

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

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

ALL HOLES TO BE DRILLED IN POSITION.

TENSILE STRENGTH OF SHELL PLATES & BUTTSTRAPS TO BE NOT LESS THAN 28% NOR MORE THAN 32 TONS PER SQ INCH.

GIRDERS & LONGITUDINAL STAYS 28 32

OTHER PLATES 26 25%

RIVETS & SCREW STAYS 26 30

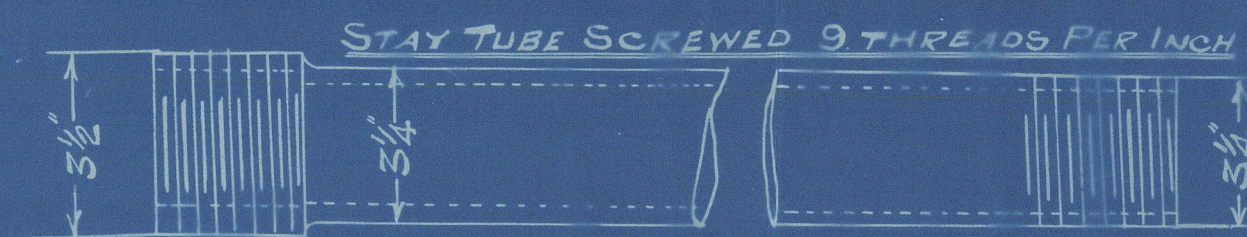
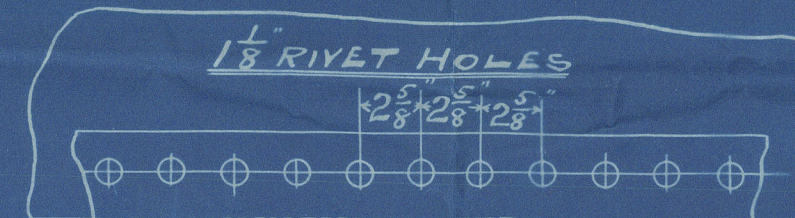
THE ELONGATION OF SHELL PLATES, BUTTSTRAPS, GIRDERS, & LONGITUDINAL STAYS IS NOT TO BE LESS THAN 20% IN A LENGTH OF 8 INCHES.

OTHER 25% 8

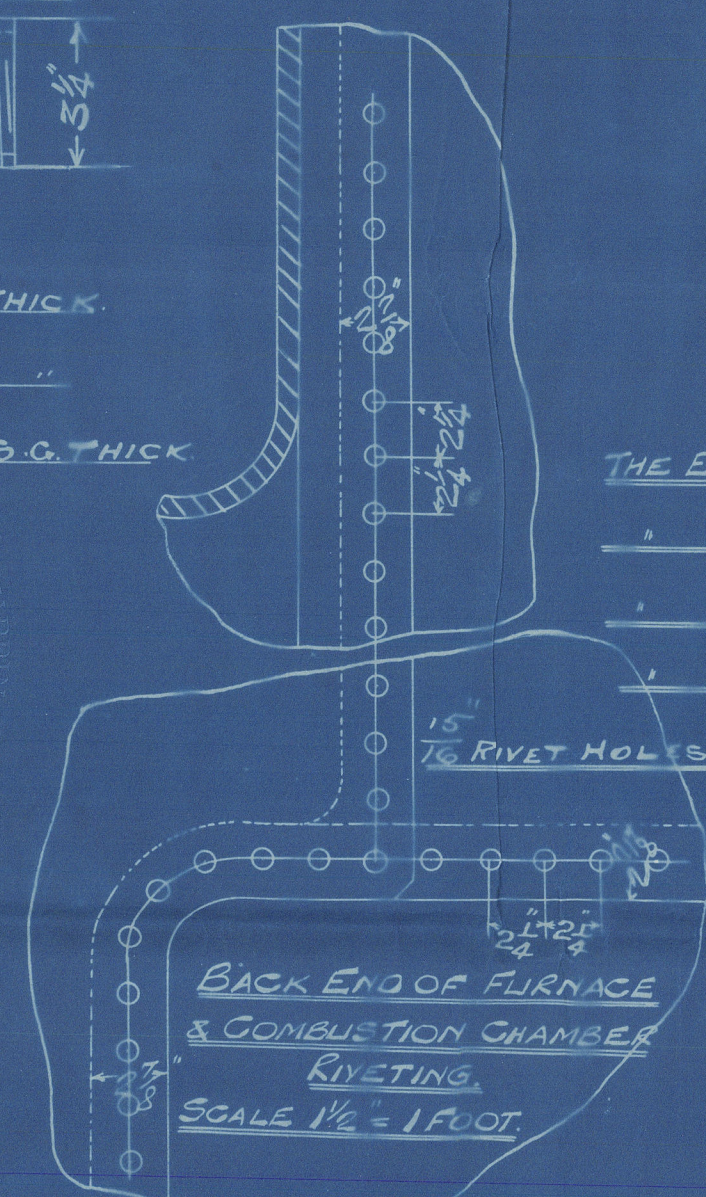
SCREW STAYS 25% 8 TIMES THE DIA OF THE TEST PIECE

RIVETS 25% 8

HEATING SURFACE	SQ. FT.
SURFACE OF ONE TUBE SIDE	12.30
220 TUBES	123.0
3 FIREBOXES	105.0
3 FURNACES	105.0
BACK TUBE PLATE	33.0
FRONT " "	33.0
TOTAL ONE BOILER	1584.0
GRAND TOTAL	3168.0
TOTAL GRATE SURFACE (49 G. BAR) 22.00	
AREA THRU TUBES	19.2
RATIO AREA THRU TUBES GRATE SURFACE	.207
TOTAL STEAM SPACE TO G. ABOVE TUBES	
= 718 CUBIC FEET.	

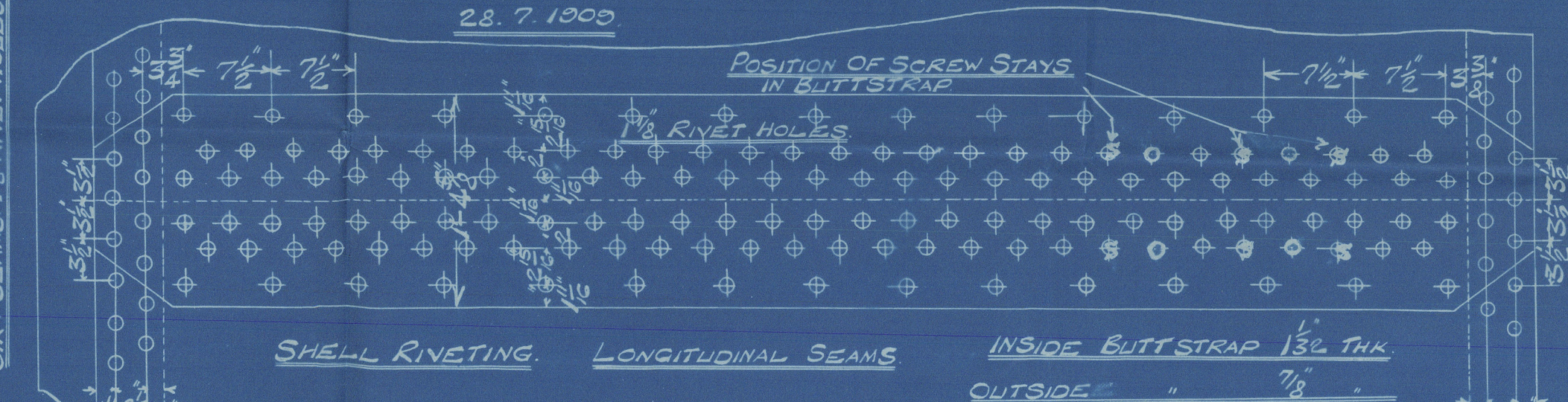
STAY TUBES THUS $\frac{5}{16}$ " THICK.PLAIN " " $\frac{5}{16}$ " L.S.G. THICK

RIVETING OF FRONT & BACK CROSS SEAMS.



BACK END OF FURNACE & COMBUSTION CHAMBER RIVETING. SCALE 1/2" = 1 FOOT.

CURVE SEAMS 1/8" RIVET HOLES

SCALE 1" = 1 FOOT
28.7.1900

SHELL RIVETING LONGITUDINAL SEAMS INSIDE BUTTSTRAP 1/2" THK. OUTSIDE " 7/8"

MARK	N° OFF	LENGTH	BREADTH	THICKNESS	POSITION	MARK	N° OFF	LENGTH	BREADTH	THICKNESS	POSITION
A	E	35-11 1/2"	9-11 3/4"	1 1/8"	SHELL	Q	E	18-11 1/2"	9-11 3/4"	1 1/8"	FRONT TOP
B	E	18-11 1/2"	9-11 3/4"	1 1/8"	SHELL	R	E	18-11 1/2"	9-11 3/4"	1 1/8"	FRONT BOTTOM
C	E	10-0 1/2"	1-5"	1 1/8"	BUTTSTRAPS	S	E	14-10"	14-8 3/4"	1 1/8"	BACK TOP
D	E	9-1 1/2"	1-5"	1 1/8"	BUTTSTRAPS	T	E	14-8"	14-8"	1 1/8"	BACK BOTTOM
E	E	4-10 1/2"	4-10"	1 1/8"	BACK TUBE PLATE						
G	E	5-4 1/2"	5-2 3/4"	1 1/8"	CHAMBER BACK						
H	E	7-9"	4-10"	1 1/8"	CHAMBER BACK						
J	E	9-4 1/2"	4-1 1/2"	1 1/8"	SIDES						
K	E	16-0 1/2"	2-11 1/2"	1 1/8"	SIDES						
L	E	15-0 1/2"	2-11 1/2"	1 1/8"	SIDES						
M	E	6-1 1/2"	5-0 3/4"	1 1/8"	BOTTOM						
N	E	4-11 1/2"	5-0 3/4"	1 1/8"	BOTTOM						
O	E	4-11 1/2"	9"	1 1/8"	DOUBLING PLATE						
P	E	3-2 1/2"	1-2 1/2"	1 1/8"	GIRDERS						
F	E	10-0 1/2"	7-0 1/2"	1 1/8"	FURNACES						

TUBES

504 PLAIN TUBES 6'-0" LONG 3/4" EXT DIA SHELLED TO 5/8" EXT DIA AT ONE END FOR 3' IN LENGTH N° 1 L.S.G. THK.

12 STAY . . . 6'-0" . . . 3/4" . . . 3/4" . . . 5' . . . 3/4" THICK

120 . . . 6'-0" . . . 3/4" . . . 3/4" . . . 5' . . . 3/4" THICK

4 . . . 6'-10" . . . 3/4" . . . 3/4" . . . 5' . . . 3/4" THICK WITH NUT 1/2" DEEP ON SHELLED END

ALL STAY TUBES TO BE SCREWED AT BOTH ENDS FOR 3' IN LENGTH CONTINUOUS THREAD 9 THREADS PER INCH

MAIN STAYS

8 BARS 3/4" DIA X 11'-6 1/2" LONG

12 . . . 3/4" . . . X 11'-4 1/2"

4 . . . 3/4" . . . X 11'-3 1/2"

SCREW STAYS

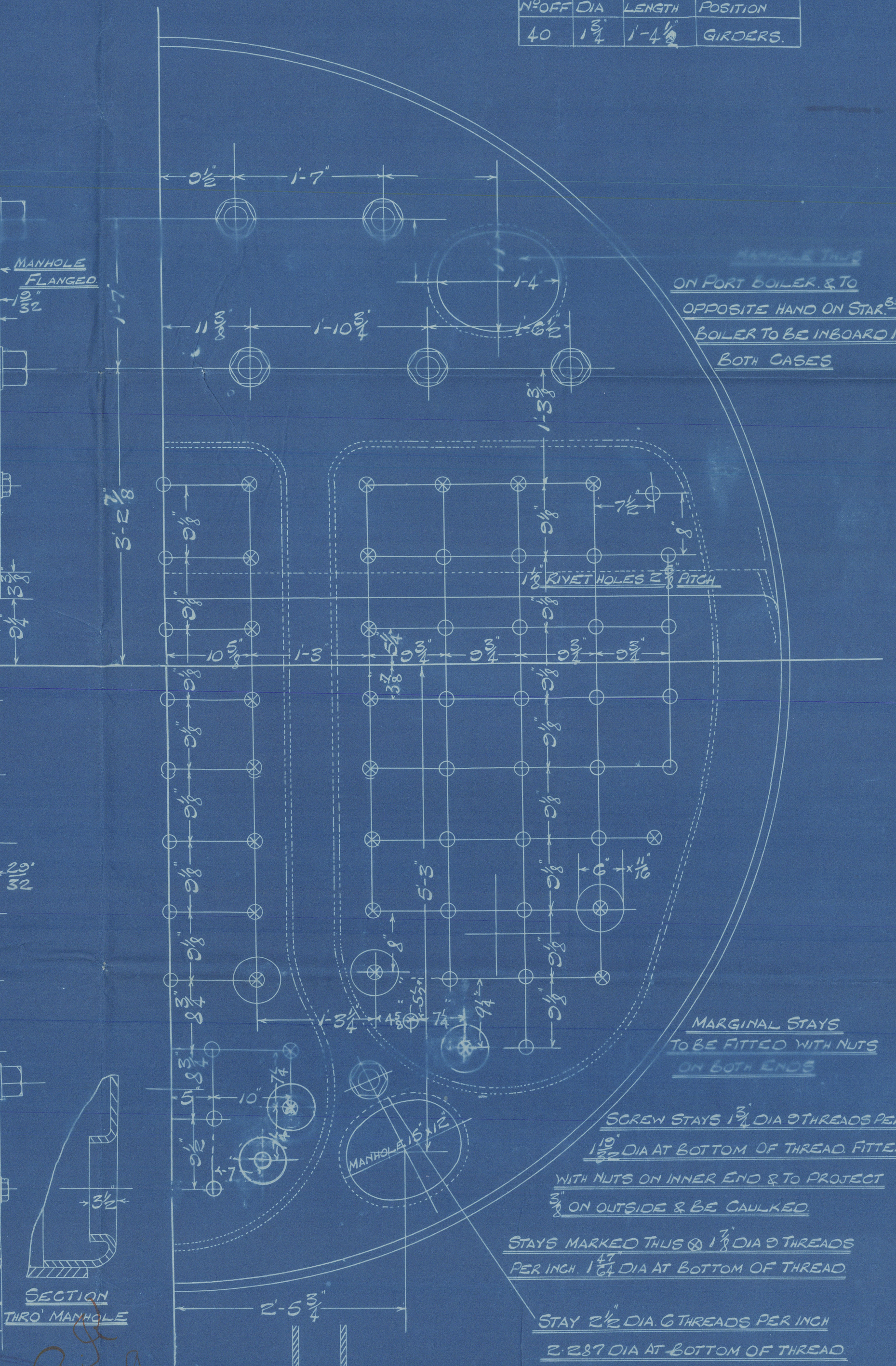
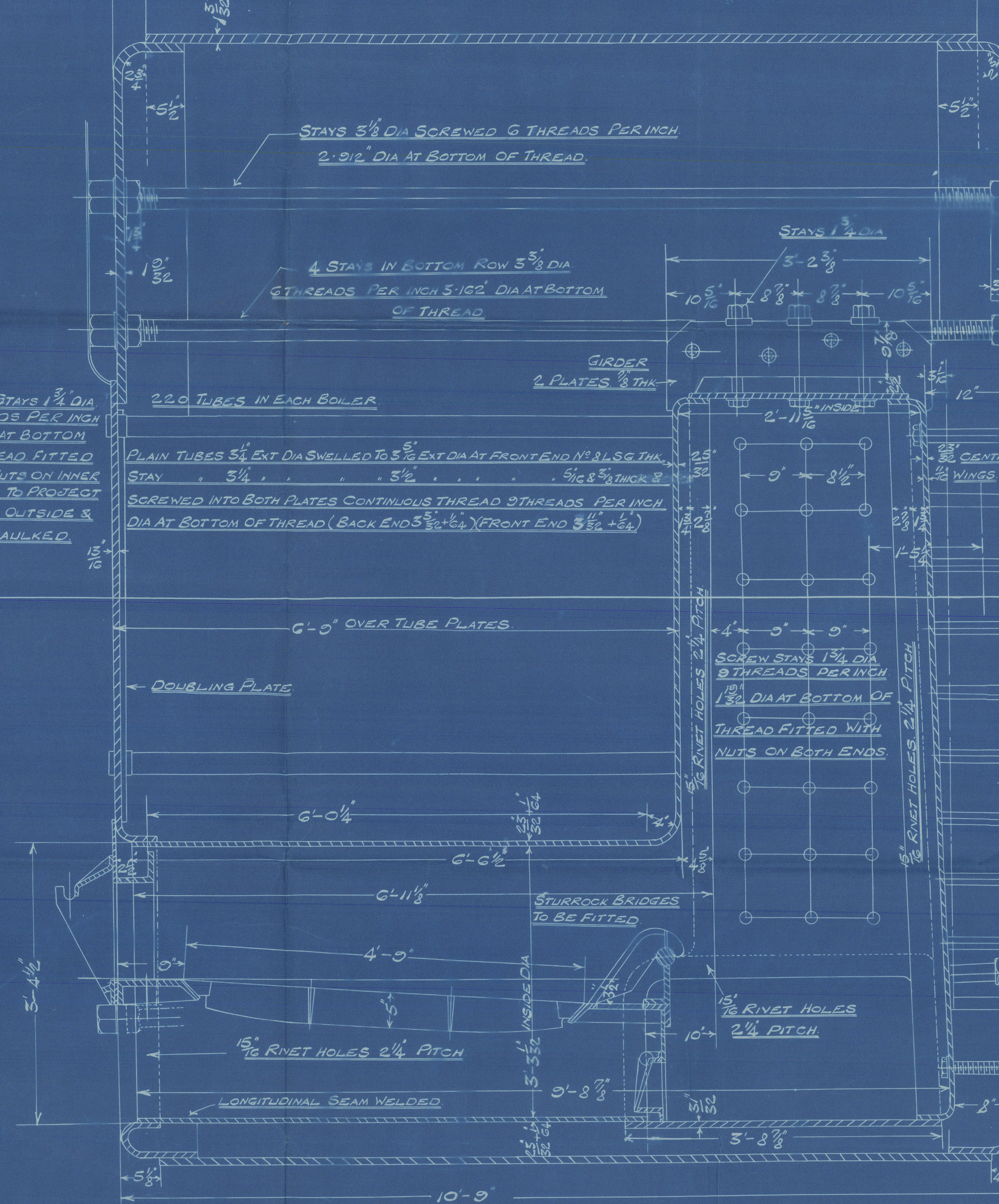
88 BARS 1/2" DIA X 12'-0" LONG

10 . . . 1/2" . . . X 12'-0"

SCREW STAYS

N° OFF DIA LENGTH POSITION

40 1 1/2 1'-4 1/2 GIRDERS



SCREW STAYS 1 1/2" DIA 9 THREADS PER INCH

1 1/2" DIA AT BOTTOM OF THREAD FITTED

WITH NUTS ON INNER END & TO PROTECT

3/4" ON OUTSIDE & BE CAULKED

STAYS MARKED THUS @ 1 1/2" DIA 9 THREADS

PER INCH 1 1/2" DIA AT BOTTOM OF THREAD

STAY 2 1/2" DIA 6 THREADS PER INCH

2 287 DIA AT BOTTOM OF THREAD

921

G CLARK ^{LD} M. BOILERS.

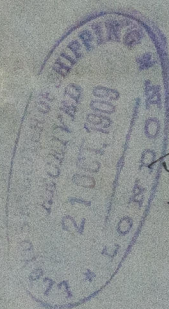
2 OFF 180 LBS M.P.
FOR.

J. P. AUSTIN & SON ^{LD}

S.P. N^o 255

DUPLICATE OF 919
AUSTIN 254
APPROVED 30.7.09

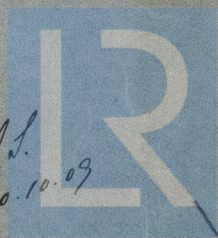
LLOYD'S TEST
N^o 2824
360 LBS.
28-4-10 E.J.S.



Sir Arthur
Sl No 14695

RETAI

P.J.L.
20.10.09



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Lloyd's Register

Foundation

W542-0266