

19073 En

Port

Aberdeen.

15<sup>th</sup> Aug 1877  
Rev 23/8/77  
130.37 tons

## Details of Main Boilers of the Steam Ship

"Sney"

Diameter 9' 10 $\frac{1}{4}$ " inside

Length 8' 0" outside

Thickness of shell plates  $\frac{11}{16}$ "

Description of riveting of longitudinal joints Triple lap of circumferential joints Double lap

Pitch of rivets ditto 4 $\frac{1}{4}$ "

ditto 4"

Diameter of rivets ditto  $\frac{7}{8}$ "ditto  $\frac{7}{8}$ "

Lap of plating ditto 7"

ditto 5 $\frac{3}{4}$ "

No. Size of manholes in circular shell 13" x 17"

How compensated for by angle iron ring 3" x 4 $\frac{1}{2}$ " x  $\frac{3}{8}$ "

Number of furnaces in boiler Two

Diameter of furnaces 35 $\frac{1}{2}$ " at mouth 34 $\frac{1}{4}$ " back end length of furnaces 5' 6"Thickness of furnace plates upper  $\frac{2}{3}$ " =  $\frac{7}{16}$ " bottom  $\frac{1}{3}$ " =  $\frac{1}{2}$ "

Description of joint of furnaces lap single riveted

Whether strengthened with rings None

Greatest length between rings —

Thickness of combustion chamber plating  $\frac{7}{16}$ "Diameter of screw stays to ditto 1 $\frac{1}{4}$ "pitch of stays 8 $\frac{3}{4}$ " x 8 $\frac{3}{4}$ "End plates, thickness  $\frac{9}{16}$ "Diameter of longitudinal stays to end plates 1 $\frac{3}{4}$ "

pitch of ditto 13" x 15"

How stays are secured through ends nuts both sides of plate washers outside

Diameter of tubes 3 $\frac{1}{2}$ " external pitch of tubes 4 $\frac{7}{8}$ " x 4 $\frac{7}{8}$ "Thickness of tube plates front  $\frac{9}{16}$ " Back  $\frac{5}{8}$ "

Stayed by Tube Stays &amp; Nuts

pitch of stays 14 $\frac{5}{8}$ " x 14 $\frac{5}{8}$ "

Description of steam receiver Vertical Domb

Diameter of ditto 2' 2" at bottom 1 $\frac{1}{4}$ " at top length of ditto 8' 7"Thickness of plating of ditto 2' 6" at bottom  $\frac{5}{8}$ " Rest  $\frac{7}{16}$ " ends  $\frac{5}{8}$ "

Ends, how stayed None

Working pressure Shell

$$\frac{515.20 \times .78 \times 1.36}{118.25 \times 6.5} = 71 \text{ lbs}$$

" " Furnaces

$$\frac{89600 \times .18}{35.5 \times 7.0} = 64 \text{ "}$$

" " Screw Stays

$$\frac{100 \times 73}{8.75 \times 8.75} = 64 \text{ "} = 4583 \text{ lbs}$$

" " Bolt "

$$\frac{100 \times 93}{13 \times 15} = 41 = 4875 \text{ lbs}$$

Large washers under nuts outside of plates

Tested to 120 lbs 27/6/77

John Sturrock  
Engineer Surveyor to Lloyd's Register of Shipping.