

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

5 MAR 1928

Date of writing Report Feb 23 1928 When handed in at Local Office Feb 24 1928 Port of Trieste
 No. in Survey held at Glasgow & Monfalcone Date, First Survey 3 Nov 1927 Last Survey 21 Feb 1928
 Reg. Book. 39799 on the S. S. Astra III (Number of Visits 22) Tons ^{Gross} 5640 _{Net} 3322
 Built at Monfalcone By whom built Cantiere Navale Triestino Yard No. 186 When built 1928
 Engines made at Glasgow By whom made D. Rowan & Co. Ltd. Engine No. 866 when made 1927
 Boilers made at Glasgow By whom made D. Rowan & Co. Ltd. Boiler No. 866 when made 1927
 Registered Horse Power _____ Owners "Astra" via Argentina de Petroleos Port belonging to Buenos Aires
 Nom. Horse Power as per Rule 651 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
 Trade for which Vessel is intended _____

see also Glasgow Report 47198
ENGINES, &c.—Description of Engines Triple Expansion Revs. per minute 78
 Dia. of Cylinders 27 1/2" x 46" x 77" Length of Stroke 54" No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals 15.183" as per Rule 15.14" as fitted Crank pin dia. _____ Crank webs Mid. length breadth 22 1/4" Thickness parallel to axis 9 3/4"
 Intermediate Shafts, diameter 14.46" as per Rule 14.42" as fitted Thrust shaft, diameter at collars 15.18" as per Rule 15.12" as fitted
 Tube Shafts, diameter _____ as fitted Screw Shaft, diameter 15.96" as per Rule 16" as fitted Is the ^{tubo} screw shaft fitted with a continuous liner yes

Bronze Liners, thickness in way of bushes 0.787" as per Rule 0.812" as fitted Thickness between bushes 0.59" as per Rule 0.75" as fitted Is the after end of the liner made watertight in the propeller boss yes
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner _____
 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 _____ Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft no Length of Bearing in Stern Bush next to and supporting propeller 5' 4"

Propeller, dia. 18'-0" Pitch 18'-0" No. of Blades 4 Material Bronge whether Moveable yes Total Developed Surface 99 sq. feet
 Feed Pumps worked from the Main Engines, No. none Diameter _____ Stroke _____ Can one be overhauled while the other is at work _____
 Bilge Pumps worked from the Main Engines, No. none Diameter _____ Stroke _____ Can one be overhauled while the other is at work _____

Feed Pumps { No. and size Two 12" x 9" x 24" Pumps connected to the { No. and size One 6" x 8" x 8" duplex. also Ballast pump
 How driven Steam Main Bilge Line { How driven Steam
 Transfer fuel
 Lubricating Oil Pumps, including Spare Pump, No. and size Two 6" x 7 1/2" x 6"
 Ballast Pumps, No. and size One 10 x 12 x 12

Are two independent means arranged for circulating water through the Oil Cooler _____ Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room Two 3 1/2" & one direct 4 3/4" on bilge pump. Two 2" on transfer pump. One 3" for B.P.
 In Holds, &c. Forward Pump space, three 3 1/2". Peak flat one 2" Forward Cofferdam two 4".
After Pump space one 3 1/2". After Cofferdam two 3"

Main Water Circulating Pump Direct Bilge Suctions, No. and size one 12" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size one 4 3/4"
 Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes yes
 Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges yes
 Are all Sea Connections fitted direct on the skin of the ship yes Are they fitted with Valves or Cocks valves & cocks
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates yes Are the Overboard Discharges 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 pass through the bunkers none How are they protected _____
 What pipes pass through the deep tanks none Have they been tested as per Rule _____

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes
 Is the arrangement of Valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one compartment to another yes Is the Shaft Tunnel watertight none Is it fitted with a watertight door _____ worked from _____

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 9615 ^{sq. ft.}
 Is Forced Draft fitted yes No. and Description of Boilers 3 SB Working Pressure 200 lbs
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes
 IS A DONKEY BOILER FITTED? no If so, is a report now forwarded? _____

PLANS. Are approved plans forwarded herewith for Shafting no Main Boilers no Auxiliary Boilers _____ Donkey Boilers _____
 (If not state date of approval)
 Superheaters _____ General Pumping Arrangements yes Oil fuel Burning Piping Arrangements yes

SPARE GEAR. State the articles supplied:—Two connecting rod top and bottom end bolts & nuts. Two main bearing bolts. One set of coupling bolts. One set of piston springs for each piston. One screw shaft. Two bronze propeller blades. One 1/3 crank shaft. One piston rod. One top end brasser. One bottom end brasser. One thrust shoe. One eccentric strap. One set of piston rings for each donkey pump (steam & water). One set of valves for each donkey pump. Assorted quantity of bolts & nuts. Iron of various sizes.

The foregoing is a correct description,

Manufacturer.



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Lloyd's Register Foundation

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During progress of work in shops - - See Glasgow Report No 47198.

Dates of Survey while building { During erection on board vessel - - - 1927 Nov 3, 4, 11, 16, 23 Dec. 7, 12, 15. 1928 Jan 25, 27 Feb. 1, 2, 2, 6, 9, 10, 13, 15, 16. 17, 21, 21

Total No. of visits twenty two.

See also Glasgow Report No 47198

Dates of Examination of principal parts - Cylinders 6.2.28 Slides 9.2.28 Covers 6.2.28

Pistons 6.2.28 Piston Rods 6.2.28 Connecting rods 6.2.28

Crank shaft 2.2.28 Thrust shaft 2.2.28 Intermediate shafts 2.2.28

Tube shaft - Screw shaft 4.11.27 Propeller 11.11.27

Stern tube 3 & 4.11.27 Engine and boiler seatings 23.11.27 Engines holding down bolts 25.1.28

Completion of fitting sea connections 11.11.27

Completion of pumping arrangements 10.2.28 Boilers fixed 25.1.28 Engines tried under steam 17.2.28

Main boiler safety valves adjusted 15.2.28 Thickness of adjusting washers 8 1/2 10 8 10 9 1/2 8

Crank shaft material 7. Steel Identification Mark 8665DM2.9.27 Thrust shaft material 7. Steel Identification Mark 2017LCD2.9.27

Intermediate shafts, material 7. Steel Identification Marks 2018LCD8.9.27 Tube shaft, material - Identification Mark -

Screw shaft, material 7. Steel Identification Mark 2785LCD 12.9.27 Steam Pipes, material Steel Test pressure 600 lbs Date of Test 3.10.27, 1.2.28

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 the Rules for the use of oil as fuel been complied with yes

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo Oil tanker If so, have the requirements of the Rules been complied with -

Is this machinery duplicate of a previous case no If so, state name of vessel -

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

The machinery has been constructed at Glasgow under special survey; it has been fitted and efficiently run on board by the Cantiere Navale Triestino at Monfalcone and in my opinion is eligible to be entered in the Society Register Book + LMC 2.28 "Fitted for oil fuel 2.28 FP above 150°F.

It is submitted that this vessel is eligible for THE RECORD + LMC 2.28. FD. CL. Fitted for oil fuel 2.28. FP. above 150°F.

Handwritten signature and date 5/3/28

Table with columns for fee type (Entry Fee, Special, Donkey Boiler Fee, Travelling Expenses), amount in £, and dates when applied for or received.

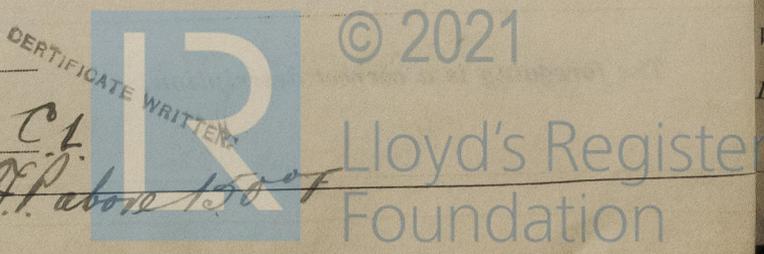
Handwritten signature of the Engineer Surveyor to the Register of Shipping.

Committee's Minute

TUES. 13 MAR 1928

Assigned

Handwritten notes: + LMC 2.28 F.D. CL. Fitted for Oil Fuel 2.28, F.P. above 150°F



Vertical text on the left margin: Certificate to be sent to Society Office

Vertical text on the left margin: The Surveys are requested not to write on or below the space for Committee's Minute(s).