

IRON 480-0079 (112)

216259m

Port

Liverpool

Rev 4/2/78
1878

Details of Main Boilers of the Steam Ship

"City of London"

1816 tons

Diameter

13' 6"

Length

16' 6"

Thickness of shell plates

 $1\frac{3}{8}$ "

Description of riveting of longitudinal joints

Double butt straps
riveted

of circumferential joints

Double riveted laps.

Pitch of rivets

ditto

4 $\frac{1}{4}$ "

ditto

3 $\frac{1}{4}$ "

Diameter of rivets

ditto

1 $\frac{5}{8}$ "

ditto

1 $\frac{5}{8}$ "Breadth of butt strap
End plates

ditto

13"

ditto

6 $\frac{1}{2}$ "

Size of manholes in circular shell

16" x 12"

How compensated for

3" x 3" x $\frac{5}{8}$ " angle iron

Number of furnaces in boiler

Six in each.

Diameter of furnaces

3' 3"

Length of furnaces

6' 9"

Thickness of furnace plates

 $\frac{8}{16}$ " top $\frac{9}{16}$ " bottom

Description of joint of furnaces

Welded

Whether strengthened with rings

No

Greatest length between rings

6' 0"

Thickness of combustion chamber plating

 $\frac{7}{16}$ "

Diameter of screw stays to ditto

1 $\frac{3}{16}$ "

pitch of stays

7 $\frac{1}{2}$ " x 8"

End plates, thickness

 $\frac{13}{16}$ "

Diameter of longitudinal stays to end plates

2 $\frac{1}{4}$ "

pitch of ditto

14" x 17"

How stays are secured

Double nuts and riveted washers.

Diameter of tubes

3 $\frac{1}{2}$ "

pitch of tubes

4 $\frac{3}{4}$ "

Thickness of tube plates

 $\frac{4}{16}$ "

Stayed by

Tube stays

pitch of stays

13 $\frac{1}{2}$ " x 9 $\frac{1}{2}$ "

Description of steam receiver

Cylindrical horizontal

Diameter of ditto

4' 0"

length of ditto

16' 6"

Thickness of plating of ditto

 $\frac{8}{16}$ "

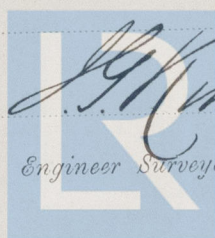
ends

 $\frac{10}{16}$ "

Stays, how stayed

3 Stay rods 2 $\frac{1}{4}$ " diam.

Tops of combustion chamber stayed by bridge stays
Rivet holes in shell plating drilled.



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Engineer Surveyor to Lloyd's Register of Shipping.

Foundation

S. S. "City of London."

21625 Iron

Shell plating, $\frac{51520 \times 2.37 \times .72}{162 \times 6.0} \} = 90 \text{ lbs.}$

Perc^t of st^gth in rivets, $\frac{1.34 \times 4 \times 100}{4.68 \times 1.18} \} = 96\%$

Perc^t of st^gth in joints, $\frac{4.68 - 1.31 \times 100}{4.68} \} = 72\%$

Furnace plates, $\frac{89600 \times .25}{6 \times 39} \} = 95 \text{ lbs.}$

Flat plates, $\frac{100 \times 55}{64} \} = 85 \text{ lbs.}$

Steam chests, $\frac{51520 \times 1 \times .60}{48 \times 6.5} \} = 99 \text{ lbs.}$

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