

REPORT ON OIL ENGINE MACHINERY.

No. 2861.

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Port of Stockholm

Survey held at Stockholm

Date, First Survey 1 Febr. 1918 Last Survey 31 Aug. 1927.

Number of Vessels 8.

4 on the ~~Single~~ ^{Twin} ~~Screw~~ ^{Triple} tug Quitador

Tons ^{Gross} _{Net}

It at Chester

By whom built J. Crichton & Co. Ltd.

Yard No. 448 When built 1927

Engines made at Stockholm

By whom made J. & C.G. Bolinder's Co. Ltd.

Engine No. 14004 - 07 When made 1927

Key Boilers made at

By whom made

Boiler No. When made

Net Horse Power 300

Owners Argentine Navigation Co.

Port belonging to Buenos Ayres

Gross Horse Power as per Rule 86

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

ENGINES, &c. Type of Engines **Bolinder Oil Engine** 2 ~~stroke~~ ^{stroke} cycle Single ~~double~~ ^{double} acting

Working pressure in cylinders **21 kg/cm.²** No. of cylinders **4** Diameter of cylinders **380 mm.** No. of cranks **4** Length of stroke **410 mm.**

Bearings, adjacent to the Crank, measured from inner edge to inner edge **778 mm.** Is there a bearing between each crank **yes**

Revolutions per minute **300** Flywheel dia. **900 mm.** Weight **875 kg.** Means of ignition **Hot bulb** Kind of fuel used **Crude oil**

Shaft, dia. of journals as per Rule **156 mm.** Crank pin dia. **160 mm.** Crank Webs Mid. length breadth **220 mm.** Thickness parallel to axis **-**

Flywheel is fitted at fore end of the crank shaft. Mid. length thickness **94,5 "** shrunk Thickness around eye-hole **-**

Intermediate Shafts, diameter as fitted **150 mm.** Thrust Shaft, diameter at collars as fitted **155 "**

Shafts, diameter as fitted **150 mm.** Is the { tube } screw { shaft fitted with a continuous liner }

Screw Shaft, diameter as fitted

Liners, thickness in way of bushes as per Rule **as fitted** Thickness between bushes **as fitted** Is the after end of the liner made watertight in the 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**

Does the liner 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 **yes**

When liners are fitted, is the shaft lapped or protected between the liners **yes** Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft **yes**

Length of Bearing in Stern Bush next to and supporting propeller **2**

Propeller, dia. **48"** Pitch **48"** No. of blades **4** Material **Cast Iron** whether Moveable **no** Total Developed Surface **100** sq. feet

Means of reversing Engines **Timing** Is a governor or other arrangement fitted to prevent racing of the engine when disclutched **yes** Means of lubrication **oil**

Thickness of cylinder liner **none fitted** the cylinders fitted with safety valves **no** Are the exhaust pipes and silencers water cooled or lagged with insulating material **no**

If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine **no**

Water Pumps, No. **2** Is the sea suction provided with an efficient strainer which can be cleared within the vessel **yes**

Pumps fitted to the Main Engines, No. **none ordered** Diameter **150 mm.** Stroke **150 mm.** Can one be overhauled while the other is at work **yes**

Connected to the Main Bilge Line { No. and Size **1 1/2"** How driven **electric**

Lubricating Oil Pumps, including Spare Pump, No. and size **2**

Independent means arranged for circulating water through the Oil Cooler **yes** Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size:—In Engine and Boiler Room **2**

Independent Power Pump Direct Suctions to the Engine Room, Bilges, No. and size **2**

Are the Bilge Suctions in the Machinery Space easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges **yes**

Sea Connections fitted direct on the skin of the ship **yes** Are they fitted with Valves or Cocks **yes**

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

Are the Blow Off Cocks fitted with a spigot and brass covering plate **yes**

How are they protected **platform**

Do pipes pass through the bunkers **yes** Have they been tested as per Rule **yes**

Do pipes pass through the deep tanks **yes**

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

Arrangement of cables 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 **forward**

On a vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork **yes**

Air Compressors, No. **none fitted** No. of stages **1** Diameters **150 mm.** Stroke **150 mm.** Driven by **electric**

Auxiliary Air Compressors, No. **1** No. of stages **1** Diameters **150 mm.** Stroke **150 mm.** Driven by **electric**

Working Air Pumps, No. **none fitted** Diameter **150 mm.** Stroke **150 mm.** Driven by **electric**

Auxiliary Engines crank shafts, diameter as per Rule **150 mm.** as fitted **150 mm.**

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule **yes**

Are the internal surfaces of the receivers be examined **yes** What means are provided for cleaning their inner surfaces **manhole /300x400 mm./**

Is a drain arrangement fitted at the lowest part of each receiver **yes**

Pressure Air Receivers, No. **none fitted** Cubic capacity of each **1300 litres** Internal diameter **582 mm.** thickness **9 mm.**

Are the receivers lap welded or riveted longitudinal joint **lap welded** Material **S.M. Steel** Range of tensile strength **38 kg./mm.²** Working pressure by Rules **18,5 kg/cm.²**

Working Air Receivers, No. **2** Total cubic capacity **1300 litres** Internal diameter **582 mm.** thickness **9 mm.**

Are the receivers lap welded or riveted longitudinal joint **lap welded** Material **S.M. Steel** Range of tensile strength **38 kg./mm.²** Working pressure by Rules **18,5 kg/cm.²**



