

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 1021.

Date of writing Report 17th Dec 1938 When handed in at Local Office 21. 12. 1938 Port of Bremen. Received at London Office DEC 28 1938

No. in Survey held at 0.8 Reg. Book. Single on the Twin Triple Quadruple Screw vessel, "Mambukal" ex "Bafan"

Date, First Survey 1st July, 38 Last Survey 16th Dec 1938. Number of Visits 54

Built at By whom built Engines made at By whom made Messrs. M. F. U. Yard No. 520630/640 When built 1938 Engine No. When made 1938 Donkey Boilers made at By whom made Boiler No. When made 1938 Brake Horse Power 2 x 505 Owners Messrs. Hijos de E. de la Rama Port belonging to Iloilo Philippines Nom. Horse Power as per Rule 2 x 98 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted Trade for which vessel is intended 11 1/2 16 9/16

OIL ENGINES, &c.—Type of Engines 2 x 98 Va 42 2 or 4 stroke cycle 4 Single or double acting single Maximum pressure in cylinders 50 kg/cm² Mean Indicated Pressure 6.8 Diameter of cylinders 285 mm Length of stroke 420 mm No. of cylinders 2 x 8 No. of cranks 2 x 8

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 352 mm Is there a bearing between each crank yes Revolutions per minute 375 Flywheel dia. 1200 mm Weight 800 kg Means of ignition di. ign. Kind of fuel used diesel oil and kerosene Crank Shaft, { Solid forged dia. of journals as per Rule Crank pin dia. 175 mm Crank Webs Mid. length breadth 280 mm Mid. length thickness 89.5 mm Thickness parallel to axis shrunk Thickness around eye-hole All built as fitted 185 mm

Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted Thrust Shaft, diameter at collars as per Rule as fitted Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted Is the tube screw shaft fitted with a continuous liner

Bronze Liners, thickness in way of bushes as per Rule as fitted Thickness between bushes as per Rule as fitted Is the after end of the liner made watertight in the propeller boss If the liner is in more than one length 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. 1400 Pitch No. of blades Material whether Moveable Total Developed Surface sq. feet Method of reversing Engines by hand Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication forced Thickness of cylinder liners 20 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material covered 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 each, 18.7 m³/h Is the sea suction provided with an efficient strainer which can be cleared within the vessel Bilge Pumps worked from the Main Engines, No. 1 each Diameter 105 mm Stroke 120 mm 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 Main engine Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 1 each, 5.65 m³/h 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 bunkers How are they protected 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. No. of stages Diameters Stroke Driven by Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by Small Auxiliary Air Compressors, No. 1 each No. of stages 2 Diameters 80/70 mm Stroke 80 mm Driven by main engine

What provision is made for first Charging the Air Receivers Scavenging Air Pumps, No. 146 mm Diameter Stroke Driven by Auxiliary Engines crank shafts, diameter as per Rule as fitted No. Position Have the Auxiliary Engines been constructed under special survey Is a report sent herewith

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