

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

13 MAR 1928

Date of writing Report 12-3-1928. When handed in at Local Office 19 Port of **PLYMOUTH**
 No. in Survey held at **Dartmouth**. Date, First Survey 8-10-1923. Last Survey 4th Feb'y 1928.
 Reg. Book. on the **Steel Screw Lug "EL TIGIL"**. (Number of Visits 16.)
 Built at **Dartmouth**. By whom built **Philip & Son, Ltd.** Yard No. **418**.
 Engines made at **Dartmouth**. By whom made **Philip & Son, Ltd.** Engine No. **234**.
 Boilers made at **Hebburn-on-Tyne**. By whom made **Palmer's S.B. & Iron Co., Ltd.** Boiler No. **1049**.
 Registered Horse Power **44**. Owners **Sudan Government**. Port belonging to
 Nom. Horse Power as per Rule **44**. Is Refrigerating Machinery fitted for cargo purposes **No**. Is Electric Light fitted **Yes**.

ENGINES, &c.—Description of Engines **Compound Surface Condensing**.
 Dia. of Cylinders **15" & 32"** Length of Stroke **24"** Revs. per minute **134**. No. of Cylinders **2**. No. of Cranks **2**.
 Dia. of Crank shaft journals **4"** as per rule **4"** Dia. of Crank pin **4"** Crank webs **13"** Mid. length breadth **4 3/4"** Thickness parallel to axis **4 3/4"**
 as fitted **4"** as fitted **4"** Mid. length thickness **4 3/4"** shrunk **3 1/8"** Thickness around eye-hole **3 1/8"**
 Diameter of Thrust shaft under collars **4"** as per rule **4"** Diameter of Tunnel shaft **6 5/8"** as per rule **6 5/8"** Diameter of Screw shaft **7 3/5"** as per rule **7 3/5"** Is the Screw shaft
 as fitted **4"** as fitted **6 5/8"** as fitted **7 3/5"** as fitted **7 3/5"**
 fitted with a continuous liner the whole length of the stern tube **No liner**. Is the after end of the **shaft** 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 a 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 **Grease lubrication**. Length of Stern Bush **2' 6"** Diameter of Propeller **8' 2"**
 Pitch of Propeller **10' 0"** No. of Blades **4**. State whether Moveable **Yes**. Total Surface **28** square feet.
 No. of Feed Pumps fitted to the Main Engines **One** Diameter of ditto **3"** Stroke **12"** Can one be overhauled while the other is at work **Yes**.
 No. of Bilge Pumps fitted to the Main Engines **One** Diameter of ditto **3"** Stroke **12"** Can one be overhauled while the other is at work **Yes**.
 Total number and size of power driven Feed and Bilge Auxiliary Pumps **One single feed, 6 1/2" x 4 1/2" x 10" and one duplex bilge, 5 1/4" x 4 1/4" x 5"**
 No. and size of Pumps connected to the Main Bilge Line **One main, 3" x 12" and one duplex as above, also one bilge ejector.**
 No. and size of Ballast Pumps **One duplex 5 1/4" x 4 1/4" x 5"** No. and size of Lubricating Oil Pumps, including Spare Pump **None**.
 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 **One 3" and 2" bilge ejectors** and in Holds, &c. **Two 3", one Ford, one Aft.**

No. and size of Main Water Circulating Pump Bilge Suctions **One 4"** No. and size of Donkey Pump Direct Suctions
 to the Engine Room Bilges **One 3"** 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 **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 **Bilge suction** How are they protected **Steel plate casing**.
 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 **None** Is it fitted with a watertight door **Yes** worked from **Yes**.

MAIN BOILERS, &c.—(Letter for record **S**) Total Heating Surface of Boilers **1600 sq. ft.**
 For ced Draft fitted **No**. No. and Description of Boilers **One single ended** Working Pressure **150 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**.
 (If not state date of approval)
 General Pumping Arrangements **Yes**. Oil fuel Burning Piping Arrangements **Yes**.

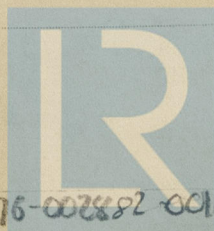
SPARE GEAR. State the articles supplied:— **2 Top end bolts & nuts. 2 Bottom end bolts & nuts.**
2 Main bearing bolts & nuts. 1 Set Coupling bolts & nuts. 1 Set of feed and bilge pump valves.
2 Propeller blades. A quantity of assorted bolts & nuts and of iron of assorted sizes.

The foregoing is a correct description.

J. E. W. J.

Secretary.

Manufacturer.



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002876-002882-0015

Dates of Survey while building
During progress of work in shops - -
1923. Oct. 8. 1926. Oct. 6.8. 1924. Mar. 29. July 20. Aug. 16.
Sept. 24. Oct. 18.
1924. Nov. 2.8. Dec. 5.13.21.
1928. Jan. 4. Feb. 1.4.
Total No. of visits 16.

Dates of Examination of principal parts - Cylinders 8-10-23. 6-10-26. Slides 8-10-26.
Covers 8-10-23. 6-10-26. Pistons 8-10-26. Rods 8-10-26.
Connecting rods 8-10-26. Crank shaft 6-10-26. 8-10-26. Thrust shaft 6-10-26. 8-10-26.
Tunnel shafts 24-9-24. Screw shaft 24-9-24. Propeller 24-9-24.
Stern tube 24-9-24. Engine and boiler seatings 24-9-24. Engines holding down bolts 8-11-24.
Completion of pumping arrangements 1-2-28. Boiler fixed 4-1-28. Engines tried under steam 1-2-28.
Completion of fitting sea connections 18-10-24. Stern tube 18-10-24. Screw shaft and propeller 18-10-24.
Main boiler safety valves adjusted 1-2-28. Thickness of adjusting washers 1/16" P.4 S.
Material of Crank shaft } Steel. Identification Mark on Do. LLOYDS No. 2247. W.G.H. 18-5-20.
Material of Thrust shaft } Identification Mark on Do.
Material of Tunnel shaft } Steel. Identification Marks on Do. LLOYDS No. 7699. J.M.R. 6-10-24.
Material of Screw shaft } Steel. Identification Marks on Do. LLOYDS No. 7699. J.M.R. 6-10-24.
Material of Steam Pipes } Copper. Test pressure 300 lb. Date of Test 4-1-28.
Is an installation fitted for burning oil fuel No. Is the flash point of the oil to be used over 150°F. ✓
Have the requirements of the Rules for carrying and burning oil fuel been complied with ✓
Is this machinery duplicate of a previous case If so, state name of vessel

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

The engines of this vessel were built in 1923 for stock, the cylinders having been tested on the 8th. October of that year. Please see letter from this Office dated 26th. August, 1926 and the Secretary's of the following day in reply.

The materials and workmanship are good, the machinery has been securely fitted on board the vessel in accordance with the Rules, tried under steam with satisfactory results and is, in my opinion, suitable for classification with record of + LMC. 2.28.

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 2.28

24. 15/3/28. P. 4

The amount of Entry Fee ... £ 2 : 0 : When applied for,
Special ... £ 8 : 12 : 12-3-1928.
Donkey Boiler Fee ... £ : ✓ : When received,
Travelling Expenses (if any) £ 3 : 9 : 31-3-1928.

J. W. H. Reid.
Engineer Surveyor to Lloyd's Register of Shipping.
TUES. 27 MAR 1928

Committee's Minute

MAR 16 1928

Assigned

+ LMC 2.28



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