

REPORT ON MACHINERY.

No. *6634*

No. in Survey held at *Glasgow*
Reg. Book.

Date, first Survey *27th Sept 1883* Last Survey *4th Sept 1884*
(Number of Visits *32*)

on the *S. S. "Atlantis."* Tons *1475.42*
949.44

Master *J. Wandle* Built at *Glasgow* By whom built *J. & G. Thomson* When built *1884*

Engines made at *Glasgow* By whom made *do* when made *do*

Boilers made at *do* By whom made *do* when made *do*

Registered Horse Power *120* Owners *Scrutton Sons & Co.* Port belonging to *London*

ENGINES, &c.—

Description of Engines *Compound Inverted Direct Acting*

Diameter of Cylinders *30" & 56"* Length of Stroke *36"* No. of Rev. per minute *75* Point of Cut off, High Pressure *Var* Low Pressure *do*

Diameter of Screw shaft *10 1/2"* Diam. of Tunnel shaft *9 3/4"* Diam. of Crank shaft journals *10 1/2"* Diam. of Crank pin *10 1/2"* size of Crank webs *6 1/2" x 12"*

Diameter of screw *13'-0"* Pitch of screw *15'-0"* No. of blades *4* state whether moveable *yes* total surface *58 ft*

No. of Feed pumps *2* diameter of ditto *4"* Stroke *18"* Can one be overhauled while the other is at work *yes*

No. of Bilge pumps *2* diameter of ditto *4"* Stroke *18"* Can one be overhauled while the other is at work *yes*

Where do they pump from *All Compartments*

No. of Donkey Engines *One* Size of Pumps *4" x 9" Stroke* Where do they pump from *Sea, Hotwell & Bilges*

Are all the bilge suction pipes fitted with roses *yes* Are the roses always accessible *yes* Are the sluices on Engine room bulkheads always accessible *yes*

No. of bilge injections *One* and sizes *3 1/2"* Are they connected to condenser, or to circulating pump *Circ pump*

How are the pumps worked *by levers*

Are all connections with the sea direct on the skin of the ship *yes* Are they Valves or Cocks *both*

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates *yes* Are the discharge pipes above or below the deep water line *above*

Are they each fitted with a discharge valve always accessible on the plating of the vessel *yes* Are the blow off cocks fitted with a spigot and brass covering plate *yes*

What pipes are carried through the bunkers *For bilge suction* How are they protected *wood flooring*

Are all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times *yes*

Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges *yes*

When were stern tube, propeller, screw shaft, and all connections examined in dry dock *on stocks before launching*

Is the screw shaft tunnel watertight *yes* and fitted with a sluice door *yes* worked from *upper platform*

BOILERS, &c.—

Number of Boilers *One* Description *Round Horizontal* Whether Steel or Iron *Steel*

Working Pressure *90 lbs* Tested by hydraulic pressure to *180 lbs* Date of test *23rd May 1884*

Description of superheating apparatus or steam chest *Horizontal dome*

Can each boiler be worked separately *no* Can the superheater be shut off and the boiler worked separately *no*

No. of square feet of fire grate surface in each boiler *95* Description of safety valves *d. spring* No. to each boiler *Two*

Area of each valve *23.75"* Are they fitted with easing gear *yes* No. of safety valves to superheater *no* area of each valve *no*

Are they fitted with easing gear *no* Smallest distance between boilers and bunkers or woodwork *12"* Diameter of boilers *12'-10 1/8"*

Length of boilers *15'-0"* description of riveting of shell long. seams *rib. butt* circum. seams *d. lap* Thickness of shell plates *13/16"*

Diameter of rivet holes *15/16"* whether punched or drilled *drilled* pitch of rivets *4 1/2"* Lap of plating *no*

Per centage of strength of longitudinal joint *77* working pressure of shell by rules *100 lbs* size of manholes in shell *16" x 12"*

Size of compensating rings *Angle Iron 4 1/2" x 4 1/2" x 5/8"* No. of Furnaces in each boiler *Six*

Outside diameter *3'-3"* length, top *5'-6"* bottom *through* thickness of plates *1/2"* description of joint *d. butt* if rings are fitted *L. Iron*

Greatest length between rings *5'-6"* working pressure of furnace by the rules *100 lbs* combustion chamber plating, thickness, sides *1/2"* back *no* top *1/2"*

Pitch of stays to ditto, sides *8" x 8 1/2"* back *no* top *Girders* stays are fitted with nuts or riveted heads *Nuts* working pressure of plating by rules *100 lbs* Diameter of stays at smallest part *1 1/4"* working pressure of ditto by rules *104 lbs* end plates in steam space, thickness *2 1/32"*

Pitch of stays to ditto *17" x 17"* how stays are secured *d. nuts & riv. w.* working pressure by rules *100 lbs* diameter of stays at smallest part *2 3/8"* working pressure by rules *90 lbs* Front plates at bottom, thickness *5/8"* Back plates, thickness *5/8"*

Greatest pitch of stays *no* working pressure by rules *no* Diameter of tubes *3"* pitch of tubes *4 1/2"* thickness of tube plates, front *19/16"* back *19/16"* how stayed *d. tubes* pitch of stays *13 1/2" x 9"* width of water spaces *5 1/8" x 1 1/2"*

Diameter of Superheater or Steam chest *36"* length *10'-0"* thickness of plates *1/2"* description of longitudinal joint *lap* diam. of rivet holes *7/8"*

Pitch of rivets *2 3/4"* working pressure of shell by rules *203 lbs* diameter of flue *no* thickness of plates *no* If stiffened with rings *no*

Distance between rings *no* working pressure by rules *no* end plates of superheater, or steam chest; thickness *5/8"* how stayed *three*

Stays 2 1/4" dia. rivet dished Superheater or steam chest; how connected to boiler *Welded*

(State if Rep. sent on the Hull of Ship)

[Form No. 8—2000—22/5/83.]

6634 gl

DONKEY BOILER—

Description

Round Vertical

Made at Glasgow

by whom made

J & G. Thomson

when made 1884

where fixed

Fore & Aft

Working pressure

60 lbs

tested by hydraulic pressure to 120 lbs

No. of Certificate

1373

fire grate area

22 ft²

description of safety

valves

d. Spring

No. of safety valves

2

area of each

4"

if fitted with easing gear

yes

if steam from main boilers can

enter the donkey boiler

No.

diameter of donkey boiler

6'-0"

length

13'-0"

description of riveting

double lap

Thickness of shell plates

3/8"

diameter of rivet holes

3/4"

whether punched or drilled

rim

pitch of rivets

3"

lap of plating

3 1/2"

per centage of strength of joint

75

thickness of crown plates

1/2"

stayed by

5 stays 1 1/2" diameter

Diameter of furnace, top

4'-6 1/2"

bottom

5'-3"

length of furnace

5'-11"

thickness of plates

1/2"

description of joint

lap

Thickness of furnace crown plates

1/2" steel

stayed by

as above

working pressure of shell by rules

78 lbs

Working pressure of furnace by rules

64 lbs

diameter of uptake

15"

thickness of plates

3/8"

thickness of water tubes

3/8"

SPARE GEAR.

State the articles supplied:—

2 Prop. Blades, 2 Valve Rods, 1 Air pump rod, 1 Air pump link

link for Engine Crosshead, 1 set coupling bolts, 1 set main bearing Bolts, 1 Air pump motion link for pump crosshead

1 set connecting rod bolts for both top & bottom ends, 1 set each, Feed & Waste pump Valves, 1 Safety Valve spring for Main Boiler

12 Main Boiler tubes, 1 Main Boiler stay tube with nuts complete. Usual assortment of Bolts & nuts.

The foregoing is a correct description,

Jas. & Geo. Thomson, Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c.)

The above mentioned

Engines and Boilers are now completed & bound in a satisfactory manner & the Machinery is now in my opinion in a safe & good working condition and eligible to be noted in the Society's Register.

*L.M.C. 9. 84

Tracing of boiler attached to report
 J. & G. Thomson no 6156.

It is submitted that this
 vessel is eligible to have
 its registration & L.M.C. recorded
 Jm 8/9/84

The amount of Entry Fee £ 2 : 0 : 0 received by me,

Special .. £ 18 : 0 : 0

Donkey Boiler Fee .. £ 0 : 0 : 0

Certificate (if required) .. £ 0 : 0 : 0 5/9/1884

To be sent as per margin.

(Travelling Expenses, if any, £ ..)

Committee's Minute

TUESDAY 9 SEPT 1884

J. & G. Thomson

Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Glasgow.

Lloyd's Register
Foundation