

REPORT ON MACHINERY.

No. 3943W
WED. 17 MAR. 1920

Received at London Office

Date of writing Report 21st Feb 19 20 When handed in at Local Office 8-3- 19 20. Port of Glasgow
No. in Survey held at Glasgow Date, First Survey 25/11/19 Last Survey 1st March 1920
Reg. Book. on the S.S. "Luciada" (Number of Visits 18)
Master Hoppe Built at Glasgow By whom built Hoppe & Miller St. No 225 When built 1920
Engines made at Glasgow By whom made Dunsmuir & Jackson Ings No 503 when made 1920
Boilers made at Glasgow By whom made Dunsmuir & Jackson Blos No 502 when made 1920
Registered Horse Power Owners (Ings Blue Star Line) Port belonging to Rio de Janeiro
Nom. Horse Power as per Section 28 517 Is Refrigerating Machinery fitted for cargo purposes Not fitted Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3
Dia. of Cylinders 27" x 44" x 73" Length of Stroke 48 Revs. per minute 65 Dia. of Screw shaft as per rule 14-7 Material of as fitted 15-7/8 screw shaft St
Is the screw shaft fitted with a continuous liner the whole length of the stern tube Yes Is the after end of the liner made water tight
in the propeller boss Yes If the liner is in more than one length are the joints burned Yes 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 Yes If two
liners are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 10 1/2"
Dia. of Tunnel shaft as per rule 13-31/4 Dia. of Crank shaft journals as per rule 13-99 Dia. of Crank pin 14 1/2" Size of Crank webs 28 x 9" Dia. of thrust shaft under
collars 14 3/4" Dia. of screw 17-6" Pitch of Screw 18-6" No. of Blades 4 State whether moreable Yes Total surface 102 sq ft
No. of Feed pumps 2 Diameter of ditto 4" Stroke 24" Can one be overhauled while the other is at work Yes
No. of Bilge pumps 2 Diameter of ditto 4" Stroke 24" Can one be overhauled while the other is at work Yes
No. of Donkey Engines 4 Sizes of Pumps 1. BALLAST 10 1/2" x 14" x 24" No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room 2 @ 3 1/2": Strokehold 2 @ 3 1/2": 4 @ 3 1/2" in way of Oil Fuel Plant & after tank In Holds, &c. no 1-2 @ 3 1/2": no 2-2 @ 3 1/2": no 3-2 @ 3 1/2": no 4-2 @ 3 1/2": no 5-3 @ 3 1/2": Tunnel well - 1 @ 3"
No. of Bilge Injections 1 sizes 12" Connected to condenser, or to circulating pump C.P. Is a separate Donkey Suction fitted in Engine room & size Yes 3 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 Below
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 Forward Bilge Suctions How are they protected 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
Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Upper deck

BOILERS, &c.—(Letter for record 3.S.B.) Manufacturers of Steel
Total Heating Surface of Boilers 7668 Is Forced Draft fitted Yes No. and Description of Boilers Three Single ended Multitubular
Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 6-14-27/10/19 No. of Certificate 14903/14927/14952
Can each boiler be worked separately Yes Area of fire grate in each boiler 63.3 sq ft No. and Description of Safety Valves to
each boiler Two Spring loaded Area of each valve 9.62 sq ft 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 18" Mean dia. of boilers Length Material of shell plates
Thickness Range of tensile strength Are the shell plates 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 rivets..... Working pressure of shell by rules 87 Size of manhole in shell
Size of compensating ring No. and Description of Furnaces in each boiler Material Outside diameter
Length of plain part top..... Thickness of plates crown..... 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 separate Report Back Top If stays are fitted with nuts or riveted heads Working pressure by rules
Material of stays Area 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
Area 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 Steam dome: description of joint to shell % of strength of joint
Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes
Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed
UPERHEATER. Type Date of Approval of Plan Tested by Hydraulic Pressure to
Date of Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler
Diameter of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted

5020-822M
12228-0205

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR.

State the articles supplied:—

1. Set each of top & bottom end, main bearing and coupling bolts and nuts, 1 set each of feed and bilge pump suction and delivery valves, 3 main & 3 donkey feed check valves, 6 cylinder + 6 steam chest cover studs & nuts, 12 junk ring studs & nuts, 6 air pump valves, 112 Condenser tubes & 60 ferrules.
2. Cast iron propeller blades, 12 boiler tubes (plain) assorted bar iron, bolts & nuts

The foregoing is a correct description,

DUNSMUIR & JACKSON, Limited.

Manufacturer.

Dates of Survey while building

During progress of work in shops --
During erection on board vessel --
Total No. of visits

1919 Nov 25 Dec 1-2-8-15-18-22-30-1920 Jan 12-13-16-22-28 Feb 10-11-12-16 Mar 1.

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders

Slides

Covers

Pistons

Rods

Connecting rods

Crank shaft

Thrust shaft

Tunnel shafts

Screw shaft

Propeller

Stern tube

Steam pipes tested

Engine and boiler seatings

Engines holding down bolts 15-12-19

Completion of pumping arrangements

16-2-20

Boilers fixed

15-12-19

Engines tried under steam 11-2-20

Completion of fitting sea connections

Stern tube

Screw shaft and propeller

Main boiler safety valves adjusted

30-12-19

Thickness of adjusting washers

P. P. $\frac{5}{16}$ S. Y. $\frac{5}{16}$ C. P. $\frac{3}{8}$ S. Y. $\frac{5}{32}$ S. P. $\frac{5}{32}$ S. Y. $\frac{5}{32}$

Material of Crank shaft

Identification Mark on Do.

Material of Thrust shaft

Identification Mark on Do.

Material of Tunnel shafts

Identification Marks on Do.

Material of Screw shafts

Identification Marks on Do.

Material of Steam Pipes

Test pressure

Is an installation fitted for burning oil fuel

Yes

Is the flash point of the oil to be used over 150°F.

Yes

Have the requirements of Section 49 of the Rules been complied with

Yes

Is this machinery duplicate of a previous case

Yes

If so, state name of vessel M. Silarus. Rept No 39311.

General Remarks (State quality of workmanship, opinions as to class, &c.)

These engines (see Standard) have been constructed, erected in the Chops and fitted on board under British Corporation Survey. The boilers have been made under Special Survey of this Society. The engines & boilers have been fitted on board under Special Survey of this Society's Surveyors, in efficient manner, tried under working conditions and found satisfactory and are eligible in my opinion to be classed with record of L.M.C. 3-20. (See Sec 49 letter 6/1/20.) With regard to the Oil Fuel Burning Installation, the Rule requirements of section 49, have been carried out with the exception that pipes marked in red on plans, have been fitted of copper owing to a Labour dispute. It has been arranged with the Owners Superintendent that these pipes shall be replaced by iron pipes within 12 months. (See letter attached) The installation is eligible in my opinion for record of "Fitted for Oil Fuel, F.P. above 150°F, subject to the pipes mentioned above being replaced by iron pipes within 12 months."

The amount of Entry Fee

£ 50 0

When applied for,

Special

Res. M. £ 7 6

19

Donkey Boiler Fee

£ 32 14

When received,

Travelling Expenses (if any)

£

30/3/20

Committee's Minute

GLASGOW 16 MAR 1920

Assigned

L.M.C. 3 20 subject to

Fitted for oil fuel 3,20 F.P. above 150°F.

Engineer Surveyor to Lloyd's Register of Shipping



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Lloyd's Register

Foundation