

14/5/20

HEATING SURFACE.
 TUBES = 462 SQ. FT.
 FURNACES = 69 " "
 C. CHAMBERS = 70 " "
 TUBE PLATES = 26 " "
 TOTAL = 627 SQ. FT.

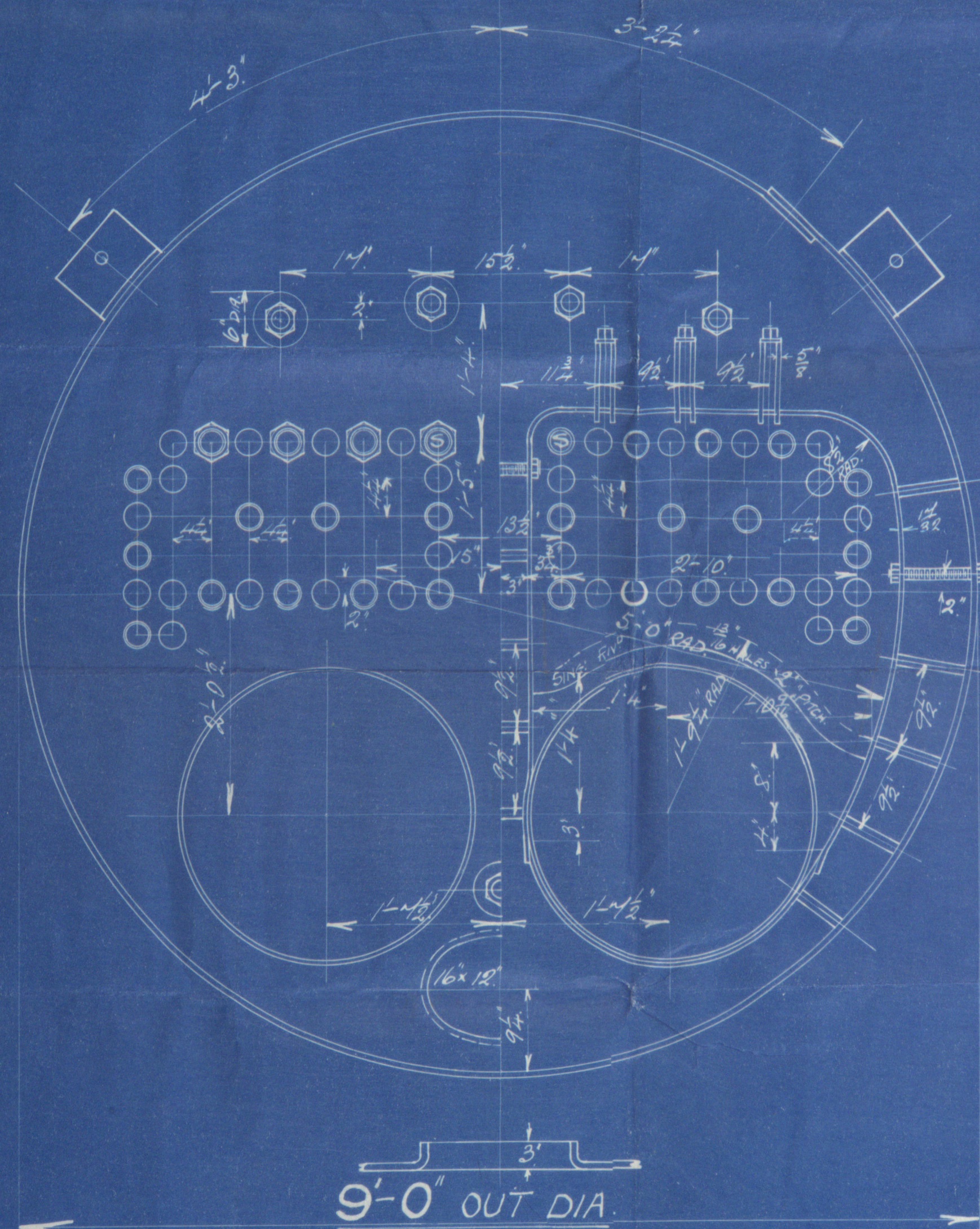
TOTAL GRATE AREA = 26.5 sq. ft.
 LENGTH OF FIREBARS = 5'-0" LONG.

MARINE BOILER.

SCALE 1" = 1 FOOT.

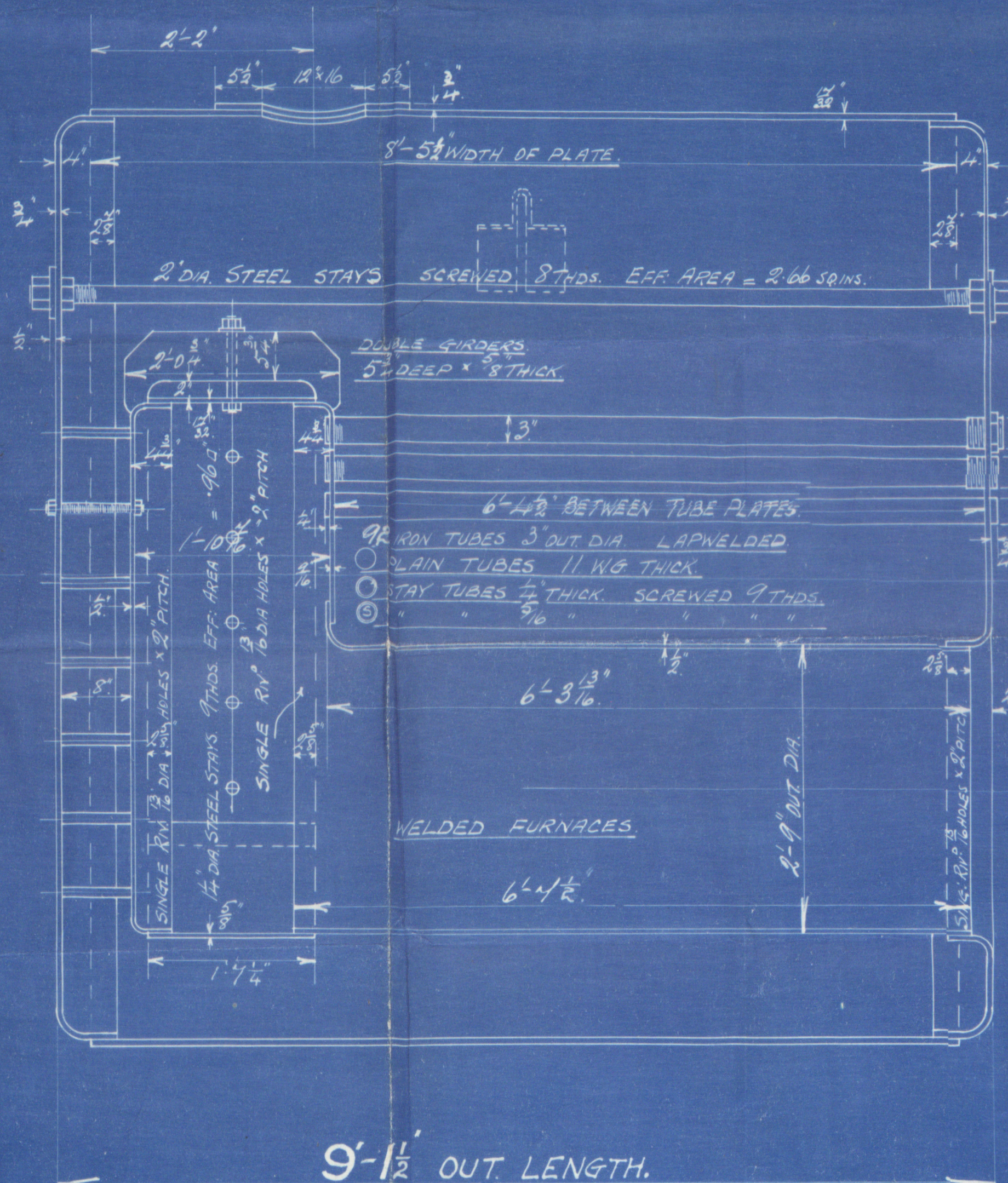
MATERIAL.
 PLATES - STEEL
 RIVETS " "
 STAYS " "
 TUBES - IRON

PLATES BY JOHN SPENCER AND SONS LTD.
 LIMITS OF TENSILE STRENGTH.
 SHELL AND COMPENSATION PLATES 27-33 TONS.
 GIRDER PLATES 28-32 " "
 REMAINDER 26-30 " "
 MAIN STAYS 28-32 " "
 SCREW STAYS 26-30 " "



WORKING PRESSURE 90 LBS PER SQ INCH.
 TEST " 180 " " " "

TO BE CONSTRUCTED TO PASS LLOYDS SURVEY.



SHELL RIVETING

STRENGTH OF JOINT = PLATE 73.7% RIVET 93%
 ALL HOLES DRILLED IN PLACE AFTER BENDING.
 SHELL HYDRAULIC RIVETED WHERE PRACTICABLE

SHELL 3/8" THICK RIVET HOLES 1/8" DIA x 3 1/8" PITCH.
 CIRCUMFERENTIAL SEAMS SINGLE RIV. RIVET HOLES 1/8" DIA x 2 1/8" PITCH.

STAY TUBES SCREWED
 INTO BOTH PLATES.
 NUTS WHERE SHOWN ON
 FRONT END ONLY.
 STAY TUBES SWELLED
 1/2" AT FRONT END.
 PLAIN TUBES SWELLED
 1/2" AT FRONT END.



STEEL STAY 2" DIA.
 8 THREADS EFF AREA 2.66 sq. ins.
 WASHER 1/2" DIA x 3/8" THICK

● STEEL STAY	1 1/2" DIA	8 THREADS	EFF AREA = 1.08 sq. ins.
○ " "	1 1/8" " "	9 " "	" " = 1.19 " "
○ " "	1 1/4" " "	9 " "	" " = 1.96 " "

ALL C. CHAMBER STAYS TO BE SCREWED INTO BOTH PLATES
 AND TO BE FITTED WITH A SINGLE NUT AT BOTH ENDS.

ORDER N°	FOR
4388.	THE NORTH EASTERN MARINE ENG. CO. LD. SS. ROSINA

APR 1920

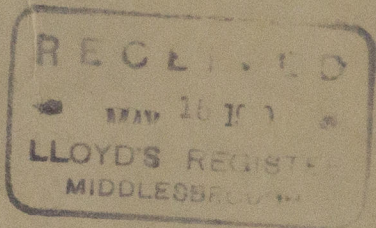
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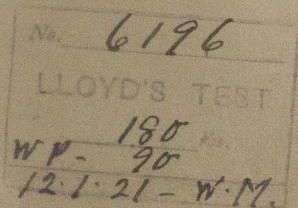


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RETAIN



Thames Iron Works & Shipbuilding Co. Ltd.
Boiler No. 4388
for
S.S. "Rosina"
Working Press 90 lbs



sub apt. No.

10927

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