

16780202

Port

Sunderland July 27th 1876

Details of Main Boilers of the Steam Ship

Claf. Ryggeson 404 tons

Diameter 12' 0" mean Length 10' 6" inside

Thickness of shell plates $\frac{2}{32}$

Description of riveting of longitudinal joints Double 4/4 of circumferential joints 4/4

Pitch of rivets ditto $4\frac{1}{2}$ ditto $4\frac{1}{8}$ Diameter of rivets ditto $1\frac{1}{16}$ ditto $1\frac{1}{16}$ Lap of plating ditto Double straps 9" broad ditto $4\frac{1}{2}$

Size of manholes in circular shell 10 x 16

How compensated for Angle irons round bottom of dome

Number of furnaces in boiler 3

Diameter of furnaces 3' 1" Length of furnaces 7' 6"

Thickness of furnace plates $\frac{1}{16}$

Description of joint of furnaces Butt. Double straps. Single riveted

Whether strengthened with rings No Greatest length between rings 2

Thickness of combustion chamber plating $\frac{9}{16}$ Diameter of screw stays to ditto $1\frac{1}{2}$ top of thread pitch of stays $9\frac{1}{2} \times 9\frac{1}{2}$ End plates, thickness $\frac{1}{16}$ Diameter of longitudinal stays to end plates 2" effective pitch of ditto $16\frac{1}{2} \times 13$

How stays are secured But inside and out

Diameter of tubes $3\frac{1}{4}$ outside pitch of tubes $4\frac{1}{2} \times 4\frac{1}{2}$ Thickness of tube plates $\frac{5}{8}$ Stayed by Stay tubes pitch of stays $13\frac{1}{2} \times 13\frac{1}{2}$

Description of steam receiver Steam dome

Diameter of ditto 4' 0" length of ditto 11' 0"

Thickness of plating of ditto $\frac{7}{16}$ ends $\frac{5}{8}$ thick.Ends, how stayed Four stays $2\frac{1}{4}$ dia

Dome secured to shell by angle iron $\frac{1}{4} \times \frac{1}{4}$ double riveted

Shell $51820 \times 1\frac{1}{16} \times .763 = 70$ lbs Working Pressure

144×6.5

Flat plates between screwed stays $100 \times 9^2 = 89$ lbs "

$9\frac{1}{2} \times 9\frac{1}{2}$

Furnaces $89600 \times 5^2 = 80$ lbs Working Pressure

7.5×37

James Ham

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Foundation

IRON 467-0391