

REPORT ON OIL ENGINE MACHINERY.

No. 5025

Date of writing Report 6th March 45

When handed in at Local Office 6th March 45

Port of Barcelona

Received at London Office

No. in Survey held at Valencia

Date, First Survey 29th April 1942 Last Survey 27th Jan. 1944

Reg. Book.

Number of Visits 13

Single
on the Twin
Triple
Quadruple

Screw vessel Coaster M/V "VIRGEN DE LA ESPERANZA"

Tons { Gross 399.66
Net 181.77

Built at Valencia

By whom built Union Naval de Levante

Yard No. 40 When built 1944-1

Engines made at Copenhagen

By whom made Burmeister & Wain Type 622

Engine No. 2069 When made 1931

Donkey Boilers made at

By whom made

VF 37

Boiler No. / When made /

Brake Horse Power 300 to 300 r.p.m. Owners D. Vicente Enseñat

Port belonging to Palma de Mallorca

Nom. Horse Power as per Rule 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 Vertical Heavy Oil Engine, Solid Injection, 2 or 4 stroke cycle 2 Single or double acting Single

Maximum pressure in cylinders 49 kgs

Diameter of cylinders 220 mm

Length of stroke 370 mm

No. of cylinders 6

No. of cranks 6

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 295 mm

Is there a bearing between each crank yes

Revolutions per minute 300

Flywheel dia. 850 mm

Weight 893 kgs

Means of ignition F.O. Solid Injection

Kind of fuel used crude oil, F.P.

Crank Shaft, dia. of journals as per Rule 142 mm

as fitted 180 mm

Crank pin dia. 180 mm

Crank Webs

Mid. length breadth 330 mm

Thickens parallel to axis

Mid. length thickness 100 mm

shrink Thickens around eyehole forged

Flywheel Shaft, diameter as per Rule /

as fitted /

Intermediate Shafts, diameter as per Rule 104 mm

as fitted 130 mm

Thrust Shaft, diameter at collars as per Rule 110 mm

as fitted 160 mm

Tube Shaft, diameter as per Rule /

as fitted /

Screw Shaft, diameter as per Rule 117 mm

as fitted 135 mm

hole dia 55 mm

Is the tube shaft fitted with a continuous liner yes

Bronze Liners, thickness in way of bushes as per Rule 11 mm

as fitted 11 mm

Thickness between bushes as per rule 9 mm

as fitted 10 mm

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 one length

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 tight

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 600 mm

Propeller, dia. 1750 mm Pitch 1200 mm No. of blades 3

Material bronze

whether Moveable yes

Total Developed Surface 0.7 m² sq. feet

Method of reversing Engines clutch

Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes

Means of lubrication

forced Thickness of cylinder liners /

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. 1 of about 10 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 /

Stroke /

Can one be overhauled while the other is at work /

Pumps connected to the Main Bilge Line

No. and Size 1 duplex gen. service 37 tons; 1 rotatory 10 tons; 1 bilge 10 tons

How driven by electric motor.

by electric motor by main eng.

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

Ballast Pumps, No. and size 1 duplex 127x152mm

Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 1 gear pump driven

by main engine

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 2 of 60 mm aft; 2 of 60 mm centre forward

In Pump Room /

In Holds, &c. 1 of 60 mm aft; 1 of 60 mm centre; Fore peak 1 of 60 mm; After peak 1 hand pump; Chain locker

and oil well forward hold 2 hand pump suction.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 of 60 mm general service pump

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

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 yes

Are all Sea Connections fitted direct on the skin of the ship yes

Are they fitted with Valves or Cocks yes

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 /

That pipes pass through the bunkers /

How are they protected /

That 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 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 /

Is it fitted with a watertight door /

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 2

Diameters

Stroke

Driven by oil engine

Small Auxiliary Air Compressors, No. one

No. of stages 2 - horiz.

Diameters 30 & 65

Stroke

Driven by belt

Exhausting Air Pumps, No. 1 blower

Diameter /

Stroke /

Driven by main engine

Auxiliary Engines crank shafts, diameter as per Rule main electric generator

as fitted Oil eng. 60 mm

Aux. compressor Oil eng. Bolinders Diesel 10 BHP

made in Sweden

Ident. marks:

Lloyd's test 95.6 kg. JB.4-11-42

8020-788600-188700

Reversible

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule. yes
Can the internal surfaces of the receivers be examined and cleaned yes Is a drain fitted at the lowest part of each receiver yes
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** by Rules / Actual /
Starting Air Receivers, No. one **Total cubic capacity** 300 lts **Internal diameter** 400 mm aprox. **thickness** /
Seamless, lap welded or riveted longitudinal joint seamless **Material** steel **Range of tensile strength** / **Marks:** proved 130 atm
Working pressure Actual 26 atm

IS A DONKEY BOILER FITTED? no If so, is a report now forwarded? /
Is the donkey boiler intended to be used for domestic purposes only no
PLANS. Are approved plans forwarded herewith for Shafting no **Receivers** no **Separate Tanks** no
(If not, state date of approval) 5-5-44 & 24-3-44

Donkey Boilers / **General Pumping Arrangements** no **Oil Fuel Burning Arrangements** /
Approved. See letter 24-3-44

SPARE GEAR.

Has the spare gear required by the Rules been supplied Not complete. Some pieces are not yet supplied but they have been ordered by the Owners to Motor Builders.
State the principal additional spare gear supplied See enclosed list of spare pieces.

The foregoing is a correct description,

UNION NAVAL DE LEVANTE, S.A.

Factoría de Valencia

R.F.

R. F. Rivas

Manufacturer.

Dates of Survey while building { **During progress of work in shops--** Not built under Society's Special Survey
During erection on board vessel-- 1943.- March 9,17; Ap.6,20; July 12; Aug.8,10; Sept.1; Oct.4,8; Nov.18,19; Dec.14
1944.- Jan. 28
Total No. of visits 13

Dates of Examination of principal parts—Cylinders 12-7-43 **Covers** 12-7-43 **Pistons** 12-7-43 **Rods** / **Connecting rods** 12-7-43
Crank shaft 10-8-43 **Flywheel shaft** 10-8-43 **Thrust shaft** 10-8-43 **Intermediate shafts** 10-8-43 **Tube shaft** /
Screw shaft 10-8-43 **Propeller** 10-8-43 **Stern tube** 20-4-43 **Engine seatings** 10-8-43 **Engines holding down bolts** 4-10-43
Completion of fitting sea connections 20-4-43 **Completion of pumping arrangements** 18-11-43 **Engines tried under working conditions** 19-11-43
Crank shaft, Material steel **Identification Mark** / **Flywheel shaft, Material** steel **Identification Mark** /
Thrust shaft, Material steel **Identification Mark** / **Intermediate shafts, Material** steel **Identification Marks** /
Tube shaft, Material / **Identification Mark** / **Screw shaft, Material** steel **Identification Mark** /

Is the flash point of the oil to be used over 150° F. yes

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with yes

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo no

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 no If so, state name of vessel /

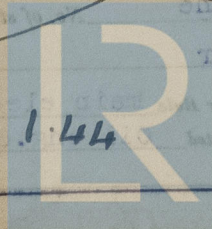
General Remarks (State quality of workmanship, opinions as to class, etc. This machinery has not been constructed under Special Survey but it complies with the Society's Rules requirements and has been installed on board in accordance with them.- Material and workmanship are good.- The main and all auxiliary have been tried under full working condition at sea with satisfactory results, and in my opinion, the machinery is entitled to be classed in this Society with the notation LMC 2,44. Subject to fuel oil transfer power pump and its deck control gear being fitted on board as soon as Owners are able to do it. The fuel oil transfer pump which is shown on approved plan has not been installed on board due to the fact that it has not yet been received by the Owner although it was ordered in proper time.- In the meantime Class is recommended as above and a hand pump of adequate capacity has been installed on board for fuel oil transfer purposes.
Brinell test certificates enclosed herewith.

The amount of Entry Fee Ptas. 360.- : **When applied for,** /
Special £ 2570.- : **When received,** /
Donkey Boiler Fee £ : /
Travelling Expenses (if any) £ 1116.- : /

Committee's Minute

Assigned L.M.C 1.44 E mode 31 refitted 1.44
C.L. oil Eng.

Harrold
Engineer Surveyor to Lloyd's Register of Shipping.



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Foundation