

REPORT ON OIL ENGINE MACHINERY

No. 81050

3 MAR 1926

Date of writing Report

19

When handed in at Local Office

2/3/

1927 Port of

Received at London Office

NEWCASTLE-ON-TYNE.

To, in Survey held at
by, Book.Date, First Survey 14 May 1925 Last Survey March 1926
Number of Visits 183Single
on the Twin } Screw vessels
Triple

Barfessa

Built at Rotterdam
Engines made at Newcastle

By whom built Rotterdam D.D. Co.

Yard No. 98 When built 1924

By whom made North Eastern Marine & Eng. Co. Ltd.

Engine No. 2603 When made 1924

Monkey Boilers made at Newcastle

By whom made North Eastern Marine & Eng. Co. Ltd.

Boiler No. 2603 When made 1924

Indicated Horse Power 3500

Owners Nederlandsch-Indische Stoomvaart Maatschappij

Port belonging to Gravenhage

Net Horse Power as per Rule 1204

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

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

Pressure in cylinders 500 No. of cylinders 6 Diameter of cylinders 820 mm No. of cranks 6 Length of stroke 1500 mm

Bearings, adjacent to the Crank, measured from inner edge to inner edge 1110 mm Is there a bearing between each crank Yes

Revolutions per minute 85 Flywheel dia. 3000 mm Weight 9 tons Means of ignition Compression Kind of fuel used Fuel Oil F.P. above 150°F

Shaft, dia. of journals as per Rule 504 mm as fitted 540 mm Crank pin dia. 540 mm Crank Webs Mid. length breadth 1040 mm Mid. length thickness 340 mm Thickness parallel to axis 340 mm Thickness around eye-hole 250 mm

Main Shafts, diameter as per Rule 504 mm as fitted 540 mm Intermediate Shafts, diameter as per Rule 15.8 as fitted 22.049" Thrust Shaft, diameter at collars as per Rule 16.638 as fitted 22.049"

Screw Shafts, diameter as per Rule 14.3 as fitted 18.3 Is the screw shaft fitted with a continuous liner Yes

Liners, thickness in way of bushes as per Rule .83 as fitted .88 Thickness between bushes as per rule .62 as fitted .49 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 Yes

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

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

tube shaft Yes Length of Bearing in Stern Bush next to and supporting propeller 6-2 1/2"

Pitch 14-6 No. of blades 4 Material Bronze whether Moveable No Total Developed Surface 95 sq. feet

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

Thickness of cylinder liners 45 x 65 lb Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with

insulating 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 Yes

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

Pumps fitted to the Main Engines, No. Two Diameter 140 mm (6-1/2") Stroke 300 mm (11-3/4") Can one be overhauled while the other is at work Yes

Connected to the Main Bilge Line No. and Size 2 as above on Main Engines 1 Duplex Donkey 6 x 4 x 10, 1 Duplex Ball Donkey 8 x 10

How driven Steam driven Steam driven

Pumps, No. and size 1 @ 8 x 10 x 10 Lubricating Oil Pumps, including Spare Pump, No. and size Two m. Eng. 2 1/2 gal x 300 str. 1 motor driven rotary 6" pipes

Independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

In Engine and Boiler Room 6 @ 3/4" Carrying petroleum in bulk

Cent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 @ 1 1/2", 1 @ 1"

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

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

Connections fitted direct on the skin of the ship Yes Are they fitted with Valves or Cocks Both

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

h 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

pass through the bunkers None How are they protected

pass through the deep tanks None Have they been tested as per Rule

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

gement 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

to another Yes Is the Shaft Tunnel watertight None Is it fitted with a watertight door worked from

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

Compressors, No. Two No. of stages Three Diameters 15/360/650 Stroke 550 mm Driven by Main Engines

Air Compressors, No. One No. of stages 3 Diameters 300 cubic ft. per min. Stroke 1000 Driven by Diesel Engine

Auxiliary Air Compressors, No. One No. of stages 3 Diameters ditto Stroke Driven by Steam Engine

g Air Pumps, No. None Diameter Stroke Driven by

Engines crank shafts, diameter as per Rule See separate reports

CEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule Yes

Internal surfaces of the receivers be examined Yes What means are provided for cleaning their inner surfaces Manholes in end

rain arrangement fitted at the lowest part of each receiver Yes

Pure Air Receivers, No. 3 Cubic capacity of each 20 ft Internal diameter 440 mm thickness 22.5 mm

welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 32 to 38 Working pressure by Rules 1630 lbs

r Receivers, No. 4 Total cubic capacity 1820 ft Internal diameter 1545.6 mm thickness 24.48 mm

less, lap welded or riveted longitudinal joint riveted Material Steel Range of tensile strength 28 to 32 Working pressure by Rules 450 lbs

010466-010477-0032

IS A DONKEY BOILER FITTED?

yes

If so, is a report now forwarded?

yes

HYDRAULIC TESTS:—

| DESCRIPTION. | DATE OF TEST. | WORKING PRESSURE. | TEST PRESSURE. | STAMPED. | REMARKS. |
|---------------------------------|---|-------------------|----------------|----------|----------|
| ENGINE CYLINDERS | 21-1-26 & 8-6-26. | 500 lbs | 1000 lbs | R.L.A. | |
| " " COVERS | 21-1-26 & 8-6-26. | " | " | " | |
| " " JACKETS..... | 8-3-26 & 30-3-26 | 20 lbs | 40 lbs. | " | |
| " " PISTON WATER PASSAGES..... | 15-3-26 to 14-4-26 | " | 415 lbs | " | |
| MAIN COMPRESSORS—1st STAGE..... | 18-1-26 & 15-4-26 | 45 lbs | 640 lbs | " | |
| " 2nd " | 18-1-26 & 15-4-26 | 300 lbs | 640 lbs | " | |
| " 3rd " | 22-10-25 to 19-5-26 | 1000 lbs | 2200 lbs | " | |
| AIR RECEIVERS—STARTING | 16-9-26. | 450 lbs | 900 lbs | W.B. | |
| " INJECTION | 13 th 14 th 15 th 16 th July 1926 | 1000 lbs | 2000 lbs. | T.H | |
| AIR PIPES | 26-8-26 to 20-10-26 | " | " | W.B. | |
| FUEL PIPES | 15-9-26 & 18-10-26 | " | " | " | |
| FUEL PUMPS | 13-4-26. | " | " | R.L.A. | |
| SILENCER | ✓ | ✓ | ✓ | ✓ | Bagged |
| " WATER JACKET | ✓ | ✓ | ✓ | ✓ | " |
| SEPARATE FUEL TANKS | ✓ | ✓ | ✓ | ✓ | none. |

PLANS. Are approved plans forwarded herewith for Shifting

(If not, state date)

Donkey Boilers

General Pumping Arrangements

Receivers

Oil Fuel Burning Arrangements

air

Separate Tanks

SPARE GEAR

In accordance with & much in excess of the Rules. List of same is herewith enclosed. (blue print).

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

SECRETARY

Manufacturer.

| | | | |
|--------------------------------|------------------------------------|--|--|
| Dates of Survey while building | During progress of work in shops-- | 1925 Jan. 27. 28. 29. Feb. 2. 10. 12. 13. 14. 15. 16. 17. 18. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. Mar. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. Apr. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. May 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. Jun. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. Jul. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. Aug. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. Sep. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. Oct. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. Nov. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. Dec. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. | |
| | | During erection on board vessel-- | 14. 17. 21. 31. Jun. 2. 3. 4. 7. 8. 9. 11. 29. July 7. 8. 9. 14. 15. 19. 20. 21. 22. 29. Aug. 4. 5. 6. 13. 16. 20. 23. 25. 26. 2. Sept. 2. 6. 7. 8. 15. 16. 17. 20. 23. 27. 28. 29. Oct. 1. 5. 7. 8. 13. 15. 18. 19. 20. 21. 25. 26. 27. 28. Nov. 1. 3. 9. 12. 16. 22. 2. Dec. 1. 9. 21. 29. 1927 Jan. 5. 11. 17. 19. 24. 25. 27. 31. Feb. 3. 7. 8. 9. 10. 14. 16. 21. 22. 23. 25. Mar. 1. |
| | Total No. of visits | 183 | |

Dates of Examination of principal parts—Cylinders 21-1-26 & 8-6-26 Covers 21-1-26 & 8-6-26 Pistons 15-3-26 & 14-4-26 Rods 15-3-26 & 14-4-26 Connecting rods 14-12-26

Crank shaft 22-4-26 Flywheel shaft 2-10-25 Thrust shaft 28-4-25 Intermediate shafts 8-9-26 Screw shaft 9-12-25

Screw shaft ✓ Propeller 2-9-26 Stern tube 1-5-26. Engine seatings 18-11-26. Engines holding down bolts 5-1-24.

Completion of fitting sea connections 21-2-24 Completion of pumping arrangements 29-12-26 Engines tried under working conditions 22-2-24

Crank shaft, Material Steel Identification Mark 1605 A.D. Flywheel shaft, Material Steel Identification Mark 1281 T.Q.

Thrust shaft, Material Steel Identification Mark 12394 K.H. Intermediate shafts, Material Steel Identification Marks 12421 K.

Tube shaft, Material ✓ Identification Mark ✓ Screw shaft, Material Steel Identification Mark 1293 T.Q.

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

Is this machinery duplicate of a previous case? Engines If so, state name of vessel M.V. Stentor.

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

The machinery of this vessel has been built under Special Survey. Materials and workmanship good. Hydraulic tests satisfactory. The whole of the machinery is efficiently installed & fixed in the vessel & tried & tested under working conditions & found to be in good & safe working condition & eligible in my opinion to be closed and have records. ✱ L.M.C. 3-25. Tail Shaft. O.G. (C.L.). Fitted for oil fuel 3-24 Flash Point above 150° F.

The amount of Entry Fee ... £ 6-0-0 :

Special ... £ 130-3-6 :

Donkey Boiler Fee ... £ 19-16-0 :

STARTING AIR RECEIVERS Travelling Expenses (if any) £ 18 18-0-0 :

Committee's Minute

Assigned

When applied for,

2 MAR 1927

When received,

11. 3. 27

4 MAR 1927

Engineer Surveyor to Lloyd's Register of Shipping



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Lloyd's Register Foundation

CERTIFICATE WRITTEN