

# Details of Main Boilers of the Steam Ship

Port

West Hartlepool C. 16 Nov 1897  
Glenheim 3467 tons

Diameter 12' 10" Length 10' 3"

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

Description of riveting of longitudinal joints Double of circumferential joints Double

Pitch of rivets ditto  $4\frac{3}{16}$  ditto 3

Diameter of rivets ditto 1' 8 ditto 1' 8

Lap of plating ditto Double Butt Straps ditto 5"

Size of manholes in circular shell End of boiler 15 x 11

How compensated for Rectangular plate

Number of furnaces in boiler 3

Diameter of furnaces 3' 0" Length of furnaces 7' 3"

Thickness of furnace plates  $\frac{1}{2}$ "

Description of joint of furnaces Lap Double riveted

Whether strengthened with rings No Greatest length between rings

Thickness of combustion chamber plating  $\frac{1}{4}$ "

Diameter of screw stays to ditto  $1\frac{1}{4}$  pitch of stays  $1\frac{3}{4} \times 1\frac{1}{2}$

End plates, thickness  $\frac{13}{16}$

Diameter of longitudinal stays to end plates  $2\frac{1}{8}$  pitch of ditto  $1\frac{1}{2} \times 13$

How stays are secured Nuts & washers

Diameter of tubes  $3\frac{3}{4}$  pitch of tubes  $4\frac{1}{2} \times 4\frac{1}{2}$

Thickness of tube plates  $\frac{5}{16}$

Stayed by Stay tubes pitch of stays  $9 \times 13\frac{1}{2}$

Description of steam receiver Cylindrical Conical ends

Diameter of ditto 3' 0" length of ditto 6' 6"

Thickness of plating of ditto  $\frac{1}{16}$  ends  $\frac{1}{2}$

Ends, how stayed No stays

$$\text{Shell } \frac{51520 \times 1\frac{3}{4} \times \frac{1}{3}}{154 \times 6.5} = 65 \text{ lbs Working pressure}$$

$$\text{Furnaces } \frac{89600 \times \frac{1}{2}}{7.3 \times 36} = 83$$

$$\text{Flat plates between secured stays } \frac{100 \times \frac{1}{2}}{1\frac{3}{4}} \frac{1}{1}$$

James Ramsay

Engineer Surveyor to Lloyd's Register of Shipping.