

17425. Jan.

Port

Greenock Dec 22nd 1876

1876

Details of Main Boilers of the Steam Ship

"Emu"

392

tons

Diameter

11' 3"

Length

9' 2"

Thickness of shell plates

 $\frac{17}{16}$ "

Description of riveting of longitudinal joints

Double riveted

of circumferential joints

Double riveted

Pitch of rivets

ditto

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

ditto

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

Diameter of rivets

ditto

1"

ditto

1"

Lap of plating

ditto

Double butt straps 12" x $\frac{9}{16}$ "

ditto

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

Size of manholes in circular shell

18" x 18 $\frac{1}{2}$ "

How compensated for

By angle iron ring 3 $\frac{1}{2}$ " x 2 $\frac{1}{2}$ " x $\frac{3}{8}$ "

Number of furnaces in boiler

Two

Diameter of furnaces

3' 3"

Length of furnaces

6' 0"

Thickness of furnace plates

 $\frac{15}{32}$ "

Description of joint of furnaces

Double butt straps

Whether strengthened with rings

None

Greatest length between rings

Thickness of combustion chamber plating

 $\frac{15}{32}$ "

Diameter of screw stays to ditto

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

pitch of stays

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

End plates, thickness

 $\frac{11}{16}$ "

Diameter of longitudinal stays to end plates

2"

pitch of ditto

12 $\frac{1}{2}$ " x 13 $\frac{1}{2}$ "

How stays are secured

By double nuts

Diameter of tubes

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

pitch of tubes

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

Thickness of tube plates

 $\frac{11}{16}$ "

Stayed by

Tubes

pitch of stays

9 $\frac{1}{2}$ " x 14 $\frac{1}{2}$ "

Description of steam receiver

Round Longitudinal (one on each boiler)

Diameter of ditto

3' 0"

length of ditto

5' 6"

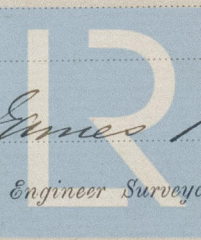
Thickness of plating of ditto

 $\frac{7}{16}$ "

ends

 $\frac{7}{16}$ "

Ends, how stayed

By one stay 1 $\frac{3}{4}$ " dia fitted with nutsDouble boiler 5 ft. dia x 4 ft high. plating $\frac{7}{16}$ " single & double riveted 2" pitch

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Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register Foundation

17425 Iron

Formula for Shell $\frac{57520 \times 1.5 \times 78\%}{123.5 \times 6.05} = 63 \text{ lbs}$

Formula for Flat Plates $\frac{100 \times .56}{42} = 1.33 \text{ lbs}$

Formula for Stays $\frac{89600 \times .21}{6' \times 39"} = 46 \text{ lbs}$

Longitudinal Stays 2" dia 12½" x 13½" pitch = 34.91 lbs

JM



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