



TEWKSBURY FIRE DEPARTMENT
OIL BURNER INSPECTION CHECK LIST

Address: _____

Date: _____ / _____

Inspected By: _____ / _____

Approved: _____ Disapproved: _____

- all items that are present and correct. any item not present or incorrect. **n/a** = not applicable.
- Any one unchecked item is cause for failure of the inspection.
- Refer to 527 CMR 4.00 or manufacture spec sheet for specific installation conditions.
- Oil burner technician shall ultimately be responsible for 527 CMR 4 compliance.

- Bring completed 527 CMR 4.00 Form 1 to inspection. If approved, sign form and leave with resident. Combustion test readings must be provided anytime adjustments are made to the oil burner flame.
- House numbers are on the house as per Town By-law 12.04.070 and M.G.L. Ch.148 Sec. 59.
- Smoke and Carbon Monoxide detectors are installed and working.

Outside Fill & Vent Pipes

- Vent pipe must be 2' from anything that opens into the house. Fixed basement window is acceptable.
- Vent pipe must be equal to or greater than the diameter of the fill pipe (minimum 1¼" diameter).
- Vent pipe must be higher than the fill pipe.
- Vent pipe must have an approved weather cap.
- Vent pipe must be at least 3' from ground level to prevent winter freezing and/or snow cover.
- Vent pipe must be in view of the fill pipe to prevent overflow during deliveries of oil.
- Fill pipe must have a cap capable of being screwed on.
- Fill & vent pipe openings into the buildings must be caulked to prevent oil seepage.

Oil Burner Inspection

- Oil Burner Emergency Shut-off switch; RED in color. Usually outside of the cellar stairs or outside of an enclosed boiler room. Older existing homes **may** have the switch at the top of the cellar stairs.
- The oil burner is on its own electrical circuit on the fuse or circuit breaker panel. Panel must be labeled.
- Serviceman Oil Burner Shut-off switch; RED in color. Must be within 3 feet of the burner itself.
- Over-burner Fire Protection – **MUST HAVE ONE:**
 - Sheetrock with 1-hour fire rating (5/8" min.); must extend outward 5' from the center of the burner.
 - Sprinkler Head. (250°f to 300°F rating)
 - AFUE Rated Burner. (Will be on the boiler label or noted in the installation manual.)
- Over-burner Thermal Electrical Shut-off switch must be installed within 6' above the burner. (aka: Electric Firematic, looks like a lead or plastic wheel attached to an electrical junction box.)
- Electrical wiring to burner must be protected by either metal conduit or metal clad wiring (ie. BX). Rigid conduit from serviceman's switch to over-burner shut-of switch; no exposed 110volt wiring.
- In general, no combustibles or storage should be within 2' of the oil burner.
- Oil burners should have sufficient air space in the cellar area or make-up air must be provided; except as provided in the manufacture's specification sheet for direct vent/air intake burners.

Smoke pipes

- Must have a draft control regulator; this is the swinging vent door on the smoke pipe, **except**
 - Where a direct-vent burner is installed; direct-vent burners will have two ducts leading from the burner, directly to outside air, (most HB Smith models do not have draft regulators) or
 - Where a power-ventilator is installed a draft regulator is still required; a power-vent goes directly through an outside wall and has specific clearance requirements listed in 527 CMR 4.04(9)(d).
- The draft control regulator swinging door must be able to move freely. A powered booster fan (aka: draft inducer) does not replace the draft regulator, it is used to supplement a poor ventilation condition. Booster fans must be installed between the draft regulator and the chimney connection.
- The smoke pipe must pitch down toward the burner and must not exceed 10 horizontal feet in length unless a draft booster is used. No chimney connector shall pass unprotected through a floor or ceiling.
- Combustibles within 18” of galvanized chimney pipe must be protected as per 527 CMR Table 4.04 2 or a chimney pipe with a lesser clearance rating must be installed to protect the combustible material.
- Each smoke pipe joint **MUST** be secured with at least three (3) sheet metal screws.
- A small 1/4” drill hole for serviceman testing must be present in the smoke pipe between the draft regulator and the furnace. This hole is required to perform a combustion test. No hole, no test.
- Smoke pipe must be securely cemented into the chimney to prevent movement and vapor release.

Oil Lines

- The oil line from tank to burner may have a coupling in the line providing it is exposed and accessible.
- Hand operated valve with automatic shut-off (Firematic w/ lead wheel) at base of oil tank.
- Hand operated valve with automatic shut-off (Firematic w/ lead wheel) at base of burner(s).
- An oil filter must be located at either the oil tank or burner. Couplings must be of the flared fitting type; compression type fittings shall not be used.
- All oil lines **MUST** be rigidly secured in place and protected from injury by **ONE** of the following:
 - By either cement casing (old way) or secondary containment sleeve (new way). Newer containment sleeves resemble copper tubing encased in rigid plastic, usually orange.
 - By an Oil Safety Valve (OSV) for older single copper lines with no secondary containment.
 - By having an overhead oil line protected by a secondary containment sleeve.
- Oil supply/return lines exposed to freezing temperatures must come off the top of tanks.

Oil Tank

- Oil tank must be set on a concrete based slab, no cinder blocks or dirt floors.
- New oil tanks with threaded legs must have a flange attached at floor level for stability and rusting.
- Outside tanks are mounted on a continuous 4” thick slab extending 8” beyond the tank perimeter.
- Tanks shall be at least 5’ from an internal or external flame (ie. oil burner, hot water heater).
- Oil tank gauge must be sealed and intact; glass cannot be broken.
- Oil tank vent alarm signal (aka: whistle) is located on top of the tank, at the base of the vent pipe. They are red in color and resemble a reducing coupling.
- Inside fill and vent pipes must pitch back to the tank. Swing joints are required on new installations.
- Tank is not exposed to vehicles or tank exposed to vehicles is protected by an acceptable barrier.
- Unenclosed single tank does not exceed 660 gallons or multiple tanks do not exceed 1,320 gallons.