Do Not Drain Boiler or Pull Feedwater Pump Switch while Boiler is Hot

OPERATING & MAINTENANCE INSTRUCTIONS
MODEL VTB ALL SIZES & ALL FUELS

Hang these cards where burner is installed. Also hang where the fuel equipment is located in case of a fire. The contractor installing the equipment will furnish copies of diagrams showing all of the main oil lines & controlling valves. Hang one copy of this diagram adjacent to each instruction card.

DAILY PROCEDURE
2. Blow-down the water column to the low water cut-off point.
3. Check level of oil in the storage tank
4. Check the temperature of the water supplied to the unit. If the water is below 160°F, preheat return to not more than 200 °F.

WEEKLY PROCEDURE
1. Check the combustion control operation as outlined in the check list section of the service manual. Investigate & correct at once, any failure to shut-off fuel valve.
2. Check the pressure limit shut-down as outlined in the service manual check list. During this check, observe the operation of the programming control to make sure that the operation is as described in the sequence of operation section of this manual.
3. Wipe clean the entire unit, particularly any operating parts, so that oil & dust does not accumulate.
4. If water treatment is being used, check water against check list supplied by water treatment company.
5. Never introduce feed water treatment through feed water pump or condensate tank. Treatment should be introduced directly into the boiler or device located on discharge side of the feed water pump.

MONTHLY PROCEDURE
1. Lift the steam safety valve by the manual lever to make sure it is operating freely.

SEMI-ANNUAL PROCEDURE
1. Cool boiler slowly to room temperature & ensure pressure is relieved prior to any attempt to open access openings. (WARNING: failure to cool boiler slowly will effect life of the boiler & possibly cause tubes to leak).
2. Remove the bottom rear casing assembly
3. Remove the flue baffle & wrapper assembly
4. Brush all surface between the fins & remove soot & scale.
5. Replace flue baffle & wrapper assembly using new gaskets.
6. Replace the bottom rear casing assembly.
7. Add a few drops of a good grade of light motor oil, No. 10 or 20 S.A.E., to the burner motor.

ANNUAL PROCEDURE
1. Clean water side of boiler as follows:
   A. Drain the boiler through the blow-down valve.
   B. Remove all handhole covers & the manhole cover & replace with new gaskets.
   C. Wash down the inside (water side) of the boiler with a hose, making sure to loosen & remove all sludge out of the bottom of the boiler.
   D. Inspect shell & tube surfaces for signs of corrosion or scale formation. If scale is forming (to any degree) on internal surfaces, consult your chemical supplier for boiler treatment.
   E. Using new gaskets, install the handhole covers.
   F. Disconnect the piping on the discharge side of the feedwater pump & inspect for scale build up. Check valves for proper

Check valves for proper operations & replace if necessary
G. Fill the boiler by means of the feedwater pump & reset the low water cut off.
2. Clean the fire side of the boiler as follows:
   A. Remove the bottom rear casing assembly
   B. Remove the flue baffle & wrapper assembly
   C. Brush all surface between the fins & remove soot & scale.
   D. Replace flue baffle & wrapper assembly using new gaskets.
   E. Replace the bottom rear casing assembly.
   F. Add a few drops of a good grade of light motor oil, No. 10 or 20 S.A.E., to the burner motor.
3. Add a few drops of a good grade of light motor oil, No. 10 or 20 S.A.E., to the burner motor.
4. Remove the oil strainer & clean.
5. At the time of this yearly inspection & cleaning, it is recommended to have the condition of the equipment checked.

TO START THE BOILER
With main power breakers in the “on” position, the water supply & fuel supply systems are aligned to support boiler operation, & the burner switch is in the “off” position, perform the following steps.
1. Fill unit with water to the prescribed level.
2. Reset low water cut-off switch (on cut-off at top).
3. If the unit is gas-fired, purge the air from the line.
4. Check oil pressure on the suction discharge side of the pump. The pressure should remain constant.
5. If the motor does not start, check the limit controls to determine which control is breaking the control circuit.
6. When the motor starts, observe the sequence of operation. Be sure it is in accordance within those shown in the service manual for the installed control system.
7. Check pressure limit controls by actually causing limit to break, remove front cover of control & observe operation of control.
8. Check operation of condensate tank with relation to keeping sufficient water supply available.

TO STOP BURNER
1. Pull blower & control switch.
2. Do not pull feedwater pump switch until boiler has cooled.

IF BURNER DOES NOT START
1. Check all electric fuses.
2. Check water level in boiler.
3. Check limit controls to make sure they are working.
4. Push the motor reset button.
5. Push reset button on the programming control. If burner then fails to start call your York-Shipley Global Representative.

Installed by ____________________________
Address ________________________________
Phone ____________________________
Date of Installation ___________________________

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