

18013 *Ln*Port *Dundee**Reu 22/8/99*
March 1897Details of Main Boilers of the Steam Ship *Bonnie Dundee* $\frac{193.38}{121.24}$ tonsDiameter *9" 9" outside* Length *7" 3" outside*Thickness of shell plates *$\frac{11}{16}$ "*Description of riveting of longitudinal joints *Double butt* of circumferential joints *Double lap*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 $4" \times 3\frac{1}{2}" \times \frac{11}{16}"$* 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 *$1\frac{3}{4}"$ upper row $1\frac{1}{2}"$* pitch of stays *$7" \times 10"$* End plates, thickness *$\frac{9}{16}$ "*Diameter of longitudinal stays to end plates *$1\frac{1}{8}"$* pitch of ditto *$12\frac{1}{2}" \times 17"$* How stays are secured *through end plates Nuts and washers both sides*Diameter of tubes *3" outside* pitch of tubes *$4\frac{1}{4}" \times 4\frac{1}{4}"$* Thickness of tube plates *$\frac{5}{8}"$* Stayed by *Tube stays with Nuts* pitch of stays *$12\frac{3}{4}" \times 17"$ 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 $2\frac{1}{2}"$ diam through shell**and top of domb. shell strengthened by angle iron**Working Pressure Shell* $\frac{515.20 \times 1.3 \times .75}{115.7 \times 6.5} = 66.6 \text{ lb}$ *" " 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~~*John Sturrock*

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Foundation