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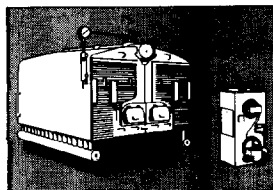
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SERIES 45 MILLS BOILER JACKET ASSEMBLY INSTRUCTIONS

TO STEAMFITTER

**NOTE: READ THESE INSTRUCTIONS CAREFULLY.
THEY WILL SAVE YOU TIME IN ASSEMBLING
JACKET PROPERLY.**

THE HBSmith
COMPANY, INC.
WESTFIELD, MASSACHUSETTS
Established 1853



THESE INSTRUCTIONS TO BE LEFT WITH THE BOILER FOR REFERENCE PURPOSES.

SERIES 45 MILLS BOILER

JACKET ASSEMBLY INSTRUCTIONS

1. GENERAL

THESE INSTRUCTIONS ARE WRITTEN TO INSURE A QUICK, EASY AND PERFECTLY FITTED JACKET ASSEMBLY. THE PROCEDURES HAVE BEEN TESTED AND HAVE PROVED TO BE MOST EFFECTIVE IN OBTAINING THE DESIRED RESULTS.

THE JACKET COMPONENTS ARE DESIGNED TO PERMIT INSTALLATION ON A FULLY ERECTED BOILER WITH COMPLETE PIPING CONNECTIONS AND ACCESSORIES EXCEPT MANIFOLDS IN PLACE AND EXCEPT VENT PIPING FOR GAS AND GAS/OIL BOILERS. THOSE UNITS MUST BE PIPED AFTER THE JACKET IS ASSEMBLED. CONTROLS SHOULD BE MOUNTED WITH SEPARATE WELLS TO PERMIT THE JACKET TO BE INSTALLED WITHOUT DRAINING THE BOILER. HEATER MANIFOLDS SHOULD NOT BE INSTALLED UNTIL JACKET SIDE PANELS ARE IN PLACE.

THIS FEATURE ALLOWS HYDROSTATIC TESTING OPERATION FOR CLEANING THE PIPING SYSTEM OR FOR TEMPORARY HEAT WITHOUT USING THE JACKET. THEN, WHEN THE WORK OF OTHER TRADES IN THE BOILER ROOM HAS BEEN COMPLETED, THE JACKET CAN BE INSTALLED WITHOUT EXPOSURE TO DIRT AND DAMAGE.

BEFORE COMMENCING TO ASSEMBLE THE JACKET, ALL HY-TEMP HYDRONIC SEALS SHOULD BE CHECKED AND MADE TIGHT, THE SEALING OF EXTERIOR JOINTS BETWEEN SECTIONS AND AT THE TOP OF THE FOUNDATION SHOULD BE CHECKED AND POINTED UP.

2. JACKET PACKAGING

JACKET COMPONENTS ARE SHIPPED IN MARKED PACKAGES AS FOLLOWS:

PACKAGE No. 450 & 4500 J-1A TAG
(THE BLANK SPACE WILL CONTAIN THE APPROPRIATE NUMBER OF BOILER SECTIONS.)

NOTE: THIS PACKAGE CAN BE USED ONLY WITH THE BOILER HAVING THE PROPER NUMBER OF SECTIONS.

2- SUPPORT ANGLES	A
2- TOP ANGLES	B
2- TOP CORNERS	C
4 OR 6 SUPPORT STRAPS	D
4- 22" END TOP ANGLES	E
6, 8 OR 10 NIPPLE CLAMPS	F
BAG OF NUTS, BOLTS & SCREWS	
ASSEMBLY INSTRUCTIONS	

PACKAGE No. 450 & 4500 J-2A TAG
(TYPICAL FOR ALL BOILER SIZES)

2- TOP FRONT PANELS	J
1- R.H. FRONT CORNER PANEL	KR
1- L.H. FRONT CORNER PANEL	KL
1- R.H. UPPER FRONT PANEL	VR
1- L.H. UPPER FRONT PANEL	VL
1- VERTICAL PANEL	M
1- R.H. UPPER REAR PANEL	OR
1- L.H. UPPER REAR PANEL	OL
1- R.H. REAR PANEL LEG	PR
1- L.H. REAR PANEL LEG	PL
1- R.H. REAR LOWER PANEL	Q
1- L.H. REAR LOWER PANEL	Q
2 - CLEANOUT PANEL COVERS	R
1- REAR WATER DRUM COVER	I
1- FRONT DRUM COVER	U

PACKAGES No. 450 & 4500 J-3 AND
No. 450 & 4500 J-4
(3 AND 4 SECTION)
(SUPPLIED IN VARIOUS COMBINATIONS
TO SUIT THE BOILER LENGTH)

2- SIDE PANELS EACH (18" OR 24" WIDE) S
2- TOP PANELS EACH (18" OR 24" WIDE) T

3. ASSEMBLY OF TOP FRAMES (SEE FIG. 1 & 2)

PLACE THE COMPONENT PARTS FOR BOTH R.H. AND L.H. TOP FRAMES IN POSITION ON THE FLOOR OR ON A WORK BENCH.

ASSEMBLE THE TWO FRAMES USING BOLTS AND NUTS PROVIDED. SQUARE THE CORNERS AND TIGHTEN NUTS ALL AROUND.

NOTE: ON STEAM BOILERS NOTE THE POSITION OF THE WATER COLUMN. LEAVE THE 22" TOP ANGLE ON THE FRONT END OF THAT FRAME FREE AT ONE END SO AS TO FIT AROUND THE WATER COLUMN PIPING.

PLACE THE FRAMES ON THE BOILER WITH THE NOTCHES OF THE FORWARD AND REARWARD SUPPORT STRAPS RESTING ON THE TOP NIPPLES OF THE SECOND SECTION FROM THE FRONT AND BACK OF THE BOILER AND WITH THE BRACKET TIGHT AGAINST THE SECTION.

ASSEMBLE THE 22" TOP ANGLE OUTSIDE OF THE WATER COLUMN PIPING.

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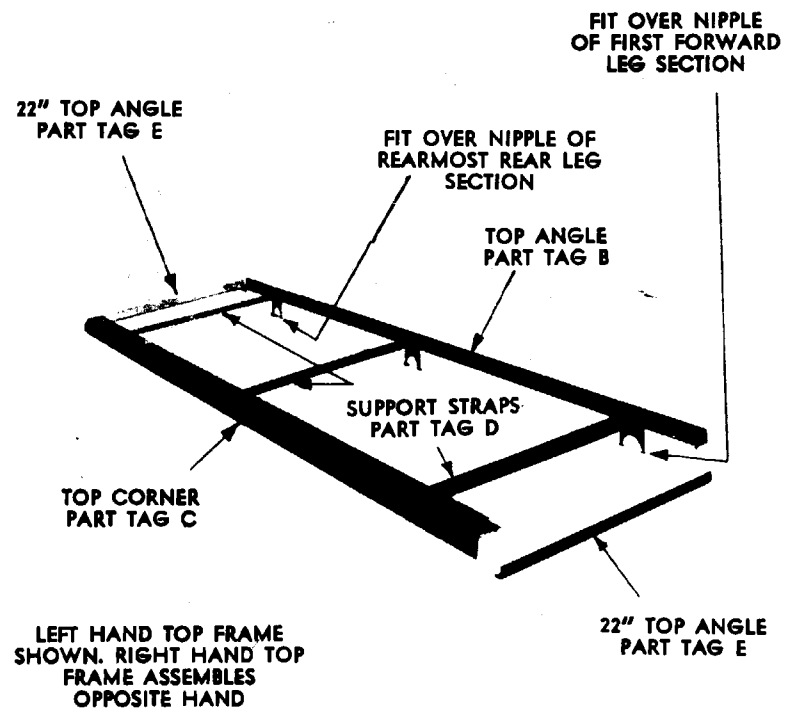


FIGURE NO. 1
TOP FRAME ASSEMBLY

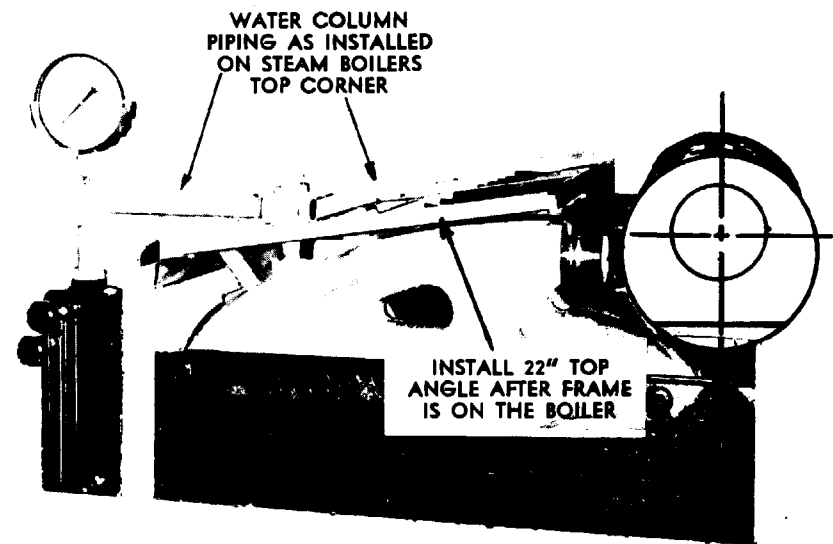


FIGURE NO. 2
L.H. TOP FRAME IN PLACE

SERIES 45 MILLS WATER TUBE BOILER

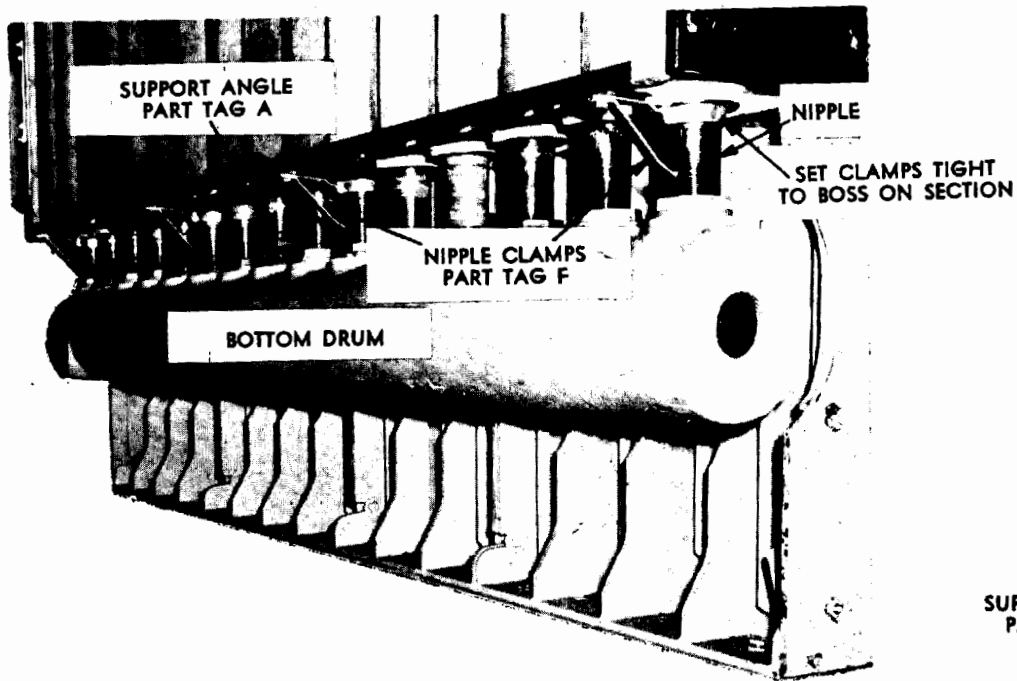


FIGURE NO. 3
BOTTOM FRAME ASSEMBLY

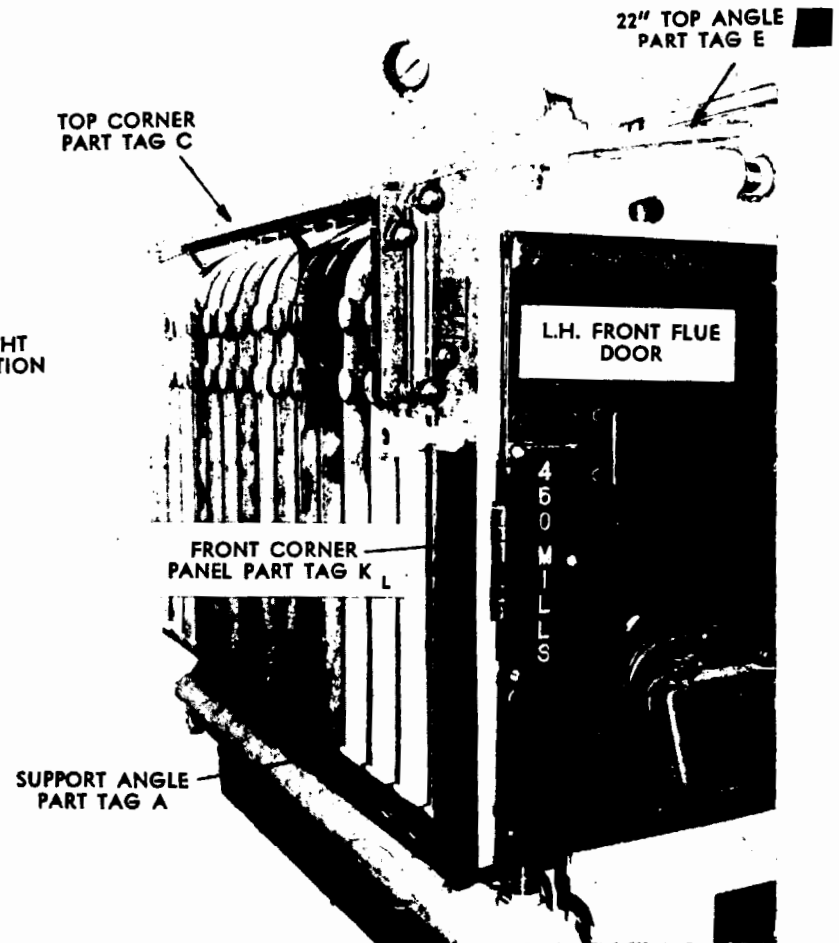


FIGURE NO. 4
BOILER FRONT

JACKET ASSEMBLY INSTRUCTIONS

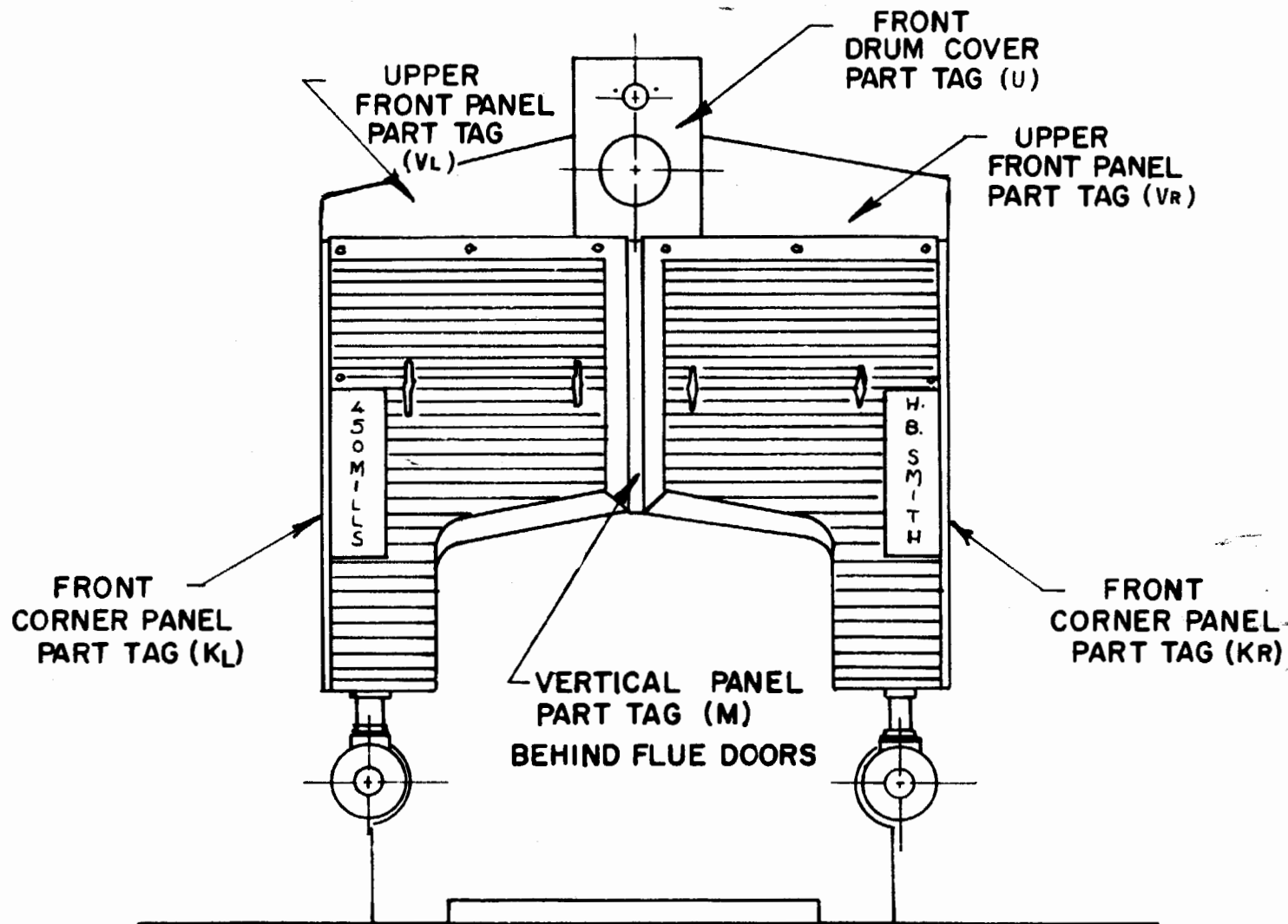


FIGURE NO. 5
BOILER FRONT

JACKET ASSEMBLY INSTRUCTIONS

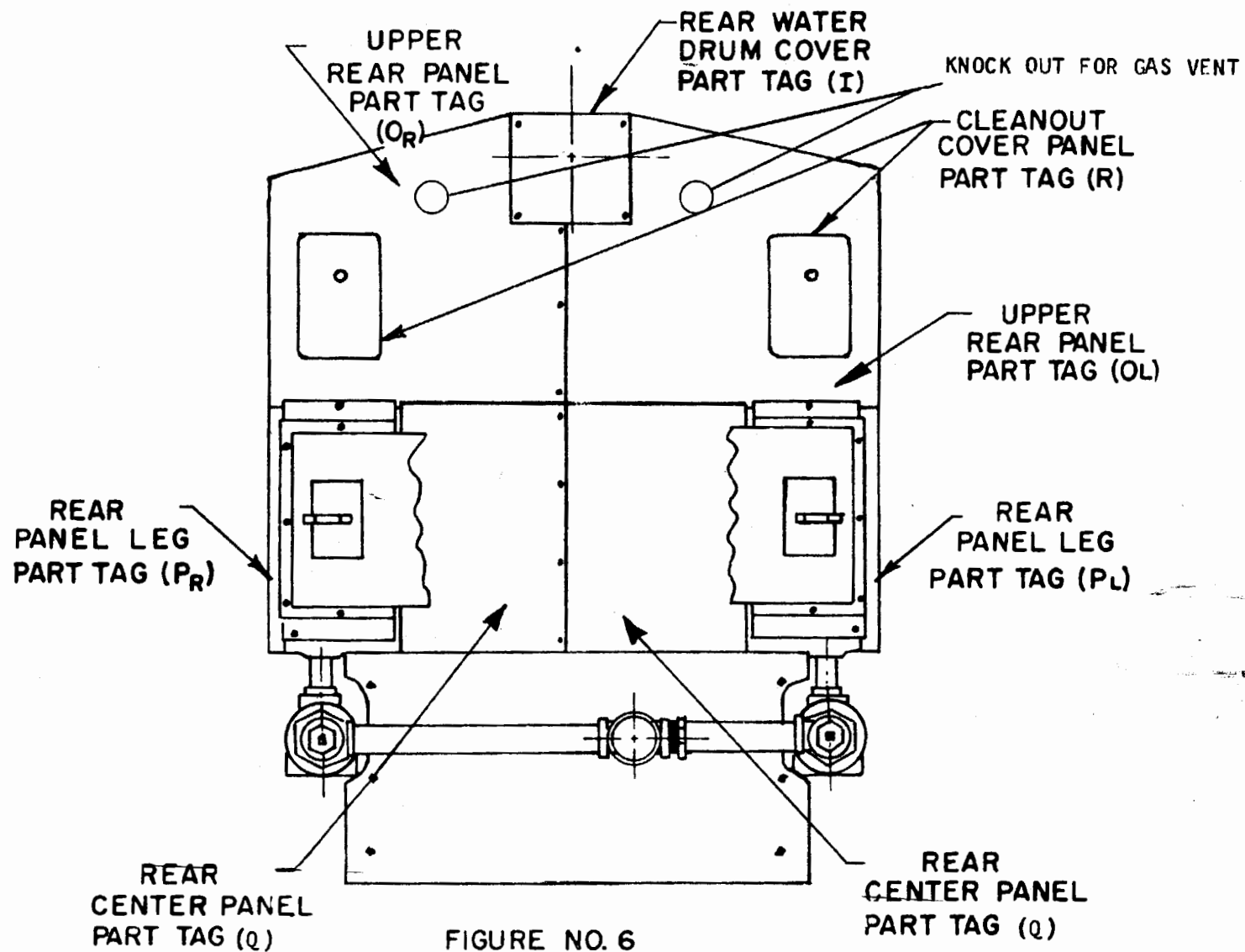


FIGURE NO. 6
BOILER REAR

4. ASSEMBLY OF BOTTOM FRAMES (SEE FIG. NO. 3)

INSTALL NIPPLE CLAMPS (F) ON BOTTOM DRUM NIPPLES OF FRONT AND REAR SECTIONS WITH THE CLAMP TIGHT AGAINST THE SECTION AND THE CLAMP LEG ENGAGED IN THE NIPPLE THREAD.

PLACE SUPPORT ANGLES (A) ON THE CLAMPS AND BOLT IN PLACE. INSTALL ADDITIONAL CLAMPS AT ALL HOLES IN SUPPORT ANGLES AND BOLT ANGLES TO CLAMPS.

5. BOILER FRONT (FIGURE 4 AND 5) OPEN PACKAGE 450 & 4500 J-2A

TAKE FRONT CORNER PANELS (KR & KL) ASSEMBLE IN FRAME WITH NOTCHES OPEN TOWARD THE REAR. WHEN WATER COLUMN OR OTHER PIPING IS CONNECTED TO THE FRONT SECTION, REMOVE THE KNOCKOUT AND SLIT THE INSULATION TO FIT PIPE. PLACE UPPER FRONT PANELS (VR & VL) IN POSITION. PRESS INSULATION AGAINST TOP ANGLE (E) AND SLIDE THE PANEL DOWN SO THAT THE LOWER EDGE IS BEHIND THE FLUE DOORS AND THE TOP FLANGE HOOKS OVER THE TOP ANGLES. ADJUST INSULATION AT THE CORNERS TO OBTAIN A GOOD ALIGNMENT OF THE JACKET PARTS. ASSEMBLE FRONT DRUM COVER (U) BETWEEN R.H. & L.H. UPPER FRONT PANELS.

INSTALL TOP FRONT PANELS (J). REMOVE KNOCKOUTS AND SLIT INSULATION TO SUIT PIPING. FIT INTO FRAME AS REQUIRED.

OPEN ONE FLUE DOOR AND INSTALL VERTICAL PANEL (M) BEHIND THE OTHER DOOR WITH METAL TAB RESTING ON THE UPPER STRAP. (FOR 450L & 4500 BOILERS CUT INSULATION AND BREAK OFF LOWER HALF OF PANEL) CLOSE THE FLUE DOOR AGAINST THE VERTICAL PANEL.

6. BOILER BACK END (SEE FIG. 6)

TAKE UPPER REAR PANEL (OR & OL) AND INSTALL OVER REAR FRAME ANGLES IN THE SAME MANNER AS THE TOP FRONT PANELS. ATTACH REAR DRUM COVER (I) (USE REAR DRUM COVER ON ALL 450, 450L BOILERS & 4500 WATER BOILERS. DISCARD ON 4500 STEAM BOILERS.) TO OUTSIDE OF REAR PANELS. INSERT REAR PANEL LEGS (PR & PL) AND FASTEN TO UPPER REAR PANELS WITH SHEET METAL SCREWS. ASSEMBLE R.H. AND L.H. REAR LOWER PANELS (Q) AND HANG IT ON THE BOTTOM LIP OF THE UPPER REAR PANEL BETWEEN THE SMOKEHOOD ELBOWS.

ASSEMBLE KNOBS ON CLEANOUT COVER PANELS (R). INSTALL COVERS IN OPENINGS OF UPPER REAR PANELS BY INSERTING TOP CLIPS UNDER JACKET LIFTING COVERS UP UNTIL BOTTOM CLIPS WILL FIT UNDER JACKET, THEN SLIDE THE COVERS DOWN UNTIL THEY FIT TIGHTLY.

7. TOP AND SIDE PANELS (SEE FIG 6)

OPEN PACKAGES 450 & 4500 J-3 OR 450 & 4500 J-4 AND REMOVE TOP PANELS (T) AND SIDE PANELS (S). INSTALL TOP PANELS BY FITTING THE END OF THE PANEL IN THE TOP CORNER (C) AND THE OPPOSITE END IN THE TOP ANGLE (B). AS EACH PANEL IS INSTALLED SLIDE TIGHT TO ADJOINING PANEL.

INSTALL SIDE PANELS BY FITTING THE TOP END OF THE PANEL IN THE TOP CORNER (C) THEN GUIDE THE BOTTOM END INTO THE SUPPORT ANGLE AND ALLOW TO SLIP DOWN AND REST ON THE ANGLE. SLIDE EACH PANEL TIGHT TO THE ADJOINING PANEL. CONTINUE UNTIL THE JACKET IS COMPLETED.

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