

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 21 AUG 1930

Date of writing Report 20.8.1930 When handed in at Local Office 20 Aug 1930 Port of Hull.
 No. in Survey held at Hull Date, First Survey 5 May 1930 Last Survey 18 Aug 1930.
 Reg. Book. on the T.S.S. 'LIMPOPO' (Number of Visits 85)
 Built at Hull By whom built Messrs S.B. & C. La Yard No. 648 Tons { Gross 646.89
 Engines made at Hull By whom made do Engine No. 678 when built 1930
 Boilers made at Hull By whom made do Boiler No. 678 when made 1930
 Registered Horse Power Owners Empresa Do Limpopo (A. Couto). Port belonging to Lourenço Marques.
 Nom. Horse Power as per Rule 116 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes.
 Trade for which Vessel is intended Foreign.

ENGINES, &c.—Description of Engines Twin Screw, Triple Expansion Revs. per minute
 Dia. of Cylinders 11 1/4" 18" 30" Length of Stroke 18" No. of Cylinders 6 No. of Cranks 6
 Crank shaft, dia. of journals as per Rule 5.57 Crank pin dia. 5 3/4" Crank webs 11" Thickness parallel to axis 3 3/4"
 as fitted 5 3/4" Mid. length thickness 3 3/4" shrunk Thickness around eye-hole 2 5/8"
 Intermediate Shafts, diameter as per Rule 5.3 Thrust shaft, diameter at collars as per Rule 5.54
 as fitted 5 3/8" as fitted 5 3/4"
 Tube Shafts, diameter as per Rule 6.2 Is the { tube } shaft fitted with a continuous liner { No }
 as fitted 6 3/4" as fitted 6 3/4"
 Screw Shaft, diameter as per Rule 6.2 Is the { tube } shaft fitted with a continuous liner { No }
 as fitted 6 3/4" as fitted 6 3/4"
 Bronze Liners, thickness in way of bushes as per Rule 2.0 Thickness between bushes as fitted Is the after end of the liner made watertight in the
 as fitted 2.0 as fitted 2.0
 propeller boss. 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
 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 Yes. If so, state type Vickers Type Length of Bearing in Stern Bush next to and supporting propeller 21.5"
 Propeller, dia. 4'-8" Pitch 8'-0" No. of Blades 4 Material Cast Iron whether Moveable No Total Developed Surface 21 sq. feet
 Feed Pumps worked from the Main Engines, No. One Diameter 2 3/4" Stroke 9" Can one be overhauled while the other is at work Yes
 Bilge Pumps worked from the Main Engines, No. One Diameter 2 3/4" Stroke 9" Can one be overhauled while the other is at work Yes
 Feed Pumps { No. and size One 6" x 4" x 6" DUPLEX Pumps connected to the { No. and size One 4" x 4" x 4" (DUPLEX).
 How driven Steam Main Bilge Line How driven Steam.
 Ballast Pumps, No. and size One 4" x 4" x 4" 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 2 @ 2 1/2" forward 2 @ 2 1/2" aft.
 In Holds, &c. 2 @ 2 1/2" in No. 1. 2 @ 2 1/2" in No. 2. 1 @ 2 1/2" in Tunnel well.
 1 @ 2 1/2" in fore peak and aft peak.

Main Water Circulating Pump Direct Bilge Suctions, No. and size One 4 1/2" Independent Power Pump Direct Suctions to the Engine Room Bilges,
 No. and size One 3" 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 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 pass 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 Yes Is it fitted with a watertight door Yes worked from upper platform.

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 2240 Sq. feet.
 Is Forced Draft fitted No No. and Description of Boilers 2 Single ended Working Pressure 180 Lbs. H.
 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 Yes

SPARE GEAR. State the articles supplied:—2 Bolts & nuts for top ends, bottom ends and
 main bearings. Set of coupling bolts & nuts. Valves for air, feed,
 bilge and donkey pumps. 2 Safety valve springs. Main and donkey
 check valves. Set of rings for each piston. 6 pin ring studs.
 3 Bilge tubes. 4 Condenser tubes. Bolts & iron of various sizes

FOR EARLE'S
 The foregoing is a correct description,
 G/H Stafford

Manufacturer.

MANAGER



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Lloyd's Register
Foundation

008152-00167-0204

1930. May 5. 8. 17. 21. 27. 31. June 11. 16. 18. 25. July 3. 7. 9. 10. 14. 16. 18. 24. 25. 28. 31. Aug 8. 15. 18. 22. 25. 28. 31. Sept 5. 12. 19. 26. Oct 3. 10. 17. 24. Nov 7. 14. 21. 28. Dec 5. 12. 19. 26. 31.

Dates of Survey while building

During progress of work in shops --

During erection on board vessel --

Total No. of visits

Dates of Examination of principal parts—Cylinders 11. 6. 30 Slides 14. 7. 30 Covers 11. 6. 30

Pistons 14. 7. 30 Piston Rods 3. 7. 30 Connecting rods 3. 7. 30

Crank shaft 25. 6. 30 Thrust shaft 9. 7. 30 Intermediate shafts 9. 7. 30

Tube shaft ✓ Screw shaft 9. 7. 30 Propeller 14. 7. 30

Stern tube 9. 7. 30 Engine and boiler seatings 22. 7. 30 Engines holding down bolts 22. 7. 30

Completion of fitting sea connections 14. 7. 30

Completion of pumping arrangements 15. 8. 30 Boilers fixed 22. 7. 30 Engines tried under steam 18. 8. 30

Main boiler safety valves adjusted 31. 7. 30 Thickness of adjusting washers $\frac{3}{8}$ " $\frac{11}{32}$ " $\frac{11}{32}$ " $\frac{11}{32}$ "

Crank shaft material Steel Identification Mark LLOYDS 516 Thrust shaft material Steel Identification Mark LLOYDS 516

Intermediate shafts, material Steel Identification Marks LLOYDS 516 Tube shaft, material ✓ Identification Mark ✓

Screw shaft, material Steel Identification Mark LLOYDS 516 Steam Pipes, material S.D. Copper Test pressure 360 lbs Date of Test 25. 7. 30

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 the use of oil as fuel been complied with ✓

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo No If so, have the requirements of the Rules 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. The machinery of this vessel has been built under Special Survey & the materials & workmanship are sound & good. They have been satisfactorily fitted on board & tried under working conditions & found in good order.

It is eligible in my opinion to have record of + L.M.C. 8.30 C.L.S.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 8.30 O.G.

B.H. 24/8/30
H.D.A.

CERTIFICATE WRITTEN.

The amount of Entry Fee ... £ 3 : 0.0 When applied for, 20 Aug 30

Special ... £ 29 : 0.0

Donkey Boiler Fee ... £ :

Travelling Expenses (if any) £ :

When received, 22/8/30

W. H. Waggott for Self
Engineer Surveyor to Lloyd's Register of Shipping.
J.H. Mackenzie

Committee's Minute

FRI. 22 AUG 1930

FRI. 19 DEC 1930

Assigned

+ L.M.C. 8.30

O.G.



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