

SERIES 21B-213

STANDARD BOILERS

by

AMERICAN-Standard

INSTALLATION-OPERATION AND MAINTENANCE MANUAL FOR

TYPE 1-G GAS FIRED BOILERS

APPROVED BY AMERICAN GAS ASSOCIATION

*Notice to Installer and Operator
This booklet must be affixed on or
adjacent to the heating equipment*

AMERICAN-Standard

First in heating ... first in plumbing

1/55

5.314 NO. 8

1) #3323- 1/4 ASBESTOS FIRE CELL CORRUGATED PAPER
WITH .001 (SPECIAL ORDER REQUIRED) ALUMINUM
FOIL ON FLAT SIDE.
GRANT WILSON, INC. 181 W. JACKSON BLD.
CHICAGO 4, ILL.
AS AN EMERGENCY ALTERNATE USE #3321 WITH
.0005 ALUMINUM FOIL.

TOLERANCES UNLESS SPECIFIED		DESCRIPTION A-H EDLER COMBUSTION CHAMBER INSULATION RETAINER	
FRACIONS 1		MATERIAL	00-B-KBAG
DECIMALS 1		FINISH	
ANGLES 1			
BLACKEN CHAMBER ON OUTSIDE COVER TO BE CONFORMING GRADE U.S.A.		 AMERICAN STANDARD 1000 HICKORY STREET CHICAGO, ILL.	
OTHER INFO - SYMBOLS INDICATE T.Y.R.	DATE 1.15.51	CHECKED J.C.W.	RESEARCH & CONSTRUCTION
APPROVED	BY J. J. J.	DATE 1.15.51	357110-72-75 C
REMARKS	82-2028-C		

NOT TO BE USED FOR ANY OTHER PURPOSES THAN SPECIFIED IN ORDER TO PREVENT DAMAGE TO PROPERTY

22868

5 DIA HOLE

CHINA 2415

▷ #3323- 1/4 ASBESTOS AIR CELL CORRUGATED PAPER
WITH .001 (SPECIAL ORDER REQUIRED) ALUMINUM
FOIL ON FLAT SIDE.
GRANT WILSON, INC. 141 W. JACKSON BLD.
CHICAGO 4, ILL.
AS AN EMERGENCY ALTERNATE USE #3321 WITH
.0005 ALUMINUM FOIL.

TOLERANCES UNLESS SPECIFIED FRACTIONS 2 DECIMALS 2 ANGLES 2 DIMENSIONS SHOWN ON DRAWING REFER TO IN SPECIFIC UNLESS OTHERWISE SPECIFIED		DESCRIPTION A-H BOILER COMBUSTION CHAMBER INSULATION REMAINDER	
QUANTITY 1		MATERIAL ▷	
FINISH 1		DATE 3, 1962	
APPROVED [Signature]		RESEARCH & CONSTRUCTION CHICAGO, ILL.	
EXPLANATION 82-8028-C		SCALE 1/4" = 1"	
387110-72-75 C		387110-72-75 C	

REPORT NUMBER AND REVISIONS SHOWN. THIS DRAWING IS SUBJECT TO REVISIONS BETWEEN REVISIONS.

USE THIS BOOK

FOR REFERENCE WHEN ERECTING BOILER
AND ORDERING PARTS

NOTICE MR. STEAMFITTER!

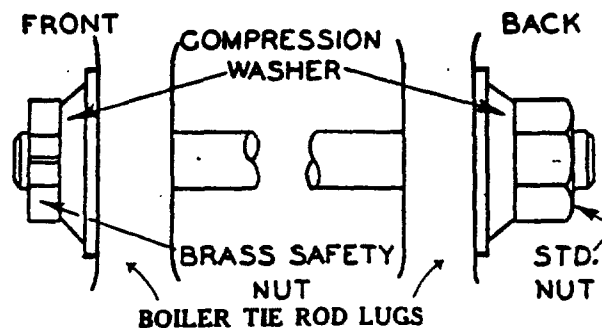
Use regular steel nuts and flat washers for assembling boiler. Apply oil or grease freely to tie rod threads while assembling sections to prevent stripping of threads on rod.

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

Place BRASS SAFETY NUTS on front end and regular steel nuts on back end of tie rods against compression washers.

Lubricate nuts well and tighten with FINGERS ONLY.

FAILURE TO OBSERVE THIS
MAY RESULT IN DAMAGE TO BOILER



SECTIONS MUST BE ASSEMBLED ACCORDING TO ARRANGEMENT LISTED BELOW TO INSURE PROPER OPERATION OF BOILER AND THAT JACKET OPENINGS MATCH WITH CONNECTING SECTIONS

**IDEAL No. 1511 ARCOFLAME
HEATING UNIT**

FOR OIL BURNING

**CODE LETTERS AND ARRANGEMENT
OF SECTIONS FROM FRONT OF BOILER**

F—FRONT SECTION (No. 7)

CX—CENTER CONNECTING SECTION (No. 11)

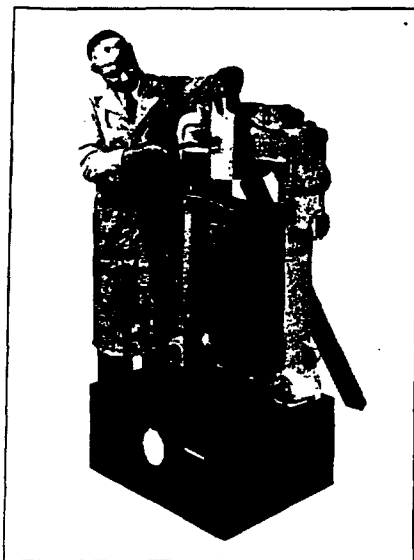
BO—BACK (CONN.) SECTION (No. 7)

IMPORTANT!

If water condition should be encountered in the basement, or where it has been necessary to water-proof the basement floor, boiler should be mounted on a concrete or hollow tile base, preferably to a height of at least 3".

DRAIN TAPPING

Drain tapping is located on face of back section at lowest point practical for completely draining all the water from boiler. Connect drain cock with this tapping. Do not connect drain cock to return pipe line.



No. 1

1. Level base in final position with regard to chimney and place Back Section on base. Support with prop as shown.

Clean nipples and nipple openings with kerosene or gasoline and apply good lubricating oil. DO NOT USE PAINT, RED LEAD OR CEMENT.

Drive nipples squarely into section, using block of wood and hammer.

2. Special nipple setting gauge is provided for larger nipple. Gauge nipple in both directions to insure that same is driven squarely and to proper depth into nipple opening. Cut-out in gauge must rest on nipple, with legs of gauge touching finished face of section, when nipple is properly driven.

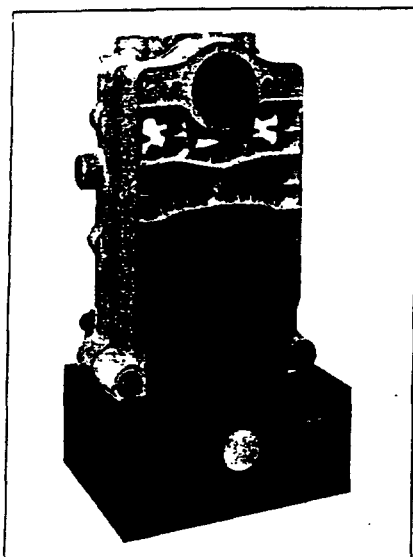
Use rule or suitable gauge for smaller nipples, to insure that same are properly driven and project equally all around. Nipples must project $\frac{1}{8}$ inch more than half their length outside of finished face of section.

It is important that nipples be driven as directed, to insure tight joints. Most nipple leaks are caused by tilted or cocked nipples which result from improper driving and assembly.

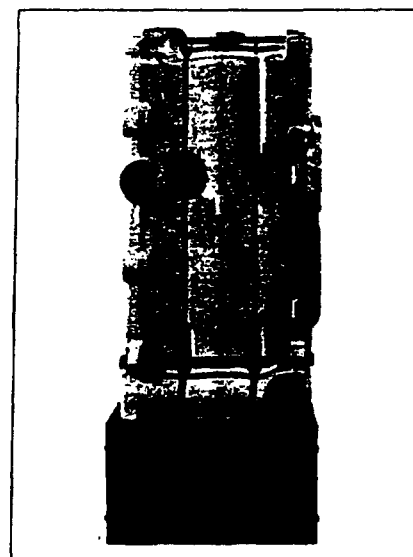
Paint ground joints of back section with red lead before adding center connecting section.



No. 2

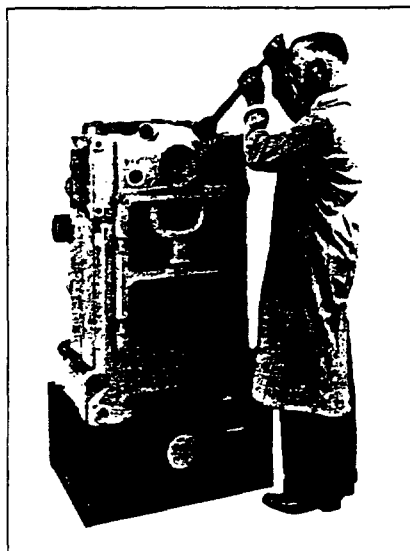


No. 3



No. 4

3. Clean nipple openings of center connecting section. Place section on nipples of Back Section and drive section in place with heavy block of wood, striking section squarely as possible over nipples.

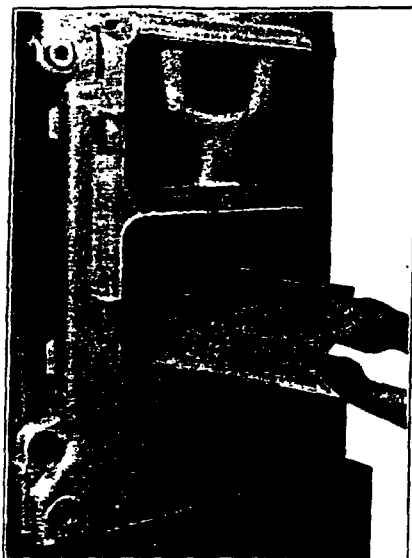


No. 5

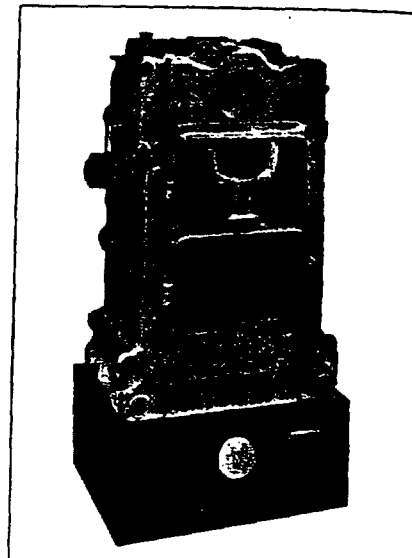
4. Paint ground joint of center connecting section with red lead. Clean nipple openings of Front Section. Place Front on nipples of center connecting section and drive Front in place as directed in above operation.

5. Run short tie rods thru lugs on top of Front Section and slots on top of Back Section. Run long tie rods thru lower lugs of Front and Back Sections. Place regular steel nuts and flat washers on rods and draw nuts up **EVENLY ON ALL FOUR RODS** by turning each nut an equal amount in rotation until sections make contact all around at ground joints.

AFTER SECTIONS ARE ASSEMBLED COMPLETE, remove steel tie rod nuts at front of boiler (see diagram, page 1) and place sheet metal compression washers on rods with open (cupped) side against regular washer. Place brass safety nuts on front end and regular steel nuts on back end of tie rods against compression washers. Lubricate nuts well and tighten with **FINGERS ONLY**; failure to observe this may result in damage to boiler.



No. 6



No. 7

IMPORTANT—When boiler sections have been assembled, it is essential that boiler be tested 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 30 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.

6. Before installing combustion chamber baffle assembly it would be well to complete work far as possible on the combustion refractory unit. **MAKE SURE** that boiler is located central with base and against locating lugs cast on top of rear base panel.

The Arcoflame burner requires a refractory chamber approximately 12" long and 13" wide and should extend upward to cover about $2\frac{1}{2}$ " of the water backed portion of the boiler sections. The inner front of the combustion chamber should be $4\frac{1}{4}$ " from the front face of the base.

General construction of built-up Combustion Chamber is shown on pages 12 and 13.

Size No. "0" Arcoflame Heat Lib-O-Rator Combustion Chamber which is fabricated ready for use and furnished complete with necessary bonding cement and insulating material is available at extra charge if desired.

Combustion chamber baffle assembly is bolted thru upper coil opening in back section. Install coil covers in lower coil opening.

Attach plate in opening above base at front of boiler.