

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 8 NOV 1928

Survey Report / 5th Nov: 1928 When handed in at Local Office 3rd Nov: 1928. Port of Sunderland
 Survey held at Sunderland Date, First Survey Apr. 24 Last Survey Nov. 2 1928
 on the S. S. "FARNDALE" (Number of Visits 30)
Sunderland By whom built Sir. J. Priestman & Co. Yard No. 280 When built 1928
 made at Sunderland By whom made North Eastern Marine Eng. Co. Ltd. Engine No. 2672 when made 1928
 made at Sunderland By whom made North Eastern Marine Eng. Co. Ltd. Boiler No. 2672 when made 1928.
 Horse Power 380 Owners Morrison S. S. Co. Ltd. (J. Morrison & Son, Mgrs) Port belonging to Newcastle.
 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
 which Vessel is intended General cargo.

ES, &c.—Description of Engines Triple Expansion - Single Screw Revs. per minute 66
 Cylinders 25" - 41" - 69" Length of Stroke 48" No. of Cylinders 3 No. of Cranks 3
 Shaft, dia. of journals as per Rule 13.2" as fitted 13.2" Crank pin dia. 13.2" Crank webs Mid. length breadth ✓ Thickness parallel to axis 8.3"
 Mid. length thickness ✓ shrunk Thickness around eye-hole 6.4"
 Main Shafts, diameter as per Rule 12.58" as fitted 12.3/4" Thrust shaft, diameter at collars as per Rule 13.2" as fitted 13.2"
 Main shafts, diameter as per Rule ✓ as fitted ✓ Screw Shaft, diameter as per Rule 14.04" as fitted 14.1/2" Is the tube shaft fitted with a continuous liner Yes
 Is the screw shaft fitted with a continuous liner Yes
 Liners, thickness in way of bushes as per Rule .728" as fitted 3/4" Thickness between bushes as per Rule .546" as fitted 1/16" Is the after end of the liner made watertight in the Yes
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of 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 ✓
 Are the bearings fitted, is the shaft lapped or protected between the liners ✓ Is an approved Oil Gland or other appliance fitted at the after ✓
 tube shaft ✓ Length of Bearing in Stern Bush next to and supporting propeller 4' 10"
 Propeller, dia. 17' 6" Pitch 17' 6" No. of Blades 4 Material Bronze whether Movable No Total Developed Surface 97 sq. feet
 Pumps worked from the Main Engines, No. 2 Diameter 4" Stroke 24" Can one be overhauled while the other is at work Yes
 Pumps worked from the Main Engines, No. 2 Diameter 4" Stroke 24" Can one be overhauled while the other is at work Yes
 No. and size 2 - 7 1/2" x 5" x 6" Pumps connected to the Main Bilge Line (No. and size 1 - 7 1/2" x 9 1/2" x 10 1/2" How driven Steam
 How driven Steam Lubricating Oil Pumps, including Spare Pump, No. and size ✓
 Independent means arranged for circulating water through the Oil Cooler ✓ Suctions, connected to both Main Bilge Pumps and Auxiliary ✓
 pumps;—In Engine and Boiler Room 5 @ 2 1/2" Dia.
 &c. Fore Hold 2 @ 3" Dia, Fore Main Hold 2 @ 3 1/2" Dia, aft Main Hold 2 @ 3" Dia,
aft Hold 2 @ 3" Dia, Tunnel Well 1 @ 2 1/2" Dia.
 Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 8" Dia. Independent Power Pump Direct Suctions to the Engine Room Bilges, 1 @ 4 1/2" Dia.
 Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes Yes
 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
 Sea Connections fitted direct on the skin of the ship Yes Are they fitted with Valves or Cocks Both
 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 main Below
 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
 Pipes pass through the bunkers None How are they protected ✓
 Pipes pass through the deep tanks ✓ Have they been tested as per Rule ✓
 Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes
 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 Yes
 compartment to another Yes Is the Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Top platform

BOILERS, &c.—(Letter for record (S)) Total Heating Surface of Boilers 6147 sq. ft.
 Reduced Draft fitted No No. and Description of Boilers Three Single ended Marine type Working Pressure 180 lbs. □"
 REPORT ON MAIN BOILERS NOW FORWARDED? Yes
 DONKEY BOILER FITTED? No If so, is a report now forwarded? ✓

N.S. Are approved plans forwarded herewith for Shafting ✓ Main Boilers Yes Auxiliary Boilers ✓ Donkey Boilers ✓
 (If not state date of approval)
 General Pumping Arrangements Forwarded with S. S. Francis Oil fuel Burning Piping Arrangements ✓
 RE GEAR. State the articles supplied:—6.1. Propeller, 2 Top end Bolts & Nuts, 2 Bottom end Bolts & Nuts,
Main Bearing Bolts & Nuts, 6 Coupling Bolts & Nuts, 2 Feed Pump Valves, 2 Bilge Pump Valves,
1 Cut of Iron Plate, 1 Cut of Iron Bars, 50 Assorted Bolts & Nuts, 6 Plain Boiler Tubes,
Piston Studs & Nuts, 2 Safety Valve Springs, 1 Main & 1 Aux Check Valve Sid.

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

John Neill
Manager.

Manufacturer.



Dates of Survey while building

During progress of work in shops - - - 1928. Apr. 24. May. 7. June. 13. 22. July. 3. 9. 31. Aug. 23. 27. Sep. 13. 14. 20. 21. 25. 26. 30.

During erection on board vessel - - - 3. 4. 8. 10. 11. 13. 15. 16. 17. 18. Nov. 2

Total No. of visits 30

Dates of Examination of principal parts—Cylinders 28-9-28. Slides 9-7-28. Covers 28-9-28.

Pistons 13-6-28. Piston Rods 7-5-28. Connecting rods 24-4-28.

Crank shaft 25-9-28. Thrust shaft 1-10-28. Intermediate shafts 1-10-28.

Tube shaft ✓ Screw shaft 3-10-28. Propellers 2-10-28.

Stern tube 28-9-28. Engine and boiler seatings 4-10-28. Engines holding down bolts 13-10-28.

Completion of fitting sea connections 1-10-28.

Completion of pumping arrangements Boilers fixed 15-10-28. Engines tried under steam 18-10-28.

Main boiler safety valves adjusted 18-10-28. Thickness of adjusting washers P.P. 1/2" P.S. 1/2" C.B. 1/2" C.S. 1/2" S.P. 7/8"

Crank shaft material Ingot Steel Identification Mark A.T.G. 25-9-28 Thrust shaft material Ingot Steel Identification Mark A.T.G. 25-9-28

Intermediate shafts, material Ingot Steel Identification Marks SEE BELOW Tube shaft, material HOT ROLLED ✓ Identification Mark

Screw shaft, material Ingot Steel Identification Mark A.T.G. 3-10-28 Steam Pipes, material SOLID DRAWN STEEL Test pressure 540 LBS Date of Test

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 No If so, state name of vessel ✓

General Remarks (State quality of workmanship, opinions as to class, &c.)

The Materials and Workmanship are good.

The Machinery has been built under Special Survey, and satisfactorily fitted in vessel, and is eligible in my opinion for classification and the notation **⊕ L.M.C. 11, 28**

INTERMEDIATE SHAFTS. N° 5, LLOYDS N° 2279. N° 6, LLOYDS N° 2280. N° 7, LLOYDS N° 2281. N° 8, LLOYDS N° 2282.

IDENTIFICATION MARKS. N° 9, LLOYDS N° 2275. N° 10, LLOYDS N° 2276. A.T.G. 1-10-28.

It is submitted that this vessel is eligible for the notation **⊕ L.M.C. 11-28 CL.**

[Signature] 9/11/28.

Certificate to be sent to LONDON.

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

The amount of Entry Fee ... £ 5: ✓

Special ... £ 82: ✓

Donkey Boiler Fee ... £ :

Travelling Expenses (if any) £ :

When applied for, 1st Nov 1928 40/-

When received, 15.11.28

A. I. Griffiths.
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute TUE. 13 NOV 1928

Assigned *Hmc 11.28*
CL CERTIFICATE WRITTEN.