

Rpt. 4b.

# REPORT ON OIL ENGINE MACHINERY.

No. 7176

Received at London Office 14 APR 1934

Date of writing Report **Mar. 12th 1934** when handed in at Local Office

Port of **SAN FRANCISCO,**

No. in Survey held at **Oakland, California.**

Date, First Survey **Jan. 30th** Last Survey **Mar. 3rd 1934**

Number of Visits **Eighteen.**

Reg. Book.

67474  
7929  
Suppl.

Single  
on the ~~XXXX~~  
~~XXXX~~  
~~XXXX~~

Screw vessel **M. S. "OHIAPAS" ex "Caldas"**

Tons Gross **207**  
Net **109**

Built at **Wivenhoe**

By whom built

**Rennie, Forrestt S.B. & Eng. Co. Ltd.**

Yard No. **10779** When built **1917-6**

Engines made at **Oakland, California,** By whom made **ATLAS IMPERIAL DIESEL ENGINE CO.**

Engine No. **10779**

When made **Feb. 1934**

Donkey Boilers made at **---**

By whom made **---**

Boiler No. **---** When made **---**

Brake Horse Power **200**

Owners **LINEAS GRACE DE MEXICO**

Port belonging to **MAZATLAN**

Nom. Horse Power as per Rule **59**

Is Refrigerating Machinery fitted for cargo purposes **---**

Is Electric Light fitted **---**

Trade for which vessel is intended **---**

**IL ENGINES, &c.**—Type of Engines **Solid Injection Full Diesel** 2 or 4 stroke cycle **4** Single or double acting **Single**

Maximum pressure in cylinders **650# sq.in.** Diameter of cylinders **10"** Length of stroke **13"** No. of cylinders **6** No. of cranks **6**

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge **11 1/4"** Is there a bearing between each crank **Yes**

Revolutions per minute **325** Flywheel dia. **35"** Weight **2100 lbs.** Means of ignition **Compression** Kind of fuel used **Diesel fuel oil**

Crank Shaft, dia. of journals as per Rule **5.8** as fitted **5-3/4"** Crank pin dia. **5-3/4"** Crank Webs Mid. length breadth **8 1/2"** Thickness parallel to axis **---**

Flywheel Shaft, diameter as per Rule **5.8** as fitted **5-3/4"** Intermediate Shafts, diameter as per Rule **3.84** as fitted **3.84** Thrust Shaft, diameter at collars as per Rule **4.04"** as fitted **5"**

Tube Shaft, diameter as per Rule **---** as fitted **---** Screw Shaft, diameter as per Rule **4.25"** as fitted **5"** Is the tube screw shaft fitted with a continuous liner **Yes**

Bronze Liners, thickness in way of bushes as per Rule **.44"** as fitted **.5"** Thickness between bushes as per rule **---** as fitted **---** 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 **---**

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 **22"**

Propeller, dia. **56** Pitch **51** No. of blades **3** Material **Mang. Bronze** whether Moveable **No.** Total Developed Surface **10** sq. feet

Method of reversing Engines **Latches** Is a governor or other arrangement fitted to prevent racing of the engine when declutched **Yes** Means of lubrication

ced feed Thickness of cylinder liners **3/4" to 15/16"** Are the cylinders fitted with safety valves **Yes** Are the exhaust pipes and silencers ~~XXXXXX~~ lagged with

non-conducting material **Yes** 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. **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. **1** Diameter **2"** Stroke **3 1/4"** Can one be overhauled while the other is at work **---**

Pumps connected to the Main Bilge Line { No. and Size **---** How driven **---** Lubricating Oil Pumps, including Spare Pump, No. and size **1-1 1/2" dia. x 2" stroke 163 R.P.M.**

Ballast Pumps, No. and size **---** Are two independent means arranged for circulating water through the Oil Cooler **no** 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 the Bilge Suctions in the Machinery Spaces

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes **---** Are they fitted with Valves or Cocks **---**

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 the Overboard Discharges above or below the deep water line **---**

Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates **---** Are the Blow Off Cocks fitted with a spigot and brass covering plate **---**

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel **---** How are they protected **---**

What pipes pass through the bunkers **---** Have they been tested as per Rule **---**

What pipes pass through the deep tanks **---** 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. **1** No. of stages **1** Diameters **6"** Stroke **4"** Driven by **Engine**

Auxiliary Air Compressors, No. **---** No. of stages **---** Diameters **---** Stroke **---** Driven by **---**

Small Auxillary Air Compressors, No. **---** No. of stages **---** Diameters **---** Stroke **---** Driven by **---**

Scavenging Air Pumps, No. **---** Diameter **---** Stroke **---** Driven by **---**

Auxiliary Engines crank shafts, diameter as per Rule **---** as fitted **---** Position **---**

**AIR RECEIVERS:**—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 **---**

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 Actual **---**

Starting Air Receivers, No. **2** Total cubic capacity **36 cu. ft.** Internal diameter **22"** thickness **5/16"**

Seamless, lap welded or riveted longitudinal joint **Riveted.** Material **steel** Range of tensile strength **---** Working pressure by Rules **212** Actual **200**

Working pressure by Rules **65780 lbs.** Actual **---**

Working pressure by Rules **---** Actual **---**

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  No  Receivers  No  Separate Tanks

Donkey Boilers  General Pumping Arrangements  Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied  Yes

State the principal additional spare gear supplied

The foregoing is a correct description.

ATLAS IMPERIAL DIESEL ENG. CO. *W.M. Griffith* Manufacturer.

Dates of Survey while building: During progress of work in shops -- Jan. 30th, 31st, Feb. 1, 5, 6, 7, 8, 9, 13, and 14th. During erection on board vessel -- Feb. 14, 15, 16, 17, 18, 19, 20, and Mar. 3rd. Total No. of visits Eighteen.

Dates of Examination of principal parts: Cylinders Feb. 2 Covers Feb. 2 Pistons Feb. 2 Rods Feb. 2 Connecting rods Feb. 2

Crank shaft Feb. 6 Flywheel shaft Feb. 6 Thrust shaft Feb. 6 Intermediate shafts -- Tube shaft --

Screw shaft Feb. 16 Propeller Feb. 17 Stern tube Feb. 17 Engine seatings Feb. 16 Engines holding down bolts Feb. 27

Completion of fitting sea connections -- Completion of pumping arrangements -- Engines tried under working conditions Mar. 3

Crank shaft, Material Steel Identification Mark LLOYD'S No. 1085 FGA. 2-6-34 Flywheel shaft, Material Steel Identification Mark --

Thrust shaft, Material Steel Identification Mark -- Intermediate shafts, Material -- Identification Marks --

Tube shaft, Material -- Identification Mark -- Screw shaft, Material Steel Identification Mark LLOYD'S No. 1089 FGA. 2-16-34

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

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 No.  If so, state name of vessel

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

This Oil Engine has now been constructed under special survey, of materials tested to Rule requirements and workmanship found sound throughout. On completion machinery thoroughly tested under working conditions both on the test stand and after installation on board a bay trial was witnessed with satisfactory results. This engine has now been installed on the M.S. "CHIAPAS" and in the opinion of the undersigned same is eligible to be classed in the Register Book N.E. 3.

Certificate (if required) to be sent to Committee's Minute.

The amount of Entry Fee \$ 10.- When applied for, Mar. 8th 19 34. Special \$ 74.- Forgings \$ 60.- Air Tanks \$ 25.- Travelling Expenses (if any) \$ 6.- When received, 19

*H. P. Archbold*  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

NEW YORK APR 4 - 1934

Assigned + N.E. 3.34 Oil Engine  
+ L.M.C. 3.34  
CERTIFICATE WRITTEN 3.8.34

RETAIN

RETAIN



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