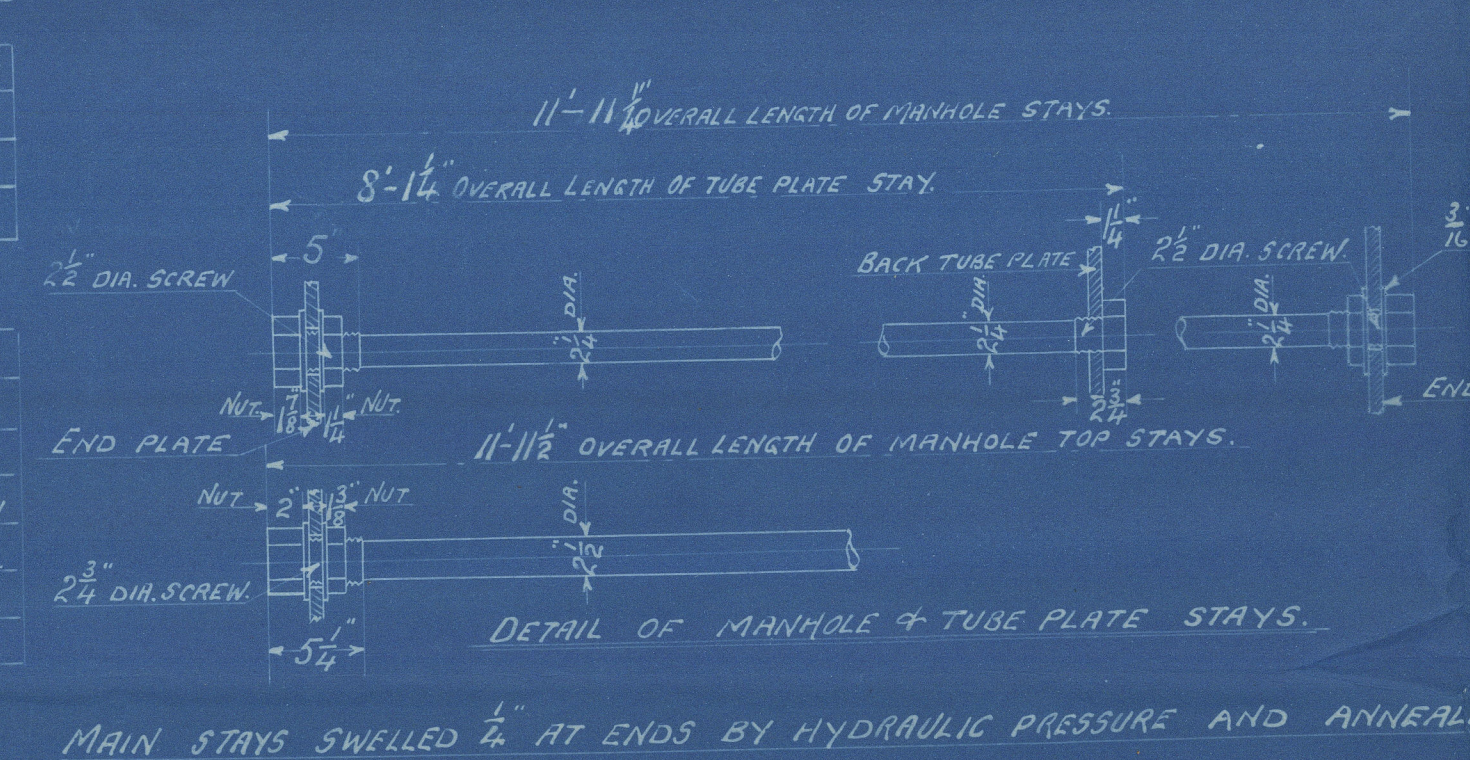
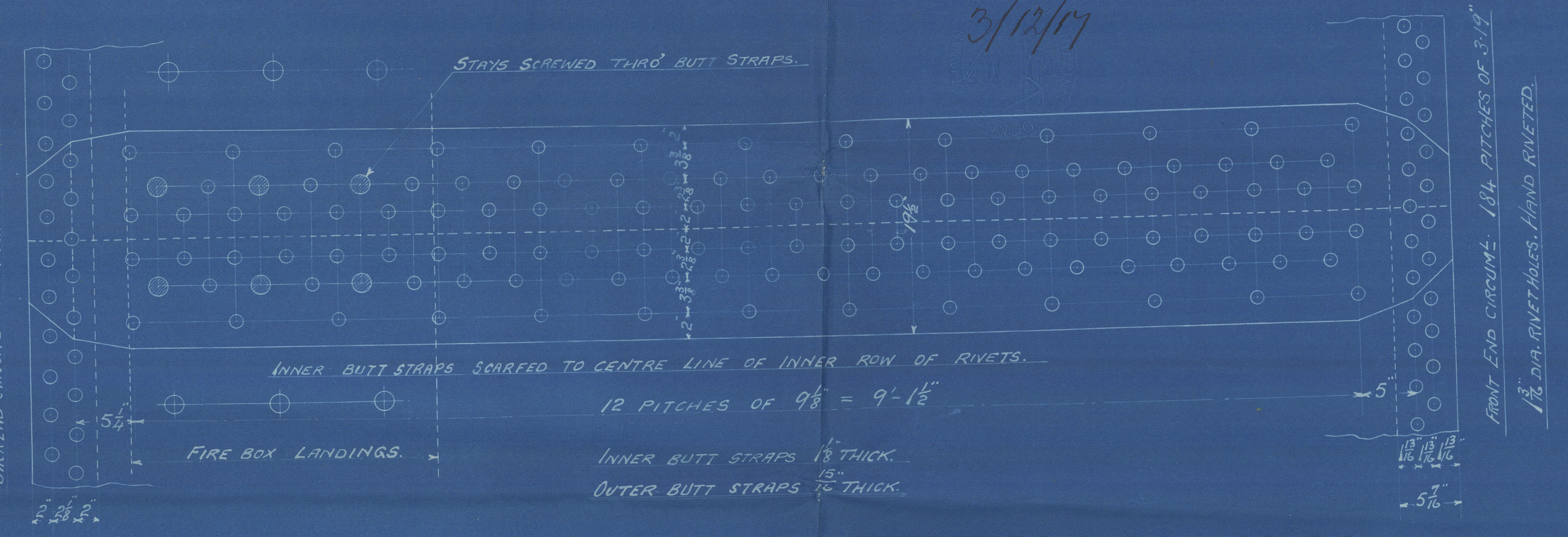


PARTICULARS OF SURFACES. ETC.		RIVETING.		LONGS.		BACK END CIRC. (PITCH) CIRC.	
TUBE SURFACE	2100 sq. ft.	RIVET HOLE DIAM.	1 1/8"	1 1/8"	1 1/8"	1 1/8"	1 1/8"
FIRE BOX SIDES AND TOP	158 "	PITCH	9.125"	3.54"	3.19"	3.19"	3.19"
" " BACK	82 "	% PLATE	85.6	63	63	63	63
" " TUBE PLATE	55 "	% RIVET	88.3	51.9	46.5	46.5	46.5
FURNACES	161 "	FIRE BOX STAYS - STEEL MARK					
TOTAL HEATING SURFACE	2556 sq. ft.	BACK, TOP & SIDES	1 1/8"	1 1/8"	1 1/8"	1 1/8"	1 1/8"
GRATE AREA (5 1/2" BARS)	63.3 "	" " WIDE SPACE	2"	11"	2.48"	2.48"	2.48"
TUBE AREA	11.65 "	" " TOP ROW	2 1/4"	9"	3.44"	3.44"	3.44"
WATER AREA	160 "	LIMITS OF TENSILE STRENGTH AND MATERIAL.					
STEAM SPACE	514 sq. ft.	SHELL BUTT STRAPS, AND WIDERS.	26-30	26-30	26-30	26-30	26-30
GRATE AREA: HEATING SURFACE	1:404	OTHER PLATES	26-30	26-30	26-30	26-30	26-30
" " : TUBE	1:33.2	FURNACES	26-30	26-30	26-30	26-30	26-30
" " : AREA	543.1	MAIN STAYS	26-30	26-30	26-30	26-30	26-30
" " : WATER	1:2.32	SCREWED STAYS	26-30	26-30	26-30	26-30	26-30
" " : STEAM SPACE	1:8.1	RIVET BARS	26-30	26-30	26-30	26-30	26-30
% BOILER ABOVE FIRE BOX	32.2						
WEIGHT OF WATER	28 TONS						

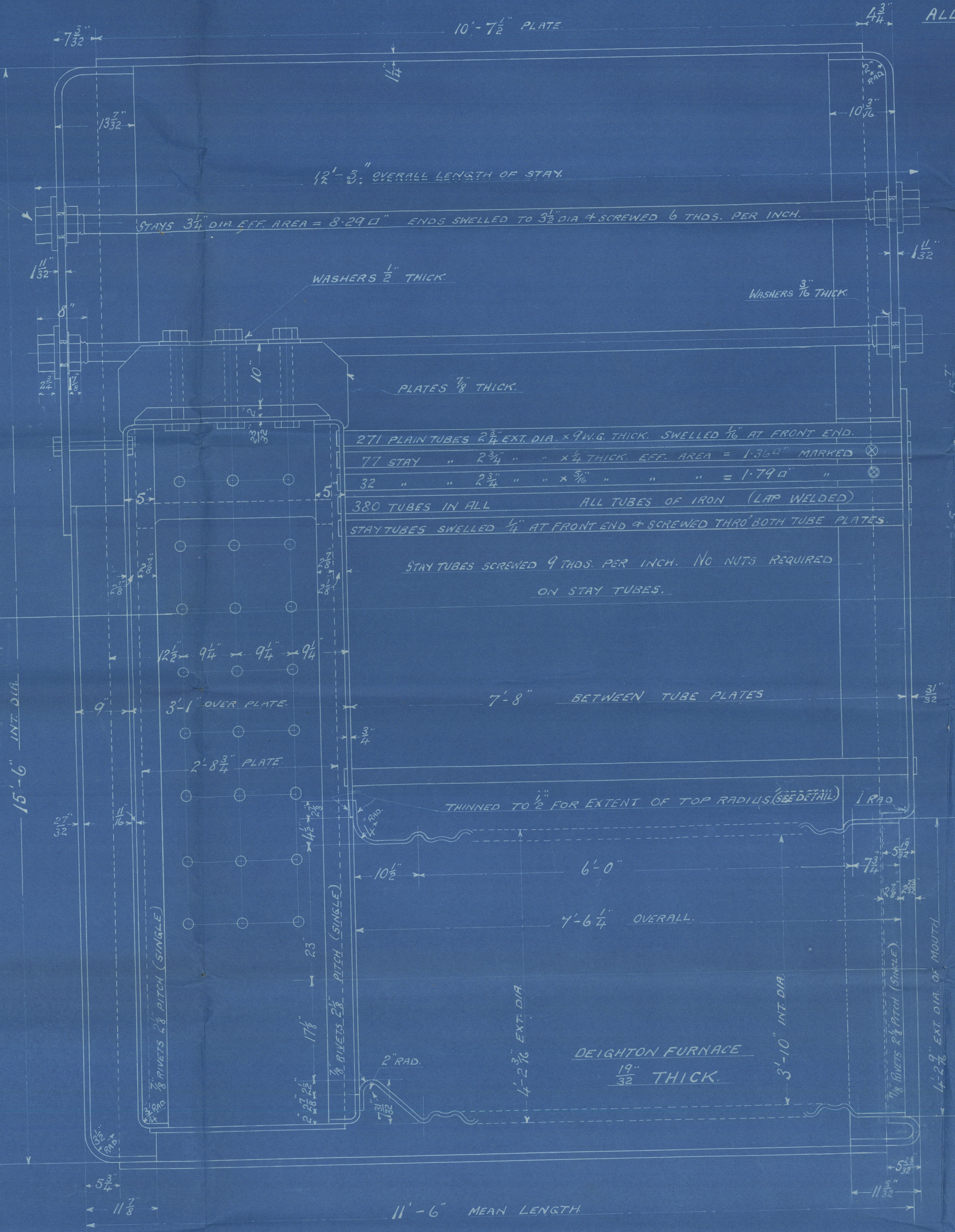
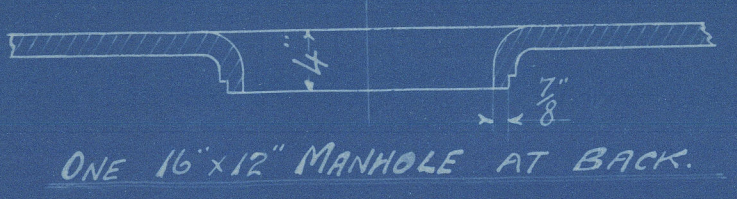
PARTICULARS OF MAIN STAYS.		POSITION.		DIAM. STAY. DIA. SCREW. NO. OF THDS.		EFF. AREA.	
STEAM SPACE STAYS.	3 1/4"	3 1/4"	6	8.29 sq. in.			
MANHOLE TOP STAYS.	2 1/4"	2 1/4"	6	4.90 "			
TUBE PLATE & MANHOLE SIDE STAYS.	2 1/4"	2 1/4"	6	3.97 "			



15" DIA. RIVETS. MACHINE RIVETED.
BACK END CIRCUMF. 166 PITCHES OF 3.54

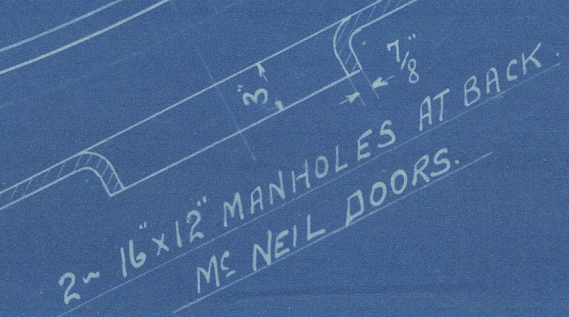


ALL FIREBOX STAYS SCREWED THRO' BOTH PLATES & NUT FITTED AT EACH END, EXCEPT STAYS FROM WING FIREBOX TO SHELL, WHICH PROJECT 3/8" AND ARE CAULKED. ALL 1 1/8" NUTS 1/4" DEEP EXCEPT ON GIRDER TOPS WHERE THE OUTSIDE NUTS ARE 1/8" DEEP.
ALL 2" & 2 1/4" NUTS 1/2" DEEP.



DETAIL OF JUNCTION OF FURNACE.
TOP & COMBUSTION CHAMBER SHEWING.
BOTH THINNED TO 1/2" THICK.
SCALE: 5"=ONE FOOT.

LOOKING AHEAD



ARRANG. OF MANHOLES & BUTT STRAPS SAME FOR ALL BOILERS.

ENGINE DEPT.
CAIRD & CO. LTD.
GREENOCK

WORKING PRESSURE = 180 LBS. PER SQ. INCH.
TO PASS LLOYD'S SURVEY.

MAIN BOILER.
SCALE: 1" & 1/2" = 1 FOOT.

No 538.
ENGRS. NOS. [redacted]
3-OFF [redacted]

CAIRD & CO. LTD.
ENGINEERS &
SHIPBUILDERS
GREENOCK

Carids No 538

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180 lbs W P



Boiler fitted to

Harland and Brinen No 548

Glasgow

Lib. Rpt. No: 17395.



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