

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

22 JUN 1926

Date of writing Report 16<sup>th</sup> June 1926 When handed in at Local Office 21 June 1926 Port of WEST HARTLEPOOL  
 No. in Survey held at West Hartlepool Date, First Survey 29 Sept 1925 Last Survey 15 June 1926.  
 Reg. Book. 8541 on the S.S. "CITY OF BATH" (Number of Visits 98.)  
 Built at West Hartlepool By whom built Wm Gray & Co Ltd Yard No. 978 Tons { Gross 5078.91.  
 Engines made at ditto By whom made Central Marine Engine No. 978 when made 1926  
 Boilers made at ditto By whom made Engine Works Boiler No. 978 when made 1926  
 Registered Horse Power Owners Ellerman Lines Ltd (Hall Line firm) Port belonging to Liverpool.  
 Nom. Horse Power as per Rule 532 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 Quadruple expansion Revs. per minute 81  
 Dia. of Cylinders 21 $\frac{1}{2}$ -30 $\frac{1}{2}$ -45 $\frac{1}{2}$  Length of Stroke 48 No. of Cylinders 4 No. of Cranks 4  
 Crank shaft, dia. of journals as per Rule 13.65" Crank pin dia. 13 $\frac{3}{8}$ " Crank webs Mid. length breadth 20 $\frac{1}{2}$ " Thickness parallel to axis 8 $\frac{1}{2}$ "  
 as fitted 13 $\frac{3}{8}$ " Mid. length thickness 8 $\frac{1}{2}$ " Shrunk Thickness around eye-hole 6 $\frac{1}{16}$ "  
 Intermediate Shafts, diameter as per Rule 13.0" Thrust shaft, diameter at collar as per Rule 13.65"  
 as fitted 13 $\frac{5}{16}$ " as fitted 13 $\frac{3}{8}$ "  
 Tube Shafts, diameter as per Rule 14.46" Is the { tube } shaft fitted with a continuous liner { yes  
 as fitted 15" as fitted 15" { screw }  
 Bronze Liners, thickness in way of bushes as per Rule 7.4" Thickness between bushes as per Rule 5.5"  
 as fitted 7.4" as fitted 9" 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  
 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 62"  
 Propeller, dia. 17'-3" Pitch 15'-6" No. of Blades 4 Material Bronze whether Moveable yes Total Developed Surface 97 sq. feet  
 Feed Pumps worked from the Main Engines, No. 2 Diameter 4 $\frac{1}{4}$ " Stroke 26" Can one be overhauled while the other is at work yes  
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 4 $\frac{1}{2}$ " Stroke 26" Can one be overhauled while the other is at work yes  
 Feed { No. and size 2 Weirs 8" x 10 $\frac{1}{2}$ " x 22" Pumps connected to the { No. and size 2 Main 4 $\frac{1}{4}$ " x 26" 1 Ballast 13 $\frac{1}{2}$ " x 14" x 24"  
 Pumps { How driven 1 Harbour feed 8" x 18" 1 Gen. Serv. 8" x 5 $\frac{1}{2}$ " x 8" Dup. Steam Main Bilge Line How driven Steam simplex  
 Ballast Pumps, No. and size 1. 13 $\frac{1}{2}$ " x 14" x 24" simplex 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" Tunnel 1 of 3"  
 In Holds, &c. No. 1. 2 of 2 $\frac{3}{4}$ " No. 2 2 of 3 $\frac{1}{2}$ " No. 3 2 of 3 $\frac{1}{2}$ " No. 4 2 of 3"  
 Deep tank 2 of 2 $\frac{1}{4}$ " lower, 2 of 2" upper.

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 of 5" Independent Power Pump Direct Suctions to the Engine Room Bilges,  
 No. and size 1 of 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 yes  
 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  
 What pipes pass through the deep tanks none Have they been tested as per Rule  
 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 see ship report Is it fitted with a watertight door yes worked from upper deck

MAIN BOILERS, &c.—(Letter for record 3) Total Heating Surface of Boilers 7572 sq. feet.  
 Is Forced Draft fitted yes No. and Description of Boilers 3. single ended Working Pressure 265 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 yes Auxiliary Boilers Donkey Boilers  
 (If not state date of approval)  
 Superheaters General Pumping Arrangements yes Oil fuel Burning Piping Arrangements

SPARE GEAR. State the articles supplied:—2 Corner rods top end bolts & nuts. 2 bottom end ditto.  
 2 main bearing ditto. 1 set coupling ditto. 1 set valves & seats for feed  
 hotwell & bilge pumps. 1 set valves for harbour feed, gen. service & ballast  
 pumps. 1 main engine slide rod. 1 gland & neck bush for piston rods. 1 ditto  
 for slide rods. 1 H.P. piston rod & rings. 1 set packing rings for 1st & 2nd M.P.  
 & L.P. pistons. 1 pair crank pin bearings 1 pair eccentric straps each size  
 ahead. 1 air pump rod & nuts. 2 propeller blades & 1 set studs & nuts for  
 one blade. 6 piston bolts & nuts 4 feed check valves. 1 main stop valve  
 1 aux. stop valve. 3 safety valve springs. 6 boiler tubes. 1 air pump  
 impeller shaft, 1 piston rod complete 2 slide rods & 2 crank pin bearings.  
 1 harbour feed pump valve chest. Various spare parts for fan engine.  
 Assorted bolts, nuts & iron.

The foregoing is a correct description,  
 FOR THE CENTRAL MARINE ENGINE WORKS,  
 (W. Gray & Co. Ltd.)

Managing Director, C.M.E.W.

Manufacturer.

Lloyd's Register  
 Foundation

V155-0007

1925. Sept 29. Nov 2. 10. 11. 16. 18. 20. 23. 24. 25. 27. Dec 3. 4. 8. 10. 11. 14. 15. 17. 21. 22. 23. 24. 29. 30. 1926. Jan 7. 7. 8. 11. 13. 15. 19. 20. 22. 25. 26. 27. 29. Feb 1. 2. 8. 10. 11. 16. 17. 18. 19. 23. 24. Mar 2. 3. 3. 10. 12. 22. 24. 25. 26. 31. Apr 1. 8. 9. 9. 12. 13. 14. 15. 15. 19. 22. 23. 26. 28. 29. 29. May 3. 3. 4. 5. 6. 10. 10. 11. 14. 1. 28. 29. 31. Jun 2. 15.

Dates of Survey while building

During progress of work in shops - -

During erection on board vessel - - -

Total No. of visits 98.

Dates of Examination of principal parts—Cylinders 18.11.25—25.1.26 Slides 7.1.26—8.2.26 Covers 10.11.25—19.2.26

Pistons 7.1.26—20.1.26 Piston Rods 16.11.25—20.1.26 Connecting rods 18.11.25—

Crank shaft 10.11.25—13.1.26 Thrust shaft 4.1.26—13.1.26 Intermediate shafts 15.1.26—23.2.26

Tube shaft ✓ Screw shaft 8.1.26—25.3.26 Propeller 25.3.26—8.4.26

Stern tube 27.11.25—5.5.26 Engine and boiler seatings 18.3.26—15.4.26 Engines holding down bolts 19.4.26—23.4.26

Completion of pumping arrangements 15.6.26 Boilers fixed 29.4.26 Engines tried under steam 15.6.26

Main boiler safety valves adjusted 20.5.26 Thickness of adjusting washers P.R.  $\frac{11}{32}$  S.  $\frac{3}{8}$  C.P.  $\frac{3}{8}$  S.  $\frac{5}{16}$  S.P.  $\frac{5}{16}$  S.  $\frac{11}{32}$

Crank shaft material Ingot steel Identification Mark 1051-4. Thrust shaft material Ingot steel Identification Mark 1074

Intermediate shafts, material Ingot steel Identification Marks 1074 1087 1078 1092 Tube shaft, material ✓ Identification Mark ✓

Screw shaft, material Ingot steel Identification Mark 1053. Steam Pipes, material L.W. steel Test pressure 795 lbs. Date of Test 12.3.26

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 vessels machinery has been built under Special Rule. The materials and workmanship are good. On completion it was tried at work under full steam and found satisfactory, and is now eligible to have the notation L.M.C. 6.26.

The electric light report will follow when received back from the electricians

It is submitted that this vessel is eligible for THE RECORD + LMC 6.26. FD. CL.

W.D. 23/6/26

The amount of Entry Fee ... £ 6 : 0 : When applied for, 21 June 1926

Special ... £ 101 : 12 : When received, 12.7.26

Donkey Boiler Fee ... £ : :

Travelling Expenses (if any) £ : :

FRI. 25 JUN 1926

Committee's Minute

Assigned

+ LMC 6.26

FD CL

R.D. Shilston.

Engineer Surveyor to Lloyd's Register of Shipping



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