

REPORT ON OIL ENGINE MACHINERY.

No. 29458

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Port of *Sunderland*No. in Survey held at *Sunderland*
Reg. Book.Date, First Survey *22nd July 1926* Last Survey *June 17 1927*Number of Visits *114*Single *MOTOR*
on the *Triple* Screw vessels*"SILVER GUAVA"*Tons Gross *5294*
Net *3088*Built at *Sunderland*By whom built *Mr James Lamb & Co Ltd* Yard No. *696* When built *1927*Engines made at *Sunderland*By whom made *Wm. Dymally & Sons Ltd* Engine No. *139* When made *1927*Donkey Boilers made at *Amman*By whom made *Brookman & Solomon Ltd* Boiler No. *10102* When made *1927*Brake Horse Power *5000*Owners *Silver Line Ltd* Port belonging to *London*Nom. Horse Power as per Rule *882*Is Refrigerating Machinery fitted for cargo purposes *Yes* Is Electric Light fitted *Yes*OIL ENGINES, &c.—Type of Engines *Simple Opposed Piston*Maximum pressure in cylinders *40 ATMOS* No. of cylinders *4* Diameter of cylinders *180 mm (7 1/8")* No. of cranks *4, 3 throw* Length of stroke *2 x 1360 mm (2 x 53 1/2")*Spec. of bearings, adjacent to the Crank, measured from inner edge to inner edge *1220 mm* Is there a bearing between each crank *Yes*Revolutions per minute *90* Flywheel dia. *10'-6"* Weight *19 3/4 tons* Means of ignition *COMPRESSION* Kind of fuel used *CRUDE OIL*Crank Shaft, dia. of journals *as per Rule 488 mm* Crank pin dia. *540 mm* Crank Webs *as per Rule 405 mm* Mid. length thickness *310 mm* Thickness parallel to axis *310 mm*Flywheel Shafts, diameter *as per Rule 488 mm* Intermediate Shafts, diameter *as per Rule 444 mm* Thrust Shaft, diameter at collars *as per Rule 488 mm*Tube Shafts, diameter *as per Rule 444 mm* Is the *tube* shaft fitted with a continuous liner *YES*Bronze Liners, thickness in way of bushes *as per Rule 21 mm* Thickness between bushes *as per Rule 23 mm* Is the after end of the liner made watertight in thepropeller boss *YES* 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 afterend of the tube shaft *—* Length of Bearing in Stern Bush next to and supporting propeller *6'-11"*Propeller, dia. *18'-3"* Pitch *17'-3"* No. of blades *4* Material *BRONZE* whether Moveable *NO* Total Developed Surface *105* sq. feetMethod of reversing Engines *COMPRESSED AIR* Is a governor or other arrangement fitted to prevent racing of the engine *when decelerated YES* Means of lubrication*FORCED* Thickness of cylinder liners *STEEL RINGS* Are the cylinders fitted with safety valves *YES* Are the exhaust pipes and silencers water cooled or lagged withnon-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 *EXHAUST FUNNEL*Cooling Water Pumps, No. *2* Is the sea suction provided with an efficient strainer which can be cleared within the vessel *FRESH WATER COOLING*Bilge Pumps fitted to 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 *1 BILGE PUMP 50 TONS PER HR / GEN S PMP 50 TONS PER HR / 1 BALLAST PMP 300 TONS PER HOUR*How driven *ELECTRIC MOTORS* EACH CAPABLE FOR FULL DUTY.Ballast Pumps, No. and size *2 @ 300 TONS PER HOUR* Lubricating Oil Pumps, including Spare Pump, No. and size *2 @ 50 TONS PER HOUR*Are two independent means arranged for circulating water through the Oil Cooler *YES* Suctions, connected to both Main Bilge Pumps and Auxiliary BilgePumps, No. and size:—In Engine and Boiler Room *4 @ 3" IN BILGE LINE / 1 @ 5" DIRECT GEN S PMP / 1 @ 8" DIRECT TO BALLAST PUMP*In Holds, &c. *4 @ 3" AFTER HOLD / 4 @ 3" FORE HOLDS / 2 @ 6" & 2 @ 2 1/2" IN FORE & AFT DEEP TANKS*Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size *1 @ 5" & 1 @ 8"*Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes *YES* Are the Bilge Suctions in the Machinery Spaceled 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 *YES*What pipes pass through the bunkers *NONE* How are they protected *—*What pipes pass through the deep tanks *BILGE SUCTIONS 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 *TOP PLATFORM*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 *12 1/2" x 12 1/2" x 8"* Stroke *6 1/2"* Driven by *ELECTRIC MOTOR*Auxiliary Air Compressors, No. *2* No. of stages *3* Diameters *1 1/2" x 9 1/4" x 2 1/2"* Stroke *4"* Driven by *PARAFFIN ENGINE*Small Auxiliary Air Compressors, No. *ONE* No. of stages *2* Diameters *4 1/2" & 1 1/4"* Stroke *4"* Driven by *MAIN ENGINE*Scavenging Air Pumps, No. *ONE* Diameter *1800 mm* Stroke *1220 mm*Auxiliary Engines crank shafts, diameter *as per Rule 174 mm* as fitted *180 mm*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 *MANHOLE DOOR*Is there a drain arrangement fitted at the lowest part of each receiver *YES*High Pressure Air Receivers, No. *—* Cubic capacity of each *—* Internal diameter *—* thickness *—*Seamless, lap welded or riveted longitudinal joint *—* Material *—* Range of tensile strength *—* Working pressure by Rules *—*Starting Air Receivers, No. *TWO* Total cubic capacity *350 CUB FT* Internal diameter *4'-1 1/2"* thickness *1 1/2"*Seamless, lap welded or riveted longitudinal joint *RIVETED* Material *STEEL* Range of tensile strength *28 TO 32 TONS* Working pressure by Rules *605 LBS S*

If so, is a report now forwarded? *YES.*

Rpt. 4c.

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