

REPORT ON OIL ENGINE MACHINERY.

No. 19049

29 MAY 1929

Date of writing Report 8.5.29 When handed in at Local Office 24th May 1929 Port of Greenock
No. in Survey held at Greenock Date, First Survey 6th June 1928 Last Survey 24th May 1929
Reg. Book. 4708 on the Single 911 "Athelcrown" Number of Visits 8 August 8th 1929 Mab
Screw vessel Tons Gross 11999 Net 7073
Built at Middlesbrough By whom built Furness S.S. Co. Ltd. Yard No. 134 When built 1929
Engines made at Greenock By whom made John & Nicaid Ltd. Engine No. 173 When made 1929
Boilers made at ditto By whom made ditto Boiler No. 133 When made 1929
Brake Horse Power 4000 Owners United Malabar Colla. Port belonging to Liverpool
Nom. Horse Power as per Rule 945 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
Trade for which vessel is intended Foreign

MAIN ENGINES, &c.—Type of Engines Burner & Train 4 stroke cycle 4 Single or double acting Single
Maximum pressure in cylinders 500 lb Diameter of cylinders 630 mm Length of stroke 1300 mm No. of cylinders 16 No. of cranks 16
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 892 mm Is there a bearing between each crank yes
Revolutions per minute 115 Flywheel dia. 1930 mm Weight 1-8 tons Means of ignition Compression Kind of fuel used Oil
Crank Shaft, dia. of journals as per Rule 412.5 mm Crank pin dia. 420 mm Crank Webs shrunk Thickness parallel to axis 270 mm
Flywheel Shaft, diameter as per Rule 420 mm Intermediate Shafts, diameter as per Rule 11.84 Thrust Shaft, diameter at collars as per Rule 12.48
Tube Shaft, diameter as per Rule 14 Screw Shaft, diameter as per Rule 12.078 Is the tube shaft fitted with a continuous liner yes
Bronze Liners, thickness in way of bushes as per Rule 6.94 Thickness between bushes as per Rule 5.23 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
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
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 yes Length of Bearing in Stern Bush next to and supporting propeller 60"
Propeller, dia. 14'-6" Pitch 12'-0" No. of blades 3 Material Brass whether Moveable yes Total Developed Surface 58 sq. feet
Method of reversing Engines air Is a governor or other arrangement fitted to prevent racing of the engine when detached yes Means of lubrication
forced oil Thickness of cylinder liners 36/46 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with
non-conducting 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
Cooling Water Pumps, No. 3 Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes
Bilge Pumps worked from the Main Engines, No. Four Diameter yes Stroke yes Can one be overhauled while the other is at work yes
Pumps connected to the Main Bilge Line { No. and Size 2 (8" x 9" x 10") (8" x 9" x 10")
How driven Steam
Ballast Pumps, No. and size 8" x 9" x 10" Lubricating Oil Pumps, including Spare Pump, No. and size Three (2) (8" x 10") one 80 tons fuel tank
Are two independent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge
Pumps, No. and size:—In Machinery Spaces 4-3 1/2" x 2-2 1/2"
in Holds, &c. To No. 1 Pump: 2-2 1/2" in cargo hold; 1-2 1/2" chain locker; 2-2 1/2" fore peak store
Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1-4 1/2" x 1-6"
Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes Are the Bilge Suctions in the Machinery Spaces
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 platform plates yes Are the Overboard Discharges above or below the deep water line above
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
That pipes pass through the bunkers none How are they protected yes
That 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 none Is it fitted with a watertight door yes worked from yes
If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork yes

Main Air Compressors, No. 2 No. of stages 3 Diameters 150-675-750 mm Stroke 420 mm Driven by Main Engines
Auxiliary Air Compressors, No. one No. of stages 3 Diameters 82-250-400 mm Stroke 260 mm Driven by Steam Engine
Small Auxiliary Air Compressors, No. 1 No. of stages 3 Diameters 238-8" x 10" Stroke 5" Driven by Steam Engine
Scavenging Air Pumps, No. yes Diameter yes Stroke yes Driven by yes

Auxiliary Engines crank shafts, diameter as per Rule
AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve yes
Can the internal surfaces of the receivers be examined yes What means are provided for cleaning their inner surfaces Manhole
Is there a drain arrangement fitted at the lowest part of each receiver yes
High Pressure Air Receivers, No. 4 Cubic capacity of each 200 litre Internal diameter 14" thickness 1 1/2"
Seamless, lap welded or riveted longitudinal joint Seamless Material S Range of tensile strength 29-33 Working pressure by Rules 1000 lb
Starting Air Receivers, No. 3 Total cubic capacity 1440 cu ft Internal diameter 6" 03 1/16" thickness 31/32" x 1"
Seamless, lap welded or riveted longitudinal joint TRIPPS Material S Range of tensile strength 28-32 Working pressure by Rules 356 lb

W6-0036

IS auxiliary BOILERS FITTED? yes If so, is a report now forwarded? yes
PLANS. Are approved plans forwarded herewith for Shafting yes Receivers yes Separate Tanks
yes Boilers yes General Pumping Arrangements ✓ 11.7.28 Oil Fuel Burning Arrangements ✓ 18.6.29
SPARE GEAR See Separate List herewith

The foregoing is a correct description,
FOR JOHN G. KINCAID & COY. LIMITED

McCarty

Manufacturer.

Dates of Survey while building
During progress of work in shops - (1928) June 6. 20. 25. 26. July 14. Aug 17. 23. 28. Sept 3. 4. 5. 20. 26. Oct 1. 8. 9. 23. 26. Nov 4. 8. 14. 15. Dec 3. 6. 11. 14. 21. 24. (1929) Jan 8. 14. 14. 18. 24.
During erection on board vessel - 28. 29. 31. Feb. 4. 11. 18. 27. Mar. 4. 8. 12. 15. 20. 21. 22. 23. 25. 26. 27. 28. 29. Apr. 1. 2. 3. 5. 9. 12. 16. 14. 18. 19. 23. 24. 25. 26. 29. 30. May 1. 2. 6. 8. 9. 11. 14. 15. 16. 17. 20. 24.
(Mdb) Jul. 12. (1929) Jan 25. Mar 12. Apr 22. May 10. 21. Jun 5. 7. 17. 26. 27. Jul 1. 3. 10. 16. 17. 19. 24. 27. 29. 31.
Total No. of visits 106

Dates of Examination of principal parts - Cylinders 21. 3. 29. Covers 25. 3. 29. Pistons 2. 5. 29. Rods 2. 5. 29. Connecting rods 20. 4. 29.

Crank shaft 16. 5. 29. Flywheel shaft ✓ Thrust shaft 11. 5. 29. Intermediate shafts 11. 5. 29. Tube shaft ✓

Screw shaft 29. 4. 29. Propeller 23. 4. 29. Stern tube 12. 4. 29. Engine seatings ✓ 21. 5. 29 Engines holding down bolts ✓ 3. 7. 29

Completion of fitting sea connections ✓ 22. 4. 29 Completion of pumping arrangements ✓ 1. 8. 29 Engines tried under working conditions ✓ 8. 8. 29

Crank shaft, Material S Identification Mark LR K33. WGM Flywheel shaft, Material ✓ Identification Mark ✓

Thrust shaft, Material S Identification Mark LR 826. 29. 23. WGM Intermediate shafts, Material S Identification Marks LR 826. 29. 23. WGM

Tube shaft, Material ✓ Identification Mark ✓ Screw shaft, Material S Identification Mark LR 2926. 1829. WGM

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

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.) These engines have been built

under Special Survey in accordance with the approved plans. The workmanship & material are of good quality. They have been tested on the Brake of good satisfactory results & have now been shipped to Middlesbrough, at which port they will be fitted on board.

The Machinery when fitted on board, & tried under working conditions will be entered in my opinion for the record of LMC with date

This machinery has been securely fitted aboard in accordance with Rule and approved Plans and has been tested under working conditions with satisfactory results and is, in my opinion, eligible for classification with class + L.M.C. 8.29.

The amount of Entry Fee ... £ 6 : - : When applied for 9. 8. 29
Special Enk 4/5. 14 £ 94 : 16 : 24th May 1929
Middle 1/5. 14 £ 24 : 9 :
Boiler Fee ... £ 28 : 0 :
Air Renewal
Travelling Expenses (if any) £ 12 : 12 :
When received, 31. 5. 29

Committee's Minute GLASGOW 28 MAY 1929

Assigned TRANSMIT TO LONDON

John Gordon-Mitchell
Engineer Surveyor to Lloyd's Register of Shipping.

Thine 8.29 cc
Old Engines

2013-1801