

# REPORT ON MACHINERY.

8195

No. 8195 Port of Glasgow  
 No. in Survey held at Glasgow Date, first Survey 25<sup>th</sup> March 1884 Last Survey Oct 29<sup>th</sup> 1884  
 Book. on the S. S. Victoria (Number of Visits 29)  
 Master J. B. Martin Built at Glasgow By whom built A. Stephen & Son When built 1884  
 Engines made at Glasgow By whom made " " " " when made 1884  
 Boilers made at " By whom made " " " " when made 1884  
 Registered Horse Power 140 H.P. Owners MacLay, McIntyre & Managers Port belonging to Glasgow  
 Received at London Office 3 NOV 1887  
 Tons 1044

GINES, &c.—  
 Description of Engines Triple Expansion (3 Cranks)  
 Diameter of Cylinders 18" 29" 46" Length of Stroke 39" No. of Rev. per minute 75 Point of Cut off, High Pressure ☒ Low Pressure ☒  
 Diameter of Screw shaft 10" Diam. of Tunnel shaft 9 1/2" Diam. of Crank shaft journals 10" Diam. of Crank pin 10 1/2" size of Crank webs 4" x 11 1/2"  
 Diameter of screw 10 1/2" Pitch of screw 14:0" No. of blades 4 state whether moveable ☒ total surface 40 ft.  
 Diameter of Feed pumps 200 diameter of ditto 3 1/2" Stroke 21" Can one be overhauled while the other is at work ☒  
 Diameter of Bilge pumps 200 diameter of ditto 4 1/2" Stroke 21" Can one be overhauled while the other is at work ☒  
 Where do they pump from All Compartments  
 No. of Donkey Engines Two Size of Pumps 4" x 4 1/2" x 4" 8" x 8" x 8" Where do they pump from Sea Bilges Hotwell  
 Ballast Tank  
 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 One and sizes 4 1/2" Are they connected to condenser, or to circulating pumps ☒ Circulating  
 How are the pumps worked By Levers  
 Are all connections with the sea direct on the skin of the ship ☒ Are they Valves or Cocks Both  
 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 ☒ Below  
 Are 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 ☒  
 Are pipes carried through the bunkers None How are they protected ☒  
 Are pipes, cocks, valves, and pumps in connection with the machinery accessible at all times ☒  
 Are pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges ☒  
 Are stern tube, propeller, screw shaft, and all connections examined in dry dock On Ship before launching  
 Is shaft tunnel watertight ☒ and fitted with a sluice door ☒ worked from Upper Deck

&c.—  
 No. of Boilers One Description Round Horizontal Double ended Whether Steel or Iron Steel  
 Pressure 160 lbs Tested by hydraulic pressure to 320 lbs Date of test 14<sup>th</sup> Sept 1884  
 Steam pipes tested to 320 lbs 18<sup>th</sup> Oct 1884  
 Superheating apparatus or steam chest None  
 Can the superheater be worked separately ☒ Can the superheater be shut off and the boiler worked separately ☒  
 Square feet of fire grate surface in each boiler 62 ft Description of safety valves Direct Spring No. to each boiler Two  
 Diameter of valve 9.62" 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 20" Diameter of boilers 11.6"  
 Length of boiler 17 ft description of riveting of shell long. seams Double Straps double riveted circum. seams Double riveted Thickness of shell plates 1 1/16"  
 Diameter of end holes 1 1/2" whether, punched or drilled Drilled pitch of rivets 4 1/2" Lap of plating Straps 1 1/2" x  
 Length of longitudinal joint 83 ft working pressure of shell by rules 166 lbs size of manholes in shell 14 1/2" x 13 1/2"  
 Gasketing rings McNeil's patent doors with ring fitted No. of Furnaces in each boiler Four  
 Length of rings 3.4" length, top 4 ft bottom ☒ thickness of plates 1 1/32" description of joint Corrugated if rings are fitted ☒  
 Between rings ☒ working pressure of furnace by the rules 162 lbs combustion chamber plating, thickness, sides 1 1/32" back ☒ top 9/16"  
 Ditto, sides 4 x 7 1/2" back ☒ top 4 1/2 x 7 1/2" If stays are fitted with nuts or riveted heads Nuts working pressure of plating by  
 Diameter of stays at smallest part 1 1/2" working pressure of ditto by rules 190 lbs end plates in steam space, thickness 1 1/32"  
 Stays to ditto 16" x 16" how stays are secured By double nuts working pressure by rules 167 lbs diameter of stays at  
 Smallest part 2 1/4" = 4.91" effect area working pressure by rules 140 lbs Front plates at bottom, thickness 1 1/16" Back plates, thickness ☒  
 Pitch of stays ☒ working pressure by rules ☒ Diameter of tubes 3 1/2" pitch of tubes 4 3/4" x 4 5/8" thickness of tube  
 Ends, front 1 1/2" back 1 1/16" how stayed By tube pitch of stays 9 1/2" x 1 1/4" width of water spaces about 6"  
 Superheater or Steam chest None length ☒ thickness of plates ☒ description of longitudinal joint ☒ diam. of rivet holes ☒  
 Rivets ☒ working pressure of shell by rules ☒ diameter of flue ☒ thickness of plates ☒ If stiffened with rings ☒  
 Between rings ☒ working pressure by rules ☒ end plates of superheater, or steam chest; thickness ☒ how stayed ☒  
 Superheater or steam chest; how connected to boiler ☒

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DONKEY BOILER— Description *Round Vertical (Cross tube)*  
Made at *Glasgow* by whom made *A Stephenson & Sons* when made *1884* where fixed *Above main boiler*  
Working pressure *140 lbs* tested by hydraulic pressure to *140 lbs* No. of Certificate *1869* fire grate area *24 ft<sup>2</sup>* description of safety valves *Sweet Spring* No. of safety valves *Two* area of each *4"* if fitted with easing gear *Yes* if steam from main boilers enter the donkey boiler *Yes* diameter of donkey boiler *6' 6"* length *11' 3"* description of riveting *Double & single riv*  
Thickness of shell plates *1 3/32"* diameter of rivet holes *7/8"* whether punched or drilled *Drilled* pitch of rivets *3 1/4"* lap of plating *6"*  
per centage of strength of joint *65%* thickness of crown plates *1 9/16"* stayed by *nine stays 1 3/4" dia + 1 uptake*  
Diameter of furnace, top *5' 1"* bottom *5' 10"* length of furnace *5' 8"* thickness of plates *8/16"* description of joint *Lap*  
Thickness of furnace crown plates *9/16"* stayed by *As above* working pressure of shell by rules *49*  
Working pressure of furnace by rules *15* diameter of uptake *15* thickness of plates *8/16" iron* thickness of water tubes *7/16" x 1"*

SPARE GEAR. State the articles supplied:— *2 Connecting rod bolts for top & bottom ends. 2 main bolts. 1 set Coupling bolts. 1 Lead & bridge pump valve also 1 set India rubber valves. Assortment of bolts, nuts, iron boiler & Condenser tubes. 2 Propeller blades. Safety valve springs 1 set of Metallic valves for both. The foregoing is a correct description, Air & Circulating pumps*  
*A. L. Stephen & Sons Manufacturer.*

General Remarks (State quality of workmanship, opinions as to class, &c. *These Engines and Boilers are of good workmanship & materials and are now in order and safe working condition & eligible to be noted in the Register Book* *Lloyds M.C. 10/84*

*It is submitted that this vessel is eligible to have the notation + LMS 10.87 recorded*

*27 9/11/87*

*[Large blue circular stamp]*

The amount of Entry Fee ... £ *2* : - : - received by me,  
Special ... £ *25* : *10* : -  
Donkey Boiler Fee ... £ - : - : -  
Certificate (if required) ... £ - : - : - *31/10/87*  
To be sent as per margin. *4/6*  
(Travelling Expenses, if any, £ - *4/6*)  
Committee's Minute *FRIDAY 4 NOV 1887*

*James Morrison*  
Engineer Surveyor to Lloyd's Register of British & Foreign Ships  
*Clyde District*  
Lloyd's Register Foundation