

16457 Iron

Port

Sunderland
"Teal"

May 1876.

Details of Main Boilers of the Steam Ship

634.24 tons

Diameter 12' 6" Length 9' 5"

Thickness of shell plates 1"

Description of riveting of longitudinal joints, double & double butt of circumferential joints double.

Pitch of rivets ditto 3 3/4 ditto 3 3/4

Diameter of rivets ditto 1 1/8 ditto 1 1/8

Lap of plating ditto 10 ditto 5

Size of manholes in circular shell 15 1/2 x 11 1/2

How compensated for rectangular by 2 plates 2' 4" x 2' 0" x 1 1/2"

Number of furnaces in boiler 3

Diameter of furnaces 2' 11" Length of furnaces 6' 9"

Thickness of furnace plates 1/2" & 9/16"

Description of joint of furnaces double butt straps and single riveted.

Whether strengthened with rings none Greatest length between rings

Thickness of combustion chamber plating 1/2"

Diameter of screw stays to ditto 1 1/2 over the threads pitch of stays 7" x 7"

End plates, thickness 7/8"

Diameter of longitudinal stays to end plates 2 3/8 pitch of ditto 14 3/4 x 14 3/4

How stays are secured they are bolts going right through.

Diameter of tubes 3 1/4 external diameter pitch of tubes 4 5/8 x 4 1/2

Thickness of tube plates 7/8"

Stayed by stay tubes pitch of stays 9 1/4 x 9"

Description of steam receiver dome with a narrow neck, connecting it to the boiler.

Diameter of ditto 3' 3" length of ditto 5' 8"

Thickness of plating of ditto 1/2" ends 5/8"

Ends, how stayed by 4 stays 2 1/4 dist.

$$\text{Shells} = \frac{51520 \times 2 \times 71}{148 \times 6.5} = 76 \text{ lbs working pressure.}$$

$$\text{Furnaces} = \frac{89600 \times 1/2^2}{6 3/4 \times 35} = 94 "$$

William Allison.

Engineer Surveyor to Lloyd's Register of Shipping.