0.008	0.004	0.02

TENSION PROD ASS. (A490)  
 MINIMUM 64,000 LB  
 VALEUR MOYENNE 73,975

INFASCO  
 Une division d'Inasgroup LP 703 Quelfette, Mariville (Québec) Canada J3M 1P6  
 Une société du Groupe Heico Tél.: (450) 658-6741 Telec.: (450) 460-5436  
 EQ-119-3 Rev 02

Abdelhaq El Guardi, ing.  
 Coordonnateur ISO

Appendix B: MEP Certificates of Compliance



LINC Service® Contractor

Design/Build/Maintain HVAC

IAQ Engineering & Consultation

AIR CONDITIONING • HEATING • PLUMBING • REFRIGERATION • RESIDENTIAL COMFORT SYSTEMS

Mr. Pat Keating, Project Manager  
Pizzagalli Construction Company  
131 Presumpscot Street  
Portland, Maine 04103

October 3, 2008

Re: 84 Marginal Way Mechanical Equipment

Dear Pat,

Please be advised that all mechanical equipment installed by Thayer Corporation at the Intermed Medical Office Building project located at 84 Marginal Way in Portland, Maine has been designed and installed per all applicable codes and standards included in the 2003 International Building Code and the Maine State Internal Plumbing Code.

Additionally, all mechanical equipment will be started and tested to ensure that it is operating as dictated by code for systems of this type. If you require any additional information regarding this matter, please do not hesitate to contact us.

Sincerely,

Andrew Kent  
Project Engineer

# **E.S. Boulos Company**

---

**Electrical Contractors**

PO Box 860

Portland, Maine 04104

Telephone: (207) 464-3706

Facsimile: (207) 464-1833

**August 16, 2008**

**Pizzagalli Construction  
131 Presumpscot Street  
Portland, ME 04103**

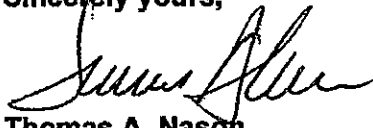
**Attn: Mr. Jared Ballard**

**RE: 84 Marginal Way Wiring Installation**

**Dear Jared,**

**Please be advised that the electrical system wiring for the 84 Marginal Way MOB and parking garage project has been installed per applicable codes, ordinances, and project specifications.**

**Sincerely yours,**



**Thomas A. Nason  
Sr. Project Manager**

**CC: File**

# **E.S. Boulos Company**

---

**Electrical Contractors**

PO Box 860

Portland, Maine 04104

Telephone: (207) 464-3706

Facsimile: (207) 464-1833

**August 16, 2008**

**Pizzagalli Construction  
131 Presumpscot Street  
Portland, ME 04103**

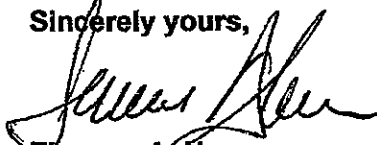
**Attn: Mr. Jared Ballard**

**RE: 84 Marginal Way Fire Alarm**

**Dear Jared,**

**Please be advised that the fire alarm system for the 84 Marginal Way MOP and parking garage project has been installed per applicable codes, ordinances, and project specifications.**

**Sincerely yours,**



**Thomas A. Nason  
Sr. Project Manager**

**CC: File**

## Appendix C: Fireproofing Test Reports



• Geotechnical Engineering • Field & Lab Testing • Scientific & Environmental Consulting

06-0124.2

September 4, 2008

Capital LLC  
Attention: Edward H. Marsh, Jr.  
Atlantic National Trust  
50 Portland Pier, Suite 400  
Portland, ME 04101

Subject: Summary of Sprayed Fireproofing - Revised  
Office Building and Parking Garage  
84 Marginal Way  
Portland, Maine

Dear Ed,

S.W. Cole Engineering, Inc. made site visits as scheduled by Pizzagalli Construction between the dates of February 21 and August 14, 2008; to perform tests and sample material on each floor for in-situ thickness, density and adhesion. During our site visits observations of temperature and the general condition of steel surfaces to receive the fire resistive materials were made. The frequency of testing performed was based on our understanding of the project specifications and guidelines outlined in the schedule of special inspections.

Pizzagalli Construction and Specialty Coatings LLC were informed of the test results throughout the process. When deficiencies were found, draft copies of the reports were provided for reference and those areas were retested during our next visit.

Based on testing performed to date and our observations while on-site, it appears each respective level has been completed in accordance with the approved submittals.

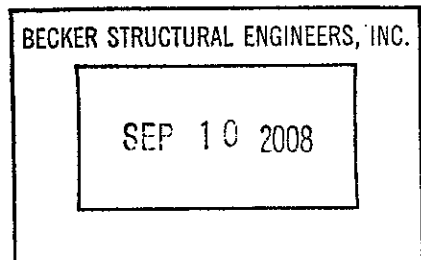
Please feel free to contact us if we can be of any further assistance.

Sincerely,

**S.W. COLE ENGINEERING, INC.**

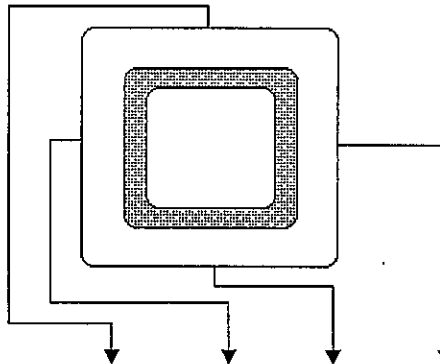
A handwritten signature in black ink, appearing to read 'Roger E. Domingo'.

Roger E. Domingo  
Construction Services Manager





**REPORT OF FIRE PROOFING  
THICKNESS OF MATERIAL ON SQUARE TUBING – ASTM E605**



Location	Required Thickness	1	2	3	4	Average Thickness
6 <sup>th</sup> HSS Brace	.875	1.125	1.125	1.125	1.125	1.125
4-line B to C		1.125	1.125	1.063	1.125	1.110
5 <sup>th</sup> HSS Brace	.875	1.125	1.125	1.125	1.125	1.125
G-line 5+20 - 6		1.125	1.125	1.125	1.000	1.094

Project No.: 06-0124.2 Project Name: 84 Marginal Way

Client: Capital LLC Date: 2-25-08

S. W. Cole Engineering, Inc. Representative: Karl Gimpel



**S.W. COLE**  
ENGINEERING, INC.

• Geotechnical Engineering • Field & Lab Testing • Scientific & Environmental Consulting

**REPORT OF SFRM THICKNESS, DENSITY, and ADHESION/COHESION  
COLUMN OR BEAM  
ASTM E605/E736**

**Project Name:** 84 Marginal Way  
**Project Number:** 06-0124.2  
**Client:** Capital LLC  
**Report Date:** 8/26/08

**SFRM Supplier:** Grace Construction Products  
**SFRM Material:** Monokote MK-6  
**SFRM Installer:** Speciality Coatings LLC  
**Installation Date:** week of 8/8/08

**THICKNESS**

Test Date	Floor No.	Member No.	Member Type	Minimum (in)	Maximum (in)	Average (in)	Specification (in)
8/8/08	penthouse	column B,4	W	0.750	1.125	0.891	0.875
8/8/08	6th	column 4, A.02	W	0.563	1.125	0.887	0.875
8/8/08	6th to 7th	column 1, G	W	0.375	1.125	0.917	0.875

**DENSITY**

Test Date	Floor No.	Member No.	Member Type	Thickness (in)	Area (in <sup>2</sup> )	Density (pcf)	Specification (pcf)

**ADHESION/COHESION**

Test Date	Floor No.	Member No.	Member Type	Failure Type	Force (Lbs)	Bond Strength (Psf)	Specification (Psf)

Reviewed By:            RED



• Geotechnical Engineering • Field & Lab Testing • Scientific & Environmental Consulting

**REPORT OF SFRM THICKNESS, DENSITY, and ADHESION/COHESION  
COLUMN OR BEAM  
ASTM E605/E736**

**Project Name:** 84 Marginal Way  
**Project Number:** 06-0124.2  
**Client:** Capital LLC  
**Report Date:** 3/5/08

**SFRM Supplier:** Grace Construction Products  
**SFRM Material:** Monokote MK-6  
**SFRM Installer:** Speciality Coatings LLC  
**Installation Date:** 3/3/08 to 3/5/08

**THICKNESS**

Test Date	Floor No.	Member No.	Member Type	Minimum (in)	Maximum (in)	Average (in)	Specification (in)
3/5/08	7th	column at D, 4	W	0.875	1.125	1.055	0.875
3/5/08	7th	column at B, 5	W	0.938	1.125	1.078	0.875
3/5/08	8th framing	B - D at 5(-10')	W	0.125	0.563	0.389	0.313
3/5/08	8th framing	E-line, 4 to 5	W	0.188	0.500	0.365	0.313

**DENSITY**

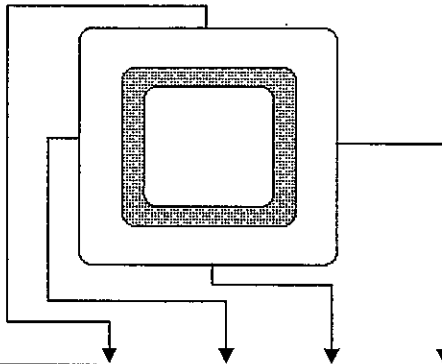
Test Date	Floor No.	Member No.	Member Type	Thickness (in)	Area (in <sup>2</sup> )	Density (pcf)	Specification (pcf)
3/5/08	7th	column at D, 5	W	1.391	72.000	19	15

**ADHESION/COHESION**

Test Date	Floor No.	Member No.	Member Type	Failure Type	Force (Lbs)	Bond Strength (Psf)	Specification (Psf)
3/5/08	7th	column at D, 5	W	Cohesive	23	391	150

Reviewed By;            RED

**REPORT OF FIRE PROOFING  
THICKNESS OF MATERIAL ON SQUARE TUBING – ASTM E605**



Location	Required Thickness	1	2	3	4	Average Thickness
7 <sup>th</sup> Level C-line	.875	1.000	.875	1.000	1.063	.985
Brace 1 to 1.6		1.125	.688	1.000	1.125	.985
7 <sup>th</sup> Level G-line	.875	1.125	0	1.000	1.125	.813
4.5 to 4.75-line		1.125	.500	1.125	1.000	.938
7 <sup>th</sup> Level 7-line	.875	.813	1.063	1.125	.563	.891
Brace A to A.5		.875	1.125	1.000	.625	.906

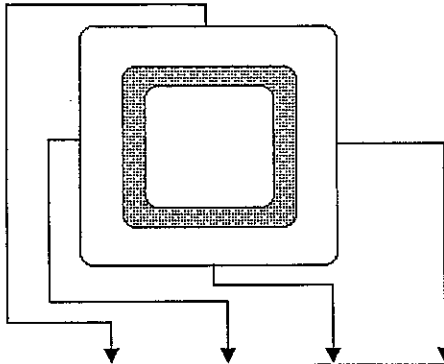
Project No.: 06-0124.2 Project Name: 84 Marginal Way

Client: Capital LLC Date: 3-5-08

S. W. Cole Engineering, Inc. Representative: Karl Gimpel



**REPORT OF FIRE PROOFING  
THICKNESS OF MATERIAL ON SQUARE TUBING – ASTM E605**



Location	Required Thickness	1	2	3	4	Average Thickness
7 <sup>th</sup> Level G-line Brace 4.5-4.75	.875	1.125	1.000	1.000	1.125	1.063
		1.125	0.875	1.125	1.000	1.031

Project No.: 06-0124.2 Project Name: 84 Marginal Way

Client: Capital LLC Date: 4/23/08 (retest)

S. W. Cole Engineering, Inc. Representative: Mike Bisson



**S.W. COLE**  
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**REPORT OF SFRM THICKNESS, DENSITY, and ADHESION/COHESION  
COLUMN OR BEAM  
ASTM E605/E736**

**Project Name:** 84 Marginal Way  
**Project Number:** 06-0124.2  
**Client:** Capital LLC  
**Report Date:** 3/12/08

**SFRM Supplier:** Grace Construction Products  
**SFRM Material:** Monokote MK-6  
**SFRM Installer:** Speciality Coatings LLC  
**Installation Date:** 3-10-08 to 3-12-08

**THICKNESS**

Test Date	Floor No.	Member No.	Member Type	Minimum (in)	Maximum (in)	Average (in)	Specification (in)
3/12/08	8th	column E, 5	W	0.813	1.125	1.070	0.875
3/12/08	8th	column D, 1	W	0.813	1.125	1.005	0.875

**DENSITY**

Test Date	Floor No.	Member No.	Member Type	Thickness (in)	Area (in <sup>2</sup> )	Density (pcf)	Specification (pcf)
3/12/08	8th	4-line D to C	HSS	1.172	72.000	15	15

**ADHESION/COHESION**

Test Date	Floor No.	Member No.	Member Type	Failure Type	Force (Lbs)	Bond Strength (Psf)	Specification (Psf)
3/12/08	8th	4-line D to C	HSS	Cohesion	67	1149	150

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**REPORT OF SFRM THICKNESS, DENSITY, and ADHESION/COHESION  
COLUMN OR BEAM  
ASTM E605/E736**

Project Name: 84 Marginal Way  
 Project Number: 06-0124.2  
 Client: Capital LLC  
 Report Date: 4/23/2008 (retest)

SFRM Supplier: Grace Construction Products  
 SFRM Material: Monokote MK-6  
 SFRM Installer: Speciality Coatings LLC  
 Installation Date: 3/3/08 to 3/5/08

**THICKNESS**

Test Date	Floor No.	Member No.	Member Type	Minimum (in)	Maximum (in)	Average (in)	Specification (in)
3/5/08	8th framing	B - D at 5(-10')	W	0.313	0.563	0.458	0.313

**DENSITY**

Test Date	Floor No.	Member No.	Member Type	Thickness (in)	Area (in <sup>2</sup> )	Density (pcf)	Specification (pcf)

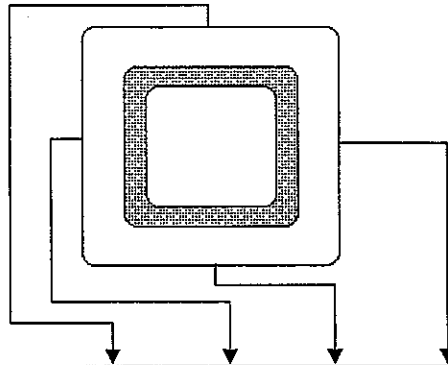
**ADHESION/COHESION**

Test Date	Floor No.	Member No.	Member Type	Failure Type	Force (Lbs)	Bond Strength (Psf)	Specification (Psf)

Reviewed By: RED



**REPORT OF FIRE PROOFING  
THICKNESS OF MATERIAL ON SQUARE TUBING – ASTM E605**



Location	Required Thickness	1	2	3	4	Average Thickness
Level 8 D line brace 4.5-5 line	0.875	1.125+	1.125	1.125	1.000	1.094
		1.125+	1.125	0.750	1.063	1.016
Level 8 7 line brace A-A.5 line	0.875	1.125	1.125+	1.125+	0.875	1.063
		0.938	1.125+	1.125+	0.688	.969
Level 8 G line brace 4-4.25 line	0.875	1.125	1.000	1.125+	1.125+	1.094
		1.125+	1.125+	1.125+	1.125+	1.125

Project No.: 06-0124.2 Project Name: 84 Marginal Way

Client: Capital LLC Date: 3-12-08

S. W. Cole Engineering, Inc. Representative: Karl Gimpel





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**REPORT OF SFRM THICKNESS, DENSITY, and ADHESION/COHESION  
COLUMN OR BEAM  
ASTM E605/E736**

Project Name: 84 Marginal Way  
 Project Number: 06-0124.2  
 Client: Capital LLC  
 Report Date: 3/24/08

SFRM Supplier: Grace Construction Products  
 SFRM Material: Monokote MK-6  
 SFRM Installer: Speciality Coatings LLC  
 Installation Date: 3/21/08

**THICKNESS**

Test Date	Floor No.	Member No.	Member Type	Minimum (in)	Maximum (in)	Average (in)	Specification (in)
3/24/08	9th	column at E.2, 1	W	0.750	1.125	0.984	0.875
3/24/08	9th	column at D, 4	W	0.688	1.125	1.034	0.875

**DENSITY**

Test Date	Floor No.	Member No.	Member Type	Thickness (in)	Area (in <sup>2</sup> )	Density (pcf)	Specification (pcf)
3/24/08	9th	E.8, 2.2	W	1.589	72.000	16	15

**ADHESION/COHESION**

Test Date	Floor No.	Member No.	Member Type	Failure Type	Force (Lbs)	Bond Strength (Psf)	Specification (Psf)
3/24/08	9th	E.8, 2.2	W	cohesive	25	422	150

Reviewed By:            RED



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**REPORT OF SFRM THICKNESS, DENSITY, and ADHESION/COHESION  
COLUMN OR BEAM  
ASTM E605/E736**

Project Name: 84 Marginal Way  
 Project Number: 06-0124.2  
 Client: Capital LLC  
 Report Date: 3/12/08

SFRM Supplier: Grace Construction Products  
 SFRM Material: Monokote MK-6  
 SFRM Installer: Speciality Coatings LLC  
 Installation Date: 3-10-08 to 3-12-08

**THICKNESS**

Test Date	Floor No.	Member No.	Member Type	Minimum (in)	Maximum (in)	Average (in)	Specification (in)
3/12/08	9th Framing	girder on B-line	W	0.250	0.563	0.420	0.313
3/12/08	9th Framing	beam at 5 (-10')	W	0.250	0.438	0.337	0.313
3/12/08	9th Framing	beam at 3 (+10')	W	0.313	0.563	0.427	0.313
3/12/08	9th Framing	beam on 4-line	W	0.313	0.563	0.414	0.313

**DENSITY**

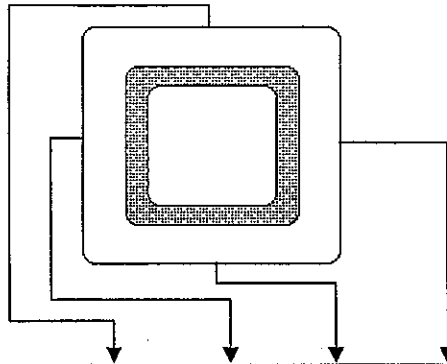
Test Date	Floor No.	Member No.	Member Type	Thickness (in)	Area (in <sup>2</sup> )	Density (pcf)	Specification (pcf)

**ADHESION/COHESION**

Test Date	Floor No.	Member No.	Member Type	Failure Type	Force (Lbs)	Bond Strength (Psf)	Specification (Psf)

Reviewed By;            RED

**REPORT OF FIRE PROOFING  
THICKNESS OF MATERIAL ON SQUARE TUBING – ASTM E605**



Location	Required Thickness	1	2	3	4	Average Thickness
9 <sup>th</sup> HSS Brace	.875	1.125+	1.125+	1.125+	0.750	1.031
E.8-G on 2.2		1.125+	0.750	1.125+	1.125+	1.031
9 <sup>th</sup> HSS Brace	.875	1.125+	0.688	1.125+	1.000	0.985
4 – 4(+10)on G		1.125+	1.125	1.125+	1.125	1.125

Project No.: 06-0124.2 Project Name: 84 Marginal Way

Client: Capital LLC Date: 3-24-08

S. W. Cole Engineering, Inc. Representative: K. Gimpel



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**REPORT OF SFRM THICKNESS, DENSITY, and ADHESION/COHESION  
COLUMN OR BEAM  
ASTM E605/E736**

Project Name: 84 Marginal Way  
 Project Number: 06-0124.2  
 Client: Capital LLC  
 Report Date: 5/7/08

SFRM Supplier: Grace Construction Products  
 SFRM Material: Monokote MK-6  
 SFRM Installer: Speciality Coatings LLC  
 Installation Date: Unknown

**THICKNESS**

Test Date	Floor No.	Member No.	Member Type	Minimum (in)	Maximum (in)	Average (in)	Specification (in)
5/7/08	10th	5-B	Column	0.875	1.125	1.091	0.875
5/7/08	10th	6-C	Column	1.000	1.125	1.112	0.875
5/7/08	10th	7-E	Column	0.625	1.125	1.078	0.875
5/7/08	11th	6 - F.6	Beam	0.375	0.688	0.576	0.438

**DENSITY**

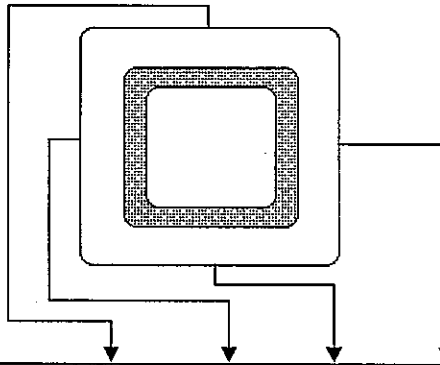
Test Date	Floor No.	Member No.	Member Type	Thickness (in)	Area (in <sup>2</sup> )	Density (pcf)	Specification (pcf)
5/7/08	10th	6B	Column	1.760	72.000	12	15
5/9/08 Retest	10th	6B	Column	1.760	72.000	16	15

**ADHESION/COHESION**

Test Date	Floor No.	Member No.	Member Type	Failure Type	Force (Lbs)	Bond Strength (Psf)	Specification (Psf)
5/7/08	10th	6B	Column	Cohesion	50	862	150

Reviewed By;            RED

**REPORT OF FIRE PROOFING  
THICKNESS OF MATERIAL ON SQUARE TUBING – ASTM E605**



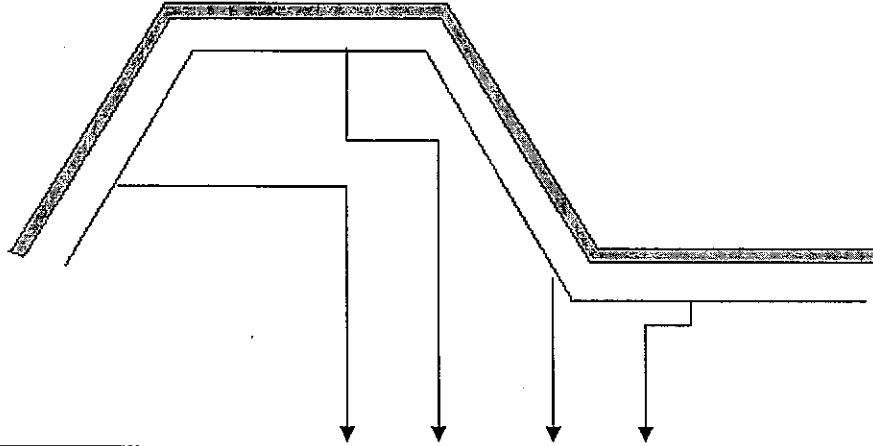
Location	Required Thickness	1	2	3	4	Average Thickness
10 <sup>th</sup> Floor Tube 7-D.5	.875	1.125+	1.125+	1.125+	.625	1.00
10 <sup>th</sup> Floor Tube G-4.5	.875	1.125+	1.125	.625	1.125+	1.00

Project No.: 06-0124.2 Project Name: 84 Marginal Way

Client: Capital LLC Date: 5/7/2008

S. W. Cole Engineering, Inc. Representative: VLT

**REPORT OF FIRE PROOFING THICKNESS OF  
MATERIAL ON STEEL DECKING – ASTM E605**



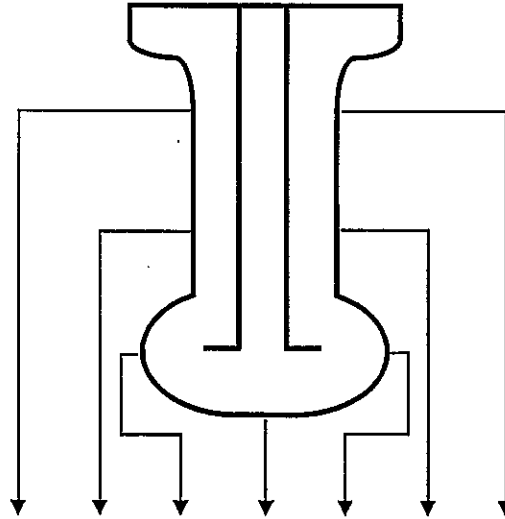
Location	Required Thickness	1	2	3	4	Average Thickness
11 <sup>th</sup> floor framing	1.00	1.00	1.13	1.13	1.13	1.10
Between A and B near 3		.94	1.13	1.13	1.19	1.10
						1.10

Project: 84 Marginal Way Project No.: 06-0124.2

Client: Capital LLC Date: 5-22-08

S. W. Cole Engineering, Inc. Representative: K. Gimpel

**REPORT OF FIRE PROOFING  
THICKNESS OF MATERIAL ON JOIST OR TRUSS – ASTM E605**



Location	Required Thickness	1	2	3	4	5	6	7	Average Thickness
11 <sup>th</sup> floor between B to C-lines near 6-line	.813	17/ 16	17/ 16+	17/ 16+	17/ 16	12/ 16	17/ 16	16/ 16	1.01
		11/ 16	17/ 16+	17/ 16	12/ 16	13/ 16	17/ 16	15/ 16	.911
									.961

Project No.: 06-0124.2 Project Name: 84 Marginal Way

Client: Capital LLC Date: 5/22/08

S. W. Cole Engineering, Inc. Representative: K. Gimpel



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**REPORT OF SFRM THICKNESS, DENSITY, and ADHESION/COHESION  
COLUMN OR BEAM  
ASTM E605/E736**

Project Name: 84 Marginal Way  
 Project Number: 06-0124.2  
 Client: Capital LLC  
 Report Date: 5/22/08

SFRM Supplier: Grace Construction Products  
 SFRM Material: Monokote MK-6  
 SFRM Installer: Speciality Coatings LLC  
 Installation Date: week of 5/12/08

**THICKNESS**

Test Date	Floor No.	Member No.	Member Type	Minimum (in)	Maximum (in)	Average (in)	Specification (in)
5/22/08	11th	girder B-line	W	0.250	0.688	0.535	0.438

**DENSITY**

Test Date	Floor No.	Member No.	Member Type	Thickness (in)	Area (in <sup>2</sup> )	Density (pcf)	Specification (pcf)

**ADHESION/COHESION**

Test Date	Floor No.	Member No.	Member Type	Failure Type	Force (Lbs)	Bond Strength (Psf)	Specification (Psf)

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**REPORT OF SFRM THICKNESS, DENSITY, and ADHESION/COHESION  
COLUMN OR BEAM  
ASTM E605/E736**

Project Name: 84 Marginal Way  
 Project Number: 06-0124.2  
 Client: Capital LLC  
 Report Date: 8/26/08

SFRM Supplier: Grace Construction Products  
 SFRM Material: Monokote MK-6  
 SFRM Installer: Speciality Coatings LLC  
 Installation Date: week of 8/8/08

**THICKNESS**

Test Date	Floor No.	Member No.	Member Type	Minimum (in)	Maximum (in)	Average (in)	Specification (in)
8/8/08	1st	A/10-A/9 Beam	W	0.313	0.563	0.563	0.313
8/8/08	1st	A/7-A/6 Beam	W	0.563	0.563	0.563	0.313

**DENSITY**

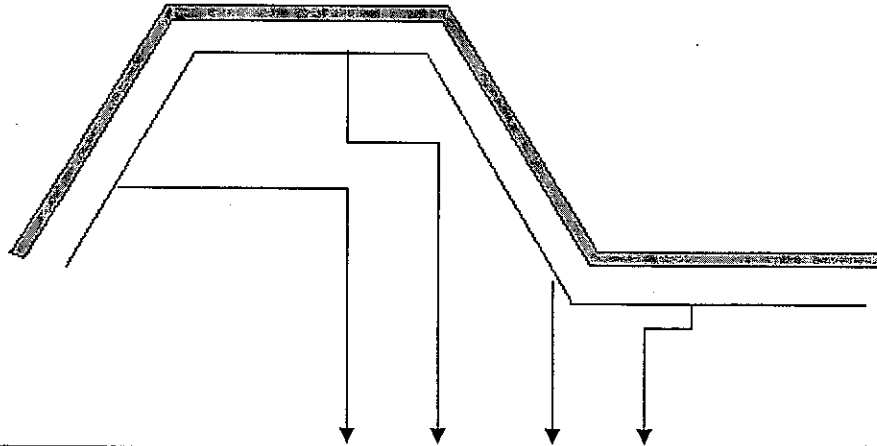
Test Date	Floor No.	Member No.	Member Type	Thickness (in)	Area (in <sup>2</sup> )	Density (pcf)	Specification (pcf)

**ADHESION/COHESION**

Test Date	Floor No.	Member No.	Member Type	Failure Type	Force (Lbs)	Bond Strength (Psf)	Specification (Psf)

Reviewed By:      RED

### REPORT OF FIRE PROOFING THICKNESS OF MATERIAL ON STEEL DECKING – ASTM E605



Location	Required Thickness	1	2	3	4	Average Thickness
Roof- Next to Beam 6-F.6	1"	0.875"	0.75"	0.875"	1.25"	0.94"

Project: 84 Marginal Way Project No.: 06-0124.2

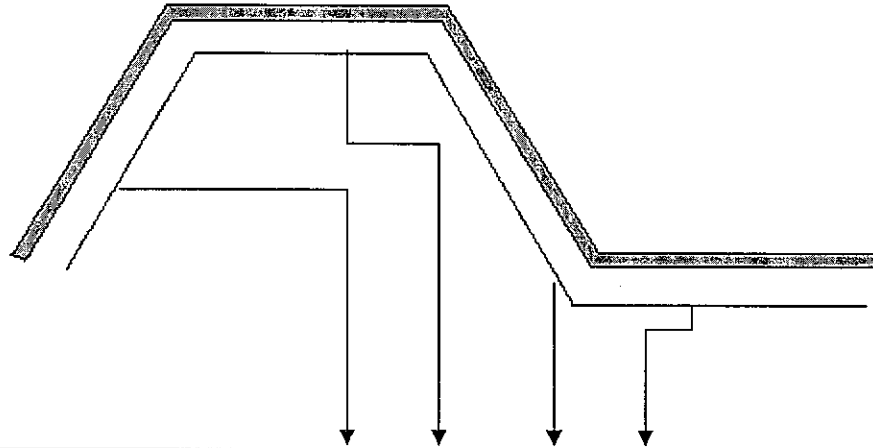
Client: Capital LLC Date: 5/7/2008

S. W. Cole Engineering, Inc. Representative: VLT



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### REPORT OF FIRE PROOFING THICKNESS OF MATERIAL ON STEEL DECKING – ASTM E605



Location	Required Thickness	1	2	3	4	Average Thickness
Roof- Next to Beam 6-F.6	1"	1.25"	1.00"	0.875"	1.00"	1.03"

Project: 84 Marginal Way Project No.: 06-0124.2

Client: Capital LLC Date: 8/8/2008

S. W. Cole Engineering, Inc. Representative: RED



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**REPORT OF SFRM THICKNESS, DENSITY, and ADHESION/COHESION  
COLUMN OR BEAM  
ASTM E605/E736**

Project Name: 84 Marginal Way  
 Project Number: 06-0124.2  
 Client: Capital LLC  
 Report Date: 6/12/08

SFRM Supplier: Grace Construction Products  
 SFRM Material: Monokote MK-6  
 SFRM Installer: Speciality Coatings LLC  
 Installation Date: week of 5/26/08

**THICKNESS**

Test Date	Floor No.	Member No.	Member Type	Minimum (in)	Maximum (in)	Average (in)	Specification (in)
6/12/08	5th	6-line beam	W	0.250	0.563	0.410	0.313
6/12/08	5th	E-line girder	W	0.250	0.563	0.413	0.313

**DENSITY**

Test Date	Floor No.	Member No.	Member Type	Thickness (in)	Area (in <sup>2</sup> )	Density (pcf)	Specification (pcf)
6/12/08	5th	G-line 6-5-lines	girder	0.599	72.000	15	15 pcf min

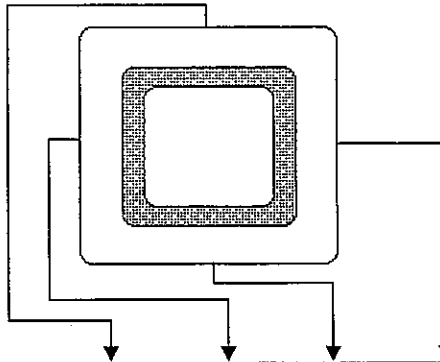
**ADHESION/COHESION**

Test Date	Floor No.	Member No.	Member Type	Failure Type	Force (Lbs)	Bond Strength (Psf)	Specification (Psf)

Reviewed By:            RED



**REPORT OF FIRE PROOFING  
THICKNESS OF MATERIAL ON SQUARE TUBING – ASTM E605**



Location	Required Thickness	1	2	3	4	Average Thickness
Level 6 C-D on 6 line.	.875	1.125	1.000	.625	1.063	.953
	.875	.875	1.125	1.000	.938	.985

Project No.: 06-0124.2 Project Name: 84 Marginal Way

Client: Capital LLC Date: 2-21-08

S. W. Cole Engineering, Inc. Representative: Karl Gimpel



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**REPORT OF SFRM THICKNESS, DENSITY, and ADHESION/COHESION  
COLUMN OR BEAM  
ASTM E605/E736**

Project Name: 84 Marginal Way  
 Project Number: 06-0124.2  
 Client: Capital LLC  
 Report Date: 2/21/08

SFRM Supplier: Grace Construction  
 SFRM Material: Monokote MK-6  
 SFRM Installer: Speciality Coatings  
 Installation Date: 2-20-08

**THICKNESS**

Test Date	Floor No.	Member No.	Member Type	Minimum (in)	Maximum (in)	Average (in)	Specification (in)
2/21/08	6th column	6, E	W	0.875	1.125	1.060	0.875
2/21/08	6th column	5, G	W	0.125	1.125	0.865	0.875
2/21/08	7th framing	B-E-line, 7(-10')	W	0.250	0.563	0.455	0.313
2/21/08	7th framing girder	E-line, 6-7	W	0.375	0.563	0.462	0.313

**DENSITY**

Test Date	Floor No.	Member No.	Member Type	Member Thickness (in)	Area (in <sup>2</sup> )	Density (pcf)	Specification (pcf)
2/21/08	6th	6-line C to D	HSS	0.994	48.000	18	15

**ADHESION/COHESION**

Test Date	Floor No.	Member No.	Member Type	Failure Type	Force (Lbs)	Bond Strength (Psf)	Specification (Psf)
2/21/08	6th	6-line C to D	HSS	cohesive	26	441	150

Reviewed By: RED



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**REPORT OF SFRM THICKNESS, DENSITY, and ADHESION/COHESION  
COLUMN OR BEAM  
ASTM E605/E736**

Project Name: 84 Marginal Way  
 Project Number: 06-0124.2  
 Client: Capital LLC  
 Report Date: 2/25/08

SFRM Supplier: Grace Construction Products  
 SFRM Material: Monokote MK-6  
 SFRM Installer: Speciality Coatings LLC  
 Installation Date: 2-23-08

**THICKNESS**

Test Date	Floor No.	Member No.	Member Type	Minimum (in)	Maximum (in)	Average (in)	Specification (in)
2/25/08	6th column	3, A.01	W	0.000	1.125	0.573	0.875
2/25/08	7th framing	D - E.8, 1 (+20)	W	0.250	0.563	0.455	0.313
2/25/08	6th framing	D-line, 6-7	W	0.250	0.438	0.347	0.313
2/25/08	6th framing	D-line, 5-6	W	0.250	0.563	0.378	0.313

**DENSITY**

Test Date	Floor No.	Member No.	Member Type	Thickness (in)	Area (in <sup>2</sup> )	Density (pcf)	Specification (pcf)
2/25/08	6th	2, C	W	1.229	72.000	19	15
2/25/08	7th	D-line 6 to 7	W	0.339	72.000	14	15
4/23/08 Retest	7th	D-line 6 to 7	W	0.339	72.000	15	15

**ADHESION/COHESION**

Test Date	Floor No.	Member No.	Member Type	Failure Type	Force (Lbs)	Bond Strength (Psf)	Specification (Psf)
2/25/08	6th	2, C	W	test was disturbed			150
2/25/08	7th	D-line 6 to 7	W	cohesion	34.7	598	150

Reviewed By: RED



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**REPORT OF SFRM THICKNESS, DENSITY, and ADHESION/COHESION  
COLUMN OR BEAM  
ASTM E605/E736**

Project Name: 84 Marginal Way  
 Project Number: 06-0124.2  
 Client: Capital LLC  
 Report Date: 5/22/08

SFRM Supplier: Grace Construction Products  
 SFRM Material: Monokote MK-6  
 SFRM Installer: Speciality Coatings LLC  
 Installation Date: week of 5-12-08

**THICKNESS**

Test Date	Floor No.	Member No.	Member Type	Minimum (in)	Maximum (in)	Average (in)	Specification (in)
5/22/08	6th	column 4, A.02	W	0.000	1.063	0.495	0.875
5/22/08	penthouse	column 1.6, A	W	0.500	1.125	0.891	0.875
5/22/08	penthouse	beam 3-line	W	0.125	0.688	0.483	0.438
5/22/08	penthouse	column B, 4	W	0.000	1.125	0.544	0.875

**DENSITY**

Test Date	Floor No.	Member No.	Member Type	Thickness (in)	Area (in <sup>2</sup> )	Density (pcf)	Specification (pcf)

**ADHESION/COHESION**

Test Date	Floor No.	Member No.	Member Type	Failure Type	Force (Lbs)	Bond Strength (Psf)	Specification (Psf)

Reviewed By:            RED





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**REPORT OF SFRM THICKNESS, DENSITY, and ADHESION/COHESION  
COLUMN OR BEAM  
ASTM E605/E736**

Project Name: 84 Marginal Way  
 Project Number: 06-0124.2  
 Client: Capital LLC  
 Report Date: 8/26/08

SFRM Supplier: Grace Construction Products  
 SFRM Material: Monokote MK-6  
 SFRM Installer: Speciality Coatings LLC  
 Installation Date: week of 8-8-08

**THICKNESS**

Test Date	Floor No.	Member No.	Member Type	Minimum (in)	Maximum (in)	Average (in)	Specification (in)
8/8/08	6th	column 4, A.02	W	0.000	1.063	0.495	0.875
8/8/08	penthouse	column B, 4	W	0.625	1.125	0.948	0.875

**DENSITY**

Test Date	Floor No.	Member No.	Member Type	Thickness (in)	Area (in <sup>2</sup> )	Density (pcf)	Specification (pcf)

**ADHESION/COHESION**

Test Date	Floor No.	Member No.	Member Type	Failure Type	Force (Lbs)	Bond Strength (Psf)	Specification (Psf)

Reviewed By;            RED



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**REPORT OF SFRM THICKNESS, DENSITY, and ADHESION/COHESION  
COLUMN OR BEAM  
ASTM E605/E736**

<b>Project Name:</b> <u>84 Marginal Way</u>	<b>SFRM Supplier:</b> <u>Grace Construction</u>
<b>Project Number:</b> <u>06-0124.2</u>	<b>SFRM Material:</b> <u>Monokote MK-6</u>
<b>Client:</b> <u>Capital LLC</u>	<b>SFRM Installer:</b> <u>Speciality Coatings</u>
<b>Report Date:</b> <u>4/23/2008 (retest)</u>	<b>Installation Date:</b> <u>2-20-08</u>

**THICKNESS**

Test Date	Floor No.	Member No.	Member Type	Minimum (in)	Maximum (in)	Average (in)	Specification (in)
4/23/08	6th column	5, G	W	0.688	1.125	0.919	0.875

**DENSITY**

Test Date	Floor No.	Member No.	Member Type	Thickness (in)	Area (in <sup>2</sup> )	Density (pcf)	Specification (pcf)

**ADHESION/COHESION**

Test Date	Floor No.	Member No.	Member Type	Failure Type	Force (Lbs)	Bond Strength (Psf)	Specification (Psf)

Reviewed By:            RED



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**REPORT OF SFRM THICKNESS, DENSITY, and ADHESION/COHESION  
COLUMN OR BEAM  
ASTM E605/E736**

**Project Name:** 84 Marginal Way  
**Project Number:** 06-0124.2  
**Client:** Capital LLC  
**Report Date:** 6/10/08

**SFRM Supplier:** Grace Construction Products  
**SFRM Material:** Monokote MK-6  
**SFRM Installer:** Speciality Coatings LLC  
**Installation Date:** week of 5/26/08

**THICKNESS**

Test Date	Floor No.	Member No.	Member Type	Minimum (in)	Maximum (in)	Average (in)	Specification (in)
6/10/08	penthouse	column B,4	W	not fixed yet			0.875
6/10/08	6th	column 4, A.02	W	0.000	1.125	0.604	0.875
6/10/08	6th to 7th	column 1, G	W	0.000	1.125	0.768	0.875

**DENSITY**

Test Date	Floor No.	Member No.	Member Type	Thickness (in)	Area (in <sup>2</sup> )	Density (pcf)	Specification (pcf)

**ADHESION/COHESION**

Test Date	Floor No.	Member No.	Member Type	Failure Type	Force (Lbs)	Bond Strength (Psf)	Specification (Psf)

Reviewed By;            RED