

1766 from

Dundee District.

Port

Montrose Feb. 9 1877

Details of Main Boilers of the Steam Ship

City of Gloucester 235.21 tons

Diameter 10' 6" outside

Length 9' 0" outside

Thickness of shell plates

$\frac{13}{16}$ "

Description of riveting of longitudinal joints

Double But

of circumferential joints

Single Lap

Pitch of rivets

ditto

$3\frac{3}{8}$ "

ditto

$2\frac{1}{2}$ "

Diameter of rivets

ditto

$\frac{15}{16}$ "

ditto

$\frac{15}{16}$ "

Lap of plating

ditto

11"

ditto

3"

Size of manholes in circular shell

16" x 12"

How compensated for

by flat ring 4" x $\frac{3}{4}$ "

Number of furnaces in boiler

Two

Diameter of furnaces

36"

Length of furnaces

6' 3"

Thickness of furnace plates

$\frac{7}{16}$ "

Description of joint of furnaces

But double strap single riveted

Whether strengthened with rings

None

Greatest length between rings

—

Thickness of combustion chamber plating

$\frac{1}{2}$ "

Top only $\frac{7}{16}$ "

Diameter of screw stays to ditto

$1\frac{1}{4}$ "

pitch of stays

8" x $7\frac{1}{2}$ "

End plates, thickness

$\frac{5}{8}$ "

Diameter of longitudinal stays to end plates

2"

pitch of ditto

14" x 12"

How stays are secured

through end plates with nuts both sides

Diameter of tubes

$3\frac{1}{4}$ " outside diam

pitch of tubes

$4\frac{1}{2}$ " x $4\frac{1}{2}$ "

Thickness of tube plates

$\frac{5}{8}$ "

Stayed by

Tube stays screwed through plates with nuts

$13\frac{1}{2}$ " x $13\frac{1}{2}$ "

Description of steam receiver

Vertical Domb

Diameter of ditto

2' 5" inside

length of ditto

4' 0" high

Thickness of plating of ditto

$\frac{3}{8}$ "

ends

$\frac{3}{8}$ "

Ends, how stayed

by two upright stays 2" diam compensation ring riveted to shell 4" x $\frac{3}{4}$ "

Working Pressure Shell

$$\frac{51520 \times 1.62 \times 72}{124.38 \times 6.5} = 74.36$$

"

"

Furnaces

$$\frac{89600 \times 1.8}{6.25 \times 3.6} = 71.6$$

"

"

Bolt stays flat plates

$$\frac{100 \times 10^2}{14 \times 12} = 59 \text{ " Chain 37456}$$

"

"

Screw " " "

$$\frac{100 \times 8^2}{8 \times 7.5} = 106 \text{ " 4200}$$

John Sturrock

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Lloyd's Register Foundation