

MARINE BOILER 13'-6" DIAM. X 11'-6" LONG.

WORKING PRESS. 180 LBS. PER SQ. INCH.

TO LLOYDS REQUIREMENTS.

17/3/13

ALL PLATES, RIVETS, AND STAYS OF SIEMENS MARTIN STEEL
TUBES OF IRON.

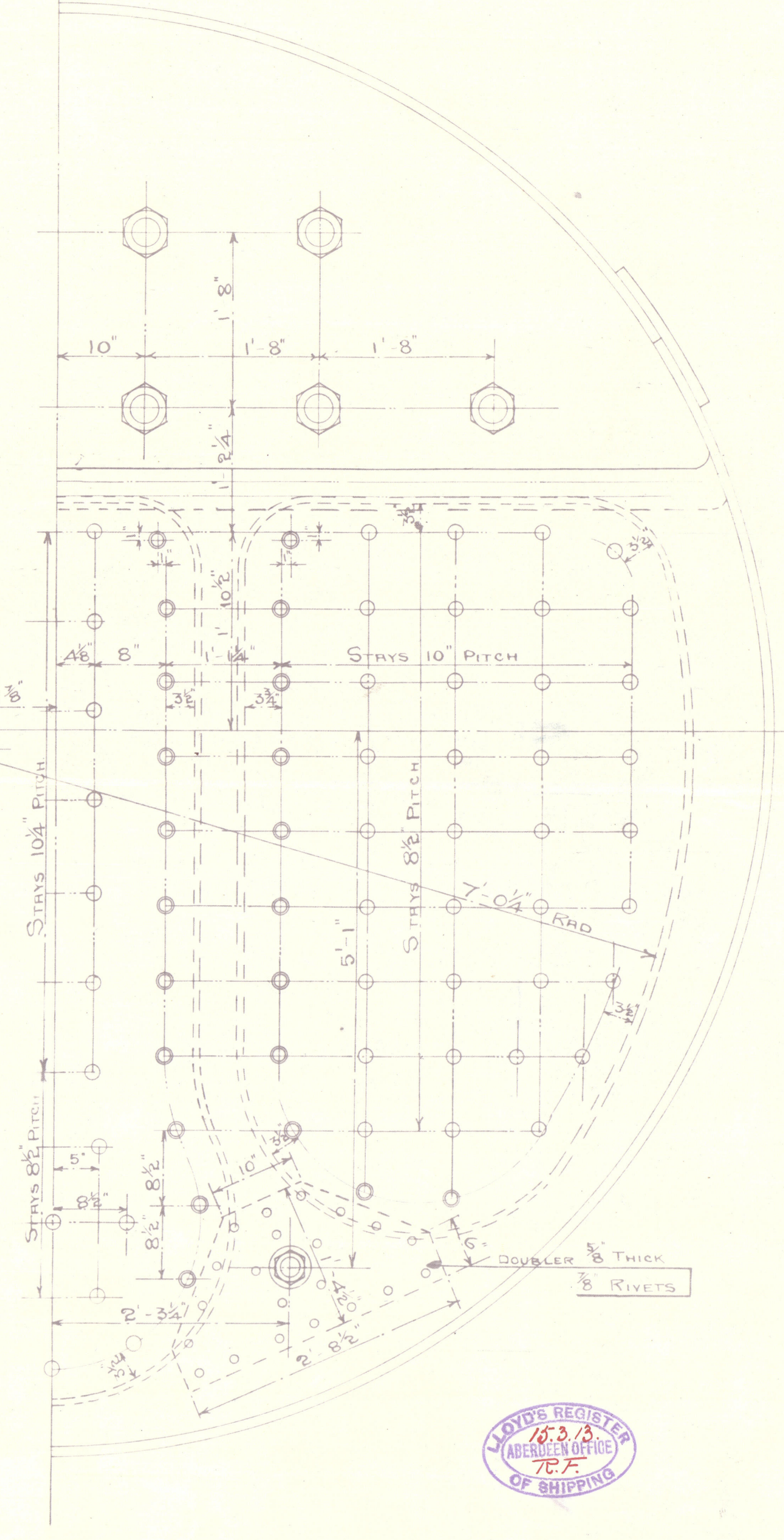
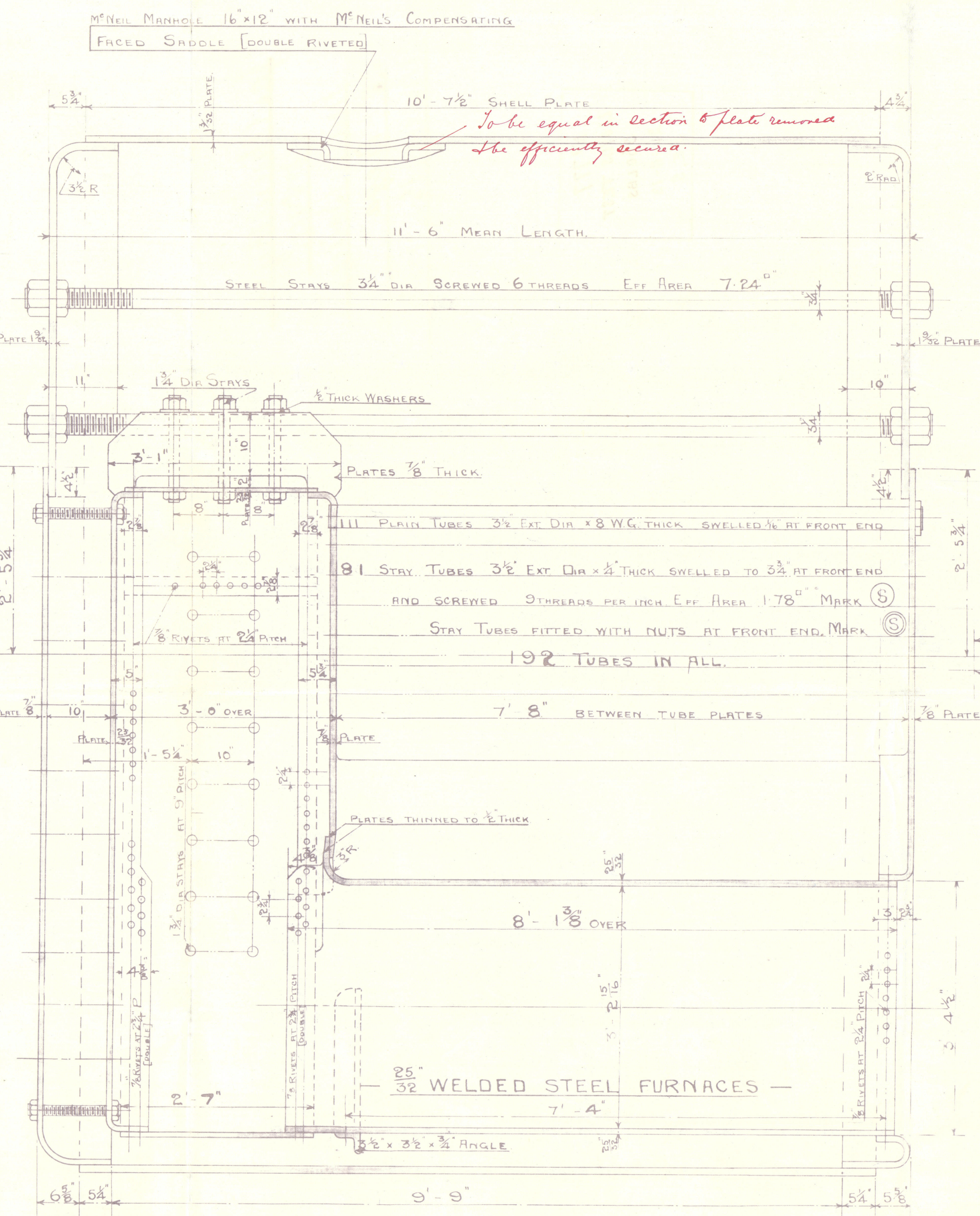
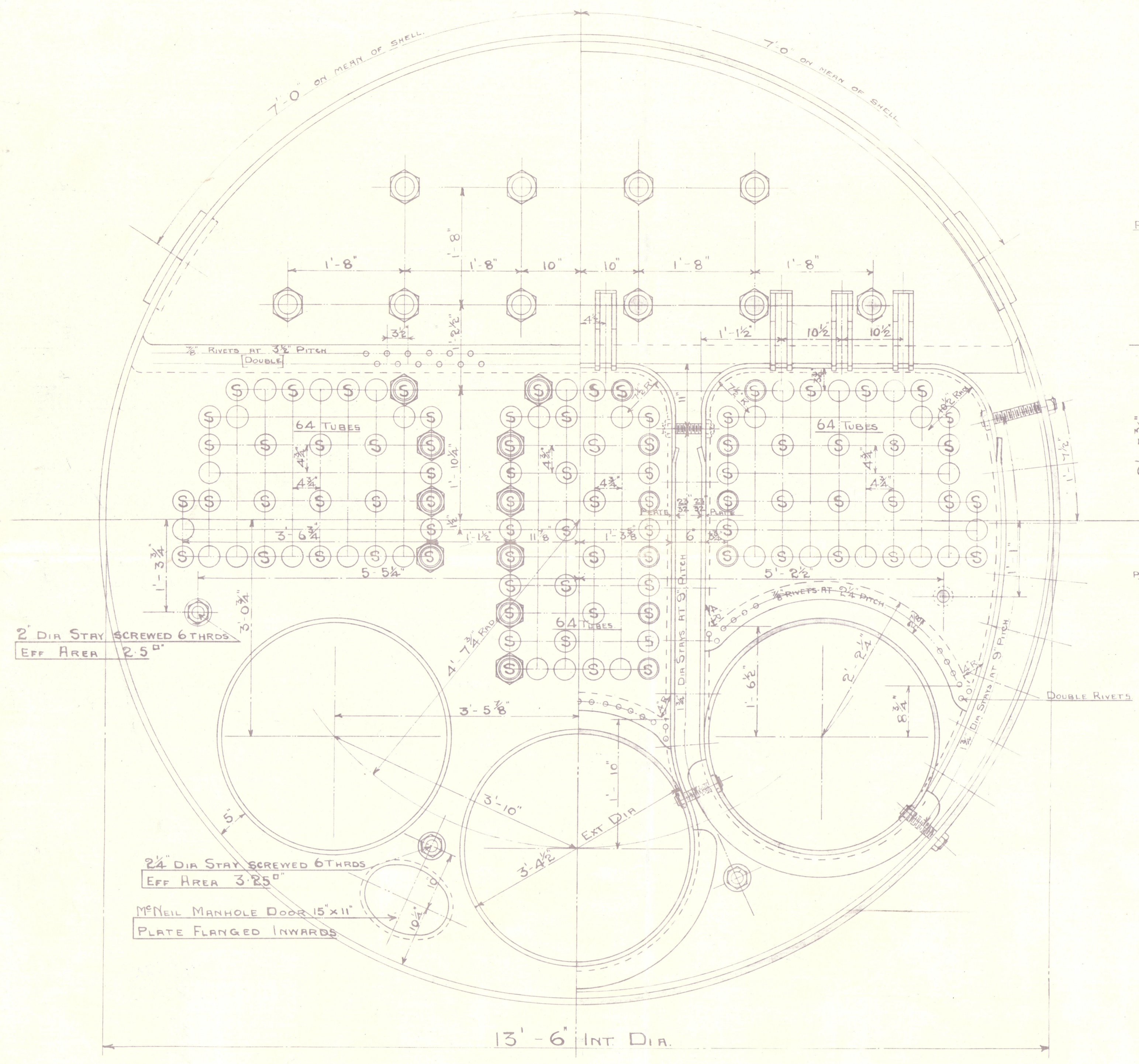
LIMITS OF TENSILE STRENGTH.

SHELL BUTT STRAPS AND GIRDERS	28 - 32 TONS
OTHER PLATES	26 - 30 "
FURNACES	26 - 30 "
MAIN STAYS	28 - 32 "
SCREWED STAYS AND RIVET BARS	26 - 30 "

CC STAYS.

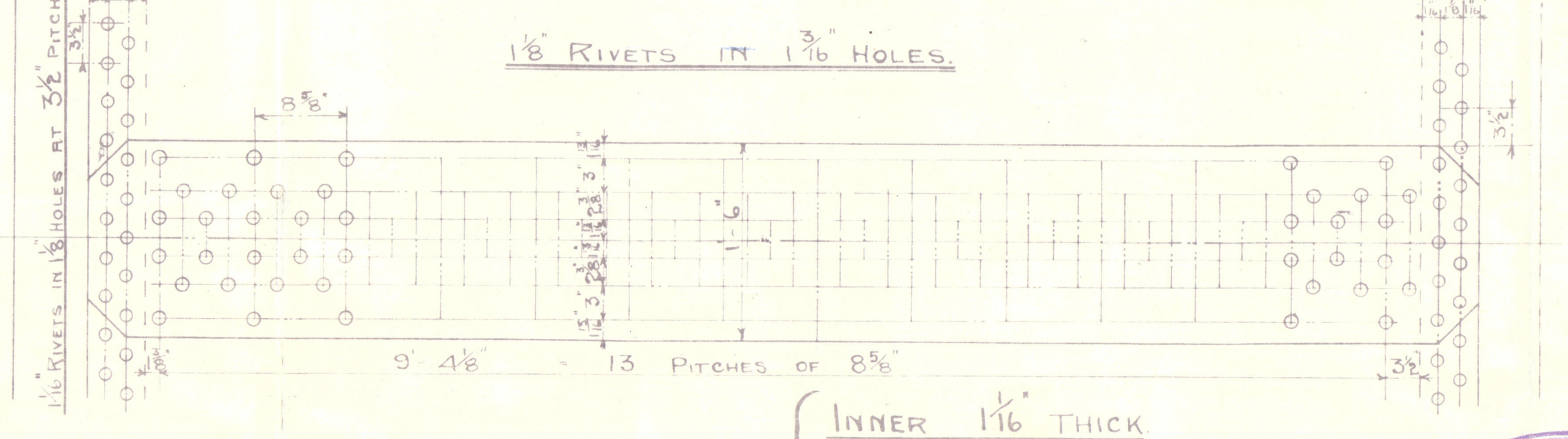
POSITION	MARK	DIA	AREA
CC BACKS	○	1 1/2"	2.06"
"	◎	1 1/2"	2.39"

ALL CC STAYS SCREWED 10 THRS PER INCH.
SCREWED THROUGH BOTH PLATES AND NUT FITTED AT EACH END.



LONGITUDINAL	$\frac{P-D}{P} \times 100 = \frac{8.625 - 1.187}{8.625} \times 100$	86.2%	FURNACES	50(300 x 79/25 - 86.375)	182.5 LBS
SEAM	$\frac{N \times A \times 1.75 \times 85}{P \times T} = \frac{5 \times 1.07 \times 1.75 \times 85}{8.625 \times 1.095}$	87.2%	CC TOP STAYS	$\frac{1 1/4" \text{ DIA}}{\text{PITCH } 8 \times 10 \frac{1}{2}"} \times 9000 \times 2.04$	220 LBS
SHELL	$\frac{1 3/8" \text{ THICK}}{22 \times 15.5 \times 86.2}$	181 LBS	CC BACK STAYS	$\frac{1 1/4" \text{ DIA}}{\text{PITCH } 8 \times 10 \frac{1}{2}"} \times 9000 \times 2.04$	218 LBS
END PLATES	$\frac{1 3/8" \text{ THICK}}{175 \times 20.5^2}$	184 LBS	CC BACK MARGINAL STAYS	$\frac{1 1/8" \text{ DIA}}{\text{PITCH } 8 \times 10 \frac{1}{2}"} \times 9000 \times 2.04$	218 LBS
MAIN STAYS	$\frac{3 1/4" \text{ DIA AREA } 7.24"}{10400 \times 7.24}$	188 LBS	CC SIDE STAYS	$\frac{1 3/4" \text{ DIA}}{\text{PITCH } 9 \times 10 \frac{1}{2}"} \times 9000 \times 2.04$	204 LBS
WIDE SPACE BETWEEN NESTS OF TUBES	$\frac{170 \times 14^2}{247.8}$	182 LBS			
WIDE SPACE BETWEEN CC BACKS	$\frac{135 \times 14^2}{13.22 \times 8.3^2}$	213 LBS			
CC TOPS	$\frac{135 \times 11.5^2}{8.3^2 \times 1.15^2}$	202 LBS			
CC BACKS	$\frac{135 \times 11.5^2}{8.3^2 \times 1.15^2}$	206 LBS			
GIRDERS	$\frac{28.56 \times 25 \times 10.5 \times 56.25}{10.5^2}$	193 LBS			
CC SIDES	$\frac{135 \times 11.5^2}{10.5^2}$	197 LBS			

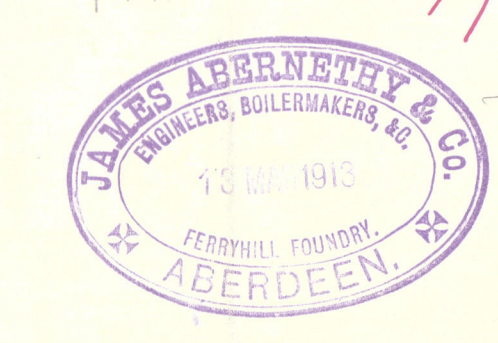
JOB NO. **S79 10FF**



BUTT STRAPS
INNER 1 1/8" THICK
OUTER 1 1/8" THICK

HEATING SURFACES

TUBES	1347
CC TOP AND SIDES	125
CC BACKS	60
CC TUBE PLATE	35
FURNACES	115
TOTAL	1682
GRATE AREA (5' 6" BARS)	53
TUBE AREA	9.9



SCALE - 1 = 1 FOOT.



Jas Abernethy & Co.
Nº 849.

Main Boiler.

S.S. "Bega"

Abernethy Nº 11386



Nº 777
LLOYDS TEST
360 LBS
26-11-13
J.E.S.



W961-0036



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Foundation