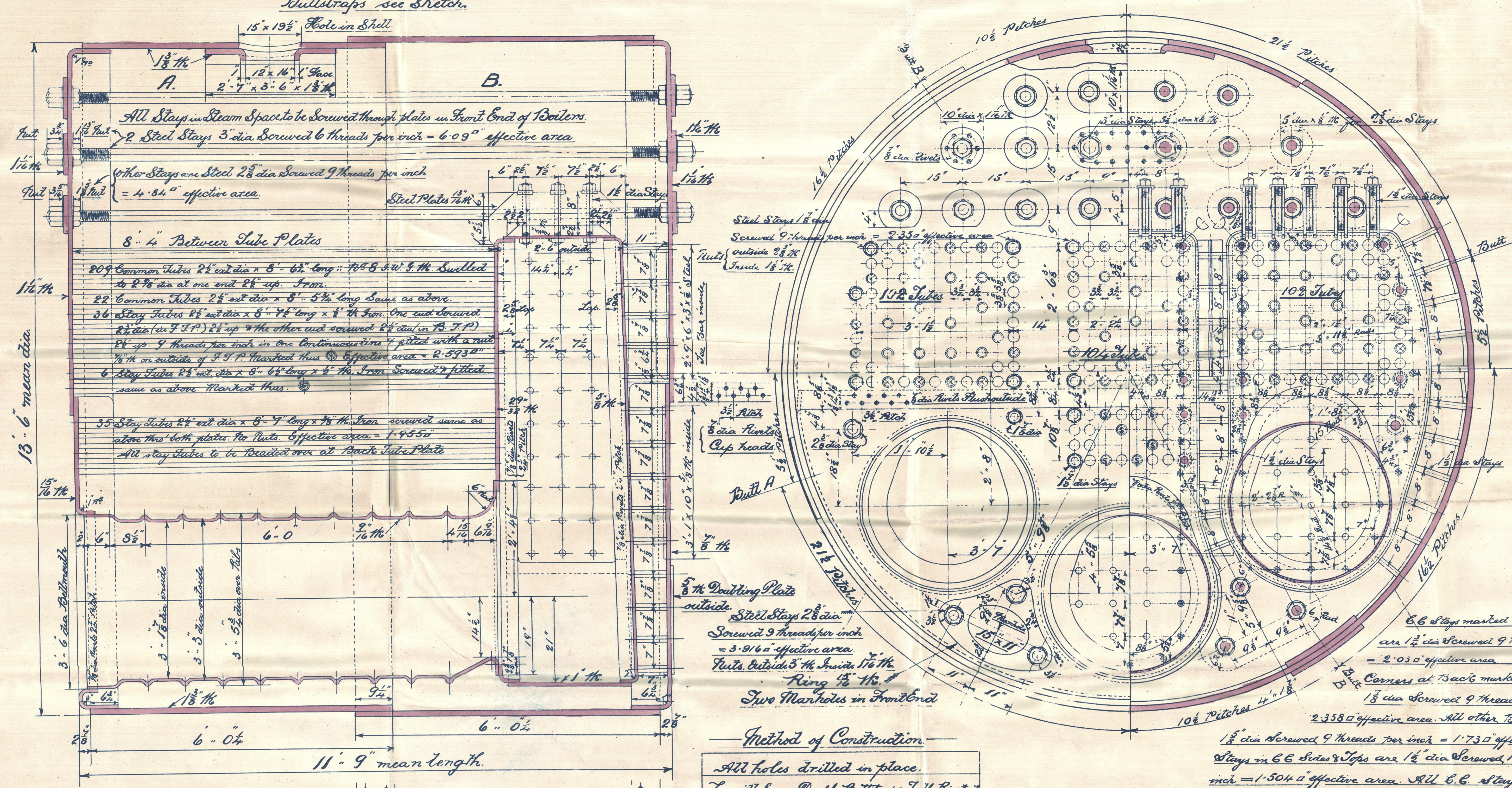


Rev. 15.1.94

No 227 SS "Elean Ross" Bro Rpt No 607

11/1/94

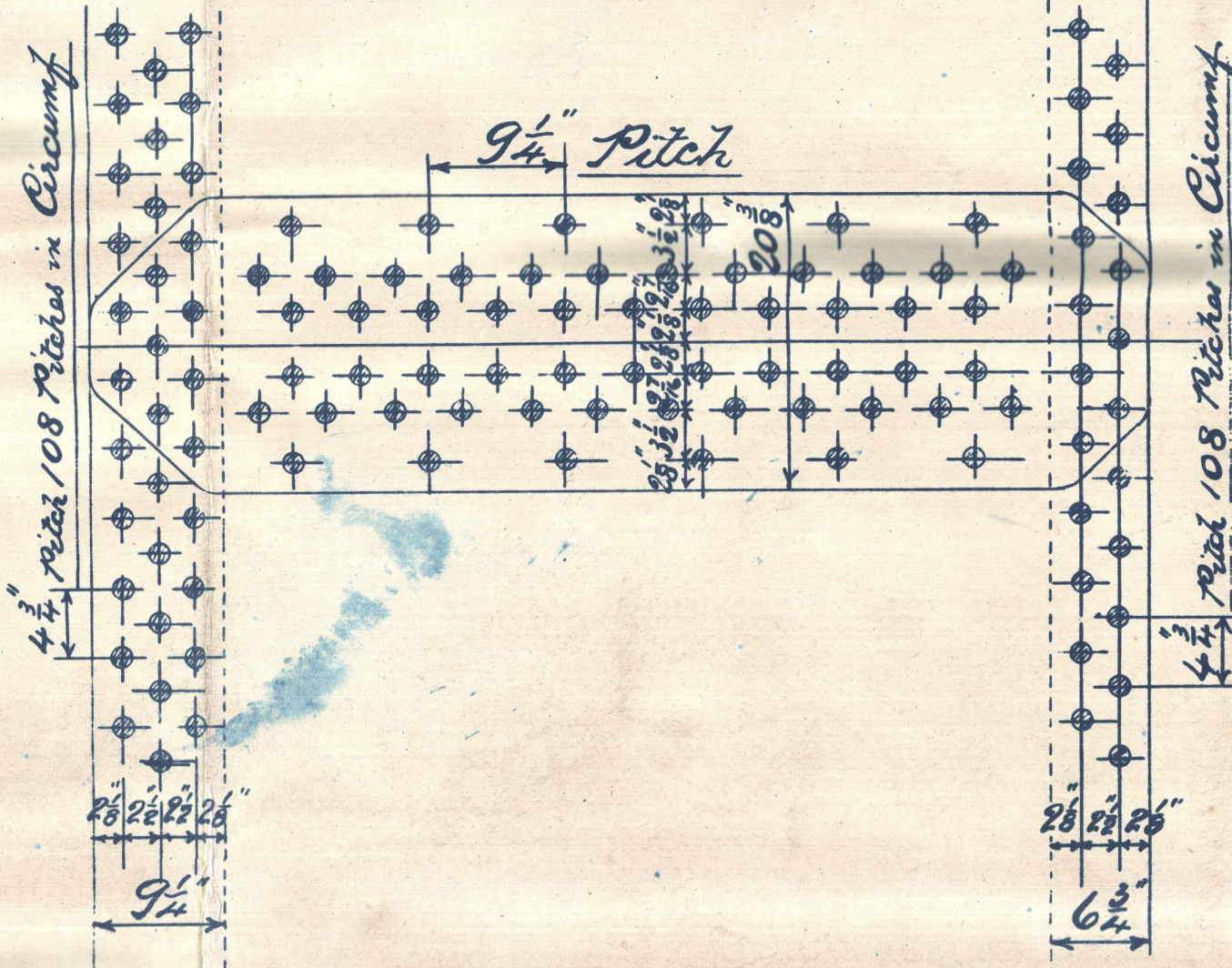
Note. For Positions of Manholes and Buttraps see Sketch.



List of Plates				
Mark	No. off	Length	Breadth	Purpose
227A	4	21' 0 1/4"	6' 0 1/4"	Inner Shell
B	4	21' 5 5/8"	6' 0 1/4"	Outer Shell
C	2	3' 8"	2' 9"	Manhole in Shell
D	4	6' 0 3/4"	1' 8 3/4"	Butt straps
E	8	5' 10"	1' 8 3/4"	"
F	4	5' 6"	1' 8 3/4"	"
G	2	7' 5 1/2"	1 1/2"	Top Ends Front
H	2	7' 4 3/8"	1 1/2"	Bottom Ends Front
J	2	7' 6 3/8"	1 1/2"	Top Ends Back
K	2	7' 5 3/8"	1 1/2"	Bottom Ends Back
L	2	9' 8 1/2"	4' 2 1/2"	Back Tube Plate Centre
M	4	7' 10 1/4"	4' 9 1/4"	" " Wings
N	2	9' 8"	4' 1 1/2"	G.C. Backs Centre
O	4	7' 10 1/4"	4' 9"	" " Wings
P	2	16' 4"	2' 5 3/8"	G.C. Sides Top Centre
R	4	16' 11"	2' 5 3/8"	" " " Wings
S	2	4' 1 1/2"	2' 5 3/8"	G.C. Bottoms Centre
T	4	4' 6 1/2"	2' 5 3/8"	" " Wings
U	28	5' 5"	1' 0 3/4"	G.C. Girders
Y	12	6' 1"	10 1/2"	Washers for Ends
W	4	3' 1 1/4"	10 1/2"	Doubling Plates Back
X	4	2' 7 1/4"	1' 11 1/4"	"
Y	4	2' 5 1/4"	1' 9 1/2"	Manhole Ring in Front out of Plate H.

List of Stay Bars	
4 Bars	12' 10" long x 3" diam
32 Bars	12' 9 1/2" long x 2 1/2" diam
12 Bars	12' 6" long x 2 1/2" diam
4 Bars	9' 0 1/2" long x 2 1/2" diam
28 Bars	9' 0" long x 1 1/2" diam
15 Bars	8' 11" long x 1 1/2" diam
200 Feet of Bar	1 1/2" diam
250 Feet of Bar	1 1/2" diam
420 Feet of Bar	1 1/2" diam

Shell Riveting	
Holes in Shell 1 1/2" dia.	Rivets 1 1/2" dia.
Shell Plates 1 1/2" Th.	Buttraps 1 1/2" Th.
Two Plates in each Circumference.	
Longitud. Seams	Plates = 84.79% Rivets = 87.76%
Circumf. Seams	Plates = 70.89% Rivets = 58.89%
28 Tons Tensile Strength used for Calculations	



Method of Construction.
All holes drilled in place.
Longitud. Seams Double Buttraps. Triple Riveted.
Circumf. Seams Lap joint. Triple Riveted.
Board of Trade Working Factor 4.5
All Steel Plates, Stay Bars & Rivets.

Makers of Materials.
Plates G.W. made by
Other Plates made by Stockton Malleable Iron Co.
Stay Bars made by W. Beardmore & Co. Glasgow
Tubes made by A. & J. Stewart & Co. Glasgow
Rivets made by W. Beardmore & Co. Glasgow

Spare Gear.
6 Common Tubes 8' 3/4" long same as above for each No.

Heating Surfaces etc	one boiler	2 Boilers
303 Tubes 2 1/2" dia x 8' 4" long	1679.89 sq ft	3359.78 sq ft
3 Ribbed Furnaces (3/8" Cr)	168.43 sq ft	336.86 sq ft
3 Combustion Chambers	221.78 sq ft	443.56 sq ft
Total Heating Surface	2070.1 sq ft	4140.2 sq ft
Bar Surface 3' 1 1/2" x		
Area through Tubes	7.1 sq ft	14.2 sq ft
Ratio of Bar Surface to Heating Surface		
Ratio of Area thro Tubes to Bar Surface		

Working Pressure 200 lbs per sq inch.
To be tested to 400 lbs pressure per sq inch.

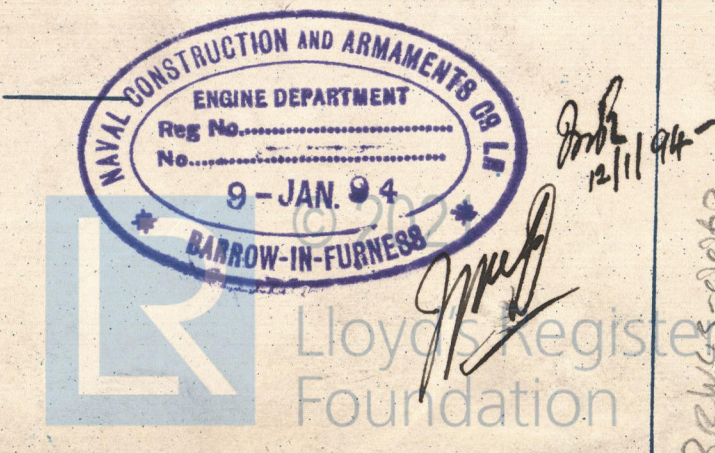
one set off Plates & Bars for each No.
All the above plates & bars to be of Siemens Mild Steel To be tested in the presence & to the satisfaction of the Board of Trade & Lloyds Surveyors Shell plates & Buttraps to have a tensile strength of not less than 28 tons per sq in.

To Board of Trade & Lloyds Requirements
MAIN BOILERS No 227-8-9

DRAWING No 4.102

2 OFF FOR EACH No

SCALE 1" = 1 FOOT



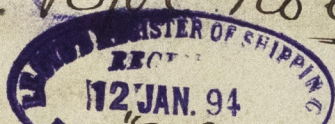
N. C. & A. Co's

No. 227-8 & 9

Main Boilers.

W

Brw. Rht No 607



No 227 SS "Clan Ross"

BEW43-0052



© 2021

Lloyd's Register
Foundation