

18013 Lm

Reu 22/8/99
March 1897

Port Dundee

Details of Main Boilers of the Steam Ship *Bonnie Dundee*

$\frac{193.38}{121.24}$ tons

Diameter *9" 9" outside* Length *7" 3" outside*

Thickness of shell plates $\frac{4}{16}$

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

Port Dundee No. 4042

Pitch of rivets ditto $3\frac{1}{2}$ ditto $3\frac{1}{2}$

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

Lap of plating ditto *9" strap* ditto *4" lap*

Size of manholes in circular shell *13" x 17"*

How compensated for *by angle iron ring 4" x 3 1/2" x 1/16"*

Number of furnaces in boiler *Two*

Diameter of furnaces *Front 36" back end 31"* Length of furnaces *5" 0"*

Thickness of furnace plates $\frac{3}{8}$

Description of joint of furnaces *Welded*

Whether strengthened with rings *none* Greatest length between rings - - -

Thickness of combustion chamber plating $\frac{7}{16}$

Diameter of screw stays to ditto *1 3/2" upper row 1 1/2"* pitch of stays *7" x 10"*

End plates, thickness $\frac{9}{16}$

Diameter of longitudinal stays to end plates $1\frac{7}{8}$ pitch of ditto *12 1/2" x 17"*

How stays are secured *through end plates Nuts and washers both sides*

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

Thickness of tube plates $\frac{5}{8}$

Stayed by *Tube stays with nuts* pitch of stays *12 3/4" x 17" H.*

Description of steam receiver *Vertical Domb*

Diameter of ditto *3" 6" inside* length of ditto *4" 0"*

Thickness of plating of ditto $\frac{3}{8}$ & $\frac{1}{2}$ ends $\frac{9}{16}$

Ends, how stayed *by two vertical stays 2 1/2" diam through shell*

and top of domb. shell strengthened by angle iron

Working Pressure shell $\frac{515 \cdot 20 \times 1.3 \times .75}{115 \cdot 7 \times 6 \cdot 5} = 66.6 \text{ lb}$

" " *screw stays* $\frac{100 \times 7^2}{7 \times 10} = 70$ " 4897 lb

" " *Bolt* " $\frac{100 \times 9^2}{12 \frac{1}{2} \times 15} = 43$ " 4514 lb

" " *furnaces* $\frac{89600 \times .13}{36 \times 5} = 64$ " ~~4897~~