

REPORT ON OIL ENGINE MACHINERY.

No. 20441.

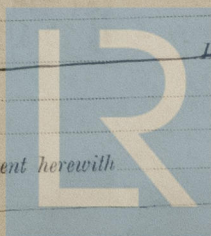
JUN 26 1939

Received at London Office

Date of writing Report 23/6/39 19 When handed in at Local Office 24/6/39 19 Port of GREENOCK.
 No. in Survey held at Port Glasgow Date, First Survey 9th FEBRUARY 1939 Last Survey 23rd June 1939
 Reg. Book. Number of Visits 21.

on the ~~Twin~~ ~~Triple~~ ~~Quadruple~~ Single Screw vessel PETRO Tons { Gross 444.49
 Net 228.19
 Built at Port Glasgow By whom built Ferguson Bros (P.L.) Ltd. Yard No. 341 When built 1939-6
 Engines made at Cologne By whom made Klockner-Humboldt Deutz A.G. Engine No. 486563/70 When made 1939
 Donkey Boilers made at home By whom made Boiler No. When made
 Brake Horse Power 400 Owners Union Lighterage Co. Ltd. Port belonging to London
 Nom. Horse Power as per Rule 94 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes
 Trade for which vessel is intended Carrying Petroleum in Bulk - Smooth Water Service

OIL ENGINES, &c.—Type of Engines 2 or 4 stroke cycle Single or double acting
 Maximum pressure in cylinders Diameter of cylinders Length of stroke No. of cylinders No. of cranks
 Mean Indicated Pressure
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge Is there a bearing between each crank
 Revolutions per minute Flywheel dia. Weight Means of ignition Kind of fuel used
 Crank Shaft, { Solid forged dia. of journals as per Rule Crank pin dia. Crank Webs Mid. length breadth Thickness parallel to axis
 { Semi built as fitted
 { All built as fitted
 Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule 4.52" Thrust Shaft, diameter at collars as per Rule 4.75"
 as fitted as fitted as fitted 5" as fitted 6.299"
 Tube Shaft, diameter as per Rule Screw Shaft, diameter as per Rule 5.18" Is the { tube } shaft fitted with a continuous liner { No.
 as fitted as fitted as fitted 5.51"
 Bronze Liners, thickness in way of bushes as per Rule Thickness between bushes as fitted Is the after end of the liner made watertight in the
 as fitted 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
 shaft Yes If so, state type "Newark" - Ferguson Bros Length of Bearing in Stern Bush next to and supporting propeller 2'-3 1/4"
 Propeller, dia. 5'-6 1/8" Pitch 3'-10 1/2" No. of blades 3 Material Bronze whether Moveable No Total Developed Surface 10 1/2 sq. feet
 Method of reversing Engines Is a governor or other arrangement fitted to prevent racing of the engine when detached Means of lubrication
 Thickness of cylinder liners Ref. Rpt. 315 Are the cylinders fitted with safety valves Are the exhaust pipes and silencers water cooled or lagged with
 non-conducting material If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine Funnel Exhaust
 Cooling Water Pumps, No. Two 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. Ref. Rpt. 315 Stroke Two - 60 tons / hour
 Pumps connected to the Main Bilge Line { No. and Size Main Engines as Ref. Rpt. 315 and Two - 60 tons / hour
 { How driven Diesel
 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 None Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size Ref. Rpt. 315
 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 Two - 2" One - 3" In Pump Room
 In Holds, 6" Hand pump suction of 6-2" side offshoots. 2-2" through ship offshoots - 1-2" in each of four holds & four peaks 3-2" side 2-2" through offshoots
 Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size One - 3"
 Are all the Bilge Suction pipes in Holds and Tunnels 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 None
 What pipes pass through the bunkers How are they protected
 What pipes pass through the deep tanks Have they been tested as per Rule Yes
 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 None 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 Ref. Rpt. 315 Stroke Driven by
 Auxiliary Air Compressors, No. One No. of stages 2 Diameters 110/90 m/m Stroke 85 m/m Driven by Diesel
 Small Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by
 What provision is made for first Charging the Air Receivers Hand driven compressors
 Scavenging Air Pumps, No. Diameter Ref. Rpts 297, 303 & 315 Driven by
 Auxiliary Engines crank shafts, diameter as per Rule Position
 as fitted
 Have the Auxiliary Engines been constructed under special survey Is a report sent herewith



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AIR RECEIVERS:—Have they been made under survey Yes State No. of Report or Certificate Ref. Rpt 315
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 — by Rules Actual —
Starting Air Receivers, No. Ref. Rpt 315 Total cubic capacity no 315 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 — (If not, state date of approval)

Receivers Ref. Rpt 315 Separate Fuel Tanks Yes
Donkey Boilers — General Pumping Arrangements Yes Pumping Arrangements in Machinery Space Yes
Oil Fuel Burning Arrangements none

SPARE GEAR.

Has the spare gear required by the Rules been supplied Ref. Rpt 315

State the principal additional spare gear supplied —

The foregoing is a correct description,

Manufacturer. —

Dates of Survey while building { During progress of work in shops-- }
{ During erection on board vessel-- } (1939) FEB. 9. 16. 14. 24. MAR. 22. APR. 4. 26. MAY 11. 18. 19. 22. 24. 29. JUNE 1. 8. 9. 12. 15. 20. 21. 23.
Total No. of visits 21.

Dates of Examination of principal parts—Cylinders — Covers Rittendam Pistons — Rods — Connecting rods —
Crank shaft — Flywheel shaft — Thrust shaft 17-12-39 Intermediate shafts 18.5.39 Tube shaft —
Screw shaft 18.5.39 Propeller 26.4.39 Stern tube 26.4.39 Engine seatings 11.5.39 Engines holding down bolts 27.5.39
Completion of fitting sea connections 22.5.39 Completion of pumping arrangements 23.6.39 Engines tried under working conditions 21.6.39
Crank shaft, Material Ref. Identification Mark Ref. Flywheel shaft, Material 315 Identification Mark —
Thrust shaft, Material Steel Identification Mark 3322. HB/ABF Ref. Intermediate shafts, Material Steel Identification Marks 4232 J.D.B
Tube shaft, Material — Identification Mark — Screw shaft, Material Steel Identification Mark 4231 J.D.B
Identification Marks on Air Receivers Ref. Rpt. 315

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 Tanker 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. These engines (as per Ref. Rpt. 315) together with the Auxiliaries (Ref Rpts 297 & 303) have been properly fitted on board the Vessel, examined under full power and found satisfactory.
This machinery is eligible, in our opinion, to be classed in the Register book with Records + L.M.C. 6.39. Oil Engine Shaft - O.G.

The amount of Entry Fee .. £ Already : When applied for, —
Special £ changed : 19
Donkey Boiler Fee £ Im. Rpt : When received, —
Travelling Expenses (if any) £ 4 27/3/39 : 19

Committee's Minute TUE 27 JUN 1939

Assigned Oil Eng., 6.39

M. Caldwell Jnr Esq and J.D. Boyle
Engineer Surveyor to Lloyd's Register of Shipping.



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