FILL IN AND SIGN WITH INK

APPLICATION FOR PERMIT
HEATING OR POWER EQUIPMENT

05-1570

PERMIT ISSUED

OCT 26 2005

CITY OF PORTLAND

-80 AC 005

To the INSPECTOR OF BUILDINGS, PORTLAND, ME.

The undersigned hereby applies for a permit to install the following heating, cooking or power equipment in accordance with the Laws of Maine, the Building Code of the City of Portland, and the following specifications:

Location / CBL 87 Alpine Rd Portland Use of Building _____ Date 10/26/05

Name and address of owner of appliance Donald Verrier 87 Alpine Rd Portland

Installer's name and address Giroux Oil Service Co INC 343 Warren Ave Portland

Telephone 797-7111

Location of appliance:
- ☒ Basement ☐ Floor
- ☐ Attic ☐ Roof

Type of Fuel:
- ☐ Gas ☒ Oil ☐ Solid

Appliance Name: Buderus

U.L. Approved ☒ Yes ☐ No

Will appliance be installed in accordance with the manufacture's installation instructions? ☒ Yes ☐ No

IF NO Explain: _____

The Type of License of Installer:
- ☐ Master Plumber # _____
- ☐ Solid Fuel # _____
- ☒ Oil # MS200003342
- ☐ Gas # _____
- ☐ Other _____

Type of Chimney:
- ☒ Masonry Lined
  Factory built _____
- ☐ Metal
  Factory Built U.L. Listing # _____
- ☐ Direct Vent
  Type _____ UL# _____

Type of Fuel Tank
- ☒ Oil
- ☐ Gas

Size of Tank 330

Number of Tanks 1

Distance from Tank to Center of Flame 10' **feet.**

Cost of Work: $ $12,638.00

Permit Fee: $ 138.00

Approved	Approved with Conditions
Fire: _____	☐ See attached letter or requirement
Ele.: _____	
Bldg.: _____	

_____ Inspector's Signature

_____ Date Approved

Signature of Installer _____

White - Inspection Yellow - File Pink - Applicant's Gold - Assessor's Copy

STATE OF MAINE
CHIMNEY OR FIREPLACE DISCLOSURE

Dear Consumer: State law, specifically 32 M.R.S.A., Chapter 33, requires chimney or fireplace installers, as of January 1, 1992, to provide you with this Disclosure prior to the installation work being done on your chimney or fireplace. The purpose of this Disclosure is to help you, as a consumer, make an informed decision as to the abilities of the installer and under what requirements the installation must comply. It is important to note that the State of Maine does not require registration or licensure of chimney or fireplace installers; however, it is just as important to realize that many fires are caused each year by improperly constructed fireplaces and chimneys. For further information about this law, call the Division of Licensing & Registration at 624-8629 or write to the Division at #35 State House Station, Augusta, Maine 04333.

INSTALLER INFORMATION

Name of Installer NELSON A BOWIE-MASONRY

D.B.A. 444 N. POWNAL ROAD

Name of Installer (if incorporated) NEW GLOUCESTER, ME 04260

D.B.A. 926-4412

Legal Address
(Street and No.) (City or Town)

(State) (County) (Zip Code)

Home Telephone 207 926 4412 Business Telephone / /

Years of experience doing fireplace or chimney installations 29.

CONSUMER IDENTIFICATION

Consumer's Name Donald Verrier

Mailing Address 87 Alpine Rd
(Street and No.) (City or Town)

Portland ME
(State) (County) (Zip Code)

Home Telephone / / Business Telephone / /

Installer, please give a brief description of installation being offered.

Fire Place With Two Flue Chimney
Clay Fluelining
Brick And Block Fire Brick in Box
Refractory Between Flue

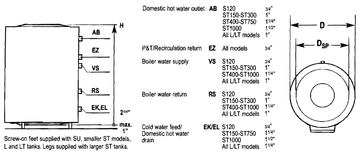
I, Nelson A Bowie, the installer, hereby attest that the preceding information provided is true to the best of my knowledge. I also understand that if I fail to conform with the standards as outlined in NFPA 211 that I shall be subject to penalties as outlined under Title 32, Chapter 33, Oil and Solid Fuel Board.

Signature Nelson A Bowie Date

Indirect Fired Thermoglaze Storage Water Heaters "TBS-Isocal, S, ST, L and LT"

Domestic Hot Water Tanks

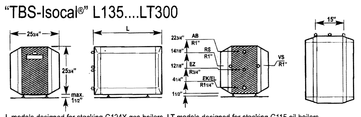
"TBS-Isocal®" S120....ST1000



Domestic hot water outlet	AB	S120	3/4"
		ST150-ST300	1"
		ST400-ST750	1 1/4"
		ST1000	1 1/2"
		All LLT models	1"
P&T/Recirculation return	EZ	All models	3/4"
Boiler water supply	VS	S120	3/4"
		ST150-ST300	1"
		ST400-ST1000	1 1/4"
		All LLT models	1"
Boiler water return	RS	S120	3/4"
		ST150-ST300	1"
		ST400-ST1000	1 1/4"
		All LLT models	1"
Cold water feed/ Domestic hot water drain	EK/EL	S120	3/4"
		ST150-ST750	1 1/4"
		ST1000	1 1/2"
		All LLT models	1 1/4"

Screw-on feet supplied with SU, smaller ST models, L and LT tanks. Legs supplied with larger ST tanks.

"TBS-Isocal®" L135....LT300



L models designed for stacking G124X gas boilers. LT models designed for stacking G115 oil boilers.

Technical Data "TBS Isocal®" S, ST, L and LT

MODEL		DIMENSIONS			Boiler Water Temp °F.	Continuous Rating (2nd hour) Inlet Temp. = 50 °F Outlet Temp. = 140 °F		BOILER WATER FLOW RATE	COIL PRESSURE DROP	WEIGHT
"TBS-Isocal"	Contents Gallons					Gal/Hr	BTU/Hr†	Gal/Min	feet of head	approx. lbs.**
Vertical Models		D	H ††*	D_{SD}						
S-120	32	20	37	***	194	155	116,000	9.5	6.5	158
ST-150	40	27 1/4	34 5/8*	***	194	159	119,000	15.9	3.9	238
ST-200	53	27 1/4	42 5/8*	***	194	199	149,000	17.6	4.3	286
ST-300	79	27 1/4	57 15/16*	***	194	290	218,000	22.0	8.4	371
ST-400	103	31 7/8	61	33 1/2	194	250	194,000	26.4	11.4	407
ST-500	129	39 3/8	73	33 1/2	194	306	235,000	24.2	11.4	486
ST-750	194	39 3/8	73	39 1/4	194	402	309,000	22.0	11.7	702
ST-1000	258	43 1/4	75 1/2	43 1/4	194	497	383,000	19.8	12.0	893
Horizontal Models		W	H*	L						
L-135	36	25 3/4	25 3/4	32	194	97	73,000	15.4	2.7	189
L-160	42	25 3/4	25 3/4	36 1/4	194	124	93,000	15.4	3.1	220
L-200	53	25 3/4	25 3/4	42 7/16	194	145	109,000	17.6	4.4	246
LT-135	36	25 3/4	25 3/4	32	194	97	73,000	15.4	2.7	189
LT-160	42	25 3/4	25 3/4	36 1/4	194	124	93,000	15.4	3.1	220
LT-200	53	25 3/4	25 3/4	42 7/16	194	145	109,000	17.6	4.4	246
LT-300	79	25 3/4	25 3/4	57 3/4	194	215	161,000	22.1	8.0	363

Application "TBS-Isocal®" S, ST, L and LT

Models	Heating Medium	Boiler Water (coil)		Domestic Hot Water (Tank)	
		Max. Pressure psi	Max. Temperature °F	Max. Pressure psi	Max. Temperature °F
S, ST, L and LT	Hot Water	362	320	150	200

BHSDHWBR.5 7/02

Subject to change without notice.

Advantages of Buderus *Thermoglaze*® Insulated Hot Water Tanks

- Constantly available hot water at the turn of a tap.
- High density fluoro -carbon free bonded foam insulation for better maintenance of stored hot water temperature.
- Economical—better insulation, optional recirculation of hot water back to the heater.
- Large surface area heat exchanger for excellent recovery rates. Heat exchanger size increases with tank volume.
- Corrosion Protection—the Buderus *Thermoglaze*® process protects the interior of the tank from corrosion caused by most types of water. *Thermoglaze*® is a homogeneous, permanent protective coating, bonded to the interior of the metal tank.
- Easy access cover for cleaning of coil and tank interior.
- Standard Magnesium anode rod for active corrosion protection.
- ST models standard with electric anode.
- Horizontal tanks for small footprint, vertical tanks for improved recovery rates.
- No aquastat included.
- Logamatic or SP30D priority control available through Buderus.
- Tanks adapt to L4006. (Not available through Buderus).

* Excluding screw-on feet.

** All weights are 5% higher with packing material.

***S120, ST150-ST300, all L and LT models: Residential Tanks are delivered with outer jacket installed. Interior dimensions are not applicable. Large ST models: Jackets and insulation packaged separately.

† Required boiler output to achieve stated continuous ratings. Size pump in order to get rated tank outputs.

†† Allow 15" above tank for anode rod removal.

Buderus
HYDRONIC SYSTEMS

50 Wentworth Ave
Londonderry, NH 03053
Tel: (603) 421-2760 • Fax: (603) 421-2719
Website: www.buderus.net

Logano G215 Boilers:
High-Tech Features for Long, Efficient and Reliable Operation

Thermostream design eliminates thermal shock

Buderus has now applied the Thermostream design to residential size boilers for higher efficiency and improved system reliability in high volume heating systems. Condensate formation and thermal shock is impossible by design as cool return water mixes internally and is preheated with supply water before exposure to directly heated surfaces. Thermostream design permits continued low temperature operation under normal conditions without maintaining a minimum boiler temperature.

Benefits of Thermostream boiler design:

- Eliminates hot and cold spots in the boiler.
- Minimizes thermal stresses in each section.
- Designed to operate at low return water temperatures.
- Balanced water flow through all boiler sections.

Internal water flow pattern in every G215 section reduces thermal stress and maximizes heat transfer.

GL-180M gray cast iron:
The ideal material for high quality, high efficiency hot water boilers

Buderus GL-180M silicone injected, gray cast iron has excellent corrosion resistance, exceptional casting characteristics, greater flexibility and high thermal conductivity. Buderus gray cast iron obtains its superior properties from a high carbon and silicon content.

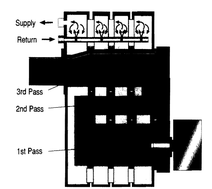
Excellent quality control and centuries of experience produce boilers designed for excellent efficiency and long life.

Optimized combustion with positive fired boilers and optimum chamber geometry without a heat consuming refractory or target wall.

GL-180M with superior casting properties permits optimum chamber geometry and maximum heat transfer.

Full three pass design for high efficiency

- Full three pass for excellent heat transfer.
- Quiet operation with optimized chamber design.
- Over 3" thermal insulation for minimal standby losses.
- Compact boiler block design.
- Wet base for maximum heat transfer.
- Full swing burner door for easy access and quick and thorough cleaning



G215 Boiler flue and water passage design for efficient fuel to heat conversion and heat transfer to boiler water.

Built in accordance with the requirements of the ASME Boiler and Pressure Vessel Code
Max. Operating Pressure: 58 psi

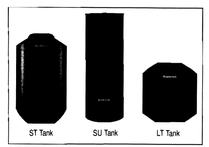
Maintenance and Service Features for Long, Efficient and Trouble-Free Operation

- Full swing reversible burner door for excellent accessibility.
- No refractory blanket or target wall for reduced maintenance.
- Removable baffles for stack temperature adjustments.
- Viewing and pressure ports for combustion test.
- Boiler fully serviced and cleaned from the front.
- Rear tappings for clean, finished installation.
- Cast iron breaching for long life.

Possible System Upgrades

Complement the G215 boiler with an indirect fired domestic hot water tank.

- Vertical SU and ST models for fast recovery and remote placement.
- Horizontal LT models for stacking and small foot print.
- Easy access port for cleaning of tank interior.
- Well insulated tank loses less than 1/4°F per hour.
- Magnesium or electric anode rod for active corrosion protection.
- Large diameter coiled heat exchanger with excellent recovery rates.
- Heat exchanger capacity increases with tank size.

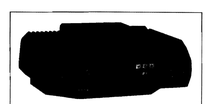


Logano G215 and LT Tanks Stackable Combinations

	G215/3	G215/4	G215/5	G215/6	G215/7
LT160	•	•			
LT200	•	•	•		
LT300	•	•	•	•	

Logamatic Control Systems

- Increased fuel efficiency and quiet system operation through low temperature boiler control.
- Optimum comfort with outdoor reset system control.
- Integration of all major control components into single panel.
- Priority heating of DHW tank with intelligent post-purge.
- Fine-tuned radiant floor control with FM241 module.
- Dual boiler or 2-stage single boiler firing with FM242 module.



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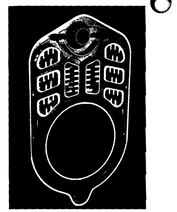

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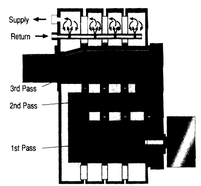

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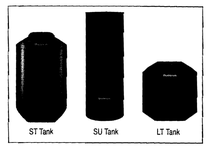

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LT300	•	•	•	•	

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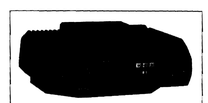
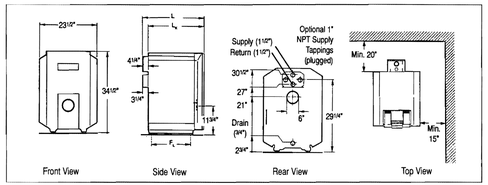


Dimensions and Technical Data for G215 Series Boilers



Note: G215 boiler approved for 6" side clearance. Above clearances are recommended for ample access

Logano G215: Boiler-Burner Options

Boiler/Burner	G215/3	G215/4	G215/5	G215/6	G215/7
Beckett	AFG	AFG	CF375	CF375	CF375
Carlin	EZ-1	99FRD	99FRD	N/A	N/A
Riello	F5	F5	F10	F10	F10

Buderus Hydronic Systems, Inc. offers above burners customized, complete with L8146A aquastat, flexible oil line and circulator and flanges.

Logano G215: Models from 134,000-294,000 BTU/Hr Heating Capacity

Boiler Model	No. of Sections	Firing Rate GPH	Input BTU/Hr	D.O.E. Heating Capacity Gross Output BTU/Hr	NET IBR BTU/Hr	AFUE % Combustion Eff.
G215/3	3	1.1	154,000	134,000	117,000	86.3
G215/4	4	1.4	196,000	171,000	149,000	86.2
G215/5	5	1.7	238,000	207,000	180,000	86.1
G215/6	6	2.1	294,000	256,000	223,000	86.0
G215/7	7	2.5	350,000	**294,000**	256,000	**86.7**

Ratings based on a heating value of 140,000 Btu/gal of No. 2 Fuel Oil, breaching draft of -.02 to -.03 In. W.C. and 13% CO2. Minimum chimney height: 15'.

Logano G215: Technical Information

Boiler Model	No. of Sections	Dry Weight Lbs	Water Content Gal.	Boiler Block Length Length "L_B" In.	Total Boiler Length "L" In.	Spacing Boiler Feet "F_1" In.
G215/3	3	400	12.9	22	26 1/4	13 1/4
G215/4	4	500	16.1	26 3/4	31	18
G215/5	5	600	19.3	31 1/2	35 1/4	22 1/2
G215/6	6	700	22.5	36 1/4	40 1/2	27 1/4
G215/7	7	800	25.6	41	45 1/4	32

Minimum Block Dimensions with jacket and insulation removed: Width: 18", Height: 33 1/2".

Operational Requirements

- Set boiler high limit above 131°F for safe boiler operation under normal conditions.
- No minimum return water temperature and flow requirement under normal conditions.
- Maintain minimum of 158°F in boiler in case of ice water return temperatures.

Buderus
HYDRONIC SYSTEMS

50 Wentworth Ave • Londonderry, NH 03053
Phone: (603) 421-2760 • Fax: (603) 421-2719
Website: www.buderus.net

BHS215BR.2 7/02

Residential Cast Iron Hot Water Oil Fired Boilers: G215

Thermostream Boiler With Three Pass Flue Design
Flexible, Corrosion Resistant GL-180M Cast Iron
High Efficiency, AFUE's Above 86%
Full Swing Burner Door for Excellent Serviceability
Models from 134,000 to 294,000 BTU/Hr

Buderus

Logano G215 Series

CITY OF PORTLAND, MAINE
Department of Building Inspections

_____ 20__

Received from Sioux Oil Service

Location of Work 54 Hyde

Cost of Construction $_____

Permit Fee $ 138.00

Building (IL) ___ Plumbing (I5) ___ Electrical (I2) ___ Site Plan (U2) ___

Other HVAC

CBL: _____

Check #: 26 **Total Collected $** 138

THIS IS NOT A PERMIT

No work is to be started until PERMIT CARD is actually posted upon the premises. Acceptance of fee is no guarantee that permit will be granted. PRESERVE THIS RECEIPT. In case permit cannot be granted the amount of the fee will be refunded upon return of the receipt less $10.00 or 10% whichever is greater.

WHITE - Applicant's Copy
YELLOW - Office Copy
PINK - Permit Copy