

20.11.07

STEEL BOILER No 544

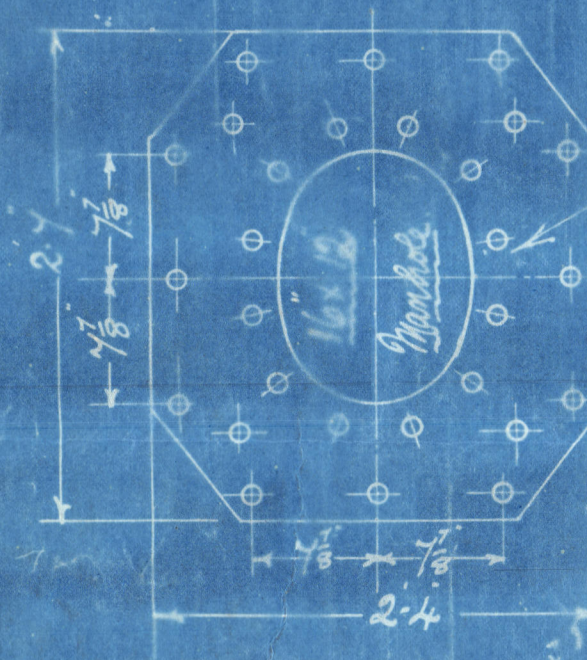
Working Pressure = 180 lbs (200)
Scale 1 Inch = 1 Foot

DIMENSIONS

LENGTH OF FIRE BARS	4-9
AREA OF FIRE GRATE	36 sq
DIAM OF TUBES OUTSIDE	3 3/4
LENGTH OF TUBES	6-9
NO. OF TUBES	202
AREA THROUGH TUBES	10 sq
SURFACE OF TUBES	1250 sq
TOTAL HEATING SURFACE	1560 sq
WORKING PRESSURE	180 lbs

Note! All plates, stays or rivets to be of Siemens Martin Steel. All rivet holes throughout the boiler to be drilled in place after the plates are bent. All flanged plates to be annealed after flanging. The screw stays are 1 1/2", 1 3/4", & 1 5/8" effective diam screwed into both plates and nutted at each end. Screwed 10 threads per inch. The tubes are of iron. The ordinary tubes are 3 3/4" ext diam x No 8 B.S.G. thick. The stay tubes are 2 3/4" int diam x 5/16" thick effective screwed at ends to 3 3/4" x 3 3/4" diam 10 threads per inch. A manhole in shell 16 x 13 with shorter axis longitudinally and a doubling plate 2' 7" x 2' 2" x 1 3/4" thick fitted round it.

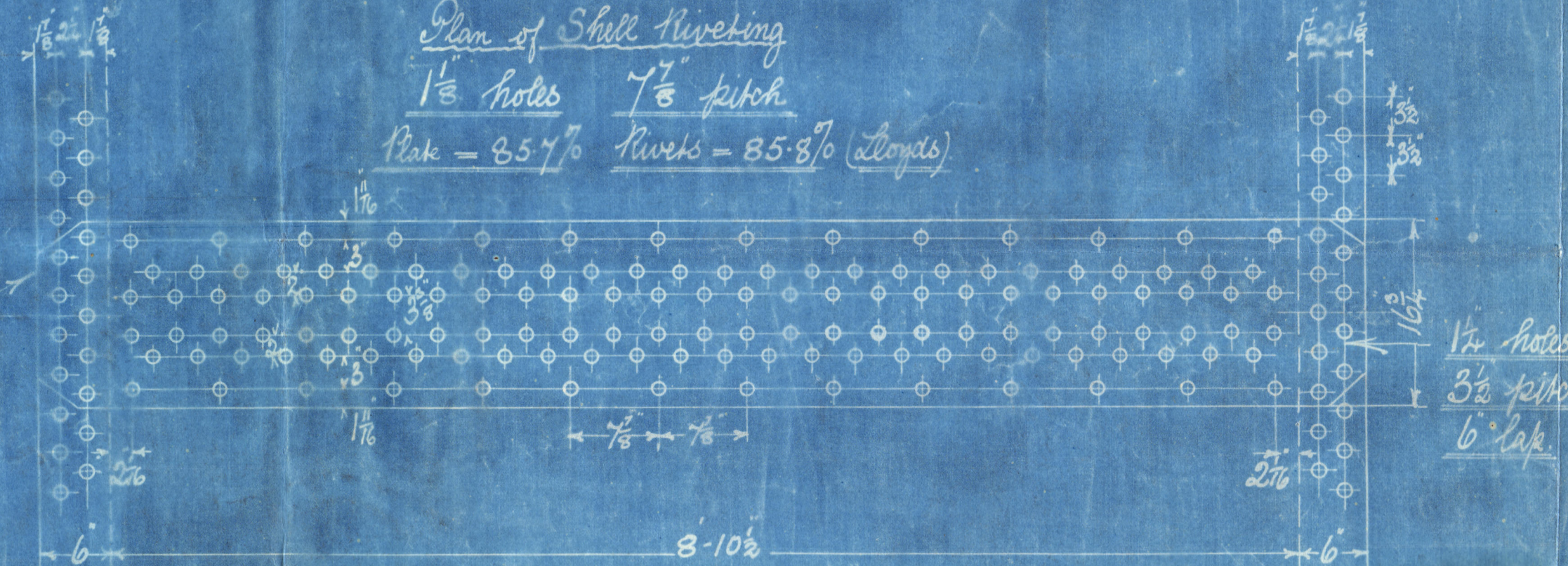
Doubling Plate round Manhole
1 3/4" thick



All rivet holes
in one row counter sunk

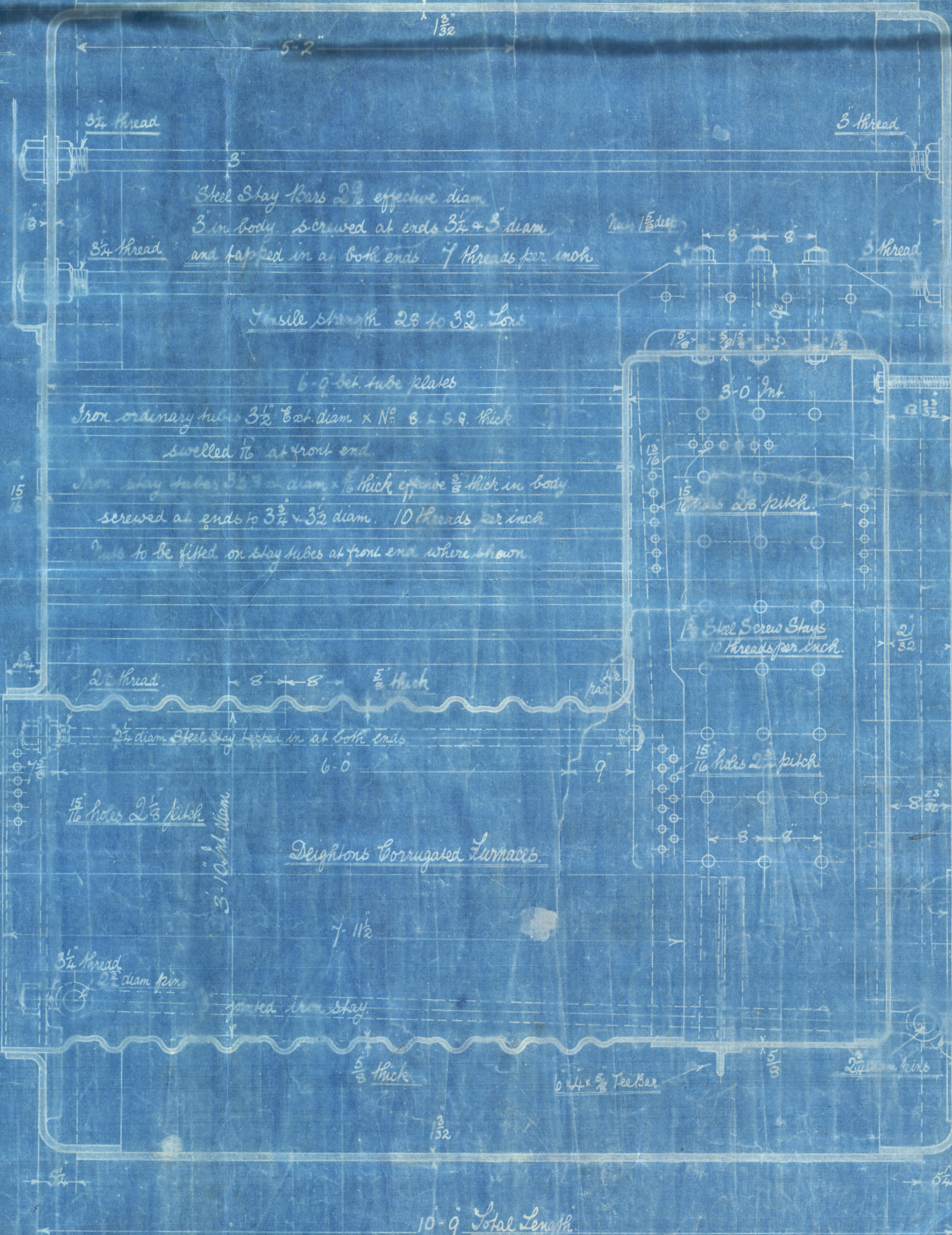
1 1/4" holes
3 3/4" pitch
6" lap

Plan of Shell Riveting
1 1/2" holes 7/8" pitch
Plat = 85 7/8% Rivets = 85 3/4% (Lloyds)



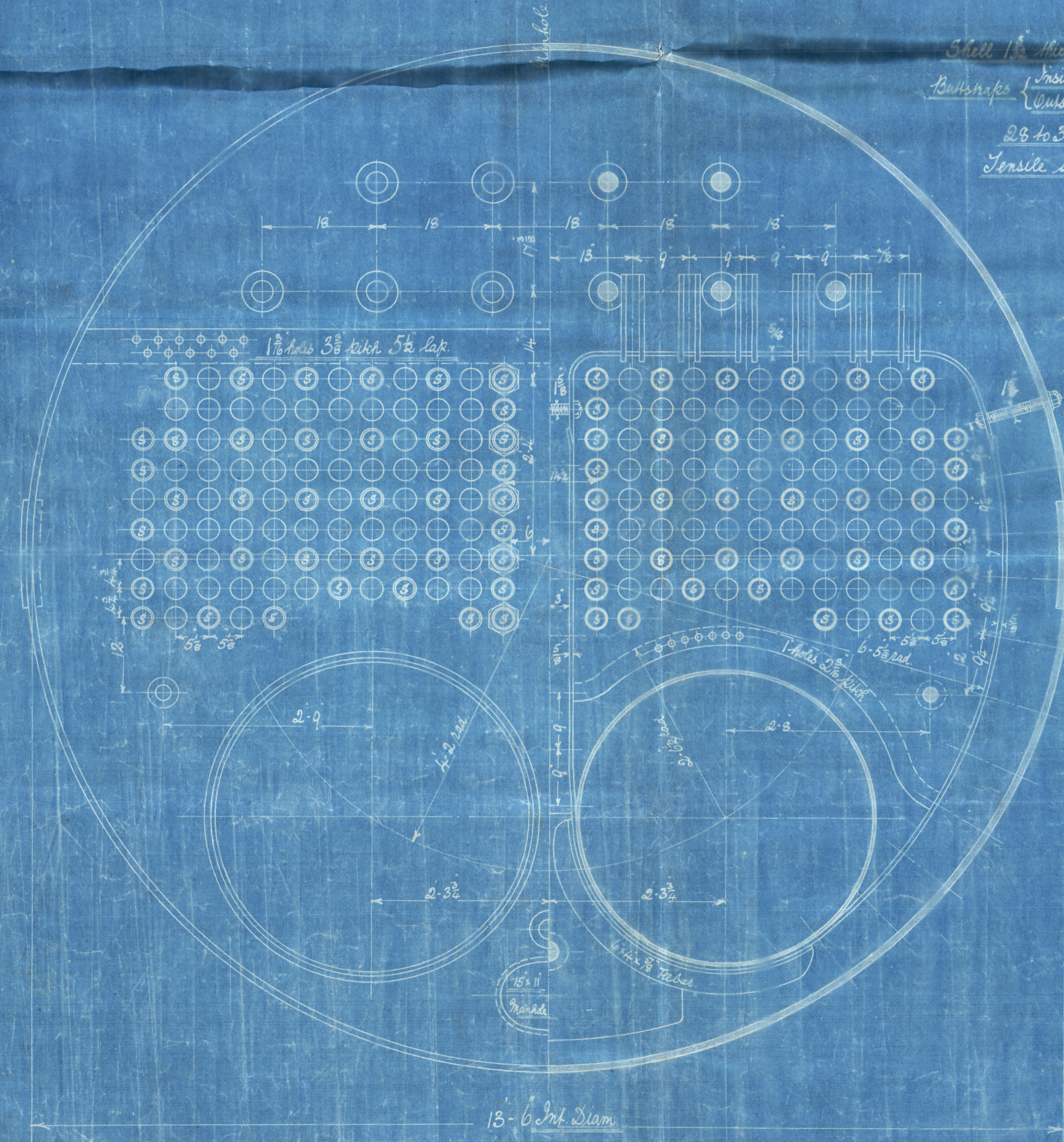
1 1/4" holes
3 3/4" pitch
6" lap

Shell 1 3/4" thick
Butt joints { Inside 16 1/2" x 1 3/4" thick
Outside 16 3/4" x 1 3/4" thick
28 to 32 tons
Tensile strength



Double Steel Bars
1 1/2" x 3/4" thick
Burr on inside

1 3/4" Steel Screw Stays
7/8" shear pins
1 1/2" Steel Screw Stays
shear pins
All Screw Stays
screwed 10 threads per inch
Inside doubling plate
3/4" thick
nutted on with rivets
1/4" rivet holes



P.P.R.
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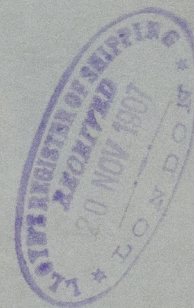
No 544

Lloyds
7483B
18-11-07

W855-0038

Boiler
for
Messrs Earle & Co
No 544
Sec. H. New Crown
Kull Report No 19968

No 1634
Lloyds Test
360 lbs
17.3.08
J. B.



RETAIN

W85J-0038



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Lloyd's Register
Foundation