

14-11-05

DIMENSIONS	7' BOILER
LENGTH OF GRATE AREA	6' 4" 0"
EXT. DIAM. TUBES	2 1/2"
NO. OF TUBES	240
LENGTH TUBES BTW PLATES	7' 4 1/2"
HEATING SURF. TUBES	111.0 sq. ft.
FURNACE	11' 1"
COMB. CHAM.	13' 7"
TOTAL HEATING SURF.	142.1 sq. ft.
H.S. over G.A.	32.25"
WORKING STEAM PRESS.	200 lbs.
NET AREA THROUGH TUBES	6.03 sq. in.
G.A. OVER TUBE AREA	7.3 sq. in.

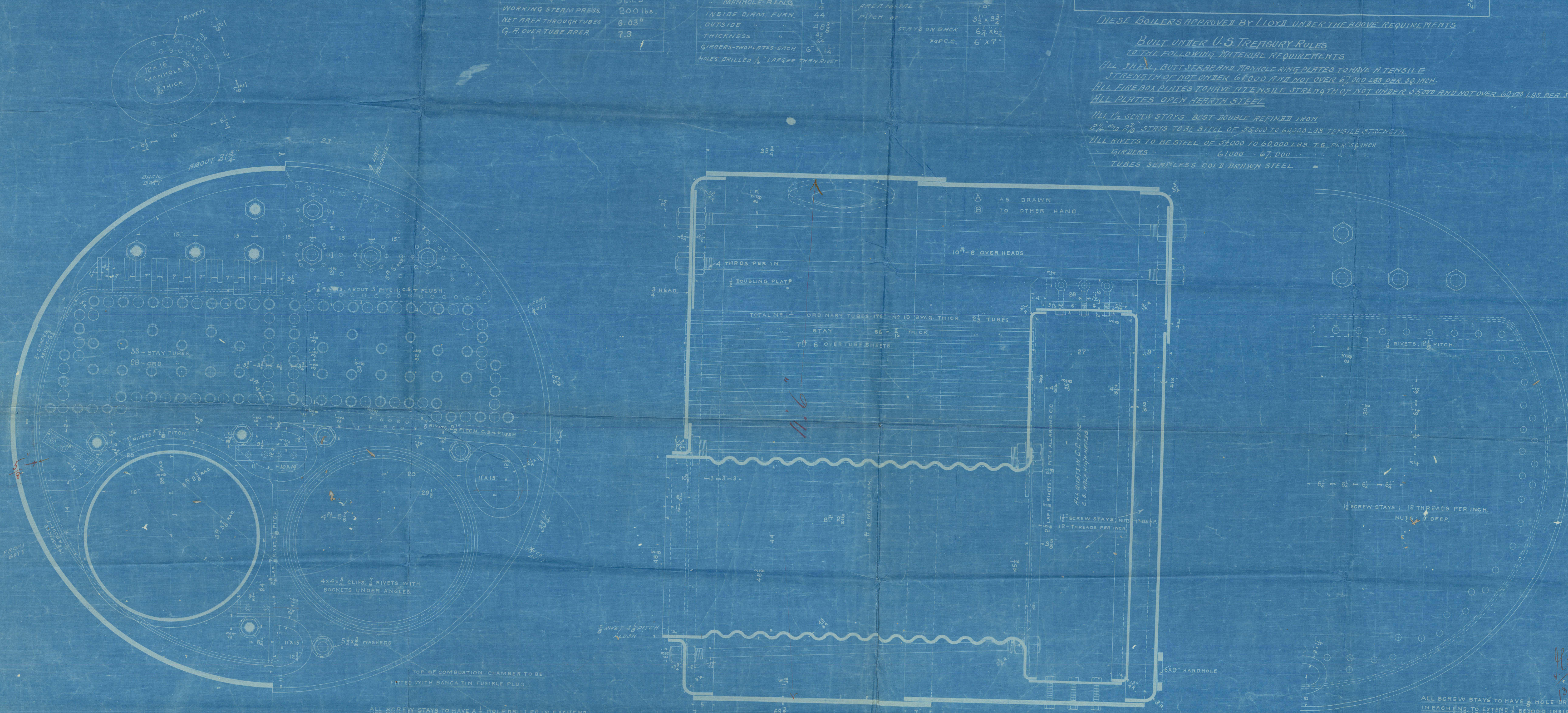
DATA FOR DONKEY BOILER	
MEAN DIAM. OF BOILER	10'-6"
LENGTH OVER HEADS	10'-6"
WORKING STEAM PRESS.	200 lbs.
THICKNESS SHELL	1/2"
THICK DOUB. PLATES	1/2"
TUBE SHEETS	1/2"
WRAPPER	1/2"
BUTTS	1/2"
BACK COMB.C.	1/2"
BACK PLATING	1/2"
TOP HEAD	1/2"
MANHOLE RING	1/2"
INSIDE DIAM. FURN.	4' 4"
OUTSIDE	4' 6 3/4"
THICKNESS	1/2"
GIRDERS-TWO PLATES EACH	6' x 1 1/2"
HOLES DRILLED 1/8" LARGER THAN RIVET	

Material Requirements.
 ALL PLATES TO BE OPEN HEARTH STEEL
 SHELL, BUT STAYS, LONGITUDINAL STAYS, TO HAVE A TENSILE STRENGTH OF NOT UNDER 27,000 LBS. NOT OVER 32,000 LBS. PER SQ. IN.
 SCREW STAYS, OTHER PLATES TO HAVE A TENSILE STRENGTH OF NOT LESS THAN 25,000 LBS. NOT MORE THAN 30,000 LBS. PER SQ. IN.
 STEEL RIVETS, TO HAVE A TENSILE STRENGTH OF NOT LESS THAN 25,000 LBS. NOT MORE THAN 30,000 LBS. PER SQ. IN.
 FURNACES TO HAVE T.S. OF NOT LESS THAN 25,000 LBS. NOT MORE THAN 30,000 LBS. PER SQ. IN.
 TUBES TO BE BEST CHARCOAL IRON 1/2" RIVETED.

THESE BOILERS APPROVED BY LLOYD UNDER THE ABOVE REQUIREMENTS

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

- ALL SHELL, BUT STAYS AND MANHOLE RING PLATES TO HAVE A TENSILE STRENGTH OF NOT UNDER 27,000 LBS. NOT OVER 32,000 LBS. PER SQ. IN.
- ALL FIRE BOX PLATES TO HAVE A TENSILE STRENGTH OF NOT UNDER 25,000 LBS. NOT OVER 30,000 LBS. PER SQ. IN.
- ALL PLATES OPEN HEARTH STEEL
- ALL 1/2" SCREW STAYS, BEST DOUBLE REFINED IRON
- ALL 1/2" STAYS TO BE STEEL OF 25,000 TO 30,000 LBS. TENSILE STRENGTH
- ALL RIVETS TO BE STEEL OF 25,000 TO 30,000 LBS. T.S. PER SQ. IN.
- GIRDERS 6,000 - 67,000
- TUBES SEAMLESS, COLD DRAWN STEEL



ALL SCREW STAYS TO HAVE 1/2" HOLES 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.

CHARGE TO
 DONKEY BOILER NO. 31

CONTRACT DATE 11/11/05
 BY A.B.

NUMBER PIECES

ALL SCREW STAYS TO HAVE 1/2" HOLES 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. OVER HEADS

H.N. 21 FT. FEB. 27-1899

ENGINES No 31 & 32 6377-6

2 1/2" PITCH FOR ALL
 BUT MANHOLE BETWEEN
 PLATES
 5/16" DIA.
 10-18-05

1/2" DIA. MANHOLE BETWEEN
 PLATES
 5/16" DIA.
 10-18-05

Newport News S.B. Co.
No 44

Donkey Boiler.

180 lbs pres per ~~sq~~"

