

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 348
MAY - 2 1939

Com. 684947

Received at London Office

Date of writing Report 25.10.1939 When handed in at Local Office 29.10.1939 Port of Dusseldorf

No. in Survey held at Köln Date, First Survey 21.2.39. Last Survey 20.10.1939. Reg. Book. Number of Visits 12

on the ^{Single} ~~Twin~~ ^{Triple} ~~Quadruple~~ Screw vessel

662
MV. LOLA

Tons { Gross 449
Net 320

Built at Westerbroek By whom built E.J. Smit & Zn. Yard No. ~~661~~ 662 When built 1939.

Engines made at Köln By whom made Klöckner-Humboldt-Deutz Engine No. 612349/56 When made 1939.

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

Brake Horse Power ~~400~~ 450 Owners Port belonging to

Nom. Horse Power as per Rule 94 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

Trade for which vessel is intended

OIL/ENGINES, &c.—Type of Engines Heavy Oil Engine RV8M 345 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 50 kg/cm² Diameter of cylinders 280 mm Length of stroke 450 mm No. of cylinders 8 No. of cranks 8

Mean Indicated Pressure 6,6 kg/cm²

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 307.5 mm Is there a bearing between each crank yes

Revolutions per minute 300 Flywheel dia. 1250 mm Weight 1660 kg Means of ignition sol. inject Kind of fuel used on test bed gas oil.

Crank Shaft, { Solid forged dia. of journals as per Rule as fitted 190 mm Crank pin dia. 170 mm Crank Webs Mid. length breadth 340 mm Thickness parallel to axis shrunk Thickness around eyehole

Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted 190 mm Thrust Shaft, diameter at collars as per Rule as fitted

Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted Is the { tube } shaft fitted with a continuous liner { screw }

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

shaft If so, state type Length of Bearing in Stern Bush next to and supporting propeller

Propeller, dia. Pitch No. of blades Material whether Moveable Total Developed Surface sq. feet

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

forced Thickness of cylinder liners 25 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes ~~water~~ water cooled or lagged with

non-conducting material water cooled 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. one Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Bilge Pumps worked from the Main Engines, No. one Diameter 100 mm Stroke 100 mm Can ~~be~~ be overhauled while ~~is~~ is at work

Pumps connected to the Main Bilge Line { No. and Size How driven

Is the cooling water led to the bilges If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping arrangements Capacity 80 ltrs./min. at 1400 r.p.m.

~~XXXXXXXXXXXXXXXXXXXX~~ Main engine ~~XXXXXX~~ Driven Lubricating Oil Pumps, ~~XXXXXXXXXXXX~~ No. and size 1 tooth wheel pump two stages

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 In Pump Room

In Holds, &c. Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size Are the Bilge Suctions in the Machinery Spaces

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Are they fitted with Valves or Cocks

led 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 the Overboard Discharges above or below the deep water line

Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates Are the Blow Off Cocks fitted with a spigot and brass covering plate

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel How are they protected

What pipes pass through the bunkers Have they been tested as per Rule

What pipes pass through the deep tanks

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

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. No. of stages Diameters Stroke Driven by

Auxiliary Air Compressors, No. one No. of stages two Diameters 145/60 mm Stroke 100 mm Driven by main engine.

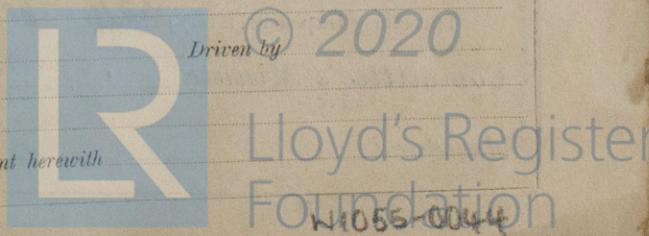
Small Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

What provision is made for first Charging the Air Receivers

Scavenging Air Pumps, No. Diameter Stroke Driven by

Auxiliary Engines crank shafts, diameter as per Rule as fitted Position

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



AIR RECEIVERS:—Have they been made under survey... **yes** State No. of Report or Certificate attached to the copy of this report sent to the Rotterdam office

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**

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 ...

Starting Air Receivers, No. ... **two** Total cubic capacity **2 x 500 ltrs.** Internal diameter **458 mm** thickness **11 mm.**

Seamless, lap welded or riveted longitudinal joint **fusion welded** Material **S.M. Steel** Range of tensile strength **41-47kg/mm²** Working pressure ... **30 kg/cm².**

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 **212480 1.9.36.** Receivers **552 1.6.38.** 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 **yes**

State the principal additional spare gear supplied

Identification marks on air receivers

No. 3968 + 3974
48.5 Atm.
W.P. = 30 Atm.
H.B. 7.7.39.

The foregoing is a correct description,
Klöckner-Humboldt-Deutz AG

Manufacturer.

Dates of Survey while building

During progress of work in shops - - - 21.2.-31.5-5.6.-23.6.-19.7.-1.9.-14.9.-18.9.-25.9.-28.9.-18.10.-20.10.39.

During erection on board vessel - - -

Total No. of visits

Dates of Examination of principal parts

Cylinders 18.9.-25.9.-20.10.39.
Flywheel shaft 25.9.-28.9.-14.9.-20.10.
Distons 20.10. Rods 1.9.-20.10.
Connecting rods 31.5.-5.6.19.7.

Crank shaft 21.2.-14.9.-20.10. Flywheel shaft Thrust shaft Intermediate shafts 23.6.-20.10. Tube shaft

Screw shaft Propeller Stern tube Engine seatings Engines holding down bolts

Engines tried under working conditions 18.10.39. on

Completion of fitting sea connections Completion of pumping arrangements

Crank shaft, Material **S.M. Steel** Identification Mark **Lloyd's 14243 M.B. 21.2.39.** Flywheel shaft, Material Identification Mark

Thrust shaft, Material Identification Mark Intermediate shafts, Material **S.M. Steel** Identification Marks **Lloyd's 2542 H.K. 20.**

Tube shaft, Material Identification Mark Screw shaft, Material Identification Mark

Identification Marks on Air Receivers

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 **yes** If so, state name of vessel **S.845 Gebr. v. Diepen, Rotterdam.** Düsseldorf Report No. 338.

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

This heavy oil engine has been constructed under special survey in accordance with the Society's Rules and Regulations as well as in accordance with the approved plans and instructions thereto.

The material used in the construction is good and the workmanship satisfactory. The engine has been tested on the Makers' test bed in the presence of the undersigned during 6 hours consecutively running under full load and 10% overload and was found to be in safe working condition during these trials. After the trials all working parts of the engine have been opened out for inspection and were found in good condition. In my opinion the vessel for which the above engine is intended will be eligible for the notation + L.M.C. (with date) when the whole machinery has been fitted satisfactorily on board and tried under full working condition.

Original report and copy sent to Rotterdam.

The amount of Entry Fee ... **Rfl 40.-** When applied for, **Düsseldorf**

Special ... **Rfl 470.-** **28.11.1939** sec No 12902 for 4 hours

Donkey Boiler Fee ... **£** When received,

Travelling Expenses (if any) **Rfl 60.-** 19 **1/3 of fees credited to Rotterdam office**

Committee's Minute **THE 14 MAY 1940**

Assigned See Grc. J.C. 100a

Engineer Surveyor to Lloyd's Register of Shipping.

