

17157 Iron

Port

Sunderland Oct 4th 1876
"Osian" 1211.37 tons
Re 16/10/76

Details of Main Boilers of the Steam Ship

Diameter 12' 5" Length 10' 6"

Thickness of shell plates $\frac{7}{8}$ Description of riveting of longitudinal joints *Double zig zag* of circumferential joints *zig zag*Pitch of rivets ditto $3\frac{3}{4}$ ditto $3\frac{3}{8}$ Diameter of rivets ditto $1\frac{1}{16}$ ditto $1\frac{1}{16}$ Lap of plating ditto $6\frac{1}{4}$ ditto $5\frac{1}{8}$ Size of manholes in circular shell $15' \times 12'$ How compensated for *Plak $31' \times 28' \times \frac{1}{8}$* 

Number of furnaces in boiler 3

Diameter of furnaces $2' 11"$ outside Length of furnaces $8' 0"$ Thickness of furnace plates $\frac{1}{2}$ Description of joint of furnaces *Butt. Double straps*Whether strengthened with rings *No* Greatest length between rings *n*Thickness of combustion chamber plating $\frac{1}{16}$ Diameter of screw stays to ditto $1\frac{3}{16}$ effective pitch of stays $8' \times 8\frac{1}{8}"$ End plates, thickness $\frac{3}{4}$ Diameter of longitudinal stays to end plates $2"$ effective pitch of ditto $15' \times 12"$ How stays are secured *Nuts inside and out*Diameter of tubes $3\frac{1}{2}$ pitch of tubes $4\frac{3}{4} \times 4\frac{3}{4}$ Thickness of tube plates $\frac{5}{8}$ Stayed by *Solid Stays 2" dia* pitch of stays $14\frac{1}{4} \times 9\frac{1}{2}$ Description of steam receiver *Horizontal. Flat ended*Diameter of ditto $3' 6"$ inside length of ditto $4' 0"$ Thickness of plating of ditto $\frac{3}{8}$ ends $\frac{1}{16}$ Ends, how stayed *4 Stays in receiver $1\frac{1}{2}$ effective diameter.**Longitudinal seams of receiver double riveted. Nuts $\frac{3}{4}$ Pitch 3"**Shell $51520 \times 1\frac{3}{4} \times \frac{1}{16} = 66$ lbs working pressure* *149×6.5* *Furnaces $89600 \times .5^2 = 93$ lbs* *8×30* *Combustion Chamber Plates $150 \times \frac{1}{2} = \frac{1}{5}$ lbs* *$8 \times 8\frac{1}{2}$*

Engineer Surveyor to Lloyd's Register of Shipping.