City of Portland, Main		0		* *		ermit No:	Issue Date:		CBL:		
389 Congress Street, 0410	1 Tel: (2	207) 874-8703,	, Fax:	(207) 874-8716		09-1268			394 C0	15001	
Location of Construction:		Owner Name:			Owner Address:			Phone:	Phone:		
32 JUNIPER ST		BROGAN KA		N M	32 JUNIPER ST						
Business Name:		Contractor Name:	:		Contractor Address:			Phone			
		Harry Warren			123 Main Street Springvale						
Lessee/Buyer's Name		Phone:				nit Type:				Zone:	
				J		VAC				R5	
Past Use: Proposed Use: Single Family Home Single Family Ho			11	:	Peri		Cost of Worl		CEO District:		
				275 gallon oil	EID	\$110.00   E DEPT:	\$8,08		5 CTION:		
5		tank	JIICI VV	273 ganon on	FIR	E DEPT:	Approved	Use Gr	roun:10 Z	Type: R	
							Denied	0.00	04/25	Type.	
									TRCZ	N3	
Proposed Project Description:								STA	NE OILTS	slock fore	
install a Buderus Oil boiler v	w/ 275 ga	llon oil tank			Sign	nature:		Signatu		1/1/0/09	
					PED	ESTRIAN ACTI	VITIES DIST	RICT (	Γ (P.A.D.)		
					Acti	ion: Approv	ed App	proved w	/Conditions	Denied	
					Sign	nature:			Date:		
Permit Taken By:	1	oplied For:			<b>Zoning Approval</b>						
Ldobson		0/2009	Sn	ecial Zone or Revie		Zonir	a Anneal		Historic Pres	41	
1. This permit application					14.5		ig Appeal				
Applicant(s) from meeting Federal Rules.	ing applic	cable State and		horeland		Variance	:		Not in Distric	ct or Landmar	
<ol><li>Building permits do not septic or electrical work</li></ol>	-	olumbing,	☐ Wetland		Ì	Miscellaneous			Does Not Re	quire Review	
3. Building permits are vo within six (6) months of			☐ Flood Zone ☐ Subdivision			Conditional Use			Requires Rev	iew	
False information may i permit and stop all work	nvalidate								Approved		
			S	ite Plan		Approve	ed		Approved w/	Conditions	
			Maj	Minor MM		☐ Denied			Denied		
			Date:	In 11/12/	69	Date:		I	Date: An		
				7 /							
				CERTIFICATI	ON						
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I have been authorized by the jurisdiction. In addition, if a shall have the authority to en such permit.	e owner to permit fo	o make this appl or work describe	ication d in the	as his authorized application is is	d ago	ent and I agree d, I certify that	to conform the code of	to all a	applicable laws authorized rep	of this resentative	
promise								11011			
SIGNATURE OF APPLICANT				ADDRES	S		DATI	NOV	1 2 2009 PHO	ONE	
							40.5	City	f Dortland		
RESPONSIBLE PERSON IN CHA	ARGE OF V	WORK, TITLE					DATI	E	<del>i Porliand</del> . PHO	ONE	

City of Portland, Maine 389 Congress Street, 04101				4	rmit No: 09-1268	Issue Date:		CBL: 394 C0	15001
Location of Construction:	Owner Name:	, r ax. (.	201) 014-011	homeone,			DOWN CHARLES THE STREET	Phone:	
32 JUNIPER ST	BROGAN KA	THDVA	I NA	Owner Address: 32 JUNIPER ST			rnone:		
Business Name:	Contractor Name		1 1VI	-	actor Address:		obitos etvakumbanintsinane e	Phone	
Business Name:	- PERSONAL PLANT	÷ <b>;</b>		1				ricone	
Lorge Barrell Name	Harry Warren	1			Main Street	Springvaic			1.2
Lessee/Buyer's Name	Phone:	l			t Type:				Zone:
				HV	AC				R5
Past Use:	Proposed Use:			Perm	it Fee:	Cost of Wor		CEO District:	
Single Family Home	Single Family Buderus Oil b			FIRE	\$110.00 DEPT:	\$8,08 Approved	ognomentum unternatum	CCTION:	
esanganan kalengan k	tank			a gjyranaasi		Denied	1	roup:R3	Type: 5 K
_								DRC Z	N3
Proposed Project Description:							ST /	ne o icts	such the
install a Buderus Oil boiler w/	275 gallon oil tank			Signa	ture:		Signat	ture: Du 1	11/2/89
				PEDE	STRIAN ACT	IVITIES DIST	TRICT	(P.A.D.)	
				Actio		ved	proved v	v/Conditions	Denied
Permit Taken By:	Date Applied For:	T		Signa			_ <b>1</b>	Date:	***************************************
Ldobson	11/10/2009			at at the	Zomm	g Approva	11		
		Spec	ial Zone or Revi	ews	Zon	ing Appeal	V	Historic Pres	ervation
<ol> <li>This permit application do Applicant(s) from meeting Federal Rules.</li> </ol>			oreland	Webster Commission of Con-	Uariano			Not in Distric	
2. Building permits do not in	nclude plumbing,	☐ We	etland		☐ Miscell	aneous		Does Not Re	quire Review
septic or electrical work.  3. Building permits are void		☐ Flo	od Zone		Conditional Use			Requires Rev	/iew
within six (6) months of the False information may inverse permit and stop all work		☐ Sut	odivision		Interpre	etation		Approved	
r		Site	e Plan		Approv	ved		Approved w/	Conditions
		Maj [	Minor MM		Denied			Denied	
		Date:	m 11/12	189	Date:			Date:	
		<i>1</i>							
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I hereby certify that I am the ov I have been authorized by the o jurisdiction. In addition, if a po shall have the authority to enter such permit.	wner to make this applermit for work describe	amed pro lication a ed in the	s his authorize application is i	he pro d agen ssued,	t and I agree I certify that	to conform t the code of	to all ficial's	applicable laws authorized repr	of this resentative
SIGNATURE OF APPLICANT			ADDRES	SS		DATE	NOV	<b>1 2</b> 2009 PHO	NE
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RESPONSIBLE PERSON IN CHARG	GE OF WORK, TITLE					DATE	3	РНО	NE

Rd

12-1-09 OK- Final on boiler - NEW (state: med to remove old boiler) WEW

tational transfer





# APPLICATION FOR PERMIT HEATING OR POWER EQUIPMENT

PERMIT ISSUED

NOV 1 2 2009

City of Portland

<i>To the</i> INSPECTOR OF BUILDINGS, Portland, N	Æ.
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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	Use of Building Styl Date 15/10/09
Name and address of owner of appliance Kathryn Brogo	reet, Portland \$ 671-9035
Installer's name and address HARY WARREN  123 MATH ST. SPRINGUALE ME 0408	
Location of appliance:    Basement	Type of Chimney:  Masonry Lined Factory built  Metal Factory Built U.L. Listing #
□ Solid Fuel # Oil # MS 300 14477 □ Gas #	Distance from Tank to Center of Flame
Approved  Fire:  Ele.:	Approved with Conditions  See attached letter or requirement
Signature of Installer	Inspector's Signature Date Approved

City of Portland, Maine - Build	ding or Use Permi		Permit No:	Date Applied For:	CBL:		
389 Congress Street, 04101 Tel: (2	8716	09-1268	11/10/2009	394	C015001		
Location of Construction:	Owner Address:		Phone:				
32 JUNIPER ST	BROGAN KATHRY	N M		32 JUNIPER ST			
Business Name:	Contractor Name:		(	Contractor Address:		Phone	
	Harry Warren			123 Main Street Sp	ringvale		
Lessee/Buyer's Name	Phone:		I	Permit Type:			
			L	HVAC			
Proposed Use:		Pı	ropose	d Project Description:			
Single Family Home - install a Buder	us Oil boiler w/ 275 gal	lon oil i	nstall	a Buderus Oil boile	er w/ 275 gallon oil ta	ınk	
tank							
Dept: Zoning Status: A	pproved with Condition	ns Revie	ewer:	Tom Markley	Approval Da	te:	11/12/2009
Note:						Ok to	Issue:
1) This is NOT an approval for an additional dwelling unit. You SHALL NOT add any additional kitchen equipment including, but not limited to items such as stoves, microwaves, refrigerators, or kitchen sinks, etc. Without special approvals.							
<ol> <li>This property shall remain a single family dwelling. Any change of use shall require a separate permit application for review and approval.</li> </ol>							
Dept: Building Status: A	approved with Condition	ns Revie	ewer:	Tom Markley	Approval Da	ite:	11/12/2009
Note:						Ok to	Issue:
Application approval based upon and approrval prior to work.	information provided b	y applicant.	. Any	deviation from app	roved plans requires	separat	e review
2) Installation shall comply with 2003 International Mechanical Code and State of Maine Oil and Solid Fuel Board Laws and Rules							

PERMIT ISSUED

NOV 1 2 2009

City of Portland

## 4 Installing the boiler

This chapter describes how to install and place the boiler in the boiler room.



Caution: Risk of system damage from freezing.

 Install the heating system in a frost-free room.

#### 4.1 Wall clearances

Position the boiler with the recommended wall clearances. Reducing the minimum clearances makes the boiler more difficult to access during installation, maintenance and cleaning.

The boiler base or foundation must be perfectly flat and level.

The burner door is factory-fitted with the hinges on the right. The burner door can be converted to open to the left (Chapter 4.2, page 15).

Dimen- sion	Wall clearance							
А	Recommended	51-1/8"						
	minimum	39-3/8"						
В	Recommended	27-1/2"						
	minimum	15-3/4"						
С	Recommended	15-3/4"						
	minimum 3-7/8"							
L <sub>K</sub>	→ Chapter 2.7.1 "Logano G115 WS dimensions", page 8							

Tab. 10 Recommended and minimum wall clearances (dimensions in inches).



The boilers are designed for a side clearance of 6".

Where applicable, allow extra wall clearances for additional components such as DHW tank, pipe connections, flue gas silencer or other flue components, etc.



**Caution:** Risk of fire from flammable materials or liquids.

- Clearances less than 6" must comply with local and statutory codes.
- Make sure that there is a sufficient clearance between combustible materials and the chimney connection as specified by NFPA 31 (distance of 18 ").
- The floor must comply with the requirements of NFPA 31.

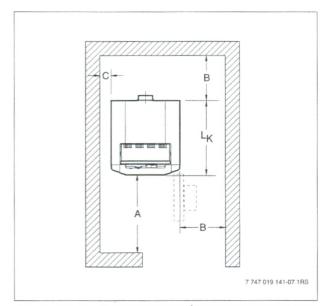


Fig. 7 Boiler room clearances (boiler positioned on the l.h. or r.h. side)

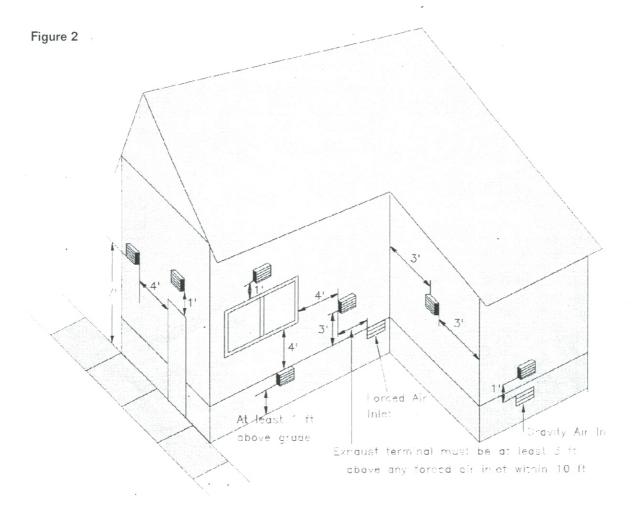


Figure 2: Permissible exhaust termination locations.

The venting system is **only for a single appliance.** Venting of an additional appliance could cause serious injury or loss of life. The venting system shall not be routed into, through, or within any other vent, such as an existing masonry or factory-built chimney. Screens on intake and exhaust terminals must be kept in good working order to prevent debris from entering the venting system.

### Sealing of the Vent Piping:

The discharge side of the sealed combustion venting system operates under a slight positive pressure. It is of vital importance to seal all flue joints and screw penetrations to prevent leakage of flue gases into the building. Pipe joints and other possible flue gas leakpaths should be sealed with high temperature silicone (500 °F rated silicone, G.E. 106 or equivalent), or high temperature tape (360 °F rated aluminum foil tape, VentureTape 3520CW or equivalent) as necessary.

The venting system shall not be pierced under any circumstance after initial installation. Combustion measurements shall be performed at the exhaust termination and/or overfire. The breeching can be pierced for testing as long as the hole is sealed airtight with a bolt, washers and high temperature silicone.

## 1 Location of Wall Terminals

The location of the wall terminations is one of the most important aspects of a direct-vent installation. Both the intake and exhaust terminations **must** be located on the same outside wall in order to balance wind pressure effects against the flow of exhaust gases. In addition, the wall terminations shall not be installed on that side of the building exposed to the prevailing wind direction or in alcoves and exterior building recesses where swirling wind conditions may occur.

**IMPORTANT:** Consult with local authorities to insure compliance with local building, plumbing and electrical codes.

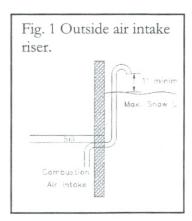
#### Guidelines For The Location Of The Exhaust Termination.

See Figure 2 for details.

- 1. The exhaust terminal must be located such that the products of combustion will be freely dispersed outside without reentering the building. The exhaust gases shall not interfere with people, overheat combustible materials, or enter adjacent buildings.
- 2. Exhaust terminal shall be at least 2 ft from an adjacent building.
- 3. The exhaust terminal shall be at least 7 ft above grade when above public walkways.
- 4. The exhaust terminal shall not be located underneath a porch or crawl space.
- 5. The exhaust terminal shall not be located less than 3 ft from an L-shaped inside building corner and no less than 3 feet away from an outside corner.
- **6.** The exhaust terminal shall be located at least 3 ft above any forced air inlet within 10 ft horizontally.
- 7. The exhaust terminal shall not be less than 4 ft below, 1 ft above, or 4 ft horizontally from any door, window or gravity air inlet into the building.
- 8. The exhaust terminal shall be at least 1 ft above grade and placed in such a location where the exhaust terminal is not susceptible to blockage from debris, leaves or falling snow or ice from roofs. A 1/2" wire-mesh screen at the exhaust terminal must be maintained in good working order.
- 9. The exhaust terminal shall terminate more than 3 ft from any other building opening, oil tank vent or oil tank fill inlet. (6 ft from any gas service regulator vent outlet).

### Guidelines for the location of the intake air terminal:

- The air intake must be placed on the same side of the building as the exhaust to balance wind pressure effects.
- 2. The intake terminal must be at least 1 ft above maximum local snow level. An outside air intake riser is permitted provided a downturned intake terminal is used (Fig. 1).
- 3. The intake and exhaust terminals must be at least 4 ft apart when using the Aerocowl exhaust termination. This minimum distance can be reduced to 2 ft when the intake terminal is at least 1 ft below the exhaust terminal.
- 4. The intake terminal shall be equipped and maintained with a 1/2" wire mesh screen in good working order to prevent accidental blockage from entry of foreign objects.



## Installation Procedures: Exhaust Terminations and Exhaust Vent Piping.

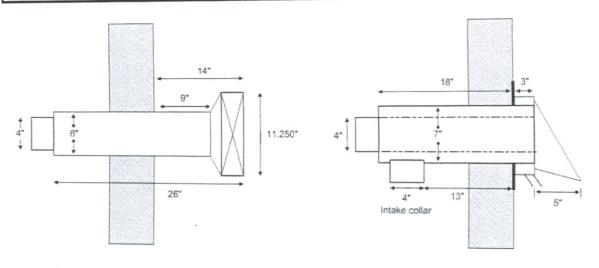
**NOTE:** Use only the approved materials listed on the previous page for direct venting of oil-fired Buderus G115 boilers. Use of any other materials, or systems not installed in accordance with the instructions contained in this manual will void the ITS listing.

**NOTE:** Use strictly high temperature rated silicone (500 °F rated silicone, G.E. 106 or equivalent) and/or high temperature tape (360° F rated aluminum foil tape, VentureTape 3520CW or equivalent) for sealing at all exhaust pipe joints. Check all seams and joints of the exhaust venting for gas tightness.

**NOTE:** Maintain clearances to combustibles as indicated in Table 1.

Table 1: Boiler and exhaust vent pipe clearances to combustibles

Front	Side	Rear	Rear Top		Insul. Oil Vent		
24"	6"	6"	6"	18"	1"		



Option 1: Aerocowl termination.

Option 2: Concentric termination.

Figure 4: Exhaust termination options.

## Option 1: Installation of the Aerocowl termination.

- 1. Cut a 6" round opening in the outside wall at the selected location. Apply silicone to the backside of the outer face plate and secure it to the outside wall.
- 2. Insert the Aerocowl termination from the outside up to the outer wall stop. Ensure proper slope.
- 3. Slide inner plate on the termination up to the inside wall, tighten the gear clamp and secure the inner plate to the wall.

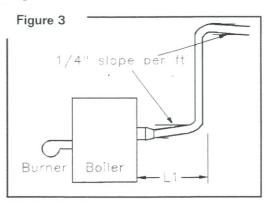
## Option 2: Installation of the concentric termination.

- 1. Cut a square 7" opening in the outside wall at the selected location. Remove the 4" air intake collar from the termination assembly.
- 2. Apply silicone to the back side of the wall face plate. Insert the concentric termination from the outside. Ensure proper slope. Secure the face plate to the outside wall. Reinstall the 4" collar.

## 2 Installation Procedures for Venting System

#### General Guidelines:

- 1. The oil-fired boiler installation must be performed by a qualified installer in accordance with the regulations put forth in NFPA-31 Installation of Oil-Burning Equipment. The installation must comply with all local codes and authorities having jurisdiction. The installer must have the proper licensing and be experienced with all local codes and regulations.
- 2. Select boiler location and wall termination positions based on required boiler clearances. (See Table 1), the guidelines of pages 3 and 4, compliance with local codes and on using minimum lengths of vent pipe.
- 3. Select the point of wall penetration for the exhaust termination based on maintaining a minimum slope of 1/4" per foot down towards the termination on the last horizontal pipe section. The wall termination assembly must also slope 1/4" per foot down towards the outside. This allows possible condensate to drain from the venting system.



- **4.** Slope all other horizontal pipe runs ½" per foot down towards the boiler vent connection. (Fig. 3).
- 5. Avoid any dips in the venting when using the flexible insulated stainless steel oil vent.

  Never install a barometric damper into the exhaust piping.

Minimum wall clearance (L1)needed for:

• flex. Stainless Steel oil vent: 24"

• 4" galvanized pipe: 16"

The Buderus G115 Direct Vent boiler system has been approved for use with two different intake/exhaust options. Follow the guidelines on pages 3 and 4 regarding termination placement.

**Option 1:** Separate air intake hood and Aerocowl exhaust termination. (Part No. AT-4). This system consists of a 4" air intake hood, a 5" x 4" reducer and a 26½" long, insulated Aerocowl exhaust termination. This termination has a zero clearance rating to combustibles.

Option 2: Combination air intake/exhaust termination. (Part No. FT-4).

This system consists of a 5" x 4" reducer and a zero clearance concentric combination intake/exhaust termination with a 4" provision for fresh air intake piping.

Both exhaust terminations are approved for use with two different exhaust vent pipe options. Always use 4" galvanized or 4" flexible metal pipe for fresh air intake for both venting systems.

**Pipe Option 1: Flexible, insulated 4" stainless steel oil vent.** Maximum length of 10 ft. Oil vent adaptors are supplied. The insulated oil vent is rated for 1" clearance to combustibles. Wrap the adaptors with 3" of ceramic wool covered with foil tape or sheet metal to maintain 1" clearance.

Pipe Option 2: Standard, 26 gauge galvanized vent pipe. Maximum straight length is 6 ft with up to 2 90° elbows. Maintain 18" clearance to combustibles with galvanized vent pipe.

# **ELECTRICAL PERMIT**City of Portland, Me.

To the Chief Electrical Inspector, Portland Maine:

The undersigned hereby applies for a permit to make electrical installations in accordance with the laws of Maine, the City of Portland Electrical Ordinance, National Electrical Code and the following specifications:

Date	
Permit # 2008 - 473/	
CBL#_ 397- C-15	

-OCATION: <u>35</u> CMP ACCOUNT #	441	104.7064.062		OWNER	Ka	Ahren Broger		
TENANT		3		PHONE #	· ( )	Hhryn Brogan 22. 351.5881	***************************************	
							AL EACH	
OUTLETS	34	Receptacles	26	Switches	4	Smoke Detector	.20	
	0.0000000000000000000000000000000000000							19. CIA
FIXTURES	27	Incandescent	1	Fluorescent		Strips	.20	\$5.60
			vástojska j		ejanian in		ésak geodrozésanéholeké	
SERVICES		Overhead		Underground	***************************************	TTL AMPS <800	15.00	
		Overhead		Underground		>800	25.00	
The state of the s								
Temporary Service		Overhead		Underground		TTL AMPS	25.00	
WETERO							25.00	11 11 11 11 11 11 11 11
METERS		(number of)					1.00	
MOTORS		(number of)					2.00	
RESID/COM		Electric units					1.00	
HEATING		oil/gas units		Interior		Exterior	5.00	
APPLIANCES		Ranges		Cook Tops		Wall Ovens	2.00	
		Insta-Hot		Water heaters		Fans	2.00	
		Dryers		Disposals		Dishwasher	2.00	
		Compactors		Spa		Washing Machine	2.00	
		Others (denote)					2.00	
MISC. (number of)		Air Cond/win					3.00	
		Air Cond/cent				Pools	10.00	
		HVAC		EMS		Thermostat	5.00	
		Signs					10.00	
		Alarms/res					5.00	
		Alarms/com					15.00	
		Heavy Duty(CRKT)				Of I I to more	2.00	
		Circus/Carnv				·	25.00	
		Alterations					5.00	
		Fire Repairs					15.00	
		E Lights					1.00	
		E Generators					20.00	
					11114			
PANELS		Service		Remote		Main	4.00	
TRANSFORMER		0-25 Kva					5.00	
		25-200 Kva					8.00	
		Over 200 Kva					10.00	
						TOTAL AMOUNT DUE		
		MINIMUM FEE/COM	IME	RCIAL 55.00		MINIMUM FEE 45.00		

CONTRACTORS NAME MATTING Broads	_MASTER LIC. #
ADDRESS 32 JUNIPER Street	LIMITED LIC. #
TELEPHONE 207.251.5881	
SIGNATURE OF CONTRACTOR ACTION	

White Copy / Office

Yellow Copy - Applicant

Page 1 of 1 HHE-211 Rev. 08/05

TOWN COPY

Permit Fee (Total)

Fixture Fee
Transfer Fee
Hook-Up & Relocation Fee

## **BUILDING PERMIT INSPECTION PROCEDURES**

Please call 874-8703 or 874-8693 (ONLY)

to schedule your inspections as agreed upon Permits expire in 6 months, if the project is not started or ceases for 6 months.

The Owner or their designee is required to notify the inspections office for the following inspections and provide adequate notice. Notice must be called in 48-72 hours in advance in order to schedule an inspection:

By initializing at each inspection time, you are agreeing that you understand the inspection procedure and additional fees from a "Stop Work Order" and "Stop Work Order Release" will be incurred if the procedure is not followed as stated below.

Order Release will be incurred if the procedur	e is not followed as stated below.
A Pre-construction Meeting will take place upon	n receipt of your building permit.
X Framing/Rough Plumbing/Electrical:	Prior to Any Insulating or drywalling
X Final inspection required at completion	on of work.
Certificate of Occupancy is not required for certain your project requires a Certificate of Occupancy. A	projects. Your inspector can advise you if All projects <u>DO</u> require a final inspection.
If any of the inspections do not occur, the project REGARDLESS OF THE NOTICE OR CIRCUM	
CERIFICATE OF OCCUPANICES MUST BE SPACE MAY BE OCCUPIED.	ISSUED AND PAID FOR, BEFORE THE
Mass	<u>9.3.2008</u>
Signature of Applicant/Designee	Date
Signature of Inspections Official	Date

**CBL**: 394 C015001 Building Permit #: 08-0924