

GEORGE CLARK, LIMP  
SOUTHWICK ENGINE WORKS,  
SUNDERLAND.

# BOILERS. N<sup>o</sup> 994. 3 OFF MESSRS. RAYLTON & JONES'S S.S. N<sup>o</sup> 584.

WORKING PRESSURE 180 LBS. PER SQ. INCH. TEST PRESSURE 360 LBS. PER SQ. INCH. TO LLOYD'S REQUIREMENTS.

ALL PLATES, RIVETS & STAYS OF STEEL TUBES OF IRON LAP WELDED.

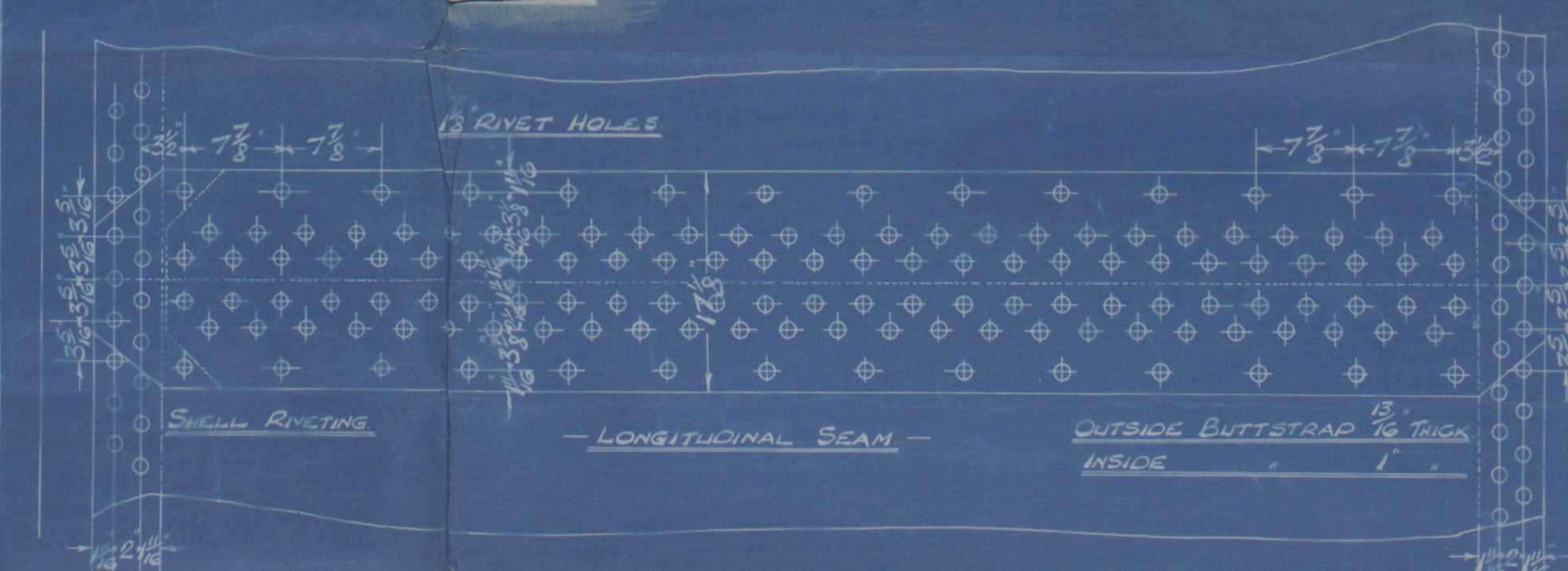
ALL HOLES TO BE DRILLED IN POSITION.

TENSILE STRENGTH OF SHELL PLATES BUTTRAPS & GIRDERS TO BE NOT LESS THAN 20% NOR MORE THAN 33 TONS PER SQ. INCH.

OTHER	25	25%
LONGITUDINAL STAYS	28	32
RIVETS & SCREW STAYS	26	30
ELONGATION OF SHELL PLATES, BUTTRAPS, GIRDERS & LONGITUDINAL STAYS TO BE NOT LESS THAN 20% IN A LENGTH OF 8 INCHES.		
OTHER	25%	3
SCREW STAYS	23%	3 TIMES DIA OF TEST PIECE
RIVETS	25%	8

SCALE 1" = 1 FOOT

31-10-1917



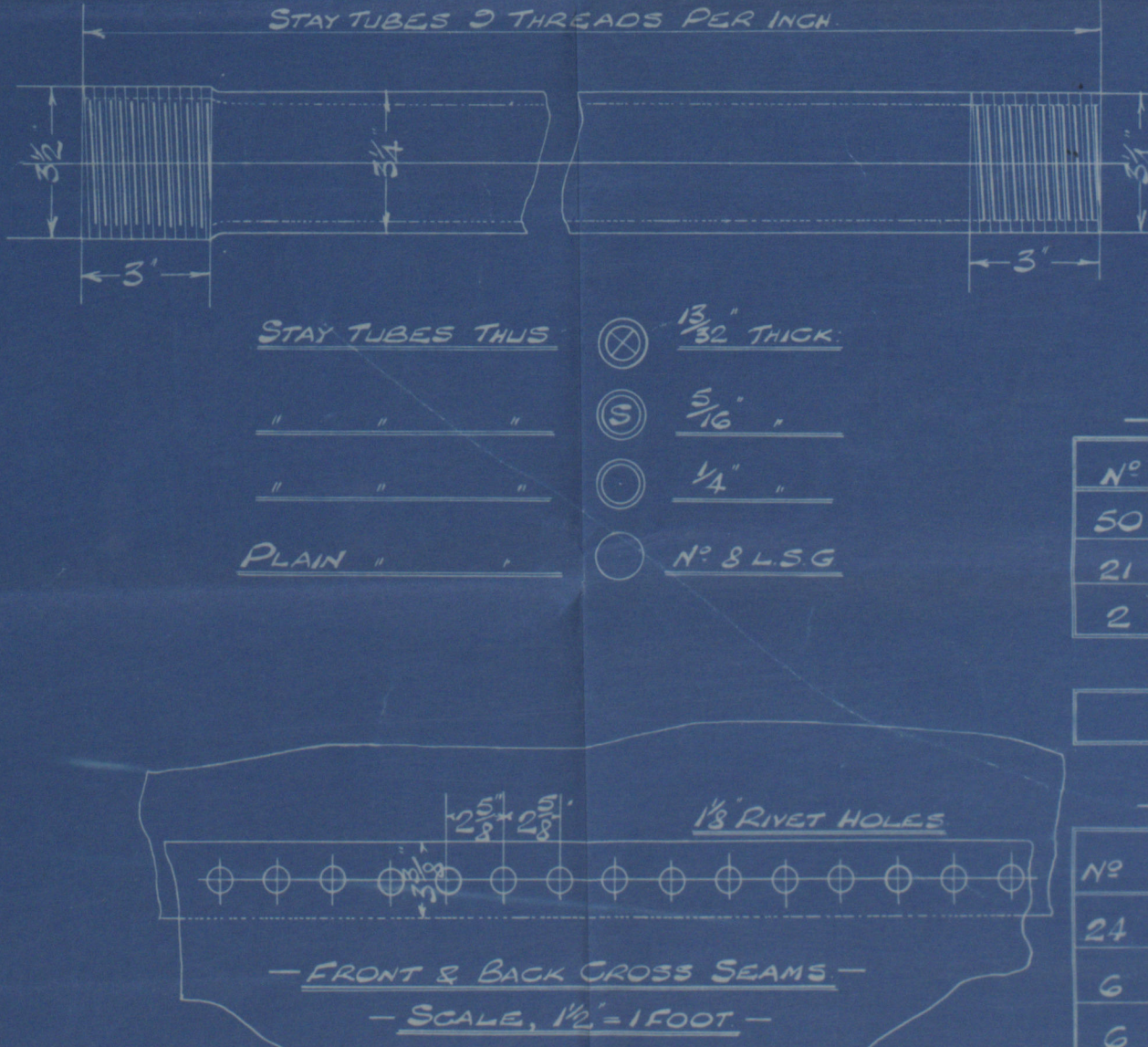
FRONT GIRD SEAM 1/8" HOLES 5/16" APART

BACK GIRD SEAM 1/8" HOLES 5/16" APART

MARK	NO	LENGTH	BREADTH	THICK	POSITION	MARK	NO	SKETCH	THICK	POSITION
A	5	30'-5 1/2"	0'-8 1/2"	1 1/2"	SHELL	R	5		1 1/2"	FT
B	5	12'-8 1/2"	0'-8 1/2"	1 1/2"						
C	6	8'-10 1/2"	1'-5 1/2"	1"	BUTT STRAP INSIDE					
D	6	0'-9 1/2"	1'-5 1/2"	1"						
E	5	0'-8	4'-10 1/2"	1 1/2"	CB CENTRE					
F	5	7'-10 1/2"	4'-11 1/2"	1 1/2"	CB WINGS					
H	5	5'-9	3'-7	1 1/2"	BTP CENTRE	S	3		1 1/2"	FB
J	6	4'-10 1/2"	4'-0 1/2"	1 1/2"	WING					
K	5	17'-4 1/2"	2'-5 1/2"	1 1/2"	CS CENTRE					
L	6	16'-4	2'-5 1/2"	1 1/2"	CS WING					
M	5	6'-5 1/2"	2'-5 1/2"	1 1/2"	CB CENTRE	T	3		1 1/2"	BT
N	6	4'-7 1/2"	2'-5 1/2"	1 1/2"	CB WING					
O	6	4'-5	10'	1 1/2"	DOUBLING PLATES					
P	54	2'-11	1'-1 1/2"	3/8"	GIRDERS	U	3		3/8"	B.B.
Q	9	10'-11 1/2"	8'-0	3/8"	FURNACES					

482 PLAIN TUBES 5/8" EXT DIA T-1 1/2" LONG SHELLED TO 3/8" EXT DIA AT ONE END FOR 3" N<sup>o</sup> 3 L.S.G.  
12 STAY 3/4" 7-1 1/2" 3/8" 3" 3/8" THICK  
100 3/4" 7-1 1/2" 5/8" 3" 3/8"  
105 3/4" 7-1 1/2" 5/8" 3" 3/8"  
ALL STAY TUBES TO BE SCREWED AT BOTH ENDS 3/8" TUBES PER INCH CONTINUOUS THREAD  
6 STAY TUBE NUTS TO SUIT 3/8" EXT DIA OF STAY TUBE.

HEATING SURFACE	50 FT
IN SURFACE IN ONE TUBE	
TUBES 236	1301.02
5 FIRE BOXES	135.3
3 FURNACES	114.24
BACK TUBE PLATES	55.8
FRONT TUBE PLATE	23.0
TOTAL HEATING SURFACE & BOILER ITSELF	1555.26
GRAND TOTAL IN THREE BOILERS	4665.73
TOTAL GRATE SURFACE 5'-2" BARS	174.6
AREA THROUGH TUBES	
RATIO	
TOTAL STEAM SPACE TO G ABOVE TOP OF COMBUSTION CHAMBER	227 CFT

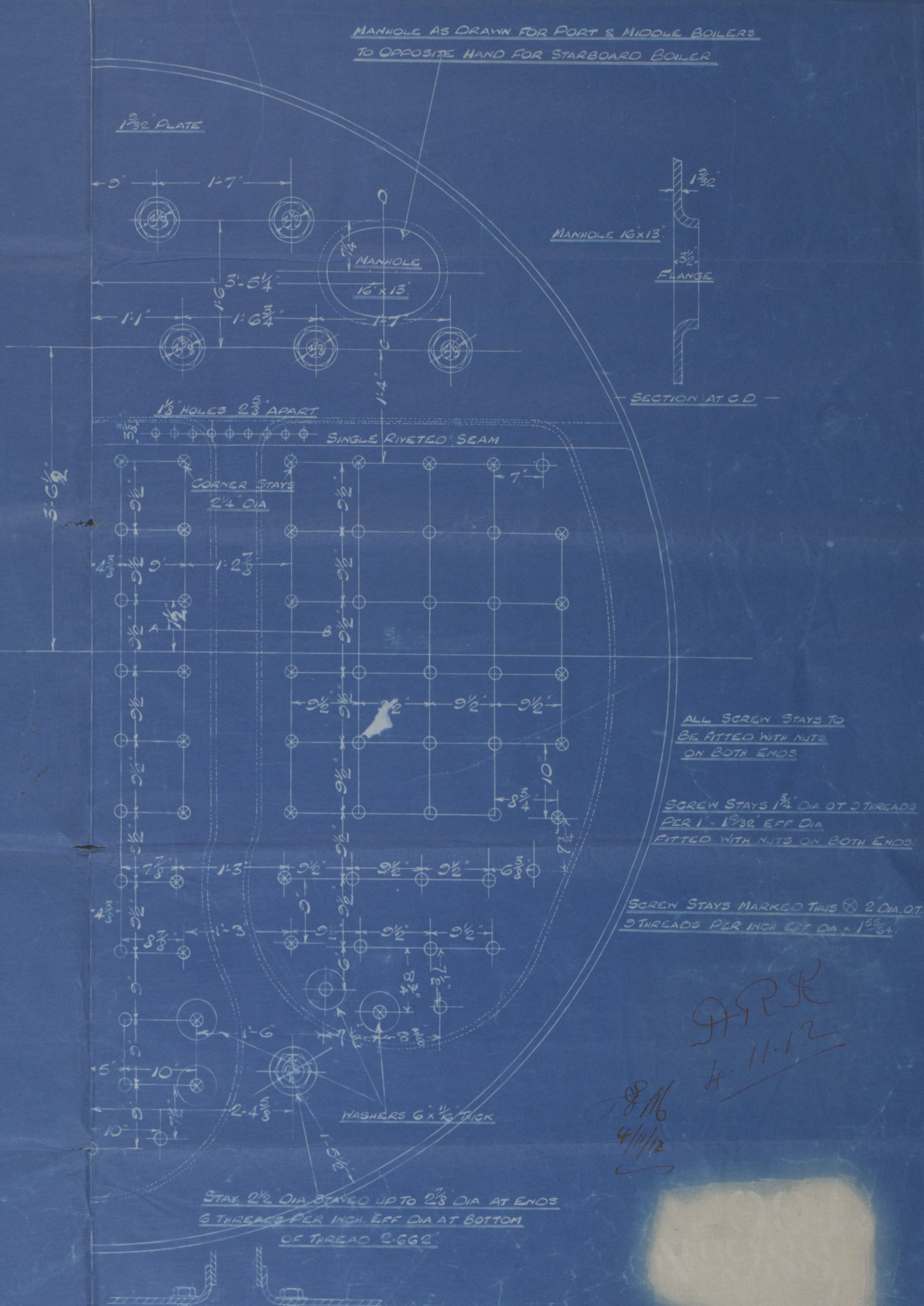
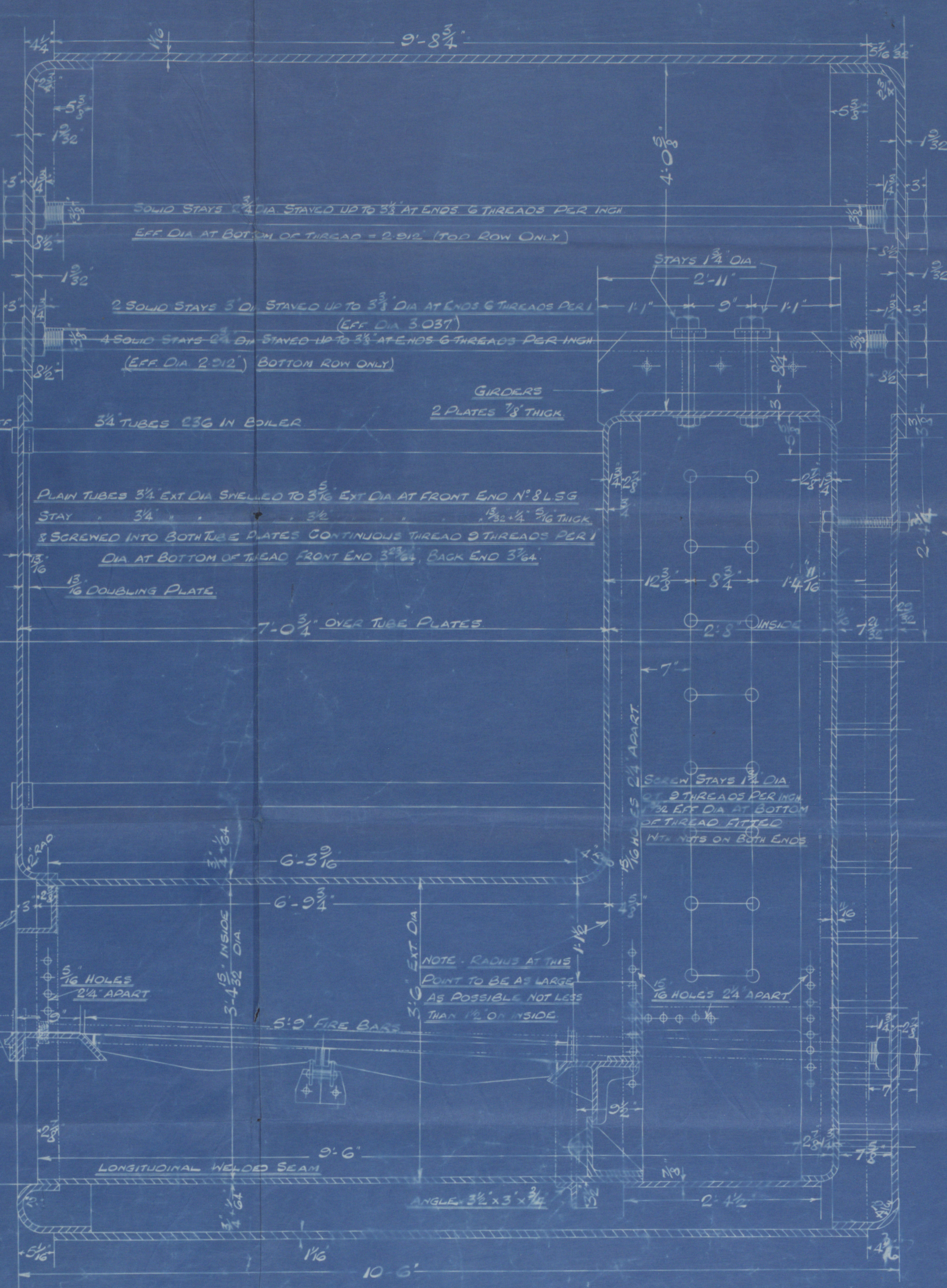
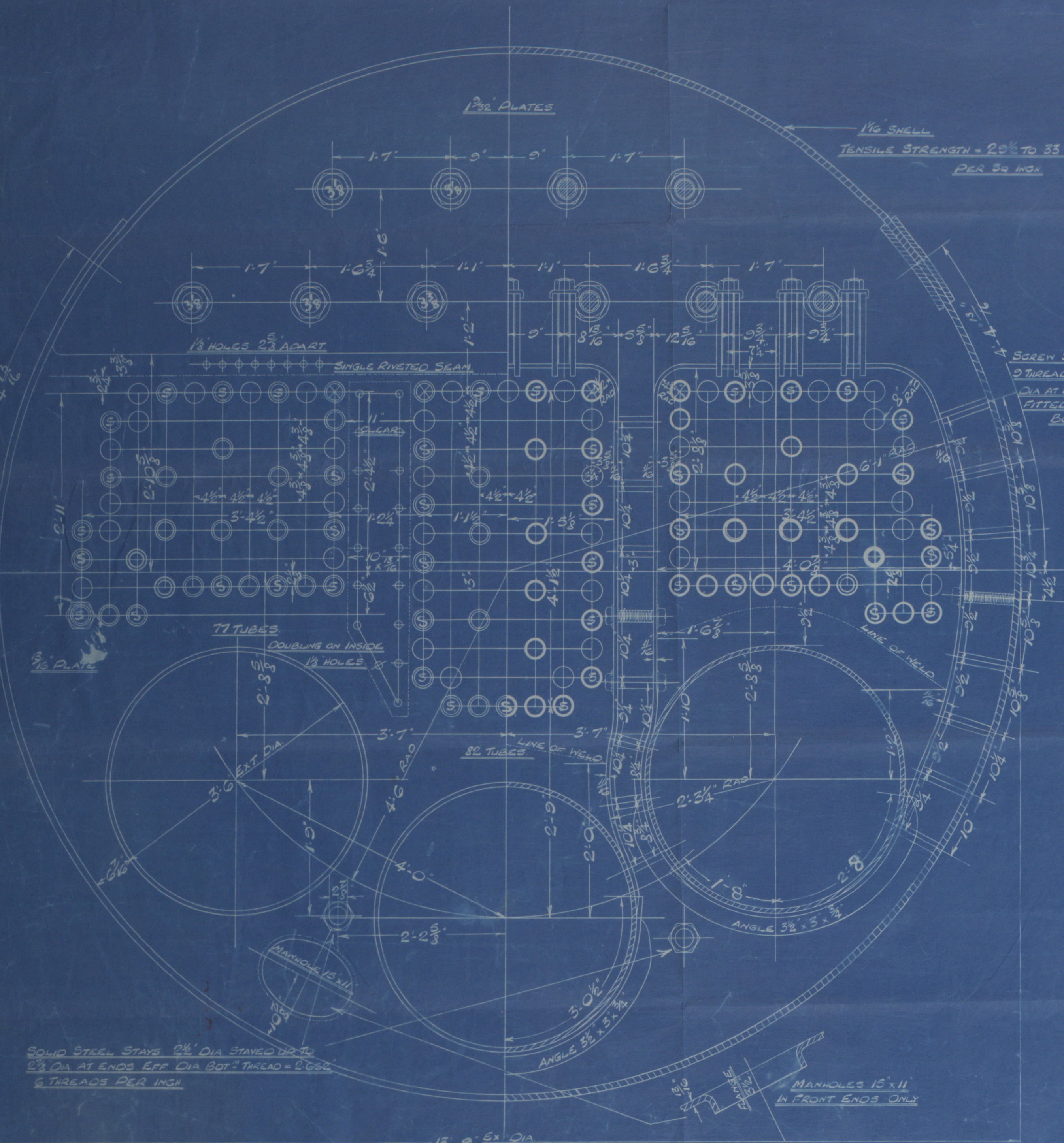


N <sup>o</sup>	LENGTH	DIA
50	12'-0"	1 1/2"
21	12'-0"	2 1/2"
2	12'-0"	2 3/8"

SCREW STAYS (STEEL)

N <sup>o</sup>	MATERIAL	LENGTH	DIA
24	STEEL	11'-6 1/2"	2 1/2"
6		11'-6 1/2"	3"
6		11'-6	2 1/2"

MAIN STAYS (STEEL)





# SUNDERLAND

Sir Dixon & Co

S/S 584.

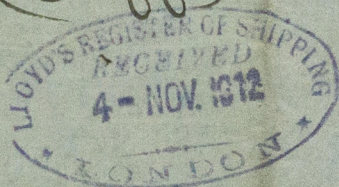
G. Clark & Co

994

(duplicate of 988)  
approved 7.8.1912

180/105-

(3 off)



3  
marks on boilers: -

Nº 3148  
LLOYD'S TEST  
360 LBS.  
18.9.13. W.B.



Emmy  
ex

Wolverton

S/S Rpt. 25947

W28 - 0195