

REPORT ON OIL ENGINE MACHINERY.

No. 112190



Report 2 Nov 1949 When handed in at Local Office 3 Nov 1949 Port of London
 Survey held at London Date, First Survey 22 August Last Survey 6 September 1949
 Number of Visits 3
 Single the Twin Triple Quadruple Screw vessel M.S. CASTLEGATE
 By whom built Dagenham By whom made Russell Hawbery & Co. Ltd Yard No. D 2573 When built
 Engine No. 4518 When made 1949
 By whom made Boiler No. When made
 Owners Esso Transport Ltd Port belonging to
 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted
 Is vessel intended

VES, &c. —Type of Engines high speed Compression ignition 2 or 4 stroke cycle 4 Single or double acting single
 Pressure in cylinders 850 lbs. sq. in. Diameter of cylinders 5 1/8" Length of stroke 7 1/4" No. of cylinders 4 No. of cranks 4
 Rated Pressure 105 lbs. sq. in. Ahead Firing Order in Cylinders 1342 Span of bearings, adjacent to the crank, measured
 edge to inner edge 6 3/8" Is there a bearing between each crank Yes ✓ Revolutions per minute 1000 ✓
 Weight 25 ✓ 463 lbs. Moment of inertia of flywheel 47486 Means of ignition solid Kind of fuel used pool
 dia. of journals as per Rule 3 3/4" Crank pin dia. 3 5/8" Crank webs Mid. length breadth 4 5/8" shrunk Thickness parallel to axis one
 as fitted 3 1/2" Mid. length thickness 1 9/16" Thickness around eyehole piece

ft, diameter as per Rule Intermediate Shafts, diameter as fitted Thrust Shaft, diameter at collars as fitted
 as fitted
 diameter as per Rule Screw Shaft, diameter as fitted Is the tube shaft fitted with a continuous liner
 as fitted
 s, thickness in way of bushes as per Rule Thickness between bushes as fitted Is the after end of the liner made watertight in the

If the liner is in more than one length are the junctions made by fusion through the whole thickness of 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-
 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
 If so, state type Length of bearing in Stern Bush next to and supporting propeller

Pitch No. of blades Material whether moveable Total developed surface sq. feet
 Inertia of propeller (16 lbs. in² or Kg. cm.²) Kind of damper, if fitted
 Reversing Engines 2/1 Reversing gear Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes ✓ Means of
 acid Thickness of cylinder liners 1/2" Are the cylinders fitted with safety valves No ✓ Are the exhaust pipes and silencers water cooled
 non-conducting material If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned

Cooling Water Pumps, No. Is the sea suction provided with an efficient strainer which can be cleared within the vessel
 worked from the Main Engines, No. one Diameter 400 gal. Stroke hour Can one be overhauled while the other is at work
 ctected to the Main Bilge Line No. and size How driven
 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

s, No. and size Power Driven Lubricating Oil Pumps, including spare pump, No. and size
 dependent means arranged for circulating water through the Oil Cooler Suctions, connected to both main bilge pumps and auxiliary
 No. and size:—In machinery spaces In pump room

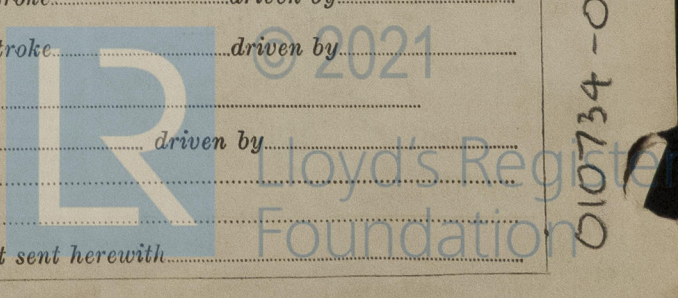
Power Pump Direct Suctions to the engine room bilges, No. and size
 bilge suction pipes in holds and tunnel well fitted with strum-boxes Are the bilge suction in the machinery spaces led from easily
 d-boxes, placed above the level of the working floor, with straight tail pipes to the bilges
 onnections fitted direct on the skin of the Ship Are they fitted with valves or cocks Are they fixed

igh on the ship's side to be seen without lifting the platform plates Are the overboard discharges above or below the deep water line
 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
 pass through the bunkers How are they protected
 pass through the deep tanks Have they been tested as per Rule

cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times
 ement 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
 m one compartment to another Is the shaft tunnel watertight Is it fitted with a watertight door worked from
 sel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

ompressors, No. No. of stages diameters stroke driven by
 r Compressors, No. No. of stages diameters stroke driven by
 ary Air Compressors, No. No. of stages diameters stroke driven by
 on is made for first charging the air receivers
 Air Pumps, No. diameter stroke driven by

gines crank shafts, diameter as per Rule No. Position
 as fitted
 iliary engines been constructed under special survey Is a report sent herewith



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