

# SUNDERLAND ENGINE WORKS

## BOILER

DRAWING 4662A SCALE - 1 INCH TO A FOOT SCHEDULE "L"

WRITTEN DIMENSIONS ONLY TO BE TAKEN



BUTT STRAPS  
INSIDE 1/2" THICK  
OUTSIDE 1/2" THICK

PLATE 1/2" THICK  
RIVET HOLES 1 1/2" DIA.  
PITCH 9"

PLATE SECTION = 87.5%  
RIVET " = 89.9%

10 PITCHES 29 3/4" = 8' 1 1/2"

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

9/12/14

TO PASS LLOYD'S SURVEY.			
SHELL	28 x 29.875 (16 1/2" - 2) 87.5	180 LBS PER SQ. IN.	
WORKING PRESSURE	180 " " "		
TEST	360 " " "		
HEATING SURFACE ON TUBES	1236 SQ. FT.		
" " OTHER PARTS	366 " " "		
" " TOTAL	1602 " " "		
EX. FRONT TUBE PLATE	1567 " " "		
EFFECTIVE AREA OF STAYS			
3 1/4" STAY TUBES 16 TK 9 THREDS PER IN.	2.17 SQ. IN.		
3 1/4" " " 1/4" 9. " " "	1.64 " " "		
3" MAIN STAYS 6. " " "	7.06 " " "		
2" " " 6. " " "	2.51 " " "		
2" SCREWED " 11. " " "	2.79 " " "		
1 1/2" " " 11. " " "	2.43 " " "		
1 1/4" " " 11. " " "	2.1 " " "		
ALL PLATES RIVETS & STAYS - STEEL.			
TUBES - WROUGHT IRON.			
HOLES TO BE DRILLED IN PLACE AFTER BENDING.			
TENSILE STRENGTH OF SHELL PLATES	29 3/8 TO 33 TONS		
" " GIRDER	28 " 32 "		
" " MAIN STAYS	28 " 32 "		

13' 3" EXTERNAL DIAMETER.

148 SMOKE TUBES 3 1/4" EX. DIA. NO. 8 BY 9 T.K.  
45 STAY " 3 1/4" " 16 TK MARKED 'S'  
17 " " 3 1/4" " 1/4" THICK.  
210 TUBES TOTAL.

FIRE-BARS 4' 9"  
GRATE AREA - 41 1/4"  
SAFETY VALVES TWO 2 1/2" DIA.

MANHOLE 1' 4" x 1' 0"  
FLANGED.  
IN END PLATE

CONTRACT 2228.2 OFF.

DRAWING 4662A

W773-0127

DRAWN BY... J.A.S.  
CHECKED BY...  
TRACED BY... G.R.  
CHECKED BY... J.A.S.  
12/12/14

M.S.  
9.12.14  
A.P.S.R.



S. P. AUSTIN & SONS.

S.S. No 2787.

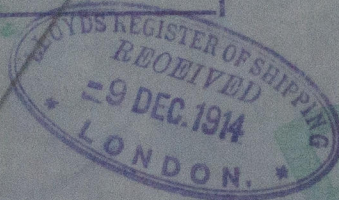
N. E. M. E. Co. L<sup>d</sup>

C. No 2228.

MAIN BOILERS.

2. OFF.

No. 3342  
LLOYD'S TEST  
360 lbs.  
28.6.16 C.C.



*H. Somme*

SUNDERLAND RPT. NO. 26839...



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Lloyd's Register  
Foundation  
W773-0127