

To Lloyds requirements for a working pressure of 180 lbs per square inch.

All plates, rivets, stays & girders of steel. Tubes of Wrought Iron.

SCALE 1" = 1 FOOT. G.J.C.

Tubes of Wrought Iron.

SCALE 1" = 1 FOOT.

GJC

ENC

DATE FURNACE

7792 OFF
\$022 OFF

Intended for Messrs. Short Bros.	S/S N ^o 386
" " " " "	S/S N ^o 394

Feb. 18th 1914 Ashlin "1897" Type.

Jan. 21-1915

JOHN DICKINSON & SONS, LIMITED
ENGINEERS
TRADING NO. 605
DATE 28.1.15.
SUNDERLAND.

Heating Surface in
2 Boilers = 5869 #

STAYS.

Diam	Threads per Inch	EFF DIAM	EFF AREA	Nc in each Bolt
1 $\frac{3}{4}$ "	9	1.6078	2.031	368
1 $\frac{7}{8}$ "	9	1.7327	2.355	48
2"	9	1.8577	2.69	2
2 $\frac{1}{2}$ "	6	2.2868	4.13	3
3 $\frac{1}{4}$ "	6	3.036	7.22	14

Diagram of a plain tube with dimensions and labels:

- Top left dimension: $3\frac{1}{2}$ "
- Top right dimension: $3\frac{1}{2}$ "
- Left side dimension: 3"
- Text label: Plain Tubes No 8 WG.
- Text label: 400 off 7'-7" long
- Text label: 100 off 7'-8" long

A hand-drawn sketch of a rectangular structure, possibly a building or a field, with dimensions and labels. The sketch is drawn on a grid background. The dimensions are as follows:

- Top-left corner: A vertical dimension of $3\frac{1}{2}$ and a horizontal dimension of $3\frac{1}{2}$.
- Top edge: A horizontal dimension of $2\frac{5}{8}$ and a vertical dimension of $3\frac{1}{2}$.
- Bottom edge: A horizontal dimension of $3\frac{1}{2}$ and a vertical dimension of $3\frac{1}{2}$.
- Labels:
 - 192 off $7-7$ long
 - 56 off $7-8$ long

Stay tubes $\frac{5}{16}$ " thick. Screwed 10 threads per inch Eff area 2.255 in²

Longitudinal seams fitted with double butt straps.

Straps $1\frac{3}{8}$ thick. Rivet Holes $1\frac{3}{8}$ " dia. Scale $1\frac{1}{2}$ " = 1 foot.

Tensile strength of shell plates, butt straps & manhole

stiffening rings 28.8 to 32 tons per square inch.

Tensile strength of girders 28 to 32 tons per square inch.

RIVETING.

Front & back seams double riveted $1\frac{3}{8}$ " rivet holes $3\frac{1}{2}$ " pitch $5\frac{3}{8}$ " lap.

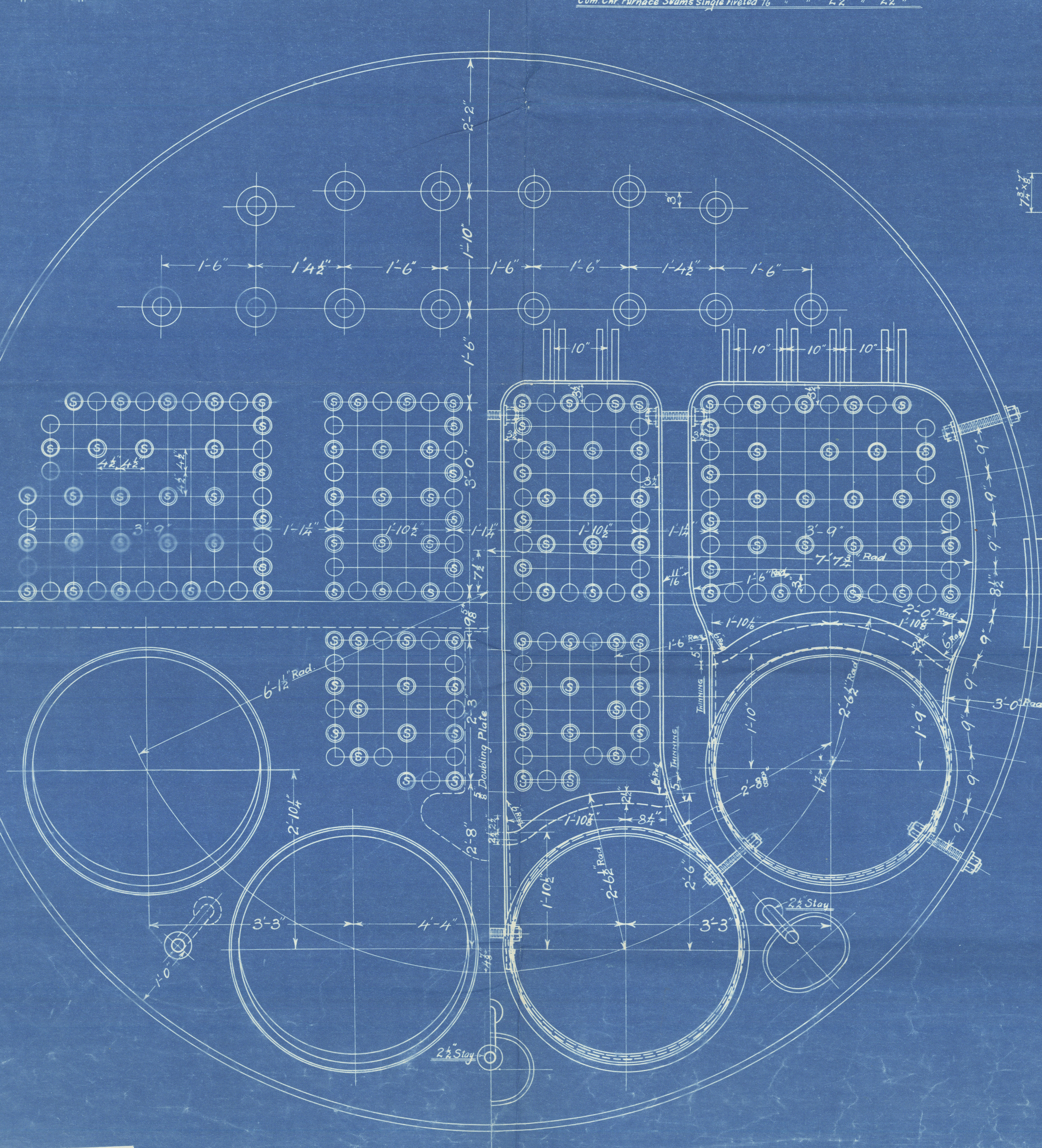
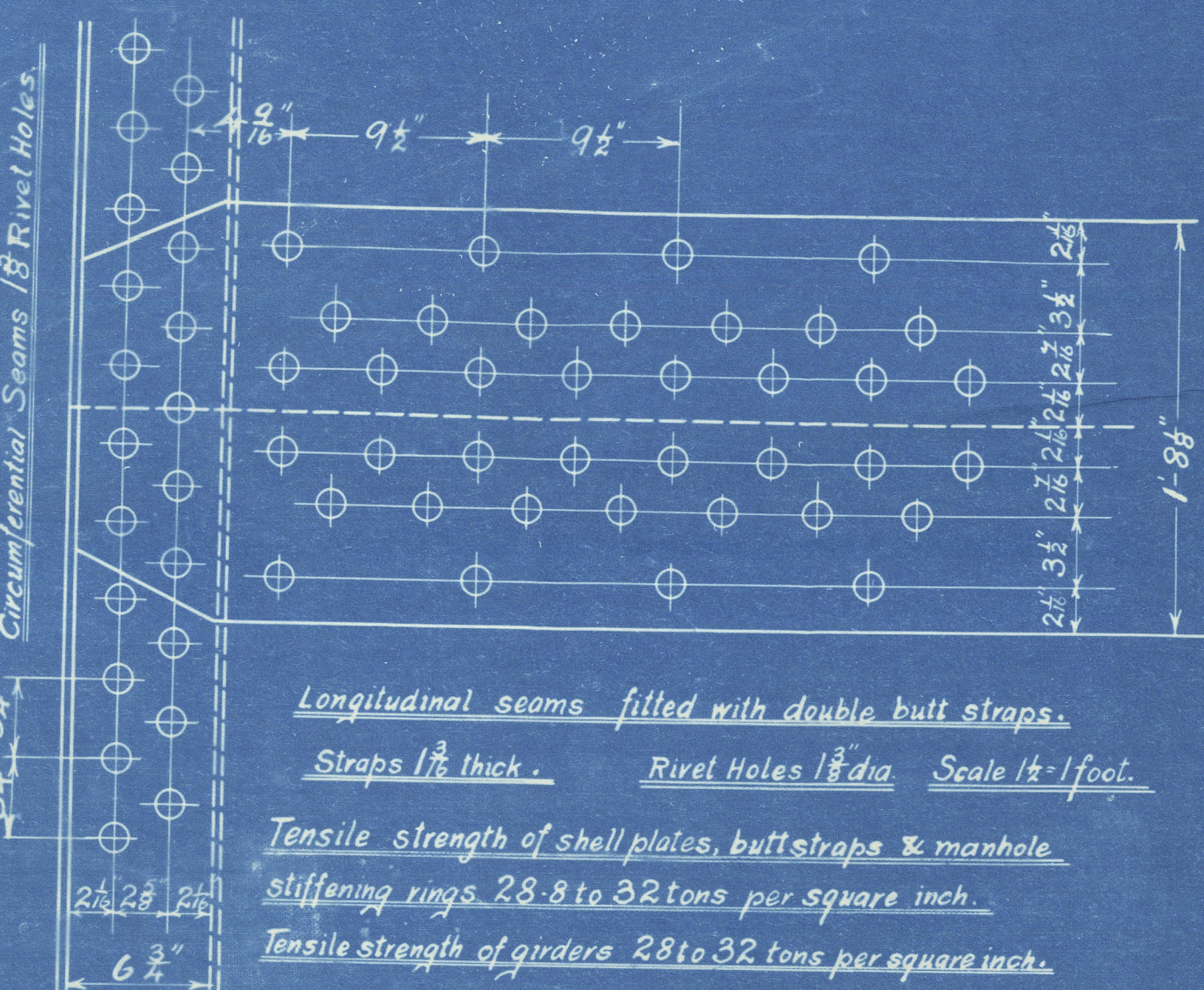
Com. Chr. longitudinal " " $\frac{15}{16}$ " " $2\frac{5}{8}$ " " 4 "

Com. Chr. Furnace, seams single riveted $15\frac{1}{2}$ " " " $2\frac{1}{2}$ " " $2\frac{1}{2}$ "

MANHOLE 16"x12"

Stiffening Ring $8\frac{3}{4}'' \times 1\frac{5}{16}''$

Rivet Holes $1\frac{3}{8}$ " dia.



802 2 off

J. Dickinson Sons Ltd.

W983-0233

No. 802 (2 off)

(used instead of 803)

FOR

J. I. Thompsons 516
~~Short Brothers~~
Yⁿ GROⁿ

~~S. S. No. 394~~

W.P.P. 180 ^{lb} lbs.

Mark on boilers:-

No. 3418
LLOYD'S TEST
360 lbs.
11.8.17. C.C.



Yantersden

SUNDERLAND RPT. No. 27087

Lloyd's Register
Foundation