

REPORT ON MACHINERY.

No. 17786

Received at London Office WED. 9 MAR. 1921

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. (Number of Visits 68.)

on the Steel Screw Steamship "GOBEO." Tons { Gross 3346.24
Net 2087.71

Master Juan B. Vitorica Built at Port-Glasgow. By whom built Robert Duncan & Co. Ltd. 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. Centralica 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 Condg. 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 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 tight
in the propeller boss yes If the liner is in more than one length are the joints burned no 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 no If two
liners are fitted, is the shaft lapped or protected between the liners no Length of stern bush 5.6"

Dia. of Tunnel shaft as per rule 12.12" Dia. of Crank shaft journals as per rule 12.75" Dia. of Crank pin 1.3" Size of Crank webs 24 x 8" Dia. of thrust shaft under
collars 1.3" 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 pumps

In Engine Room 1-3 1/2", 2-3" 47-2 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 no 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 no

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 Manly aft. Is it fitted with a watertight door no worked from no

MILERS, &c.—(Letter for record 5) Manufacturers of Steel David Colville & Sons Ltd.

Total Heating Surface of Boilers 4786 Sq Ft 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 1520 & 1526.

Can each boiler be worked separately yes Area of fire grate in each boiler 63 Sq Ft of fuel. No. and Description of Safety Valves to
each boiler Two, spring loaded Area of each valve 7.07 sq. in. 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 3/8" Range of tensile strength 28/32 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams I.R.

Long. seams with stays 4.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"

Percentage of strength of longitudinal joint rivets 89.7 Working pressure of shell by rules 180 lbs. Size of manhole in shell 16" x 12"
plate 8.5

Size of compensating ring 33 x 27 x 1 3/8" 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 1 3/8" Description of longitudinal joint Welded. No. of strengthening rings no
bottom no

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 sq. in. Area supported by each stay 74.25 sq. in. Working pressure by rules 186 lbs End plates in steam space:

Material Steel Thickness 1 1/8" Pitch of stays 19 x 16 1/2" How are stays secured with nuts Working pressure by rules 181 lbs Material of stays Steel

Area at smallest part 5.79 sq. in. Area supported by each stay 308.75 sq. in. Working pressure by rules 194 lbs Material of Front plates at bottom Steel

Thickness 1 1/2" Material of Lower back plate Steel Thickness 1 3/8" 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 5/8" Back 3/4" Mean pitch of stays 9 x 8 1/2"

Pitch across wide water spaces 14 1/2" Working pressures by rules 225 & 215 lbs Girders to Chamber tops: Material Steel Depth and

Thickness of girder at centre 10 x 1 1/2" Length as per rule 35" 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 no

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

6 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

Clyde Shipbuilding & Engineering Co. Ltd. (No. 477)

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, 4 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 Larsson

Director.

Manufacturer.

Dates of Survey while building: During progress of work in shops -- 1920 Jan 12-23 Feb 6-12-16 Mar 4-10-19 Apr 2-6-22-27-29 May 5-10-12-24-27 June 9-11 July 14-16-20-23-27-29 Aug 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 14-27 Feb 2-11-14 During erection on board vessel --- 17-18-26-29 Mar 1-2 Total No. of visits 68.

Is the approved plan of main boiler forwarded herewith? Already Mater

Is the approved plan of main boiler forwarded herewith? 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 600lbs.

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. except engine an apt. fuel is used in this case.

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 set working at full power on trial in the Firth. The machinery is in my opinion in safe working condition and eligible to be classed 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. FP. 150°F.

MACHINERY DEPT WRITTEN 4/4/21 dated 9/3/21

Graham Robertson

Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 5 : 0 : When applied for, Special ... £ 71 : 7 : 5/31 1921 Donkey Boiler Fee ... £ : : When received, Travelling Expenses (if any) £ : : 2.4.19 21

Committee's Minute GLASGOW 8-MAR 1921

Assigned + LMC 3.21.

Fitted for oil fuel 3.21 FP. above 150°F



GREENOCK

Certificate (if required) to be sent to. The Surveyors are requested not to write on or below the space for Committee's Minute.