

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

12 MAR 1925

Date of writing Report 14.2.25 When handed in at Local Office 11 March 1925 Port of WEST HARTLEPOOL
 No. in Survey held at West Hartlepool Date, First Survey 27th May 1924 Last Survey 4 March 1925
 Reg. Book. 90453 on the S.S. "QUERIMBA" (Number of Visits 97)
 Built at Sunderland By whom built Wear Shipyard of Mr. Gray & Co. Yard No. 964 Tons { Gross 7700
 Engines made at West Hartlepool By whom made Central Marine Eng Works Engine No. 964 When built 1925
 Boilers made at ditto By whom made ditto Boiler No. 964 when made 1925
 Registered Horse Power 933 Owners British India S. N. Co. Ltd. Port belonging to London
 Nom. Horse Power as per Rule 933 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Quadruple expansion
 Dia. of Cylinders 28 $\frac{1}{2}$ " 41" 58 $\frac{1}{2}$ " 85" Length of Stroke 54" Revs. per minute 84 No. of Cylinders 4 No. of Cranks 4
 Dia. of Crank shaft journals as per rule 16.16 Dia. of Crank pin 16 $\frac{3}{4}$ " Crank webs 15.5 Mid. length breadth 24 $\frac{1}{2}$ " Thickness parallel to axis 10"
 Diameter of Thrust shaft under collars as per rule 16.16 Diameter of Tunnel shaft as per rule 15.4 Diameter of Screw shaft as per rule 17.125 Is the Screw shaft
 fitted with a continuous liner the whole length of the stern tube yes 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 joints burned yes If the liner does not fit tightly at the part
 between the bearings in the stern tube, is the space charged with plastic material insoluble in water and non-corrosive yes
 If two liners are fitted, is the shaft lapped or protected between the liners no Is an approved appliance fitted at the after end of the shaft to permit
 of it being efficiently lubricated no Length of Stern Bush 6'-0" Diameter of Propeller 19'-6"
 Pitch of Propeller 17'-0" No. of Blades 4 State whether Moveable yes Total Surface 130 square feet.
 No. of Feed Pumps fitted to the Main Engines 2 Diameter of ditto 5" Stroke 32" Can one be overhauled while the other is at work yes
 No. of Bilge Pumps fitted to the Main Engines 2 Diameter of ditto 5" Stroke 32" Can one be overhauled while the other is at work yes
 Total number and size of power driven Feed and Bilge Auxiliary Pumps 1 Harbour feed 9 $\frac{1}{2}$ " x 21" Single 1 Ballast 11 $\frac{1}{2}$ " x 12 $\frac{3}{4}$ " x 11" dup.
 No. and size of Pumps connected to the Main Bilge Line 2 Main 5" x 32" 1 Gen. Serv. 12 $\frac{1}{2}$ " x 8" x 10" dup. 1 Ball. 11 $\frac{1}{2}$ " x 12 $\frac{3}{4}$ " x 11" dup.
 No. and size of Ballast Pumps 1 11 $\frac{1}{2}$ " x 12 $\frac{3}{4}$ " x 11" dup. No. and size of Lubricating Oil Pumps, including Spare Pump ✓
 Are two independent means arranged for circulating water through the Oil Cooler ✓ No. and size of suction connected to both Main Bilge Pumps and Auxiliary
 Bilge Pumps;—In Engine and Boiler Room 5 of 3 $\frac{1}{2}$ " and in Holds, &c. No 1. 2 of 3" No 2. 2 of 3 $\frac{1}{4}$ "
No 3. 2 of 2 $\frac{1}{2}$ " No 4. 2 of 3" No 5. 2 of 3 $\frac{1}{4}$ " Deep tank 2 of 2 $\frac{1}{2}$ "
Tunnel 1 of 2 $\frac{1}{4}$ "
 No. and size of Main Water Circulating Pump Bilge Suctions 1 - 12" No. and size of Donkey Pump Direct Suctions
 to the Engine Room Bilges 1 5 $\frac{1}{4}$ " 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 connections with the sea direct on the skin of the ship yes Are they 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 Discharge Pipes 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 ✓
 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 Screw Shaft Tunnel watertight see ship report Is it fitted with a watertight door yes worked from ✓

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 14253 sq. ft.
 Is Forced Draft fitted yes No. and Description of Boilers 5 single ended Working Pressure 225 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)
 General Pumping Arrangements yes Oil fuel Burning Piping Arrangements ✓

SPARE GEAR. State the articles supplied:—2 Con. rod bottom end bolts & nuts. 4 top end ditto. 2 Main
bearing ditto. 2 sets coupling ditto. 1 set valves & seats for main feed pumps,
hotwell pumps, bilge pumps, air pump, & all aux. pumps. 1 set piston rings &
springs for each main engine cylinder. 1 set rings for H.P. & M.P. piston valves.
1 slide rod complete. 1 tumbler block. 2 pairs top end bearings 1 pair bottom end do.
1 eccentric strap. 1 air pump rod & bucket. 1 tail shaft 1 propeller blade with
studs & nuts. 3 cyl. escape valves with springs. 20 condenser tubes. 2 safety valve
springs. 1 feed check valve. 15 boiler tubes. 1 shuttle valve chest complete for
main feed pumps. 1 impeller & shaft for circ. pump. Studs, bolts & nuts for
main engines cyl. & valve chest covers, pistons, glands, ecc. rods, air pump,
& Condenser. Various spare parts for circ. & fan engines. Bolts, nuts & iron assorted.

The foregoing is a correct description, WORKS,

(W. Gray & Co. Ltd.)

W. Gray

Manufacturer.

MANAGING DIRECTOR, C.M.E.W.

Lloyd's Register
Foundation

010294-010299-0192

1924. May 27. Jun 5. 17. 19. July 4. 15. 17. 18. 29. 31. Aug 14. 20. 22. 25. Sept 5. 8. 12. 18. 18. 27. 25. 26. 29. Oct 7. 6. 8.
During progress of work in shops - - 13. 14. 20. 22. 24. 27. 30. 31. Nov 4. 6. 7. 11. 12. 14. 19. 20. 21. 24. 26. 27. 28. Dec 1. 3. 4. 5. 8. 9. 10. 11. 12. 15. 16. 18. 19. 22.
Dates of Survey while building During erection on board vessel - - 23. 24. 29. 30. 31. 31. 1925. Jan 6. 7. 7. 9. 9. 12. 13. 16. 16. 19. 20. 20. 21. 22. 22. 23. 26. 28. 30. Feb 3. 4. 5. 10. 10. 16. 17. 20.
Total No. of visits 97.
26. 27. Mar 4.

Dates of Examination of principal parts - Cylinders 18. 9. 24 - 8. 12. 24 Slides 11. 11. 24 - 9. 12. 24.
Covers 11. 11. 24 - 3. 12. 24 Pistons 5. 12. 24 - 15. 1. 25. Rods 5. 6. 24 - 3. 12. 24
Connecting rods 27. 5. 24 - 3. 12. 24 Crank shaft 13. 10. 24 - 24. 11. 24 Thrust shaft 24. 11. 24 - 19. 12. 24
Tunnel shafts 24. 11. 24 - 29. 12. 24 Screw shaft 21. 11. 24 - 19. 12. 24 Propeller 29. 12. 24
Stern tube 22. 9. 24 - 11. 12. 24 Engine and boiler seatings 16. 1. 25 Engines holding down bolts 22. 26. 1. 25
Completion of pumping arrangements 20. 2. 25 Boilers fixed 22. 1. 25 Engines tried under steam 17. 2. 25
Completion of fitting sea connections Sunderland. Stern tube 7. 1. 25 Screw shaft and propeller 7. 1. 25
Main boiler safety valves adjusted 16. 17. 2. 25. Thickness of adjusting washers PFP³ S³ SFP³ S³ PA. ³/₈ ³/₈ C ⁵/₁₆ ⁵/₁₆ SA. ³/₈ ³/₈
Material of Crank shaft Ingot Steel Identification Mark on Do. 6864 N
Material of Thrust shaft do Identification Mark on Do. 6864 N
Material of Tunnel shafts do Identification Marks on Do. 6864 N
Material of Screw shafts do Identification Marks on Do. 6864 N
Material of Steam Pipes Lap welded Steel Test pressure 675 lbs Date of Test 24. 12. 24 - 10. 2. 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 yes If so, state name of vessel Zueda ✓

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

An evaporator fitted, the coils of which were tested to 450 lbs, and the shell to 50 lbs.

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 satisfactorily, and is now eligible to have the notation L.M.C. 3. 25.

The electric light installation has been completed in the machinery space and insulated provision chamber, and the whole installation tried under working conditions satisfactorily.

It is submitted that this vessel is eligible for THE RECORD. + LMC 3. 25. FD. CL.

The amount of Entry Fee ... £ 6 : 0 :
Special ... £ 121 : 13 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 11 March 1925.
When received, 15 March 1925.

Committee's Minute

Assigned

PR. 13 MAR 1925

+ L.M.C. 3. 25

Z. D. C. L.

R. D. Shilston.

Engineer Surveyor to Lloyd's Register of Shipping.



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