City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No:	Issue Date:	CBL:
04-0612		317 D003001

Location of Construction:	Owner Name:	Owner Address:	Phone:
92 Rivers Edge Dr Unit #209	Wallek & Kennedy	92 Johnson Rd	
Business Name:	**Contractor Name:**	**Contractor Address:**	**Phone:**
	Jiminos Plumbing &Heating	1417 Riverside St Portland	2077671174
Lessee/Buyer's Name	**Phone:**	**Permit Type:**	
		HVAC	

Past Use:	Proposed Use:	Permit Fee:	Cost of Work:	# of Units:
Single Family	Single Family w/BUW oil boiler in basement w/275 gal. Tank	260.00	$4,800.00	1

FIRE DEPT: ☐ Approved ☐ Denied

Signature:

INSPECTION:

Use Group: R-3 Type: 5B

Signature:

PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)

Action: Approved ☐ Approved w/Conditions ☐ Denied

Signature: Date:

Permit Taken By:	Date Applied For:
Lwd	05/24/2004

1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.
2. Building permits do not include plumbing, septic or electrical work.
3. Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work.

Zoning Approval

Special Zone or Review	Zoning Appeal	Historic Preservation
Shoreland	Variance	Not in District or Landmark
Wetland	Miscellaneous	Does Not Require Review
Flood Zone	Conditional Use	Requires Review
Subdivision	Interpretation	Approved
Site Plan	Approved	Approved w/Conditions
Maj ☐ Minor ☐ MM ☐	Denied	Denied
Date:	Date:	Date:

CERTIFICATION

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provisions of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT | ADDRESS | DATE | PHONE

SIGNATURE OF PERSON CHARGED WORK, TITLE | DATE | PHONE

8 SERIES

BOILER-BURNER UNIT

STEAM OR HOT WATER

INSTALLATION AND OPERATING INSTRUCTIONS

DESIGNED AND TESTED ACCORDING TO THE ASME BOILER AND PRESSURE VESSEL CODE, SECTION IV FOR MAXIMUM ALLOWABLE WORKING PRESSURE STEAM 15 LBS / WATER 160 LBS

Boiler Model Number	DOE Heating Capacity MBH	I=B=R Burner Capacity Oil Input		I=B=R Net Ratings			Net-I-B-R Gross Rating	Area of Vent Capacity Lbs/Hr
				Steam		Water MBH		
		GPH	MBH	SQ. FT.	MBH			
8-[illegible]L	91	.75	105	292	66	75	8" x 8" x 15'	125
8-[illegible]H	113	.95	133	350	84	98		
8-[illegible]L	134	1.10	154	414	99	115	8" x 8" x 17'	175
8-[illegible]H	161	1.25	175	488	117	130		
8-[illegible]S	169	1.45	195	595	128	147	8" x 8" x 16'	230
8-[illegible]SH	205	1.70	238	692	157	177		
8-[illegible]S	211	1.75	245	864	157	183	8" x 8" x 15'	283
8-[illegible]SH	248	2.10	294	776	189	217		

* Ratings "H" for Summer Air Conditioning. The ratings are based on a clearance of 1 inch to unjacketed surfaces. The manufacturer should be consulted before selecting a boiler for installations involving unusual piping and piping arrangements, such as forced circulation systems, reduced piping systems, etc.

CAUTION - DO NOT USE AUTOMOTIVE ANTI-FREEZE IN BOILER WATERWAYS. IF NECESSARY TO USE ANTI-FREEZE, BE SURE TO EMPLOY A PREPARATION DESIGNED FOR HYDRONIC HEATING SYSTEMS SUCH AS ETHYLENE OR PROPYLENE GLYCOL.

THESE INSTRUCTIONS TO BE KEPT WITH THE BOILER FOR REFERENCE PURPOSES.

Smith
CAST IRON BOILERS
WESTCAST, INC.
260 NORTH ELM STREET WESTFIELD, MA 01085
TEL. (413) 562-5631 FAX (413) 562-3799

B SERIES BOILER
INSTALLATION AND OPERATING INSTRUCTIONS

1. GENERAL

The B Series boiler-burner unit is a wet-base, vertical flue, low pressure sectional, cast iron steam or hot water heating boiler. It is rated for natural draft firing with 0.02 ins. water column overfire draft. Boilers are available as either factory assembled in blocks from three to six sections in length with burner and controls supplied for field assembly or as a completely packaged boiler.

The joints between sections are provided with a special hydraulic seal which is resistant to petroleum products. The flue gas seal between sections is accomplished by the use of fiberglass rope rated at 1000°F.

Both packaged units and assembled blocks of sections are hydrostatically tested for the maximum working pressures. The assembled blocks also include the special hydraulic seals, the glass fiber rope joint seal, a precast fiber forget wall, the installation burner mounting plate and cleanout covers.

An insulated metal jacket is furnished to both enhance the units looks and to minimize any heat loss. A full access cleanout cover for cleaning vertical flue passages is on the left hand side of the boiler and is accessible by removing the left hand cleanout access jacket panel.

IMPORTANT - Sufficient clearance between the left side of the boiler and adjacent construction must be provided to ensure proper access when cleaning is required!

2. CODES, RULES AND REGULATIONS

The installation of the boiler, the burner, wiring, controls and fuel piping must be done in accordance with the requirements of the local authorities having jurisdiction. In the absence of local requirements, the following codes apply:

ANSI/NFPA31 - "Installation of Oil Burning Equipment"
ANSI/NFPA70 - "National Electrical Code"

In Canada the following codes apply:
CSA STD. B139 - Latest Edition.
"Installation Code For Oil Burning Equipment"
CSA STD. C22.2 No. 0 - Latest Edition.
"General Requirements - Canadian Electrical Code Part I."

All completed boilers shall satisfactorily pass the hydrostatic tests as prescribed by A.S.M.E., Code Section IV.

1. Steam Boilers – The assembled boiler shall be subjected to a hydrostatic test of not less than 45 psig.

2. Water Boilers – The assembled boiler shall be subjected to a hydrostatic test pressure not less than 1½ times the maximum allowable working pressure.

3. The required test shall not exceed the test pressure by more than 10 psi.

3. BOILER LOCATION

Boiler should be located on a smooth level concrete floor or pad close to the chimney in which it is to be connected. Allow access for boiler cleaning and burner maintenance.

CAUTION - Boiler shall be installed on non-combustible floor only.

4. CHIMNEY AND BREECHING

Attach the smoke hood to the back of the boiler using the 4 brass machine screws making sure to install the gasket between the smoke hood and boiler. The 3 and 4 section models are equipped with a 6" smoke hood. The 5 and 6 section models with a 7" smoke hood. The boiler must be vented with vent pipe having the same diameter as the smoke hood outlet. Place the flue pipe over the smoke hood collar and secure it to the boiler with a sheet metal screw.

The boiler must be vented to the outdoors by means of a tile lined masonry chimney of the size listed on the front page or by another approved method.

The flue pipe should be run to the chimney by the most direct route, with the minimum number of elbows and with a slight upward pitch. The pipe should be wiped tight with the inside face of the chimney and should be sealed in place with refractory cement.

For energy conservation, the boiler should be vented directly to the chimney without using a barometric draft control. The burner operation does not require draft control for stability with varying draft values.

5. COMBUSTION AND VENTILATION

Normal residential construction usually allows sufficient air infiltration for combustion. If construction is tight, consideration should be given for air louvers to the outside. Local codes or NFPA 31, "Installation of Oil Burning Equipment", should be referred to for proper sizing and design and air supply. In Canada refer to CSA STD. B139 - most edition

WARNING: This boiler must be connected to a properly sized and constructed chimney or vent system! Failure to comply with this warning can result in a fire which could cause extensive property damage, severe personal injury or death!

6. PACKAGED BOILERS

Packaged boilers are shipped on a wood skid with tie down bands and a wooden crate enclosing the boiler and burner.

Remove the protective crate and skid. Set the boiler in its final location and shim under the feet to make it level and secure. Adjust the jacket for proper alignment and support. Refer to Carlin or Beckett Section 9 Burner Installation Manual for appropriate wiring diagrams.

8 SERIES BOILER
INSTALLATION AND OPERATING INSTRUCTIONS

7. BLOCKS OF SECTIONS

Blocks of sections are arranged for use either as steam or water boilers. All back sections have a tapping opening in the left side, below the water line. A tankless heater may be installed in this location.

NOTE: A cover plate is supplied as part of either the steam trim or water trim sections.

Unlike the packaged units, blocks of sections require that the smokehood, controls, burner, steam or water trim, draft diverter, water battery, and jackets must be installed in the field.

The smokehood is sized for a 7" pipe diameter flue pipe placed over the cast iron boiler and secured to the boiler with a sheet metal screw. Place the furnished smokehood gasket in place between the smokehood and the back section, and secure the with hardware furnished.

8. PACKAGED BOILERS AND BLOCKS OF SECTIONS

Careful inspection should be made of all assemblies to detect possible damage during shipment. Factory assembled blocks of sections and package boilers are hydrostatically tested at the factory to insure pressure tightness. Before piping connections are made to the boiler, hydrostatically raise boiler sections to detect leaks that may have developed from rough handling during shipment, see Section 7.

9. BURNER INSTALLATION

Instructions regarding burner assembly and operation of the burner is covered in a separate catalog.

WARNING: Never attempt to operate the boiler with the cleanout cover plates removed! Failure to comply with this warning can result in a fire which could cause extensive property damage, severe personal injury or death!

10. CLEANOUT COVER PLATES

It is important to maintain the integrity of the gas seal by careful installation of the cleanout cover plate. Be sure there is no opening to allow gases to escape.

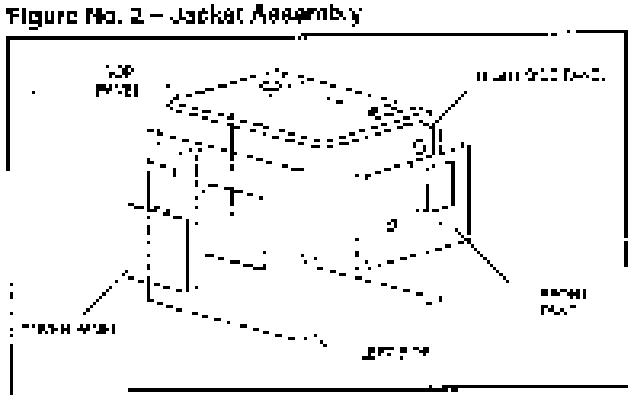
11. JACKET ASSEMBLY

Remove all knockouts that are going to interfere with your specific installation arrangement. Install the front panel over the two upper burner mounting plate studs prior to the installation of the burner mounting plate. Fold the right side panel as well. The long and narrow formed sound deadening material is installed. Slide the vent tee under the front panel and secure with pilot point screw. Lift side panel so as they to align the slots in jacket with the bracket holes. Secure with the screws supplied.

Repeat same procedure for the left side panel.
Screw the two holes together at the back of the boiler.

Attach the top panel over the edges of all panels and secure. The cleanout cover door attaches to the left side panel by sliding the lower left corner into the slot provided and pivot to the face of the metal the opening in the side panel. Slide the cover past lower the rear of the boiler jacket makes contact with the back of the slot.

Figure No. 2 – Jacket Assembly



12. BOILER TRIM

Steam

The steam trim furnished with the boiler consists of a 2-1/2" round steam pressure gauge, McDonnell Miller 457 Quick Hook-Up Low Water Cutoff, water gauge glass set with gauge cocks, side outlet steam safety valve, and high pressure limit control with siphon. Refer to Figure No. 3 for correct control and trim locations. Pipe fittings required to install trim and controls as shown are furnished.

Water

The water trim furnished with the boiler consists of a 2-1/2" round temperature altitude gauge and a 30 psi pressure relief valve. A circulator relay is furnished for installation in the upper rear cover plate or the tankless heater cover plate as indicated in Figure No. 3. The installer must furnish and install pipe and removal devices, expansion tank, automatic air vents, make up water pressure reducing valve, isolating valves and other pipe fittings and equipment necessary for proper operating system.

Install safety or relief valve in top 3/4" tapping at back section.

WARNING: Never install any type of valve between the pressure relief or safety valves and the boiler! Failure to comply with this warning can result in a boiler explosion causing extensive property damage, severe personal injury or death!

WARNING: The pressure relief or safety valve discharge piping must direct all water and vapor away from personnel. Failure to comply with this warning could result in severe personal injury!

6 SERIES BOILER
INSTALLATION AND OPERATING INSTRUCTIONS

18. BOILER MAINTENANCE

IMPORTANT - These suggestions cover the boiler maintenance work which will result in the most efficient operation, the longest useful life of the boiler and the highest return on any investment necessary to carry out the maintenance work.

Steam

1. WATER LEVEL: Check regularly to be sure the boiler water level stays at the marked water line during operation under steam pressure. **DO NOT ADD WATER TO A HOT BOILER.** If water level is not visible in the gauge glass, allow the boiler to cool before adding make-up water. Locate the cause of low water and correct before starting operation.

2. ON/OFF CUTOFF: Check the burner on/off switch to be certain the switch opens on water level drop below cutoff level.

3. PRESSURE CONTROLS: Check regularly to be certain the pressure limit controls are functioning.

4. SAFETY VALVES: Conduct regular visual inspection of safety valves to detect signs of corrosive deposits, rust build-up or signs of weeping. If there are signs of deposits around the disc and the seat of the valve, replace the valve with a new valve of proper capacity and pressure setting.

5. GAUGE GLASS: When rust, suspended solids, etc. obscure water gauge glass, blowdown may be necessary. Blowdown should be limited only as necessary to remove steam from the water waterways. Foaming, fluctuating water or low steam pressure are signs pointing to the need for blowdown.

Water

1. WATER PRESSURE: The boiler water pressure must be sufficient to maintain a full system and to prevent boiling of the system water. An initial fill pressure of 12 psi provides for 10-1/2 feet of system height. Each additional 2.3 feet of height requires an additional one pound pressure. Be sure no air is trapped in the boiler, system piping or heating units to impede circulation of the heated boiler water.

2. LOW WATER CUTOFF: Check the cutoff switch to be certain the switch opens on water level drop below cutoff point.

3. TEMPERATURE CONTROLS: Check regularly to be sure the controls are functioning to prevent excessive high boiler water temperature.

4. RELIEF VALVES: Conduct regular visual inspection of relief valves to detect signs of corrosive deposits, rust build-up or signs of weeping. If there are signs of deposits around the disc and seat of the valve, replace the valve with a new valve of proper capacity and pressure setting.

HEATING SURFACE CLEANING

WARNING: Failure to disconnect all electrical power to the boiler before cleaning it could result in a fire or severe personal burn injuries.

Disconnect all electrical power to the boiler before proceeding. Remove the cleanout cover access panel from the left side of the boiler. Remove the cleanout cover(s) being sure not to damage the insulation between the cover(s) and the boiler. Use a wire brush to thoroughly clean the fireside surfaces. For the best results, start brushing from the top and work down toward the combustion chamber. Disconnect the flue pipe and inspect it and the smoke hood for soot build-up. Clean them thoroughly before reconnecting them. Open the cleanout door on the right side of the burner mounting plate. Carefully vacuum any soot or scale from the bottom of the combustion chamber. Do not contact the ceramic blanket in the bottom of the combustion chamber or it will be damaged.

IMPORTANT - If the ceramic blanket is damaged it must be replaced! Failure to replace a damaged ceramic blanket can result in the failure of the cast iron sections!

Inspect the vestibule door gasket and insulation and replace them if damaged. Close the cleanout door and tighten it into place. Inspect the cleanout cover gasket(s) and replace it if damaged. Install the cleanout cover(s) and tighten into place. Install the cleanout cover(s) and cleanout door. Restore electrical power to the boiler and ensure that it operates properly.

CHIMNEY AND SMOKE PIPE

Be sure that the chimney and smoke pipe do not become obstructed by birds' nests, squirrels, soot, chimney liner deterioration, or other reasons. Keep chimney cleanout doors closed and seal tight around the rod(s). Be sure the smoke pipe is inserted only to the neutral chimney line surface and seal around the pipe with masonry cement.

COMBUSTIBLES

Be sure that no combustible materials are placed close to the boiler or smoke pipe. Fires can cause personal injury and property damage.

19. STEAM BOILER CABLE INSTALLATION

Refer to Figure No. 14 when installing wiring cable on Series 6 Steam Boilers.

Fire Prevention Bureau

APPLICATION FOR PERMIT
HEATING OR POWER EQUIPMENT

04-0612

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 / URL 93 River Ave Use or Building Family Dwelling Date 3/26/04

Name and address of owner of appliance Walsh & Kennedy

Installer's name and address Dirigo Plumbing & Heating
Portland ME 04103 Telephone 797-3174

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

Type of Fuel:
- ☐ Gas
- ☒ Oil
- ☐ Solid

Appliance Name: HB Smith

Underwriters Approved ☒ Yes ☐ No

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

If Not Explain:

Type of Licensed Installer:
- ☒ Master Plumber # 05663
- ☐ Solid Fuel # 2011
- ☐ Oil #
- ☐ Gas #
- ☐ Other

Type of Chimney:
- ☒ Masonry Lined
  Factory Built
- ☐ Metal
  Factory Built, UL Listing #
- ☐ Direct Vent
  Type Size

Type of Fuel Tank
- ☒ Oil
- ☐ Gas

Size of Tank

Number of Tanks

Distance from Tank to Center of Flame 20 feet.

Cost of Work: $ 4200.00

Permit Fee: $ 60.00

Approved

Fire:

Plbg.:

Bldg.:

Approved with Conditions

☐ See attached letter or requirement

Inspector's Signature Date Approved

Signature of Installer

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

City of Portland, Maine - Building or Use Permit

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No:	Issue Approval Date:	CBL:
04-0612	05/14/2004	[illegible]

Location of Construction:	Owner Name:	Owner Address:	Phone:
93 Rivers Edge Dr. (Lot #28)	Wales & Kennedy	91 Johnson Rd	
Business Name:	**Contractor Name:**	**Contractor Address:**	**Phone:**
	Timmons Plumbing & Heating	1407 Riverside Street Portland	(207) 797-5171
Lessee/Buyer's Name	**Phone:**	**Permit Type:**	
		HVAC	

Proposed Use:	Proposed Project Description:
Single Family w/PEW-gal boiler in basement w/275 gal. Tank	2F W/ Tank in basement-275 gal. Tank

Dept: Zoning Status: Approved Reviewer: Marge Schmuckal Approval Date: 05/17/2004

Note: Ok to Issue: ✓

Dept: Building Status: Approved Reviewer: Jeanine Bourke Approval Date: 05/20/2004

Note: Ok to Issue: ✓