

# REPORT ON MACHINERY.

3-1761

Port of *London*

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No. *London* Date, first Survey *14<sup>th</sup> July 1890* Last Survey *26<sup>th</sup> April 1891*  
 Reg. Book. *London* (Number of Visits *12*)  
 on the *SS "Parnicoan"* Tons { Gross \_\_\_\_\_ Net \_\_\_\_\_  
 Master \_\_\_\_\_ Built at *Dundee* By whom built *Gourlay Bros.* When built *1891*  
 Engines made at *Deptford* By whom made *Genl. Steam Nav. Co.* when made *1891*  
 Boilers made at *Dundee* By whom made *Gourlay Bros.* when made *1890*  
 Registered Horse Power *120* Owners *Genl. Steam Nav. Co.* Port belonging to *London*

## ENGINES, &c.—

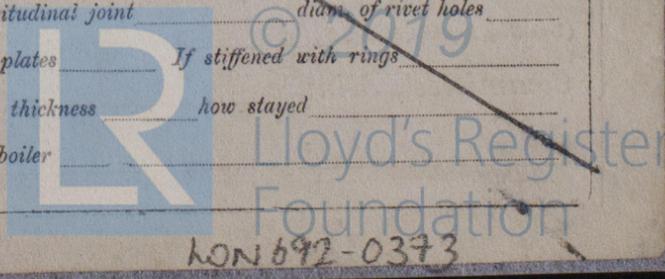
Description of Engines *Triple expansion* No. of Cylinders *Three*  
 Diam. of Cylinders *17" 27 1/2" x 45"* Length of Stroke *36"* Rev. per minute *80* Point of Cut off, High Pressure *3/8"* Low Pressure *1/2"*  
 Diameter of Screw shaft *10 1/8"* Diam. of Tunnel shaft *10"* Diam. of Crank shaft journals *9 1/2"* Diam. of Crank pin *9 1/2"* size of Crank webs *6" x 11 3/4"*  
 Diameter of screw *12' 6"* Pitch of screw *13' 0"* No. of blades *4* state whether moveable *no* total surface *44 sq ft*  
 No. of Feed pumps *2* diameter of ditto *2 1/2"* Stroke *18"* Can one be overhauled while the other is at work *yes*  
 No. of Bilge pumps *2* diameter of ditto *3* Stroke *18"* Can one be overhauled while the other is at work *yes*  
 Where do they pump from *Engine room, Stokhold and all compartments*  
 No. of Donkey Engines *2* Size of Pumps *3" x 6" x 6"* Where do they pump from *all tanks, bilges and sea*

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 *1* and sizes *6"* Are they connected to condenser, or to circulating pump *Circ. pump*  
 How are the pumps worked *by levers for main engines*  
 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 *none* How are they protected \_\_\_\_\_  
 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 \_\_\_\_\_  
 Is the screw shaft tunnel watertight *none* and fitted with a sluice door *none* worked from \_\_\_\_\_

## BOILERS, &c.—

No. of Boilers \_\_\_\_\_ Description \_\_\_\_\_ Material \_\_\_\_\_ Letter (for record) \_\_\_\_\_  
 Working Pressure \_\_\_\_\_ Tested by hydraulic pressure to \_\_\_\_\_ Date of test \_\_\_\_\_  
 Description of superheating apparatus or steam 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 \_\_\_\_\_ Description of safety valves \_\_\_\_\_ No. to each boiler \_\_\_\_\_  
 Area of each valve \_\_\_\_\_ Are they fitted with easing gear \_\_\_\_\_ No. of safety valves to superheater \_\_\_\_\_ area of each valve \_\_\_\_\_  
 Are they fitted with easing gear \_\_\_\_\_ Smallest distance between boilers and bunkers or woodwork \_\_\_\_\_ Diameter of boilers \_\_\_\_\_  
 Length of boilers \_\_\_\_\_ description of riveting of shell long. seams \_\_\_\_\_ circum. seams \_\_\_\_\_ Thickness of shell plates \_\_\_\_\_  
 Diameter of rivet holes \_\_\_\_\_ whether punched or drilled \_\_\_\_\_ pitch of rivets \_\_\_\_\_ Lap of plating \_\_\_\_\_  
 Percentage of strength of longitudinal joint \_\_\_\_\_ working pressure of shell by rules \_\_\_\_\_ size of manholes in shell \_\_\_\_\_  
 Size of compensating rings \_\_\_\_\_ No. of Furnaces in each boiler \_\_\_\_\_ Description of Furnaces \_\_\_\_\_  
 Outside diameter \_\_\_\_\_ length \_\_\_\_\_ thickness of plates \_\_\_\_\_ description of joint \_\_\_\_\_ if rings are fitted \_\_\_\_\_  
 Greatest length between rings \_\_\_\_\_ working pressure of furnace by the rules \_\_\_\_\_ combustion chamber plating, thickness, sides \_\_\_\_\_ back \_\_\_\_\_ top \_\_\_\_\_  
 Pitch of stays to ditto, sides \_\_\_\_\_ back \_\_\_\_\_ top \_\_\_\_\_ If stays are fitted with nuts or riveted heads \_\_\_\_\_ working pressure of plating by \_\_\_\_\_  
 rules \_\_\_\_\_ Diameter of stays at smallest part \_\_\_\_\_ working pressure of ditto by rules \_\_\_\_\_ end plates in steam space, thickness \_\_\_\_\_  
 Pitch of stays to ditto \_\_\_\_\_ how stays are secured \_\_\_\_\_ working pressure by rules \_\_\_\_\_ diameter of stays at \_\_\_\_\_  
 smallest part \_\_\_\_\_ working pressure by rules \_\_\_\_\_ Front plates at bottom, thickness \_\_\_\_\_ Back plates, thickness \_\_\_\_\_  
 Greatest pitch of stays \_\_\_\_\_ working pressure by rules \_\_\_\_\_ Diameter of tubes \_\_\_\_\_ pitch of tubes \_\_\_\_\_ thickness of tube \_\_\_\_\_  
 plates, front \_\_\_\_\_ back \_\_\_\_\_ how stayed \_\_\_\_\_ pitch of stays \_\_\_\_\_ width of water spaces \_\_\_\_\_  
 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 \_\_\_\_\_

[Form No. 8, 2000-7/12/89, T. & S. Copyable Ink.]



51761 Jan.

DONKEY BOILER— Description Vertical

Made at Deptford by whom made Gent. Steam Nav. Coy when made 1890 where fixed on board. Working pressure 50 lbs tested by hydraulic pressure to 100 lbs No. of Certificate 219 fire grate area 20 sq ft description of safety valves Spring No. of safety valves 2 area of each 7.06 if fitted with easing gear Yes if steam from main boilers can enter the donkey boiler No diameter of donkey boiler 5' 10 3/4 length 12' 0 1/2 description of riveting double lap Thickness of shell plates 1/2" diameter of rivet holes 3/4" whether punched or drilled punch-pitch of rivets 2 3/4 lap of plating 4" per centage of strength of joint 73% thickness of crown plates 1/2" stayed by Five 1 1/2" stays Diameter of furnace, top 5' 1 1/2" bottom 5' 1 1/2" length of furnace 5' 0" thickness of plates 1/2" description of joint single lap Thickness of furnace crown plates 1/2" stayed by Five 1 1/2" stays working pressure of shell by rules 79.8 Working pressure of furnace by rules 72.8 diameter of uptake 14" thickness of plates 1/2" thickness of water tubes 3/8

SPARE GEAR. State the articles supplied:—(2) connect<sup>g</sup> rod top end bolts & nuts, (2) connect<sup>g</sup> rod bottom end bolts & nuts, (2) main bearing bolts, (4) set of coupling bolts, (1) set of feed & bilge pump valves, R quantity of assorted bolts & nuts, Iron of various sizes, (1) pair of cross<sup>g</sup> brasses, (1) set of link brasses, (3) cyl<sup>l</sup> escape valve springs, (1) eccentric strip complete, (12) junk ring bolts, (1) valve spindle (interchangeable), 1 set of check valves.

The foregoing is a correct description, &c.: rod top end brasses, (1) guide shoe, (1) thrust block ring, (1) set corrug<sup>d</sup> air pump valves, (20) Condenser tubes, (60) screwed ferrules (brass), (1) set fire bar.

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

The foregoing particulars are for engines & donkey boiler built under special survey. The material used, and workmanship being of good quality & were examined from time to time during construction. Main & donkey boilers were tested under steam & their safety valves adjusted to blow at 100 lbs & 50 lbs pres: per sq" respectively. The whole work being carried out satisfactorily & in accordance with the Society's requirements. & in our opinion this vessel is eligible to have the Notification + LMC. 4.91 recorded in the register book.

The main boiler which was intended for the S.S. "Martin" as per attached report, has been fitted into this vessel.

It is submitted that this vessel is eligible to have + LMC. 4-91 recorded  
M.A.  
23.4.91

The amount of Entry Fee .. £ 2 : 0 : 0 } applied on 24/4/91 received by me,  
Special .. .. £ 12 : 15 : 0  
Donkey Boiler Fee .. .. £ .. : .. :  
Certificate (if required) .. £ .. : .. : 2/5 18 91  
To be sent as per margin.

(Travelling Expenses, if any, £ .. ..)

Committee's Minute TUES. 28 APR 1891

+ LMC 4/91

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



Lloyd's Register Foundation