

City of Portland, Maine - Building or Use Permit Application
 389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No: 09-0528	Issue Date:	CBL: 379 F021001
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Location of Construction: 303 AUBURN ST	Owner Name: MCKENNEY CHARLES A WWII	Owner Address: 303 AUBURN ST	Phone: 207-939-4515
Business Name:	Contractor Name: Charles Fortin	Contractor Address: 30 Monument Street Portland	Phone: 2079394515
Lessee/Buyer's Name	Phone:	Permit Type: HVAC	Zone: R-3

Past Use: Single Family Home	Proposed Use: Single Family Home - Install Tapan Hot Air Oil Furnace.	Permit Fee: \$60.00	Cost of Work: \$3,792.00	CEO District: 5
Proposed Project Description: Install Tapan Hot Air Oil Furnace.		FIRE DEPT: <input type="checkbox"/> Approved <input checked="" type="checkbox"/> Denied INSPECTION: Use Group: HVAC Type: IMC 2005 Signature: [Signature] Signature: [Signature]		
		PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.) Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Signature: _____ Date: _____		

Permit Taken By: lmd	Date Applied For: 06/01/2009	Zoning Approval
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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..	Special Zone or Reviews <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan Maj <input type="checkbox"/> Minor <input checked="" type="checkbox"/> MM <input type="checkbox"/> Date: 6/3/09	Zoning Appeal <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied Date:	Historic Preservation <input checked="" type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Date: 6/3/09
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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 provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE	PHONE

City of Portland, Maine - Building or Use Permit

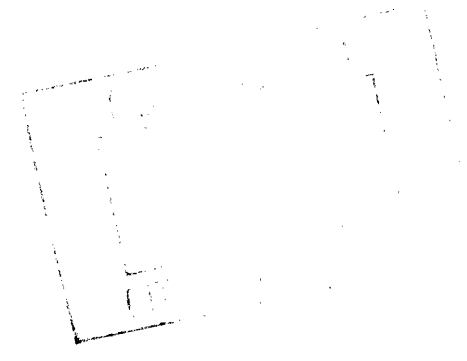
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Proposed Use: Single Family Home - Install Tapan Hot Air Oil Furnace.	Proposed Project Description: Install Tapan Hot Air Oil Furnace.
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Dept: Zoning	Status: Approved	Reviewer: Tammy Munson	Approval Date: 06/03/2009
Note:			Ok to Issue: <input checked="" type="checkbox"/>
Dept: Building	Status: Approved with Conditions	Reviewer: Tammy Munson	Approval Date: 06/03/2009
Note:			Ok to Issue: <input checked="" type="checkbox"/>
1) Installation shall comply with 2003 International Mechanical Code and State of Maine Oil and Solid Fuel Board Laws and Rules			



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.

A Pre-construction Meeting will take place upon receipt of your building permit.

 X **Final inspection required at completion of work.**

Certificate of Occupancy is not required for certain projects. Your inspector can advise you if your project requires a Certificate of Occupancy. All projects DO require a final inspection.

If any of the inspections do not occur, the project cannot go on to the next phase, REGARDLESS OF THE NOTICE OR CIRCUMSTANCES.

CERIFICATE OF OCCUPANICES MUST BE ISSUED AND PAID FOR, BEFORE THE SPACE MAY BE OCCUPIED.

Signature of Applicant/Designee

Date

Signature of Inspections Official

Date

Mailed

1. INTRODUCTION

Please read these instructions completely and carefully before installing and operating the furnace.

Models O4LD-140A-16-R and O4LD-168A-16-R are rear breeched oil fired forced air low boy furnace, with output capacities ranging from 79,000 Btu/h to 143,000 Btu/h.

Models O4LD-140A-16-F and O4LD-168A-16-F are front breeched oil fired forced air lowboy furnaces, with output capacities ranging from 79,000 Btu/h to 143,000 Btu/h.

▲ WARNING

DO NOT USE GASOLINE, CRANK CASE OIL, OR ANY OIL CONTAINING GASOLINE.

All models are CSA listed, for use with No. 1 (Stove) and No. 2 (Furnace) Oil. Please refer to the tables in Appendix A for performance and dimensional data.

In the United States of America, the installation of the furnace and related equipment shall be installed in accordance with the regulations of NFPA No. 31, Installation of Oil Burning Equipment, as well as in accordance with local codes.

In Canada, the installation of the furnace and related equipment shall be installed in accordance with the regulations of CAN/CSA - B139, Installation Code For Oil Burning Equipment, as well as in accordance with local codes.

Regulations prescribed in the National Codes and Local regulations take precedence over the general instructions provided on this installation manual. When in doubt, please consult your local authorities.

All models are shipped completely assembled and pre-wired. The furnace should be carefully inspected for damage when being unpacked.

2. HEAT LOSS

The maximum hourly heat loss for each heated space shall be calculated in accordance with the procedures described in Manual J, titled, "Load Calculation" published by the Air Conditioning Contractors of America, or method suitable for local conditions or prescribed by local codes. The calculation results obtained should be in substantial agreement with, and not less than those obtained using the procedure described in Manual J.

In Canada, the maximum hourly heat loss for each heated space shall be calculated in accordance with the procedures described in the manuals of the Heating, Refrigeration and Air Conditioning Institute of Canada (HRAI), or by method suitable for local conditions.

3. LOCATION OF UNIT

The furnace should be located such that the flue connection to the chimney is short, direct and consists of as few elbows as possible. When possible, the unit should be centralized with respect to the supply and return air ductwork. A central location minimizes the trunk duct sizing. All models may be installed on combustible floors.

The minimum installation clearances are listed in Table 1.

Table 1: Installation Clearance

Location	Clearance to / for	
	Combustibles	Service
Top	3 in.	3 in.
Bottom	0 in.	0 in.
S/A Plenum	0 in.	0 in.
Rear	1 in.	24 in.
Side 1	6 in.	6 in.
Side 2	6 in.	18 in.
Front	24 in.	24 in.
Flue Pipe	9 in.	9 in.
Enclosure	Standard	Standard

4. AIR CONDITIONING APPLICATIONS

If the furnace is used in conjunction with air conditioning, the furnace shall be installed in parallel with or upstream from the evaporator coil

to avoid condensation in the heat exchanger. In a parallel installation, the dampers or air controlling means must prevent chilled air from entering the furnace. If the dampers are manually operated, there must be a means of control to prevent the operation of either system unless the dampers are in the full heat or full cool position. The air heated by the furnace shall not pass through a refrigeration unit unless the unit is specifically approved for such service.

The blower speed must be checked and adjusted to compensate for the pressure drop caused by the evaporator coil. Refer to Appendix B for recommended wiring and electrical connections of the air conditioning controls.

5. COMBUSTION AIR

If the furnace is installed in a closet or utility room, two openings must be provided connecting to a well-ventilated space (full basement, living room or other room opening thereto, but not a bedroom or bathroom). One opening shall be located above the level of the upper vent opening and one opening below the combustion air inlet opening in the front of the furnace. Each opening shall have a minimum free area of 1½ square inches per 1,000 Btu/h of total input rating of all appliances installed in the room.

For furnaces located in buildings of unusually tight construction, such as those with high quality weather stripping, caulking, windows and doors, or storm sashed windows, or where basement windows are well sealed, a permanent opening communicating with a well ventilated attic or with the outdoors shall be provided, using a duct if necessary. The duct opening shall have a free area of 1½ square inches per 1,000 Btu/h of total input rating of all appliances to be installed. When a furnace is installed in a full basement, infiltration is normally adequate to provide air for combustion and draft operation. Furnace rooms under 65m³ (700 ft³) should automatically be treated as confined space.

6. CHIMNEY VENTING

The flue pipe should be as short as possible with horizontal pipes sloping upward toward the chimney at a rate of one-quarter inch to the foot. The flue pipe should not be smaller in cross sectional area than the flue collar on the furnace.

The flue pipe should connect to the chimney such that the flue pipe extends into, and terminates flush with the inside surface of the chimney liner. Seal the joint between the pipe and the lining. The chimney outlet should be at least two feet above the highest point of a peaked roof. All unused chimney openings should be closed. Chimneys must conform to local, provincial or state codes, or in the absence of local regulations, to the requirements of the National Building Code.

NOTE: THE FURNACE IS APPROVED FOR USE WITH TYPE L VENT OR EQUIVALENT.

▲ CAUTION

THE FURNACE MUST BE CONNECTED TO A FLUE HAVING SUFFICIENT DRAFT AT ALL TIMES TO ENSURE SAFE AND PROPER OPERATION OF THE APPLIANCE.

NOTE: THE RECOMMENDED FLUE DRAFT PRESSURE IS -0.02 IN. W.C. (AS MEASURED UPSTREAM OF THE BAROMETRIC DRAFT REGULATOR).

The flue pipe must not pass through any floor or ceiling, but may pass through a wall where suitable fire protection provisions have been installed. Refer to the latest edition of NFPA 31 for regulations governing the installation of oil burning equipment. In Canada, refer to the latest edition of CAN/CSA B-139 for rules governing the installation of oil burning equipment.

See appendix A for burner set-up.

7. BAROMETRIC DAMPER CONTROL

This control, also known as a draft regulator, automatically maintains a constant negative pressure in the furnace to obtain maximum efficiency. It ensures that proper pressures are not exceeded. If the chimney does not develop sufficient draft, the draft control cannot function properly. The draft regulator, when installed should be in the same room or enclosure as the furnace and should not interfere with the combustion air supplied to the burner. The control should also be located near the furnace flue outlet and installed according to the instructions supplied with the regulator. The flue

Table A-2: Recommended Minimum Installation Clearances (Inches)

Furnace Model	Plenum Top	Front	Rear	Side 1	Side 2 ³	Flue Pipe	Floor	Enclosure
Oil-Fired Lowboy Front Breech	3	24	24	6	18	9	Combustible ¹	Standard
Oil-Fired Lowboy Rear Breech	3	24	24	6	18	9	Combustible ¹	Standard

¹ Wood Floor Only, do not install on carpeted floor, tiled floor, etc.

³ Note – Purpose of the 18" side clearance is to allow a passageway from the front to the back of the furnace.

TIP: Consider greater clearances front and back for easier servicing.

Table A-3: General Dimensions (Inches)

Furnace Model	Cabinet			Plenum Openings			Flue		Filter		Shipping Weight
	Width	Depth	Height	Supply	Gap	Return	Diameter	Height	Type	Size	
Rear Breech	22	51½	41	20½ x 18¾	2½	20½ x 18¾	6	37¼	Permanent	20 x 25 x 1	280
Front Breech	22	51½	41	20½ x 18¾	2½	20½ x 18¾	6	38¼	Permanent	20 x 25 x 1	250

Table A-4: Airflow Characteristics – Direct Drive

Furnace Model	Motor HP	Blower	ΔT	Motor FLA	Speed	CFM					
						External Static Pressure – Inches w.c.					
						0.20	0.25	0.30	0.40	0.50	0.60
All Lowboy Models	1/2 HP	G10	85°F	7.0	High	1810	1775	1740	1675	1585	1510
					Med-High	1570	1555	1540	1495	1445	1375
					Med-Low	1090	1085	1080	1070	1065	1050
					Low	710	700	700	690	665	650