

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 20 DEC 1929  
NEWCASTLE-ON-TYNE

Date of writing Report 19 When handed in at Local Office 19/12/29 Port of WALLSEND-ON-TYNE

No. in Survey held at Reg. Book. on the Wallsend-on-Tyne Date, First Survey 1<sup>st</sup> March Last Survey 18-12-1929  
(Number of Visits 70)

Built at Sunderland By whom built Short Bros Ltd Yard No. 439 Tons } Gross }  
 } Net } When built 1929

Engines made at Wallsend-on-Tyne By whom made North Eastern M & E Co Ltd Engine No. 2406 when made 1929

Boilers made at Wallsend-on-Tyne By whom made North Eastern M & E Co Ltd Boiler No. 2406 when made 1929

Registered Horse Power 453 owners Nitrate Producers S & C Ltd Port belonging to London

Nom. Horse Power as per Rule 453 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

Trade for which Vessel is intended Ocean going, General Cargo

ENGINES, &c.—Description of Engines Quadruple Expansion Revs. per minute 63

Dia. of Cylinders 23 1/2, 22 1/2, 14 1/2, 6 1/2 Length of Stroke 48 No. of Cylinders 4 No. of Cranks 4

Crank shaft, dia. of journals as per Rule 13.629 Crank pin dia. 14 1/4 Crank webs Mid. length breadth 2'-0" Thickness parallel to axis 8 3/4"  
as fitted 13 1/4 Mid. length thickness 8 2 1/4" shrunk Thickness around eye-hole 1 1/16 x 1/8

Intermediate Shafts, diameter as per Rule 12.99 Thrust shaft, diameter at collars as per Rule 13.629  
as fitted 13 1/8 as fitted 13 1/8

Tube Shafts, diameter as per Rule 14.49 Is the tube shaft fitted with a continuous liner } yes  
as fitted 14 1/8 }  
Screw Shaft, diameter as per Rule 5.54 Is the screw shaft fitted with a continuous liner } yes  
as fitted 5 1/2 }

Bronze Liners, thickness in way of bushes as per Rule 3 1/4 Thickness between bushes as per Rule 2 1/2 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 yes

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 yes 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 5'-6"

Propeller, dia. 18'-0" Pitch 18'-0" No. of Blades 4 Material Bronze whether Movable no Total Developed Surface 100 sq. feet

Feed Pumps worked from the Main Engines, No. 2 Diameter 4" Stroke 26" Can one be overhauled while the other is at work yes

Bilge Pumps worked from the Main Engines, No. 2 Diameter 4 1/2" Stroke 26" Can one be overhauled while the other is at work yes

Feed Pumps No. and size 2 @ 4" x 9 1/2" x 21" + 1 aux 5" x 4" x 12" Pumps connected to the Main Bilge Line No. and size one duplex ballast 9" x 11" x 10"  
How driven Steam How driven Steam

Ballast Pumps, No. and size one 9" x 11" x 10" Lubricating Oil Pumps, including Spare Pump, No. and size none

Are two independent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room 3 @ 3" + 1 @ 2 1/2" in dry tank 1 @ 2" + 1 @ 2 1/2" in Tunnel

In Holds, &c. 2 @ 3" fore hold, 2 @ 3 1/2" fore main hold, 2 @ 2 1/2" Cross bunkers 2 @ 3" after main hold, 2 @ 3" after hold, 2 @ 3" deep tank

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 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 Bilge suction How are they protected wood limbers

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 top platform

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 6216 sq ft

Is Forced Draft fitted yes No. and Description of Boilers Three single ended Working Pressure 220 lbs

IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes

IS A DONKEY BOILER FITTED? yes If so, is a report now forwarded? yes

PLANS. Are approved plans forwarded herewith for Shafting no Main Boilers yes Auxiliary Boilers yes Donkey Boilers yes

Superheaters Standard approved General Pumping Arrangements yes Oil fuel Burning Piping Arrangements yes

SPARE GEAR. State the articles supplied Two each bolts & nuts for top & bottom ends & main bearings one set auxiliary bolts & nuts 1 set feed bilge pp valves 1 set aux feed pp + 1 set ballast pp valves 12 piston bolts 1 tail shaft 1 C I propeller Quantity of assorted bolts nuts & iron

NOTE.—The words which do not apply should be deleted.

The foregoing is a correct description,

THE NORTH EASTERN MARINE ENGINEERING CO., LTD.

J. Dindale (Chief Draughtsman)

Manufacturer.



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Lloyd's Register Foundation

010563-010571-0299

1929  
 During progress of work in shops - - - Mar. 1. 11. 21. Apr. 3. 4. 8. 12. 18. 24. 30. May 2. 8. 14. 15. 17. 24. 28. 29. 30. 31. June 4. 11. 12. 20. 21. July 2. 4.  
 9. 12. 15. 16. 19. 25. Aug. 2. 8. 9. 12. 13. 23. 27. 28. 29. 30. Sep. 3. 4. 16. 17. 20. 26. Oct. 1. 4. 7. 8. 11. 21. 22. 24. 30. Nov. 4.  
 During erection on board vessel - - - 7. 8. 11. 12. 20. 27. Dec. 3. 5. 6. 10. 18.  
 Total No. of visits **70.**

Dates of Examination of principal parts—Cylinders 11-6-29 Slides 11-10-29 Covers 16-4-29  
 Pistons 11-10-29 Piston Rods 16-9-29 Connecting rods 4-9-29  
 Crank shaft 21-10-29 Thrust shaft 30-5-29 Intermediate shafts 21-10-29 & 4-11-29  
 Tube shaft ✓ Screw shaft 26-9-29 Propeller 26-9-29  
 Stern tube 4-10-29 Engine and boiler seatings 22-10-29 Engines holding down bolts 24-11-29  
 Completion of fitting sea connections 22-10-29  
 Completion of pumping arrangements 24-11-29 Boilers fixed 24-11-29 Engines tried under steam 3-12-29  
 Main boiler safety valves adjusted 3-12-29 Thickness of adjusting washers P 15 16 3/32; C 13 P 15 3/32 super 9/64; S 13 3/32 5/16  
 Crank shaft material **OH Steel** Identification Mark 2406 W.B. Thrust shaft material **OH Steel** Identification Mark 1494 W.B.  
 Intermediate shafts, material **OH Steel** Identification Marks 2495, 2456, 1464, 2454, 2454 all W.B. Tube shaft, material ✓ Identification Mark ✓  
 Screw shaft, material **OH Steel** Identification Mark 2504 & 1459 W.B. Steam Pipes, material **S.D. Steel** Test pressure 660 lbs Date of Test 11-11-29 to 24-11-29  
 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 **Anglo-Saxon.**

**General Remarks** (State quality of workmanship, opinions as to class, &c.)  
 The Machinery of this vessel has been built under Special Survey. Materials & Workmanship good. Hydraulic tests satisfactory. The whole of the machinery is efficiently installed & fixed in the vessel & has been tried under steam and is in good & safe working condition and eligible in my opinion to be classed & have records. ✠ L.M.C 12-29. in the Register Book. also Sail Shaft C.L.

It is submitted that this vessel is eligible for THE RECORD. + LMC 12-29 Cl. F.D.

*[Handwritten signature]*  
 2/12/29

The amount of Entry Fee ... £ 5 0 0 :  
 Special ... £ 92 19 0 :  
 Donkey Boiler Fee ... £ ✓ :  
 Travelling Expenses (if any) £ ✓ :

When applied for, 19 DEC 1929  
 When received, 31-12-29

*[Handwritten signature: William Butler]*  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 24 DEC 1929

Assigned

+ L.M.C 12.29  
*[Handwritten initials]*



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

Is a Report also sent on the Hull of the Ship?

[2m. 2. 28. - Copyable Ink.]