

REPORT ON MACHINERY.

FRI. 27 APR 1923
No. 41784

Received at London Office **15 1922**

Date of writing Report **10/3/22** When handed in at Local Office **10/3/22** Port of **Glasgow** *Genoa 23/4/23*

No. in Survey held at **Glasgow** Date, First Survey **22/9/1920** Last Survey **10/3/1922**

Reg. Book. **6396** on the **S.S. Vigor** (Number of Visits **101**)

Master **Alfredo San Giorgio** Built at **Genoa** By whom built **Canheri Mignolotto** Tons **6650** Gross **3839** Net

Engines made at **Glasgow** By whom made **McKie & Baxter. N. 1008** when made **1922**

Boilers made at **do:** By whom made **Alex. Stephen & Sons J27** when made **1921**

Registered Horse Power _____ Owners **La Columbia Soc. Marit. Ital.** Port belonging to **Genoa**

Nom. Horse Power as per Section 28 **399** Is Refrigerating Machinery fitted for cargo purposes **No** Is Electric Light fitted **Yes**

ENGINES, &c.—Description of Engines **Quadruple Expansion** No. of Cylinders **4** No. of Cranks **4**

Dia. of Cylinders **21-29 1/2-43-62** Length of Stroke **45** Revs. per minute _____ Dia. of Screw shaft as per rule **13.5** Material of screw-shaft **5**

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 _____ 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 _____ Length of stern bush **4'-7"**

Dia. of Tunnel shaft as per rule **11.87** Dia. of Crank shaft journals as per rule **12.46** Dia. of Crank pin **12 3/4** Size of Crank webs **23x8** Dia. of thrust shaft under collars **12 3/4** Dia. of screw **17-0** Pitch of Screw **15'-6"** No. of Blades **4** State whether moceable **yes** Total surface **880**

No. of Feed pumps **2** Diameter of ditto **4"** Stroke **22** Can one be overhauled while the other is at work **yes**

No. of Bilge pumps **2** Diameter of ditto **4"** Stroke **22** Can one be overhauled while the other is at work **yes**

No. of Donkey Engines **13** Sizes of Pumps **2 1/2, 1 1/2, 1 1/4, 1 1/8, 1 1/16, 1 1/32, 1 1/64** No. and size of Suctions connected to both Bilge and Donkey pumps **1. Pentagonal - 2 Engines**

In Engine Room **3-90%** **3-54** In Holds, &c. **2@3" Fore Hold 2@3" Fore Rat Flah**

No. of Bilge Injections **1** sizes **10"** Connected to condenser, or to circulating pump **yes** Is a separate Donkey Suction fitted in Engine room & size **Yes - 125%**

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 **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 **none** How are they protected _____

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 **None** Is it fitted with a watertight door _____ worked from _____

BOILERS, &c.—(Letter for record _____) Manufacturers of Steel _____

Total Heating Surface of Boilers **5679** Is Forced Draft fitted **Yes** No. and Description of Boilers **3 S.E. return tube**

Working Pressure **230lb.** Tested by hydraulic pressure to _____ Date of test _____ No. of Certificate _____

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 the shell plates welded or flanged _____ Descrip. of meeting: 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 _____ Area at smallest part _____ Area supported by each stay _____ Working pressure by rules _____ End plates in steam space: _____

Material _____ Thickness _____ Pitch of stays _____ How the 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 _____

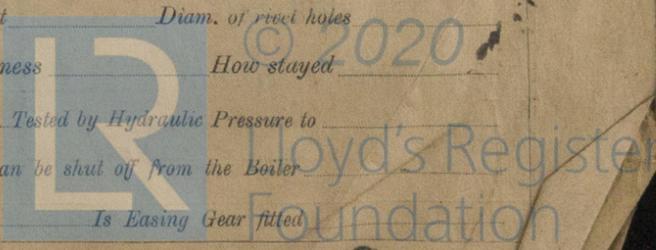
Diameter _____ Thickness of shell plates _____ Material _____ Description of longitudinal joint _____ Diam. of rivet holes _____

Pitch of rivets _____ Working pressure of shell by rules _____ Crown plates _____ Thickness _____ How stayed _____

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 _____



W141-0209

IS A DONKEY BOILER FITTED?

Yes ✓

If so, is a report now forwarded?

Yes!

SPARE GEAR. State the articles supplied: As per rules plus 1-2 throw length crankshaft, 1 tail shaft, 2 propeller blades, 9 propeller studs & nuts, 1 set top and bottom end brasses, 2 back pump links, 1 valve spindle, 2 main bearing brasses, 1 air pump rod & bucket, 3 sets check & stop valve spindles, steam chest, piston & pump rod for Lewis pump, centrifugal pump impeller & shaft, complete set of piston and pump rings for all auxiliary engines, 3 main & auxiliary check valves, quantity boiler tubes, tube stoppers, and miscellaneous bolts, studs and set pins ✓

The foregoing is a correct description,

Mackie & Baxter

Manufacturer.

[Signature]

Dates of Survey while building: During progress of work in shops - 1920 Sep 22, Oct 26, 29, Nov 3, 22, Dec 2, 6, 7, 13, 16, 27, 28 (1921), Jan 12, 17, 20, 24, 25, 29, 31, Feb 1, 2, 3, 8, 9, 14, 16, 21, 22, 23, Mar 2, 3, 7, 9, 14. During erection on board vessel - 17, 21, 22, 30, Apr 5, 11, 13, 18, 21, 25, 28, May 2, 10, 11, 12, 17, 19, 27, 30, Jun 1, 2, 3, 6, 9, 10, 14, 16, 22, 29, Jul 1, 4, 6, 8, Aug 4, 8, 9, 11, 17, 24, 29, Sep 5, 12, 15, 27, Oct 10, 17, 24, 27, 31, Nov 3, 10, 16, 21, 24, Dec 5, 6, 9, 10, 21, 27 (1922), Jan 11, 17, 26, 30, Feb 6, Mar 10. Total No. of visits: Genoa - June 6, July 19, 20, August 24, 30, September 11, October 24 - 1922; Spezia - January 18, March 1, 4, 12, 15, 14, 20 - 1923.

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts - Cylinders 3-11-21 - 6-12-21, Slides 4-7-21, Covers 4-7-21, Pistons 4-7-21, Rods 21-11-21, Connecting rods 27-9-21, Crank shaft 1-6-21, Thrust shaft 1-6-21, Tunnel shafts 9-2-21, Screw shaft 17-3-21, Propeller 17-3-21, Stern tube 5-4-21, Steam pipes tested 7/5/23, Engine and boiler seatings 19. 4. 22, Engines holding down bolts 24. 10. 22, Completion of pumping arrangements 12/3/23, Boilers fixed 24. 10. 22, Engines tried under steam 13/3/23, Completion of fitting sea connections 18/2/23, Stern tube 11. 9. 22, Screw shaft and propeller 11. 9. 22, Main boiler safety valves adjusted 13/3/23, Thickness of adjusting washers S.M.B. 7-2 5/8 9.5 - C.M.B. 8-2 5/8 9.6 - P.M.B. 7-6 5/8 7.1, Material of Crank shaft S, Identification Mark on Do. P.M.B. 1-6-21, Material of Thrust shaft S, Identification Mark on Do. P.M.B. 1-6-21, Material of Tunnel shafts S, Identification Marks on Do. P.M.B. 9-2-21, Material of Screw shafts S, Identification Marks on Do. P.M.B. 17-3-21, Material of Steam Pipes Steel ✓, Test pressure 48 kg/cm² 682

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.K. Fulgori, Cls. N° 41514.

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

This machinery has been built under special survey, and in accordance with the terms of the specification supplied. The materials and workmanship are good, and when the engines and boilers have been fitted onboard the vessel for which they are intended, they will be eligible in my opinion for record of +RMC (with date). The machinery is being despatched to Spezia.

This machinery has been securely fitted aboard, tried satisfactorily under steam, and is, in my opinion such as to entitle the vessel to the Record + L.M.C. 3.23.

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 3.23. F.D. CL.

Fitted for oil fuel 3.23 FP above 150°F.

[Signature] 30/4/23

M. Ra. Chantre, Engineer Surveyor to Lloyd's Register of Shipping.

Genoa Fees: 16-19-6 to Builders = 1600 x pd 4/5/23, 16-19-6 to Owners = 1600 x pd 3/5/23, Travelling Expenses = 2500 x pd 7/10/23. The amount of Entry Fee ... £ 5 : - When applied for, Special 4/5 Fee ... £ 67 : 18 : 14/3/22. Donkey Boiler Fee ... £ 4 : 4 : - When received, Spec. fee payable by builder - see Lon. Reg. 28/1/20 ... £ 50 : 0 : - pd 2/5/23, Travelling Expenses (if any) ... £ 72 : 2 : - pd 2/5/23. *These fees apply for at Genoa 24/4/23.

Committee's Minute Assigned Defered

FRIDAY 4 1923
+ L.M.C. 3.23
F. D. C.L.
Fitted for oil fuel 3.23
FP above 150°F.

Glasgow

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