

DIMENSIONS	1- BOILER
LENGTH OF GRATE	6'-0"
AREA	44 sq ft
EXT. DIAM. TUBES	2 1/2"
NO. OF	242
LENGTH TUBES BTW PLATES	7'-4 1/2"
HEATING SURF. TUBES	1170 sq ft
FURNACE	114 sq ft
COMB. CHAM.	137 sq ft
TOTAL HEATING SURF.	1421 sq ft
H.S. OVER G.A.	32.25
WORKING STEAM PRESS.	200 lbs.
NET AREA THROUGH TUBES	6.03 sq ft
G.A. OVER TUBE AREA	7.8

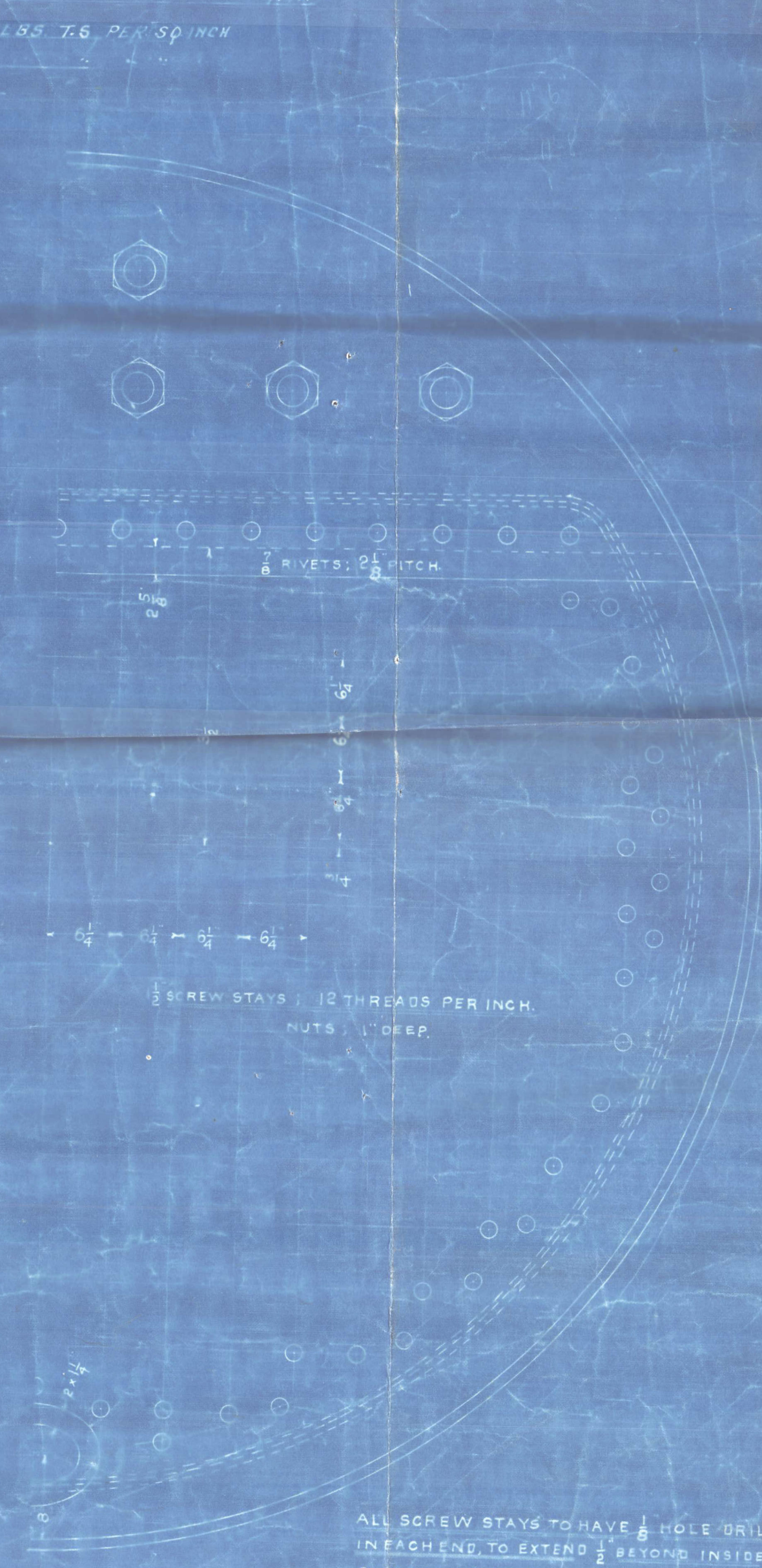
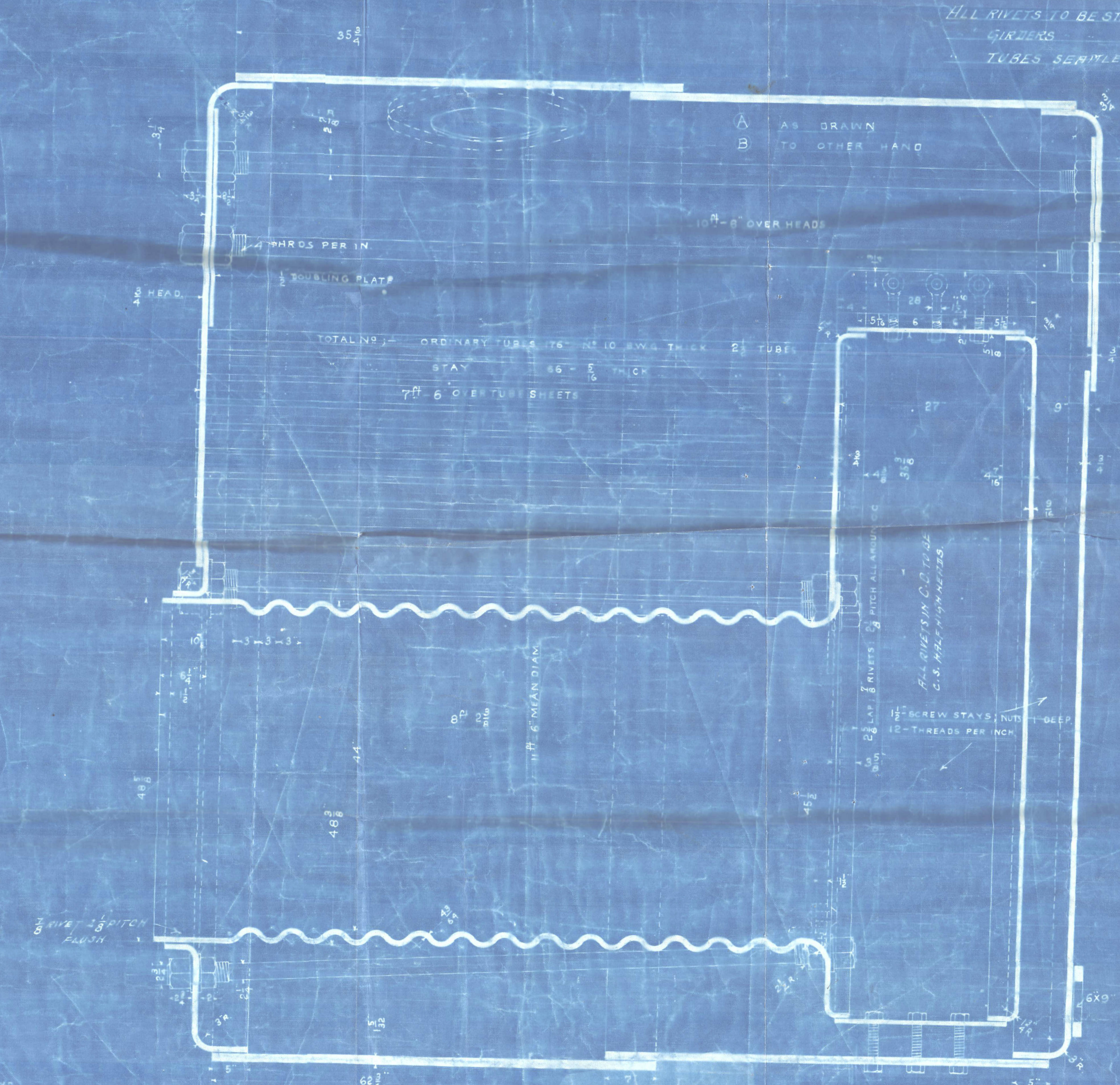
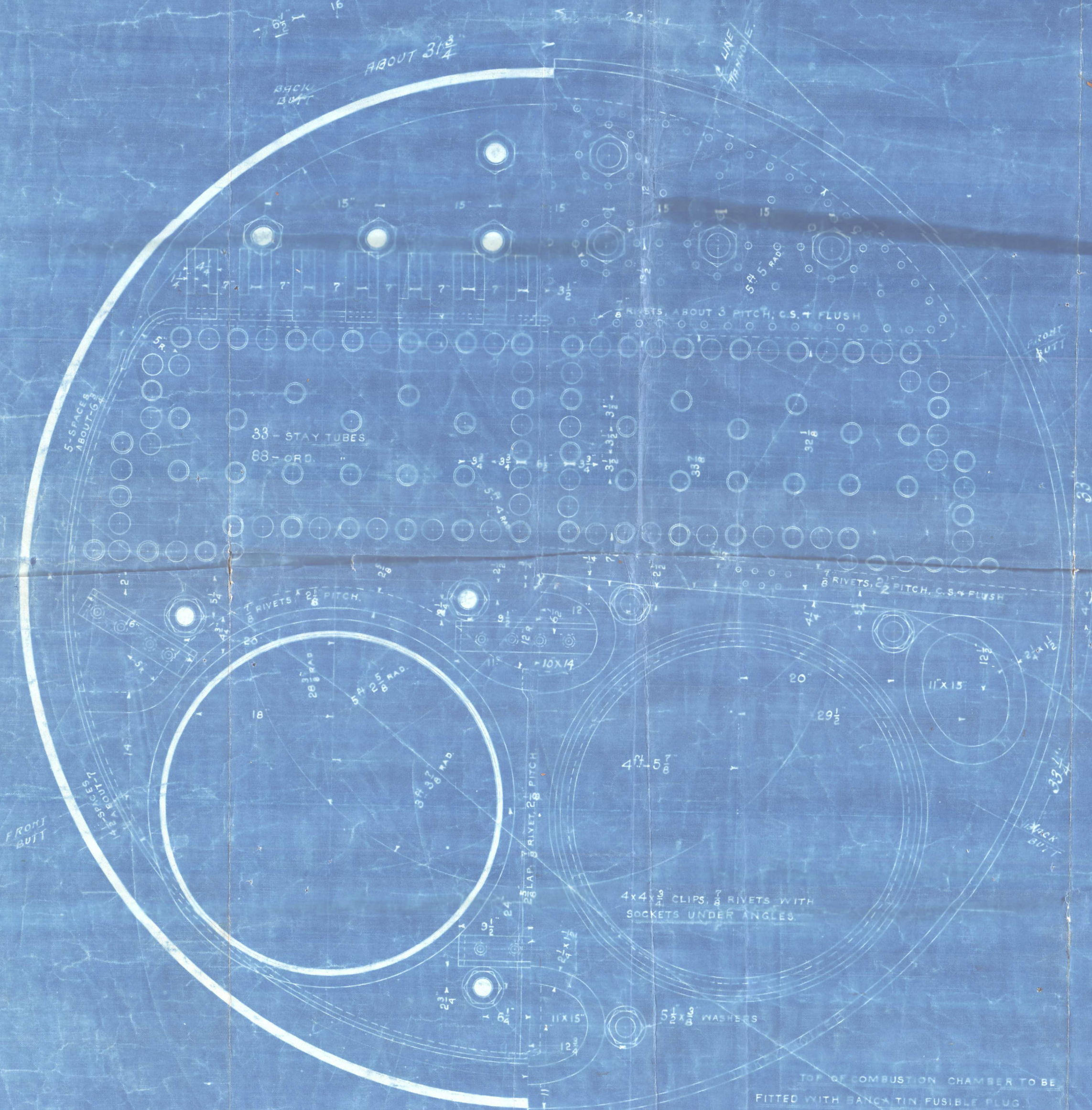
DATA FOR DONKEY BOILER	
MEAN DIAM. OF BOILER	11 1/2'-6"
LENGTH OVER HEADS	10'-6"
WORKING STEAM PRESS.	200 lbs.
THICKNESS SHELL	5/16"
THICK DOUB. PLATES	5/16"
TUBE SHEETS	5/16"
WRAPPER	5/16"
BUTTS	5/16"
BACK COMB.C.	5/16"
BACK PLATING	5/16"
TOP HEAD	5/16"
MANHOLE RING	5/16"
INSIDE DIAM. FURN.	44"
OUTSIDE	48 3/4"
THICKNESS	5/16"
GIRDERS-TWO PLATES EACH	6" x 1 1/2"
HOLES DRILLED 1/8" LARGER THAN RIV.	
EFFECT AREA W/ BODY STAY	649 sq ft
THRO	672 sq ft
BODY 2 1/2"	3.07 sq ft
THRO	4.62 sq ft
ARCH OF MANHOLE RING	12 x 15
EFFECT AREA IN THRO	15 sq ft
OUT. DIAM. OF STAY TUBES	2 1/2"
THICKNESS STAY TUBES	5/16"
AREA METAL	2.14 sq ft
PITCH	7 1/2 x 10 1/2
THICKNESS ORD. TUBES	1/8"
AREA METAL	1.9
PITCH OF	3 1/2 x 3 1/2
STAYS ON BACK	6 1/2 x 6 1/2
% P.C.C.	6' x 7'

Material Requirements
 ALL PLATES TO BE OPEN HEARTH STEEL
 SHELL, BUTT STRAPS, & LONGITUDINAL STAYS, TO HAVE A TENSILE STRENGTH OF NOT UNDER 47,000 & NOT OVER 62,000 LBS. PER SQ. IN.
 SCREW STAYS & OTHER PLATES TO HAVE A TENSILE STRENGTH OF NOT LESS THAN 26 TONS & NOT MORE THAN 30 TONS PER SQ. IN.
 STEEL RIVETS, TO HAVE A TENSILE STRENGTH OF NOT LESS THAN 26 TONS & NOT OVER 30 TONS PER SQ. IN.
 FURNACES TO HAVE T.S. OF NOT LESS THAN 26 TONS & NOT MORE THAN 30 TONS PER SQ. IN.
 TUBES TO BE BEST CHARCOAL IRON L.A.P. WELDED.

THESE BOILERS APPROVED BY LLOYD UNDER THE ABOVE REQUIREMENTS

BUILT UNDER U.S. TREASURY RULES
 TO THE FOLLOWING MATERIAL REQUIREMENTS

- ALL SHELL, BUTT STRAP AND MANHOLE RING PLATES TO HAVE A TENSILE STRENGTH OF NOT UNDER 61,000 AND NOT OVER 67,000 LBS. PER SQ. INCH.
- ALL FIRE BOX PLATES TO HAVE A TENSILE STRENGTH OF NOT UNDER 53,000 AND NOT OVER 60,000 LBS. PER SQ. INCH.
- ALL PLATES OPEN HEARTH STEEL
- ALL 1/2" SCREW STAYS, BEST DOUBLE RIVETED IRON
- 2 1/2" STAYS TO BE STEEL OF 53,000 TO 60,000 LBS. TENSILE STRENGTH.
- ALL RIVETS TO BE STEEL OF 51,000 TO 60,000 LBS. T.S. PER SQ. INCH
- GIRDERS 61,000 67,000
- TUBES SEAMLESS COLD DRAWN STEEL



ALL SCREW STAYS TO HAVE 1/8" HOLE DRILLED IN EACH END TO EXTEND 1/2" BEYOND INSIDE SURFACE OF SHEET

TEST PRESSURE U.S. TREASURY, 300 LBS. PER SQ. IN.

WORKING STEAM PRESSURE 200 LBS.

1 BOILER AS DRAWN USE ON ENG. 44
 REQUIREMENTS FOR ENG. 44
 WORKING STEAM PRESSURE 180 LBS. " "
 WATER TEST PRESSURE 360 LBS. " "
 1 BOILER AS DRAWN USE ON ENG. 81
 WORKING STEAM PRESSURE 180 LBS. " "
 WATER TEST PRESSURE 360 LBS. " "
 MORRISON SUSPENSION FURNACES

CHARGE TO CON. DATE APPR. BY
 DONKEY BOILERS INC. 8/11 1911 62/6 2

STRENGTH OF JOINT
 RIVET 49,375 84.1%
 PLATE 49,375 82.3%

NUMBER PAGES

ALL SCREW STAYS TO HAVE 1/8" HOLE DRILLED IN EACH END TO EXTEND 1/2" BEYOND INSIDE SURFACE OF SHEET

DONKEY BOILER
 11 FT. 6 IN. M.D. 10 FT. 6 IN. OVERHEADS
 1 IN. LIFT FEB. 27. 1899

ENGINES NO 31 & 32 6377 E

LLOYDS & U.S. RULES

2 1/2" PITCH FOR 3 1/2" STAYS
 1 1/2" MANHOLE BETWEEN FURNACES
 OVER GRATE 10' 0" DRIVING
 1 1/2" LATERAL IRON 10' 0" DRIVING
 1 1/2" LATERAL IRON 10' 0" DRIVING
 1 1/2" LATERAL IRON 10' 0" DRIVING

LLOYD'S REGISTER
 100-100-100
 100-100-100
 100-100-100

Niritos

W65-0104

REPORT, &c., FOR OUTPORTS.

For the Port of

Newcastle-on-Tyne

Ship's Name

s/s "NIRITOS"

First Entry Machinery Report

Donkey boiler Plan

Sent from E Dept., Date

8.7.40.

Returned

To be returned to the London Office as soon as the contents thereof have been noted.

W65-0105

*This is
been for
the SS*



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W65-0104



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Donkey Boiler

N.P. 180 lbs

Newport News

S.B. Co No. 81

38 "Lurline"

N. No. 222

This boiler has
been fitted on board
the S.S. Nimitz - su
Ros. reg. No. 26556
date 2.38.



W65-0104



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