

# MAIN BOILERS. N<sup>o</sup> 402.

SCALE 1" = 1 FOOT.



HEATING SURFACE	SQ. FT.
548 TUBES 8'-2" LONG x 2 1/2" EXTERNAL DIA.	2929
4 FURNACES 8'-2" x 4 1/2" MEAN	211
FIREBOX TOPS & SIDES	173
BACKS	77
BACK TUBE PLATES	52
FRONT	48
TOTAL H.S. IN ONE BOILER	3490
TWO BOILERS	6980

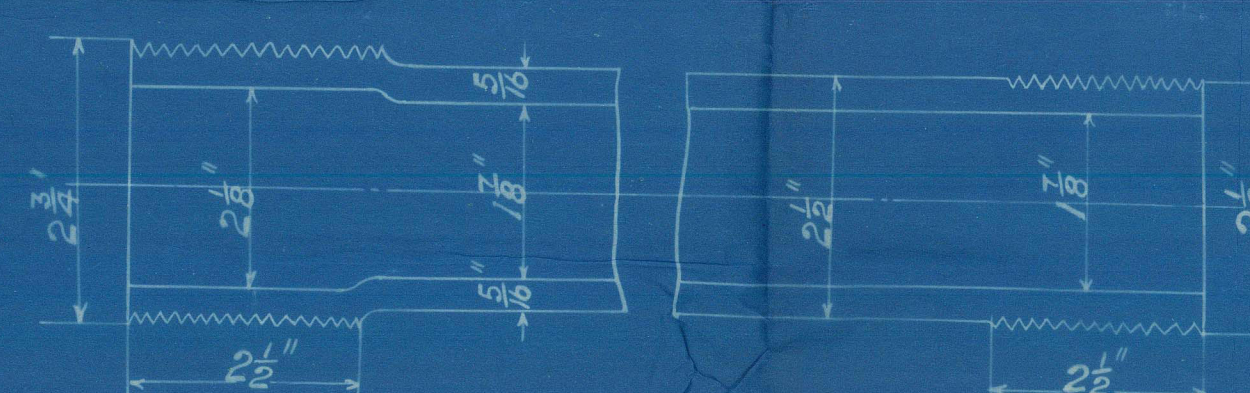
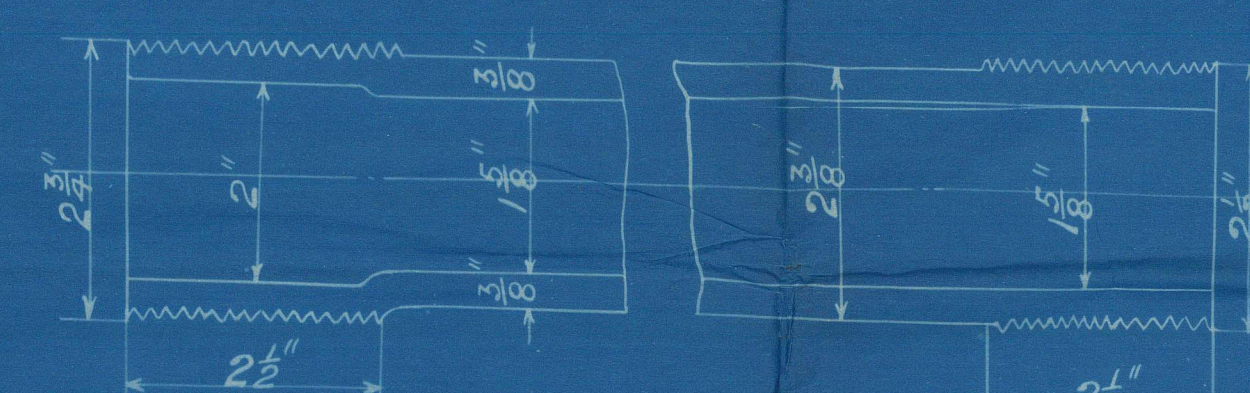
GRATE SURFACE	SQ. FT.
4 FURNACES 43" INSIDE DIA. x 6'-0" BARS	86
TOTAL G.S. IN TWO BOILERS	172

H.S. = 40.58 T.S. = 34  
G.S. = 40.58 G.S. = 34

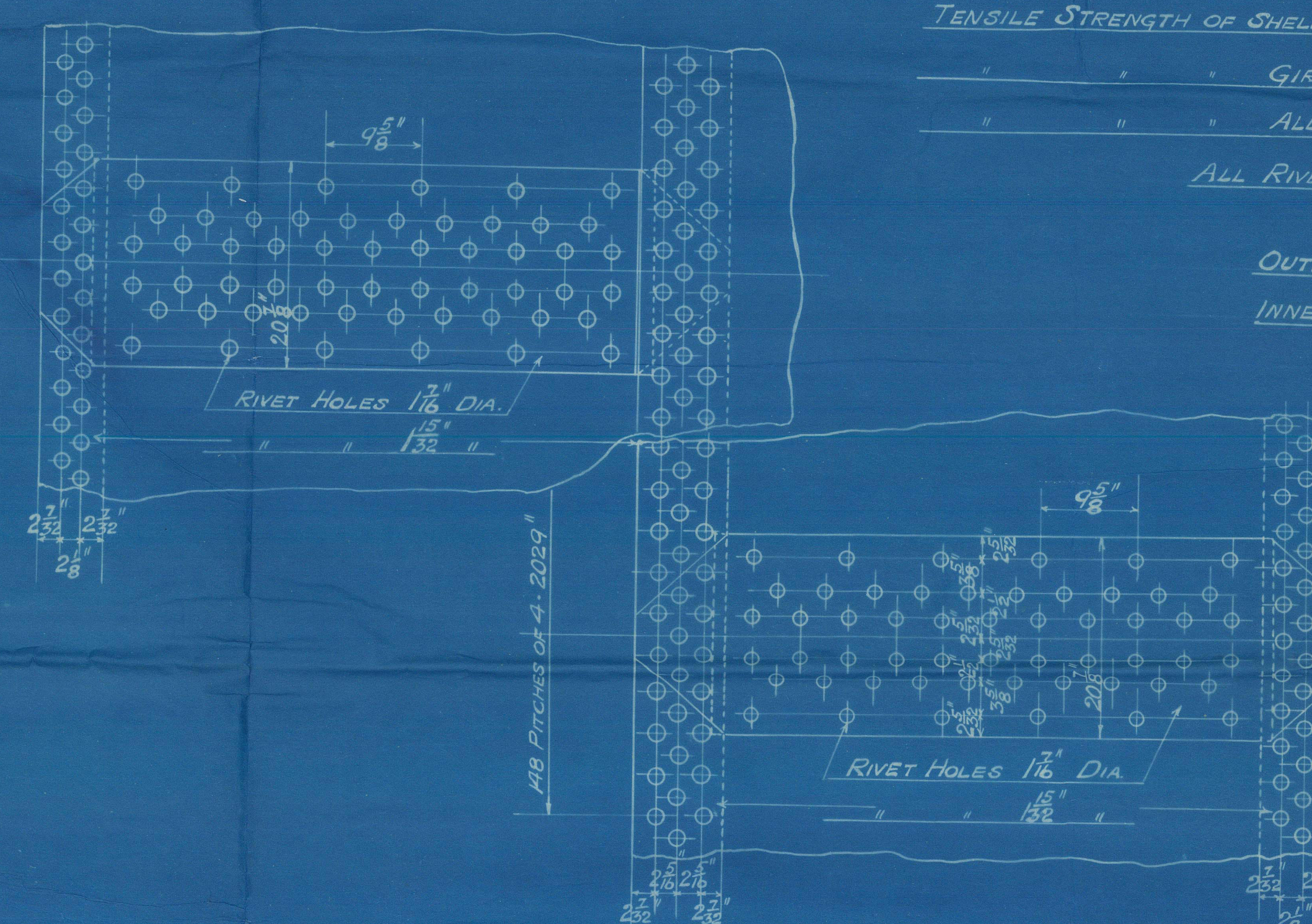
STEAM SPACE FROM 9" ABOVE FIREBOX TOP = 448 CUBIC FT.  
WEIGHT OF FRESH WATER 9" = 26 TONS  
DRAUGHT AREA THRO' TUBES = 13 SQ. FT.

## STEAM SPACE STAYS

STEEL STAYS MARKED  $\otimes$  2 3/8" DIA. SWELLED TO 3 1/8" DIA. AT SCREWED ENDS. 6 THRS PER IN. EFF. AREA = 6.49 SQ. IN.  
DEPTH OF OUTSIDE NUTS = DIA. OF STAY. DEPTH OF WING NUTS = 1 1/2"  
TENSILE STRENGTH OF STAY BARS = 28 TO 32 TONS PER SQ. IN.



PRIVATE & CONFIDENTIAL



TENSILE STRENGTH OF SHELL PLATES & BUTT STRAPS 31 1/2 TO 35 1/2 TONS PER SQ. IN.

GIRDER PLATES 28 TO 32  
ALL OTHER PLATES 26 TO 30

OUTER BUTT STRAPS 1 1/2" THICK  
INNER " " 1 1/2" "

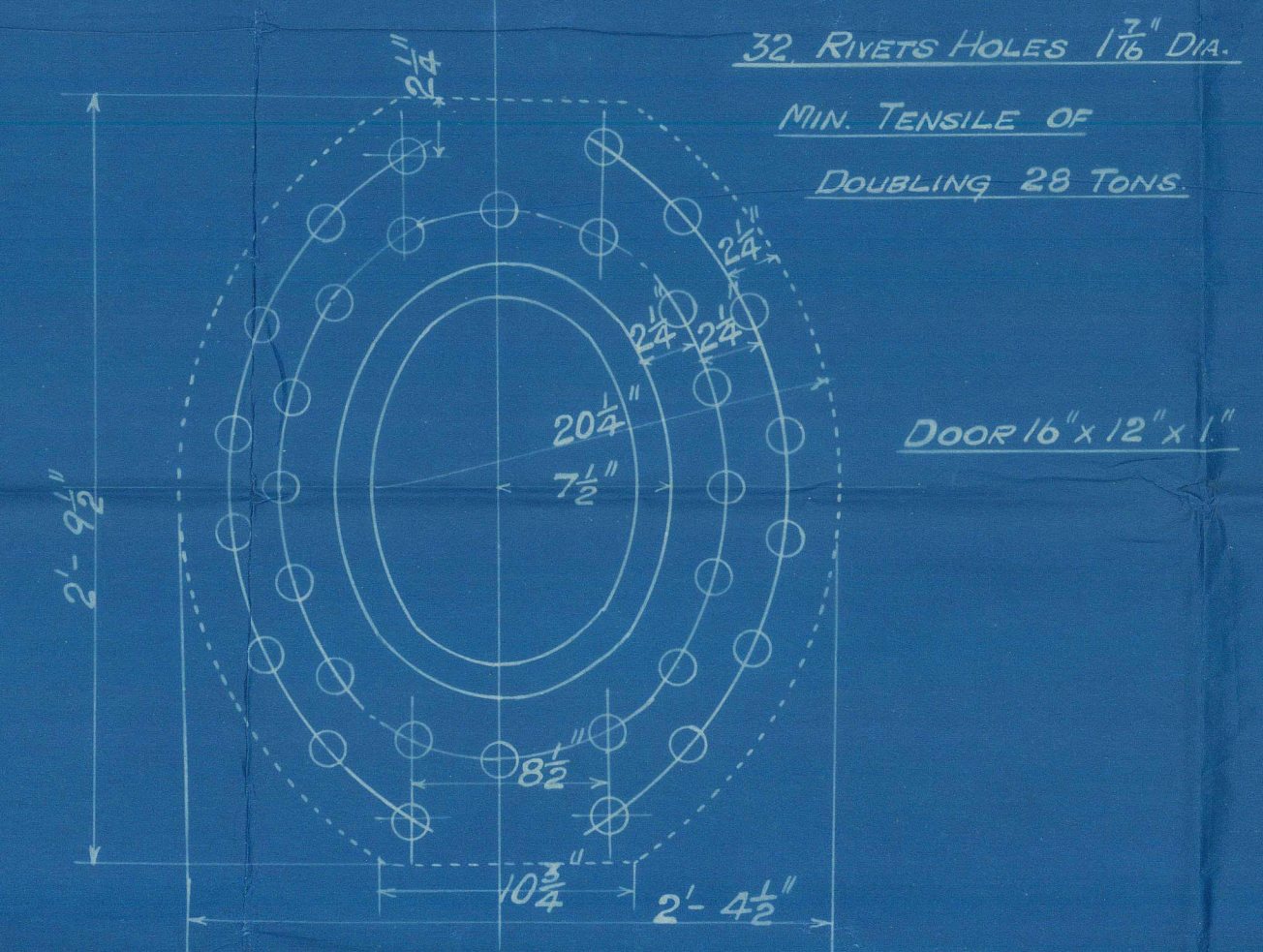
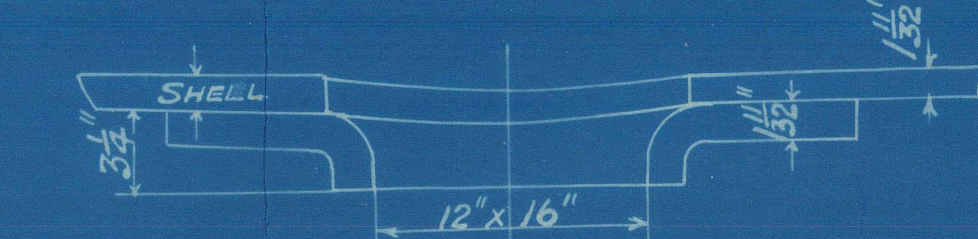


PLATE LIST				
N <sup>o</sup>	DESCRIPTION	LENGTH	BREADTH	THICKNESS
2	A. SHELL TOP OUTER	28'-11 1/2"	69'-13 1/2"	1 1/2"
2	B. " " BOT.	23'-3 1/2"	"	"
2	C. " " TOP INNER	16'-8 1/2"	"	"
2	D. " " BOT.	34'-10"	"	"
4	E. BUTTS FRONT OUTER	5'-9 1/2"	20'-2 1/2"	1 1/2"
4	F. " " INNER	4'-11 1/2"	"	1 1/2"
4	G. " " BACK OUTER	5'-2"	"	1 1/2"
4	H. " " INNER	5'-4 1/2"	"	1 1/2"
4	I. GIRDERS	10'-3"	3'-3"	3/4"
2	K. TOP FRONTS	16'-9 1/2"	16"	1 1/2"
2	L. FRONT TUBE PLATES	18'-0 1/2"	8'-1 1/2"	1 1/2"
2	M. FURNACE FRONTS	17'-11 1/2"	16"	1 1/2"
2	N. TOP BACKS	17'-8 1/2"	16"	1 1/2"
2	P. BOT. BACKS	17'-8 1/2"	20"	2 1/2"
2	Q. CR. BACK TUBE PLATES	11'-3"	10'-8"	3/4"
4	R. WING " " "	8'-1 1/2"	60'-3"	3/4"
2	S. CR. FIREBOX BACKS	11'-3 1/2"	10'-8"	3/4"
4	T. WING " " "	8'-2 1/2"	60'-3"	3/4"

BREADTH	
26'-4 1/2"	29 1/2"
6'-9 1/2"	11'-8 1/2"
4'-4 1/2"	29 1/2"
21'-4"	29 1/2"
5'-8 1/2"	11'-9"
3'-10 1/2"	11'-9"

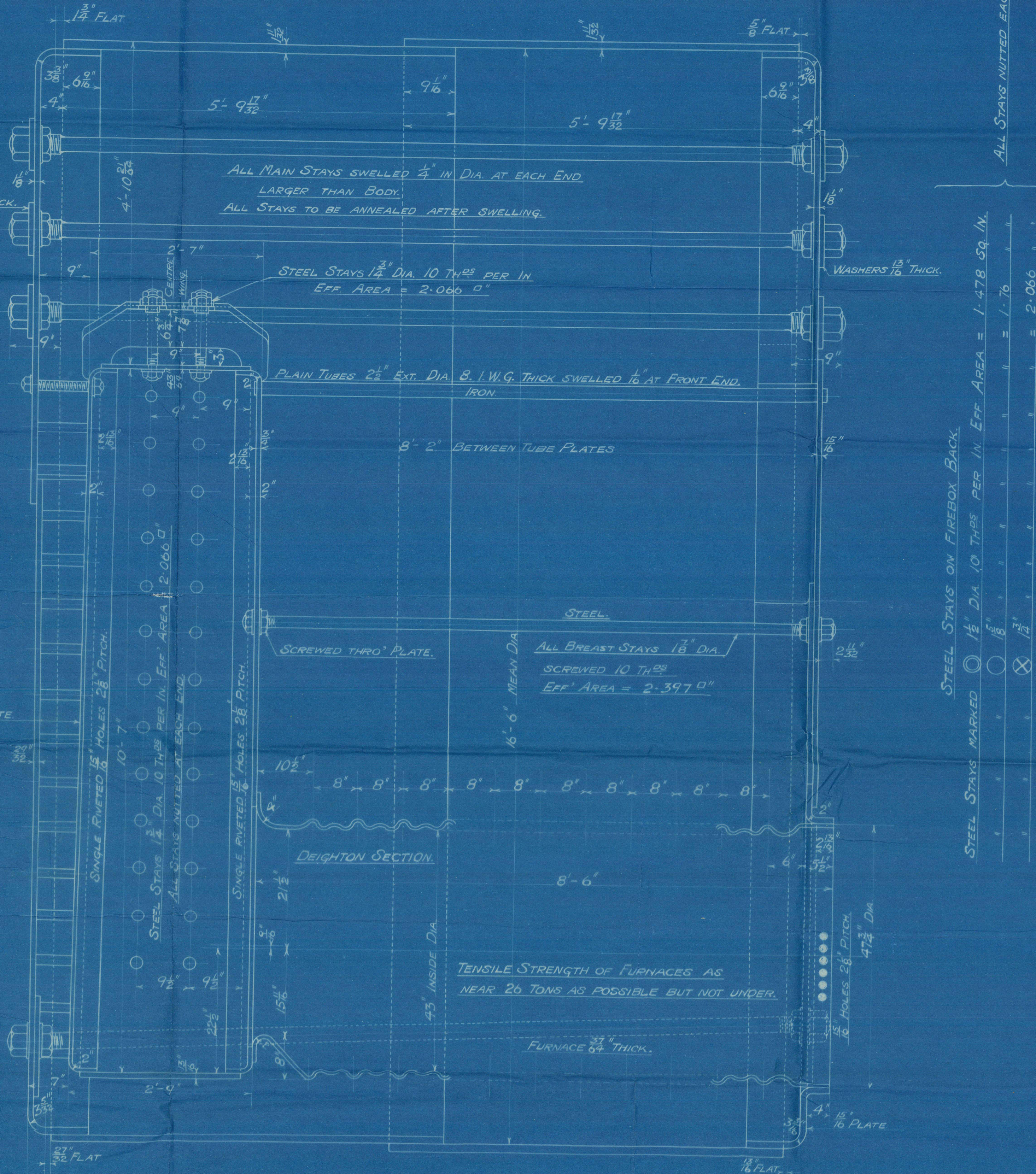
STAY BAR LIST				
N <sup>o</sup>	DESCRIPTION	DIA.	LENGTH	REMARKS
28	STEAM SPACE	2 3/8"	"	ENDS TO BE SWELLED.
8	"	2 3/8"	"	"
6	WATER	3"	"	"
12	BREAST STAYS	1 1/2"	8'-0"	"
	SCREWED	1 1/2"	"	"
	"	1 1/2"	"	"
	"	1 1/2"	"	"

WORKMAN, CLARK & CO. LTD.  
ENGINE DEPT. BELFAST  
DRAWING N<sup>o</sup> 21215. DATE 31-1-17  
DRAWN BY  
CHECKED BY  
TRACING CHECKED BY  
TRACED BY J.R. & D.C. 31-1-17

## MAIN BOILERS. N<sup>o</sup> 402.

16'-6" MEAN DIA. x 11'-6" LONG x 180 LBS.  
EQUAL TO "BOARD OF TRADE" REQUIREMENT BUT TO PASS "LLOYD'S SURVEY" ONLY.  
SCALE 1" = 1 FOOT.

ALL MATERIAL STEEL EXCEPT TUBES WHICH ARE IRON.  
TWO BOILERS THUS.





Belfast

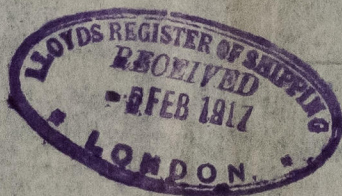
Workman Clark & Coys L<sup>d</sup>

H.M.S. No 402-3

Main Boiler

- Syringa - Rel. 7888

- Windplasser



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Lloyd's Register  
Foundation

W1231-0160