

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 18 AUG 1925

Date of writing Report 19 When handed in at Local Office 23/5/19 25 Port of NEWCASTLE ON TYNE  
 No. in Survey held at Newcastle on Tyne Date, First Survey Feb 19<sup>th</sup> Last Survey Aug 11<sup>th</sup> 1925  
 Reg. Book. on the steel S.S. Redriff (Number of Visits 28) Tons { Gross 1560 Net 900 }  
 Built at Newcastle By whom built Syne Iron Shipbuilding Co. Ltd. Yard No. 229 When built 1925  
 Engines made at Newcastle By whom made North Eastern Marine Eng. Co. Ltd. Engine No. 2607 when made 1925  
 Boilers made at Newcastle By whom made North Eastern Marine Eng. Co. Ltd. Boiler No. 2607 when made 1925  
 Registered Horse Power Owners South Metropolitan Gas Co Port belonging to London  
 Nom. Horse Power as per Rule 182 Is Refrigerating Machinery fitted for cargo purposes no. Is Electric Light fitted yes  
 Trade for which Vessel is intended Coal trade - Ocean going

**ENGINES, &c.**—Description of Engines Inverted Triple Expansion Revs. per minute 92 1/2  
 Dia. of Cylinders 18" 30" 49" Length of Stroke 33" No. of Cylinders 3 No. of Cranks 3  
 Crank shaft, dia. of journals as per Rule 9.344" Crank pin dia. 9 3/4" Crank webs Mid. length breadth 16 1/4" Thickness parallel to axis 6"  
 as fitted 9 3/4" Mid. length thickness 6" shrunk Thickness around eye-hole 4 3/8"  
 Intermediate Shafts, diameter as per Rule 8.899" Thrust shaft, diameter at collars as per Rule 9.344"  
 as fitted 9 3/8" as fitted 9 3/4"  
 Tube Shafts, diameter as per Rule 9.859" Is the tube shaft fitted with a continuous liner { yes }  
 as fitted 10 1/4" as fitted 10 1/4" Is the screw shaft fitted with a continuous liner { yes }  
 Bronze Liners, thickness in way of bushes as per Rule 5/8" Thickness between bushes as per Rule 5/8" Is the after end of the liner made watertight in the  
 as fitted 5/8" as fitted 5/8" 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 no Length of Bearing in Stern Bush next to and supporting propeller 45"  
 Propeller, dia. 12'-6" Pitch 13'-0" No. of Blades 4 Material no. whether Moveable no. Total Developed Surface 54 sq. feet  
 Feed Pumps worked from the Main Engines, No. 2 Diameter 3" Stroke 16 1/2" Can one be overhauled while the other is at work yes  
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 3" Stroke 16 1/2" Can one be overhauled while the other is at work yes  
 Feed Pumps { No. and size Three 2 new 6x8 1/2x13" 1 canisters 4 1/2x3x6" } Pumps connected to the { No. and size Main Rams - Ballast Pump 8x10x10" }  
 { How driven Steam } Main Bilge Line { How driven Steam }  
 Ballast Pumps, No. and size One - 8"x10"x10" Lubricating Oil Pumps, including Spare Pump, No. and size none  
 Are two independent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both Main Bilge Pumps and Auxiliary  
 Bilge Pumps; — In Engine and Boiler Room 4-2 1/2"  
 In Holds, &c. Fore hold 2-2 1/2" after hold 2-2 1/2" after well 1-2 1/2"  
4 on plan

Main Water Circulating Pump Direct Bilge Suctions, No. and size One 6" Independent Power Pump Direct Suctions to the Engine Room Bilges,  
 No. and size one 2 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 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 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 None to the fore hold How are they protected wooden casings  
 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 platform

**MAIN BOILERS, &c.**—(Letter for record 5) Total Heating Surface of Boilers 3260 sq. ft.  
 Is Forced Draft fitted no No. and Description of Boilers 2 S.S. Steel Boilers 25B Working Pressure 180 lbs. sq.  
 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 Main Boilers yes Auxiliary Boilers yes Donkey Boilers yes  
 (If not state date of approval) Superheaters none General Pumping Arrangements Oil fuel Burning Piping Arrangements

**SPARE GEAR.** State the articles supplied:— 1 spare propeller. 1 propeller shaft. 2 bottom end, 2 top end  
+ 2 main bearing bolts & nuts. A set of coupling bolts & nuts. 2 bilge pump valves. 1/2 cut  
of iron plate. 1/2 cut iron bars, 20 nuts & bolts assorted.

The foregoing is a correct description,

THE NORTH EASTERN MARINE ENGINEERING CO., LTD.

*J. Harrison*  
Secretary.

Manufacturer.



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During progress of work in shops - - 1925 Feb 14. 23. 27. March 2. 3. 6. 7. 11. 13. 25. 25. 26. 27. April 1. 3. 6. 7. 14. 13. May 1. 8  
 Dates of Survey while building }  
 During erection on board vessel - - - } 1925 May 12. 14. 15. 18. 22 July 20<sup>th</sup> Aug 4<sup>th</sup> 1925.  
 Total No. of visits 28

Dates of Examination of principal parts—Cylinders 26.3.25 Slides 3.4.25 Covers 6.4.25  
 Pistons 3.4.25 Piston Rods 27.2.25 Connecting rods 11.3.25  
 Crank shaft 9.3.25 + 13.3.25 Thrust shaft 23.2.25 Intermediate shafts 3.3.25  
 Tube shaft - Screw shaft 6.4.25 Propeller 3.4.25  
 Stern tube 6.4.25 Engine and boiler seatings 12.5.25 Engines holding down bolts 15.5.25  
 Completion of pumping arrangements 22.5.25 Boilers fixed 15.5.25 Engines tried under steam 22.5.25  
 Main boiler safety valves adjusted 22.5.25 Thickness of adjusting washers Port. P=3/8 S=13/32 Starboard P=3/8 S=13/32  
 Crank shaft material *A.M.S. Steel* Identification Mark 13.3.25 RLA 4841D. Thrust shaft material *A.M.S. Steel* Identification Mark 23.2.25 RLA 4841D.  
 Intermediate shafts, material *A.M.S. Steel* Identification Marks 3.3.25 RLA 4841D. Tube shaft, material - Identification Mark -  
 Screw shaft, material *A.M.S. Steel* Identification Mark 6.4.25 RLA Steam Pipes, material *steel* Test pressure 540 Date of Test 8<sup>th</sup> 15.5.25  
 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 *no* If so, state name of vessel -

**General Remarks** (State quality of workmanship, opinions as to class, &c. *This vessel's machinery has been examined during construction & the materials and workmanship are good, and in accordance with the requirements of the rules, and the approved plans. On completion it was tried under steam with satisfactory results, when the safety valves were adjusted to the working pressure. It is therefore eligible in our opinion to be classed with the notation of +LMC 8.25 in the R. Book.*

It is submitted that this vessel is eligible for THE RECORD, +LMC 8.25 C.L.

*Ans. 19/8/25*

The amount of Entry Fee ... £ 3 : 0 :  
 Special ... £ 45 : 10 :  
 Donkey Boiler Fee ... £ : :  
 Travelling Expenses (if any) £ : :  
 When applied for, 12 JUN 1925  
 When received, 17 JUL 1925

*Francis Peterson & Ree Amear*  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 21 AUG 1925

Assigned + LMC 8.25 C.L.

CERTIFICATE NUMBER



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Certified to be sent to NEWCASTLE-ON-TYNE.

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