

# REPORT ON OIL ENGINE MACHINERY.

No. 114<sup>6</sup>

22 OCT 1945

Received at London Office

Date of writing Report 6-12-1940 When handed in at Local Office

Port of ROTTERDAM

Date in Survey held at ROTTERDAM

Date, First Survey 2-11-39

Last Survey 25-4-1940

Single  
Twin  
Triple  
Quadruple

Screw vessel

VIRIATO

Tons

built at ROTTERDAM

By whom built N.V. SCHEEPSWERF 'GIDEON' Yard No. 172 When built 1940

engines made at COLOGNE

By whom made KLÖCKNER-HUMBOLDT DEUTZ Engine No. 621895-98 When made 1939

Boilers made at

By whom made Boiler No. When made

Indicated Horse Power 270 + 270

Owners SOC. LUSITANIA COMP. PORTUG. Port belonging to LISBOA

Net Horse Power as per Rule

Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

Trade for which vessel is intended

**MAIN ENGINES, &c.**—Type of Engines SV 47 345 2 or 4 stroke cycle 4 Single or double acting SINGLE

Maximum pressure in cylinders Diameter of cylinders 280 mm Length of stroke 450 mm No. of cylinders 4 No. of cranks

Mean Indicated Pressure Mean 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 as per Rule  
Semi built dia. of journals as fitted  
All built as fitted  
Crank pin dia. Crank Webs Mid. length breadth shrunk Thickness parallel to axis  
Mid. length thickness Thickness around eye-hole

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

**Stern Tube Shaft**, diameter as per Rule as fitted **Screw Shaft**, diameter as per Rule as fitted 130 mm Is the { tube { shaft fitted with a continuous liner { NO

**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 NO If so, state type Length of Bearing in **Stern-Bush** next to and supporting propeller 520

**Propeller**, dia. Pitch No. of blades 3 Material BRONZE whether Moveable NO Total Developed Surface sq. feet

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

Thickness of cylinder liners 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

**Cooling Water Pumps**, No. Is the sea suction provided with an efficient strainer which can be cleared within the vessel

**Bilge Pumps** worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other 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

**Ballast Pumps**, No. and size **Power Driven 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 In Pump Room

In Holds, &c. **Independent Power Pump Direct Suctions** to the Engine Room Bilges, No. and size

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

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

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. No. of stages Diameters Stroke Driven by

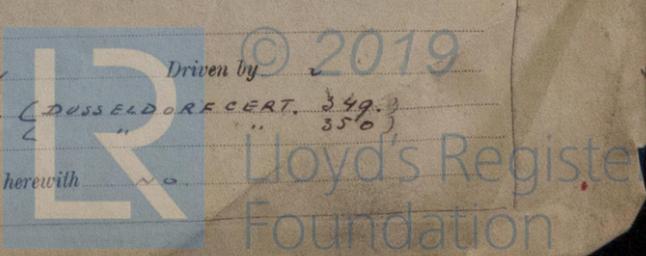
**Small Auxiliary Air Compressors**, No. ONE No. of stages TWO Diameters 110/95 mm Stroke 45 mm Driven by

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. 645653 (DUSSELDORF CERT. 349) Position 637046 (350)

Have the Auxiliary Engines been constructed under special survey YES Is a report sent herewith NO



AIR RECEIVERS:—Have they been made under survey  State No. of Report or Certificate

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  Actual

Starting Air Receivers, No.  Total cubic capacity  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?  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  Receivers  Separate Fuel Tanks  20-11-39 3-1-40

Donkey Boilers  General Pumping Arrangements  Pumping Arrangements in Machinery Space  29-11-39 29-3-40

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,

Manufacturer.

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

Dates of Examination of principal parts—Cylinders Covers Pistons Rods Connecting rods

Crank shaft Flywheel shaft Thrust shaft Intermediate shafts Tube shaft

Screw shafts 22-3-40 Propellers 22-3-40 Stern tube Engine seatings Engines holding down bolts

Completion of fitting sea connections 25-4-40 Completion of pumping arrangements  Engines tried under working conditions

Crank shaft, Material  Identification Mark  Flywheel shaft, Material  Identification Mark

Thrust shaft, Material  Identification Mark  Intermediate shafts, Material  Identification Marks

Tube shaft, Material  Identification Mark  Screw shaft, Material S.H. Steel Identification Mark J.H. 22-3-40 240403. N° 5012501

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  NO

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 vessel being required by the German Marine Authorities, is towed to Rotterdam. The main & auxiliary engines are lashed on their seatings and not installed. A further survey on the machinery was not desired.

Certificate (if required) to be sent to (The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee .. £ : : When applied for, Special (part) ... £ Fl. : 50-12-1940 Donkey Boiler Fee ... £ : : When received, Travelling Expenses (if any) £ Fl. : 12-19

Committee's Minute

Assigned

See minute on file.

FRI. 11 JAN 1946

Engineer Surveyor to Lloyd's Register of Shipping.



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