

18 114 Iron

Port

Sunderland
"Sylph"May 18th 1876
28/10/76
704 tons

Details of Main Boilers of the Steam Ship

Diameter 10' 9" Length 9' 8"

Thickness of shell plates $\frac{7}{8}$ "

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

Pitch of rivets ditto $4\frac{1}{4}$ " ditto $4\frac{1}{4}$ "

Diameter of rivets ditto 1" ditto 1"

Lap of plating ditto $11\frac{1}{2}$ " ditto 5"Size of manholes in circular shell $17" \times 13\frac{1}{2}"$ How compensated for ring round it $5" \times \frac{3}{4}"$

Number of furnaces in boiler 2

Diameter of furnaces $2' 11"$ Length of furnaces $7' 0"$ Thickness of furnace plates $\frac{1}{2}"$

Description of joint of furnaces welded

Whether strengthened with rings none Greatest length between rings

Thickness of combustion chamber plating $\frac{1}{2}"$ Diameter of screw stays to ditto $1\frac{1}{2}"$ & $1\frac{1}{4}"$ over the threads pitch of stays $10\frac{1}{2}" \times 9"$ with the $1\frac{1}{4}"$ stays between the tracingEnd plates, thickness $\frac{11}{16}"$ Diameter of longitudinal stays to end plates $1\frac{3}{4}"$ pitch of ditto $14" \times 10"$

How stays are secured bolts right through both ends

Diameter of tubes $3\frac{1}{2}"$ external pitch of tubes $4\frac{3}{4}" \times 4\frac{3}{4}"$ Thickness of tube plates $\frac{5}{8}"$ Stayed by stay tubes pitch of stays $14\frac{1}{4}" \times 9\frac{1}{2}"$

Description of steam receiver Cylindrical, horizontal, chest. (Connected to boiler by 2 branches)

Diameter of ditto $3' 0"$ length of ditto $8' 0"$ Thickness of plating of ditto $\frac{7}{16}"$ ends $\frac{9}{16}"$ Ends, how stayed dished, $4' 0"$ radius & a solid stay through it, $2\frac{3}{8}"$ dia.

$$\text{Shells} = \frac{51520 \times 1\frac{3}{4} \times 76}{128 \times 6.5} = 82 \text{ lbs working pressure}$$

$$\text{Furnaces} = \frac{89600 \times \frac{1}{2}^2}{4 \times 35} = 91 \text{ " " " "}$$

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