

REPORT ON OIL ENGINE MACHINERY.

No. 53853

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of writing Report in Survey held at Book 67 on the Single Twin Triple Quadruple Screw vessel "PORT CHALMERS" Glasgow. Date, First Survey 3/3/33. Last Survey 21st Sept 1933. Number of Visits 55

at Newcastle-on-Tyne By whom built Swan Hunter & Wigham R. Yard No. 1432 When built 1933. Lines made at Glasgow. By whom made Messrs Barclay Curle & Co. Ltd Engine No. 105 When made 1933.

Boilers made at By whom made Boiler No. When made. Horse Power 3750 per Set Owners Commonwealth & Dominion Line Ltd Port belonging to London. Horse Power as per Rule 1570 Total Is Refrigerating Machinery fitted for cargo purposes Yes. Is Electric Light fitted Yes.

for which vessel is intended. Type of Engines Barclay Curle - Duxford 2 or 4 stroke cycle 2. Single or double acting Single. Maximum pressure in cylinders 568 lbs. Diameter of cylinders 640 mm. Length of stroke 2480 mm. No. of cylinders 4. No. of cranks 4. 5throw.

of bearings, adjacent to the Crank, measured from inner edge to inner edge. Is there a bearing between each crank Yes. Revolutions per minute 96. Flywheel dia. 8' 0". Weight A 3.2. Means of ignition Compression. Kind of fuel used Diesel.

Shaft, dia. of journals as per Rule 17.85 as fitted 18.1. Crank pin dia. 19.7. Crank Webs Mid. length breadth 27.6. Thickness parallel to axis 11.8. Mid. length thickness 11.8. Thrust Shaft, diameter at collars as per Rule 17.84 as fitted 18.1.

Wheel Shaft, diameter as per Rule 17.83 as fitted 18.1. Intermediate Shafts, diameter as per Rule 14.09 as fitted 15.51. Screw Shaft, diameter as per Rule 15.51 as fitted 18.1. Is the tube screw shaft fitted with a continuous liner.

Liner 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 hull boss.

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner. Is the after end of the tube Is an approved Oil Gland or other appliance fitted at the after end of the tube.

Length of Bearing in Stern Bush next to and supporting propeller. Propeller, dia. Pitch No. of blades Material whether Movable Total Developed Surface sq. feet.

Method of reversing Engines Is a governor or other arrangement fitted to prevent racing of the engine when declutched. Means of lubrication. Thickness of cylinder liners. Are the cylinders fitted with safety valves. Are the exhaust pipes and silencers water cooled or lagged with conducting material.

If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine. Bilge Water Pumps, No. Is the sea suction provided with an efficient strainer which can be cleared within the vessel.

Water Pumps worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work. Pumps connected to the Main Bilge Line No. and Size How driven.

Fast Pumps, No. and size Lubricating Oil Pumps, including Spare Pump, No. and size. 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.

Folds, &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 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. Do the pipes pass through the bunkers. How are they protected.

Do the pipes pass through the deep tanks. 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. Is the Shaft Tunnel watertight. Is it fitted with a watertight door. worked from.

Are wood vessels, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork. Air Compressors, No. No. of stages Diameters Stroke Driven by.

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

Refrigerating Air Pumps, No. Diameter Stroke Driven by. Auxiliary Engines crank shafts, diameter as per Rule as fitted.

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule. Are 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. Is the joint, lap welded or riveted longitudinal joint. Material Range of tensile strength Working pressure by Rules Actual.

Low Pressure Air Receivers, No. Total cubic capacity Internal diameter thickness. Is the joint, lap welded or riveted longitudinal joint. Material Range of tensile strength Working pressure by Rules Actual.



