

172509 Iron

Port

Sunderland

Rev. 30/10/96
Oct. 1876.

Hulls of Main Boilers of the Steam Ship

"Frankland," 541 tons

Diameter

5' 3"

Length

5' 9"

Thickness of shell plates

 $\frac{7}{16}$ "

Description of riveting of longitudinal joints

double

of circumferential joints

single

Pitch of rivets

ditto

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

ditto

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

Diameter of rivets

ditto

 $\frac{3}{4}$ "

ditto

 $\frac{13}{16}$ "

Lap of plating

ditto

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

ditto

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

Size of manholes in circular shell

16" x 12"

How compensated for

by flange of the dome.

Number of furnaces in boiler

one underneath.

Diameter of furnaces

Length of furnaces

Thickness of furnace plates

Description of joint of furnaces

Whether strengthened with rings

Greatest length between rings

Thickness of combustion chamber plating

Diameter of screw stays to ditto

pitch of stays

End plates, thickness

 $\frac{5}{8}$ "

Diameter of longitudinal stays to end plates

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

pitch of ditto

12 $\frac{3}{4}$ " x 8"

How stays are secured

Bolts right through both end plates.

Diameter of tubes

3" ext. dia.

pitch of tubes

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

Thickness of tube plates

 $\frac{5}{8}$ "

Stayed by

stay tubes

pitch of stays

15" x 10 $\frac{1}{4}$ "

Description of steam receiver

Dome with Contracted neck

Diameter of ditto

3' 6"

length of ditto

8' 0"

Thickness of plating of ditto

 $\frac{3}{8}$ "

ends

 $\frac{1}{2}$ "

How stayed

No stays (The ends are spherical)

$$\text{shells} = \frac{51520 \times \frac{7}{8} \times 70}{62.5 \times 6.5} = 78 \text{ lbs working pressure.}$$



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