

REPORT ON MACHINERY.

Port of *Glasgow*

Received at London Office **MON. 5 SEP 1892**

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

Date, first Survey *6th June 1892* Last Survey *Sept 1st 1892*

17 on the

S S Queen Victoria

(Number of Visits)

Tons } Gross *2312*
Net *1506*

Master *W. Erskine*

Built at *Glasgow*

By whom built *A. Stephen & Sons.*

When built *1887*

Engines made at *Glasgow*

By whom made *A. Stephen & Sons.*

when made *1887*

Boilers made at *Do*

By whom made *Do*

when made *1887*

Registered Horse Power *240*

Owners *J. Dunlop & Sons.*

Port belonging to *Glasgow*

Nom. Horse Power as per Section 28

ENGINES, &c.—		Description of Engines		No. of Cylinders	
Diameter of Cylinders	Length of Stroke	Revolutions per minute	Diameter of Screw shaft	as per rule as fitted.	
Diameter of Tunnel shaft	Diameter of Crank shaft journals	Diameter 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		
No. of Donkey Engines	Sizes of Pumps	No. and size of Suctions connected to both Bilge and Donkey pumps			
In Engine Room		In Holds, &c.			
No. of bilge injections	sizes	Connected to condenser, or to circulating pump	Is a separate donkey suction fitted in Engine room & size		
Are all the bilge suction pipes fitted with roses		Are the roses in Engine room always accessible	Are the sluices on Engine room bulkheads always accessible		
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 and all boiler mountings accessible at all times					
Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication 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			
Is it fitted with a watertight door		worked from			

BOLLERS, &c.—		(Letter for record <i>S</i>)		Total Heating Surface of Boilers	
No. and Description of Boilers	<i>One cylindrical. Mult. Double ended.</i>	Working Pressure	<i>160 lb.</i>	Tested by hydraulic pressure to	<i>320 lb.</i>
Date of test	<i>12-7-92</i>	Can each boiler be worked separately	<input checked="" type="checkbox"/>	Area of fire grate in each boiler	<i>77 sq ft</i>
each boiler	<i>Two, Direct firing</i>	Area of each valve	<i>9.6 sq in.</i>	Pressure to which they are adjusted	<i>163 lbs.</i>
with easing gear	<i>Yes</i>	Smallest distance between boilers or uptakes and bunkers or woodwork	<i>15</i>	Mean diameter of boilers	<i>12-0 1/2</i>
Length	<i>17-4 3/8</i>	Material of shell plates	<i>Steel</i>	Thickness	<i>1 3/32</i>
Diameter of rivet holes in long. seams	<i>1 1/8</i>	Pitch of rivets	<i>7 3/8 + 3 1/16</i>	Description of riveting: circum. seams	<i>Lap-ends double</i>
Per centages of strength of longitudinal joint	<i>91</i>	Working pressure of shell by rules	<i>180 lb.</i>	Size of manhole in shell	<i>16 x 12</i>
Size of compensating ring	<i>MC-Nickel</i>	No. and Description of Furnaces in each boiler	<i>Four, ribbed</i>	Material	<i>Steel</i>
Length of plain part	<i>6-11 1/2</i>	Thickness of plates	<i>1/2</i>	Description of longitudinal joint	<i>Weld</i>
Working pressure of furnace by the rules	<i>106 lb.</i>	Combustion chamber plates: Material	<i>Steel</i>	Thickness: Sides	<i>1/2</i>
Pitch of stays to ditto: Sides	<i>6 7/8</i>	Back	<input checked="" type="checkbox"/>	Top	<i>9/16</i>
Material of stays	<i>Steel</i>	Diameter at smallest part	<i>1 1/4</i>	Bottom	<i>7/8</i>
Material	<i>Steel</i>	Thickness	<i>1 1/16</i>	Pitch of stays	<i>16 x 16</i>
Diameter at smallest part	<i>2 3/4</i>	How are stays secured	<i>Nuts</i>	Working pressure by rules	<i>190 lb.</i>
Thickness	<i>7/8</i>	Material of Lower back plate	<input checked="" type="checkbox"/>	Working pressure of plate by rules	<input checked="" type="checkbox"/>
Diameter of tubes	<i>3 1/2</i>	Pitch of tubes	<i>14 3/4 x 14 8</i>	Material of tube plates	<i>Steel</i>
Pitch across wide water spaces	<i>15 1/2</i>	Working pressure by rules	<i>210 lb.</i>	Girders to Chamber tops: Material	<i>Iron</i>
thickness of girder at centre	<i>10 1/2 + 1 1/2</i>	Length as per rule	<i>38</i>	Distance apart	<i>8</i>
Working pressure by rules	<i>307 lb.</i>	Superheater or Steam chest; how connected to boiler	<i>Plated</i>	Can the superheater be shut off and the boiler worked separately	<input checked="" type="checkbox"/>
holes	<i>15/16</i>	Pitch of rivets	<i>3</i>	Working pressure of shell by rules	<i>176 lb.</i>
If stiffened with rings	<input checked="" type="checkbox"/>	Distance between rings	<input checked="" type="checkbox"/>	Working pressure by rules	<input checked="" type="checkbox"/>
Working pressure of end plates	<i>300 lb.</i>	Area of safety valves to superheater	<input checked="" type="checkbox"/>	Are they fitted with easing gear	<input checked="" type="checkbox"/>

11735 g/s

DONKEY BOILER— Description

Made at _____ By whom made _____ When made _____ Where fixed _____

Working pressure tested by hydraulic pressure to _____ No. of Certificate _____ Fire grate area _____ Description of safety valves _____

No. of safety valves _____ Area of each _____ Pressure to which they are adjusted _____ If fitted with easing gear _____ If steam from main boilers can enter the donkey boiler _____

Diameter of donkey boiler _____ Length _____ Material of shell plates _____ Thickness _____

Description of riveting long. seams _____ Diameter of rivet holes _____ Whether punched or drilled _____ Pitch of rivets _____

Lap of plating _____ Per centage of strength of joint _____ Rivets _____ Thickness of shell crown plates _____ Radius of do. _____ No. of stays to do. _____

Dia. of stays _____ Diameter of furnace Top _____ Bottom _____ Length of furnace _____ Thickness of furnace 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 uptake 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.)

This main boiler has been constructed under special survey - It is of good material & workmanship - it has been satisfactorily fitted on board - and the safety valves adjusted to the working pressure -

All the old fittings & connections have been used again after being overhauled - The donkey boiler was examined & found in good condition - Safety valves overhauled - Engines all opened out and there were examined the cylinders, pistons, slide valves, pumps, crankshaft and working parts -

One new half brass fitted with white metal fitted to each I.P. & L.P. bottom ends. Each crankhead eccentric strap new of wrought iron with brass liners - New patent metal liners fitted to thrust block - New valves & seats in feed pumps, Bilge pumps new valves & seats - New packing rings in H.P. piston. Condenser opened out - all tubes removed, cleaned & replaced - H.P. & I.P. valve spindle removed & readjusted - Reversing all disconnected & readjusted. Donkey sea suction pipe repaired.

When the vessel was in Dry Dock the sea connection, propeller & fastenings were all examined -

Appended hereto is the approved tracing of boiler.

I am of opinion the machinery of this vessel is now in good & safe working condition and eligible to be noted in the Reporter Book + L.M.C. 9-92 with the additional notification + N.B. 9-92 on account of new main boiler

Certificate (if required) to be sent to _____

The amount of Entry Fee..	£	:	:	When applied for,
Special	£	10	: 10	1/9 1892
Donkey Boiler Fee	£	:	:	When received,
Travelling Expenses (if any) £	:	:	:	3/9 1892

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

Committee's Minute TUES. 6 SEP 1892

Assigned + L.M.C. 9.92 + N.B. 9.92



The Surveyors are requested not to write on or below the space for Committee's Minute.