

REPORT ON OIL ENGINE MACHINERY.

No. 20610

Received at London Office

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Date of writing Report 27.6.38 When handed in at Local Office 9.8.38 Port of Greenock
 No. in Survey held at Greenock Date, First Survey 15/2/38 Last Survey 10/8/38
 Reg. Book. M/S Dorcasia Number of Visits 56
 on the Single Screw vessel Tons { Gross 8063.30
Triple Net 4767.97
Quadruple
 Built at Greenock By whom built Lithgow & Co Yard No. 908 When built 1938
 Engines made at Greenock By whom made John & Maccaid & Co Engine No. 1115 When made 1938
 Donkey Boilers made at ditto By whom made ditto Boiler No. 1115 When made 1938
 Brake Horse Power 2800 Owners Anglo Saxon Petroleum Co Ltd Port belonging to London
 Nom. Horse Power as per Rule 503 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
 Trade for which vessel is intended Foreign

OIL ENGINES, &c.—Type of Engines Diesel Solid Injection (under Piston Supplecharge) or 4 stroke cycle H Single or double acting Single
 Maximum pressure in cylinders 600 Diameter of cylinders 650 mm Length of stroke 1400 mm No. of cylinders 8 No. of cranks 8
 Mean Indicated Pressure 4.65 lps/Dcm Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 844 mm Is there a bearing between each crank Yes
 Revolutions per minute 112 Flywheel dia. 2219 mm Weight 2.9 tons Means of ignition Compression Kind of fuel used Diesel
 Crank Shaft, { Solid forged dia. of journals as per Rule 436 mm as fitted 460 mm Crank pin dia. 460 mm Mid. length breadth shrunk Thickness parallel to axis 267 mm
 { Semi built dia. of journals as fitted 460 mm Crank pin dia. 460 mm Mid. length thickness shrunk Thickness around eyehole 205 mm
 { All built as per Rule 436 mm as fitted 18 1/4" Intermediate Shafts, diameter as per Rule 12.18" as fitted 21" Thrust Shaft, diameter at collars as per Rule 12.8" as fitted 18 1/4"
 Flywheel Shaft, diameter as per Rule 436 mm as fitted 18 1/4" Tube Shaft, diameter as per Rule 13.5" as fitted 18" Is the { shaft } fitted with a continuous liner { Yes }
 { screw }
 Bronze Liners, thickness in way of bushes as per Rule 42" as fitted 18" Thickness between bushes as per Rule 54" as fitted 11 1/2" Is the after end of the liner made watertight in the propeller boss Yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner Yes
 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 Yes
 If two liners are fitted, is the shaft lapped or protected between the liners Yes Is an approved Oil Gland or other appliance fitted at the after end of the tube Yes
 shaft No If so, state type Length of Bearing in Stern Bush next to and supporting propeller 5' 0"
 Propeller, dia. 15' 0" Pitch 12' 0" No. of blades 4 Material Brown whether Moveable No Total Developed Surface 72 sq. feet
 Method of reversing Engines Air Is a governor or other arrangement fitted to prevent racing of the engine when decelerated Yes Means of lubrication Toroid
 Thickness of cylinder liners 40/48 mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material lagged If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine Funnel
 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. 2 Diameter Rotary Stroke 35 tons Can one be overhauled while the other is at work Yes
 Pumps connected to the Main Bilge Line { No. and Size 3 (2 at 35 tons) How driven Main Engine Steam 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 None
 Ballast Pumps, No. and size None Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2 (1-40 Gm) (1-8" x 8" x 10")
 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 3 - 3 1/2" In Pump Room 4 - 3"
 In Holds, &c. 2 - 2 1/2" Taints 6" x 8" Cuffordams 2 - 3"
 Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size Two 6"
 Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes Are the Bilge Suctions in the Machinery Spaces Yes
 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 Yes
 What pipes pass through the bunkers None How are they protected None
 What pipes pass through the deep tanks None 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 Not fitted Is it fitted with a watertight door Yes 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 None
 Main Air Compressors, No. — No. of stages — Diameters — Stroke — Driven by —
 Auxiliary Air Compressors, No. 2 No. of stages 2 DA Diameters 5 1/4" Stroke 7" Driven by Steam & Oil Engine
 Small Auxiliary Air Compressors, No. — No. of stages — Diameters — Stroke — Driven by —
 What provision is made for first Charging the Air Receivers Steam driven Compressor
 Scavenging Air Pumps, No. — Diameter — Stroke — Driven by —
 Auxiliary Engines crank shafts, diameter as per Rule — as fitted — No. — Position —
 Have the Auxiliary Engines been constructed under special survey Yes Is a report sent herewith —

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AIR RECEIVERS:—Have they been made under survey

State No. of Report or Certificate 1151 (Enk Rpt)

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

Injection 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

Starting Air Receivers, No. 2

Total cubic capacity

Internal diameter

thickness

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure by Rules

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 (If not, state date of approval)

Receivers

Separate Fuel Tanks

Donkey Boilers

General Pumping Arrangements

Pumping Arrangements in Machinery Space

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

LR 4422. 19. 538 W.G.M. Propeller Shaft complete (continuum Luvier) and Donkey Propeller.

The foregoing is a correct description,
For JOHN G. KINCAID & CO. LIMITED.

Director. Manufacturer.

Dates of Survey while building During progress of work in shops - - During erection on board vessel - - Total No. of visits 56.

Dates of Examination of principal parts—Cylinders 28.4.38 Covers 13.5.38 Pistons 20.5.38 Rods 16.5.38 Connecting rods 25.4.38

Crank shaft 15.4.38 Flywheel shaft 15.4.38 Thrust shaft 24.4.38 Intermediate shafts 16.5.38 Tube shaft —

Screw shaft 2.5.38 Propeller 12.5.38 Stern tube 5.5.38 Engine seatings 9.5.38 Engines holding down bolts 20.4.38

Completion of fitting sea connections 16.5.38 Completion of pumping arrangements 20.4.38 Engines tried under working conditions 10.8.38

Crank shaft, Material S Identification Mark LR 4422 W.G.M. Flywheel shaft, Material S Identification Mark LR 4422 W.G.

Thrust shaft, Material S Identification Mark LR 4422 W.G.M. Intermediate shafts, Material S Identification Marks LR 4422 W.G.

Tube shaft, Material — Identification Mark — Screw shaft, Material S Identification Mark LR 4422 W.G.

Identification Marks on Air Receivers

NO. 2151
LLOYD'S TEST
545 lb.
W.P. 1350
J.D.B. 10.5.38

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

If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. The engine & boiler have been built under special survey in accordance with the approved plans. The workmanship & material are of good quality. They have now been securely fitted on board. Tried under working conditions & found satisfactory. The machinery is eligible in my opinion for the record of the L.M.C. 8.38. (Notation of Donkey Boiler W.P. 180 lbs.)

The amount of Entry Fee .. £ 6 :

Special £ 100 : 3 :

Donkey Boiler Fee £ 16 : 12 :

Travelling Expenses (if any) £ 8 : 8 :

When applied for,

11.8.1938

When received,

16/8 1938

Committee's Minute GLASGOW 16 AUG 1938

Assigned

+ L.M.C. 8.38.

D.B. 180 lbs.

W. Gordon-Mitchell
Engineer Surveyor to Lloyd's Register of Shipping.



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