

18917 In

Port *Greenock July 26<sup>th</sup> 1874*  
*"Sura" 146.52 tons Dec 30/1/77*

Details of Main Boilers of the Steam Ship

Diameter *9' 10"* Length *9' 4"*

Thickness of shell plates *1/16"*

Description of riveting of longitudinal joints *Double riveted* of circumferential joints *Single*

Pitch of rivets ditto *3"* ditto *2 3/4"*

Diameter of rivets ditto *7/8"* ditto *7/8"*

Lap of plating ditto *Double butt straps 10 1/2' x 8/16"* ditto *3"*

Size of manholes in circular shell *13 1/2" x 14 1/2"*

How compensated for *By flat ring 3" x 1/16"*

of furnaces in boiler *Two*

Diameter of furnaces *3' 2"* Length of furnaces *6' 6"*

Thickness of furnace plates *9/16"*

Description of joint of furnaces *Double butt straps*

Whether strengthened with rings *none* Greatest length between rings \_\_\_\_\_

Thickness of combustion chamber plating *13/32"*

Diameter of screw stays to ditto *1 1/4"* pitch of stays *8 1/2" x 8 1/2"*

End plates, thickness *9/16"*

Diameter of longitudinal stays to end plates *1 7/8"* pitch of ditto \_\_\_\_\_

How stays are secured *By double nuts*

Diameter of tubes *3"* pitch of tubes *4 1/4"*

Thickness of tube plates *9/16"*

Stayed by *Lubes 1/4" thick* pitch of stays *12 3/4" x 12 3/4"*

Description of steam receiver *Round Longitudinal*

Diameter of ditto *3ft.* length of ditto *4' 6"*

Thickness of plating of ditto *7/16"* ends *9/16"*

Ends, how stayed *By three stays 1 7/8" dia.*

1874 H/6



Formula for Shell  $\frac{51520 \times 1.375 \times 45\%}{116.625 \times 6.5} = 42 \text{ lbs}$

Formula for flat plates  $\frac{100 \times 42}{42} = \frac{58 \text{ lbs}}{65 \text{ W.P.}}$

Formula for Lugs  $\frac{89600 \times 25}{6.5' \times 38"} = 157 \text{ lbs}$

Longitudinal stays  $1\frac{3}{8}" \text{ dia } 13\frac{1}{2}" \times 13\frac{1}{2}" \text{ pitch} = 438\frac{1}{2}$

JM



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