

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY

Received at London Office

-4 NOV 1926

Date of writing Report *26th Oct 1926* When handed in at Local Office *26th Oct 1926* Port of *St. Peters + Hebburn*
 No. in Survey held at *St. Peters + Hebburn* Date, First Survey *16th Dec. 1925* Last Survey *3rd Nov 1926*
 Reg. Book. *70707* on the *Iron Steamer S.S. Rohna.* (Number of Visits *101*) Gross *8500* Tons
 Built at *Hebburn* By whom built *R. W. Hawthorn Leslie & Co* Yard No. *542* When built *1926*
 Engines made at *St. Peters* By whom made *do* Engine No. *3646* when made *1926*
 Boilers made at *do* By whom made *do* Boiler No. *3646* when made *1926*
 Registered Horse Power *934* Owners *British India Steam Navigation Co Ltd* Port belonging to *London*
 Nom. Horse Power as per Rule *934* Is Refrigerating Machinery fitted for cargo purposes *No* Is Electric Light fitted *yes*
 Trade for which Vessel is intended *Foreign*

ENGINES, &c. — Description of Engines *Iron Steamer Triple Expansion* Revs. per minute *88*
 Dia. of Cylinders *22 1/2" 32 1/2" 46" 46"* Length of Stroke *45"* No. of Cylinders *4 each set* No. of Cranks *4 each set*
 Crank shaft, dia. of journals *as per Rule 12 5/8"* Crank pin dia. *13 1/8"* Crank webs *Mid. length breadth 19" Mid. length thickness 8 1/4"* Thickness parallel to axis *5 1/4"* Thickness around eye-hole *5.98"*
 Intermediate Shafts, diameter *as per Rule 12 3/4"* Thrust shaft, diameter at collars *as per Rule 12 5/8"*
 Tube Shafts, diameter *as per Rule None* Screw Shaft, diameter *as per Rule 13 6/8"* Is the *screw* shaft fitted with a continuous liner *yes*
 Bronze Liners, thickness in way of bushes *as per Rule 7/16"* Thickness between bushes *as per Rule 3 1/4"* 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 *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 Oil Gland or other appliance fitted at the after end of the tube shaft *yes*
 Propeller, dia. *16' 6"* Pitch *17' 9"* No. of Blades *4* Material *Bronze* whether Moveable *yes* Total Developed Surface *75* sq. feet
 Feed Pumps worked from the Main Engines, No. *1 each set* Diameter *5 1/4"* Stroke *22 1/2"* Can one be overhauled while the other is at work *yes*
 Bilge Pumps worked from the Main Engines, No. *1* Diameter *5 1/4"* Stroke *22 1/2"* Can one be overhauled while the other is at work *yes*
 Feed Pumps { No. and size *2, 15 1/2" x 10 1/2" x 24, 1 each 8 1/2" x 6 1/2" x 18"* Pumps connected to the { No. and size *9" 11 x 12 8" 5 x 10 8" 5 x 8"*
 How driven *Steam* Main Bilge Line How driven *Steam*
 Ballast Pumps, No. and size *one 9" 11 x 12"* Lubricating Oil Pumps, including Spare Pump, No. and size *None*
 Are two independent means arranged for circulating water through the Oil Cooler *None* Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps; — In Engine and Boiler Room *Four 3" diameter*
 In Holds, &c. *Two 3" in Nos 1, 2, 3 and 4 holds, one 2 1/2" in No 5 + one 2 1/2" in tunnel well.*

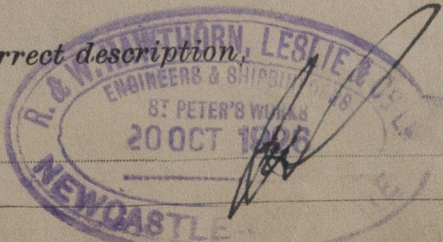
Main Water Circulating Pump Direct Bilge Suctions, No. and size *Two 10"* Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size *Two 5"*
 Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes *yes*
 Are the Bilge Suctions in the Machinery Space led 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 *Both*
 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 *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*
 What Pipes are carried through the bunkers *None* How are they protected *yes*
 What pipes pass through the deep tanks *None* Have they been tested as per Rule *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 Shaft Tunnel watertight *yes* Is it fitted with a watertight door *yes* worked from *upper + lower E. Room floors.*

MAIN BOILERS, &c. — (Letter for record *S*) Total Heating Surface of Boilers *14080 sq. ft.*
 Is Forced Draft fitted *yes* No. and Description of Boilers *5 Single Ended* Working Pressure *215 lbs per sq. in.*
 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 *None* Donkey Boilers *None*
 (If not state date of approval) Superheaters *None* General Pumping Arrangements *yes* Oil fuel Burning Piping Arrangements *yes*

SPARE GEAR. State the articles supplied: — *2 main turning bolts & nuts, 4 top & 4 bottom connecting rod bolts & nuts, 5 coupling bolts & nuts, 2 valves & seats for bilge & feed pumps, one set of valves for independent feed pump, a few bars of iron, a number of assorted bolts & nuts, 2 connecting rod bottom end bushes, 2 eccentric strap bolts & nuts, 2 studs & nuts for eccentric straps, one air pump head valve plate, one air pump bucket & rod, one circulating pump impeller and spindle, 20 condenser tubes, 1 set of piston rings for each HP & LP piston, one set of HP piston valve rings, 9 studs, nuts and tap screws for propeller blades, one tail end shaft complete with liner & nut, one right & one left hand propeller blade 2 safety valve springs, 20 boiler tubes etc.*

The foregoing is a correct description.



Manufacturer.



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W258-0236

1925 1926
 Dec. 16, 22, 30. Jan. 11, 14, 15, 19, 26. Feb. 1, 3, 5, 10, 11, 17, 19, 23, 25. Mar. 3, 5, 10, 11, 12, 13, 15, 19, 24, 26. Apr. 1, 8, 15, 19, 21, 23, 26
 During progress of work in shops - - 29. May 5, 13, 17, 26, 31. June 2, 4, 9, 15, 16, 17. July 2, 11, 13, 20, 21, 23, 26, 28. Aug. 4, 5, 9, 10, 11, 16, 18, 19, 20, 23, 24, 25, 26
 Dates of Survey while building During erection on board vessel - - 27, 30, 31. Sept. 1, 2, 3, 6, 7, 8, 9, 10, 14, 15, 17, 23, 27, 28, 30. Oct. 1, 4, 5, 6, 7, 8, 11, 12, 13, 14, 19, 22, 23, 26, 27. Nov. 1, 3
 Total No. of visits 101.

Dates of Examination of principal parts—Cylinders 31/5 23/7. 28/7/26. Slides 31/23/2 5/23/3 21/4/26 overs. 1/1/3 - 26/3/26
 Pistons 3/2, 5/2, 19/2, 23/2 15/3/26 Piston Rods 3/2, 19/2, 23/2, 25/2 3/3 10/3, 13/3, 13/5/26 Connecting rods 3/2, 19/2, 23/2, 25/2, 3/3, 10/3, 13/5/26
 Crank shaft 11/2 25/2 11/3, 13/3 24/3 1/4 Thrust shaft 11/2 23/2 25/2 5/3 10/3 11/3 Intermediate shafts 5/2 11/2 25/2 10/3 19/3 24/3
 Tube shaft None Screw shaft 11/2 19/3 24/3 17/5 4/6 9/6 Propeller 16/4, 4/6, 5/8, 27/5 - 14/10/26 m. dry
 Stern tube 15/3. 8/4. 23/7, 28/7/26 Engine and boiler seatings 11/8. 16/5 - 31/8/26 Engines holding down bolts 7/9. 15/9, 17/9. 22/9 - 7/10/26
 Completion of pumping arrangements 25th Oct 1926 Boilers fixed 7/10 - 9/10/26 Engines tried under steam 22/10/26
 Main boiler safety valves adjusted 22/10/26 Thickness of adjusting washers Port 7/16 5/16 Star 13/32 7/16 11/32 3/8 13/32 2/8 9/8 3/8
 Crank shaft material L.M. Steel Identification Mark 473, 25/11/25 Thrust shaft material L.M. Steel Identification Mark 473
 Intermediate shafts, material L.M. Steel Identification Marks 721, 722, 6625, 740, 759, 6738 Tube shaft, material None Identification Mark 473
 Screw shaft, material L.M. Steel Identification Mark 737, 778, 6629, 6672, 6734-703, 17/5/26 4m Steam Pipes, material Steel - Copper Fast pressure 45 + 235 Date of Test 23/5, 26/5, 31/5, 10/6, 14/6, 27/9, 4/10, 6/10, 11/10, 17/10/26
 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. No If so, state name of vessel.

General Remarks (State quality of workmanship, opinions as to class, &c.) The machinery of this vessel has been built under special survey. The materials and workmanship are of good quality, it has been securely fitted on board and satisfactorily tried under steam.

In my opinion the machinery of this vessel is now eligible for record & L.M.C. 11.26, m. 1926 & fitted for oil fuel burning flash point above 150 degrees F. in the register book.

Now forwarded.

Forging & castings reports, Invoices from Germany for boiler steel, British iron for boiler steel & furnaces, reports on fuel heaters, reducing valves, filters & evaporators, steel tubes, plans of main boiler, main & auxiliary steam pipes, waste steam pipes, crank, intermediate & propeller shafts, kilge, ballast & oil-fuel sections, main & auxiliary fuel pipes, discharge pipe arrangements & main pumping plan.

It is submitted that this vessel is eligible for THE RECORD. + LMC 11.26. FD. CL.

Fitted for oil fuel 11.26 FP above 150°F.

The amount of Entry Fee ... £ 6 : 0 :
 Special ... £ 121 : 14 :
 Donkey Boiler Fee ... £
 Travelling Expenses (if any) £

When applied for, 28 OCT 1926
 When received, 11/11 1926

George Hurdock
 Engineer-Surveyor to Lloyd's Register of Shipping.

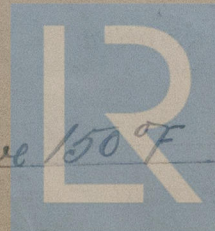
Committee's Minute

Nov. 5 NOV 1926

Assigned

+ L.M.C. 11.26 F.D.C.L.
 Fitted for Oil Fuel 11.26 F.P. above 150°F

CERTIFICATE WRITTEN



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