

REPORT ON OIL ENGINE MACHINERY.

No. 10434

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Date of writing Report

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14th Aug. 1930 Port of Belfast.

No. in Survey held at

Belfast

Date, First Survey 10th May 1929

Last Survey 12th Aug. 1930

eg. Book.

Number of Visits 114

6096. on the ^{Single} Twin ^{Triple} Screw vessel

"TAYBANK"

Tons { Gross 5630
Net 3440

Built at Belfast

By whom built Workman, Clark (1928) Ltd. Yard No. 512. When built 1930.

Engines made at Belfast

By whom made Workman, Clark (1928) Ltd. Engine No. 512. When made 1930.

Donkey Boilers made at Belfast

By whom made Workman, Clark (1928) Ltd. Boiler No. 512. When made 1930.

Brake Horse Power 4500.

Owners Bank Line Ltd. Port belonging to Belfast.

Nom. Horse Power as per Rule 1246. Is Refrigerating Machinery fitted for cargo purposes Yes. Is Electric Light fitted Yes.

Trade for which vessel is intended Ocean going.

IL ENGINES, &c.—Type of Engines Sulzer - diesel 2 or 4 stroke cycle 2 Single or double acting Single.

Maximum pressure in cylinders 500 lbs. Diameter of cylinders 680 mm. Length of stroke 1200 mm. No. of cylinders 10. No. of cranks 10.

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 880 mm. Is there a bearing between each crank Yes.

Revolutions per minute 100. Flywheel dia. 7'-3". Weight 14 tons. Means of ignition Compression Kind of fuel used Diesel oil.

Crank Shaft, dia. of journals as per Rule 436 mm. as fitted 460 mm. Crank pin dia. 460 mm. Crank Webs Mid. length breadth Semi built. Thickness parallel to axis 270 mm. M.d. length thickness 290 mm. Thickness around eyehole 209 mm.

Flywheel Shaft, diameter as per Rule 436 mm. as fitted 460 mm. Intermediate Shafts, diameter as per Rule 12-58" as fitted 12-7/8" Thrust Shaft, diameter at collars as per Rule 436 mm. as fitted 460 mm.

Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule 13-8" as fitted 14-5". Is the shaft fitted with a continuous liner Yes.

Bronze Liners, thickness in way of bushes as per Rule 23/32" as fitted 3/4". Thickness between bushes as per rule 35" as fitted 19/32". 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 Yes.

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 Yes.

If two 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 No. If so, state type.

Length of Bearing in Stern Bush next to and supporting propeller 4'-10".

Propeller, dia. 14'-9" Pitch 14'-9" No. of blades 4 Material Bronze whether Moveable No. Total Developed Surface 75 sq. feet

Method of reversing Engines Hand reworking. Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes. Means of lubrication Forced.

Thickness of cylinder liners 80TT. 75 mm. Are the cylinders fitted with safety valves Yes. Are the exhaust pipes and silencers water cooled or 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 Yes.

Cooling Water Pumps, No. 2—180 ton/hr. 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. none. Diameter Stroke Can one be overhauled while the other is at work.

Pumps connected to the Main Bilge Line No. and Size 1-200 ton/hr Centrics. 1-100 ton/hr 8"x8" Duplex. How driven 24/26 HP motor 16-HP motor (Etc.)

Ballast Pumps, No. and size 1-200 ton/hr Centrics. Lubricating Oil Pumps, including Spare Pump, No. and size 1 working 45 ton @ 30 lb/10". 1 spare 5 " @ 350 lb/10".

Are two 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 Machinery Spaces 2-3" (2-2 1/2" to transfer pump). 1-2 1/2" to tunnel well.

In Holds, &c. 2-3" no 1 hold. 2-3 1/2" no 2 hold. 2-3" deep tank. 2-3" no 4 hold. 2-3" no 5 hold.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1-6" 1-7".

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-bones 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 Yes.

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 Below.

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 Yes.

What pipes pass through the bunkers None. How are they protected.

What pipes pass through the deep tanks Bilge pipes only. Have they been tested as per Rule Yes.

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes.

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 Yes. Is it fitted with a watertight door Yes. worked from upper decks.

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. Two. No. of stages Three. Diameters HP 150 mm. IP 570-479.5 mm. Stroke 600 mm. Driven by Main engines.

Auxiliary Air Compressors, No. One. No. of stages Three. Diameters LPB. 480-150 mm. LPT. 570-150 mm. Capacity 120 cu ft free air per set min. Driven by Electric motor.

Small Auxiliary Air Compressors, No. One. No. of stages Two. Diameters 20 " " " Stroke " " " Driven by Steam.

Scavenging Air Pumps, No. Two. Diameter 1400 mm. Stroke 620 mm. Driven by Main engines.

Auxiliary Engines crank shafts, diameter as per Rule 148.5 mm. as fitted 160 mm. Lameignon (Fiat)

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 Yes. What means are provided for cleaning their inner surfaces Open ends & manholes.

Is there a drain arrangement fitted at the lowest part of each receiver Yes.

High Pressure Air Receivers, No. 10. Cubic capacity of each 2-150 litres. 8-800 litres. Internal diameter 300 mm. thickness 16 mm. 540 mm. 75 mm.

Seamless, lap welded or riveted longitudinal joint Yes. Material Steel. Range of tensile strength 26/30. Working pressure by Rules 1295 lbs. 1580 lbs.

Starting Air Receivers, No. 2. Total cubic capacity 560 cu ft. Internal diameter 5'-0". thickness 1580 lbs. Working pressure by Rules 436 lbs.

Seamless, lap welded or riveted longitudinal joint Yes. Material Steel. Range of tensile strength 28/32. Working pressure by Rules 436 lbs.



