

# REPORT ON OIL ENGINE MACHINERY.

No. 106268

20 AUG 1938

Received at London Office

Date of writing Report Aug 5<sup>th</sup> 1938 When handed in at Local Office Aug 15<sup>th</sup> 1938 Port of Lanlon  
 Date, First Survey 12 Nov 1937 Last Survey July 21<sup>st</sup> 1938  
 Number of Visits 22

Survey held at Newbury  
 Name of vessel M/V. SODALITY Tons <sup>Gross</sup> \_\_\_\_\_ <sub>Net</sub> \_\_\_\_\_  
 By whom built R. Williamson & Son Ltd Ward No. \_\_\_\_\_ When built 1938  
 By whom made Newbury Steel Co Ltd Engine No 708 When made 1938  
 By whom made \_\_\_\_\_ Boiler No. \_\_\_\_\_ When made \_\_\_\_\_  
 Owners F. J. Emerald Sam Ltd Port belonging to \_\_\_\_\_  
 Is Refrigerating Machinery fitted for cargo purposes \_\_\_\_\_ Is Electric Light fitted Yes

Type of Engines Heavy Oil, Air starting 2 or 4 stroke cycle 2 Single or double acting S.A.  
 Maximum pressure in cylinders 800 Diameter of cylinders 320 Length of stroke 426 No. of cylinders 7 No. of cranks 7  
 Distance between bearings, adjacent to the Crank, measured from inner edge to inner edge 448 Is there a bearing between each crank Yes  
 Revolutions per minute 300 Flywheel dia. 900 Weight 988 LBS. Means of ignition Compression Kind of fuel used Heavy Oil  
 Crank Shaft, dia. of journals 185.5 as per Rule 192 as fitted Crank pin dia. 190 Crank Webs Mid. length breadth 260 Thickness parallel to axis ✓  
 as fitted 192 Crank pin dia. 190 Crank Webs Mid. length thickness 106 shrunk Thickness around eye-hole ✓  
 Crankshaft Intermediate Shafts, diameter as per Rule 5.37 Thrust Shaft, diameter at collars as per Rule 5.64  
 as fitted 7 1/2 as fitted 7 1/2 Is the tube screw shaft fitted with a continuous liner No  
 Main Shaft, diameter as per Rule \_\_\_\_\_ as fitted \_\_\_\_\_  
 Screw Shaft, diameter as per Rule 6.21 as fitted 7 1/2 Is the tube screw shaft fitted with a continuous liner No  
 as fitted \_\_\_\_\_ as fitted \_\_\_\_\_  
 Liners, thickness in way of bushes as per Rule \_\_\_\_\_ as fitted \_\_\_\_\_ Thickness between bushes as per Rule \_\_\_\_\_ as fitted \_\_\_\_\_  
 Is the after end of the liner made watertight in the \_\_\_\_\_  
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner \_\_\_\_\_  
 Is an approved Oil Gland or other appliance fitted at the after end of the tube \_\_\_\_\_

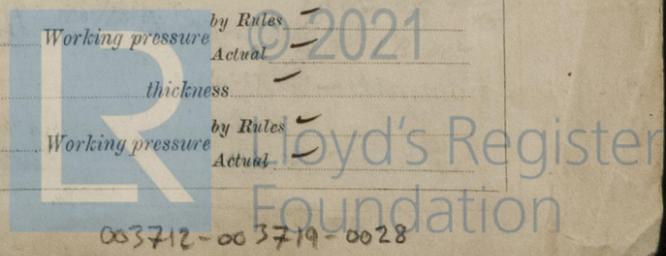
Propeller, dia. 7-2 1/2 Pitch 4'0" No. of blades 4 Material SEMI-STEEL Whether Moveable No Total Developed Surface 20 sq. feet  
 Method of reversing Engines Air (direct) Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication \_\_\_\_\_  
 Thickness of cylinder liners 32 Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with \_\_\_\_\_  
 Conducting material Cooled If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine \_\_\_\_\_

Boiling Water Pumps, No. 1150 x 120 Double Acting Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes  
 Main Engines, No. 2 Diameter 110 Stroke 120 S/A Can one be overhauled while the other is at work Yes  
 Pumps connected to the Main Bilge Line No. and Size One - 2 cylinder D/A. 125 x 120, Stroke 6. How driven Geared from crankshaft.  
 Lubricating Oil Pumps, including Spare Pump, No. and size 2 each 16 galls per min.  
 Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge \_\_\_\_\_  
 In Pump Room \_\_\_\_\_

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size \_\_\_\_\_  
 Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes \_\_\_\_\_ Are the Bilge Suctions in the Machinery Spaces \_\_\_\_\_  
 from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges \_\_\_\_\_  
 Are all Sea Connections fitted direct on the skin of the ship \_\_\_\_\_ Are they fitted with Valves or Cocks \_\_\_\_\_  
 Are they fitted 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 \_\_\_\_\_  
 Are they 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 \_\_\_\_\_  
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times \_\_\_\_\_  
 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 \_\_\_\_\_  
 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 \_\_\_\_\_  
 Main Air Compressors, No. One No. of stages one Diameters 110 Stroke 150 Driven by Main Engine  
 Auxiliary Air Compressors, No. Two No. of stages Two Diameters 110 x 45 Stroke 82 Driven by Aux. Engine  
 All Auxiliary Air Compressors, No. \_\_\_\_\_ No. of stages \_\_\_\_\_ Diameters \_\_\_\_\_ Stroke \_\_\_\_\_ Driven by \_\_\_\_\_  
 Reversing Air Pumps, No. One Diameter 600 x 426 D/A Stroke 426 Driven by Main Engine  
 Auxiliary Engines crank shafts, diameter as per Rule \_\_\_\_\_ as fitted 62

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule \_\_\_\_\_  
 Are 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 \_\_\_\_\_  
 Material \_\_\_\_\_ Range of tensile strength \_\_\_\_\_ Working pressure by Rules \_\_\_\_\_ Actual \_\_\_\_\_  
 Working Air Receivers, No. \_\_\_\_\_ Total cubic capacity \_\_\_\_\_ Internal diameter \_\_\_\_\_ thickness \_\_\_\_\_  
 Material \_\_\_\_\_ Range of tensile strength \_\_\_\_\_ Working pressure by Rules \_\_\_\_\_ Actual \_\_\_\_\_



IS A DONKEY BOILER FITTED? no.

If so, is a report now forwarded? no.

Is the donkey boiler intended to be used for domestic purposes only? ✓

PLANS. Are approved plans forwarded herewith for Shafting Yes.

Receivers Yes.

Separate Tanks ✓

Donkey Boilers ✓

General Pumping Arrangements Yes.

Oil Fuel Burning Arrangements ✓

SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes.

State the principal additional spare gear supplied

See attached list.

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

Manufacturer.

1937- Aug 12, Nov 23, (1938) Jan 11, 15  
Dates of Survey while building: During progress of work in shops -- FEB. 1, 15, 22 MAR. 1, 15, 23, 29. APL. 5, 13, 27. MAY. 17, 24. JUNE 16, 21, 28. JULY 5, 19, 21\*

Dates of Examination of principal parts: Cylinders FEB. 15, 23. MAR. 23, 29. APL. 5, 17, 27. MAY 24. Covers MAY 24. Pistons APL. 5, 17, 27. MAY 24. Rods ✓ Connecting rods FEB. 1, 15, 22. APL. 2, 19, 27. MAY 24.

Crank shaft: MAR 8<sup>th</sup>, MAY 17. Flywheel shaft Thrust shaft JUNE 28<sup>th</sup>. Intermediate shafts JUNE 28<sup>th</sup>. Tube shaft ✓

Screw shaft JUNE 28<sup>th</sup>. Propeller ✓ Stern tube JUNE 28<sup>th</sup>. Engine seatings ✓ Engines holding down bolts ✓

Completion of fitting sea connections ✓ Completion of pumping arrangements ✓ Engines tried under working conditions ✓

Crank shaft, Material F.I. STEEL. Identification Mark LLOYDS 8618. 2454 Flywheel shaft, Material CRANKSHAFT. Identification Mark LLOYDS. 38  
Thrust shaft, Material F.I. STEEL. Identification Mark LLOYDS 3769. J.F.C. 3/6/38 J.L.S. 23/2/38 23/2/38 Intermediate shafts, Material F.I. STEEL. Identification Marks LLOYDS. 38 J.F.C. 7/6/38 LLOYDS. 3 J.F.C. 3/6/38  
Tube shaft, Material ✓ Identification Mark ✓ Screw shaft, Material F.I. STEEL. Identification Mark LLOYDS. 38 J.F.C. 3/6/38

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 no. If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. The above engine has been built under Special Survey & the materials are sound & the workmanship good. The forgings have been made at works approved by the Committee & were examined when finished machined.

This engine has been dispatched to Guala to be fitted into vessel, and is eligible in my opinion to be classed + L.M.C. with date when installation is completed & the engine tested as required, by the Rules.

The amount of Entry Fee .. £ 3 : 0 : 0 When applied for, 22 AUG 1938  
Special 4/5 S.S. ... £ 39 : 0 : 0  
Donkey Boiler Fee ... £ : : : When received, 12 1938  
Travelling Expenses (if any) £ 4 : 14 : 4

J.L. Smith. Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI 21 OCT 1938  
Assigned See Minute on P.C. Wash.



Certificate (if required) to be sent to the Superintendent of the Port of Call (The Superintendent is requested not to write on or below the space for Committee's Minutes)