

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 22 JUL 1926

Date of writing Report 19. 6. 1926 When handed in at Local Office 16. 7. 1926 Port of Greenock.
 No. in Survey held at Port Glasgow Date, First Survey 7th May, 1925 Last Survey 15/7/1926
 Reg. Book. on the SS "ZVIR" (Number of Visits 67)
 Built at Port Glasgow. By whom built The Clyde S B & E Co Ltd. Yard No. 350 Tons 1926.
 Engines made at Port Glasgow By whom made The Clyde S B & E Co Ltd Engine No. 485 when made 1926
 Boilers made at " By whom made " Boiler No. 485 when made 1926.
 Registered Horse Power ✓ Owners Perekomorska Plovdiva Port belonging to Suisak.
 Nom. Horse Power as per Rule 468. Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes.
 Made for which Vessel is intended Foreign.

GINES, &c.—Description of Engines Triple expansion. Revs. per minute 66
 a. of Cylinders 25-41-68. Length of Stroke 45. No. of Cylinders 3. No. of Cranks 3.
 Crank shaft, dia. of journals as per Rule 13.36 as fitted 13 5/8. Crank pin dia. 13 5/8. Crank webs Mid. length breadth 25 3/8 Thickness parallel to axis 8 3/8
 as fitted 13 5/8. Crank webs Mid. length thickness 8 3/8 shrunk Thickness around eye-hole 5 1/8.
 Intermediate Shafts, diameter as per Rule 12.42 as fitted 13.0. Thrust shaft, diameter at collars as per Rule 13.36 as fitted 13 5/8.
 Main Shafts, diameter as per Rule ✓ as fitted ✓. Screw Shaft, diameter as per Rule 14.26 as fitted 14 1/2. Is the ✓ shaft fitted with a continuous liner Yes.
 Bronze Liner, thickness in way of bushes as per Rule 13 as fitted 13 3/4. Thickness between bushes as per Rule 54 as fitted 9/16. 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 C.H.
 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 ✓
 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 4'-9".
 Propeller, dia. 14'-6" Pitch 18'-5" No. of Blades 4 Material Brass whether Movable No Total Developed Surface 89 1/2 sq. feet
 Main Engines, No. 2 Diameter 3" Stroke 24" Can one be overhauled while the other is at work Yes
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 4" Stroke 24" Can one be overhauled while the other is at work Yes
 Feed Pumps, No. and size 2 WEIRS 4" x 9 1/2" x 21" Pumps connected to the Main Bilge Line No. and size 2-10 1/4" x 10" x 10" 2-4" x 24"
 How driven STEAM DIRECT How driven STEAM DUPLEX MAIN ENGINE PUMPS.
 Main Bilge Pumps, No. and size 1 DUPLEX 10 1/4" x 10" x 10" Lubricating Oil Pumps, including Spare Pump, No. and size NONE.
 Are two independent means arranged for circulating water through the Oil Cooler NONE. Suctions, connected to both Main Bilge Pumps and Auxiliary
 Bilge Pumps;—In Engine and Boiler Room 4-2 1/2".
 Holds, &c. Nº 1. 2-3" Nº 2. 2-3 1/2" Nº 3. 2-3" Nº 4. 2-2 1/2" TUNNEL WELL 1-2 1/2" DEEP TANK 2-4 1/2"

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1-9" Independent Power Pump Direct Suctions to the Engine Room Bilges,
 No. and size 2-4 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.
 That Pipes are carried through the bunkers NONE. How are they protected ✓
 That 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 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 6960 SQUARE FEET.
 Is Forced Draft fitted YES No. and Description of Boilers 3. S. B. Working Pressure 200.
 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 YES Main Boilers YES Auxiliary Boilers NONE Donkey Boilers NONE.
 (If not state date of approval)
 Superheaters YES General Pumping Arrangements YES Oil fuel Burning Piping Arrangements NONE.

SPARE GEAR. State the articles supplied:—2 TOP END BOLTS & NUTS. 2 BOTTOM END BOLTS & NUTS. 2 MAIN
BEARING BOLTS. 1 SET OF FEED & BILGE PUMP VALVES. 1 VALVE & CAGE FOR EACH MAIN ENGINE CYLINDER.
1 SET OF CAMS FOR MAIN ENGINE VALVES 1 SET OF PISTON SPRINGS. A QUANTITY OF ASSORTED
BOLTS & NUTS. IRON OF VARIOUS SIZES.

The foregoing is a correct description,

THE CLYDE SHIPBUILDING & ENGINEERING CO. LIMITED.

Robert Wood
Director

Manufacturer.



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Lloyd's Register
Foundation

W229-0058

Dates of Survey while building
 During progress of work in shops - - (1925) May 7. 12. 18. June 2. 9. 15. 18. July 22. 25. Sept 1. 3. 7. 10. 15. 18. 29. Oct 19. 23. 28. Nov 1. 6. 11. 13. 14. Dec 9. 21. 22. 23. (1926)
 Jan 12. 21. 26. 29. Feb 4. 8. 23. Mar 1. 8. 12. 16. 24. 25. 29. Apr 2. 5. 6. 9. 26. 28. May 3. 11. 24. 28. June 1. 3. 7. 8. 9. 11. 15. 17. 18. 21. 22. 24. 28.
 During erection on board vessel - - 29. July 15.
 Total No. of visits 67.

Dates of Examination of principal parts—Cylinders 2-4-26 VALVES 26-4-26. Covers 2-4-26
 Pistons 2-4-26 Piston Rods 11-5-26. Connecting rods 8-2-26.
 Crank shaft 11-5-26. Thrust shaft 11-5-26 Intermediate shafts 11-5-26
 Tube shaft ✓ Screw shaft 24-5-26 Propeller 24-5-26.
 Stern tube 28-4-26. Engine and boiler seatings 11-5-26. Engines holding down bolts 18-6-26.
 Completion of pumping arrangements 29-6-26. Boilers fixed 15-6-26. Engines tried under steam 15-7-26
 Main boiler safety valves adjusted 29-6-26. Thickness of adjusting washers $P \frac{3}{8}$ S $\frac{1}{32}$ P $\frac{3}{8}$ S $\frac{1}{16}$ P $\frac{3}{8}$ S $\frac{1}{32}$
 Crank shaft material STEEL Identification Mark 662. J.D. Thrust shaft material STEEL Identification Mark 404. J.D.
 Intermediate shafts, material STEEL Identification Marks 405. J.D. Tube shaft, material ✓ Identification Mark ✓
 Screw shaft, material STEEL Identification Mark 640. J.D. Steam Pipes, material S.D. STEEL. Test pressure 600 lbs. Date of Test 19-6-26.
 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 YES. If so, state name of vessel S S "PERIA". (Lark Ref. No. 18506)

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery has been built under special survey, in accordance with the Rules and approved plans. The materials and workmanship are good. The engines and boilers have been securely fitted on board, and tried under full power with satisfactory results. The machinery is eligible, in my opinion, to be classed in the Register Book, and to have record of survey. + LMC 7-26.

It is submitted that
 this vessel is eligible for
 THE RECORD. + LMC 7.26. F.D. CL.

J.W.D.
 22/7/26.

The amount of Entry Fee ... £ 5 : 0 : 0 When applied for,
 Special ... £ 95 : 4 : 0 17th July, 1926.
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ ✓ : : 1. 9. 26

J.D. Avey
 Engineer Surveyors to Lloyd's Register of Shipping.

Committee's Minute
 Assigned + L.M.C 7:26 L.D.
 C.L.

CERTIFICATE WRITTEN