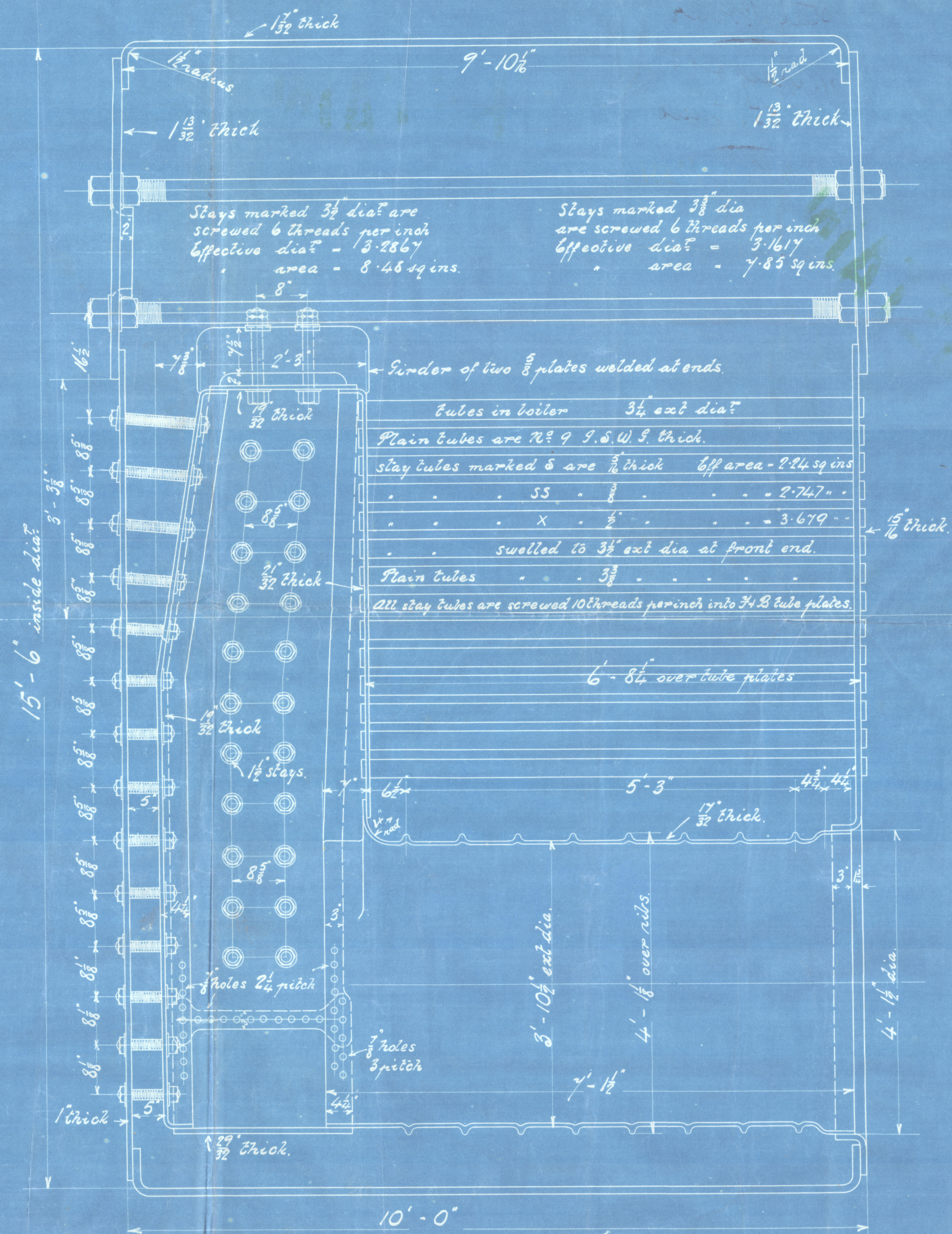
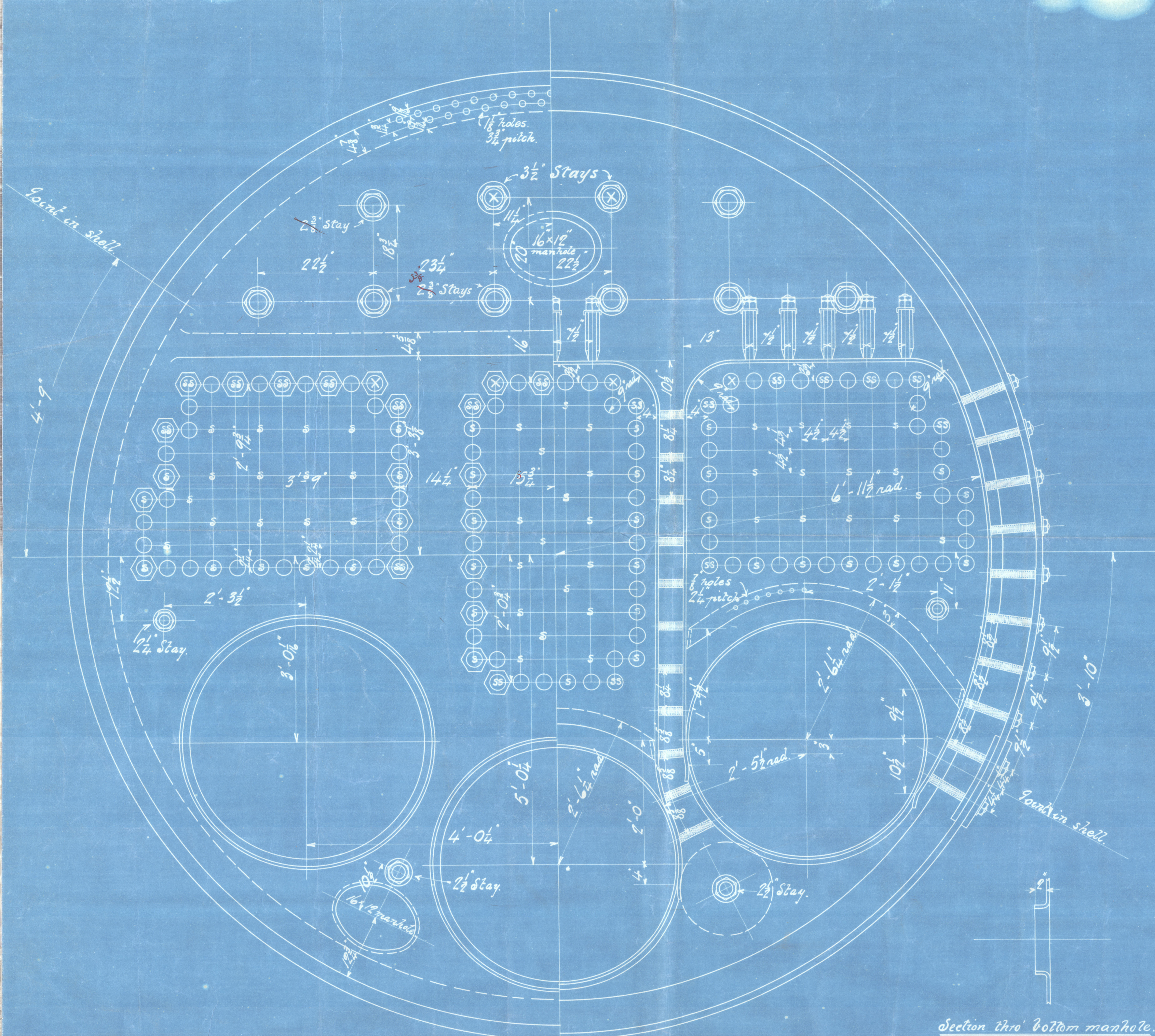


# STEEL BOILER N<sup>o</sup> 551.

WORKING PRESS - 160 LBS TO LLOYDS.

Scale 1" = 1 1/2"

Plate	$\frac{P \cdot d}{P}$	$\frac{8.625 \cdot 1.25}{8.625}$	85.5%	Back bottom	$\frac{C \times t^2}{P^2}$	$\frac{135 \times 16^2}{14.25^2}$	170 lbs
Rivets	$\frac{a \times m^2 \times 175 \times 85}{P \times t}$	$\frac{1.227 \times 5 \times 1.75 \times 85}{8.625 \times 1.2175}$	86.8%	Girders	$\frac{C \times d^2 \times t}{(L-P) \times L \times dist. of}$	$\frac{9900 \times 7.5^2 \times 1.25}{(27-8) \times 27 \times 7.5}$	7 lbs 180.9
Shell	$\frac{C(t-2)}{D}$	$\frac{20(19.5-2)}{186}$	22.5 160.8	Ribbed furnaces	$\frac{C(t-2)}{D}$	$\frac{1160(8.5-2)}{46.5}$	22.5 162.1
Front & Back Stays	$\frac{C \times t^2}{P^2}$	$\frac{175 \times 22.5^2}{23.25^2}$	22.5 163.8	Main stays	$\frac{C \times a}{surface}$	$\frac{9000 \times 7.85}{22.875 \times 18}$	22.5 171
Front tube plate	"	$\frac{150 \times 15^2}{14.25^2}$	22.5 166.2	Screw stays	"	$\frac{9000 \times 2.096}{13.625 \times 8.625}$	22.5 160.5
Back tube plate	"	$\frac{140 \times 10.5^2}{9^2}$	22.5 190	do	"	$\frac{8000 \times 1.5}{8.625^2}$	22.5 161.3
do to Corrugation	$\frac{C(D-d)t}{W \times D}$	$\frac{1600(4.5-2.962)10.5}{34.375 \times 4.5}$	22.5 167	stay tubes	"	$\frac{7500 \times 2.24}{9^2}$	22.5 207
Comb cham	$\frac{C \times t^2}{P^2}$	$\frac{135 \times 9.5^2}{8.625^2}$	22.5 163.78	Cham bottom	$\frac{C \times t}{D}$	$\frac{8810 \times .9}{48.3}$	22.5 163



Screwed stays marked 5 are 1 1/2" dia screwed 11 threads per inch  
Effective dia = 1.633"  
area = 2.096 sq ins.







Steel Boiler

W. Gray & Co

No. 551 Vessel

6 M. & N. No. 551.

160 lbs

11

2592

Lloyd's test

320 lb

R.D.

1. 12. 97

L. L. Samuel

W. H. Pool. Report

No. 10503

RETAIN



© 2020

Lloyd's Register  
Foundation

W444-0193