

103-03

Jack

FR-A-7 BOILER

by

AMERICAN-Standard

INSTALLATION-OPERATION
AND
MAINTENANCE MANUAL

FOR
BOILER-BURNER UNITS
FOR OIL HEATING

AMERICAN-Standard

First in heating . . . first in plumbing

BP-7957-FRA7



00267

NOTICE

MR. STEAMFITTER!

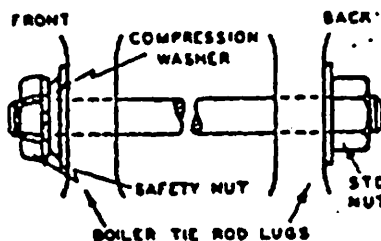
Use regular steel nuts and flat washers for assembling boiler. Apply oil or grease freely to the rod threads while assembling sections to prevent stripping of threads on rod.

After drawing up boiler, remove steel tie rod nuts at front of boiler and place sheet metal **COMPRESSION WASHERS** on rods with open (cupped) side against regular washer.

Place **SAFETY NUTS** on front end against compression washers and leave regular steel nuts on back end of the rods.

Lubricate nuts well and tighten with **FINGERS ONLY**.

**FAILURE TO OBSERVE THIS
MAY RESULT IN DAMAGE TO BOILER**



IMPORTANT!

00269

See instructions Page 4 on proper setting of boiler for installation. When boiler sections have been assembled, it is essential that boiler be tested for leaks before platework, jacket or piping is installed.

BEFORE FIRE IS STARTED IN BOILER, plug all boiler tappings and fill entirely with cold water.

To protect and safeguard the accuracy of steam or water gauge supplied, **DO NOT INSTALL GAUGE UNTIL AFTER TESTING OF BOILER OR SYSTEM.**

Testing pressure should be at least 10 pounds but should not exceed 50 pounds.

EXAMINE BOILER CAREFULLY, INSIDE AND OUTSIDE, to insure against leaks through concealed breakage caused in shipping and handling.

After making certain that there are no leaks, remove plugs for boiler trim and other connections.

This precaution is for your protection and will simplify handling of necessary replacements and adjustment claims.

DRAIN TAPPING

Back of boiler is provided with drain tapping at lowest water space practicable, as per A.S.M.E. Heating Boiler Code. This tapping must be used to drain boiler entirely.

DO NOT PLACE DRAIN COCK IN RETURN PIPING LINE. Installer should provide suitable drain connection before assembling jacket to boiler.

EXTERNAL HEATER TAPPINGS

Boilers are provided with two 3" tappings on Back Section below water line for external water heater. Knockouts must be removed from rear jacket panel if these tappings are used.

CAUTION -- WATER BOILERS

The expansion tank should not be set in a cold or an exposed place. If the pipe leading to or from the tank freezes, serious damage may result. If valve of any description is installed in the piping leading to or from the expansion tank, **BE SURE THAT IT IS OPEN WHILE THE BOILER IS IN OPERATION.**

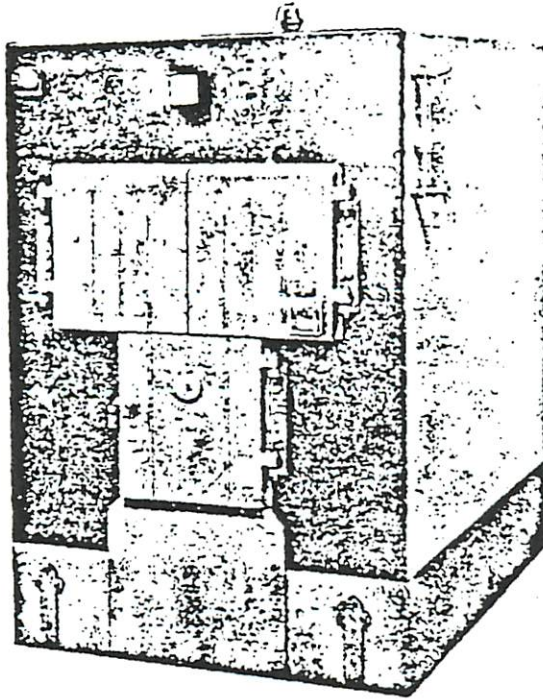


Fig. 7

8. Refractory crownsheet baffles are provided for the 5- through 7-section boilers. The baffles are assembled by entering the boiler through the door opening in the front section. Either baffle may be placed first as far back as possible, with the straight or bottom edge resting on lugs located at either side of the back and next to back sections. Rest the upper rear end on the cast-on lug located on the center face of the back section.

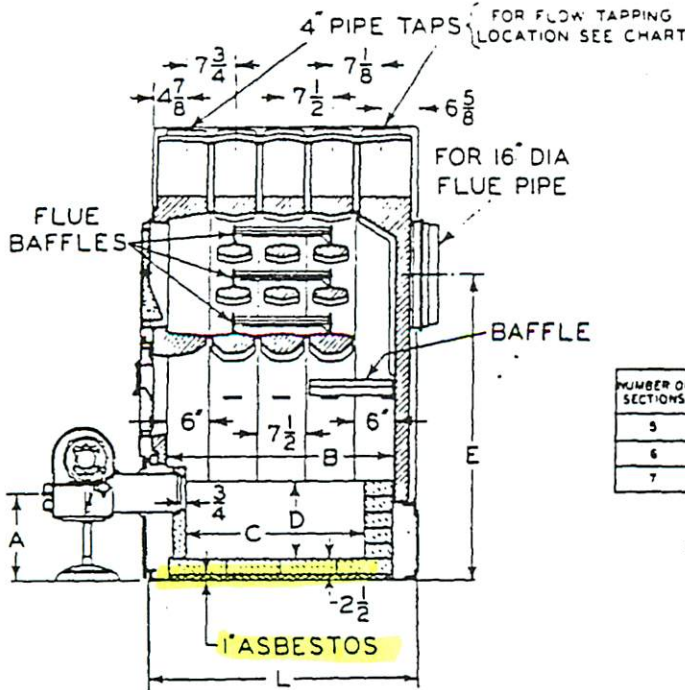
Place the remaining baffle on the side lugs as directed for the first baffle and raise the upper edge approximately to the crownsheet. Raise the upper edge of the first baffle and interlock the two upper edges as the baffles are lowered together.

Four upper and two bottom hot flue baffles are provided for 5- to 11-section oil boilers inclusive. The baffles with rectangular ends are used in the two upper and two intermediate outside flues on each side. The baffles with the angular shaped ends are used in lower outside flues. The hot flue baffles should be installed with ends at the joint line (high point) of the NEXT TO FRONT section for 5- to 10-section boilers inclusive, and with ends at the joint line (high point) of the second from front section for the 11-section boiler. Baffles should rest on the short projections cast on each end. See Page 14.

9. Putty outside of sections at joints with boiler putty also at joint between front section and front base panel. Grout between bottom of sections and base and between base and floor with a mixture of one part of Portland cement and three parts of asbestos cement.

10. ASSEMBLY OF JACKET - Attach left lower front panel and right lower front panel using 1/4-20" x 1/2" washer head jacket screws. Do not draw screws up tight.

11. Assemble four special hexagon jacket studs, as provided, in 3/8" tappings on face of back section. Remove knockouts as required for pipe connections and controls from both halves of the rear jacket panel.



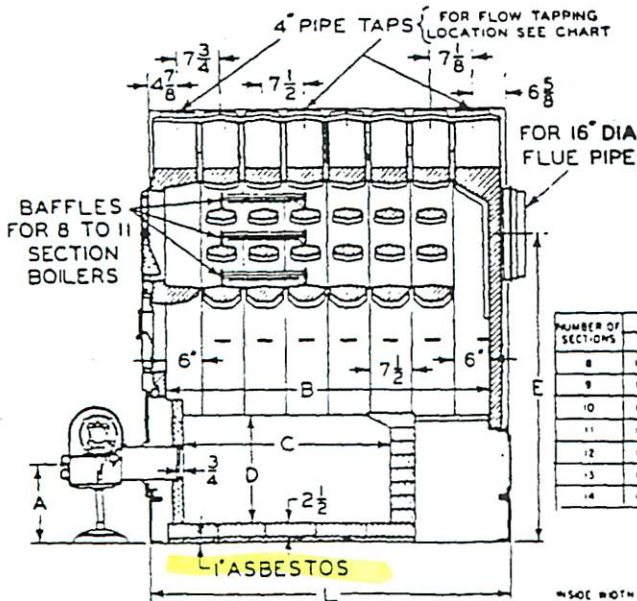
SECTION THRU OIL FIRED BOILER BURNER UNIT

NUMBER OF SECTIONS	DIMENSIONS						NUMBER OF 4" FLOW TAPPINGS	NUMBER OF 6" RETURN TAPPINGS
	A	B	C	D	E	L		
5	14	34 1/2	27 1/2	12 1/2	47 1/2	42 1/2	2	2
6	14	42 1/2	35	12 1/2	47 1/2	50	3	2
7	14	49 1/2	42 1/2	12 1/2	47 1/2	57 1/2	3	2

INSIDE WIDTH OF COMBUSTION CHAMBER 28"

CODE LETTERS	
FX - FRONT SECTION	RC - REAR CENTER UPTAKE SECTION
FC - FRONT CENTER SECTION	RCX - REAR CENTER CONNECTING SECTION
C - CENTER SECTION	BX - BACK SECTION
CX - CENTER CONNECTING SECTION	"X" - IN CODE DESIGNATES 4" TAPPING

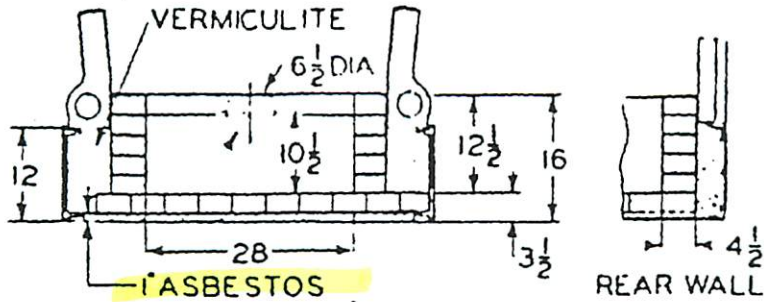
NUMBER OF SECTIONS	ARRANGEMENT OF SECTIONS												
	FX	C	C	C	BX								
5													
6	FX	C	CX	C	RC	BX							
7	FX	C	C	CX	C	RC	BX						
8	FX	FC	C	CX	C	RC	RC	BX					
9	FX	FC	CX	C	C	CX	RC	RC	BX				
10	FX	FC	CX	C	C	CX	C	RC	RC	BX			
11	FX	FC	FC	CX	C	C	CX	RC	RC	RC	BX		
12	FX	FC	FC	CX	C	C	CX	C	RC	RCX	RC	BX	
13	FX	FC	FC	CX	C	C	CX	C	C	RCX	RC	BX	
14	FX	FC	FC	CX	C	C	CX	C	C	CX	RC	RC	BX



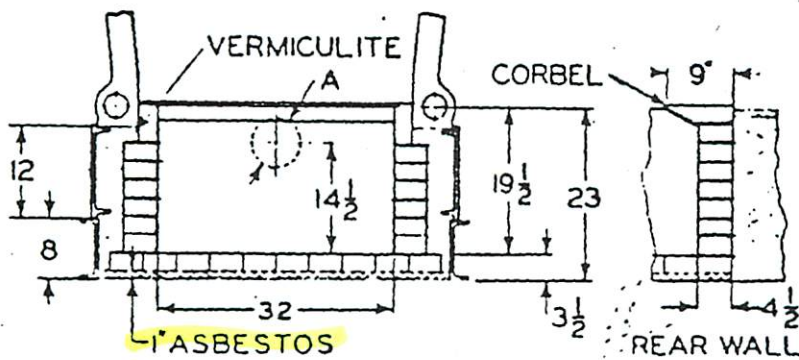
SECTION THRU OIL FIRED BOILER BURNER UNIT

NUMBER OF SECTIONS	DIMENSIONS						NUMBER OF 4" FLOW TAPPINGS	NUMBER OF 6" RETURN TAPPINGS
	A	B	C	D	E	L		
8	18	57 1/2	38 1/2	19 1/2	55 1/2	63	3	2
9	18	64 1/2	41 1/2	19 1/2	55 1/2	72 1/2	4	2
10	18	72 1/2	44 1/2	19 1/2	55 1/2	80	4	2
11	18	79 1/2	47 1/2	19 1/2	55 1/2	87 1/2	4	2
12	18	87 1/2	50 1/2	19 1/2	55 1/2	95 1/2	5	2
13	18	94 1/2	53 1/2	19 1/2	55 1/2	102 1/2	5	2
14	18	102 1/2	56 1/2	19 1/2	55 1/2	110 1/2	5	2

INSIDE WIDTH OF COMBUSTION CHAMBER 32"

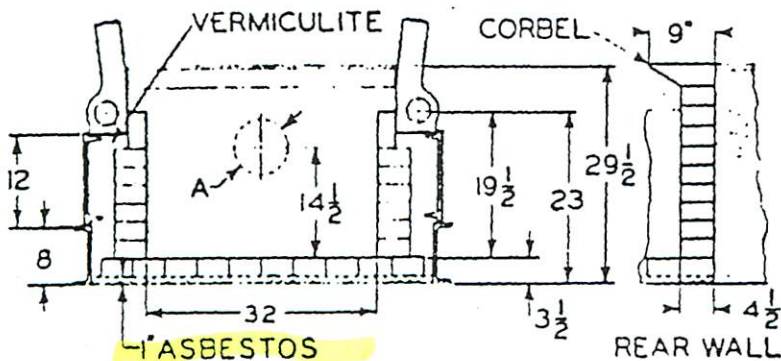


REFRACTORY COMBUSTION CHAMBER FOR 5, 6, & 7, SECTIONS



REFRACTORY COMBUSTION CHAMBER FOR 8, 9, & 10, SECTIONS

NO OF SECTIONS	8	9	10
DIMENSION "A" (HOLE IN FRONT BRICK)	6 1/2	7 1/2	7 3/8



REFRACTORY COMBUSTION CHAMBER FOR 11, 12, 13, & 14, SECTIONS

NO OF SECTIONS	11	12	13	14
DIMENSION "A" (HOLE IN FRONT BRICK)	7 3/8	7 1/2	7 1/4	6 1/2