

REPORT ON OIL ENGINE MACHINERY

No. 98483

22 FEB 1933

Received at London Office

Date of writing Report 9th Feb. 1933. When handed in at Local Office 22 FEB 1933 Port of London
 No. in Survey held at Newbury, H. Garmouth Date, First Survey 2nd June 1932 Last Survey 8th Feb. 1933
 Reg. Book. 91012 on the ^{Single} ~~Triple~~ ~~Quadruple~~ Screw vessel "ACTUALITY" Number of Visits 12

Built at H. Garmouth By whom built Fellows & Co. Ltd. Yard No. 332 When built 1933
 Engines made at Newbury By whom made Newbury Diesel Co. Engine No. 637 When made 1933
 Donkey Boilers made at By whom made Boiler No. — When made —
 Brake Horse Power 200/220 Owners F. J. Everard & Sons, Ltd. Port belonging to London
 Nom. Horse Power as per Rule 114 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
 Trade for which vessel is intended 175/8 157/8

IL ENGINES, &c.—Type of Engines Heavy oil 2 or 4 stroke cycle 2 Single or double acting single
 Maximum pressure in cylinders 600 lb. Diameter of cylinders 320 mm. Length of stroke 390 mm. No. of cylinders 4 No. of cranks 4
 Span of bearings, 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. 1050 mm. Weight 1 ton Means of ignition compression Kind of fuel used heavy oil
 Crank Shaft, dia. of journals as per Rule 173.3 Crank pin dia. 174 mm. Crank Webs Mid. length breadth 230.6 mm Thickness parallel to axis shrunk Thickness around eyehole
 as fitted 174 mm. (Reverse) as per Rule 3.785" Thrust Shaft, diameter at collars as per Rule
 Flywheel Shaft, diameter as fitted Intermediate Shafts, diameter as fitted 5.12" as fitted
 Tube Shaft, diameter as per Rule Screw Shaft, diameter as per Rule 4.385" Is the shaft fitted with a continuous liner No
 as fitted 4.625" as fitted
 Bronze 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
 as fitted 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
 Yes If so, state type Burgess Bros. Length of Bearing in Stern Bush next to and supporting propeller 2'-1 3/8"
 Propeller, dia. 5'-0" Pitch 3'-4 1/2" No. of blades 3 Material bronze whether Moveable No Total Developed Surface 8 sq. feet
 Method of reversing Engines screw shaft-reversed Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication
 Automatic Thickness of cylinder liners 2 7/8 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
 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. 1 Diameter 125 mm. Stroke 120 mm. Can one be overhauled while the other is at work
 Pumps connected to the Main Bilge Line No. and Size One 125 mm dia. x 120 mm stroke driven from main engines.
 How driven One 125 mm dia. x 120 mm stroke (double acting) " " aux. "
 Ballast Pumps, No. and size Lubricating Oil Pumps, including Spare Pump, No. and size
 Are two independent means arranged for circulating water through the Oil Cooler Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge
 Pumps, No. and size:—In Machinery Spaces Four 2 1/2" including independent suction in Pump Room
 In Holds, &c. Two 2 1/2"
 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
 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 valves
 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 on W.L.
 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 How are they protected
 What pipes pass through the deep tanks 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 2 Diameters 4" & 1 1/2" Stroke 3" Driven by Aux. Engine
 Auxiliary Air Compressors, No. One No. of stages 1 Diameters 2 1/2" Stroke 2 1/2" Driven by Main Engine
 Small Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by
 Scavenging Air Pumps, No. Diameter Stroke Driven by
 Auxiliary Engines crank shafts, diameter as per Rule 2.205" { Russell, Newbury & Co. No. 4 S.C. & A. 3 cyls. 4 1/2" dia. x 6" stroke }
 as fitted 2 3/8" { Span & Co. 4 3/4", Max. Wt. 650-700 lb. M.I.P. 110 lb. }
 BHP 27, R.P.M. 1000

IR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule Yes Is a drain fitted at the lowest part of each receiver Yes
 Can the internal surfaces of the receivers be examined and cleaned Yes
 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 Actual 2520
 Starting Air Receivers, No. 2 Total cubic capacity 17 cu. ft. Internal diameter 18" thickness 7/16"
 Seamless, lap welded or riveted longitudinal joint riveted Material Steel Range of tensile strength 28-32 Working pressure by Rules 486 lb. Actual 400 lb.

IS A DONKEY BOILER FITTED?

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 10-6-32 Receivers 23-6-32 Separate Tanks 19-2-32
(If not, state date of approval)
Donkey Boilers General Pumping Arrangements 25-7-32 Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

The foregoing is a correct description of

F. T. EVERARD & SONS LTD.

Manufacturer.

Dates of Survey while building
During progress of work in shops-- 1932 June 2, 21. July 15. Sept. 23.
During erection on board vessel-- 1932 Dec. 20. Nov 17 Dec 15 1933 Jan. 5-31. Feb. 2, 8
Total No. of visits 9

Dates of Examination of principal parts—Cylinders 21-6-32 Covers 15-7-32 Pistons 2-6-32 Rods Connecting rods 2-6-32

Crank shaft 2-6-32 Flywheel shaft Thrust shaft (Reversing) (Intermediate) shafts 2-6-32 Tube shaft

Screw shaft 5-1-33 Propeller 5-1-33 Stern tube 20-10-32 Engine seatings 20-10-32 Engines holding down bolts 5-1-33

Completion of fitting sea connections 5-1-33 Completion of pumping arrangements 8-2-33 Engines tried under working conditions 8-2-33

Crank shaft, Material O.H. Steel Identification Mark 2107 15-11-31 Flywheel shaft, Material Identification Mark

Thrust shaft, Material Identification Mark (Reversing) (Intermediate) shafts, Material O.H. Steel Identification Marks 218/5- N.A.B. 2-6-32

Tube shaft, Material Identification Mark Screw shaft, Material O.H. Steel Identification Mark 426 N.A.B. 29-6-3

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 If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.)

The machinery has been constructed and fitted on board under special survey in accordance with the requirements of the Rules and the approved plans. The materials and workmanship are good. On completion the machinery has been examined under full working conditions and found satisfactory.

In our opinion the machinery is eligible to be classed with the record of LMC 2.33.

The amount of Entry Fee .. £ 3 : 0 :

Special ... £ 28 : 10 :

Donkey Boiler Fee ... £ :

Travelling Expenses (if any) £ 6 : 6 :

Committee's Minute

Assigned

+ L.M.C. 2.33

O.G.

oil eng.

CERTIFICATE WRITTEN



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Lloyd's Register Foundation

Rpt. 13.

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Date of visit

No. in

Reg. Book

91012

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