

REPORT ON MACHINERY.

Port of

Glasgow

THUR, 21 JAN 1897

Received at London Office

No. in Survey held at
Reg. Book.

Glasgow

Date, first Survey

7th April 1896 Last Survey 19th January 1897

(Number of Visits)

on the

Screw Steamer "Simolly Castle"

Tons

Gross

4164

Net

2636

Master J. L. Stainstreet Built at

By whom built

Barclay Curle & Co. Ltd. When built 1896-7

Engines made at

Glasgow

By whom made

" " " " when made 1896-7

Boilers made at

"

By whom made

" " " " when made 1896-7

Registered Horse Power

2

Owners

Castle Mail Packet Co. Ltd

Port belonging to

London

Nom. Horse Power as per Section 28

419

Donald Currie & Co.

Is Electric Light fitted

Yes

ENGINES, &c.—Description of Engines

Triple

No. of Cylinders

3

No. of Cranks

3

Diameter of Cylinders 26 $\frac{1}{2}$ " 44" 40" Length of Stroke 48" Revolutions per minute 85 Diameter of Screw shaft as per rule 13.0" as fitted 14 $\frac{1}{2}$ "Diameter of Tunnel shaft as fitted 10 $\frac{1}{2}$ " Diameter of Crank shaft journals 14" Diameter of Crank pin 11 $\frac{1}{2}$ " Size of Crank webs 9 $\frac{1}{2}$ " x 2 $\frac{1}{4}$ "

Diameter of screw 16" 9" Pitch of screw 14 ft No. of blades 4 State whether moveable Yes Total surface 84 ft

No. of Feed pumps None Diameter of ditto Stroke Can one be overhauled while the other is at work

No. of Bilge pumps Two Diameter of ditto 5" Stroke 24" Can one be overhauled while the other is at work Yes

No. of Donkey Engines 5-2 $\frac{1}{2}$ Sizes of Pumps 1 duplex 6" x 4" x 6" Cartridge and size of Suctions connected to both Bilge and Donkey pumpsIn Engine Room 4-3 $\frac{1}{2}$ 1 duplex 10" x 6" x 8" 1 duplex 10" x 14" x 10" In Holds, &c. Two in each 3 $\frac{1}{2}$ "No. of bilge injections One sizes 1 $\frac{1}{4}$ " Connected to circulating pump Is a separate donkey suction fitted in Engine room & size Yes 1 $\frac{1}{2}$ "

Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible Yes Are the sluices on Engine room bulkheads always accessible Yes

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 Bilge & scum pipes, fire hold, How are they protected By wood casing

Are all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times Yes

Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges Yes

When were stern tube, propeller, screw shaft, and all connections examined in dry dock On slip before launching Is the screw shaft tunnel watertight Yes

Is it fitted with a watertight door Yes worked from Upper platform

BOILERS, &c.—

(Letter for record S)

Total Heating Surface of Boilers

4161 ft²

Is forced draft fitted

No

No. and Description of Boilers 2 main & 1 Auxiliary Horizontal Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs

Date of test 3/11/96 Can each boiler be worked separately Yes Area of fire grate in each boiler 53" x 42" No. and Description of safety valves to each boiler Two Direct Spring 8.29" 5.93"

Area of each valve Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 16" Mean diameter of boilers 16 ft

Length 10' 3" Material of shell plates Steel Thickness 1 $\frac{1}{2}$ " Description of riveting: circum. seam Double riv. lap long. seam Double butt strapDiameter of rivet holes in long. seams 1 $\frac{1}{8}$ " Pitch of rivets 10" Lap of plates or width of butt straps 18 $\frac{1}{2}$ " x 1 $\frac{1}{2}$ "

Per centages of strength of longitudinal joint rivets 84.8 + 84.5 Working pressure of shell by rules 190 lbs Size of manhole in shell 16" x 12"

Size of compensating ring 14" No. and Description of Furnaces in each boiler 3" small, 2" large Material Steel Outside diameter 3.6 ft

Length of plain part top 6' 10" Thickness of plates crown 1 $\frac{1}{2}$ " Description of longitudinal joint Belded No. of strengthening rings

Working pressure of furnace by the rules 189 lbs Combustion chamber plates: Material Steel Thickness: Sides 9/16" Back 9/16" Top 9/16" Bottom 11/16"

Pitch of stays to ditto: Sides 4 $\frac{1}{2}$ x 4 $\frac{1}{2}$ Back 4 $\frac{1}{2}$ x 4 $\frac{1}{2}$ Top 4 $\frac{1}{2}$ x 4 $\frac{1}{2}$ If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 182 "Material of stays Steel Diameter at smallest part 13 $\frac{1}{4}$ x 1 $\frac{1}{2}$ Area supported by each stay 6.2" Working pressure by rules 184 lbs End plates in steam space:Material Steel Thickness 1 $\frac{1}{2}$ " Pitch of stays 10 $\frac{1}{2}$ x 10 $\frac{1}{2}$ How are stays secured Nuts Working pressure by rules 236 lbs Material of stays Steel

Diameter at smallest part 6.38" Area supported by each stay 2.09" Working pressure by rules 226 lbs Material of Front plates at bottom Steel

Thickness 1 $\frac{1}{2}$ " Material of Lower back plate Steel Thickness 1 $\frac{1}{2}$ " Greatest pitch of stays 13" Working pressure of plate by rules 264 lbsDiameter of tubes 3 $\frac{1}{2}$ " Pitch of tubes 4 $\frac{1}{2}$ " Material of tube plate Steel Thickness: Front 9/16" Back 9/16" Mean pitch of stays 10 $\frac{1}{8}$ "Pitch across wide water spaces 14 $\frac{1}{4}$ " Working pressures by rules 211 lbs Girders to Chamber tops: Material Iron Depth andthickness of girder at centre 8' x 1 $\frac{1}{2}$ " Length as per rule 2' 4 $\frac{1}{2}$ " Distance apart 4 $\frac{1}{2}$ " Number and pitch of Stays in each 3' 4 $\frac{1}{2}$ "

Working pressure by rules 192 lbs Superheater or Steam chest; how connected to boiler None Can the superheater be shut off and the boiler worked

separately Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet

holes Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness

If stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed

Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

GLS176-0317

Lloyd's Register
Foundation

14928 gcs.

DONKEY BOILER— Description *None*

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	Plates	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: *One Propeller Shaft, 2 brass blades, 2 top & 2 bottom, 2 connect, 40 bolts, 2 main bearing bolts, 6 coupling bolts, 1 Air pump rod, bucket & valve, 1 set of crosshead, crank pin brasses, 1 slide valve spindle & cheek valves & seats, 1/2 set of suction & discharge valves & seats (bilge & feed pumps) piston springs, bolts nuts & other gear*

The foregoing is a correct description,

Manufacturer. *Barclay Curle & Co. Limited*
James Gilchrist Director

Dates of Survey while building
During progress of work in shops - 1896 April 4, 21, 30. May 1, 2, 4, 9, 13, 19, 21, 23, 24, 29. June 3, 4, 11, 16, 19, 23, 24, 29. July 1, 4, 10, 14, 24. Aug 6, 4, 11.
During erection on board vessel - 15, 19, 22. Sept 2, 4, 20, 24, 29. Oct 9, 10, 14, 22, 30, 31. Nov 2, 3, 16, 26, 28. Dec 3, 11, 16, 14, 24, 26, 29. 1897 Jan 6, 8, 11, 15, 19.
Total No. of visits *60*

General Remarks (State quality of workmanship, opinions as to class, &c.) *These Engines & Boilers are of good workmanship & materials and are now in good order and safe working condition & eligible in our opinion to be noted in the Register Book.* **Lloyd M.C. 1/97**

Particulars of Refrigerating System

Kind of Machine	System	Type	Insulation	Insulated Cold Room
1	Hall	Carb. & Sulph.	Hall	Charcoal
				6000 ft Capacity

It is submitted that
this vessel is eligible for
THE RECORD. + L.M.C. 1/97
Electric Light

L.S. 23.1.97
R.B. 23/1/97

The amount of Entry Fee.. £ *3* : " : "
Special £ *40* : *19* : "
Donkey Boiler Fee £ " : " : "
Travelling Expenses (if any) £ " : " : "
When applied for, 11/1/97
When received, 12/1/97
James Morrison *A.McKend*
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute
Assigned *+ L.M.C. 1.97*
Electric light

