PARKER STEAM BOILERS
GENERAL RETUBE INSTRUCTIONS

I. WHEN SHOULD TUBES BE REPLACED:

Boiler tubes should be replaced only if deemed advisable from an internal and external inspection. If the tubes are leaking resulting from a general scale condition, corrosion or excessive burning, it is considered advisable to replace the entire set if such condition is present in several tubes. It is not considered advisable to replace only one tube unless a careful internal inspection is made and all other tubes are found to be in perfect condition. Boiler tubes can be reversed to provide longer life after years of service on Parker Boilers when considered advisable from inspection. If a heavy scale condition is present in the boiler tubes, but there are no signs of leaks or excessive warping, it is considered advisable to clean the boiler tubes in accordance with Bulletin 1003-821-E.

II. BASIC INSTRUCTIONS REQUIRED ON RETUBING:

1. Thoroughly test steam drum with heavy hammer, particularly over the upper section, to be certain the drum is in perfect condition and will pass inspection. If the drum shows any weakness, it should be replaced.
2. Thoroughly clean the internal steam drum. Inspect to be certain all scale and deposits are properly removed from the drum before new tubes are installed. Remove inspection plugs and wash out thoroughly.
3. Replace all internal fittings including all blowdown connections, water feed line, tube connections and water column connections.
4. Replace the internal safety valve connection, steam valve connections, and water column connections.
5. Clean burners and orifices in burner spuds on gas fired models. Care must be taken to prevent damage to burner or orifices.
6. Install tubes and all connection fittings in a correct manner so that each of the tubes and fittings are connected properly without leaks and strain.
7. Hydrostatically test the unit for 1-1/2 times the working pressure.
8. Be certain to locate baffles and tube braces in proper position. See drawing furnished.
9. Inspect and repair cabinet. Insulation should be replaced if the boiler has been overheated, or on signs of deterioration of the insulation. Cabinet should be properly repaired and painted with a heat resistant enamel or equal.
10. Check and clean the condensate tank, blowdown tank and all connecting lines to and from the boiler.
11. Fire test the boiler and bring up to operating pressure, making a complete test to be certain that performance is satisfactory. Blow the boiler down at least two times in the normal manner before the system is put into service to remove all foreign matter.

III. IMPORTANT REQUIREMENTS FOR PROPER BOILER OPERATION:

Determine the cause of the tube replacement and take the proper precautionary measures to prevent recurrence. If the replacement resulted from overheating, proper controls should be installed and sufficient maintenance undertaken to eliminate future problems. If replacement resulted from a water condition, samples should be taken in accordance with Water Sample Bulletin 1002 and proper water treating program and blowdown program started in accordance with Water Treatment Bulletin 1001-B. See Guide on Proper Boiler Operation Bulletin 101-5 and Daily Boiler Blowdown Instruction Sheet.

FOR COMPLETE INFORMATION ON RETUBING, SEE SPECIFIC RETUBE INSTRUCTION BULLETIN AND RETUBE INSTRUCTION AND BAFFLE PLACEMENT DRAWING.