



19HE SERIES BOILER

BOILER SECTION ASSEMBLY INSTRUCTIONS

When boilers are delivered to the job site, each item should be inspected closely for possible shipping damage. Scars or nicks in the port sealing surfaces may allow leakage. Do not attempt to use any section that has been damaged in the port seal area. Clean hydronic gasket (port) recesses and rope groove with a wire brush, taking care not to damage machine surface.

When ready to commence assembly, on a level pad, place the angle rails in position parallel with each other with the 2-1/2 inch side on the floor and measuring 25-21/32 inches apart (outside dimension). Be sure to align the center of the boiler with the centerline of the pad. If no pad is provided, shim and grout under the angles to make them level and provide support along the full length.

Proper location of sections.

3 SECT	F	H	B															
4 SECT	F	P	H	B														
5 SECT	F	H	P	H	B													
6 SECT	F	P	H	P	H	B												
7 SECT	F	H	P	H	P	H	B											
8 SECT	F	P	H	P	H	P	H	B										
9 SECT	F	P	H	P	H	P	H	P	B									
10 SECT	F	P	P	H	P	H	P	H	P	B								
11 SECT	F	P	P	P	H	P	H	P	H	P	B							
12 SECT	F	P	P	P	P	H	P	H	P	H	P	B						

- F = Front Section
- P = Plain intermediate section
- H = Heater intermediate section
-(Optional, must be ordered).
- B = Back Section

NOTE: Some sections may need shims under support feet to align with other sections.

Stand the back section in place with the feet on and in the angle iron rails. Support the section as required to prevent it from falling. Clean hydronic gasket (port) recesses and rope groove with a stiff wire brush. Apply spray-on adhesive (supplied with the boiler) to rope groove to hold wicking in place during assembly.

NOTE: Do not spray adhesive in the hydronic seal ports.

Apply a length of wicking avoiding bends and twists. Make sure ends extend past the cleanout cover opening. Place the upper and lower hydronic seals in the recessed (port) section taking care not to dislodge the rope or the hydronic seals. Inspect the alignment of the sections through the open ports and, if properly aligned, install the draw rods with nuts drawn hand-tight. (See FIGURE 1.) Plumb the sections before applying torque to the upper right and lower left draw rods. Maintain finger-tight torque on upper left and lower right draw rods.



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After draw rods are hand tight, torque as shown in TABLE 1.

The upper and lower ports should be drawn up evenly until iron to iron contact is made around the outside of the hydronic seal (port) area. Metal to metal conditions will not occur at any other location.

Important

Avoid excessive torque on upper left and lower right draw rods, which may warp the section. See FIGURE 1 for correct alignment of the seal.

TABLE 1		
STEP 1	UPPER RIGHT	FT. LBS.
STEP 2	LOWER LEFT	5 FT. LBS.
STEP 3	UPPER LEFT	5 FT. LBS.
STEP 4	LOWER RIGHT	5 FT. LBS.
STEP 5	UPPER RIGHT	25 FT. LBS.
STEP 6	LOWER LEFT	25 FT. LBS.
STEP 7	UPPER RIGHT	50 FT. LBS.
STEP 8	LOWER LEFT	50 FT. LBS.
STEP 9	UPPER LEFT	10 FT. LBS.
STEP 10	LOWER RIGHT	10 FT. LBS.

Prepare additional intermediate sections and install in the same manner described above. Be sure each section is properly sealed against water leakage and flue gas ex-filtration. Be certain the angle rails remain level and provide support for each section as it is assembled. Check each section for vertical position.

When all sections, including the front and back sections are in place, check all draw rods to insure iron-to-iron contact at ports. *DO NOT APPLY EXCESSIVE TORQUE.*

Figure 1

