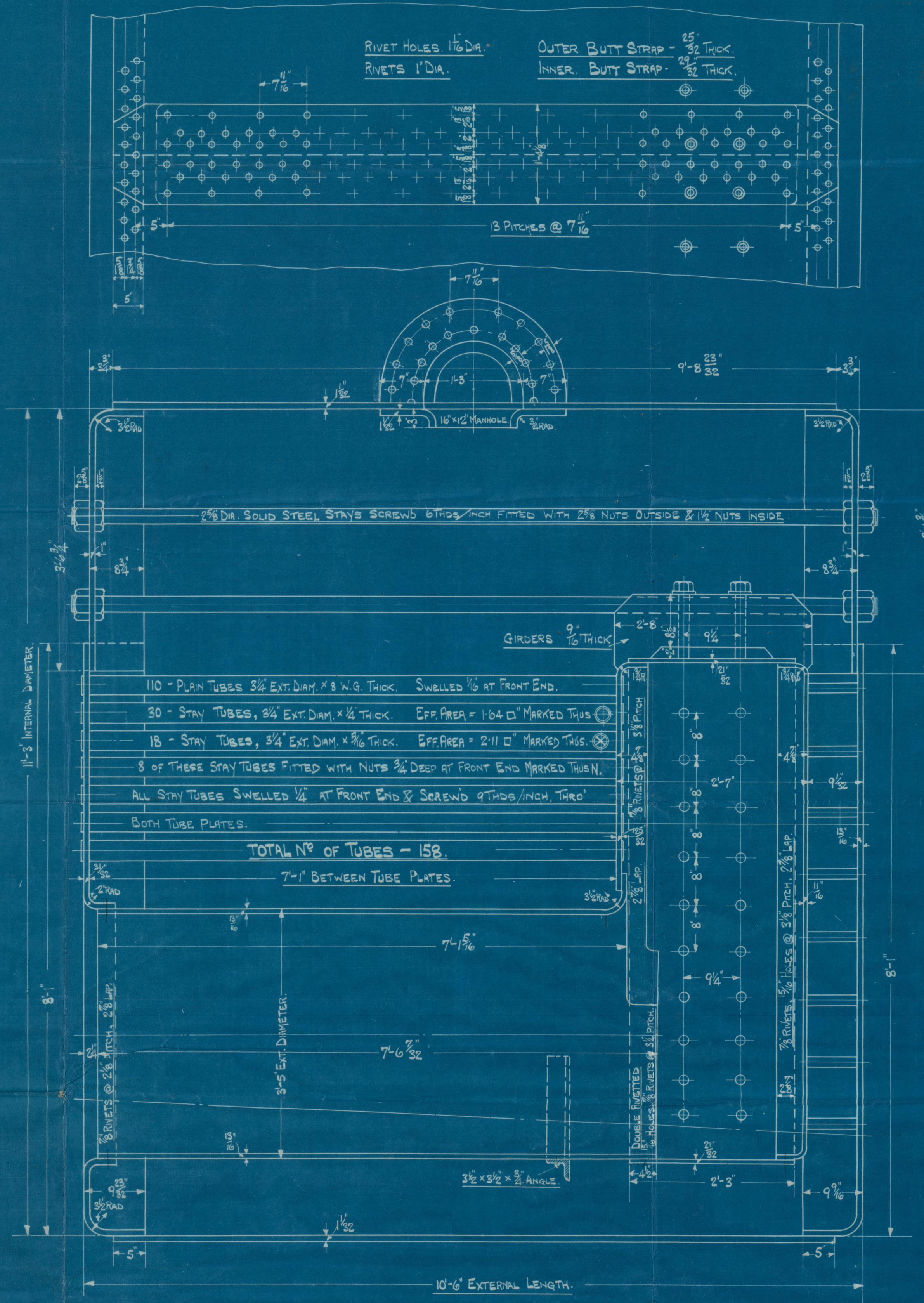


TUBE PLATE STAY. 2" DIA. SOLID STEEL STAY, SCREW'D 6 THDS/INCH FITTED WITH NUTS 2" DEEP OUTSIDE & 1 1/2" DEEP INSIDE.

BACK PLATE STAY. 2 1/2" DIA. SOLID STEEL STAY SCREW'D 6 THDS/INCH. FITTED WITH 2 1/2" NUTS OUTSIDE & 1 1/2" NUTS INSIDE WITH BEVELLED WASHERS.



HEATING SURFACES.

TUBES	953.
FURNACES	81.
WRAPPER PLATES.	79.
C.C. BACK	48.
INNER TUBE PLATE.	28.
TOTAL HEATING SURFACE	1189 1/2
GRATE AREA. (5'-3" BARS)	34.4 1/2
RATIO HEATING SURFACE TO GRATE AREA.	34.5 : 1

TENSILE STRENGTH OF SHELL PLATES, GIRDERS & BUTT STRAP.

"	"	ALL OTHER PLATES	26 1/2 30 TONS/IN ²
"	"	SOLID STEEL STAYS.	28 1/2 32 TONS/IN ²
"	"	SCREWED STEEL STAYS.	26 1/2 30 TONS/IN ²
"	"	STEEL RIVETS.	26 1/2 30 TONS/IN ²

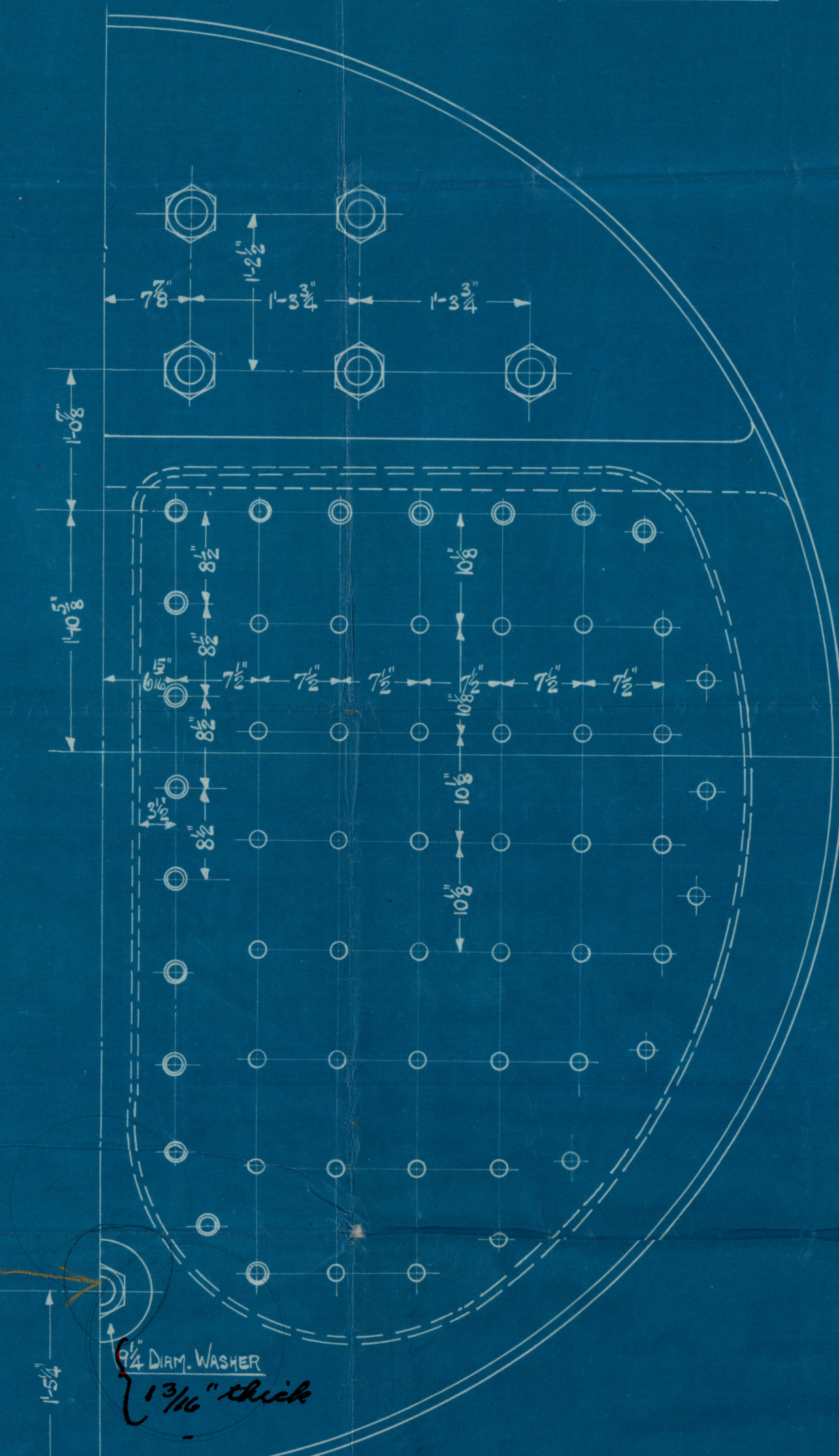


PLATE SECTION.	100 (7.6875 - 1.0625)	7.6875	86.2%	1" RIVETS. 1 1/2" HOLES. 7/16" PITCH
MAX. PITCH OF RIVETS	(6 x 1/32) + 1 5/8" = 7 3/16"			
RIVET SECTION.	100 (23 x .8866 x 5 x 1.875)	28 x 7.6875 x 1.03125	85.9%	
COMBINED RATE	100 (7.6875 - 2.125) + 100 (23 x .8866 x 1.875)	7.6875 28 x 7.6875 x 1.03125	72.5 + 17.2 89.7%	
SHELL.	(33 - 2) x 28 x 85.9.	2.75 x 135	201 LBS.	1 1/2" THICK
OUTER BUTT STRAP.	5 x (7.6875 - 1.0625) x 1.03125	8 x (7.6875 - 2.125)	1769.	25" 32 THICK.
INNER BUTT STRAP.	Do. + 4 1/2"		-	29" 32 THICK.
FURNACES. W.P.	1450 (26-1) ² + 50 x [10(26-1) - 80.375]	80 x 212	206 LBS	13 1/16 THICK.
UPPER END PLATES.	96 x (32-1) ² .	15.75 ² + 14.5 ²	201 LBS.	RATES 1" THICK.
UPPER END PLATE STAYS.	(2.625 - .34) ² x 9500	15.75 x 14.5	216 SLBS.	STAY 2 1/2" DIA.
FRONT TUBE PLATE	CENTRE 68(31-1) ² + 0 WING 52(31-1) ² + 0	14.125 ² + 9 ²	208 LBS	PLATE 3/32" THICK NUTS FITTED TO INTERMEDIATE STAY TUBES
C.C. STAYS BACK (ORDINARY)	(1.625 - .267) ² x 8250	10.125 x 7.5	200.2 LBS.	1 1/8" STAYS. 10/8 x 7/8 PITCH.
C.C. STAYS BACK (MARGINAL)	(1.75 - .267) ² x 8250	10.6875 x 8.5	200.2 LBS.	1 1/8" STAYS. 10/8 x 8/8 PITCH.
BACK C.C. PLATE.	(22-1) ² x 75	10.125 ² + 7.5 ²	207.9 LBS.	1 1/2" THICK.
BACK PLATE.	(26-1) ² x 86	13.875 ² + 8.5 ²	201.5 LBS.	1 3/16" THICK.
C.C. TOPS.	(21-1) ² x 75.	9.25 ² + 7.875 ²	203 LBS.	2 1/2" 32 THICK.
C.C. SIDES.	(21-1) ² x 75.	9.25 ² + 8 ²	200.3 LBS.	2 1/2" 32 THICK.
C.C. STAYS TOP.	(1.625 - .267) ² x 8250	9.25 x 7.875	209 LBS.	1 5/8" STAYS. 9/8 x 7/8 PITCH.
C.C. STAYS SIDES.	(1.625 - .267) ² x 8250	9.25 x 8	205.8 LBS.	1 5/8" STAYS. 9/8 x 8 PITCH.
C.C. GIRDERS.	.75 x 495 x 8.5 ² x 36 x 28	(29.46875 - 9.25) x 7.875 x 29.46875 x 28	205 LBS.	GRADER PLATES. 3/16" THICK. 3/16" DEEP.
BACK PLATE AT BOTTOM.	0 (26-1) ² x 96.6	17.5 ²	201 LBS.	10 THICK.
BACK STAY.	(2.625 - .34) ² x 9500	(Area 17.5) ² = 240.53.	206 LBS.	2 1/2" DIA. STAY.
STAY TUBES (ORDINARY)	1.67 x 7500.	(11.25 x 9) - (5 x 8.29)	209.8 LBS	3/4" TUBES. 1/4" THICK. 9 THDS/INCH.
STAY TUBES (MARGINAL)	2.17 x 7500	11.3625 x 9 - (3 x 8.29)	205 LBS.	3/4" TUBES. 9 THDS/INCH.
INNER TUBE PLATE.	38 (25-1) ²	(10.125) ²	213 LBS.	25" 32 THICK
INNER TUBE PLATE AT BREAST STAY.	0 (25-1) ² x 66.6	12 ²	234 LBS.	25" 32 THICK
BREAST STAY.	(2 - .34) ² x 9500.	(AREA 12.5) ² = 22.72	205 LBS.	2" DIA. STAY.

WORKING PRESSURE. - 200 LBS/IN² □.

TEST PRESSURE. - 350 LBS/IN² □.

TO PASS LLOYDS SURVEY.

BOILER NOS 141-142

MARINE BOILER: 11'-3" INT. DIAM. x 10'-6" EXT. LENGTH.

SCALE:- 1"=ONE FOOT.

ORDINARY COMBUSTION CHAMBER STAYS, 1 1/2" DIA SCREW'D 9 THDS/INCH & FITTED WITH NUTS 1 1/2" THICK.

MARGINAL COMBUSTION CHAMBER STAYS, 1 3/4" DIA. SCREW'D 9 THDS/INCH MARKED THUS -

& FITTED WITH NUTS 1 1/2" THICK.

STAYS THRO' C.C. GIRDERS, 1 1/2" DIA. SCREW'D 9 THDS/INCH & FITTED WITH NUTS 1 1/2" DEEP ON TOP & 1 1/2" ON BOTTOM.



R. 78.



W1153-0174

J. Lewis & Sons, Ltd.

Boilers Nos 141 & 142

W. R. 200 lbs./sq"

OLIVINE

Boilers Stamped. W.S. 97

Nº 141

Nº 1047
LLOYD'S TEST
350 LBS
W.P. 200 LBS
9.2.26 H.C.F.

Nº 142

Nº 1048
LLOYD'S TEST
350 LBS.
W.P. 200 LBS.
17.2.26 H.C.F.

S. Burston

Aln. Rpt. Nº 14281 Approved 4.7.25

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Foundation