

16182. Iron

Port

Sunderland April 1-1876

Masts of Main Boilers of the Steam Ship

"Suez"

1390 tons

Diameter

11' 6"

Length

18' 0"

Thickness of shell plates

 $\frac{1}{8}$ "

Description of riveting of longitudinal joints

Double

of circumferential joints

Double

Pitch of rivets

ditto

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

ditto

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

Diameter of rivets

ditto

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

ditto

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

Lap of plating

ditto

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

ditto

5 $\frac{1}{4}$ "

Size of manholes in circular shell

16" by 12"

How compensated for

Rings round holes 6" x 1"

Number of furnaces in boiler

4. Two in each end.

Diameter of furnaces

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

Length of furnaces

6' 1"

Thickness of furnace plates

 $\frac{1}{2}$ "

Description of joint of furnaces

Single riveted Lap joints

Whether strengthened with rings

No

Greatest length between rings

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Thickness of combustion chamber plating

 $\frac{1}{2}$ "

Diameter of screw stays to ditto

1 $\frac{1}{2}$  over thread

pitch of stays

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

End plates, thickness

 $\frac{3}{4}$ "

Diameter of longitudinal stays to end plates

2" Square

pitch of ditto

18" x 10 $\frac{1}{2}$ "

How stays are secured

Between angle bars riveted back to back 5 $\frac{1}{2}$  x 3 $\frac{1}{2}$  x  $\frac{1}{16}$ "

Diameter of tubes

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

pitch of tubes

Vertical 4 $\frac{1}{2}$ " Horizontal 6 $\frac{3}{4}$ "

Thickness of tube plates

 $\frac{3}{4}$ "

Stayed by

Stay tubes

pitch of stays

13 $\frac{1}{2}$  x 14 $\frac{1}{4}$ "

Description of steam receiver

Steam Dome

Diameter of ditto

4' 9"

length of ditto

9' 0"

Thickness of plating of ditto

 $\frac{1}{2}$ "

ends

9 $\frac{1}{16}$ "

Ends, how stayed

3 Plate stays in dome 10" x  $\frac{1}{16}$ "

Shell

$$\frac{51520 \times 1\frac{3}{4} \times \frac{1}{16}}{136\frac{1}{2} \times 6.5} = 76 \text{ lbs working pressure}$$

Plates between screwed stays

$$\frac{100 \times 8^2}{8\frac{1}{2} \times 7\frac{1}{2}} = 100 \text{ lbs working pressure}$$

Furnaces to collapse

$$\frac{89600 \times \frac{1}{2}^2}{6\frac{1}{2} \times 3\frac{1}{2}} = 98 \text{ lbs}$$

James B. Cairn

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Lloyd's Register  
Foundation