

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

DEC 11 1937

10 DEC 1937 Port of **NEWCASTLE-ON-TYNE**

Date of writing Report 10 DEC 1937 When handed in at Local Office 10 DEC 1937 Port of NEWCASTLE-ON-TYNE  
 No. in Survey held at Wallsend Date, First Survey 24 March Last Survey 6 Dec 1937  
 Reg. Book. S.S. 'LAFIAN' (Number of Visits 86)  
 on the S.S. 'LAFIAN' Tons { Gross  
 Built at Haverton Hill By whom built Furness Shipbuilding Co. Ltd. Yard No. 274 When built 1937  
 Engines made at Wallsend By whom made N.E. Marine Eng. Co. Ltd. Engine No. 2888 When made 1937  
 Boilers made at Wallsend By whom made N.E. Marine Eng. Co. Ltd. Boiler No. 2888 When made 1937  
 Registered Horse Power 456 Owners United Africa Co. Ltd. Port belonging to Hecton  
 Nom. Horse Power as per Rule 456 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes  
 Trade for which Vessel is intended West Coast of Africa.

**ENGINES, &c.**—Description of Engines Triple Expansion Revs. per minute 88  
 Dia. of Cylinders 23" - 38" - 65" Length of Stroke 45" No. of Cylinders 3 No. of Cranks 3  
 Crank shaft, dia. of journals 13 1/2" Crank pin dia. 13 1/2" Crank webs HP & LP 8 3/8" shrunk Thickness parallel to axis HP & LP 8 3/8" MP 8 3/4"  
 Intermediate Shafts, diameter 12 1/4" Thrust shaft, diameter at collars 13 1/2" Thickness around eye-hole 6 3/4" + 7 1/2"  
 Tube Shafts, diameter 13 1/8" Is the screw shaft fitted with a continuous liner Yes  
 Bronze Liners, thickness in way of bushes 3/4" Thickness between bushes 5/8" 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 In one length fits full length  
 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 No Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft No  
 Propeller, dia. 16 1/2" Pitch 14 1/3" No. of Blades 4 Material Bronze whether Moveable No Total Developed Surface 94 sq. feet  
 Feed Pumps worked from the Main Engines, No. None Diameter 4" 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 - 9 1/2" x 7" x 21" + 1 - 7" x 5" x 8" Pumps connected to the { No. and size 1 - 9" x 11" x 10"  
 { How driven Steam Main Bilge Line { How driven Steam  
 Ballast Pumps, No. and size 1 - 9" x 11" x 10" 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 (AFT) 2@3" AFTER WELL 1@2" AFT OF BOILERS 2@3" Cofferdam 1@2" Storehold well 1@2" No 4 Tank (5x4) In Pump Room Bilges 2@3" Cofferdam 1@2" In Holds, &c. No 1 2@3" No 2 2@3 1/2" No 3 2@3" No 4 4@3"  
 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 1 @ 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 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 Both  
 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 None 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 Deck lead.

**MAIN BOILERS, &c.**—(Letter for record S) Total Heating Surface of Boilers 2 main 5630 sq. ft. 1 auxiliary 1400 sq. ft. Total 7030 sq. ft.  
 Is Forced Draft fitted Yes No. and Description of Boilers Two main and one Auxiliary Working Pressure 220 lbs  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes  
 IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? Yes  
 Is the donkey boiler intended to be used for domestic purposes only Yes

**PLANS.** Are approved plans forwarded herewith for Shafting 12-5-37 Main Boilers 28-1-37 Auxiliary Boilers 28-1-37 Donkey Boilers —  
 Superheaters Yes General Pumping Arrangements 22-4-37 Oil fuel Burning Piping Arrangements 6-5-37

**SPARE GEAR.**  
 Has the spare gear required by the Rules been supplied Yes  
 State the principal additional spare gear supplied 1 Cast iron propeller, 1 propeller shaft, 1 pair crank shaft braces, 1 set each of HP & MP piston packing, 2 sets of piston rod packing, 1 set of main check valves, Spares for Poppet valve gear, donkey pumps, 2 elements for superheaters, 2 safety valve springs (superheater).

The foregoing is a correct description,  
 THE NORTH EASTERN MARINE ENGINEERING CO., LTD.  
John Neill  
 Director & General Manager.

Manufacturers.



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If not, state whether, and when, one will be sent? In a Report also sent on the Hull of the ship? NOTE.—The words which do not apply should be deleted.

W1145-0016

1937  
 Mar. 24. Apr. 7. May 10. 14. 20. 26. 27. June 1. 4. 7. 8. 10. 11. 15. 16. July 2. 9. 14. 16. 19. 21. 22. 26. 29. 30.  
 Aug. 4. 5. 9. 10. 11. 12. 13. 17. 18. 19. 20. 23. 24. 25. 26. 27. 31. Sep. 2. 3. 6. 7. 8. 9. 10. 13. 14. 15. 17. 20. 21. 29. Oct. 1.  
 4. 6. 8. 12. 13. 14. 15. 20. 22. 25. 26. 27. 28. Nov. 1. 2. 3. 8. 12. 15. 16. 17. 18. 23. 24. 29. 30. Dec. 1. 3. 6.

Dates of Survey while building  
 During progress of work in shops --  
 During erection on board vessel ---  
 Total No. of visits 86.

Dates of Examination of principal parts—Cylinders 3-9-37 Slides 14-10-37 Covers 3-9-37  
 Pistons 7-9-37 Piston Rods 7-9-37 Connecting rods 7-9-37  
 Crank shaft 26-8-37 Thrust shaft 6-9-37 Intermediate shafts 27-10-37  
 Tube shaft — Screw shaft 21-9-37 Propeller 7-11-37  
 Stern tube 10-9-37 Engine and boiler seatings 8-11-37 Engines holding down bolts 17-11-37  
 Completion of fitting sea connections 6-12-37  
 Completion of pumping arrangements 1-12-37 Boilers fixed 17-11-37 Engines tried under steam 30-11-37  
 Main boiler safety valves adjusted 29-11-37 Thickness of adjusting washers PORTBLR SH.V. 9/32" P. 1/32" AUX. S. 3/16" STARBLR-F 1/2" 5/32" LLOYDS 66  
 Crank shaft material Steel Identification Mark J.E.S. 26-8-37 Thrust shaft material Steel Identification Mark J.E.S. 6-9-37  
 Intermediate shafts, material Steel Identification Marks J.E.S. 21-10-37 Tube shaft, material — Identification Mark —  
 Screw shaft, material Steel Identification Mark J.E.S. 1-9-37 Steam Pipes, material Steel S.D. Test pressure 660 lbs Date of Test 23-11-37  
 Is an installation fitted for burning oil fuel Yes Is the flash point of the oil to be used over 150°F. Yes  
 Have the requirements of the Rules for the use of oil as fuel been complied with Yes  
 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 Yes  
 If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with Yes  
 Is this machinery duplicate of a previous case Yes If so, state name of vessel "Conakrian" Report No 95604

**General Remarks** (State quality of workmanship, opinions as to class, &c. The machinery of this vessel has been built under special survey, in accordance with the Rules and approved plans. The materials and workmanship are good. It has been fitted on board in an efficient manner, tried under working conditions and found satisfactory, and is eligible in my opinion to be classed with record of S L.M.C 12-37. C.L: F.D. Fitted for oil fuel 12-37. F.P., above 150°F. 2SB (cpt).

NEWCASTLE-ON-TYNE.

The Surveyors are requested not to write on or below the space for Committee's Minute.

The amount of Entry Fee ... £ 5/0 : When applied for, 10 DEC 1937  
 Special ... £ 93/8 :  
 Donkey Boiler Fee ... £ : : When received,  
 Travelling Expenses (if any) £ : : 13/12 1937  
JMR 14/12.

J. Seller  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 17 DEC 1937  
+ Lmb. 12.37  
 Assigned Fatt. for oil fuel 12.37 H. above 150°F  
2SB (cpt) 32, + 1 Amp SB  
CL

