

REPORT ON OIL ENGINE MACHINERY.

Received at London Office.

12 DEC 1949

Date of writing Report 19... When handed in at Local Office... 19... Port of Cleveland, Ohio

No. in Survey held at Milwaukee, Wisconsin Date, First Survey March 31 Last Survey May 25 1949
Reg. Book.

Single
on the Twin
Triple
Quadruple

M.T. "ISLAS MALVINAS"

Number of Visits

Screw vessel Argentine Vessel (2) Main Propulsion Engines Tons (Gross - Net -)

Built at Uddevalla Sweden By whom built Uddevallavarvet Aktiebolag Yard No. 111 When built -

Engines made at Milwaukee, Wisconsin By whom made Nordberg Mfg. Co. Engine No. TSM-2971 When made 1949

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

Brake Horse Power 8500 total Owners Argentine Owners Port belonging to -

Nom. Horse Power as per Rule 2062 Is Refrigerating Machinery fitted for cargo purposes - Is Electric Light fitted -

Trade for which Vessel is intended -

OIL ENGINES, &c.—Type of Engines Crosshead type. Solid Injection 2 or 4 stroke cycle 2 Single or double acting S

Maximum pressure in cylinders 800 psi Motor driven scavenge blower

Mean Indicated Pressure 80 psi Diameter of cylinders 29" Length of stroke 40" No. of cylinders 7 No. of cranks 7

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 36.5" Is there a bearing between each crank Yes

Revolutions per minute 160 Turning Flywheel dia. 84.625" Weight 2600 lbs. Means of ignition Compression Kind of fuel used Diesel

Crank Shaft, { Solid forged 2 sections per Rule - 2/40. Semi-built dia. of journals as fitted 20" Crank pin dia. 20" Crank Webs Mid length breadth 27" Thickness parallel to axis -

Flywheel Shaft, diameter as per Rule - Intermediate Shafts, diameter as per Rule - Thrust Shaft, diameter at collars as fitted 14.25"

Tube Shaft, diameter as per Rule - Screw Shaft, diameter as per Rule 360 15/16 Is the { tube } shaft fitted with a continuous liner { screw }

Bronze Liners, thickness in way of bushes as per Rule - Thickness between bushes as per Rule - 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 - If so, state type - Length of Bearing in Stern Bush next to and supporting propeller -

Propeller, dia. - Pitch 42807 15/16 No. of blades - Material - whether Moveable - Total Developed Surface - sq. feet

Method of reversing Engines Rot. Camshaft Is a governor or other arrangement fitted to prevent racing of the engine when disconnected Yes Means of lubrication

Pressure Thickness of cylinder liners 1.25" Min Are the cylinders fitted with safety valves Yes 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 - 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 bunks - 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. - No. of stages - Diameters - Stroke - Driven by -

What provision is made for first Charging the Air Receivers -

Scavenging Air Pumps, No. Two-centrifugal Diameter 20" dia. impeller 11750 cu. ft. / min. Driven by motor

Auxiliary Engines crank shafts, diameter as fitted Journals 7" Crankpins 6" Diesel Generators Four sets Busch Sulzer Bros. 320 K.W.

Have the Auxiliary Engines been constructed under special survey Yes Is a report sent herewith No. Clv. Rpt. 1346

M 9-41 Printed in U.S.A.

4^B 1376

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.....

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..... Separate Fuel Tanks.....

Donkey Boilers..... General Pumping Arrangements..... Pumping Arrangements in Machinery Space.....

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 - - } March 31, April 13, 21, May 2, 5, 9, 19, 25, 1949

{ During erection on board vessel - - - } Total No. of visits..... 8

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 (2 sections each)..... Completion of pumping arrangements..... Engines tried under working conditions.....

Crank shaft, Material OH Forge Steel Identification Mark Lloyds 5941, 5942..... Flywheel shaft, Material..... Identification Mark.....

Thrust shaft, Material OH Forge Steel Identification Mark Lloyds 5956, 5954..... Intermediate shafts, Material..... Identification Marks.....

Tube shaft, Material..... Identification Mark..... Screw shaft, Material..... Identification Mark.....

Identification Marks on Air Receivers.....

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.....

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 Yes..... If so, state name of vessel Uddevalla Hulls Nos. 111, 112, 113

General Remarks (State quality of workmanship, opinions as to class, &c. These two main propulsion engines have been

constructed under Special Survey and to approved drawings in accordance with the Rules of this

Society. The materials were tested by the Society's Surveyors with satisfactory results, and the

workmanship found to be of good quality throughout. Each engine was rotated by means of the turning

gear and on completion was partially dismantled and shipped to the shipbuilder in Sweden for

installation in the vessel.

It is recommended that the vessel be assigned the record of L.M.C. (with date), subject to these

two engines being installed aboard and tested under working conditions, all to the satisfaction of

the Society's Surveyors.

See Sec's letter to NYK of 15/8/49 re T.V.C. (possible restricted range)

The amount of Entry Fee ... \$1640.00 : When applied for,

Special ... £ : : Nov. 10 1949

Donkey Boiler Fee ... £ : : When received,

Travelling Expenses (if any) \$ 320.00 : : NEW YORK NOV 23 1949

Committee's Minute..... Assigned Transmittal to Hudson

R. F. Haagensten
Engineer Surveyor to Lloyd's Register of Shipping.

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

FRI. 22 SEP 1950

Su F. E. mchy. spst.

Lloyd's Register Foundation