

REPORT ON OIL ENGINE MACHINERY.

No. 19929
20 MAR 1935

Received at London Office

Date of writing Report 4.3.35 When handed in at Local Office 16th MARCH 1935 Port of LONDON
No. in Survey held at LONDON Date, First Survey 23rd MARCH 1935 Last Survey 15th MARCH 1935
Reg. Book. M/S "Triester" Number of Visits 81

Single Triple Screw vessel
Built at LONDON By whom built Lithgow & Co Yard No. 872 When built 1935
Engines made at LONDON By whom made John Maccaid & Co Engine No. 1180 When made 1935
Donkey Boilers made at ditto By whom made ditto Boiler No. 1180 When made 1935
Brake Horse Power 3600 Owners Bulkhead Phosphate Commission Port belonging to LONDON
Nom. Horse Power as per Rule 653 Is Refrigerating Machinery fitted for cargo purposes Yes Is Electric Light fitted Yes
Trade for which vessel is intended Foreign 29 1/2 59 1/2

IL ENGINES, &c.—Type of Engines Four cylinder (air injection) 4 stroke cycle 4 Single or double acting Single
Maximum pressure in cylinders 500 Diameter of cylinders 410 mm Length of stroke 1500 mm No. of cylinders 8 No. of cranks 8
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 1004 mm Is there a bearing between each crank Yes
Revolutions per minute 115 Flywheel dia. 2489 mm Weight 2.54 tons Means of ignition Compression Kind of fuel used Diesel
Crank Shaft, dia. of journals as per Rule 495 mm as fitted 495 mm Crank pin dia. 116 mm Crank Webs Mid. length breadth shrunk Thickness parallel to axis 310 mm
Flywheel Shaft, diameter as per Rule 1305 mm as fitted 1318 mm Thrust Shaft, diameter at collars as per Rule 139 mm as fitted 139 mm
Tube Shaft, diameter as per Rule 1438 mm as fitted 15 mm Is the tube screw shaft fitted with a continuous liner Yes
Bronze Liners, thickness in way of bushes as per Rule 438 mm as fitted 1316 mm Thickness between bushes as per rule 553 mm as fitted 518 mm 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 Yes
shaft 90 If so, state type Yes Length of Bearing in Stern Bush next to and supporting propeller 5.0

Propeller, dia. 16.0 Pitch 12.6 No. of blades 4 Material Brass whether Moveable Yes Total Developed Surface 848 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
Thickness of cylinder liners 32.4 mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material lagged
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. 2 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. None Diameter — Stroke — Can one be overhauled while the other is at work —
Pumps connected to the Main Bilge Line { No. and Size H (3 Drysdale) (No. 10 x 11) 2 4.7
How driven Motors
Ballast Pumps, No. and size 2 "10 x 11" Lubricating Oil Pumps, including Spare Pump, No. and size 2. 80.120 tons
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. 3" ER Well. 1. 3" Coffdam
In Holds, &c. 2. 3" in each Tunnel Well. 1. 2 1/2"

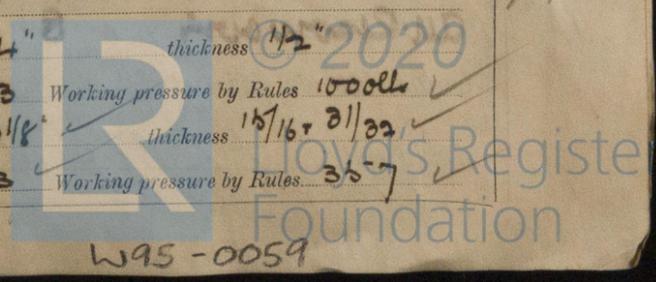
Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size Yes 2 at 1.5"
Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes Are the Bilge Suctions in the Machinery Spaces led from easily accessible mud-boxes, placed above the level of the working 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
What pipes pass through the bunkers None How are they protected —
What pipes pass through the deep tanks None Have they been tested as per Rule —

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

Main Air Compressors, No. — No. of stages — Diameters — Stroke — Driven by —
Auxiliary Air Compressors, No. one No. of stages 2 Diameters 4 1/2 x 11" Stroke 8" Driven by Motor
Small Auxiliary Air Compressors, No. one No. of stages 2 Diameters 34 mm 106 mm Stroke 80 mm Driven by Motor
Scavenging Air Pumps, No. — Diameter — Stroke — Driven by —

Auxiliary Engines crank shafts, diameter as per Rule see London Report No. 100868 attached as fitted —
IR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule Yes
Can the internal surfaces of the receivers be examined Yes What means are provided for cleaning their inner surfaces Manual
Is there a drain arrangement fitted at the lowest part of each receiver Yes

High Pressure Air Receivers, No. one Cubic capacity of each 200 litres Internal diameter 14" thickness 1 1/2"
Seamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 29.33 Working pressure by Rules 1000 lb
Starting Air Receivers, No. 2 Total cubic capacity 900 cu ft Internal diameter 6.048" thickness 15/16 x 31/32"
Seamless, lap welded or riveted longitudinal joint Riveted Material S Range of tensile strength 29.33 Working pressure by Rules 36.7



L95-0059

Waste heat

IS A ~~DONKEY~~ BOILER FITTED?

yes ✓

If so, is a report now forwarded?

yes ✓

PLANS. Are approved plans forwarded herewith for Shafting

yes

Receivers

yes

Separate Tanks

-

Donkey Boilers

yes

General Pumping Arrangements

yes

Oil Fuel Burning Arrangements

yes

SPARE GEAR

supplied in accordance with the Rules.

Additional spare Propeller shaft stamped LR 5004 WGM 27.12.34 also 3 spare Bronze Propeller blades & Gunner leeches & 2 Pistons

The foregoing is a correct description, For JOHN G. KINCAID & CO. LIMITED.

Director. Manufacturer.

Dates of Survey while building: During progress of work in shops (1934) March 23-29 April 24 May 16-28 June 21 July 14-25-31 August 15-19-20-23-24 Sept 5-9-14-19-20-28 Oct 1-3-5-10-11-17-18-19-22-24-25-29-30 Nov 1-6-8-12-19-23-28 Dec 3-6-9-10-12-13-14-19-20-24-26-29-31 (1935) Jan 3-4-8-11-14-15-19-23-29-31 Feb 4-9-11-12-13-19-21-23-25 Mar 4-11-15

Dates of Examination of principal parts: Cylinders 25-10-34 Covers 29-10-34 Pistons 10-12-34 Rods 17-1-35 Connecting rods 17-1-35 Crank shaft 19-1-35 Flywheel shaft 14-1-35 Thrust shaft 14-1-35 Intermediate shafts 24-12-34 Tube shaft - Screw shaft 17-12-34 Propeller 19-12-34 Stern tube 4-12-34 Engine seatings 17-12-34 Engines holding down bolts 23-2-35 Completion of fitting sea connections 12-12-34 Completion of pumping arrangements 23-2-35 Engines tried under working conditions 15-3-35 Crank shaft, Material S Identification Mark LR 5004 WGM Flywheel shaft, Material S Identification Mark LR 5004 WGM Thrust shaft, Material S Identification Mark LR 5004 WGM Intermediate shafts, Material S Identification Marks LR 5004 WGM Tube shaft, Material ✓ Identification Mark ✓ Screw shaft, Material S Identification Mark LR 5004 WGM

Is the flash point of the oil to be used over 150° F. yes ✓ Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with yes ✓ Is the vessel (not being an oil tanker) fitted for carrying oil as cargo - If so, have the requirements of the Rules been complied with - Is this machinery duplicate of a previous case 910 If so, state name of vessel -

General Remarks (State quality of workmanship, opinions as to class, &c.) These engine & boiler have been built under special survey in accordance with the approved plans & the workmanship & material are of good quality. They have now been securely fitted on board & tried under working conditions of forced draft satisfactory. The machinery is suitable in my opinion for the vessel. L.M.C. 3/35 (Notation of Donkey boiler WP 100)

The amount of Entry Fee ... £ 6 : : Special ... £ 107 : 13 : Donkey Boiler Fee ... £ 4 : 4 : Committee's Minute (any) £ 8 : 8 :

W. Gordon-Maclean Engineer Surveyor to Lloyd's Register of Shipping.

Assigned + L.M.C. 3/35. S.B. 1006. Committee's Minute GLASGOW 19 MAR 1935



Certificate (if required) to be sent to (The Surveyors are requested not to write on or below the space for Committee's Minute.)