

REPORT ON OIL ENGINE MACHINERY.

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Date of writing Report: 19 Sept. 47 When handed in at Local Office: 19 Sept. 1947 Port of: Barcelona

No. in Survey held at: 04059 on the TWIN Single Secret vessel "VIRGEN DE LA ESPERANZA" Date, First Survey: 27-8-46 Last Survey: 19-7-47

Reg. Book: 000 Number of Visits: 18 Tons: Gross 399.66 Net 191.77

Built at: Valencia By whom built: Union Naval de Levante Yard No.: 40 When built: 1944-1

Engines made at: Barcelona By whom made: Maquinista Terrestre Maritima Engine No.: 61 When made: 1946

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

Brake Horse Power: 315 to 300 r.p.m. Owners: Vicente Enseñat Port belonging to: Palma de Mallorca

Nom. Horse Power as per Rule: MN 79 Is Refrigerating Machinery fitted for cargo purposes: no Is Electric Light fitted: yes

Trade for which vessel is intended: Coasting service

OIL ENGINES, &c.—Type of Engines: Heavy oil engine, Solid injection 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders: 50 kgs Diameter of cylinders: 295 mm Length of stroke: 420 mm No. of cylinders: 6 No. of cranks: 6

Mean Indicated Pressure: 6.2 kgs

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge: 340 - biggest 345 mm Is there a bearing between each crank: yes

Revolutions per minute: 300 Flywheel dia.: 1250 mm Weight: 2325 kgs Means of ignition: Solid injection Kind of fuel used: crude oil F.P.

Crank Shaft, dia. of journals: as per Rule 168 mm as fitted 195 mm Crank pin dia.: 190 mm Crank Webs: Mid. length breadth 300 mm Thickness parallel to axis shrunk Mid. length thickness 85 mm Thickness around eyehole forged

Flywheel Shaft, diameter: as per Rule 161 mm as fitted 200 mm Intermediate Shafts, diameter: as per Rule 118 mm as fitted 150 mm Thrust Shaft, diameter at collars: as per Rule 161 mm as fitted 195 mm

Tube Shaft, diameter: as per Rule as fitted Screw Shaft, diameter: as per Rule 128 mm as fitted 150 mm Is the (tube/screw) shaft fitted with a continuous liner: yes

Bronze Liners, thickness in way of bushes: as per Rule as fitted 13 mm Thickness between bushes: as fitted 13 mm Is the after end of the liner made watertight in the propeller boss: 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: light

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

Length of Bearing in Stern Bush next to and supporting propeller: 600 mm

Propeller, dia.: 1400 mm Pitch: 1190 mm No. of blades: 4 Material: bronze whether Moveable: no Total Developed Surface: 0.699 m sq.

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

Thickness of cylinder liners: 26.5/23.5 Are the cylinders fitted with safety valves: yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material: no

Cooling Water Pumps, No.: 1 off 14.6 tons 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.: 1 Diameter: 115 mm Stroke: 145 mm Can one be overhauled while the other is at work: yes

Pumps connected to the Main Bilge Line: How driven: by electric motor

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: 1 duplex 127/152 mm Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size: 2 geared pumps

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: NONE; Machinery & Holds, etc. suction: 2 aux. engines: In Pump Room

In Holds, &c. as per Bcl. First Entry Rpt. No 5025 dated 6-3-45

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 tap 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 leakages of either fuel oil or of lubricating oil from saturating the woodwork:

Main Air Compressors, No.: 2 No. of stages: 2 Diameters: 110/122 Stroke: 180 mm Driven by: main engine

Auxiliary Air Compressors, No.: 1 No. of stages: 1 Diameters: Stroke: Driven by: Donkey Boiler

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

Scavenging Air Pumps, No.: none Diameter: Stroke: Driven by: Donkey Boiler

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



1820-788700-188700
007881-007887-028

AIR RECEIVERS: - In each receiver which can be isolated, fitted with a safety valve as per Rule 25. **REPORT ON OIL ENGINE MACHINERY** Rpt. 40

Can the internal surfaces of the receivers be examined and cleaned Is a drain fitted at the lowest part of each receiver

High Pressure 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. Total cubic capacity Internal diameter thickness

Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure

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 Tanks

Donkey Boilers General Pumping Arrangements Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

OIL ENGINES. No. Type of Engines

Maximum pressure in cylinders Diameter of cylinders No. of cylinders

Revolutions per minute Weight Kind of fuel used

Stroke Piston diameter Piston length

Intermediate shaft diameter Intermediate shaft diameter

The foregoing is a correct description,

Ruggellath
Manufacturer.

Dates of work in shops: 1946.- Feb. 27; March 15, 26, 30; Ap. 11; May 6, 18; June 27; Aug. 28; Nov. 6; Dec. 23, 30.

Dates of Survey while building: 1946.- Nov. 20; Dec. 11 1947.- Feb. 23, 24, 27, 28.

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 shaft Propeller Stern tube Engine seatings Engines holding down bolts

Completion of fitting sea connections 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 Identification Mark

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, etc.)

This machinery so far as main motor and air receiver concern has been constructed under

Special Survey and in accordance with approved plans and fitted on board. All tests have been

carried out in conformity with the Society's Rules except screw shaft and four connecting rods

independent Power Pump Direct sections to the Engine Room Bikes, No. and size

forging tests.

Material and workmanship are good.

The main and auxiliary engines were tried under full power

satisfactory results and in my opinion, this machinery is entitled to be classed

Society with the notation (LMC) N.E. 2.47 and new tail shaft (CL) 12.46.

The amount of Entry Fee £

Special Fees £ 4482.-

Donkey Boiler Fee £ 300.-

Travelling Expenses (if any) £ 40.-

Committee's Minute

Assigned As now subject

+ NE 2.47

White Bel S. 12, 46

Certificate (if required) to be sent to the Registrar of Shipping

Financial
Engineer Surveyor to Lloyd's Register of Shipping.
Lloyd's Register of Shipping
Foundation