

REPORT ON MACHINERY.

8982

No. 8982

Port of *Glasgow*

Received at London Office

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No. in Survey held at *Glasgow*

Date, first Survey *5th March 1888* Last Survey *Aug 19th 1889*

Reg. Book.

(Number of Visits)

Tons *283*

Master *James* Built at *Glasgow* By whom built *John Elder & Co* When built *1845-6*

Engines made at *Glasgow* By whom made *"* when made *1845-*

Boilers made at *"* By whom made *Fairfield S & Co* when made *1888-9*

Registered Horse Power *220* Owners *London Brighton & South Coast Railway Co* Port belonging to *Newhaven*

ENGINES, &c.—

Description of Engines *Oscillating*
 Diameter of Cylinders *41" & 42"* Length of Stroke *60"* No. of 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.—

Number of Boilers *Two* Description *Round Horizontal* Whether Steel or Iron *Steel*
 Working Pressure *80 lbs* Tested by hydraulic pressure to *160 lbs* Date of test *31/3/1888*
 Description of superheating apparatus or steam chest *None*
 Can each boiler be worked separately *Yes* Can the superheater be shut off and the boiler worked separately _____
 No. of square feet of fire grate surface in each boiler *72.5* Description of safety valves *Direct Spring* No. to each boiler *Two* area *14/19*
 Area of each valve *Two* 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 *1' 9"* Diameter of boilers *14" 2"*
 Length of boilers *8' 3"* description of riveting of shell long. seams *Double riveted* circum. seams *double riveted* Thickness of shell plates *2 1/2"*
 Diameter of rivet holes *7/8"* whether punched or drilled *Drilled* pitch of rivets *6" 3" & 1 1/8"* Lap of plating *Straps 1 1/2" x 10 1/2"*
 Per centage of strength of longitudinal joint *86%* working pressure of shell by rules *82 lbs* size of manholes *12" x 16"*
 Size of compensating rings *Layed rings* No. of Furnaces in each boiler *Three*
 Outside diameter *3' 7"* length, top *5' 6"* bottom *4' 6"* thickness of plates *8/16* description of joint *Butt Straps* if rings are fitted *one*
 Greatest length between rings _____ working pressure of furnace by the rules *93 lbs* combustion chamber plating, thickness, sides *7/16* back *7/16* top *7/16*
 Pitch of stays to ditto, sides *8" x 8"* back *8" x 8"* top *8" x 7 1/2"* stays are fitted with nuts or riveted heads *Nuts* working pressure of plating by rules *84 lbs* Diameter of stays at smallest part *1 1/2" = 7/8"* working pressure of ditto by rules *94 lbs* end plates in steam space, thickness *12/16"*
 Pitch of stays to ditto *15 1/2" x 15 1/2"* how stays are secured *by double nuts* working pressure by rules *90 lbs* diameter of stays at smallest part *2" = 2.4" area* working pressure by rules *85 lbs* Front plates at bottom, thickness *9/16* Back plates, thickness *9/16*
 Greatest pitch of stays _____ working pressure by rules _____ Diameter of tubes *2 1/2"* pitch of tubes *3 1/2" x 3 1/2"* thickness of tube plates, front *10/16"* back *10/16"* how stayed *by tubes* pitch of stays *10 1/2" x 10 1/2"* width of water spaces *6 1/2"*
 Diameter of Superheater or Steam chest *None* 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 _____

GLS157-0038

8982 Jps.

DONKEY BOILER— Description *Round Vertical*

Made at _____ by whom made _____ when made _____ where fixed _____

Working pressure *60 lbs* tested by hydraulic pressure to *120 lbs* No. of Certificate _____ fire grate area _____ description of safety valves _____

No. of safety valves _____ area of each _____ if fitted with easing gear _____ if steam from main boilers can enter the donkey boiler _____

diameter of donkey boiler _____ length _____ description of riveting _____

Thickness of shell plates _____ diameter of rivet holes _____ whether punched or drilled _____ pitch of rivets _____ lap of plating _____

per centage of strength of joint _____ thickness of crown plates _____ stayed by _____

Diameter of furnace, top _____ bottom _____ length of furnace _____ thickness of plates _____ description of joint _____

Thickness of furnace crown plates _____ stayed by _____ working pressure of shell by rules _____

Working pressure of furnace by rules _____ diameter of uptake _____ thickness of plates _____ thickness of water tubes _____

SPARE GEAR. State the articles supplied :—

The foregoing is a correct description,
Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c. *The new Boilers of this vessel have been made under survey, and large repairs have also been made upon the Machinery & Paddle wheels. viz new Pistons new quadrant braces, main braces fitted with white metal, new Slide valves, Union braces new, new wing block braces pumps all turned up & overhauled. New floats fitted on Paddle wheels and brackets rebushed with wood new reversing Donkey Engine, bilge pipes all replaced with new, and new sea cocks fitted on upper turn of bilges. Safety valves adjusted under steam & set to 80 lbs. Donkey Boiler examined & safety valves set to working pressure.*

The Machinery repairs have been satisfactorily carried out and the new Boilers made & fitted on board by Messrs The Laird & Co and are now in good working condition and eligible in my opinion to be noted in the Register Book N.B. & L.M.C. 1/89 Should the vessel be submitted for re-classification

It is submitted that this vessel is eligible to have LMC 1.89 + N.B. 89 recorded
M.D.
25.1.89

The amount of Entry Fee . . . £ . . . received by me,
Special . . . £ 10:10: ✓
Donkey Boiler Fee . . . £ . . . ✓
Certificate (if required) . . . £ . . . ✓
To be sent as per margin.
(Travelling Expenses, if any, £ . . .)

Committee's Minute
Not for Commerce

James Morrison
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.
Clyde District