

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 31 DEC 1924

Date of writing Report 29th Dec 1924 When handed in at Local Office 29th Dec 1924 Port of Sunderland
 No. in Survey held at Sunderland Date, First Survey 29 July Last Survey 15th Dec. 1924
 Reg. Book. on the new steel S.S. "PARAGUANA" (Number of Visits 23) Tons { Gross Net
 Built at Jarrow Type By whom built Palmer Shipbuilding Co Yard No. 953 When built 1924
 Engines made at Sunderland By whom made MacColl & Pollock Engine No. 344 when made 1924
 Boilers made at Sunderland By whom made MacColl & Pollock Boiler No. 344 when made 1924
 Registered Horse Power 186 Owners Gulf Refining Co Port belonging to Maracaibo
 Nom. Horse Power as per Rule 186 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

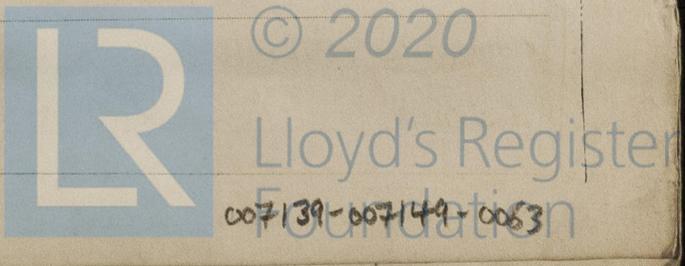
ENGINES, &c.—Description of Engines Triple expansion
 Dia. of Cylinders 19-30-49 Length of Stroke 36 Revs. per minute 85 No. of Cylinders 3 No. of Cranks 3
 Dia. of Crank shaft journals as per rule 9.88 as fitted 10.0 Dia. of Crank pin 10 Crank webs Mid. length breadth 14 3/4 shrunk Mid. length thickness 6 1/4 Thickness parallel to axis 6 1/4 Thickness around eye-hole 4 1/2
 Diameter of Thrust shaft under collars as per rule 9.88 as fitted 10.0 Diameter of Tunnel shaft as per rule not fitted as fitted 5 1/2 Diameter of Screw shaft as per rule 10.45 as fitted 10 1/4 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 of it being efficiently lubricated Yes
 Pitch of Propeller 13-1 1/2 No. of Blades 4 Length of Stern Bush 43 Diameter of Propeller 12-6
 State whether Moveable No Total Surface 60.8 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 Feed pump 6 1/2 x 6 Bilge pumps as below
 No. and size of Pumps connected to the Main Bilge Line For, one 6 1/2 x 12 Bilge & Ballast pump - Aft, one 8 x 9 x 10 Bilge & Ballast pump
 No. and size of Ballast Pumps one 8 x 9 x 10 aft No. and size of Lubricating Oil Pumps, including Spare Pump one 6 x 4 x 12
 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 Bilge Pumps;—In Engine and Boiler Room 4 @ 2 3/4 and in Holds, &c. Dry hold 2 @ 2 3/4

No. and size of Main Water Circulating Pump Bilge Suctions one - 5 No. and size of Donkey Pump Direct Suctions 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 on water line
 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 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 fitted Is it fitted with a watertight door worked from

MAIN BOILERS, &c.—(Letter for record (S)) Total Heating Surface of Boilers 3249
 Is Forced Draft fitted No No. and Description of Boilers Two - Cylindrical marine type Working Pressure 180 lbs
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes
 IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? Yes
PLANS. Are approved plans forwarded herewith for Shafting Yes Main Boilers Yes Auxiliary Boilers Yes Donkey Boilers Yes
 General Pumping Arrangements Yes (See Newcastle ship repair) Oil fuel Burning Piping Arrangements with report on S.S. "CABIMAS"

SPARE GEAR. State the articles supplied:—
 2 Top end bolts and nuts, 2 Bottom end bolts and nuts
 1 Set of Feed pump valves and seats, 1 Set of bilge pump valves & seats
 2 Main bearing bolts and nuts, 1 Set of Coupling Bolts
 Assorted bolts and nuts, 1 cwt Assorted Iron Bar
 1 Safety valve spring, 1 Main Feed and 1 Aux. Feed Check Valve
 1 Bottom end Bearing, 1 Eccentric strap Complete
 1 Piston rod with nuts, 1 Air pump rod
 25 Condenser Tubes, 13 Boiler Tubes
 1 Cast Iron Propeller, 1 Spare Screw Shaft.

The foregoing is a correct description,
 J.H. Pollock
 MAN PRO MACCOLL & POLLOCK LTD
 Manufacturer.



During progress of work in shops -- 1924 July 29 Aug 12 20 Sep 3 12 24 Oct 2 9 16 24 Nov 4 6 14 17 19 25
 Dates of Survey while building During erection on board vessel --- Dec 1 3 4 5 9 11 15
 Total No. of visits 28

Dates of Examination of principal parts - Cylinders 14-11-24 Slides 2-10-24
 Covers 24-9-24 Pistons 4-11-24 Rods 9-10-24
 Connecting rods 14-11-24 Crank shaft 14-9-24 (Exam) Thrust shaft 25-11-24
 Tunnel shafts not so fitted Screw shaft 4-11-24 Propeller 1-12-24
 Stern tube 9-10-24 Engine and boiler seatings 5-12-24 Engines holding down bolts 11-12-24
 Completion of pumping arrangements 15-12-24 Boilers fixed 9-12-24 Engines tried under steam 15-12-24
 Completion of fitting sea connections (New) 26-11-24 Stern tube 26-11-24 Screw shaft and propeller 3-12-24
 Main boiler safety valves adjusted 15-12-24 Thickness of adjusting washers Pt. Bl. $\frac{5}{16}$ $\frac{5}{16}$ $\frac{5}{16}$ $\frac{5}{16}$ $\frac{5}{16}$ $\frac{5}{16}$ Ste. Bl. $\frac{5}{16}$ $\frac{5}{16}$ $\frac{5}{16}$ $\frac{5}{16}$ $\frac{5}{16}$ $\frac{5}{16}$
 Material of Crank shaft Ingot Steel Identification Mark on Do. LLOYDS No 7346 A 17-9-24
 Material of Thrust shaft Ingot Steel Identification Mark on Do. LLOYDS No 344 G.A 25-11-24
 Material of Tunnel shafts ✓ Identification Marks on Do.
 Material of Screw shafts Ingot Steel Identification Marks on Do. Working LLOYDS No 344 spare G.A 4-11-24 LLOYDS No 7397 G.A 27-11-24
 Material of Steam Pipes S.D. Copper Test pressure 360 ✓ Date of Test 25-11-24 & 8-12-24
 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. 'CABIMAS' ✓

General Remarks (State quality of workmanship, opinions as to class, &c. The materials and workmanship are good. The machinery has been constructed under special survey and tried under working conditions and is eligible in our opinion for classification and the record of + L.M.C. 12-24

It is submitted that this vessel is eligible for THE RECORD. + LMC 12.24. CL

Fitted for oil fuel 12.24. FP above 150°F.

JWD 1/1/24
 GRS

SUNDERLAND.

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

The amount of Entry Fee ... £ 3 :- 0 - 0 ✓ When applied for.
 Special ... £ 46 - 10 - 0 ✓
 Doukey Boiler Fee ... £ : : ✓
 Travelling Expenses (if any) £ : : ✓
 When received, 2/2/25

George Anderson & Co. Statk
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 6 FEB 1925
 Assigned + L.M.C. 12.24 C.L.
 Fitted for oil fuel 12.24
 F.P. above 150°F.

CERTIFICATE WRITTEN



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