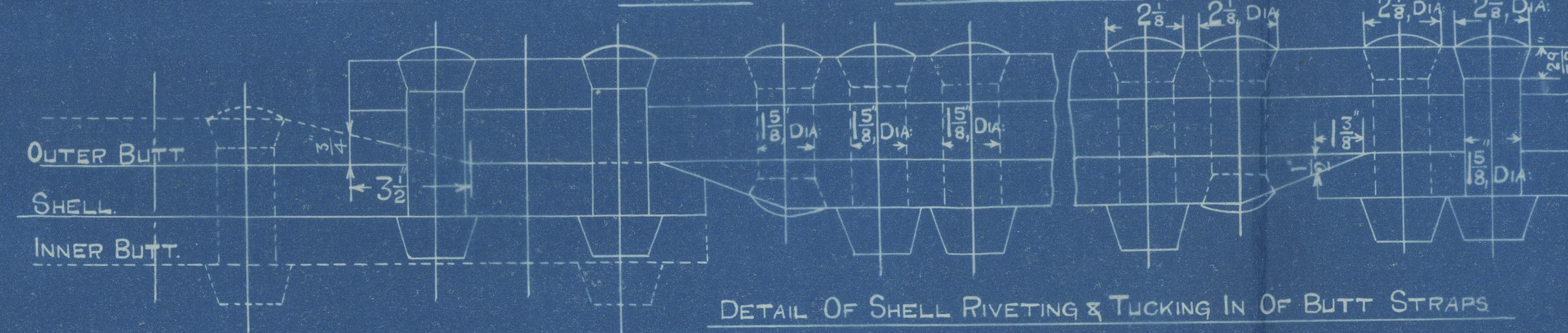


# BOILER CONTRACT No 856.

MESSRS. SWAN HUNTER & WIGHAM RICHARDSONS SHIP No 1259.

To Be Constructed To PASS BOARD OF TRADE & LLOYDS REQUIREMENTS.

2- OFF SCALE 1" TO 1'-0"



## PLAN OF SHELL RIVETING.

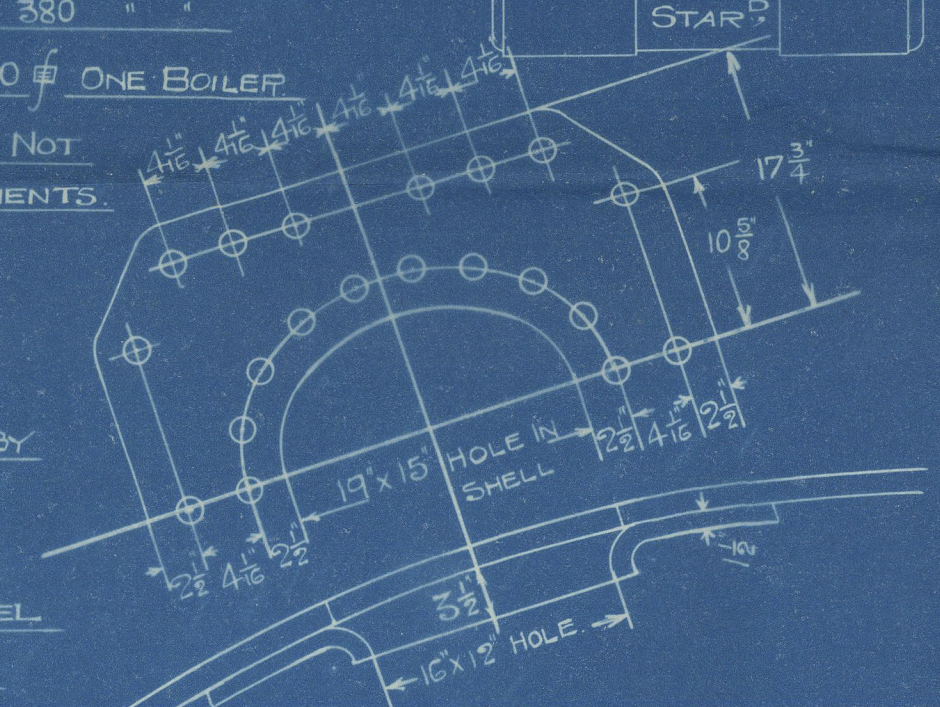
STRENGTH OF JOINT.

PLATE = 84.7 %

RIVET = 93 %

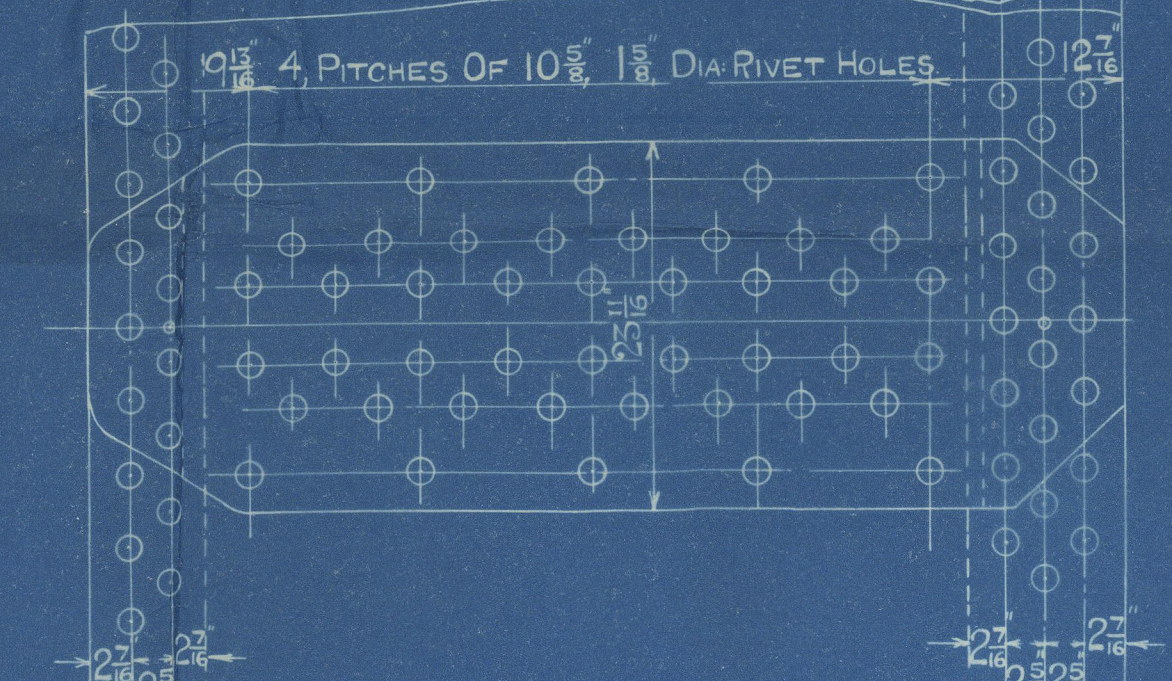
DESCRIPTION	MATERIAL	TENSILE STRENGTH
SHELL PLATES & BUTT STRAPS	STEEL	30 TO 34 TONS D'
C.C. GIRDER PLATES	"	28 TO 32 TONS D'
WRAPPER & FLANGED PLATES	"	26 TO 30 TONS D'
FURNACES & RIVET BARS	"	26 TO 30 TONS D'
LONGITUDINAL STAYS	"	28 TO 32 TONS D'
C.C. SCREWED STAYS	IRON	2 1/2 TONS MINIMUM
TUBES	"	"

HEATING SURFACE	
TUBES	3528 SQ FEET
FURNACES	298
COMBUSTION CHAMBERS	214
BACK TUBE PLATES	92
FRONT TUBE PLATES	84
TOTAL ONE DOUBLE ENDED BOILER	4216
TOTAL TWO BOILERS	8432
WORKING PRESSURE	220 LBS D'
TEST PRESSURE	380
GRATE SURFACE	5'-0" FIREBARS = 110 # ONE BOILER
RETARDERS IN ALL BOILER TUBES NOT FITTED WITH SUPERHEATER ELEMENTS	

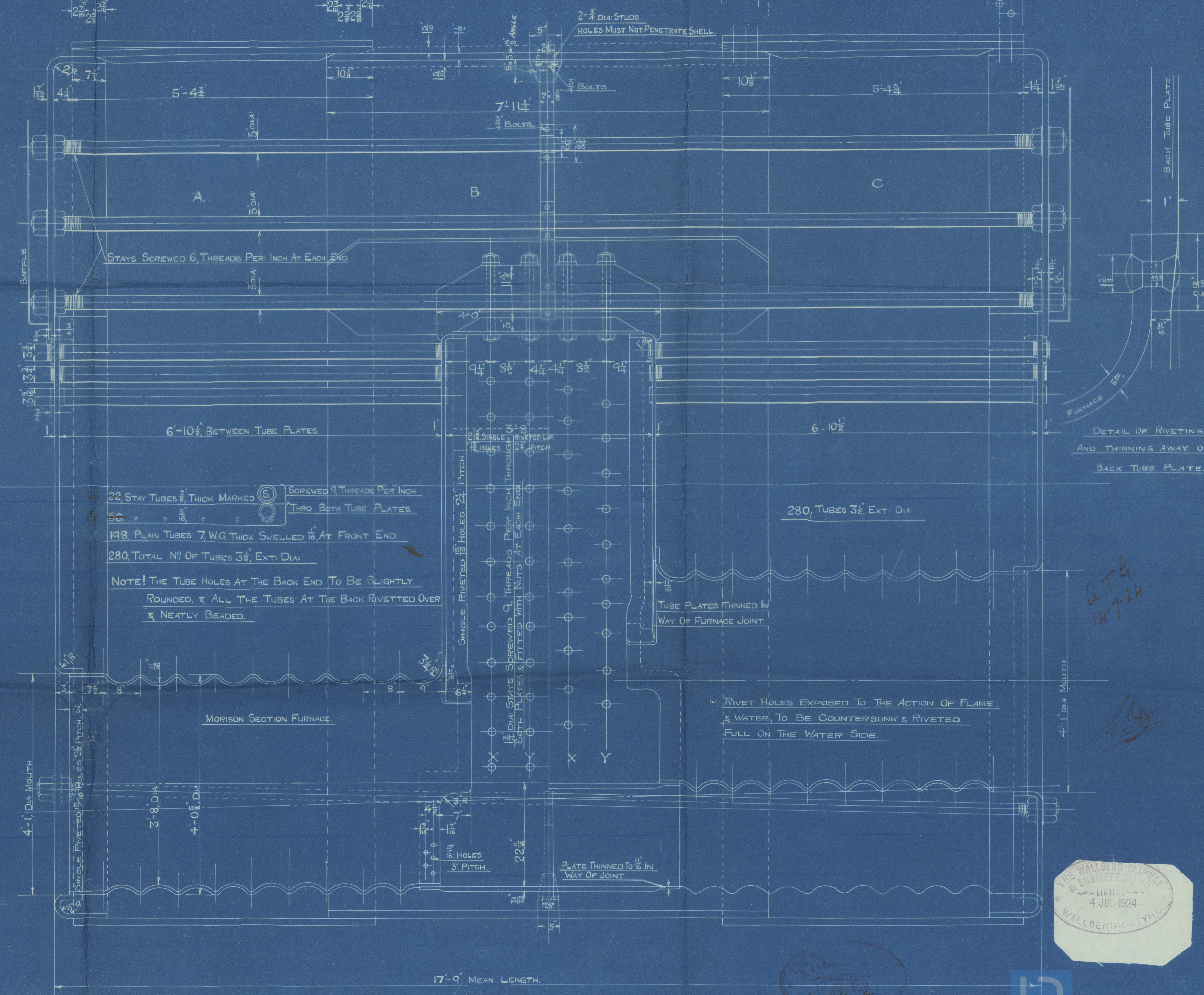
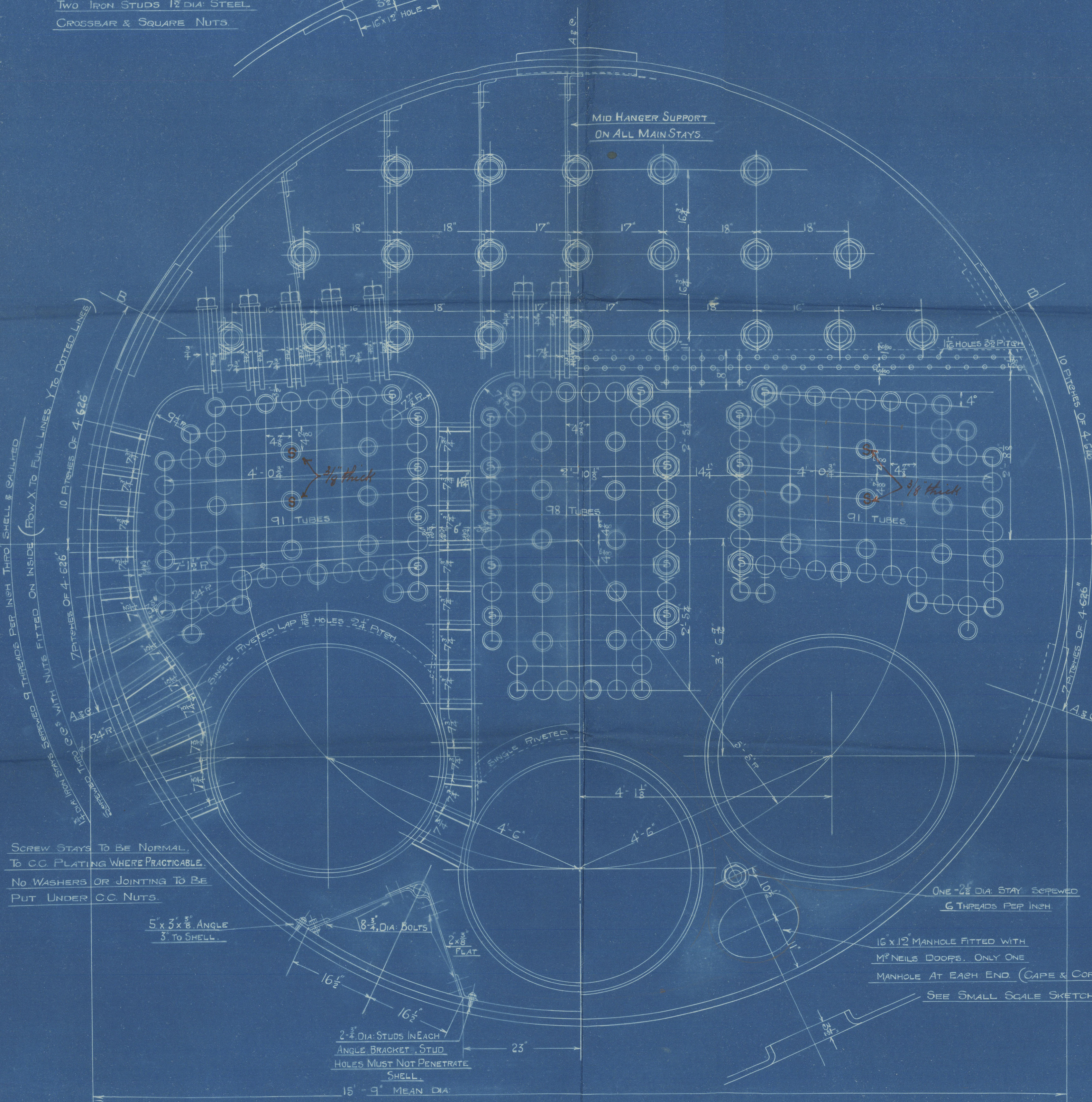
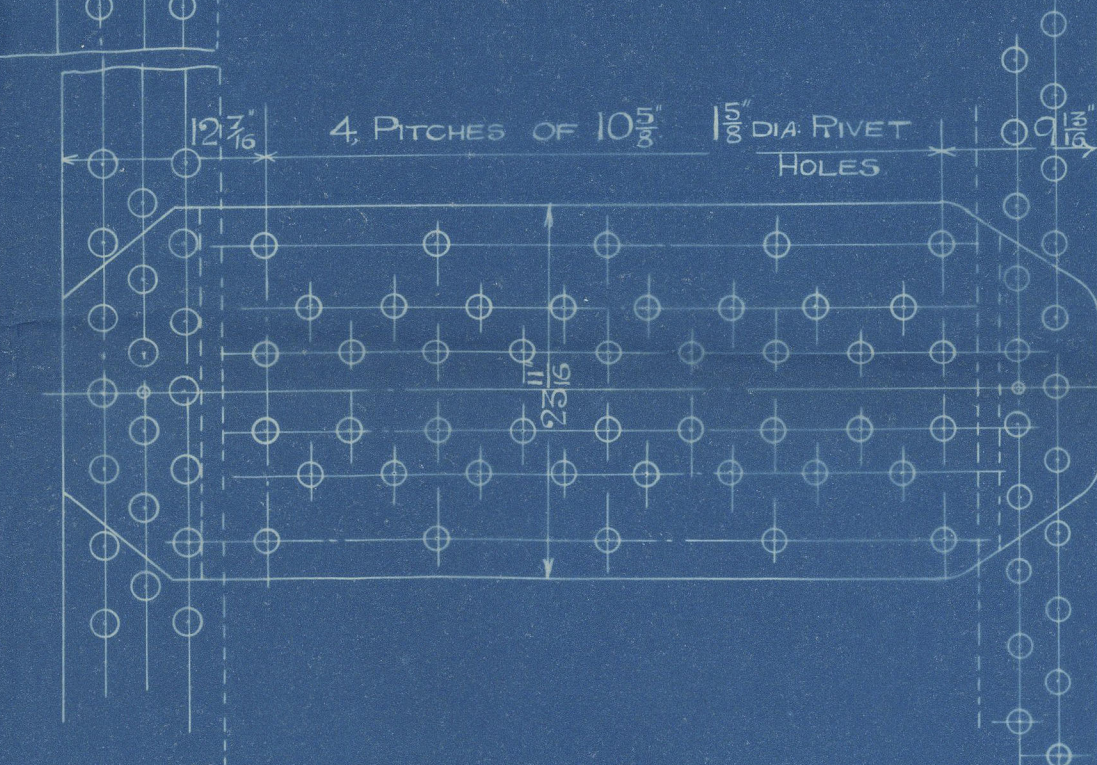


LETTER "B" DENOTES POSITION OF BOTTOM MANHOLE IN END.

16x12 MANHOLE FITTED WITH M'NEILS TYPE DOOR. DOUBLING RIVETED TO SHELL BY 26 RIVETS 1 1/2 DIA HOLES. DOOR TO BE SECURED WITH TWO IRON STUDS 1 1/2 DIA STEEL CROSSBAR & SQUARE NUTS.



SHELL HYDRAULIC RIVETED WHEREVER PRACTICABLE. ALL HOLES DRILLED IN PLACE AFTER BENDING. END CIRCUMFERENTIAL SEAMS DOUBLE RIVETED. CENTRE CIRCUMFERENTIAL SEAMS TREBLE RIVETED. 1 1/2 DIA RIVET HOLES 4-626 PITCH. 128 PITCHES IN CIRCUMFERENCE & CIRCUMFERENTIAL PITCHES TAKEN ON MEAN DIA IE 15'-9". ALL PLATE EDGES TO BE PLANED & GAULDED INSIDE AND OUT.

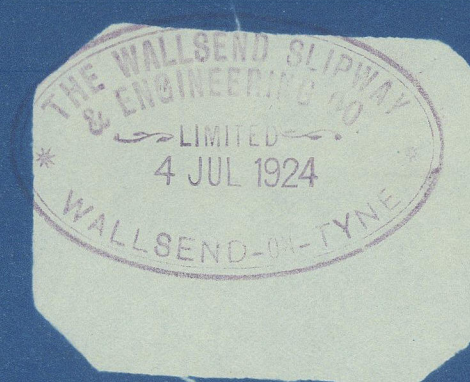


SCREW STAYS TO BE NORMAL. TO C.C. PLATING WHERE PRACTICABLE. NO WASHERS OR JOINTING TO BE PUT UNDER C.C. NUTS.

ONE 2 1/2 DIA STAY SCREWED 6 THREADS PER INCH. 16x12 MANHOLE FITTED WITH M'NEILS DOORS. ONLY ONE MANHOLE AT EACH END (CAPE & CORNER). SEE SMALL SCALE SKETCH ABOVE.

22 STAY TUBES 3/4 THICK MARKED (S) SCREWED 9 THREADS PER INCH THRU BOTH TUBE PLATES. 198 PLAIN TUBES 7 W.G. THICK SWELLED 1 1/2 AT FRONT END. 280 TOTAL NO OF TUBES 3 1/2 EXT DIA. NOTE! THE TUBE HOLES AT THE BACK END TO BE SLIGHTLY ROUNDED, & ALL THE TUBES AT THE BACK RIVETTED OVER & NEATLY BEADED.

RIVET HOLES EXPOSED TO THE ACTION OF FLAME & WATER, TO BE COUNTERSUNK & RIVETED FULL ON THE WATER SIDE.





C886

Walkers Slipway & Eng Co. Ltd.

Amended plan

D.E. Railen

Swan Hunter & W.R.

2/1/59

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Report No. 79, 33.

NEWCASTLE ON TYNE.

S. S. INANDA

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Empire Explorer

W32-0054



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Foundation