Rpt. 4.

REPORT ON MACHINERY.

No. 8307.

Received at London Office SAT. 13 JAN. 1923

Date of writing Report 14. 10. 1922 When handed in at Local Office 14. 10. 1922 Port of GENOA

No. in Reg. Book. Survey held at GENOA & RIVA TRIGOSO Date, First Survey 4. 8. 21. Last Survey 11. 10. 1922. (Number of Visits 18)

on the S.S. "SUPERGA" Tons Gross 6913 Net 4096

Master Built at Riva Trigoso By whom built Società Esercizio Bacini When built 1922.

Engines made at Riva Trigoso By whom made Società Esercizio Bacini when made 1922.

Boilers made at do. By whom made do. when made 1922.

Registered Horse Power Owners Nav. Alta Italia (Soc. An.) Port belonging to Genoa. Yes

Nom. Horse Power as per Section 28 456. Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple Expansion Surface Condensing No. of Cylinders 3. No. of Cranks 3.

Dia. of Cylinders 660 x 1080 x 1770 (26" 42½" 69¹¹/₁₆") Length of Stroke 1220 (48⁶/₁₆") Revs. per minute 80. Dia. of Screw-shaft as per rule 364 as fitted 385 Material of screw shaft Steel

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 ✓ If two liners are fitted, is the shaft lapped or protected between the liners ✓ Length of stern bush 1300 (there is an inner bush 325 ft. forward of stern tube of length = 6607)

Dia. of Tunnel shaft as per rule 330 as fitted nil Dia. of Crank shaft journals as per rule 346·8 as fitted 350 Dia. of Crank pin 350 Size of Crank webs 700 x 232 Dia. of thrust shaft under

Liners 350 Dia. of screw 5200 Pitch of Screw 5200 No. of Blades 4 State whether moveable Yes Total surface 10.4 sq.

No. of Feed pumps 2 Diameter of ditto 114 Stroke 610 Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 114 Stroke 610 Can one be overhauled while the other is at work Yes

No. of Donkey Engines 10 Sizes of Pumps G.S. 190 x 125 x 150 Duplex Ball. 260 x 280 x 300 do. Dry H. Fed 150 x 100 x 150 do. No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room 4-4½"; 2-3½" Aux. Circ 150 x 105 x 200 do. In Holds, &c. Tankers 2 Weirs Feed 260 x 180 x 600 Transfer 150 x 150 x 150 dup. do. 2 oil fuel 150 x 90 x 200 Dup. Air Compr 150 x 150 x 150 Dup. Fire & Bilge 150 x 150 x 150 Dup.

No. of Bilge Injections 1 sizes 180 Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size Yes - 119

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 ✓

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.

Dates of examination of completion of fitting of Sea Connections 24. 5. 22 of Stern Tube 24. 5. 22 Screw shaft and Propeller 20. 4. 22

Is the Screw Shaft Tunnel watertight none Is it fitted with a watertight door ✓ worked from ✓

BOILERS, &c.—(Letter for record S.) Manufacturers of Steel Imported by Cassa per le Costruzioni Navali (see Gen. Rpt. No 8134)

Total Heating Surface of Boilers 6138 sq. ft. (6608 sq. ft.) Is Forced Draft fitted Yes No. and Description of Boilers 2 - S.E. Marine

Working Pressure 180 lbs 12.6 kg. sq. Tested by hydraulic pressure to 22½ kg = 320 lbs Date of test Port 3. 6. 22 Star. 27. 5. 22 No. of Certificate On repeat form 10.

Can each boiler be worked separately Yes. Area of fire grate in each boiler 6.12 sq. (65.9 sq. ft.) No. and Description of Safety Valves to boiler 3 Spring loaded Area of each valve 1/238 sq. Pressure to which they are adjusted 13 kg. (185 lbs.) Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork distant Mean dia. of boilers 5030 Length 3600 Material of shell plates S.

Thickness 32.5 Range of tensile strength 44·5/50 Kg. sq. mm. Are the shell plates welded or flanged n.c. Descrip. of riveting: cir. seams D.R.

long. seams T.R.D.B.S. Diameter of rivet holes in long. seams 40 Pitch of rivets 424 ~~Lap of plates or~~ width of butt straps 604

Percentages of strength of longitudinal joint rivets 90·3 plate 90·5 Working pressure of shell by rules 12.8 Size of manhole in shell 400 x 500

Size of compensating ring 900 x 800 No. and Description of Furnaces in each boiler 3. Corrugated Material S Outside diameter 1318.

Length of plain part top ✓ bottom ✓ Thickness of plates crown 14. bottom Description of longitudinal joint weld No. of strengthening rings ✓

Working pressure of furnace by the rules 13.2 Combustion chamber plates: Material S Thickness: Sides 14.5 Back 14.5 Top 14.5 Bottom 23.5

Pitch of stays to ditto: Sides 200 x 165 Back 204 x 205 Top 190 x 222 If stays are fitted with nuts or riveted heads R. Heads Working pressure by rules 13.4

Material of stays S. ~~Diameter~~ area at smallest part 11314 Area supported by each stay 41820 sq. mm. Working pressure by rules 16.4 End plates in steam space:

Material S Thickness 25 Pitch of stays 1115 x 1115 How are stays secured DNC RW Working pressure by rules 12.5 Material of stays S.

~~Diameter~~ area at smallest part 14418 Area supported by each stay 198025 Working pressure by rules 17. Material of Front plates at bottom S.

Thickness 22 Material of Lower back plate S. Thickness 21 x 14.5 doubler. Greatest pitch of stays 360 x 204 Working pressure of plate by rules 21.

Diameter of tubes 76 Pitch of tubes 105 x 105 Material of tube plates S Thickness: Front 25 Back 22 Mean pitch of stays 210 x 210

Pitch across wide water spaces 350 Working pressures by rules 13.2 Girders to Chamber tops: Material S. Depth and thickness of girder at centre 215 x 25 (double) Length as per rule 480 Distance apart 222. Number and pitch of stays in each 3-190

Working pressure by rules 18.5 Superheater ~~or Steam chest~~; how connected to boiler by pipes FOSTER PATENT Can the superheater be shut off and the boiler worked separately Yes Diameter ✓ Length ✓ Thickness of shell plates ✓ Material ✓ Description of longitudinal joint ✓ Diam. of rivet ✓ 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 923 sq. mm. Are they fitted with easing gear Yes

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Rpt. 5.

IS A DONKEY BOILER FITTED? Yes. ✓ If so, is a report now forwarded? Yes.

SPARE GEAR. State the articles supplied:— Rule Requirements plus 2 sets bottom end brass, one set top end brasses, set air pump valves, 1 oil fuel heater, 1 pulveriser for main boilers, 1 pulveriser for donkey boiler, cylinder cover studs, boiler and condenser tubes, junk ring studs, 2 safety valve springs ✓

The foregoing is a correct description,

Ing. Ferdinando Rossi

Manufacturer.

Dates of Survey while building — During progress of work in shops ∇ - 4/8, 19/9, 14/10 1921; 24/5, 24/5, 3/6, 10/6, 19/6, 8/7, 20/7, 29/7
During erection on board vessel - - - 11/8, 16/8, 12/9, 15/9, 23/9 5/10 11/10 1922
Total No. of visits

Is the approved plan of main boiler forwarded herewith { Duplicate in Lena

" " " donkey " " "

Dates of Examination of principal parts—Cylinders Lena 4.8.21 Slides 4.8.21 Covers 4.8.21 Pistons 4.8.21 Rods 4.8.21
Connecting rods 4.8.21 Crank shaft 17.10.21 Thrust shaft 4.8.21 Tunnel INTER shafts 24.5.22 Screw shaft 4.8.21 Propeller 24.5.22
Stern tube 24.5.22 Steam pipes tested 20/7 29/7 '22 Engine and boiler seatings 24.5.22 Engines holding down bolts 10.6.22
Completion of pumping arrangements 12.9.22 Boilers fixed 19.6.22. Engines tried under steam 23.9.22
Main boiler safety valves adjusted 23.9.22 Thickness of adjusting washers Port 23.6; 26.2; 21.2 Stbd. 19.5, 19.3
Material of Crank shaft Steel Identification Mark on Do. LLOYDS No 245 17.10.21 P.T.B Material of Thrust shaft Steel Identification Mark on Do. LLOYDS No 243 4.8.21 P
Material of Tunnel INTER shafts Steel Identification Marks on Do. LLOYDS No 246 24.5.22 P.T.B Material of Screw shafts Steel Identification Marks on Do.
Material of Steam Pipes Copper. Test pressure 25 kg. cmq.
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 for slight modification "RAPALLO" ✓
Is this machinery duplicate of a previous case Yes If so, state name of vessel Lena machinery.

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

FITTED FOR BURNING OIL FUEL FLASH POINT ABOVE 150° F.
SECTION 49 of RULES COMPLIED WITH.
The materials were tested by R.I. before question of classification with this Society was taken up (Certificate with "Rapallo" report Gen. No 8134).
The machinery and boilers were constructed under special survey in accordance with the Rules and approved plans. They have been securely fitted aboard and tested with satisfactory results under steam and are, in my opinion, suitable for classification with record + L.M.C 10.22
Survey joint with R.I. but conditions of accord, do not apply as vessel is also classed with B.C

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

It is submitted that this vessel is eligible for THE RECORD. + LMC 10.22. FD. CL.
Fitted for oil fuel 10.22. FP above 150°F.

18/1/23

The amount of Entry Fee ... £5 = Lit 525. When applied for, 14/10.22 Total = Lit 1074/3
Special ... ... £93-8-0 = Lit 9804
Donkey Boiler Fee ... £4-4-0 = Lit 444 When received 13/1/23 Joint with Registro Italiano
Travelling Expenses (if any) £ Lit = 945.

Committee's Minute FRI. 23 MAR. 1923 + LMC 6.10.22. F.D. Fitted for oil fuel 10.22 F.P. above 150°F.

Assigned

P. P. Mann. Engineer Surveyor to Lloyd's Register of British & Foreign Shipping

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