

REPORT ON OIL ENGINE MACHINERY.

Received at London Office

Date of writing Report 29th April 52 When handed in at Local Office 29th April 52 Port of Barcelona

No. in Survey held at Barcelona Date, First Survey 22nd August 1950 Last Survey 20th March 1952
Reg. Book. N.N. M.V. VICTORIA Number of Visits 90

35381 Single on the Twin Screw vessel Motor Ferry "5 DE ACOSTA" Tons Gross 3250
Triple
Quadruple Net -

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

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

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

Brake Horse Power 2 x 2662 Owners Emprese Nacional Elcano Port belonging to -

M.N. Power as per Rule 1065 Is Refrigerating Machinery fitted for cargo purposes - Is Electric Light fitted yes

Trade for which vessel is intended Straits of Gibraltar

OIL ENGINES, &c. — Type of Engines B & W 750-VF-90 Trunk piston 2 or 4 stroke cycle 2 Single or double acting single

Maximum pressure in cylinders 50 kg/cm² Diameter of cylinders 500 Length of stroke 900 No. of cylinders 7 No. of cranks 7

Mean Indicated Pressure 6.45 kg Ahead Firing Order in Cylinders 1.6.3.4.5.2.7. = 8 Span of bearings, adjacent to the crank, measured

from inner edge to inner edge 708 Is there a bearing between each crank yes Revolutions per minute 188

Flywheel dia. 1652 Weight 840 kg Moment of inertia of flywheel (lb.in.² or Kg.cm.²) 3,560 Means of ignition compress Kind of fuel used Diesel

Crank Shaft, Solid forged dia. of journals as per Rule approved Crank pin dia. 340 Crank webs Mid. length breadth 850 Thickness parallel to axis 208
Semi built as fitted 340 Mid. length thickness 208 shrunk Thickness around eye-hole 200
All built

Flywheel Shaft, diameter as per Rule - Intermediate Shafts, diameter as per Rule approved Thrust Shaft, diameter at collars as fitted 306
as fitted - as fitted 265 as per Rule approved

Tube Shaft, diameter as per Rule - Screw Shaft, diameter as per Rule approved Is the tube shaft fitted with a continuous liner yes
as fitted - as fitted 295 as fitted -

Bronze Liners, thickness in way of bushes as per Rule approved Thickness between bushes as fitted 122 Is the after end of the liner made watertight in the propeller boss fit
as fitted 20 1/4 18 as fitted 122

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 fit 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 tube shaft -

Length of bearing in Stern Bush next to and supporting propeller 1747 mm

Propeller, dia. 3240mm Pitch 3350 mm No. of blades 3 Material bronze whether moveable no Total developed surface 3.96 m² sq. feet

Moment of inertia of propeller (lb.in.² or Kg.cm.²) 12,577 Kind of damper, if fitted -

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 B.50 Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled

or lagged with non-conducting material legged 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. 3 sea Is the sea suction provided with an efficient strainer which can be cleared within the vessel -

Bilge Pumps worked from the Main Engines, No. 2 fresh 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 3 geared, 90 Tph

Are two independent means arranged for circulating water through the Oil Cooler on 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 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 -

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. 2 No. of stages 2 diameters 130, 120 stroke 120 driven by Elec. motor 65HP

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

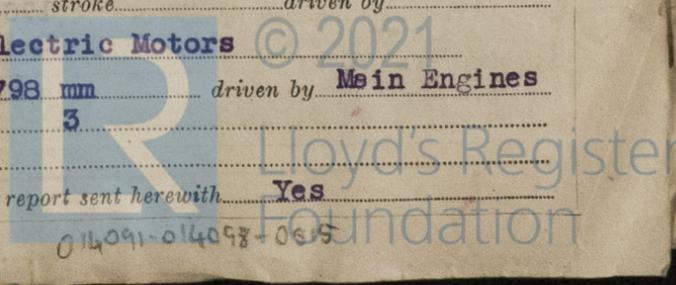
Small Auxiliary Air Compressors, No. - No. of stages - diameters - stroke - driven by -

What provision is made for first charging the air receivers Above compressors driven by Electric Motors

Scavenging Air Pumps, No. 2 diameter 549 mm stroke 798 mm driven by Main Engines

Auxiliary Engines crank shafts, diameter as per Rule approved No. 3 Position -

Have the auxiliary engines been constructed under special survey Yes Is a report sent herewith Yes



43-5961

AIR RECEIVERS:—Have they been made under survey... **yes** State No. of report on certificate... **54 & 56**

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**

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. **2** Total cubic capacity **5,200 Lt. each** Internal diameter **1625 mm** thickness **24 mm**

Seamless, welded or riveted longitudinal joint **riveted** Material **S.M. steel** Range of tensile strength **51.9 kg** Working pressure ... Actual... **25 kgs**

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... **19-1-50** Receivers... **21-8-51** Separate fuel tanks ...

Donkey boilers ... General pumping arrangements... **14-11-50** Pumping arrangements in machinery space... **14-11-50**

Oil fuel burning arrangements ...

Have Torsional Vibration characteristics been approved... **5-11-47** Date of approval ...

SPARE GEAR.

Has the spare gear required by the Rules been supplied... **Stated to be in excess of Rules.**

State the principal additional spare gear supplied ...

The foregoing is a correct description,

Dates of Survey while building ...

During progress of work in shops ... **1949.- Nov. 4** **1950.- Aug. 22, 30; Sept. 5, 6, 11, 12, 19, 27; Oct. 26; Nov. 3, 6** **1951.- Jan. 3, 9, 16; Feb. 17, 20; Mar. 2, 9, 16, 20, 27, 30; Apr. 18, 25, 28, 30; May 12; June 1, 9, 16, 18, 19, 27, 23; July 3, 7, 9, 13; Aug. 24, 28; Sept. 1, 3, 5, 12, 13, 29; Oct. 4, 6, 9, 18, 22, 25, 30; Nov. 5, 9, 12, 13, 15, 16, 19, 29, 24, 27, 30; Dec. 3, 5, 7, 10, 13, 18, 31** **1952.- Jan. 3, 4, 9, 10, 17, 24; Feb. 4, 5, 14, 15, 16, 27; March 20.**

During erection on board vessel ...

Total No. of visits... **90**

Dates of examination of principal parts—Cylinders... **P. 26-2-52** Covers... **S. 9-1-52** Pistons... **S. 9-1-52** Rods... **P. 26-2-52** Connecting rods... **S. 9-1-52**

Crank shaft... **S. 9-1-52** Flywheel shaft... **P. 26-2-52** Thrust shaft... **S. 9-1-52** Intermediate shafts... **S. 18-1-52** Tube shaft... **P. 26-2-52**

Screw shaft... **P & S fitted** Stern tube... **11-7-51** Engine seatings... Engine holding down bolts... **-**

Completion of fitting sea connections... **11-7-51** Completion of pumping arrangements... Engines tried under working conditions... **-**

Crank shaft, material **S.M. steel** Identification mark **P. 7675 GS** Flywheel shaft, material... Identification mark... **-**

Thrust shaft, material **S.M. steel** Identification mark **P. 6457 AB** Intermediate shafts, material **S.M. steel** identification marks **2086.7.8.9 AB**

Tube shaft, material... Identification mark... Screw shaft, material... Identification mark... **-**

Identification marks on air receivers... **54 & 56**

Welded receivers, state Makers' Name... **-**

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... **-**

Description of fire extinguishing apparatus fitted... **-**

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... **-** If so, state name of vessel... **-**

General Remarks (State quality of workmanship, opinions as to class, &c.)

These main engines have been constructed under survey of tested materials, in accordance with Rules and Regulations, approved plans and Secretary's letters, and are eligible to be Clesed +LMC with date when they have been satisfactorily installed in the vessel and tested under working conditions to the Society's Surveyors' satisfaction.

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 ... £

2/3 Special ... Pts. 49,544--

Late Entry Fee... 1,825--

5 oil coolers... 1447

Travelling Expenses (if any) £ 196--

2 air receivers... 1760

3 air pipes... 2640

When applied for **25-4-52** 19

When received **25-4-52** 19

For **J. Terrance, F. Larruces and self**

G. J. Sullivan
Engineer Surveyor to Lloyd's Register of Shipping.

FRI. 17 OCT 1952

Assigned **See F.E. weekly rpt. Vol 428**

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