

18384 Iron

Port Dundee

May 28/1877  
96.1 tons

## Details of Main Boilers of the Steam Ship

Kaffrarian

Diameter 10' 0" inside Length 8' 0"

Thickness of shell plates  $\frac{3}{4}$ "

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

Pitch of rivets ditto  $3\frac{3}{8}$ " ditto 3"Diameter of rivets ditto 1" ditto  $\frac{7}{8}$ "Lap of plating ditto  $5\frac{1}{2}$ " ditto  $4\frac{1}{2}$ "

Size of manholes in circular shell 12" x 15"

How compensated for by Angle iron ring 4" x 4" x  $\frac{3}{4}$ "

Number of furnaces in boiler Two

Diameter of furnaces 33" at front 29" at back Length of furnaces 5' 6"

Thickness of furnace plates  $\frac{7}{16}$ "

Description of joint of furnaces Lap joint single riveted

Whether strengthened with rings None Greatest length between rings

Thickness of combustion chamber plating  $\frac{1}{2}$ "Diameter of screw stays to ditto  $1\frac{1}{16}$ " pitch of stays  $9\frac{1}{2}$ " x 9"End plates, thickness  $\frac{5}{8}$ "Diameter of longitudinal stays to end plates 2" pitch of ditto 14" x 16  $\frac{3}{4}$ "

How stays are secured through end plates nuts &amp; washers both sides

Diameter of tubes 3  $\frac{1}{4}$ " outside pitch of tubes 4  $\frac{1}{2}$ " x 4  $\frac{1}{4}$ "Thickness of tube plates  $\frac{5}{8}$ "Stayed by Tube stays with nuts pitch of stays 12  $\frac{3}{4}$ " x 12  $\frac{3}{4}$ "

Description of steam receiver Vertical dome

Diameter of ditto 2' 3" length of ditto 3' 0"

Thickness of plating of ditto  $\frac{3}{8}$ " ends  $\frac{1}{2}$ "Ends, how stayed by two bolt stays 1  $\frac{1}{4}$ " dia through shell plates

and top of dome nuts &amp; washers both sides of plates

Working pressure shell  $\frac{51520 \times 1.5 \times .70}{120 \times 6.5} = 69 \text{ lbs}$ " " Furnace  $\frac{89600 \times .18}{33 \times 6.5} = 88 "$ " " screw stays  $\frac{100 \times 8^2}{9 \times 9.5} = 74 " = 4275 \text{ lbs}$ " " bolt "  $\frac{100 \times 10^3}{16.75 \times 14} = 42 = 4854 "$ 

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