

16236 Iron

Port

Sunderland
"Damiatta"Rec 22/1/76
April 1876.689.64 tons
682.25
113 H. 69

Details of Main Boilers of the Steam Ship

Diameter width 13' 0".

Length 9' 10".

Thickness of shell plates $\frac{7}{16}$ " (bottom part $\frac{1}{2}$ ")

Description of riveting of longitudinal joints all single, except the bottom of circumferential joints which is double

Pitch of rivets ditto double riveting $2\frac{1}{2}$ " pitch ditto single 2".Diameter of rivets ditto $\frac{3}{4}$ " ditto $\frac{3}{4}$ "Lap of plating ditto $3\frac{1}{2}$ " ditto $2\frac{1}{2}$ "

Size of manholes in circular shell None (The manhole is in the end of the boiler)

How compensated for No Compensation.

Number of furnaces in boiler 4

Diameter of furnaces Oval 2' 9" high x 2' 7 $\frac{1}{2}$ " wide Length of furnaces 7' 3"Thickness of furnace plates $\frac{3}{8}$ "

Description of joint of furnaces lapped and single, riveted.

Whether strengthened with rings none

Greatest length between rings

Thickness of combustion chamber plating $\frac{3}{8}$ "Diameter of screw stays to ditto $1\frac{3}{8}$ " over the threads pitch of stays $9\frac{1}{2} \times 9\frac{1}{2}$ "End plates, thickness $\frac{1}{2}$ "Diameter of longitudinal stays to end plates $1\frac{1}{2}$ " square pitch of ditto 16×14 "How stays are secured to Ties with 3 $\frac{7}{8}$ " bolts at each end.Diameter of tubes $3\frac{3}{4}$ " pitch of tubes $5\frac{1}{2} \times 5$ "Thickness of tube plates $\frac{5}{8}$ " front & $\frac{1}{2}$ " back.Stayed by solid stays & stay tubes. pitch of stays solid stay $1\frac{1}{2}$ " dia. $15 \times 15\frac{3}{4}$ "

Description of steam receiver none

Diameter of ditto

length of ditto

Thickness of plating of ditto

ends

Ends, how stayed

$$\text{Shell (viz circular roof)} = \frac{515.20 \times \frac{7}{8} \times 50}{156 \times 6.5} = 22\frac{1}{2} \text{ lbs.}$$

Ties. $1\frac{1}{4}$ " pitch riveted round the roof of the boiler and down the sides = 15

$$\text{Furnaces} = \frac{89600 \times \frac{3}{8}}{\frac{7}{4} \times 31\frac{1}{2}} = 56 \text{ lbs working pressure.}$$

William Allison.

Engineer Surveyor to Lloyd's Register of Shipping.