

# SUNDERLAND ENGINE WORKS BOILER

SCALE = 1 INCH TO A FOOT

SCHEDULE "L"

WRITTEN DIMENSIONS ONLY TO BE TAKEN.



BUTT STRAP. INSIDE 18" TK  
OUTSIDE 18" TK

RIVET HOLES 1 1/2" DIA

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

PLATE SECTION = 86.21%  
RIVET = 86.5%

11 PITCHES OF 9" = 8'-11"

ALL RIVETS TO BE PUT IN  
FRONT END OF BOILER

EVERY ALTERNATE RIVET TO BE LEFT  
OUT OF THE INSIDE ROW FOR 3 CIRC.  
TOP OF BOILER. RAIL RIVETS TO BE PUT IN  
FOR 3 CIRC. AT BOTTOM BACK END OF BOILER

RIVET HOLES 1 1/2" DIA

TO PASS LLOYD'S SURVEY.		
SHELL = 22 x 28 7/8 (20-2) 3/16	180 LBS PER	
WORKING PRESSURE	180	" "
TEST	360	" "
HEATING SURFACE ON TUBES	2260 SQ. FT.	
OTHER PARTS	526	" "
TOTAL	2806	" "
EX: FRONT TUBE PLATE	2756	" "
EFFECTIVE AREA OF STAYS		
3/4" STAY TUBES 1/4" 9 THREADS PER IN.	217 SQ. IN.	
3/4" " " " 9 " " " "	164	" "
3/4" MAIN STAYS 6 " " " "	9.62	" "
2 " " " 6 " " " "	2.51	" "
2" SCREWED " " " " "	2.79	" "
1 1/2" " " " " " " "	2.43	" "
1 1/2" " " " " " " "	2.1	" "
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	28	" "

TRACED BY A.W.R.  
CHECKED BY J.A.S.

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

3/4" STAYS 3/4" SCREWS

SCREWED STAYS WITH NUTS

PLATES 1/16" THICK

248 SMOKE TUBES 3/4" EXT. DIA. NO 8 BWG THICK.  
54 STAY " 3/4" " " 1/16" THICK MARKED "S"  
44 " 3/4" " " 1/16" THICK.  
346 TUBES TOTAL.

7'-8" OVER TUBE PLATES.

16 RIVET HOLES 2 1/2" PITCH SINGLE R.D.

3" SCREWED STAYS WITH NUTS ON C.C. SIDE ONLY

16 RIVET HOLES 2 1/2" PITCH SINGLE R.D.

1" RIVET HOLES 4" PITCH DOUBLE RIVETED.  
STAYS SHOWN WITH NUTS 2" DIA.  
WITH NUTS ON BOTH ENDS.  
OTHER STAYS 1 1/2" DIA.  
WITH NUTS ON BOTH ENDS.  
MANHOLE 16" x 12"

CONTRACT NO 2160. 2 OFF  
DRAWING NO 4772



N. E. M. E. C<sup>o</sup> L<sup>d</sup>

C<sup>t</sup> No 2160

MAIN. BOILERS.

2. OFF.

No 3231  
LLOYD'S TEST.  
360 LBS.  
4-11-14 W.B.



R. THOMPSON & SONS.

S/S No 285.

8/8 Eggesford

SUNDERLAND RPT. NO. 26282

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Lloyd's Register  
Foundation