

# REPORT ON OIL ENGINE MACHINERY.

No. 428

BESEP 1952

Received at London Office

Date of writing Report 19 June 1952 When handed in at Local Office 28-8-1952 Port of VALENCIA

No. in Survey held at Valencia Date, First Survey 4-11-49 Last Survey 9-6-1952  
Reg. Book. Number of Visits 40

Single on the Twin Triple Quadruple Screw vessel M/V VICTORIA Tons Gross 3250 Net           

Built at Valencia By whom built Unión Naval de Levante Yard No. 56 When built 1952

Engines made at Barcelona By whom made Maquinista y Terrestre Engine No. 217/218 When made 1952

Donkey Boilers made at Bilbao By whom made Babcock & Wilcox Ltd. Boiler No. 203 When made 1952

Brake Horse Power { Maximum            Service            Owners Empresa Nacional ELCAÑO Port belonging to Algeciras

M.N. as per Rule 1065 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

Trade for which vessel is intended Train ferry for service Algeciras and Ceuta.

OIL ENGINES, &c. — Type of Engines Heavy oil - See Bcl. Rpt. 5961 2 or 4 stroke cycle 2 Single or double acting Single

Maximum pressure in cylinders            Diameter of cylinders            Length of stroke            No. of cylinders 7 No. of cranks           

Mean Indicated Pressure            Span of bearings (i.e., distance between inner edges of bearings in way of a crank)            Is there a bearing between each crank            Revolutions per minute { Maximum            Service           

Flywheel dia.            Weight            Moment of inertia of flywheel (lbs. in<sup>2</sup> or Kg. cm.<sup>2</sup>)            Means of ignition            Kind of fuel used Diesel

Crank Shaft, { Solid forged            Semi built            All built            dia. of journals            Crank pin dia.            Crank webs { Mid. length breadth            Mid. length thickness            Thickness parallel to axis            Thickness around eyehole           

Flywheel Shaft, diameter            Intermediate Shafts, diameter            Thrust Shaft, diameter at collar           

Tube Shaft, diameter            Screw Shaft, diameter            Is the { tube            screw            shaft fitted with a continuous liner Yes

Bronze Liners, thickness in way of bushes            Thickness between bushes            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 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            If two liners are fitted, is the shaft lapped or protected between the liners            Is an approved Oil Gland fitted at the after end of stern tube           

Propeller, dia. 3.24 Pitch 3.35 No. of blades 3 Material Bronze whether moveable No Total developed surface 3.9575 sq. metres

Moment of inertia of propeller including entrained water (lbs. in<sup>2</sup> or Kg. cm.<sup>2</sup>) 12577 Kind of damper, if fitted           

Method of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine Yes Means of lubrication Forced 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 Lagged

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. and how driven 3 SW Electric Working P.W. 2

S.W. 2 Spare F.W. and S.W. 1 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. and capacity            Can one be overhauled while the other is at work           

Pumps connected to the Main Bilge Line { No. and capacity of each 2 of 120 tons - 2 of 75 - 1 of 25 How driven Electric Motor

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 capacity 1 of 400 Power Driven Lubricating Oil Pumps, including spare pump, No. and size 3 of 90 tons

Are two independent means arranged for circulating water through the Oil Cooler Yes Branch Bilge Suctions           

No. and size:—In machinery spaces 1 of 110, 1 of 125, 11 of 70 mm. In pump room           

In holds, &c. 6 of 70 mm.

Direct Bilge Suctions to the engine room bilges, No. and size 3 of 125 m/m. 1 of 100 m/m.

Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes Yes Are the bilge suction 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 Steel boxes 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 Portable plates 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 Yes

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 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 Yes Is it fitted with a watertight door Yes worked from Bridge

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. Two No. of stages            diameters            stroke            driven by Electric Motor

Auxiliary Air Compressors, No.            No. of stages            diameters            stroke            driven by           

Small Auxiliary Air Compressors, No. 1 No. of stages 2 diameters            stroke            driven by Hand or Motor

What provision is made for first charging the air receivers Above compr.

Scavenging Air Pumps or Blowers, No. 2 How driven Main engine

Auxiliary Engines Have they been made under survey Yes - See Bcl. Rpt. Engine Nos.            Position of each in engine room P.C.S. Aux. engine room Makers name M.T.M. Bcl. Report No. Bcl. Rpt. No 5961

AIR RECEIVERS:—Have they been made under survey. Yes ✓ State No. of report or certificate. See Bcl. Rpt. No 596

State full details of safety devices. As per Rule

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

Injection Air Receivers, No. - Cubic capacity of each - Internal diameter - thickness -

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

Starting Air Receivers, No. Two ✓ Total cubic capacity 10.400 Liters Internal diameter - thickness -

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

IS A DONKEY BOILER FITTED Yes ✓ If so, is a report now forwarded. Forwarded by Bbo. No 11.153

Is the donkey boiler intended to be used for domestic purposes only. No - used also for fuel heaters & lab oil heaters

PLANS. Are approved plans forwarded herewith for shafting. 19-1-50 Receivers. - Separate fuel tanks 30/6/50

Donkey boilers. - General pumping arrangements. 29/11/50 Pumping arrangements in machinery space. 29/11/50

Oil fuel burning arrangements. -

Have Torsional Vibration characteristics been approved. Yes ✓ Date and particulars of approval. See Bcl. Rpt.

SPARE GEAR.

Has the spare gear required by the Rules been supplied. Yes ✓ State if for "short voyages" only. No

State the principal additional spare gear supplied.

The foregoing is a correct description, Abbad



During progress of work in shops - - See Bcl. Rpt.

Dates of Survey while building During erection on board vessel - - 1949: Nov. 4; 1950: June 6; 1951: March 2, 27; June 4, 23; July 7; 1952: Feb. 25; March 1, 24; April 9, 16, 18, 24, 25, 28; May 2, 3, 10, 12, 13, 14, 15, 16, 17, 19, 21, 23, 24, 27, 28, 29, 30, 31; June 2, 4, 5, 6, 7, 9.

Total No. of visits. 40

Dates of examination of principal parts—Cylinders - Covers - Pistons - Rods - Connecting rods -

Crank shaft - Flywheel shaft - Thrust shaft - Intermediate shafts 18/4/52 Tube shaft -

Screw shaft - Propeller 9&15-10-51 Stern tube - Engine seatings 18-4-52 Engine holding down bolts 18-4-52

Completion of fitting sea connections 12-5-52 Completion of pumping arrangements 5-6-52 Engines tried under working conditions 2-6-52

Crank shaft, material - Identification mark - Flywheel shaft, material - Identification mark -

Thrust shaft, material - Identification mark - Intermediate shafts, material O.H.M.S. Identification marks 8277, 78, 79

Tube shaft, material - Identification mark - Screw shaft, material O.H.M.S. Identification mark 8111 & 8112

Identification marks on air receivers. 54 & 56

Welded receivers, state Makers' Name M.T.M. - Bcl. See Bcl. Rpt.

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 ✓

Full description of fire extinguishing apparatus fitted in machinery spaces. Foam, C.O.2, and "Grimmell sprinkler system."

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. -

What is the special notation desired. -

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, Speed restrictions, &c. The Machinery of this vessel has)

been constructed under Special Survey (Bcl. Rpt. 5961) and satisfactorily fitted on board in

accordance with the requirements of the Rules, the Secretary's letters and approved plans.

The three auxiliary engines (Bcl. Rpt. 5961) and the emergency auxiliary engine (Bcl.

Rpt. 5969) and the vertical donkey boiler (Bbo. Rpt. 11153) have all been satisfactorily fitted,

and tested as required by the Rules.

The workmanship and materials are good.

On completion a full power sea trial was carried out with satisfactory results.

It is recommended that the Machinery be classed in the Register Book with the records

of +LMC 6,52 and C.L.

The amount of Entry Fee ... £

Instl. of Machinery Special ... Ptas. £ 27.850 --- When applied for 28-8-1952

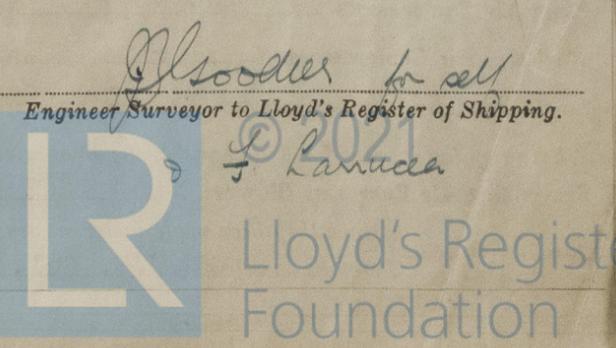
Donkey Boiler Fee... £ --- When received 19

Travelling Expenses (if any) £ 50.00

Committee's Minute FRI. 17. OCT 1952

Assigned +LMC 6,52 Oil Eng

CL DB 50 lb.



Vertical stamp: Certificate (if required) to be sent to...

Vertical stamp: The Surveyors are requested not to write on or below the space for Committee's Minute.