

# REPORT ON MACHINERY.

8982

No. 8982

Port of Glasgow

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No. in Survey held at Glasgow

Date, first Survey 5<sup>th</sup> March 1888 Last Survey June 19<sup>th</sup> 1889

Reg. Book.

(Number of Visits)

20 283

on the "Paddle Steamer Paris"

Tons 483

Master Built at Glasgow By whom built Jm Elder & Coy 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 Coy 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 72.05 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 only at ends Thickness of shell plates 3/16"

Diameter of rivet holes 7/8" whether punched or drilled Drilled pitch of rivets 6" 3" 1/8" Lap of plating Straps 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 Looped 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 4/16 top 4/16

Pitch of stays to ditto, sides 8" x 8" back 8" x 8" top 8" x 7 3/4" If stays are fitted with nuts or riveted heads Nuts working pressure of plating by rules 84 lbs

Diameter of stays at smallest part 1 1/8" = 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

8982 *gs*

**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. By 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 Hoats 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 L.M.C. 1.89 + N.B. 89 recorded*  
*M.D.*  
*25.1.89*

The amount of Entry Fee . . . £ . . . received by me,  
 Special . . . £ *10:10:0*  
 Donkey Boiler Fee . . . £ . . .  
 Certificate (if required) . . . £ . . . *28/12/1888*  
 (Travelling Expenses, if any, £ . . .)

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

Committee's Minute  
*Not for Commerce*