

# REPORT ON MACHINERY.

52480

Port of *London* 19<sup>th</sup> Nov 1891

FRI 20 NOV 1891

No.

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

Date, first Survey *5<sup>th</sup> Jan 91* Last Survey *9<sup>th</sup> Nov 1891*

(Number of Visits *18*)

on the

*S.S. "Martin"*

Tons { Gross  
Net

Master

Built at

By whom built

When built

Engines made at

By whom made

when made

Boilers made at *Deptford*

By whom made *The Genl St. Mar. Co<sup>ys</sup>*

when made *1891*

Registered Horse Power

Owners *The Genl St. Mar. Co<sup>ys</sup>*

Port belonging to *London*

## ENGINES, &c.—

Description of Engines

No. of Cylinders

Diam. of Cylinders

Length of Stroke

Rev. per minute

Point of Cut off, High Pressure

Low Pressure

Diameter of Screw shaft

Diam. of Tunnel shaft

Diam. of Crank shaft journals

Diam. of Crank pin

size of Crank webs

Diameter of screw

Pitch of screw

No. of blades

state whether moveable

total surface

No. of Feed pumps

diameter of ditto

Stroke

Can one be overhauled while the other is at work

No. of Bilge pumps

diameter of ditto

Stroke

Can one be overhauled while the other is at work

Where do they pump from

No. of Donkey Engines

Size of Pumps

Where do they pump from

Are all the bilge suction pipes fitted with roses

Are the roses always accessible

Are the sluices on Engine room bulkheads always accessible

No. of bilge injections

and sizes

Are they connected to condenser, or to circulating pump

How are the pumps worked

Are all connections with the sea direct on the skin of the ship

Are they Valves or Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates

Are the discharge pipes above or below the deep water line

Are they each fitted with a discharge valve always accessible on the plating of the vessel

Are the blow off cocks fitted with a spigot and brass covering plate

What pipes are carried through the bunkers

How are they protected

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

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

When were stern tube, propeller, screw shaft, and all connections examined in dry dock

Is the screw shaft tunnel watertight

and fitted with a sluice door

worked from

## BOILERS, &c.—

No. of Boilers *Two*

Description *Horizontal Multitubular*

Material *Steel*

Letter (for record) *S*

Working Pressure *42 lbs*

Tested by hydraulic pressure to *144 lbs*

Date of test *16<sup>th</sup> Sept 1891*

Description of superheating apparatus or steam chest *None fitted*

Can each boiler be worked separately *Yes*

Can the superheater be shut off and the boiler worked separately *Yes*

No. of square feet of fire grate surface in each boiler *54.5 sq*

Description of safety valves *Spring*

No. to each boiler *Two*

Area of each valve *14.19*

Are they fitted with easing gear *Yes*

No. of safety valves to superheater *Yes*

area of each valve *Yes*

Are they fitted with easing gear *Yes*

Smallest distance between boilers and bunkers or woodwork *9"*

Diameter of boilers *12' 0"*

Length of boilers *10' 0"*

description of riveting of shell long. seams *double butt*

circum. seams *double lap*

Thickness of shell plates *1 1/16"*

Diameter of rivet holes *1 1/16"*

whether punched or drilled *drilled*

pitch of rivets *3 3/4" x 3"*

Lap of plating *4 3/8" x 4 3/8"*

Per centage of strength of longitudinal joint *95.2%*

working pressure of shell by rules *88 lbs*

size of manholes in shell *15" x 12"*

Size of compensating rings *2' 7" x 2' 4" x 1 1/16"*

No. of Furnaces in each boiler *Three*

Description of Furnaces *Plain*

Outside diameter *37"*

length *6' 11"*

thickness of plates *1/2"*

description of joint *lap double riveted* if rings are fitted *Yes*

Greatest length between rings *6' 9"*

working pressure of furnace by the rules *89 lbs*

combustion chamber plating, thickness, sides *1/2"*

back *1/2"*

top *1/2"*

Pitch of stays to ditto, sides *9"*

back *9" x 8 1/2" top 12"*

If stays are fitted with nuts or riveted heads *None*

working pressure of plating by rules *95.5%*

Diameter of stays at smallest part *1 3/4" x 1 3/8"*

working pressure of ditto by rules *148*

end plates in steam space, thickness *3/4"*

Pitch of stays to ditto *17" x 17"*

how stays are secured *double plate + nut*

working pressure by rules *80 lbs*

diameter of stays at smallest part *2 1/32"*

working pressure by rules *100 lbs*

Front plates at bottom, thickness *1/16"*

Greatest pitch of stays *Quadrant*

working pressure by rules *110 lbs*

Diameter of tubes *3"*

pitch of tubes *4 3/8" x 4 3/8"*

thickness of tube plates, front *1/16"*

back *1/16"*

how stayed *Tubes*

pitch of stay tubes *8 1/2" x 12 3/8"*

Diameter of Superheater or Steam chest

length

thickness of plates

description of longitudinal joint

diam. of rivet holes

Pitch of rivets

working pressure of shell by rules

diameter of flue

thickness of plates

If stiffened with rings

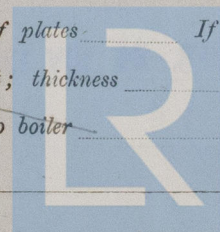
Distance between rings

working pressure by rules

end plates of superheater, or steam chest; thickness

how stayed

Superheater or steam chest; how connected to boiler



Lloyd's Register  
Foundation

LON 694-0359



52480. Lm.

DONKEY BOILER— Description *Vertical*  
 Made at *Deptford* by whom made *Genl. St. John: 6<sup>th</sup>* when made *1891* where fixed *on board*  
 Working pressure *70 lbs* tested by hydraulic pressure to *140 lbs* No. of Certificate *234* fire grate area *19'6"* description of safety  
 valves *Spring* No. of safety valves *two* area of each *8'3"* if fitted with easing gear *yes* if steam from main boilers can  
 enter the donkey boiler *no* diameter of donkey boiler *6'0"* length *12'0"* description of riveting *(Vertical) double (Circ.) single*  
 Thickness of shell plates *1/2"* diameter of rivet holes *15/16* whether punched or drilled *drilled* pitch of rivets *3"x2"* lap of plating *4 1/2 + 2 1/8*  
 per centage of strength of joint *71.4* thickness of crown plates *3/4* stayed by *6 Iron stays (round) 1 1/8* smallest dia.  
 Diameter of furnace, top *4'9 1/2"* bottom *5'2 1/4"* length of furnace *5'0"* thickness of plates *1/2"* description of joint *Single lap*  
 Thickness of furnace crown plates *9/16* stayed by *6 Crown stays* working pressure of shell by rules *106 lbs*  
 Working pressure of furnace by rules *74.6 lbs* diameter of uptake *15"* thickness of plates *1/2 Iron* thickness of water tubes *3/8 Iron*

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,

Manufacturer

*John Preston.*

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

*The dimensions given on the other side & above are for three steel  
 boilers, built under Special Survey, the materials & workmanship  
 are good and efficient. — Each boiler was subjected to a hydraulic  
 test equal to twice their working pressure, afterwards satisfactorily  
 tested under steam.  
 In my opinion this vessel is eligible to have the notation **NB 11.91**  
 recorded in the register book.*

Certificate (if required) to be sent to

The amount of Entry Fee .. £  
 Special .. .. £  
 Donkey Boiler Fee .. .. £

*See report on  
 machinery for fees*

received by me,

18

(Travelling Expenses, if any, £)

Committee's Minute **TUES. 24 NOV 1891**

*Robt. Balfour*

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



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