

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

DEC 11 1937

Date of writing Report

19

When handed in at Local Office

10 DEC 1937

Port of

NEWCASTLE-ON-TYNE

No. in Survey held at  
Reg. Book.

Date, First Survey

24 March

Last Survey

6 Dec

1937

(Number of Visits 86)

on the

S.S. "LAFIAN"

Built at

Haverton Hill

By whom built

Furness Shipbuilding Co. Ltd.

Yard No.

274

Tons

Gross

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

Owners

United Africa Co. Ltd.

Port belonging to

Hectown

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, &amp;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

as per Rule 13.1"

as fitted 13 1/2"

Crank pin dia.

13 1/2"

Crank webs

Mid. length breadth

23 3/8"

Mid. length thickness

NP 8 3/4"

Thrust shaft, diameter at collars

as per Rule 13.1"

as fitted 13 1/2"

Intermediate Shafts, diameter

as per Rule 12.48"

as fitted 12 3/4"

Tube Shafts, diameter

as per Rule 13.8"

as fitted 14 1/4"

Screw Shaft, diameter

as per Rule 13.8"

as fitted 14 1/4"

Is the

shaft fitted with a continuous liner

Yes

Bronze Liners, thickness in way of bushes

as per Rule 23.5"

as fitted 3/4"

Thickness between bushes

as per Rule 17.625"

as fitted 32"

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

If two liners are fitted, is the shaft lapped or protected between the liners

Propeller, dia.

16" - 9 1/2"

Pitch

14" - 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" &amp; 1 - 7" x 5" x 8"

Pumps connected to the

Main Bilge Line

No. and size

1 - 9" x 11" x 10"

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

Bilge Pumps;—In Engine and Boiler Room (Aft) 2@3": 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": No. 5 2@3" &amp; 2@2": Tunnel well 1@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

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

Are all Sea Connections fitted direct on the skin of the ship

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel

What Pipes pass through the bunkers

None

What pipes pass through the deep tanks

None

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

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

Is the Shaft Tunnel watertight

Is it fitted with a watertight door

Is a Report on Main Boilers now forwarded?

Is a Donkey Boiler fitted?

Is the donkey boiler intended to be used for domestic purposes only

Are approved plans forwarded herewith for Shafting

Superheaters

General Pumping Arrangements

Oil fuel Burning Piping Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

1 Cast iron propeller, 1 propeller shaft, 1 pair crank shaft braces, 1 set each of HP &amp; 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 (superheaters).

The foregoing is a correct description,  
THE NORTH EASTERN MARINE ENGINEERING CO., LTD.

John Neill

Director &amp; General Manager

Manufacturers.



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Lloyd's Register  
Foundation

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 PORT BLR. SH.V. 9/32" P. 11/32" SH.V. 9/32" AUX. S. 3/8" STAR BLR. F. 1/2" S. 3/32" LLOYDS 9409  
 Crank shaft material Steel Identification Mark J.E.S. 26-8-37 Thrust shaft material Steel Identification Mark J.E.S. 6-9-37 LLOYDS 217/218/258/266/272/274/296  
 Intermediate shafts, material Steel Identification Marks J.E.S. 21-10-37 Tube shaft, material — Identification Mark — LLOYDS 82  
 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  
 If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with  
 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 L.M.C 12-37. C.L: F.D. Fitted for oil fuel 12-37. F.P., above 150°F. 2SB (cpt).

The amount of Entry Fee ... £ 5 : 0 :  
 Special ... £ 93 : 8 :  
 Donkey Boiler Fee ... £ : :  
 Travelling Expenses (if any) £ : :  
 When applied for, 10 DEC 1937  
 When received, 13/12 1937  
 J. Seller  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute  
 + Lmb. 12.3  
 Assigned Fatt. for oil fuel 12.37 H. above 150°F  
 2SB (cpt) 32, + 1 Aug SB  
 CL



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