

REPORT ON OIL ENGINE MACHINERY.

No. 106790

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Date of writing Report Nov 24 38 When handed in at Local Office Nov 24 38 Port of London

No. in Survey held at Hewbury Date, First Survey 12 AUGUST 1937 Last Survey 19 DECEMBER 1938
Reg. Book. Number of Visits 28

on the Single Triple Quadruple Screw vessel **M.V. "FRED EVERARD"** Tons ^{Gross} 190 ^{Net} 152 10 1/2

Built at Garnanth By whom built Sellawes & Co Ltd Yard No. When built 1926-10

Engines made at Hewbury By whom made Hewbury Diesel Co Ltd Engine No. 698 When made 1938

Donkey Boilers made at By whom made Boiler No. When made

Brake Horse Power 200 Owners F. Everard & Co Ltd Port belonging to

Nom. Horse Power as per Rule 63 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

Trade for which vessel is intended 9 7/16 13 9/16

II ENGINES, &c. Type of Engines Airless Inject. Heavy Diesel or 4 stroke cycle Single

Maximum pressure in cylinders 800 lb/sq in Diameter of cylinders 240 mm Length of stroke 345 mm No. of cylinders 4 No. of cranks 4

Mean Indicated Pressure Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 321 mm Is there a bearing between each crank yes

Revolutions per minute 330 Flywheel dia. 820 mm Weight 1918 lb Means of ignition Compression Kind of fuel used Heavy Oil

Crank Shaft, Solid forged dia. of journals as per Rule 94.8 as fitted 150 mm Crank pin dia. 150 mm Crank Webs Mid. length breadth 200 mm Thickness parallel to axis Mid. length thickness 83 mm Thickness around eye-hole

Flywheel Shaft, diameter as per Rule as fitted Thrust Shaft Intermediate Shafts, diameter as per Rule as fitted Thrust Shaft, diameter at collars as per Rule 123 mm as fitted 130 mm

Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted 4 1/2" Is the tube screw shaft fitted with a continuous liner no

Bronze 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 propeller boss

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

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

If two 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

Propeller, dia. 4 ft Pitch 4 ft No. of blades 3 Material P. Bronze whether Moveable no Total Developed Surface 8 3/4 sq. feet

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

Sea Pump, thickness of cylinder liners 25 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material

Cooling Water Pumps, No. 2-110 x 55 mm 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. ONE Diameter 110 mm Stroke 55 mm Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line No. and Size One - 2 1/4 hr. How driven Diesel engine

Is the cooling water led to the bilges no If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping arrangements

Ballast Pumps, No. and size One - 2 1/4 hr. Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2 - 9 galls per min.

Are two independent means arranged for circulating water through the Oil Cooler no Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size: - In Machinery Spaces 3 - 2 1/2" In Pump Room

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size One - 2 1/2"

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes Are the Bilge Suctions in the Machinery Spaces

Are all Sea Connections fitted direct on the skin of the ship yes Are they fitted with Valves or Cocks yes

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

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 Is it fitted with a watertight door worked from

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. one No. of stages one Diameters 110 mm Stroke 80 mm Driven by Main Engines

Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

Small Auxiliary Air Compressors, No. one No. of stages 2 Diameters 93 mm 42 mm Stroke 52 mm Driven by Aux. Engine

What provision is made for first charging the Air Receivers Auxiliary Engine (hand starting)

Scavenging Air Pumps, No. one S.A. Diameter 435 mm Stroke 300 mm Driven by Main Engine

Auxiliary Engines crank shafts, diameter as per Rule as fitted as approved 62 mm No. Position Port side of E.R.

Have the Auxiliary Engines been constructed under special survey yes Is a report sent herewith yes



AIR RECEIVERS:—Have they been made under survey *yes* State No. of Report or Certificate *601, 602*
 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 and cleaned *yes* Is a drain fitted at the lowest part of each receiver *yes*
 Injection Air Receivers, No. *None* Cubic capacity of each *✓* Internal diameter *✓* thickness *✓*
 Seamless, lap welded or riveted longitudinal joint *✓* Material *✓* Range of tensile strength *✓* Working pressure *✓*
 Starting Air Receivers, No. *Two* Total cubic capacity *26 cu ft.* Internal diameter *1'-4"* thickness *1/2"*
 Seamless, lap welded or riveted longitudinal joint *Riveted* Material *Steel* Range of tensile strength *✓* Working pressure *Actual 400 lbs.*
 If so, is a report now forwarded? *✓*

IS A DONKEY BOILER FITTED? *no*
 Is the donkey boiler intended to be used for domestic purposes only *✓*
 PLANS. Are approved plans forwarded herewith for Shafting (If not, state date of approval) *26/4/37* Receivers *Standard Approved* Separate Fuel Tanks *18/11/38*
 Donkey Boilers *✓* General Pumping Arrangements *20/6/38* Pumping Arrangements in Machinery Space *20/6/38*
 Oil Fuel Burning Arrangements *✓*

SPARE GEAR.
 Has the spare gear required by the Rules been supplied *yes*
 State the principal additional spare gear supplied *As per attached list.*

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 -- 1937: Aug 12, Nov 3, 9, 15, 23, Dec 7, 14. (1938) Jan 4, 11, 18, Feb 15, 22, Mar 8, 15, 23, Apr 5, May 17, 24, Jun 12, Aug 12
 During erection on board vessel -- 10/11/38, Nov 18, 22, Dec 1, 7, 12, 14, 19
 Total No. of visits *28*

Dates of Examination of principal parts—Cylinders *3/11/37* Covers *3, 9/11/37* Pistons *16/11/37* Rods *✓* Connecting rods *22/6/37, 3/11/37*
 Crank shaft *9/11/37* Flywheel shaft *✓* Thrust shaft *16/11/37* Intermediate shafts *✓* Tube shaft *✓*
 Screw shaft *9/11/38* Propeller *9/11/38* Stern tube *9/11/38* Engine sealings *9/11/38* Engines holding down bolts *9/12, 12/12/38*

Completion of fitting sea connections *12-12-38* Completion of pumping arrangements *12-12-38* Engines tried under working conditions *19-12-38*
 Crank shaft, Material *O.H.I. Steel* Identification Mark *No. 71 12/9/37 T.N.B.* Flywheel shaft, Material *✓* Identification Mark *✓*
 Thrust shaft, Material *O.H.I. STEEL* Identification Mark *163 T.M.B. 20/9/37* Intermediate shafts, Material *✓* Identification Marks *✓*
 Tube shaft, Material *✓* Identification Mark *JLS 16/11/37* Screw shaft, Material *F.I. Steel* Identification Mark *LLOYD'S 8888*

Identification Marks on Air Receivers
 LLOYD'S No 601 HYD. TEST 600 LBS W.P. 400 lbs. H.M.C. 5/9/38
 LLOYD'S No 602 HYD. TEST 600 LBS W.P. 400 LBS. H.M.C. 5/9/38

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 *no* 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 constructed to approved plan and under special survey, the steel forgings made at works approved by the Committee.
The materials are sound & the workmanship good.

This machinery has now been securely fitted onboard vessel and has been tried under full working conditions with satisfactory results and is eligible in our opinion to remain as classed with the record of survey No. L.M.C. 12-38, Oil Engines, in the Register Book.

The amount of Entry Fee *£ 2* When applied for, *6 JAN 1938*
 Special *4/5 ss.* *12:12:07*
 Donkey Boiler Fee *£ 3* When received, *19.9.38*
 Travelling Expenses (if any) *£ 3* *21.4.1939*
 Committee's Minute *TUE 7 FEB 1939*
 Assigned *L.M.C. 12-38*
Oil Eng. 09
+ N.E. 12-38
 CERTIFICATE WRITTEN

