

1831 Iron

Port

Sunderland April 1877

1877

Details of Main Boilers of the Steam Ship

TAPROENSON

tons

Diameter 11-10 1/2 Length 9-8

Thickness of shell plates 7/8 3/32

Description of riveting of longitudinal joints double of circumferential joints double

Pitch of rivets ditto 4 1/2 ditto 3 3/4

Diameter of rivets ditto 1 3/8 ditto 1 1/8

Lap of plating ditto 6 3/4 ditto 5 1/2

Size of manholes in circular shell 16 x 12 inside the dome

How compensated for by flange of the dome 4 1/2 x 5

Number of furnaces in boiler 2

Diameter of furnaces 3-3 Length of furnaces 6-9

Thickness of furnace plates 1/2

Description of joint of furnaces double butt 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 1/4 on threads pitch of stays 4 1/2 x 4 1/2

End plates, thickness 3/4

Diameter of longitudinal stays to end plates 2 pitch of ditto 15 1/2 x 12 3/4

How stays are secured they are bolts extending through both ends

Diameter of tubes 3 1/4 external pitch of tubes 4 1/2 x 4 1/2

Thickness of tube plates 3/4

Stayed by stay tubes pitch of stays 9 x 13 1/2

Description of steam receiver dome with contracted neck

Diameter of ditto 3-6 length of ditto 8-0

Thickness of plating of ditto 3/8 ends 1/2

Ends, how stayed no stays, (the ends are spherical 3-6 radii)

Shell = (51520 x 1 13/16 x .69) / (141 x 6.5) = 70 lbs working pressure.

Furnaces = (89600 x 1/2^2) / (6 3/4 x 39) = 85

