

REPORT ON MACHINERY.

No. 17786

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Date of writing Report *March 1921* When handed in at Local Office *5/3/1921* Port of *Greenock*No. in Survey held at *Port-Glasgow* Date, First Survey *12th January, 1920* Last Survey *2nd March, 1921*
Reg. Book. on the *Steel Screw Steamship "GOBEO"* (Number of Visits *68*)Master *Juan B. Vitorica* Built at *Port-Glasgow* By whom built *Robert Duncan & Co. Ltd.* Tons { Gross *3346.24*
Net *2087.71*
When built *1921*Engines made at *Port-Glasgow* By whom made *The Clyde Shipbuilding & Engineering Co. Ltd.* When made *1921*Boilers made at *Ditto* By whom made *Ditto* when made *1921*Registered Horse Power Owners *Comp. Contralica de Navegacion* Port belonging to *Bilbao*Nom. Horse Power as per Section 28 *309* Is Refrigerating Machinery fitted for cargo purposes *No* Is Electric Light fitted *Yes*ENGINES, &c.—Description of Engines *Triple Expansion, Surface Cond.* No. of Cylinders *3* No. of Cranks *3*Dia. of Cylinders *24" x 40" x 65"* Length of Stroke *45"* Revs. per minute *66* Dia. of Screw shaft *as per rule 12.75"* Material of *Steel*
as fitted 12.5" *as fitted 14"* screw shaft)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 tightin 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 partbetween the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive *Yes* If twoliners are fitted, is the shaft lapped or protected between the liners *Yes* Length of stern bush *56"*Dia. of Tunnel shaft *as per rule 12.12"* Dia. of Crank shaft journals *as per rule 12.75"* Dia. of Crank pin *13"* Size of Crank webs *24 x 8"* Dia. of thrust shaft undercollars *13"* Dia. of screw *17.0"* Pitch of Screw *17.6"* No. of Blades *4* State whether moveable *Solid* Total surface *84" Sq. Ft.*No. of Feed pumps *2* Diameter of ditto *3 1/4"* 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 *3* Sizes of Pumps *Ballast 6" x 4 1/2" x 6"* Duplex *6" x 7" x 7"* No. and size of Suctions connected to both Bilge and Donkey pumpsIn Engine Room *1-3 1/2", 2-3" x 7-2 1/2"* In Holds, &c. *The special bilge pump 6" x 6" x 6" (duplex) fitted*Engines aft, no tunnel. *in pump room & connected to eight 3 1/2" suction, the other pump port 5" x 6" to one 3 1/2" suction.*No. of Bilge Injections *1* sizes *6"* Connected to condenser, or to circulating pump *C pump* 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 *None*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 *None* How are they protected *Yes*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 *Machinery aft* Is it fitted with a watertight door *No* worked from *—*MILERS, &c.—(Letter for record *S*) Manufacturers of Steel *David Colville & Sons Ltd.*Total Heating Surface of Boilers *4786.6* Is Forced Draft fitted *No* No. and Description of Boilers *Two Multitubular, Single ended.*Working Pressure *180 lbs* Tested by hydraulic pressure to *360 lbs* Date of test *11/30/12/20* No. of Certificates *520 & 526*Can each boiler be worked separately *Yes* Area of fire grate in each boiler *63 Sq. Ft. fuel* No. and Description of Safety Valves toeach boiler *Two, Spring loaded* Area of each valve *7.07"* Pressure to which they are adjusted *180 lbs* Are they fitted with easing gear *Yes*Smallest distance between boilers or uptakes and bunkers or woodwork *3'-0"* Mean dia. of boilers *16'-0"* Length *10'-0"* Material of shell plates *Steel*Thickness *1 1/2"* Range of tensile strength *28/32 tons* Are the shell plates welded or flanged *—* Descrip. of riveting: cir. seams *I.R.*Long. seams *W.R.* Diameter of rivet holes in long. seams *1 7/16"* Pitch of rivets *8 3/4"* Lap of plates or width of butt straps *19 1/2"*Percentages of strength of longitudinal joint rivets *89.7* Working pressure of shell by rules *180 lbs* Size of manhole in shell *16" x 12"*Size of compensating ring *33 x 27 x 1 1/2"* No. and Description of Furnaces in each boiler *3 Deighton* Material *Steel* Outside diameter *50 3/4"*Length of plain part top *2* Thickness of plates crown *13.2* Description of longitudinal joint *Welded* No. of strengthening rings *—*Working pressure of furnace by the rules *187 lbs* Combustion chamber plates: Material *Steel* Thickness: Sides *7/8"* Back *1 1/2"* Top *7/8"* Bottom *1 1/2"*Pitch of stays to ditto: Sides *9 x 8 1/2"* Back *8 1/2 x 7 1/2"* Top *9 x 8 1/2"* If stays are fitted with nuts or riveted heads *Nuts* Working pressure by rules *181 lbs*Material of stays *Steel* Area at smallest part *1.71"* Area supported by each stay *74.25"* Working pressure by rules *186 lbs* End plates in steam space:Material *Steel* Thickness *1 1/4"* Pitch of stays *19" x 16"* How are stays secured *W.R. nuts* Working pressure by rules *181 lbs* Material of stays *Steel*Area at smallest part *5.79"* Area supported by each stay *308.75"* Working pressure by rules *194 lbs* Material of Front plates at bottom *Steel*Thickness *2 1/2"* Material of Lower back plate *Steel* Thickness *1 1/2"* Greatest pitch of stays *13 1/2 x 7 1/2"* Working pressure of plate by rules *183 lbs*Diameter of tubes *3 1/2"* Pitch of tubes *4 1/2 x 4 3/8"* Material of tube plates *Steel* Thickness: Front *2 1/2"* Back *3/4"* Mean pitch of stays *9 x 8 1/2"*Pitch across wide water spaces *14 1/2"* Working pressures by rules *223 & 215 lbs* Girders to Chamber tops: Material *Steel* Depth andThickness of girder at centre *10 1/2 x 1 1/2"* Length as per rule *3 1/2"* Distance apart *9"* Number and pitch of stays in each *3, 9 x 8 1/2"*Working pressure by rules *190 lbs* Steam dome: description of joint to shell *None* % 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

SUPERHEATER. 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

002830-002837-0022

IS A DONKEY BOILER FITTED?

Yes.

If so, is a report now forwarded?

Yes.

SPARE GEAR. State the articles supplied:—2 piston rod bolts nuts. 2 connecting rod bolts nuts. 2 main bearing bolts nuts. One set shaft coupling bolts nuts. 2 feed pump valves. 2 bilge pump valves. One set air pump valves. One set circulating pump valves. One set feed pump valves. One spring for each set of safety valves. 6 junk ring studs. One cast iron propeller. One feed escape valve & spring. Three cylinder escape valves & springs. A quantity of assorted bolts nuts, and iron of various sizes.

The foregoing is a correct description,

LLOYD SHIPBUILDING & ENGINEERING CO. LIMITED.

Peter Ljungsson

Director.

Manufacturer.

Dates of Survey while building { During progress of work in shops -- 1920 Jan 12-25 Feb 6-12-16 May 4-10-19 Oct 2-6-22-27-29 Nov 5-10-12-24-27 June 9-11 July 14-16-20-23-27-29 Dec 1-2-11-14
During erection on board vessel -- 11-25-27 Sept 6-10-25 Oct 6-12-25-26-29 Nov 2-10-15-17-22 Dec 3-8-9-11-17-20-21-27-29-30-31 1921 Jan 14-17 Feb 2-11-14
Total No. of visits 68.

Is the approved plan of main boiler forwarded herewith Already Mater

" " " donkey " " " Ditto

Dates of Examination of principal parts—Cylinders 9/6/20. Slides 25/8/20. Covers 23/9/20. Pistons 27/10/20. Rods 27/10/20. Connecting rods 27/10/20. Crank shaft 25/8/20. Thrust shaft 2/8/20. Tunnel shafts Screw shaft 20/1/21. Propeller 6/10/20.

Stern tube 8/12/20 Steam pipes tested 11/2/21. Engine and boiler seatings 27/1/21. Engines holding down bolts 15/2/21. Completion of pumping arrangements 26/2/21. Boilers fixed 26/2/21. Engines tried under steam 26/2/21.

Completion of fitting sea connections 17/1/21. Stern tube 17/1/21. Screw shaft and propeller 2/2/21. Main boiler safety valves adjusted 26/2/21. Thickness of adjusting washers All 7/16" thick.

Material of Crank shaft Steel Identification Mark on Do. 564. Material of Thrust shaft steel Identification Mark on Do. 564. Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts steel Identification Marks on Do. 564. Material of Steam Pipes steel Test pressure 600 lbs.

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 S.S. VILLAGARCIA No. 2.

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

The machinery of this vessel has been constructed & placed on board under special survey and in accordance with the Society's rules, and afterwards working at full power on trial in the Firth. The machinery is in my opinion in safe working condition and eligible to be classed \pm L.M.C. 3.21. Fitted for oil fuel F.P. above 150°F. In the Register Book.

It is submitted that this vessel is eligible for THE RECORD + LMC 3.21. CL.

Fitted for oil fuel 3.21. F.P. 150°F.

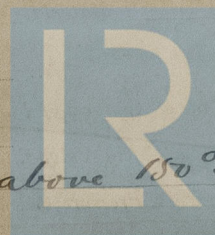
The amount of Entry Fee ... £ 5 : 0 : When applied for, Special ... £ 71 : 7 : 5/3/1921. Donkey Boiler Fee ... £ : : When received, Travelling Expenses (if any) £ : : 2.4.1921.

Committee's Minute GLASGOW 8-MAR-1921

Assigned + LMC 3.21.

Fitted for oil fuel 3.21 F.P. above 150°F.

Graham Robertson. Engineer Surveyor to Lloyd's Register of Shipping.



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