

DEFINITIONS OF BOILERS AND RELATED ITEMS

The following definitions are those normally used for explanation and boiler classifications by the various Codes:

- I. **STEAM BOILER** is a fired or unfired closed pressure vessel used to generate steam by application of heat.
- A. Low Pressure Boiler is a boiler in which steam is generated at pressures not exceeding 15 PSI.
 - B. High Pressure or Power Boiler is a boiler in which steam or other vapor is generated at pressure exceeding 15 PSI.
 - C. Small Power Boiler is a boiler with pressure exceeding 15 PSI but not exceeding 100 PSI and having less than 350,000 BTU's per hour heat output.
 - D. Miniature Boiler is a boiler that does not exceed any other following limits:
 1. 16" inside diameter of shell.
 2. 5 cu. ft. gross volume, exclusive of casing and insulation.
 3. 20 sq. ft. water heating surface.
 4. 100 PSI maximum allowable working pressure.
- II. **HOT WATER BOILER** is a fired or unfired pressure vessel used to heat water.
- A. Low Pressure Boiler is a boiler, which does not operate at water pressures exceeding 160 PSI or water temperatures exceeding 250°F.
 - B. High Pressure or High Temperature Power Boiler is a boiler used to heat water or a liquid to temperatures above 212°F at pressure exceeding 160 PSI or to a temperatures exceeding 250°F regardless of pressure.
 - C. Miniature Boiler is a high temperature boiler with the same limitations as above paragraph I, D.
- III. **WATER HEATER** is an appliance designed primarily to heat supply water and is equipped with automatic controls limiting water temperatures to a maximum of 210°F.
- IV. **OTHER RELATED INFORMATION**
- A. Automatic Boiler is a boiler equipped with all devices required by the Code to maintain burner firing conditions, the pressure and/or temperature, the water level for fully automatic and safe operation within predetermined limits without manual manipulation.
 - B. Packaged Boiler is a boiler equipped and shipped complete with fuel burning equipment, accessories and automatic controls.
 - C. Steam Boiler Horsepower is the term used to rate the generating capacity output of a steam boiler. A boiler horsepower is equivalent to the evaporation of 34.5 lbs. of water or 4.14 gallons per hour at a temperature of 212°F into steam at the same temperature. Or, 1 boiler horsepower is the evaporation of 30 lbs. of water per hour into steam at 70 PSI gauge pressure from an initial water temperature of 100°F. A boiler horsepower is equivalent to an output of 33,475 BTU's per hour.
 - D. Certified Boiler Inspector is a person qualified to make inspections or examinations of boilers or tanks according to the rules which the vessel is constructed, who has an unrevoked Certificate of Competency issued by the State and National Board and who is employed by anyone of the following:
 1. A County
 2. A City
 3. An Insurer
 4. An employer for the purpose of inspecting only tanks and boilers under his jurisdiction.

V. PRESSURE VESSELS (UNFIRED) is defined as a closed vessel or tank having a nominal internal diameter exceeding 6" and a volume exceeding 1½ cu. ft., for liquids, gases or vapors subjected to pressure exceeding 15 PSI or steam under any pressure.

VI. PILOTS

- A. Pilot is a burner smaller than the main burner, which is ignited by a spark or other independent and stable ignition source, and which provides ignition energy required to immediately light-off the main burner.
- B. Continuous Pilot is a pilot that burns without turndown throughout the entire period that the boiler is in service, whether or not the main burner is firing.
- C. Intermittent Pilot is a pilot which burns during the light-off and while the main burner is firing, and which is shut off with the main burner.
- D. Interrupted Pilot is a pilot which burns during light-off and which is shut off during normal operation of the main burner.

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