

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 Düsseldorf

No. in Survey held at  
Reg. Book.

Köln

Date, First Survey 21.2.39.

Last Survey 20.10.1939.

Number of Visits 12

on the <sup>Single</sup>  
~~Twin~~  
<sup>Triple</sup>  
~~Quadruple~~ Screw vessel

MV. LOLA

Tons { Gross 449  
Net 320

Built at Westerbroek

By whom built E.J. Smit &amp; Zn.

Yard No. 661 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, &amp;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/cm<sup>2</sup> Diameter of cylinders 280 mm Length of stroke 450 mm No. of cylinders 8 No. of cranks 8Mean Indicated Pressure 6,6 kg/cm<sup>2</sup>

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  
Semi built  
All built

dia. of journals

as per Rule

as fitted 190 mm

Crank pin dia.

170 mm

Crank Webs

Mid. length breadth 340 mm

Thickened parallel to axis

shrunken

Thickened 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 ~~XXXXXX~~ 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 ~~XX~~ be overhauled while ~~XXXXXX~~ 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

Capacity 80 ltrs./min. at 1400 r.p.m.

Main engine

Driven Lubricating Oil Pumps, ~~XXXXXX~~

No. and size

1 tooth wheel pump

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, &amp;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

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 they fitted with Valves or Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates

Are the Overboard Discharges above or below the deep water line

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

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

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

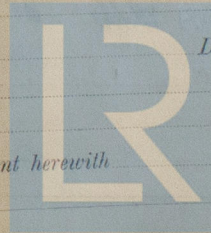
as fitted

No.

Position

Have the Auxiliary Engines been constructed under special survey

Is a report sent herewith



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W1055-0044



**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... **yes** Is a drain fitted at the lowest part of each receiver... **yes**

Injection Air Receivers, No. ... Cubic capacity of each ... Internal diameter ... thickness ... by Rules Actual ...

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 41-47 kg/mm<sup>2</sup> Working pressure by Rules Actual 30 kg/cm<sup>2</sup>.

**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. 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 18.10.39. on

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

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. 20.10.

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 .. **fl. 40.-** When applied for, **1939** See No. 12902 for 4 years

Special ... .. **fl. 470.-** When received, **19** 1/3 of fees credited to Rotterdam office

Donkey Boiler Fee ... .. **fl. 60.-**

Travelling Expenses (if any) .. ..

**Committee's Minute**

**Assigned**

See Grc. J.C. 100a

**THE 14 MAY 1940**

Engineer Surveyor to Lloyd's Register of Shipping.

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