

Port

16247 Iron

Sunderland April 1876.

Details of Main Boilers of the Steam Ship

"Erasmus Wilson" X X tons

Diameter 14' 7", Length 8' 9"

Thickness of shell plates 1 7/16"

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

Pitch of rivets ditto 3 7/8", ditto 3 3/8"

Diameter of rivets ditto 1 1/8", ditto 1 3/16"

Lap of plating ditto 10 1/4", ditto 5 1/2"

No. Size of manholes in circular shell 15 1/2 x 11 1/2

How compensated for by a plate 2' 6" x 2' 0" x 1" thick.

Number of furnaces in boiler 4

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

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

Description of joint of furnaces double butt strapped 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 thread, pitch of stays 8" x 8"

End plates, thickness 7/8"

Diameter of longitudinal stays to end plates 2 1/4", pitch of ditto 16" x 14 1/2"

How stays are secured they are bolts going right through, with nuts on each side of plates.

Diameter of tubes 3" external, pitch of tubes 4 3/8" x 4 1/4"

Thickness of tube plates 7/8"

Stayed by stay tubes, pitch of stays 8 3/4" x 12 3/4"

Description of steam receiver upright cylindrical with narrow neck joining the top of the boiler.

Diameter of ditto 3' 6", length of ditto 5' 6"

Thickness of plating of ditto 7/16", ends 7/8"

Ends, how stayed by 4 stays 2 1/4" dia.

Shell =  $\frac{51520 \times 2 1/8 \times 71}{173 \times 6.5} = 69$  lbs working pressure.

Furnaces =  $\frac{89600 \times 1/2}{6 1/4 \times 37} = 96$  "

William Allison, Engineer Surveyor to Lloyd's Register of Shipping. Foundation