

REPORT ON OIL ENGINE MACHINERY

No 82175

Received at London Office

22 DEC 1927

NEWCASTLE-ON-TYNE

of writing Report

19 When handed in at Local Office

19/21 1927 Port of

Date, First Survey 11 March Last Survey 8-12-1921

Number of Visits 73.

in Survey held at

Wallsend-on-Tyne

Book.

on the Twin Screw vessel

Greystoke Castle

at

Birkenhead

By whom built Cammell Laird & Co. Yard No. 928 When built

ines made at Wallsend-on-Tyne

By whom made North Eastern Har & Dry Dock Engine No. 2631 When made 1924

key Boilers made at

By whom made

Boiler No. When made

CATED Horse Power

5800

Owners

Port belonging to

Horse Power as per Rule

953.

Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

ENGINES, &c.—Type of Engines North Eastern Works Diesel 2 or 4 stroke cycle H Single or double acting S.A.

Mean pressure in cylinders 500 No. of cylinders 12 Diameter of cylinders 30 in No. of cranks 12 Length of stroke 1500 in

of bearings, adjacent to the Crank, measured from inner edge to inner edge 980 in Is there a bearing between each crank yes.

utions per minute 103 Flywheel dia. 2590 in Weight 4.36 tons Means of ignition Compression Kind of fuel used F.Oil F.P. above 150° F.

ick Shaft, dia. of journals as per Rule 465 in as fitted 480 in Crank pin dia. 480 in Crank Webs Mid. length breadth 932 in Mid. length thickness 290 in Thickness parallel to axis 290 in Thickness around eye-hole 22 1/2 in

heel Shafts, diameter as per Rule 465 in as fitted 480 in Intermediate Shafts, diameter as per Rule 12.52 in Thrust Shaft, diameter at collars as per Rule 13.14 in

Shafts, diameter as per Rule as fitted Screw Shaft, diameter as per Rule Is the tube shaft fitted with a continuous liner

ize Liners, thickness in way of bushes as per Rule Thickness between bushes as per rule Is the after end of the liner made watertight in the

ller boss If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

e 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

o liners are fitted, is the shaft lapped or protected between the liners Is an approved Oil Gland or other appliance fitted at the after

f the tube shaft Length of Bearing in Stern Bush next to and supporting propeller

eller, dia. Pitch No. of blades Material whether Moveable Total Developed Surface sq. feet

od of reversing Engines Compressed Air Is a governor or other arrangement fitted to prevent racing of the engine when declutched Means of lubrication

ed Thickness of cylinder liners 10 in Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with

nducting material yes If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

ing Water Pumps, No. Is the sea suction provided with an efficient strainer which can be cleared within the vessel

50 Pumps fitted to the Main Engines, No. 4 Diameter 120 in Stroke 450 in Can one be overhauled while the other is at work yes.

60 ps connected to the Main Bilge Line No. and Size 4 as above How driven off main engines.

ast Pumps, No. and size Lubricating Oil Pumps, including Spare Pump, No. and size 2 on main engines 160 in dia x 450 stroke

wo independent means arranged for circulating water through the Oil Cooler yes. Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

os, No. and size:—In Engine and Boiler Room

olds, &c.

pendent Power Pump Direct Suctions to the Engine Room Bilges, No. and size

all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Are the Bilge Suctions in the Machinery Space

om easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges

all Sea Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks

hey fixed sufficiently high on the ship's side to be seen without lifting the platform plates Are the Overboard Discharges above or below the deep water line

each fitted with a Discharge Valve always accessible on the plating of the vessel Are the Blow Off Cocks fitted with a spigot and brass covering plate

How are they protected

Have they been tested as per Rule

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

e 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

partment to another Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from

wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

n Air Compressors, No. 2 No. of stages 3 Diameters 120, 620, 620 in Stroke 500 in Driven by main engines

iliary Air Compressors, No. No. of stages Diameters Stroke Driven by

all Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

venting Air Pumps, No. Diameter Stroke Driven by

iliary Engines crank shafts, diameter as per Rule as fitted

AST BOTTLES. RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule

the internal surfaces of the receivers be examined What means are provided for cleaning their inner surfaces

hippiere a drain arrangement fitted at the lowest part of each receiver

n Pressure Air Receivers, No. 4 Cubic capacity of each 8.45 Cub ft. Internal diameter 15 3/4 in thickness 5/8 in

less, lap welded or riveted longitudinal joint seamless Material Steel Range of tensile strength 28 to 32 tons Working pressure by Rules 1090 lbs.

ing Air Receivers, No. Total cubic capacity Internal diameter thickness

less, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

001997-003005-0011

Lloyd's Register Foundation

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

HYDRAULIC TESTS:--

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS	30-4-27 to 26-4-27	500 lbs.	1000 lbs.	W.B.	
" " COVERS	30-4-27 to 26-4-27	" "	" "	W.B.	
" " JACKETS	13-6-27 to 26-4-27	20 lbs.	30 lbs.	W.B.	
" " PISTON WATER PASSAGES	27-4-27 to 21-10-27	" "	" "	W.B.	
MAIN COMPRESSORS—1st STAGE	19-9-27 to 11-10-27	50 "	600 "	W.B.	
" " 2nd "	19-9-27 to 11-10-27	250 "	" "	W.B.	
" " 3rd "	16-9-27 to 11-10-27	1000 "	2000 "	W.B.	
AIR RECEIVERS—STARTING					
" " INJECTION	19-4-27 to 21-4-27	1000 lbs.	2000 lbs.	T. H.	105151241-2-3-4.
AIR PIPES	29-9-27	1000 lbs.	2000 lbs.	W.B.	
FUEL PIPES					
FUEL PUMPS	29-8-27 to 12-8-27	1000 lbs.	2000 lbs.	W.B.	
SILENCER					
" " WATER JACKET					
SEPARATE FUEL TANKS					

PLANS. Are approved plans forwarded herewith for Shafting *yes.* Receivers *yes.* Separate Tanks *yes.*
Donkey Boilers *yes.* General Pumping Arrangements *yes.* Oil Fuel Burning Arrangements *yes.*

SPARE GEAR In accordance with & in excess of rules as per attached blue print.

The foregoing is a correct description,

THE NORTH EASTERN MARINE ENGINEERING CO., LTD.

Manufacturer.

Dates of Survey while building
During progress of work in shops: 30. July 4. 5. 6. 14. 18. 19. 21. 22. 25. 26. 27. 28. 29. Aug. 3. 4. 5. 8. 9. 11. 12. 15. 16. 17. 22. 23. 25. 26. 29. 30. 31. Sept. 5. 7. 12. 16. 19. 23. 28. 29. 30. Oct. 3. 4. 7. 10. 14. 18. 20. 24. Nov. 11. 14. 15. 23. Dec. 8.
During erection on board vessel: 12. 16. 19. 23. 28. 29. 30. Oct. 3. 4. 7. 10. 14. 18. 20. 24. Nov. 11. 14. 15. 23. Dec. 8.
Total No. of visits 73.

Dates of Examination of principal parts—Cylinders 26-4-27. Covers 26-4-27. Pistons 21-10-27. Rods 4-8-27. Connecting rods 2-4-27. Crank shaft 28-4-27. Flywheel shaft on crank. S. Thrust shaft 30-6-27. Intermediate shafts. Tube shaft. Screw shaft. Propeller. Stern tube. Engine seatings. Engines holding down bolts.

Completion of fitting sea connections. Completion of pumping arrangements. Engines tried under working conditions.
Crank shaft, Material *OH. Steel* Identification Mark *5082 C.R.H.* Flywheel shaft, Material *✓* Identification Mark *✓*
Thrust shaft, Material *OH. Steel* Identification Mark *5001 C.H.R.* Intermediate shafts, Material *W.B.* Identification Marks
Tube shaft, Material Identification Mark Screw shaft, Material Identification Mark

Is the flash point of the oil to be used over 150° F.

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.)

This Machinery has been built under Special Survey, Materials & Workmanship good. Hydraulic tests satisfactory. It has been shipped to Birkenhead for installation in the vessel. Liverpool Surveyors have been notified.

The amount of Entry Fee *£ 98 : 2 : 4* When applied for, *21 NOV 1927*
Special ... *£ 6 : 0 : 0*
Donkey Boiler Fee ... *£*
Travelling Expenses (if any) *£*

Committee's Minute

Assigned

William Butler
Engineer Surveyor to Lloyd's Register of Shipping.

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Foundation