

## REPORT ON OIL ENGINE MACHINERY.

No. 20401.

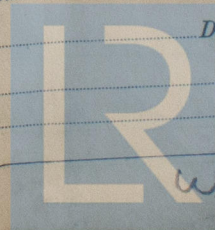
Received at London Office

JUL - 7 1937

Date of writing Report 12 July 1937 When handed in at Local Office 12 July 1937 Port of GREENOCK.  
Date, First Survey 10th March 1937 Last Survey 29th June 1937  
No. in Survey held at Greenock Number of Visits NINE  
Reg. Book.

on the Single Twin Triple Quadruple Screw vessel M. V. "SERENITY" Tons { Gross \_\_\_\_\_ Net \_\_\_\_\_  
Built at Greenock By whom built Mrs. Brown & Co. Yard No. 201 When built 1937-6.  
Engines made at Rawbury By whom made Rawbury Diesel Co. Ltd. Engine No. 692 When made 1937.  
Donkey Boilers made at None By whom made \_\_\_\_\_ Boiler No. \_\_\_\_\_ When made \_\_\_\_\_  
Brake Horse Power 500 Owners J. J. Gerard & Son Ltd. Port belonging to London  
Nom. Horse Power as per Rule 139 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes  
Made for which vessel is intended Boasting.

ENGINE, &c.—Type of Engines Oil-less injection; scavenging pump fitted or 4 stroke cycle 2 Single or double acting Single  
Maximum pressure in cylinders \_\_\_\_\_ Diameter of cylinders \_\_\_\_\_ Length of stroke \_\_\_\_\_ No. of cylinders \_\_\_\_\_ No. of cranks \_\_\_\_\_  
Indicated Pressure \_\_\_\_\_ Is there a bearing between each crank \_\_\_\_\_  
of bearings, adjacent to the Crank, measured from inner edge to inner edge \_\_\_\_\_  
Revolutions per minute \_\_\_\_\_ Flywheel dia. \_\_\_\_\_ Weight \_\_\_\_\_ Means of ignition \_\_\_\_\_ Kind of fuel used \_\_\_\_\_  
Crank Shaft, dia. of journals \_\_\_\_\_ as per Rule \_\_\_\_\_ Crank pin dia. \_\_\_\_\_ Crank Webs \_\_\_\_\_ Mid. length breadth \_\_\_\_\_ shrunk \_\_\_\_\_ Thickness parallel to axis \_\_\_\_\_  
as fitted \_\_\_\_\_ Mid. length thickness \_\_\_\_\_ Thickness around eye-hole \_\_\_\_\_  
Main Shaft, diameter \_\_\_\_\_ as per Rule \_\_\_\_\_ Intermediate Shafts, diameter \_\_\_\_\_ as per Rule \_\_\_\_\_ Thrust Shaft, diameter at collars \_\_\_\_\_ as per Rule \_\_\_\_\_  
as fitted \_\_\_\_\_ as fitted \_\_\_\_\_ Is the { tube } shaft fitted with a continuous liner { \_\_\_\_\_  
as fitted \_\_\_\_\_ as fitted \_\_\_\_\_ screw }  
Liner, thickness in way of bushes \_\_\_\_\_ as per Rule \_\_\_\_\_ Thickness between bushes \_\_\_\_\_ as per Rule \_\_\_\_\_ Is the after end of the liner made watertight in the \_\_\_\_\_  
as fitted \_\_\_\_\_ as fitted \_\_\_\_\_  
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 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 \_\_\_\_\_  
If so, state type Amorh — Torgun Bros. Length of Bearing in Stern Bush next to and supporting propeller 21.5"  
Pitch \_\_\_\_\_ No. of blades \_\_\_\_\_ Material \_\_\_\_\_ whether Moveable \_\_\_\_\_ 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 Yes If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine \_\_\_\_\_  
Suction Water Pumps, No. \_\_\_\_\_ Is the sea suction provided with an efficient strainer which can be cleared within the vessel \_\_\_\_\_  
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 2 @ 110 mm. x 120 mm. S.A. } 1.2 G.P. D.A. 125 mm. x 120 mm.  
How driven Main Engine. Shackley Engine  
Is the cooling water led to the bilges No If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping \_\_\_\_\_  
Arrangements \_\_\_\_\_  
Fast Pumps, No. and size 1.2 G.P. D.A. 125 x 120 mm. Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size In. pnt. 2  
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 4 @ 2 1/2" x 1 @ 1 1/2" In Pump Room \_\_\_\_\_  
Holds, &c. 2 @ 2 1/2"  
Dependent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 @ 2 1/2"  
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 \_\_\_\_\_  
All Sea Connections fitted direct on the skin of the ship \_\_\_\_\_ Are they fitted with Valves or Cocks Arch  
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 Alyne  
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 None  
All pipes pass through the bunkers \_\_\_\_\_ How are they protected \_\_\_\_\_  
All pipes pass through the deep tanks \_\_\_\_\_ Have they been tested as per Rule Yes  
All Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times \_\_\_\_\_  
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 \_\_\_\_\_  
Department to another Yes Is the Shaft Tunnel watertight None Is it fitted with a watertight door \_\_\_\_\_ worked from \_\_\_\_\_  
On 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. \_\_\_\_\_ No. of stages \_\_\_\_\_ Diameters \_\_\_\_\_ Stroke \_\_\_\_\_ Driven by \_\_\_\_\_  
Scavenging Air Pumps, No. \_\_\_\_\_ Diameter \_\_\_\_\_ Stroke \_\_\_\_\_  
Auxiliary Engines crank shafts, diameter \_\_\_\_\_ as per Rule \_\_\_\_\_ Position \_\_\_\_\_  
as fitted \_\_\_\_\_



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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 and cleaned Yes Is a drain fitted at the lowest part of each receiver Yes  
High Pressure Air Receivers, No. 3 Internal diameter 10 1/2 thickness 1/2  
Seamless, lap welded or riveted longitudinal joint Yes Cubic capacity of each 10 1/2 Range of tensile strength 10 1/2 Working pressure 10 1/2  
Starting Air Receivers, No. 3 Material 10 1/2 Internal diameter 10 1/2 thickness 1/2  
Seamless, lap welded or riveted longitudinal joint Yes Range of tensile strength 10 1/2 Working pressure 10 1/2  
If so, is a report now forwarded? No

### IS A DONKEY BOILER FITTED?

Is the donkey boiler intended to be used for domestic purposes only Yes Receivers Yes Separate Fuel Tanks Yes  
PLANS. Are approved plans forwarded herewith for Shafting Yes Pumping Arrangements in Machinery Space Yes  
Donkey Boilers Yes General Pumping Arrangements Yes  
Oil Fuel Burning Arrangements Yes

### SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes  
State the principal additional spare gear supplied 104612

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building  
During progress of work in shops--  
During erection on board vessel--  
Total No. of visits 9

(1937) MAR. 10. 30. APRIL 6. 26. JUNE 4. 16. 23. 24. 29.

Dates of Examination of principal parts—Cylinders 7-6-37 Covers 7-6-37 Pistons 7-6-37 Rods 7-6-37 Connecting rods 7-6-37  
Crank shaft 7-6-37 Flywheel shaft 7-6-37 Thrust shaft 7-6-37 Intermediate shafts 7-6-37 Tube shaft 7-6-37  
Screw shaft 7-6-37 Propeller 7-6-37 Stern tube 7-6-37 Engine seatings 7-6-37 Engines holding down bolts 7-6-37  
Completion of fitting sea connections 7-6-37 Completion of pumping arrangements 7-6-37 Engines tried under working conditions 7-6-37  
Crank shaft, Material 7-6-37 Identification Mark 7-6-37 Flywheel shaft, Material 7-6-37 Identification Mark 7-6-37  
Thrust shaft, Material 7-6-37 Identification Mark 7-6-37 Intermediate shafts, Material 7-6-37 Identification Mark 7-6-37  
Tube shaft, Material 7-6-37 Identification Mark 7-6-37 Screw shaft, Material 7-6-37 Identification Mark 7-6-37

Is the flash point of the oil to be used over 150° F. Yes  
Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with Yes  
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo No  
If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with No  
Is this machinery duplicate of a previous case No  
General Remarks (State quality of workmanship, opinions as to class, &c.) See Engines & other Auxiliaries

been properly fitted on board, tried under full power & found satisfactory. Materials & workmanship found good.  
This Machinery is eligible, in my opinion, for class in the Register Book with notation: LMC-6.37. Oil Sp. O.

The amount of Entry Fee .. £ 6 : 19 : 00 When applied for, 15. JULY 1937  
Special ... £ 6 : 19 : 00 When received, 28. 8. 1937  
Donkey Boiler Fee ... £ 6 : 19 : 00  
Travelling Expenses (if any) £ 6 : 19 : 00

Committee's Minute GLASGOW 6 JUL 1937

Assigned + LMC 6.37

Engineer Surveyor to Lloyd's Register of Shipping.



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