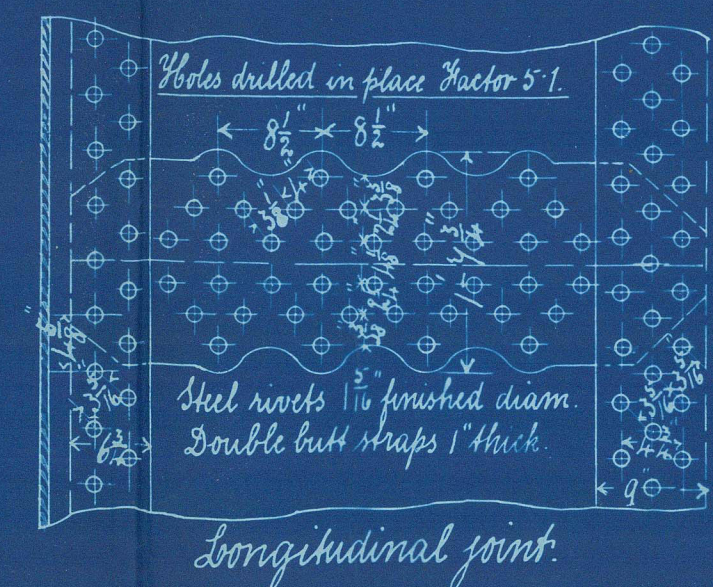
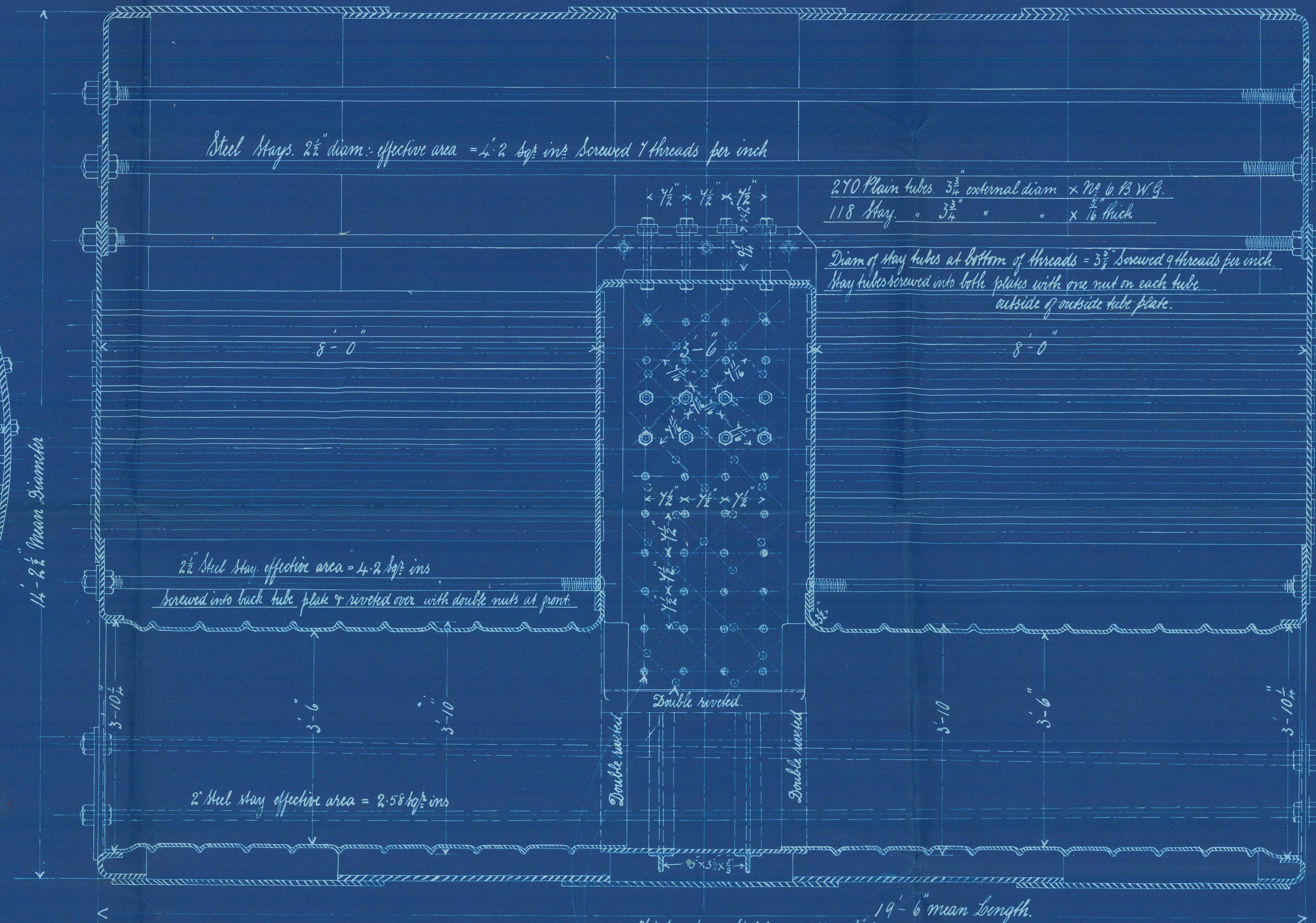
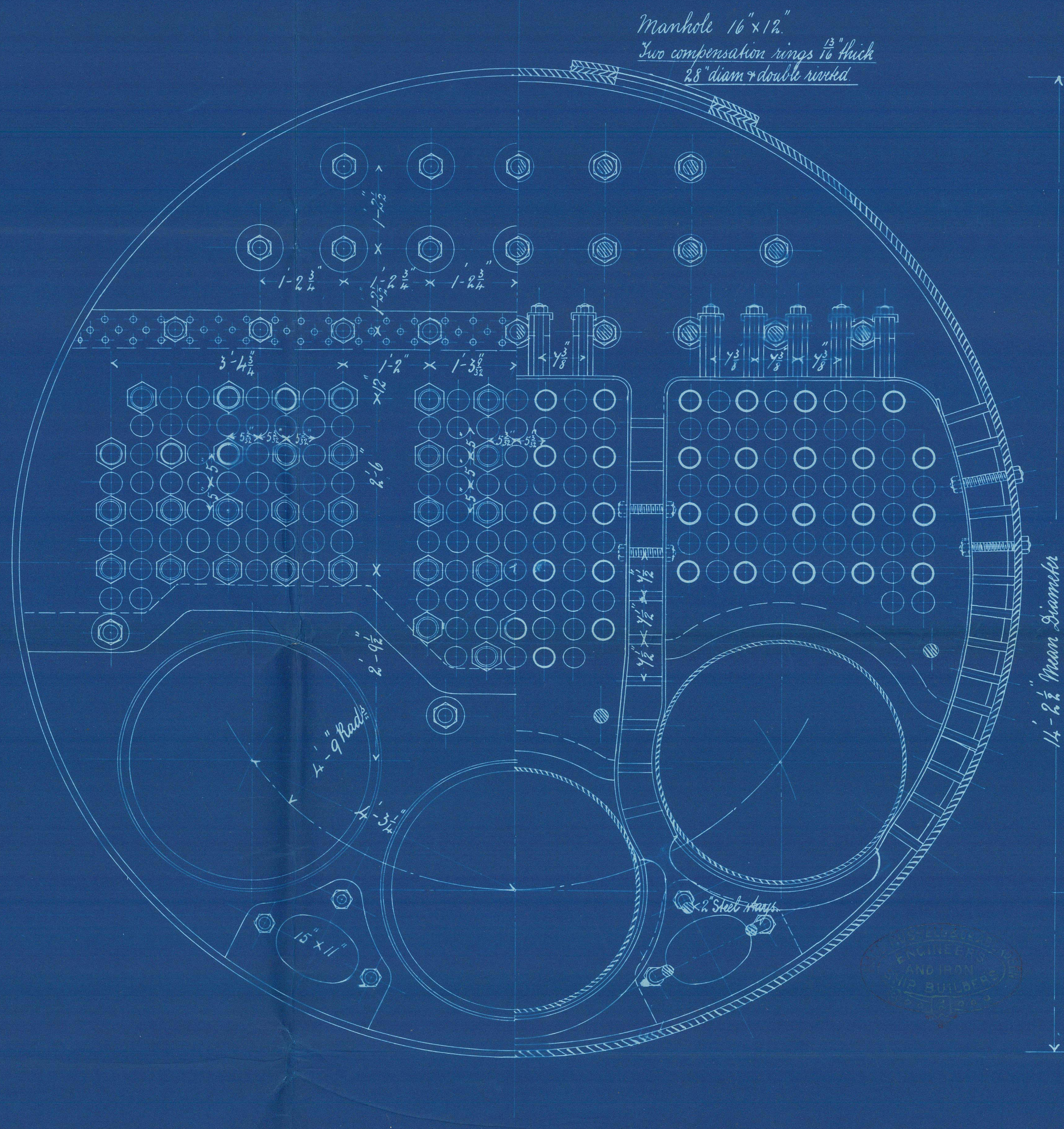


11/14 9 90

Working pressure	Lloyd's
Plate section	$\frac{100(8.5 - 1.3125)}{8.5} = 84.55$
Rivet "	$\frac{13524.5 \times 1.75 \times 8.5}{8.5 \times 1.25 \times 2.5} = 92.39$
Circumferential shell	$\frac{260 \times 1.25 \times 1.25 \times 8.5}{170.5} = 165.13$
End upper plates	$\frac{140 \times 16^2}{14.75^2} = 164.78$
" " stays	$\frac{4.2 \times 4000}{14.75} = 173.74$
Outer tube plates	$\frac{140 \times 15^2}{14} = 160.71$
Inner " (compressive)	$\frac{(509375 - 3.14 \times 40125 \times 20000)}{40125 \times 509375} = 160.5$
Stay tubes	$\frac{(1032 - 7)5000}{(3 \times 10) - (3 \times 11)} = 171$
Combustion chamber tips & inner sides	$\frac{120 \times 9^2}{7.5^2} = 172.8$
" " outer sides	$\frac{120 \times 9^2}{7.6875^2} = 164.47$
" " screw stays	$\frac{125 \times 3000}{7.6875^2} = 169.21$
" " girder stays	$\frac{10200 \times 2.25^2 \times 2}{(14.2 - 7.5)7.375 \times 1.2} = 163.3$
Furnaces	$\frac{1100 \times (8.2)}{4.3} = 161.86$



Thickness of Plating	
Circumferential shell Steel	1 3/8"
Straps for do.	1"
Upper end plates	1"
Lower " "	1 3/8"
Outer tube	3 1/8"
Inner " "	3 3/4"
Furnaces	1"
Firebox sides & tops	9"
" bottoms	5"
" Girders	two @ 1" each

Heating Surface	
388 tubes @ 8'0" long.	= 3047.3 sq. ft.
Furnaces	= 270 "
Fireboxes	= 161 "
Inner tube plates	= 51 "
Total in each boiler	= 3529.3 "
Grate surface	= 115.5 sq. ft.

# — BOILER No 264 —

Diam = 14' - 2 1/2" Length = 19' - 6" Pressure = 160 lbs.

Scale = 3/4" to the foot  
15/9/90



Main Boiler Tracing  
Messrs Hall Russell & Co

S. S. No 264

S. S. 'Thermopylae'

Abn Rep No 4297.



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Lloyd's Register  
Foundation

ABN22-0001