

16466 Iron

Port Sunderland May 24th 1876

Boilers of Main Boilers of the Steam Ship "Hidgeon" 503.42 tons

Diameter 11' 8 1/4" inside Length 10' 6"

Thickness of shell plates 1/8"

Description of riveting of longitudinal joints Double chain of circumferential joints Double

Pitch of rivets ditto 3 1/2 ditto 3 1/2

Diameter of rivets ditto 1" ditto 1 1/16"

Lap of plating ditto Double straps 12 1/4" broad ditto 5 1/8"

Size of manholes in circular shell 16" dia of malleable iron pipe to receiver

How compensated for Flange of Pipe x 3/16

Number of furnaces in boiler 3

Diameter of furnaces 3' 0" outside Length of furnaces 4' 9"

Thickness of furnace plates 1/2"

Description of joint of furnaces Lap Single riveted

Whether strengthened with rings 880 Greatest length between rings 1'

Thickness of combustion chamber plating 1/2"

Diameter of screw stays to ditto 1 1/4" outside pitch of stays 9 x 8

End plates, thickness 5/8"

Diameter of longitudinal stays to end plates 1 3/4" effective pitch of ditto 12 x 13 3/4"

How stays are secured Nuts inside and out

Diameter of tubes 3" outside pitch of tubes 4 3/8" x 4 3/8"

Thickness of tube plates 5/8"

Stayed by Stay tubes pitch of stays 8 3/4" x 8 3/4"

Description of steam receiver Horizontal Cylindrical

Diameter of ditto 3 ft 8 in length of ditto 4' 11 1/2"

Thickness of plating of ditto 1/16" flat ends 5/8"

Ends, how stayed 6 stays in receiver 2" dia

Shell $\frac{51520 \times 1.34 \times 7.4}{140.75 \times 6.5} = 40 \text{ lbs working pressure}$

Flat Plates between screwed stays $\frac{100 \times 8^2}{8.75 \times 8.75} = 83 \text{ lbs "}$

Furnaces $\frac{89600 \times .5^2}{7.75 \times 36} = 80 \text{ lbs "}$

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