

19439 Iron

Port

Glasgow

Details of Main Boilers of the Steam Ship

Cumberland

16th Dec 1874
25/10/77
78⁴/₁₀ tons

Diameter

11' 3"

Length

9 ft

Thickness of shell plates

$\frac{12}{16}$ "

Description of riveting of longitudinal joints

Double

of circumferential joints

Double

Pitch of rivets

ditto

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

ditto

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

Diameter of rivets

ditto

1"

ditto

1"

Lap of plating

ditto

6 $\frac{3}{4}$ "

ditto

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

Size of manholes in circular shell

12" x 15"

How compensated for

By flat ring 3" x $\frac{9}{16}$ "

Number of furnaces in boiler

Three

Diameter of furnaces

2' 10"

Length of furnaces

5' 6"

Thickness of furnace plates

$\frac{9}{16}$ "

Description of joint of furnaces

Lapped & Single riveted

Whether strengthened with rings

Greatest length between rings

Thickness of combustion chamber plating

$\frac{9}{16}$ "

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

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

How stays are secured

By double nuts

Diameter of tubes

3"

pitch of tubes

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

Thickness of tube plates

$\frac{10}{16}$ & $\frac{11}{16}$ "

Stayed by

Diagonals

pitch of stays

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

Description of steam receiver

Superheater, Round Vertical

Diameter of ditto

6' 6" Dia 4' 3"

height of ditto

4 ft

Thickness of plating of ditto

$\frac{9}{16}$ "

ends

Ends, how stayed

By shell & Diagonals

19439 Jan.

Formula for shell $\frac{51820 \times 1.5 \times 70\%}{122 \times 6.5} = 68 \text{ lbs}$

Formula for flat plate $\frac{100 \times 64}{72.25} = 89 \text{ lbs}$

Formula for tubes $\frac{89600 \times .25}{5.5 \times 34} =$

Longitudinal Stays 2" dia 14.5" x 15" pitch = 440 lbs

AM



© 2019

Lloyd's Register
Foundation