

JOHN C KINCAID & CO
ENGINEERS.
GREENOCK

EXPANDED VIEW OF MANHOLE WEAPERS PLATE
1/2 DIA WROT IRON SCREWED STAYS
SCREWED STAYS PER INCH EFF AREA = 2.03
NUTS INSIDE & CHAMBERS ONLY. ENDS THRO SHELL CAULKED

SHELL MANHOLE COMPENSATING RING
33" 1/2 DIA RIVETS 1 1/2 DIA RIVET HOLE

47 PITCHES AT 3.936" = 15' 4.992"

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70 PITCHES AT 3.936" = 22' 11.502"

TUBEPLATE STAYS 2 DIA
SOLID STEEL SCREWED 6
THREADS PER INCH EFF AREA = 2.51"

MANHOLE TOP STAYS 2 DIA SOLID
STEEL SCREWED 6 THREADS
PER INCH EFF AREA = 3.26"

MANHOLE SIDE STAYS 2 DIA SOLID STEEL
SCREWED 6 THREADS PER INCH EFF AREA = 2.51"

M'NEILS TYPE OF DOOR ON ALL MANHOLES
TO BE RECESSED & TO HAVE STUDS SCREWED
THRO DOOR & FITTED WITH NUTS INSIDE
& DEEP SQUARE NUTS OUTSIDE

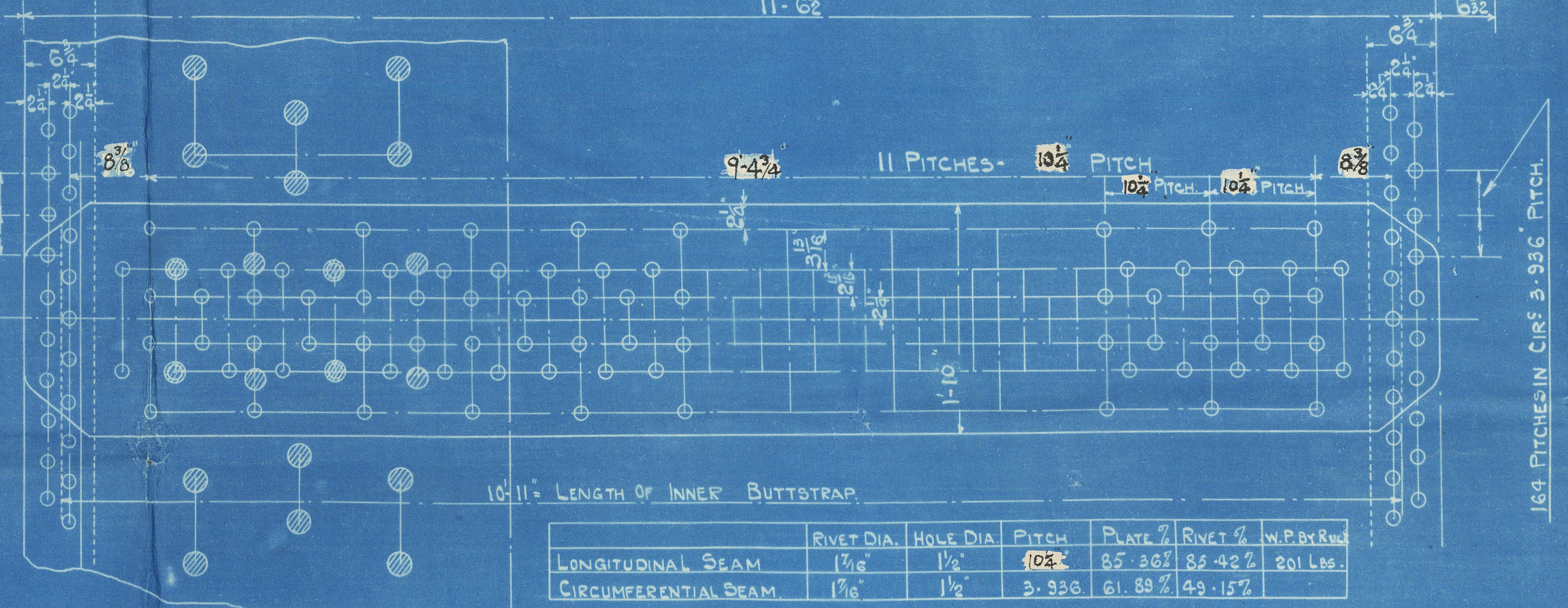
ALL PLATES, SOLID STAYS & RIVETS OF SIEMENS MARTIN STEEL	
SCREW STAYS & TUBES OF WROT IRON	
LONGITUDINAL SEAMS TREBLE RIVETED WITH DOUBLE BUTT STRAPS	
CIRCUMFERENTIAL SEAMS DOUBLE RIVETED LAP JOINTS	
HYDRAULIC RIVETING WHERE PRACTICABLE	
LLOYDS WORKING PRESSURE	200 LBS/SQ IN
TEST	400 LBS/SQ IN
ALL HOLES DRILLED IN PLACE THEN PLATES TAKEN APART AND BURRS REMOVED	

THICKNESSES	
SHELL PLATES	1 1/2"
INNER BUTT STRAPS	1 1/2"
OUTER	1 1/2"
MANHOLE COMP RING	1 1/2"
TOP END PLATES	1 1/2"
BOTTOM BACK PLATE	1 1/2"
FRONT TUBE PLATE	1 1/2"
BACK TUBE PLATE	1 1/2"
C.C TOP'S SIDES	1 1/2"
C.C BOTTOM	1 1/2"
C.C BACKS	1 1/2"
C.C GIRDERS	1 1/2"
FURNACES	1 1/2"

TENSILE STRENGTHS	
SHELL PLATES 28 TO 32 TONS	
BUTT STRAPS 28 TO 32 TONS	
C.C GIRDERS 28 TO 32 TONS	
MANHOLE COMP PLATE 28 TO 32 TONS	
SOLID STEEL STAYS 28 TO 32 TONS	
ALL OTHER PLATES 26 TO 30 TONS	
FURNACES 26 TO 30 TONS	
RIVET BARS 26 TO 30 TONS	
SCREWED STAYS IRON (MINIMUM TENSILE STRENGTH = 21 1/2 TONS)	

HEATING & GRATE SURFACES	
HEATING SURFACE IN 560 TUBES	2332.16 sq ft
" " " " CHAMBERS	417.1
" " " " FURNACES	212.3
TOTAL HEATING SURFACE IN ONE BOILER	3561.56 sq ft
TOTAL HEATING SURFACE IN 6 BOILERS	21369.36 sq ft
FIREBARS 5'0 LONG IN ONE LENGTH	
GRATE SURFACE IN ONE BOILER	68.38 sq ft
RATIO G.S. : H.S.	1 : 51.14

164 PITCHES CIRC 3.936" PITCH



	RIVET DIA.	HOLES DIA.	PITCH	PLATE THICKNESS	WELDING
LONGITUDINAL SEAM	1 1/2"	1 1/2"	3.936"	1 1/2"	1/4"
CIRCUMFERENTIAL SEAM	1 1/2"	1 1/2"	3.936"	1 1/2"	1/4"

MAIN BOILER ENGINES N° 488

6" OFF REQUIRED
17'0" INSIDE DIA x 12'6" MEAN LENGTH
TO PASS LLOYDS REQUIREMENTS FOR A WORKING PRESSURE
OF 200 LBS PER SQ INCH AND TO BOARD OF TRADE
TO POINT OF TEST AT 190 LBS PER SQ INCH

SCALE 1" = 1 FOOT

8TH OCT 1918

Kincaid's No 488.

Lin Main Miles.

Lithgow 08 to 731.

200 lbs W.P.

to Doricstar

Greenock Report No 17901

ENCLOSURE
N^o 386

ENCLOSURE
N^o 336

RETAIN

w468-0201



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