

REPORT ON OIL ENGINE MACHINERY

No. 100,399

7 AUG 1934

Received at London Office

Surveying Report 3rd Aug 1934 When handed in at Local Office 7 AUG 1934 Port of London
 Survey held at Newbury Date, First Survey 15 December 1933 Last Survey 2 August 1934
 Number of Visits 14

on the ^{Single} ~~Twin~~ ^{Triple} ~~Quadruple~~ Screw vessel "GRIT" Tons ^{Gross} ~~Net~~

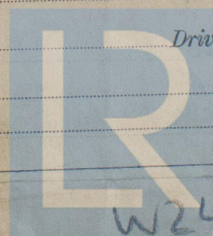
Greenock By whom built George Brown & Co. Yard No. 188 When built 1934
 Newbury By whom made Newbury Diesel Co. Ltd. Engine No. 655 When made 1934
 Boilers made at By whom made Boiler No. When made
 Horse Power 500 Owners J. J. Everard & Sons Ltd Port belonging to London
 Horse Power as per Rule 140 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted yes
 which vessel is intended coasting

GINES, &c. Type of Engines Heavy oil, solid injection, boosted 2 or 4 stroke cycle 2 Single or double acting Single
 Pressure in cylinders 600 lb. Diameter of cylinders 320 mm Length of stroke 400 mm No. of cylinders 5 No. of cranks 5
 Piston Pressure 100 lb. Rings, adjacent to the Crank, measured from inner edge to inner edge 428 mm Is there a bearing between each crank yes
 Revolutions per minute 300 Flywheel dia. 920 mm Weight 25 cwt Means of ignition Compression Kind of fuel used Heavy oil
 Shaft, dia. of journals as per Rule 189.5 mm Crank pin dia. 190 mm Crank Webs Mid. length breadth 252 mm Thickness parallel to axis shrunk
 as fitted 190 mm Mid. length thickness 106 mm Thickness around eye-hole
 Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule 4.86" Thrust Shaft, diameter at collars as per Rule 5.1"
 as fitted 130 mm
 Shaft, diameter as per Rule 5.62" Is the tube screw shaft fitted with a continuous liner No
 as fitted 5 5/8"
 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 stern tube
 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
 Liners are fitted, is the shaft lapped or protected between the liners Is an approved Oil Gland or other appliance fitted at the after end of the tube
 If so, state type Newark Length of Bearing in Stern Bush next to and supporting propeller 29"
 dia. 6'-4" Pitch 3'-7 1/2" No. of blades 3 Material Bronze whether Moveable Solid Total Developed Surface 12.5 sq. feet
 reversing Engines Engine reversible Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication On dedicated gear
 Thickness of cylinder liners 32.5 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with g material Both
 If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine
 Water Pumps, No. 1 S.A. 140 mm dia. 120 mm Stroke Is the sea suction provided with an efficient strainer which can be cleared within the vessel
 Pumps worked from the Main Engines, No. 2 S.A. Diameter { 140 mm Stroke 120 mm Can one be overhauled while the other is at work yes
 Connected to the Main Bilge Line No. and Size How driven
 Bilge water led to the bilges If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping

1-2 cpl. 125 mm dia. 120 mm Stroke Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2 Rotary (Mothart & Pett) 12 gal. per min.
 dependent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge
 and size:—In Machinery Spaces In Pump Room

Power Pump Direct Suctions to the Engine Room Bilges, No. and size
 Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Are the Bilge Suctions in the Machinery Spaces
 easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges
 Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks
 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
 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
 pass through the bunkers How are they protected
 pass through the deep tanks Have they been tested as per Rule
 Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times
 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 Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from

Good vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork
 Air Compressors, No. 1 S.A. No. of stages 1 Diameters 110 mm Stroke 150 mm Driven by Main Eng. @ 300 R.P.M.
 Auxiliary Air Compressors, No. 1 No. of stages 2 Diameters 110 mm - 45 mm Stroke 80 mm Driven by Pump Newbury Ave Eng @ 1000 R.P.M.
 Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by
 Suctioning Air Pumps, No. 5 Rotary Boosters Diameter Stroke Driven by Cam drive from main engine
 Main Engines crank shafts, diameter as per Rule
 as fitted



Lloyd's Register
 W246F0130

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule
Can the internal surfaces of the receivers be examined and cleaned. Is a drain fitted at the lowest part of each receiver
High Pressure Air Receivers, No. Cubic capacity of each Internal diameter thickness
Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules Actual
Starting Air Receivers, No. Total cubic capacity Internal diameter thickness
Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules Actual

IS A DONKEY BOILER FITTED? No If so, is a report now forwarded?
Is the donkey boiler intended to be used for domestic purposes only
PLANS. Are approved plans forwarded herewith for Shafting 2.11.33 and 2.2.34 Receivers Separate Tanks
(If not, state date of approval)

Donkey Boilers General Pumping Arrangements Oil Fuel Burning Arrangements
SPARE GEAR.

Has the spare gear required by the Rules been supplied 1/10
State the principal additional spare gear supplied List attached hereto.

The foregoing is a correct description,
For & on behalf of THE NEWBURY DIESEL CO. LTD. Manufacturer.

Dates of Survey while building During progress of work in shops-- 1933 Dec. 15. 1934 Jan. 3, 23, Feb. 21, March 16, 26, Apr. 5, 19, May 29, June 20, 27, July 16, 23
During erection on board vessel--
Total No. of visits
Dates of Examination of principal parts—Cylinders 5.4.34 Covers 21.2.34 Pistons 16.3.34 Rods Connecting rods 29
Crank shaft 21.2.34 Flywheel shaft Thrust shaft 21.2.34 Intermediate shafts 27.6.34 Tube shaft
Screw shaft 27.6.34 Propeller Stern tube 27.6.34 Engine seatings Engines holding down bolts
Completion of fitting sea connections Completion of pumping arrangements Engines tried under working conditions
Crank shaft, Material 4.2. Steel Identification Mark LLOYDS 9184 PK 24-1-34 Flywheel shaft, Material Identification Mark
Thrust shaft, Material 4.2. Steel Identification Mark LLOYDS 1036 GAL 21.2.34 Intermediate shafts, Material 4.2. Steel Identification Marks
Tube shaft, Material Identification Mark Screw shaft, Material 4.2. Steel Identification Mark LLOYD 4.A. 9.A.L.

Is the flash point of the oil to be used over 150° F.
Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with
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
If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with
Is this machinery duplicate of a previous case 1/10 If so, state name of vessel Geo. Brown, N° 187, Newbury, Dundee

General Remarks (State quality of workmanship, opinions as to class, &c.) Workman/ship good.
These main engines have been specially surveyed during construction and are in accordance with the approved plans and the Rules. The materials used have been made at works approved by the Committee and tested by the Surveyors to this Society. Shop trials were witnessed & found satisfactory. They have now been dispatched to Greenock for fitting on board and will be eligible in my opinion for the notation of + LMC of suitable date in the Register Book, when installed and tested as required by the Rules.

Attached hereto Engineering Certificate 4 in N, List of Spare Gear.

140 Mpc 5% = £35.0.0
The amount of Entry Fee .. £ 3 : 0 : When applied for, - 7 AUG 1934
Special 1/5 of £35.. £ 28 : 0 : When received, 20.3.1935
Donkey Boiler Fee ... £
Travelling Expenses (if any) £ 2 : 0 :
Committee's Minute GLASGOW 18 SEP 1934
Assigned See Gen. Rm. No. 19817
Geo. A. Lang
Engineer Surveyor to Lloyd's Register of Ships
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