

REPORT ON OIL ENGINE MACHINERY.

No. 2090

11 MAY 1942

Received at London Office

Date of writing Report *22-10-1942* When handed in at Local Office *4-4-1942* Port of *Caracas V.W.I.*
 No. in Survey held at *4-4-1942* *Caracas V.W.I.* Date, First Survey *27-6-41* Last Survey *2-4-1942*
 Reg. Book. *77163* on the *Single* *Twin* *Triple* *Quadruple* Screw vessel *S. Eustatius* ex *Karibia* Tons *Gross 428*
 Number of Visits *42*

Built at *Korsn* By whom built *A.S. Vulcanvarps* Yard No. ☒ When built *1921*
 Engines made at *Stockholm* By whom made *J.G. Bolinder* Engine No. ☒ When made *1918*
 Donkey Boilers made at *none* By whom made ☒ Boiler No. ☒ When made ☒
 Brake Horse Power *320* Owners *Caracasche Scheepvaart Maatschappij* Port belonging to *Willemstad*
 Nom. Horse Power as per Rule *Is Refrigerating Machinery fitted for cargo purposes* *no* *Is Electric Light fitted* *yes*
 Trade for which vessel is intended *Carrying Sulphuric Acid in portable cylindrical tanks between Oruba and Caracas.*

OIL ENGINES, &c.—Type of Engines *J. & G. Bolinder* 2 stroke cycle 2 Single or double acting 3
 Maximum pressure in cylinders *280 lb/sq. in.* Diameter of cylinders *16 9/16"* Length of stroke *18 7/8"* No. of cylinders 2 each No. of cranks 2
 Mean indicated pressure *70 lb/sq. in.* Span of bearings, adjacent to the Crank, measured from inner edge to inner edge *19 9/16"* Is there a bearing between each crank *yes*
 Revolutions per minute *225* Flywheel dia. *36 1/2"* Weight *1956 lbs* Means of ignition *Hot bulb* Kind of fuel used *gas oil*
 Crank Shaft, dia. of journals *as per Rule* *6 1/4"* Crank pin dia. *6 13/16"* Crank Webs *Mid. length breadth 9 7/16"* *Mid. length thickness 3 5/16"* Thickness parallel to axis *split*
 Flywheel Shaft, diameter *as per Rule* *4 7/16"* Intermediate Shafts, diameter *as per Rule* *none* Thrust Shaft, diameter at collars *as per Rule* *5 29/32"*
 Tube Shaft, diameter *as per Rule* *none* Screw Shaft, diameter *as per Rule* *5 3/4"* Is the *screw* shaft fitted with a continuous liner *no*
 Bronze liners, thickness in way of bushes *as per Rule* *none* Thickness between bushes *as per Rule* *none* 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 *shaft*
 shaft *yes* If so, state type *bediall* Length of Bearing in Stern Bush next to and supporting propeller *31 1/2"*

Propeller, dia. *5'-7"* Pitch *48 1/8"* No. of blades 4 Material *C.I.* whether Movable *not* Total Developed Surface *16 1/2* sq. feet
 Method of reversing Engines *fuel pump* Is a governor or other arrangement fitted to prevent racing of the engine when decoupled *yes* Means of lubrication *forced*
 Thickness of cylinder liners *1 3/8"* Are the cylinders fitted with safety valves *no* Are the exhaust pipes and silencers water cooled or lagged with non-conducting material *exhaust lagged, silencer water*
 If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine *not*

Cooling Water Pumps, No. *One for each engine* 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 each* Diameter *4"* Stroke *2"* Can one be overhauled while the other is at work *yes*
 Pumps connected to the Main Bilge Line No. and size *1 double acting 6" dia 1 3/4" stroke*
 How driven *Gasoline motor & belt drive.*

Ballast Pumps, No. and size *as above.* Lubricating Oil Pumps, including Spare Pump, No. and size *1 each engine*
 Are two independent means arranged for circulating water through the Oil Cooler *none* Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size:—In Machinery Spaces *Two 2 1/2" dia.* In Pump Room *none*
 In Holds, &c. *Two*

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size *One 2 1/2" dia*
 Are all the Bilge Suction pipes in Holds and Tunnels fitted with strum-boxes *yes* 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 *yes*
 Are all Sea Connections fitted direct on the skin of the ship *yes* Are they fitted with Valves or Cocks *both*
 Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates *yes* Are the Overboard Discharges above or below the deep water line *above*
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel *yes* Are the Blow Off Cocks fitted with a spigot and brass covering plate *none*
 What pipes pass through the bunkers *none* How are they protected ☒
 What pipes pass through the deep tanks *none* 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 *yes* Is the Shaft Tunnel watertight *none* 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 in each engine* No. of stages 2 Diameters *8 1/16" & 3 1/4"* Stroke *7 1/2"* Driven by *main engine*
 Auxiliary Air Compressors, No. *none* No. of stages ☒ Diameters ☒ Stroke ☒ Driven by ☒
 Small Auxiliary Air Compressors, No. *none* No. of stages ☒ Diameters ☒ Stroke ☒ Driven by ☒
 Scavenging Air Pumps, No. *none* Diameter ☒ Stroke ☒ Driven by ☒

Auxiliary Engine crank shafts, diameter *as per Rule* *To be measured & forwarded later* No. *2*
 Position *Port side of engine room*

AIR RECEIVERS:—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*
 High Pressure Air Receivers, No. 2 Cubic capacity of each *to be forwarded* Internal diameter *to be forwarded* thickness *to be forwarded*
 Seamless, lap welded or riveted longitudinal joint *seamless* Material *S* Range of tensile strength *not known* Working pressure *by Rules* *Actual 30 kg./sq. cm.*
 Starting Air Receivers, No. 2 Total cubic capacity *to be forwarded* Internal diameter *to be forwarded* thickness *to be forwarded*
 Seamless, lap welded or riveted longitudinal joint *seamless* Material *S* Range of tensile strength *not known* Working pressure *by Rules* *Actual 12 kg./sq. cm.*

IS A DONKEY BOILER FITTED?

no

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 Plans & sketch app. 17. 41 Receivers

no

Separate Tanks

no

Donkey Boilers

✓

General Pumping Arrangements sketch app. 22. 41

Oil Fuel Burning Arrangements

✓

SPARE GEAR.

Has the spare gear required by the Rules been supplied

yes.

State the principal additional spare gear supplied

none, Owners have well supplied store in Caracas.

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building
During progress of work in shops - ✓
During erection on board vessel - ✓
Total No. of visits 41

Dates of Examination of principal parts—Cylinders 27-6-41 Covers 27-6-41 Pistons 27-6-41 Rods ✓ Connecting rods 27-6-41

Crank shaft 27-6-41 Flywheel shaft 27-6-41 Thrust shaft 22-7-41 Intermediate shafts ✓ Tube shaft ✓

Screw shafts 18-7-41 Propellers 18-7-41 Stern tubes 18-7-41 Engine seatings 27-6-41 Engines holding down bolts 27-6-41

Completion of fitting sea connections ✓ Completion of pumping arrangements in engine room ✓ Engines tried under working conditions 19-10-41

Crank shaft, Material S Identification Mark none Flywheel shaft, Material S Identification Mark none

Thrust shaft, Material S Identification Mark none Intermediate shafts, Material ✓ Identification Marks ✓

Tube shaft, Material ✓ Identification Mark ✓ Screw shaft, Material S Identification Mark none.

Is the flash point of the oil to be used over 150° F. no

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with yes

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo acid in tanks only If so, have the requirements of the Rules been complied with yes

If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with not

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.)

The main and auxiliary machinery of this vessel has been examined throughout, repaired, repaired, tested under working conditions and found to be satisfactory except for the pumping arrangements in the engine room which require to be placed in accordance with the approved plan and particulars to be obtained of air receivers and auxiliary engine. This work is now being attended to, between voyages, and when completed, the machinery, in my opinion will be eligible to be classed with this Society and have a record of L.M.C. with date.

The amount of Entry Fee .. £s. 275 : When applied for,
Special 19.
Donkey Boiler Fee 19.
Travelling Expenses (if any) 19.

Committee's Minute TUE 14 JUL 1942

Assigned

See Co. Rpt. 2168

D. Chapman
Engineer Surveyor to Lloyd's Register of Shipping.



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Lloyd's Register Foundation

Rpt. 13.



Surveyed

(Ex "KARIBU")

Classification

and that

Register

recommend

been carried

Recommend

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be made in

the survey

This Certificate is issued while the Committee is to be understood to be held responsible in the Register Book of the Committee or any Member

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