

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 1/16".

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 5/8", 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.