

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY

Received at London Office  
NEWCASTLE-ON-TYNE  
-4 NOV 1926

Date of writing Report 26 Oct 1926 When handed in at Local Office 26 Oct 1926 Port of St. Peters + Hebburn  
 No. in Survey held at St. Peters + Hebburn Date, First Survey 16 Dec 1925 Last Survey 30 Nov 1926  
 Reg. Book. 70707 on the Twin Screw S.S. Rohna. (Number of Visits 101) Gross 8500 Tons Net 4700  
 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 Owners British India Steamer 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 Twin Screw Triple Expansion Revs. per minute 88  
 Dia. of Cylinders 22 1/2" 3 1/2" 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" Thickness parallel to axis 5 1/4"  
 as fitted 13 1/8" Mid. length thickness 8 1/4" Thickness around eye-hole 5.98"  
 Intermediate Shafts, diameter as per Rule 12.249 Thrust shaft, diameter at collars as per Rule 12.56"  
 as fitted 12 1/4" as fitted 12 7/8"  
 Tube Shafts, diameter as per Rule None Screw Shaft, diameter as per Rule 13.62" Is the screw shaft fitted with a continuous liner yes  
 as fitted None as fitted 13 7/8" as per Rule .53" Is the after end of the liner made watertight in the  
 propeller boss yes Thickness between bushes as fitted 3 1/4" 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 no Length of Bearing in Stern Bush next to and supporting propeller 62"  
 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 aux 8 1/2" x 6 x 18" Pumps connected to the { No. and size 9" x 11 x 12 8" x 5 x 10 5" x 5 x 8"  
 How driven Steam Main Bilge Line { How driven Steam  
 Ballast Pumps, No. and size one 9" x 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 many discharge  
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates no 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? no  
 PLANS. Are approved plans forwarded herewith for Shafting yes Main Boilers yes Auxiliary Boilers None Donkey Boilers None  
 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 connect- ing 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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 Foundation

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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, 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 21/23/2 5/26/3 21/4/26 overs. 19/3 = 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. d. g. d.  
 Stern tube 15/3, 5/4, 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, 30/9 = 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 Part 5/16 5/16 Star 13/32 7/16 11/32 3/8, 13/32 2/8 9/8 = 3/8  
 Crank shaft material S.M. Steel Identification Mark 473, 25/11/25 Thrust shaft material S.M. Steel Identification Mark 473  
 Intermediate shafts, material S.M. Steel Identification Marks 721, 722, 6625, 740, 759, 6738 Tube shaft, material None Identification Mark  
 Screw shaft, material S.M. Steel Identification Mark 737, 778, 6629, 6672, 6739 = 703, 17/5/26 gm Steam Pipes, material Steel - Copper Date of Test 27/9, 10/10, 14/10, 27/9, 4/10, 6/10, 11/10, 14/10  
 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 in L.M.C. 11.26 (m.u.g.) & 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 feed heaters, reducing valves, filters & evaporators, steel tubes, plans of main boilers, main & auxiliary steam pipes, waste steam pipes, crank, intermediate & propeller shafts, keel, ballast & oil-fuel suction, main & auxiliary feed 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.

George Hurdoch  
 Engineer - Surveyor to Lloyd's Register of Shipping.  
 4/11/26

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

Committee's Minute  
 Assigned + L.M.C. 11:26 F.D.C.L.  
 Fitted for Oil Fuel 11:26 F.P. above 150°F

CERTIFICATE WRITTEN



NEWCASTLE ON TYNE

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