

# REPORT ON OIL ENGINE MACHINERY.

No. 1399

Received at London Office

9 MAR 1950

Report made by 19 When handed in at Local Office 19 Port of Cleveland, Ohio

Survey held at Milwaukee, Wisconsin Date, First Survey Aug. 3 Last Survey Dec. 7 1949

M.T. ISLAS GEORIAS

Number of Visits 10

on the Single Twin Triple Quadruple Screw vessel Argentine Vessel - (2) Main Propulsion Engine Tons { Gross -- Net --

Uddevalla, Sweden By whom built Uddevallavarvet Aktiebolag Yard No. 113 When built --

Milwaukee, Wisconsin By whom made Nordberg Mfg. Co. Engine No. TSM-2975 When made 1949

Boiler No. -- When made --

Power 8500 Total Owners -- Port belonging to --

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

Which Vessel is intended --

GINES, &c.—Type of Engines Crosshead type, Solid injection motor driven scavenge blowers 2 or 4 stroke cycle 2 Single or double acting S

Pressure in cylinders 800 p.s.i. Diameter of cylinders 29" Length of stroke 40" No. of cylinders 7 No. of cranks 7

Working Pressure 80 p.s.i. Crank, measured from inner edge to inner edge 36.5" Is there a bearing between each crank Yes

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

Solid forged dia. of journals 20" Crank pin dia. 20" Crank Webs 27" Thickness parallel to axis --

as fitted 20" Mid length breadth 9.75" Thickness around eyehole --

as per Rule -- as per Rule -- as per Rule --

Intermediate Shafts, diameter -- Thrust Shaft, diameter at collars 14.25"

as fitted -- as fitted -- as fitted --

Screw Shaft, diameter -- Is the tube shaft fitted with a continuous liner --

as fitted -- as fitted -- as fitted --

Thickness in way of bushes -- Thickness between bushes -- Is the after end of the liner made watertight in the --

as fitted -- as fitted -- as fitted --

If the liner is in more than one length are the junctions made by fusion through the whole thickness of 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 --

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 --

If so, state type -- Length of Bearing in Stern Bush next to and supporting propeller --

Pitch -- No. of blades -- Material -- whether Moveable -- Total Developed Surface -- sq. feet

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

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 --

material -- If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine --

Sea Pumps, No. -- Is the sea suction provided with an efficient strainer which can be cleared within the vessel --

worked from the Main Engines, No. -- Diameter -- Stroke -- Can one be overhauled while the other is at work --

connected to the Main Bilge Line { No. and Size -- How driven --

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 --

No. and size -- Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size --

Independent means arranged for circulating water through the Oil Cooler -- Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge --

size:—In Machinery Spaces -- In Pump Room --

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Power Pump Direct Suctions to the Engine Room Bilges, No. and size --

Suction pipes in Holds and Tunnel Well fitted with strum-boxes -- Are the Bilge Suctions in the Machinery Spaces --

accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges --

Connections fitted direct on the skin of the ship -- Are they fitted with Valves or Cocks --

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 --

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 --

through the bunkers -- How are they protected --

through the deep tanks -- Have they been tested as per Rule --

Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times --

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 to another -- Is the Shaft Tunnel watertight -- Is it fitted with a watertight door -- worked from --

What means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork --

Compressors, No. -- No. of Stages -- Diameters -- Stroke -- Driven by --

Compressors, No. -- No. of Stages -- Diameters -- Stroke -- Driven by --

Air Compressors, No. -- No. of Stages -- Diameters -- Stroke -- Driven by --

is made for first Charging the Air Receivers --

Water Pumps, No. Two Centrifugal Diameter 20" dia. impeller Stroke 1175 c.f.m. Driven by motors

as per Rule -- No. Four sets Busch-Sulzer 320 K.W.

lines crank shafts, diameter Journals 7" Crankpins 6" Position Diesel Generators

Have any Engines been constructed under special survey Yes Is a report sent herewith No. Clv. Rpt. 1348

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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 Sept. 19. 49 N.Y. Receivers ... Separate Fuel Tanks

(If not, state date of approval)

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 ... To Rule Requirements

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 ... Aug. 3, 11, 17, 26, Sept. 8, 14, 22, Oct. 3, 13, Dec. 7, 1949

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 O.H. Forged Steel Identification Mark LLOYDS 6017-5873 Flywheel shaft, Material ... Identification Mark

Thrust shaft, Material O.H. Forged Steel Identification Mark LLOYDS 6062-6035 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 No. 111

General Remarks (State quality of workmanship, opinions as to class, &c. ... These two main engines and thrust shaft

have been constructed under Special Survey and to approved drawings in accordance with the

Rules of this Society. The materials have been tested by the Surveyors with satisfactory

results and the workmanship found to be of good quality throughout. Each engine was rotated

by the turning gear and on completion was placed in storage at the manufacturer's Works,

shipped to the shipbuilder in the Spring of 1950 for installation aboard the vessel.

It is recommended that the vessel be assigned the record of \*LMC (with date), subject to

two engines and thrusts being installed aboard the vessel and tested under working conditions

all to the satisfaction of the Society's Surveyors.

T.V.G. approved for a service speed of 140 RPM Secs letter of 15-8-49

(possible restricted range)

The amount of Entry Fee ... \$1640.00 ... When applied for, ... Feb. 19 50

Special ... £ ... When received, ...

Donkey Boiler Fee ... £ ...

Travelling Expenses (if any) \$ 320.00 ...

Committee's Minute ... NEW YORK FEB 15 1950

Assigned ... Transmit to London

R. S. Noragensen Engineer Surveyor to Lloyd's Register



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