

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY

Date of writing Report 31 July 1925 When handed in at Local Office 31 July 1925 Port of WEST HARTLEPOOL
 No. in Survey held at West Hartlepool Date, First Survey 21 Jan'y Last Survey 31 July 1925
 Reg. Book. 39652 on the S.S. "KARTIGI" (Number of Visits 74)
 Built at West Hartlepool By whom built Wm Gray & Co. Ltd. Yard No. 974 Tons { Gross 2346.59 Net 1166.62
 Engines made at ditto By whom made Central Marine Engine No. 974 when made 1925
 Boilers made at ditto By whom made Engine Works Boiler No. 974 when made 1925
 Registered Horse Power Owners Union S.S. Co. of New Zealand Port belonging to Wellington N.Z.
 Nom. Horse Power as per Rule 274 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
 Dia. of Cylinders 20 1/2 - 33 1/2 - 55 Length of Stroke 39" No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule 10.95" as fitted 11 3/8" Crank pin dia. 11 3/8" Crank webs Mid. length breadth 16 5/8" Mid. length thickness 6 5/8" Thickness parallel to axis 6 5/8" Thickness around eye-hole 4 7/8"
 Intermediate Shafts, diameter as per Rule 10.43" as fitted none Thrust shaft, diameter at collars as per Rule 10.95" as fitted 11 3/8"
 Tube Shafts, diameter as per Rule as fitted Screw Shaft, diameter as per Rule 11.615" as fitted 12" Is the shaft fitted with a continuous liner { yes
 Bronze Liners, thickness in way of bushes as per Rule 6.5" as fitted 2 1/2" Thickness between bushes as per Rule 4.9" as fitted 2 1/8" 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 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 4'-6"
 Propeller, dia. 14'-3" Pitch 12'-3" No. of Blades 4 Material Bronze whether Movable no Total Developed Surface 63 sq. feet
 Feed Pumps worked from the Main Engines, No. 2 Diameter 3" Stroke 26 Can one be overhauled while the other is at work yes
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 3 1/2" Stroke 26 Can one be overhauled while the other is at work yes
 Feed Pumps { No. and size 2.3"x26" Main 1 Gen Sew. 7 1/2"x5"x6" dup Pumps connected to the Main Bilge Line { No. and size 2 Main 3 1/2"x26" 1 Ballast 9"x10 1/2"x4" duplex
 How driven Steam How driven Steam
 Ballast Pumps, No. and size 1. 9"x10 1/2"x10" dup Lubricating Oil Pumps, including Spare Pump, No. and size
 Are two independent means arranged for circulating water through the Oil Cooler
 Bilge Pumps;—In Engine and Boiler Room 3 of 2 1/2" In Holds, &c. No 1 2 of 2 1/4" No 2 2 of 4"

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1. 6" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1. 4"
 Are all the Bilge Suction Pipes in holds and tanks 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 How are they protected
 What pipes pass through the deep tanks 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 none Is it fitted with a watertight door worked from

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 5076 sq. ft.
 Is Forced Draft fitted no No. and Description of Boilers 2 single ended Working Pressure 190 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 bolts & nuts for Con. rod top ends. 2 ditto bottom ends 2 ditto main bearings 1 set. Coupling ditto 1 set feed & bilge pump valves. 1 set piston springs. 1 piston rod. 1 slide rod. 1 pair crank pin bearings 1 main bearing. 1 crank web. 1 crank body part 1 crank pin. 1 set packing rings for H.P. M.P. & L.P. pistons. 1 air pump rod. 1 tail shaft. 1 propeller. 1 feed pump ram. 8 fibre valves for circulating pump. 8 rubber valves for ballast pump. 1 set piston rings for feed pump. 24 condenser tubes 12 boiler tubes. Assorted bolts, nuts, and iron.

The foregoing is a correct description,
 (W. Gray & Co. Ltd.)

Wm Gray & Co. Ltd.

MANAGING DIRECTOR, C.M.E.W.

Manufacturer.



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Lloyd's Register
 Foundation

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1925. Jan 21. 26. 30. Feb 3. 4. 6. 9. 11. 16. 27. Mar 2. 3. 4. 9. 10. 11. 13. 16. 17. 20. 22. 24. 25. 26. 27. 30. 31.
Apr 1. 2. 3. 6. 7. 9. 15. 16. 17. 20. 21. 22. 24. 27. 29. 29. 30. May 1. 4. 6. 7. 12. 13. 14. 15. 18. 21. 22. 27. 29.
June 3. 4. 4. 8. 9. 11. 12. 15. 16. 17. 22. 23. 27. July 8. 16. 29. 31.
During progress of work in shops - -
Dates of Survey while building
During erection on board vessel - - -
Total No. of visits 74.

Dates of Examination of principal parts—Cylinders 26.2.25—30.3.25 Slides 16.4.25—27.4.25 Covers 13.3.25—30.3.25
Pistons 7.4.25—27.4.25 Piston Rods 17.3.25—3.4.25 Connecting rods 3.2.25—25.3.25
Crank shaft 21.1.25—6.4.25 Thrust shaft 26.3.25—6.4.25 Intermediate shafts ✓
Tube shaft ✓ Screw shaft 2.4.25—12.5.25. Propeller 7.5.25
Stern tube 27.4.25—4.5.25 Engine and boiler seatings 27.2.25.5.25. Engines holding down bolts 9.6.25
Completion of pumping arrangements 9.6.25. Boilers fixed 4.6.25 Engines tried under steam 23.6.25
Main boiler safety valves adjusted 23.6.25. Thickness of adjusting washers PR. 1 1/2" S 3/8" SP 3/8" S 3/8"
Crank shaft material Ingot Steel Identification Mark 6345 H. Thrust shaft material Ing. Steel Identification Mark 7597
Intermediate shafts, material ✓ Identification Marks ✓ Tube shaft, material ✓ Identification Mark ✓
Screw shaft, material Ing. Steel Identification Mark 5620 N Steam Pipes, material L.W. Steel Test pressure 600 lbs Date of Test 6.5—15.6.25
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 built and installed under Special Survey.
The materials and workmanship are good and efficient.
On completion it was tried at work under full steam with satisfactory results, and is now eligible to have the notation ∇ L.M.C. 7.25.

It is submitted that this vessel is eligible for THE RECORD. +LMC 7.25. C.L.

Signature and date 5/8/25.

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

The amount of Entry Fee ... £ 4 : 0 :
Special ... £ 66 : 2 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 31 July 1925
When received, 19.25

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

Committee's Minute

FRI, 7 AUG 1925

Assigned

+ L.M.C. 7.25
C.L.

CERTIFICATE WRITTEN.



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