

REPORT ON MACHINERY.

No. 6159

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

Date, first Survey *18.9.82* Last Survey *21st June 1883*

on the *S. S. Sargasso*
Master *George Morris*

(Number of Visits) *1490.10*
Tons *960.48*

Built at *Glasgow*

When built *1883*

Engines made at *Glasgow*

By whom made *J. & G. Thomson* when made *1883*

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" x 56"* Length of Stroke *36"* No. of Rev. per minute *12* Point of Cut off, High Pressure *25"* Low Pressure *20"*

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

Diameter of screw *12'-2"* Pitch of screw *16'-3"* No. of blades *4* state whether moveable *yes* total surface *5409 sq. 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" at* Where do they pump from *All Compartments*

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 *Cir 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 *below*

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 *Bilge suction to for? holders* How are they protected *wooden casing*

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 *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 *Double Ended Multitubular Cylindrical*

Working Pressure *90 lbs* Tested by hydraulic pressure to *180 lbs* Date of test *2nd May 1883*

Description of superheating apparatus or steam chest *Horizontal Chest*

Can each boiler be worked separately *—* Can the superheater be shut off and the boiler worked separately *—*

No. of square feet of fire grate surface in each boiler *95.14 sq. ft.* Description of safety valves *Direct Spring*

No. to each boiler *two* area of each valve *23.45* Are they fitted with easing gear *yes*

No. of safety valves to superheater *—* area of each valve *—* are they fitted with easing gear *—*

Smallest distance between boilers and bunkers or woodwork *15"*

Diameter of boilers *13'-0"* Length of boilers *15'-0"* Description of riveting of shell long. seams *Treble butt strap* seams *double Lap*

Thickness of shell plates *3/8"* diameter of rivet holes *5/8"* whether punched or drilled *drilled* pitch of rivets *4 1/2"*

Lap of plating *5"* 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 *(7'-4)" through furnace*

Thickness of plates *3/8"* description of joint *double butt* if rings are fitted *Tiron* greatest length between rings *5'-0"*

Working pressure of furnace by the rules *100 lbs*

Combustion chamber plating, thickness, sides *3/8"* back *—* top *3/8"*

Pitch of stays to ditto, sides *8" x 8 1/2"* back *—* top *binders*

If stays are fitted with nuts or riveted heads *Nuts* working pressure of plating by rules *106 lbs*

Diameter of stays at smallest part *1 1/4"* working pressure of ditto by rules *104 lbs*

End plates in steam space, thickness *27/32* pitch of stays to ditto *17" x 17"* how stays are secured *nut washers double nuts*

Working pressure by rules *90 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 *—* greatest pitch of stays *—* working pressure by rules *—*

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Diameter of tubes 3" pitch of tubes 4 1/4 x 4 1/4" thickness of tube plates, front 5/8" back 5/8"
How stayed stay tubes pitch of stays 13 1/2 x 9" width of water spaces 6"
Diameter of Superheater or Steam chest 3'-0" length 10'-0"
Thickness of plates 1/2" description of longitudinal joint Lap diameter of rivet holes 7/8" pitch of rivets 2 1/2"
Working pressure of shell by rules 203 lb Diameter of flue thickness of plates
If stiffened with rings distance between rings Working pressure by rules
End plates of superheater, or steam chest; thickness 5/8" How stayed Three Steel Stays 2 1/4" diam.
Superheater or steam chest; how connected to boiler with throat.

DONKEY BOILER— Description Cylindrical Vertical.
Made at Glasgow By whom made J. & G. Thomson when made 1883.
Where fixed stoke hold working pressure 60 lb. Tested by hydraulic pressure to 120 lb. No. of Certificate 1083 2/4
Fire grate area 22 sq ft. Description of safety valves Direct Spring No. of safety valves 2 area of each 7"
If fitted with easing gear yes If steam from main boilers can enter the donkey boiler no.
Diameter of donkey boiler 6'-0" height 13'-0" description of riveting double.
thickness of shell plates 3/8" steel diameter of rivet holes 3/4" whether punched or drilled punched.
pitch of rivets 3" lap of plating 3 3/4" per centage of strength of joint 75.
thickness of crown plates 1/2" stayed by 5 stays 1 1/2" diam.
Diameter of furnace, top 4'-6 1/2" bottom 5'-3" length of furnace 5'-11"
thickness of plates 1/2" steel description of joint Lap.
thickness of furnace crown plates 1/2" steel stayed by 5 stays 1 1/2" diameter.
Working pressure of shell by rules 78 lb working pressure of furnace by rules 72 lb.
diameter of uptake 15" thickness of plates 3/8" thickness of water tubes 3/8"

The foregoing is a correct description,
James & George Thomson Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c. The above mentioned Engine and Boilers are now completed on board. The material and workmanship good and the machinery is in my opinion in good and safe working condition and eligible to be noted in Society's Register Book:
* L.M.C. 6.83.

What was
done to
the
engine
and
boilers
on
June
26
1883
+ 6.6.83
recovered

The amount of Entry Fee £ 2: 0: 0 received by me,
Special £ 18: 0: 0
Certificate (if required) £ 20/6 1883
(To be sent as per margin.)
(Travelling Expenses, if any, £)
Committee's Minute TUESDAY 26 JUNE 1883 18

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

Clyde District
Lloyd's Register
Foundation