

REPORT ON MACHINERY.

Port of Glasgow

RECEIVED 13 JAN 1903

Received at London Office

No. in Survey held at Dumbarton

Date, first Survey 12 Dec

Last Survey 26 Dec 1902

Reg. Book. Suppl

(Number of Visits 3)

36 on the S. Celeste

Tons } Gross 1946
Net 1806

Master J. Marvea Built at Dumbarton By whom built A. McMillan & Son (Glasgow) When built 1902

Engines made at _____ By whom made _____ when made _____

Boilers made at Glasgow By whom made Clark Chapman & Co (Glasgow) when made 1902-7

Registered Horse Power _____ Owners J. Sauley Port belonging to Castellammare

Nom. Horse Power as per Section 28 _____ Is Refrigerating Machinery fitted _____ Is Electric Light fitted _____

ENGINES, &c.—Description of Engines

Description of Engines			No. of Cylinders	No. of Cranks
Dia. of Cylinders	Length of Stroke	Revs. per minute	Dia. of Screw shaft	Lgth. of stern bush
<small>as per rule</small>	<small>as per rule</small>	<small>as per rule</small>	<small>as fitted</small>	<small>as fitted</small>
Dia. of Tunnel shaft	Dia. of Crank shaft journals	Dia. of Crank pin	Size of Crank webs	Dia. of thrust shaft under collars
<small>as fitted</small>	<small>as fitted</small>	<small>as fitted</small>		
Dia. of screw	Pitch of screw	No. of blades	State whether moceable	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 _____

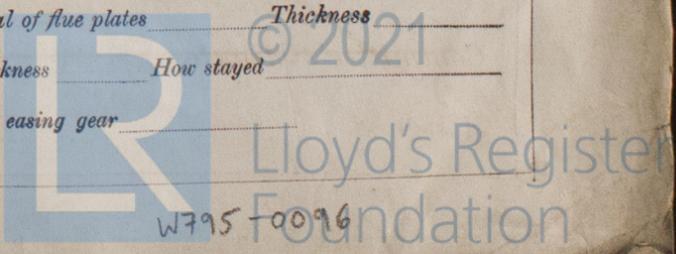
Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges _____

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 _____

BOILERS, &c.— (Letter for record _____) Total Heating Surface of Boilers _____ Is forced draft fitted _____

No. and Description of Boilers		Working Pressure	Tested by hydraulic pressure to	
Date of test	Can each boiler be worked separately	Area of fire grate in each boiler	No. and Description of safety valves to each boiler	
Area of each valve	Pressure to which they are adjusted	Are they fitted with easing gear		
Smallest distance between boilers or uptakes and bunkers or woodwork	Mean dia. of boilers	Length	Material of shell plates	
Thickness	Range of tensile strength	Are they welded or flanged	Descrip. of riveting: cir. seams long. seams	
Diameter of rivet holes in long. seams	Pitch of rivets	Lap of plates or width of butt straps		
Per centages of strength of longitudinal joint	Working pressure of shell by rules	Size of manhole in shell		
Size of compensating ring	No. and Description of Furnaces in each boiler		Material	Outside diameter
Length of plain part	Thickness of plates	Description of longitudinal joint		No. of strengthening rings
Working pressure of furnace by the rules	Combustion chamber plates: Material		Thickness: Sides	Back Top Bottom
Pitch of stays to ditto: Sides	Back	Top	If stays are fitted with nuts or riveted heads Working pressure by rules	
Material of stays	Diameter at smallest part	Area supported by each stay	Working pressure by rules	End plates in steam space:
Material	Thickness	Pitch of stays	How are stays secured	Working pressure by rules Material of stays
Diameter at smallest part	Area supported by each stay	Working pressure by rules	Material of Front plates at bottom	
Thickness	Material of Lower back plate	Thickness	Greatest pitch of stays	Working pressure of plate by rules
Diameter of tubes	Pitch of tubes	Material of tube plates	Thickness: Front	Back Mean pitch of stays
Pitch across wide water spaces	Working pressures by rules	Girders to Chamber tops: Material		Depth and
thickness of girder at centre	Length as per rule	Distance apart	Number and pitch of Stays in each	
Working pressure by rules	Superheater or Steam chest; how connected to boiler		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		



DONKEY BOILER— No. *DB* Description *Vertical*
 Made at *Satchell* By whom made *Clark Chapman & Co* When made *7/02* Where fixed *on main deck*
 Working pressure *80 lbs* tested by hydraulic pressure to *160 lbs* No. of Certificate *DB 12-02* Fire grate area *13 sq ft* Description of safety valves *1 direct opening*
 No. of safety valves *1* Area of each *7.26* Pressure to which they are adjusted *80 lbs* If fitted with easing gear *yes* If steam from main boilers can enter the donkey boiler Dia. of donkey boiler *5'-0"* Length *10'-0"* Material of shell plates *steel* Thickness *1/2"* Range of tensile strength *37/32* Descrip. of riveting long. seams *double lap* Dia. of rivet holes *4/16"* Whether punched or drilled *drilled* Pitch of rivets *2 1/2"*
 Lap of plating *3 3/8"* Per centage of strength of joint ^{Rivets *72.4*} _{Plates *72.5*} Thickness of shell crown plates *1/2"* Radius of do. *0'-0"* No. of Stays to do. *4*
 Dia. of stays *1 1/8"* Diameter of furnace Top *3'-5 1/2"* Bottom *4'-2"* Length of furnace *4'-4"* Thickness of furnace plates *2"* Description of joint *single lap* Thickness of furnace crown plates *1/2"* Stayed by *as above* Working pressure of shell by rules *80 1/2 lbs*
 Working pressure of furnace by rules *99 lbs* Diameter of uptake *14"* Thickness of uptake plates *3/8"* Thickness of water tubes *3/8"*

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,
 Manufacturer.

Dates of Survey while building
 During progress of work in shops - - *1902: Dec. 17. 23. 26.*
 During erection on board vessel - -
 Total No. of visits

Is the approved plan of main boiler forwarded herewith

General Remarks (State quality of workmanship, opinions as to class, &c. *This boiler has now been well fitted on board, the safety valve adjusted under steam to the above working pressure & is in my opinion eligible for record + DB 12-02 in the Register Book.*)
 Material of screw shaft *Is the screw shaft fitted with a continuous liner the whole length of the stern tube*
 Is the after end of the liner made water tight in the propeller boss *If the liner is in more than one length are the joints burned*
 If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive *If two liners are fitted, is the shaft lapped or protected between the liners*

The dump tank suction and discharge pipes and valves have been fitted in accordance with the approved plans

It is submitted that this vessel is eligible for THE RECORD. + DB 12. 02
 Working pressure 80 lbs.

C.M.
14.1.03
R.S.
14.1.03

The amount of Entry Fee.. £ : :
 Special £ 1 . 1 : :
 Donkey Boiler Fee £ : :
 Travelling Expenses (if any) £ : :
 When applied for, *7/11/02*
 When received, *13/1/03*

A. McLeand
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute *Glasgow.* 12 JAN. 1903

Assigned *J. B. 12. 02.*

When fee paid.

