

18121 Iron

Port Sunderland March 1877.

## Details of Main Boilers of the Steam Ship

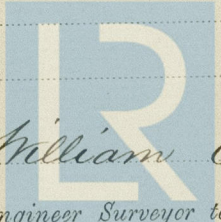
Walton

691.4 tons

Diameter 11' 2" Length 9' 9"Thickness of shell plates  $\frac{13}{16}$ "Description of riveting of longitudinal joints double & double butt straps of circumferential joints doublePitch of rivets ditto  $3\frac{7}{8}$ " ditto  $3\frac{1}{2}$ "Diameter of rivets ditto 1" ditto 1"Lap of plating ditto 10" ditto 5"No. Size of manholes in circular shell  $16" \times 13"$ How compensated for by a ring 7' broad  $\times$   $\frac{5}{8}$ " thickNumber of furnaces in boiler 2Diameter of furnaces  $3' 3"$  Length of furnaces  $7' 0"$ Thickness of furnace plates  $\frac{1}{2}$ "Description of joint of furnaces lapped, and double rivetedWhether strengthened with rings none Greatest length between rings Thickness of combustion chamber plating  $\frac{7}{16}$ "Diameter of screw stays to ditto  $1\frac{3}{16}$ " at bottom of throat pitch of stays  $7" \times 7\frac{3}{4}"$ End plates, thickness  $\frac{1}{16}$ " and plates  $\frac{1}{2}$ " thick rivetedDiameter of longitudinal stays to end plates  $2\frac{1}{4}"$  pitch of ditto  $18\frac{1}{2}" \times 14\frac{1}{2}"$ How stays are secured they are bolts extending through both endsDiameter 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  $9\frac{1}{2}" \times 9\frac{1}{2}"$ Description of steam receiver Horizontal domeDiameter of ditto  $3' 3"$  length of ditto Thickness of plating of ditto  $\frac{3}{8}"$  ends  $\frac{3}{8}"$ How stayed no stays (the ends are spherical)

$$\text{Shells} = \frac{51520 \times 178 \times .74}{132 \times 6.5} = 72 \text{ lbs working pressure.}$$

$$\text{Furnaces} = \frac{89600 \times 2^2}{7 \times 39} = 82 \text{ " " "}$$

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