

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

28 JUL 1925

Date of writing Report 8<sup>th</sup> July 1925 When handed in at Local Office 27 July 1925 Port of Hartlepool  
 No. in Survey held at Hartlepool Date, First Survey 9 Oct/24 Last Survey 17 July 1925  
 Reg. Book. No. 588 on the SS "MANCHESTER CITIZEN" (Number of Visits 8) Tons { Gross 5110 Net 3065  
 Built at Middlesbrough By whom built Furness S.B.C. L<sup>td</sup> Yard No. 80 When built 1925  
 Engines made at Hartlepool By whom made Richardsons Westgarth Engine No. 2649 when made 1925  
 Boilers made at ditto By whom made ditto Boiler No. 2649 when made 1925  
 Registered Horse Power \_\_\_\_\_ Owners Manchester Liners Ltd Port belonging to Manchester  
 Nom. Horse Power as per Rule 691 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes  
 Trade for which Vessel is intended Ocean going

ENGINES, &c.—Description of Engines Triple expansion Revs. per minute 74  
 Dia. of Cylinders 29.49.80 Length of Stroke 54 No. of Cylinders 3 No. of Cranks 3  
 Crank shaft, dia. of journals as per Rule 15.4 Crank pin dia. 16.4 Crank webs Mid. length breadth 24.8 Thickness parallel to axis 10.5  
 as fitted 15.8 Mid. length thickness 10.5 Thickness around eye-hole 7.8  
 Intermediate Shafts, diameter as per Rule 14.7 Thrust shaft, diameter at collars as per Rule 15.4  
 as fitted 15 as fitted 16

Tube Shafts, diameter as per Rule \_\_\_\_\_ as fitted \_\_\_\_\_ Screw Shaft, diameter as per Rule 16.26 Is the tube screw shaft fitted with a continuous liner yes  
 as fitted \_\_\_\_\_ as fitted 16.8 Thickness between bushes as per Rule 5.98 Is the after end of the liner made watertight in the propeller boss yes  
 as per Rule .797 as fitted .8 as fitted .8

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 \_\_\_\_\_ 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 5-6.4  
 Propeller, dia. 18.9 Pitch 19.0 No. of Blades 4 Material bronze whether Moveable no Total Developed Surface 118 sq. feet

Feed Pumps worked from the Main Engines, No. none Diameter \_\_\_\_\_ Stroke \_\_\_\_\_ Can one be overhauled while the other is at work \_\_\_\_\_  
 Bilge Pumps worked from the Main Engines, No. none Diameter \_\_\_\_\_ Stroke \_\_\_\_\_ Can one be overhauled while the other is at work \_\_\_\_\_  
 Feed Pumps { No. and size 2. 12.5 x 9 x 24 Wevers Pumps connected to the Main Bilge Line { No. and size 2. 9.4 x 11 x 10 duplex  
 How driven Steam How driven Steam

Ballast Pumps, No. and size 2. 9.4 x 11 x 10 duplex Lubricating Oil Pumps, including Spare Pump, No. and size \_\_\_\_\_  
 Are two independent means arranged for circulating water through the Oil Cooler \_\_\_\_\_ Suctions, connected to both Main Bilge Pumps and Auxiliary  
 Bilge Pumps;—In Engine and Boiler Room 4 of 3" & 2 of 2.5" in oil bilges 1 of 3" in tunnel  
 In Holds, &c. No 1 hold 2 of 3" No 2 hold 2 of 3" Id deep tank 2 of 2.5" Oil bunkers  
4 of 4.5" Aft deep tank 2 of 2.5" No 3 hold 2 of 3" No 4 hold 1 of 3"

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 of 4.5 Independent Power Pump Direct Suctions to the Engine Room Bilges,  
 No. and size \_\_\_\_\_ 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 lead 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 except DB tank air pipes How are they protected \_\_\_\_\_  
 What pipes pass through the deep tanks ditto Have they been tested as per Rule see ship report  
 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 deck

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 10300 square feet  
 Is Forced Draft fitted yes No. and Description of Boilers 3 single ended Working Pressure 196 lbs  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes  
 IS A DONKEY BOILER FITTED? no If so, is a report now forwarded? \_\_\_\_\_

PLANS. Are approved plans forwarded herewith for Shafting \_\_\_\_\_ Main Boilers sent with report of duplicate Auxiliary Boilers \_\_\_\_\_ Donkey Boilers sent with duplicate  
 (If not state date of approval) "Manchester Commerce"  
 Superheaters \_\_\_\_\_ General Pumping Arrangements Middlesbrough Oil fuel Burning Piping Arrangements yes

SPARE GEAR. State the articles supplied:—2. Con. rod top end bolts & nuts. 2 bottom end ditto.  
2 main bearing ditto. 1 set coupling ditto. 1 set valves, seats & springs for feed pumps. 1 set valves for gen. service pump. 1 set valves for ballast pumps.  
1 set rings for H.P. piston. 1 spring for H.P. piston valve. 1 pair crank pin bearings & screw shaft. For independent dual air pump, 1 steam valve chest and valves. 1 set valves, 1 set bucket rings, 1 pair main bearing brasses, 1 pair link brasses of each size, 1 valve spindle, 1 piston rod, pump rod & crosshead, 1 set valve gear links, 1 set piston rings. 1 Circ. pump impeller & shaft. 1 set feed pump bucket rings. 4 Feed check valves 2 scum valves 2 blow down valves, 2 safety valve springs, 1 escape valve spring each size. 50 Cond. tubes. 6 Boiler tubes. Various spare parts for oil fuel plant & an engine. Assorted bolts, nuts, & iron.

The foregoing is a correct description, For RICHARDSONS, WESTGARTH & Co. LIMITED.

L. D. Bujite

Manufacturer.

MANAGING AND GENERAL MANAGER.



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W194-0141

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THE MARGIN.

1924. Oct 9. 31. Nov 4. 6. 11. 12. 14. 17. 19. 21. 24. 26. Dec 1. 3. 4. 8. 10. 11. 12. 15. 19. 24. 27. 1925. Jan 7. 16. 19. 21. 26. 30. Feb 3. 5. 10. 13. 19. 23. 26. Mar 3. 5. 11. 26. 30. Apr 1. 3. 7. 9. 28. 30. May 1. 4. 6. 8. 9. 11. 13. 18. 22. June 3. 4. 5. 5. 8. 9. 10. 11. 15. 15. 16. 18. 19. 23. 24. 25. 26. July 1. 3. 6. 6. 8. 10. 15. 1925. Jan 7.

Dates of Survey while building

During progress of work in shops - - -

During erection on board vessel - - -

Total No. of visits. 87.

Dates of Examination of principal parts - Cylinders 4.12.24 - 28.4.25 Slides 9.4.25 - 1.5.25 Covers 15.12.24 - 7.4.25

Pistons 13.2.25 - 13.5.25 Piston Rods 14.11.24 - 1.5.25 Connecting rods 31.10.24 - 1.5.25

Crank shaft 14.11.24 - 11.3.25 Thrust shaft 12.12.24 - 5.6.25 Intermediate shafts 6.11.24 - 4.6.25

Tube shaft - - - Screw shaft 28.4.24 - 4.6.25 Propeller 18.5.25

Stern tube 9.4.25 - 22.5.25 Engine and boiler seatings 15.6.25 Engines holding down bolts 23.26.6.25

Completion of pumping arrangements 19.7.25 Boiler's fixed 23.6.25 Engines tried under steam 15.7.25

Main boiler safety valves adjusted 15.7.25 Thickness of adjusting washers P  $\frac{7}{16}$  S  $\frac{11}{32}$  CP  $\frac{7}{16}$  S  $\frac{7}{16}$  SP  $\frac{7}{16}$  S  $\frac{3}{8}$  Dusseldorf reft.

Crank shaft material Ingot steel Identification Mark 5360 Thrust shaft material Ingot steel Identification Mark 11978  
5576-7. Dusseldorf refts.

Intermediate shafts, material Ingot steel Identification Marks 5583-4. Tube shaft, material Lap welded Identification Mark Glasgow 25.2.25  
5623-4-5.

Screw shaft, material Lockfast iron Identification Mark 6367H. Steam Pipes, material Steel Test pressure 570 Date of Test Apr. 10.7.25

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 Manchester Commercial

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

This vessel's machinery has been built and installed under Special Survey. The materials and workmanship are good and efficient. On completion it was tried under full steam with satisfactory results, and is now eligible to have the notation **LMC 7.25.**

The vessel has returned to Middlesbrough for completion of ship work and electric light installation.

*Left for Liverpool for type 22.2.25*

It is submitted that this vessel is eligible for THE RECORD. + LMC 7.25. CL. Fitted for oil fuel 7.25. FP above 150°F.

*JWD 29/7/25*

The amount of Entry Fee ... £ 6 : 0 :  
Special ... £ 109 : 11 :  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ : :

When applied for, 10th July 1925.  
When received, 25/7/25

R.D. Shilston Esq. Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 28 AUG 1925

Assigned + LMC 7.25. CL. LHM 7.25. CL. Fitted for oil fuel 7.25. F.P. above 150°F.



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