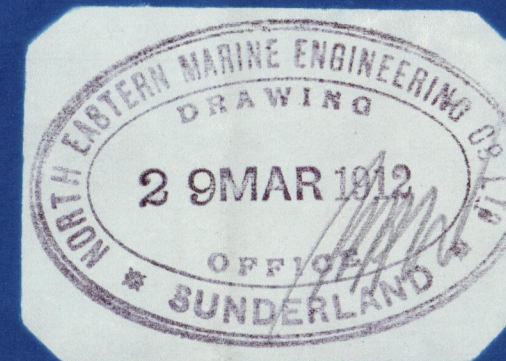


# SUNDERLAND ENGINE WORKS

## BOILER

TRACING 3865 SCALE.— 1 INCH TO A FOOT. SCHEDULE "L".

WRITTEN DIMENSIONS ONLY TO BE TAKEN.



BUTT STRAPS { INSIDE 1" THICK  
OUTSIDE 1" THICK

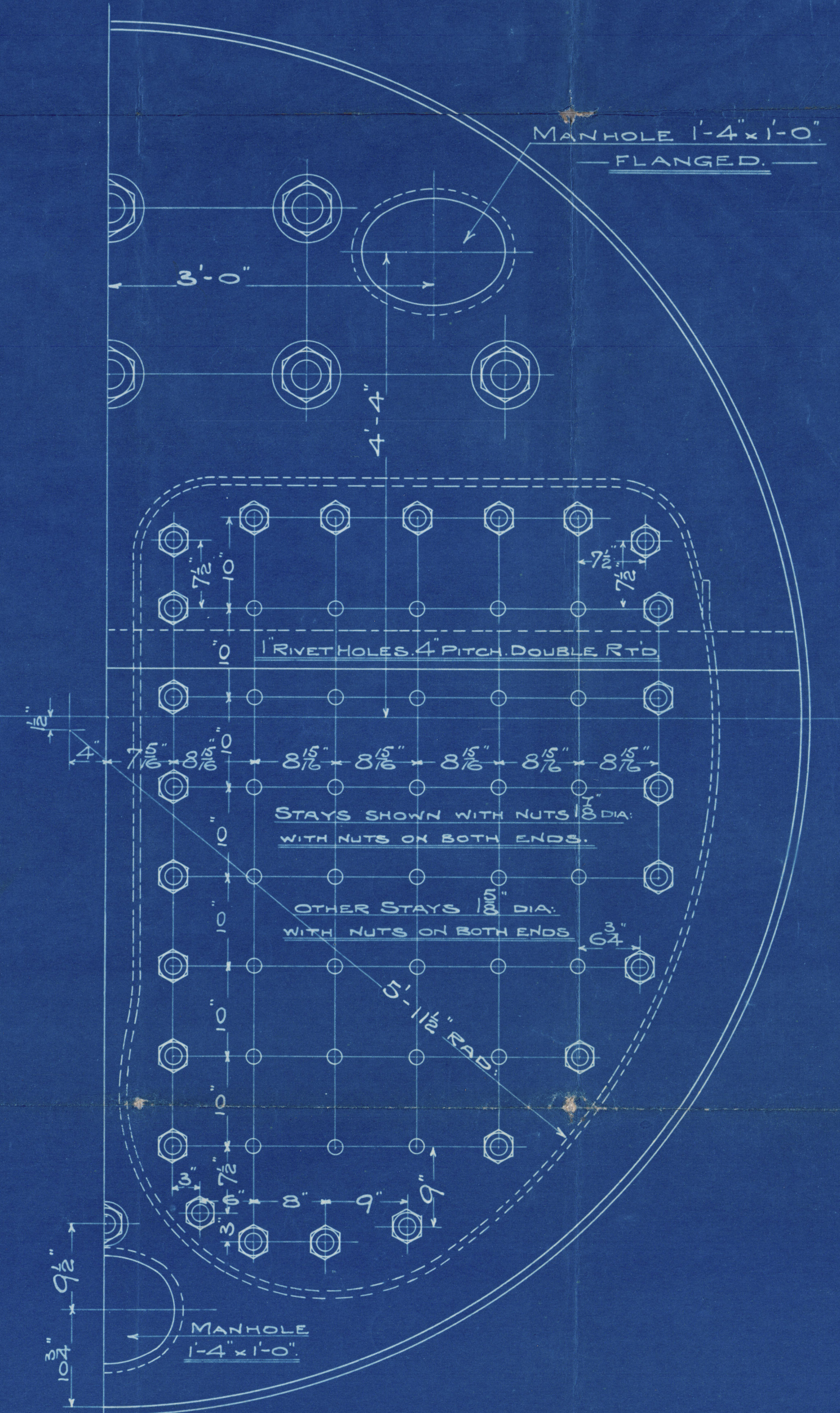
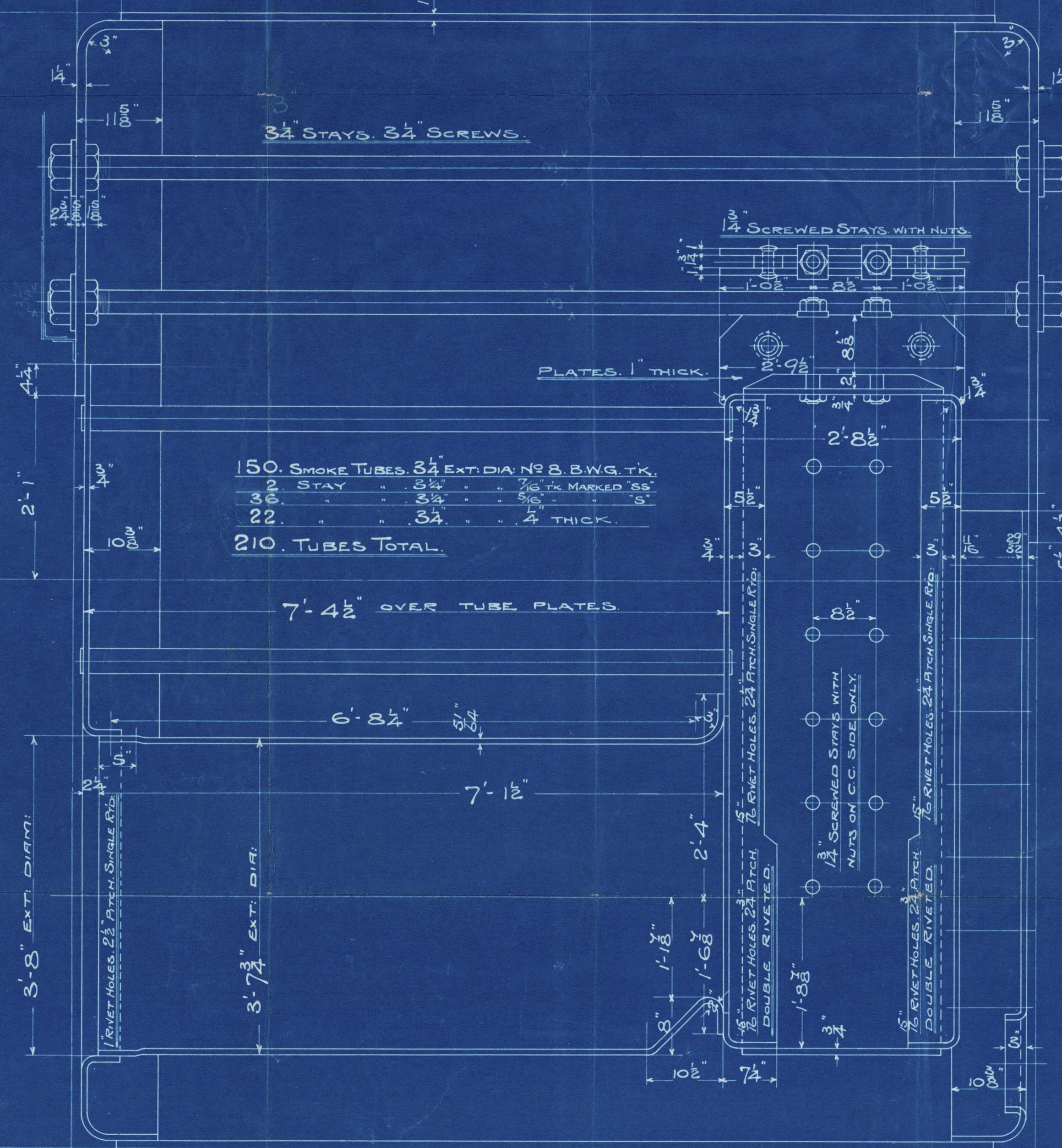
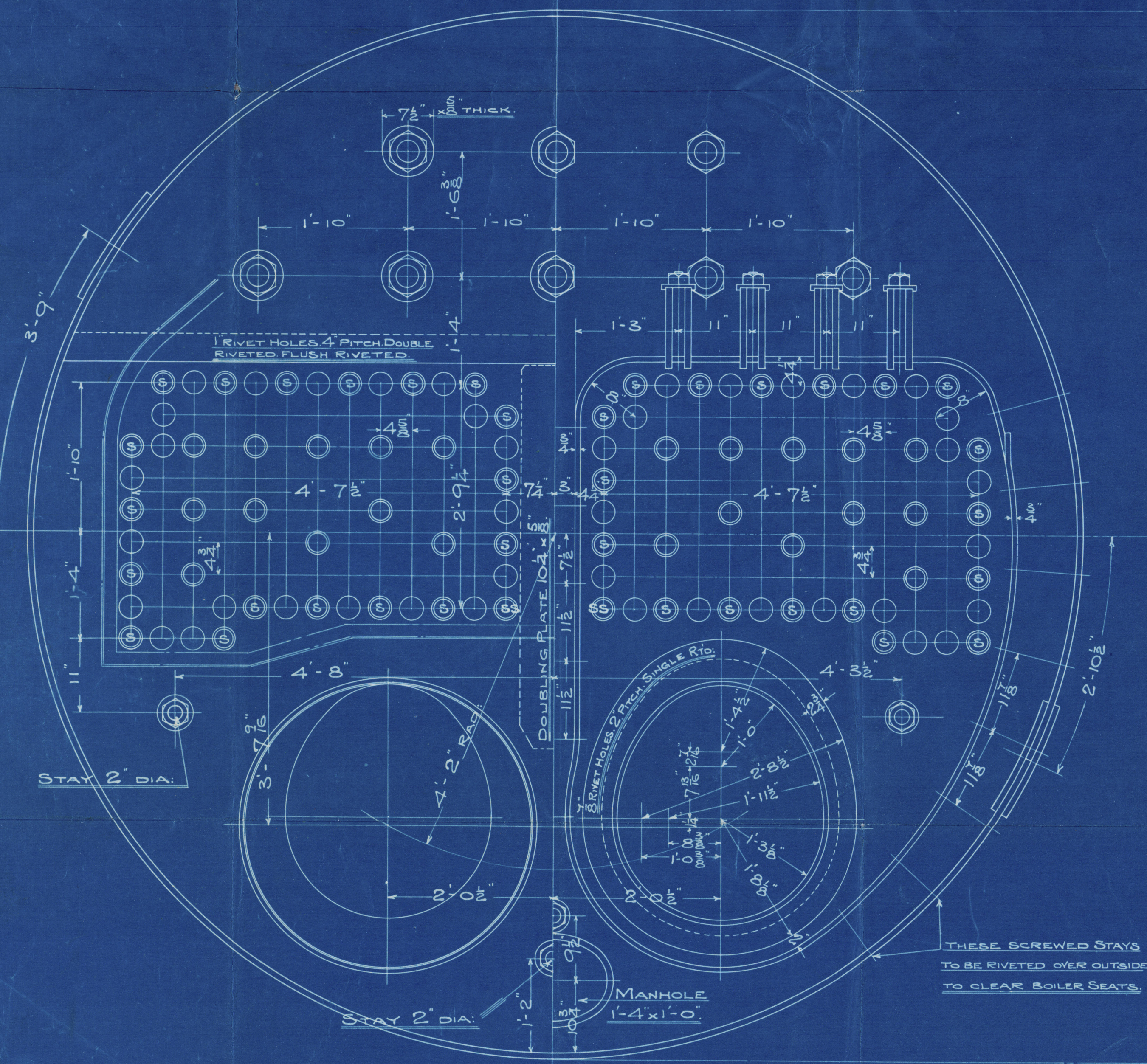
PLATE 1" THICK.  
RIVET HOLES 1 1/8" DIA.  
PITCH = 9 1/8"

PLATE SECTION = 87.33 %  
RIVET = 87.8 %

ALL RIVETS TO BE PUT IN THE FRONT END OF THE BOILER. EVERY ALTERNATE RIVET TO BE LEFT OUT OF THE INSIDE ROW FOR 3 CIRC. TOP OF BOILER, & ALL RIVETS TO BE PUT IN FOR 3 CIRCUMFERENCE AT BOTTOM - AT BACK END OF BOILER -

1/4/12

TO PASS LLOYD'S & FRENCH GOVERNMENT SURVEY.	
SHELL = 22x28875 (15-2) 87.33	= 180.1 LBS PER SQ.
WORKING PRESSURE.	180 " "
TEST " "	360 " "
HEATING SURFACE ON TUBES.	1320 SQ. FEET.
" " OTHER PARTS.	305 " "
" " TOTAL	1625 " "
EX: FRONT TUBE PLATE	1595 " "
EFFECTIVE AREA OF STAYS.	
3 1/2" STAY TUBES 5/8" THREADED PER INCH 217 SQ. INCHES.	
3 1/2" " 4" 9. " " 164 " "	
3 1/2" MAIN STAYS 6. " " 724 " "	
2" " 6. " " 251 " "	
1 1/2" SCREWED " 11. " " 243 " "	
1 1/2" " 11. " " 210 " "	
1 1/2" " 11. " " 179 " "	
ALL PLATES, RIVETS, & STAYS - STEEL -	
TUBES - WROUGHT IRON.	
HOLES TO BE DRILLED IN PLACE AFTER BENDING.	
TENSILE STRENGTH OF SHELL PLATES, NOT LESS THAN 28 TONS	
" " GIRDER " " 28 " "	
" " MAIN STAYS. " " 23 " "	



DESIGNED BY J.A.S.  
CHECKED BY J.A.S.  
TRACING NO. 3865  
29.10.11

8816  
1/4/12  
A.R.R.  
1.4.12

CONTRACT 2044.2 OFF.  
CONTRACT 2045.2 OFF.  
CONTRACT 2078.2 OFF.



RETAIN

N.E.M.E.C. L<sup>D</sup>

C<sup>I</sup> No 2078

MAIN BLRS. 2 OFF.

No 3049  
LLOYD'S TEST.  
360 LBS.  
26-9-1912 L.C.D.

LLOYD'S REGISTER OF  
RECEIPTS  
1- APR 1912

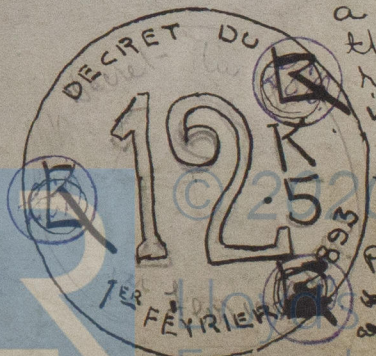
OSBOURNE GRAHAM 166  $\frac{3}{4}$ .

Disce

Sta. Rpt. 25473

DUPLICATE C No 2045

J. J. MARCELLE.



a brass disc  
thus was.  
riveted to boiler  
in accordance  
with French  
Government  
Requirements.  
Printed on  
each rivet.  
The  
Foundation

W927-0037