

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

20 MAY 1926

Date of writing Report 19 When handed in at Local Office 19 MAY 1926 Port of Sunderland
 No. in Survey held at Sunderland Date, First Survey Decr. 14 '25 Last Survey May 13 1926
 Reg. Book. on the S.S. "TOAS" (Number of Visits 31)
 Built at Newcastle By whom built Palmer & Co Ltd Yard No. 961 Tons 1926
 Engines made at Sunderland By whom made MacCall & Pollock Engine No. 350 when made 1926
 Boilers made at Sunderland By whom made MacCall & Pollock Boiler No. 350 when made 1926
 Registered Horse Power 192 Owners Gulf Refining Co Port belonging to
 Nom. Horse Power as per Rule 192 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple Expansion
 Dia. of Cylinders 19-30-49 Length of Stroke 36 Revs. per minute 87 No. of Cylinders 3 No. of Cranks 3
 Dia. of Crank shaft journals as per rule 9.892 Dia. of Crank pin 10 Crank webs 14 1/2 Mid. length breadth 6 1/2 Thickness parallel to axis 4 1/2
 Diameter of Thrust shaft under collars as per rule 9.892 Diameter of Tunnel shaft as per rule 9.42 Diameter of Screw shaft as per rule 10.463 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 watertight in 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 part
 between the bearings in the stern tube, is the space charged with plastic material insoluble in water and non-corrosive Yes
 If two liners are fitted, is the shaft lapped or protected between the liners Yes Is an approved appliance fitted at the after end of the shaft to permit
 it being efficiently lubricated Yes Length of Stern Bush 43 Diameter of Propeller 12-6
 Dia. of Propeller 12-4 1/2 No. of Blades 4 State whether Moveable Yes Total Surface 58 square feet.
 No. of Feed Pumps fitted to the Main Engines 2 Diameter of ditto 2 3/4 Stroke 21 Can one be overhauled while the other is at work Yes
 No. of Bilge Pumps fitted to the Main Engines 2 Diameter of ditto 2 3/4 Stroke 21 Can one be overhauled while the other is at work Yes
 Total number and size of power driven Feed and Bilge Auxiliary Pumps Two - 4 1/2 x 5 x 8 Double Feed Pumps One 6 x 4 x 12 Bilge & Ballast Pump One 9 x 10 x 10 Bilge & Ballast Pump Aft
 No. and size of Pumps connected to the Main Bilge Line One - 6 x 4 x 12 Bilge & Ballast Pump For'd - One 9 x 10 x 10 Bilge & Ballast Pump Aft
 No. and size of Ballast Pumps Aft 9 x 10 x 10 - One No. and size of Lubricating Oil Pumps, including Spare Pump Yes
 Are two independent means arranged for circulating water through the Oil Cooler Yes No. and size of suction connected to both Main Bilge Pumps and Auxiliary
 Pumps;—In Engine and Boiler Room 4 @ 2 3/4 and in Holds, &c. Dryhold 2 @ 2 3/4

No. and size of Main Water Circulating Pump Bilge Suctions One @ 5" dia No. and size of Donkey Pump Direct Suctions
 No. of Engine Room Bilges One @ 3 1/2 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 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 (Nile)
 Are the Pipes 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
 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 Screw Shaft Tunnel watertight Aft Is it fitted with a watertight door Yes worked from Yes

MAIN BOILERS, &c.—(Letter for record (S)) Total Heating Surface of Boilers 3452.3
 Forced Draft fitted No No. and Description of Boilers Two - Single ended 25B Working Pressure 180 lbs
 A REPORT ON MAIN BOILERS NOW FORWARDED? Yes
 A DONKEY BOILER FITTED? No If so, is a report now forwarded? Yes
 Are approved plans forwarded herewith for Shafting Yes Main Boilers No. forwarded with report on S.S. ZAPARA Auxiliary Boilers Yes Donkey Boilers Yes
 Are approved plans forwarded herewith for Pumping Arrangements Yes Oil fuel Burning Piping Arrangements forwarded with report on S.S. ZAPARA

ARE GEAR. State the articles supplied:—
 2 Top end bolts and nuts Yes One set of Piston rings
 2 Bottom end bolts and nuts Yes 1 Spare screw shaft, 2 Propeller blades (Brass)
 Main bearing bolts and nuts Yes One pair of bottom end brasses
 One set of Coupling bolts Yes One piston rod, One eccentric strap
 One set of Feed pump valves & seats Yes One slide rod, One feed pump ram
 One set of Bilge pump valves & seats Yes One air pump rod
 Assorted bolts and nuts Yes One impeller shaft
 A set of various spigots Yes

The foregoing is a correct description.

J.H. Pelling

Manufacturer.



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Lloyd's Register
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1925. Dec. 14, 18, 29. 1926. Jan. 7, 19, 29. Feb. 1, 4, 8, 15, 19, 26. Mar. 2, 3, 4, 13, 19, 26. Apr. 12, 20.

Dates of Survey while building

During progress of work in shops - - 27.30.

During erection on board vessel - - - Mar. 3, 4, 6, 10, 11, 12, 13.

Total No. of visits 31

Dates of Examination of principal parts - Cylinders 19-2-26 Slides 2-3-26

Covers 1-2-26 Pistons 23-2-26 Rods 8-2-26

Connecting rods 19-2-26 Crank shaft 30-12-25 (Leith) Thrust shaft 8-2-26

Tunnel shafts ✓ Screw shafts 19-3-26 Propeller 24-4-26

Stern tube 19-3-26 Engine and boiler seatings 4-5-26 Engines holding down bolts 10-5-26

Completion of pumping arrangements 19-5-26 Boilers fixed 4-5-26 Engines tried under steam 12-5-26

Completion of fitting sea connections 26-4-26 (N'cle) Stern tube 30-4-26 Screw shaft and propeller 30-4-26

Main boiler safety valves adjusted 12-5-26 Thickness of adjusting washers Pt. Bl. 11/32 5/32 Star. Bl. 5/16 5/16

Material of Crank shaft Ingot Steel Identification Mark on Do. LLOYDS N° 1295 A.T.T. 30-12-25

Material of Thrust shaft Ingot Steel Identification Mark on Do. LLOYDS N° 1291 G.A. 8-2-26

Material of Tunnel shafts none fitted Identification Marks on Do. WORKING LLOYDS N° 1292 G.A. 19-3-26

Material of Screw shafts Ingot Steel Identification Marks on Do. SPARE LLOYDS N° 1293 G.A. 19-3-26

Material of Steam Pipes Solid drawn Copper Test pressure 360 lbs. sq. in. Date of Test 3-3-26

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 carrying and burning oil fuel been complied with Yes

Is this machinery duplicate of a previous case Yes If so, state name of vessel S.S. "ZAPARA"

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

The materials and workmanship are good

The machinery has been constructed under special and is eligible in my opinion for classification and the record of + L.M.C 5-26

Fitted for oil fuel 4-26 F.P. above 150°F.

The machinery has been tried under working conditions and the vessel has returned to Messrs Palmer yard for completion.

It is submitted that this vessel is eligible for THE RECORD. + LMC 5. 26. CL.

Fitted for oil fuel 5. 26. F.P. above 150°F.

21/5/26

The amount of Entry Fee ... £ 3 : - : When applied for, 1926

Special ... £ 48 : 0 : When received, 1926

Donkey Boiler Fee ... £ : : 1/6/26

Travelling Expenses (if any) £ : : 1/6/26

Committee's Minute

Assigned

TUES. 8 JUN 1926

+ L.M.C. 5:26 C.R.

Fitted for Oil Fuel 5:26 F.P. above 150°F

CERTIFICATE WRITTEN



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