

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

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Date of writing Report 26. 3. 1925. When handed in at Local Office 26. 3. 1925. Port of Greenock  
 No. in Survey held at Port Glasgow. Date, First Survey 29th December, 1924. Last Survey 23/3/25. 19  
 Reg. Book. on the SS "BENICIA" (Number of Visits 5)  
 Built at Port Glasgow. By whom built R. Dunearn & Co. Ltd. Yard No. 357 Tons <sup>Gross</sup>            <sub>Net</sub>            When built 1925.  
 Engines made at Glasgow By whom made D. Rowan & Co. Ltd. Engine No.            when made             
 Boilers made at            By whom made            Boiler No.            when made             
 Registered Horse Power            Owners            Port belonging to             
 Nom. Horse Power as per Rule            Is Refrigerating Machinery fitted for cargo purposes            Is Electric Light fitted           

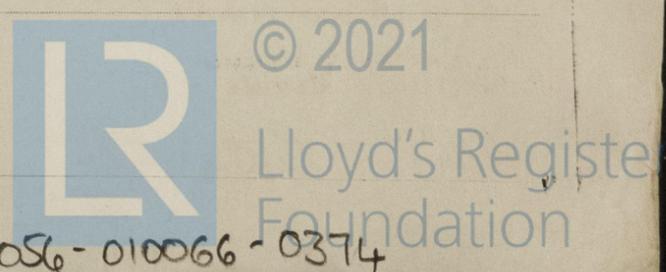
## ENGINES, &c.—Description of Engines

*(This section is crossed out with a diagonal line)*  
 Dia. of Cylinders            Length of Stroke            Revs. per minute            No. of Cylinders            No. of Cranks             
 Dia. of Crank shaft journals <sup>as per rule</sup>            Dia. of Crank pin            Crank webs <sup>Mid. length breadth</sup>            Thickness parallel to axis             
<sub>as fitted</sub>                        <sub>Mid. length thickness</sub>            <sub>shrunk</sub>            <sub>Thickness around eye-hole</sub>             
 Diameter of Thrust shaft <sup>as per rule</sup>            Diameter of Tunnel shaft <sup>as per rule</sup>            Diameter of Screw shaft <sup>as per rule</sup>            Is the Screw shaft             
<sub>as fitted</sub>            <sub>as fitted</sub>            <sub>as fitted</sub>            <sub>as fitted</sub>             
 fitted with a continuous liner the whole length of the stern tube Yes. Is the after end of the liner made watertight in the propeller boss             
 If the liner is in more than one length are the joints burned            If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with 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 appliance fitted at the after end of the shaft to permit of it being efficiently lubricated             
 Length of Stern Bush            Diameter of Propeller             
 Pitch of Propeller            No. of Blades            State whether Moveable            Total Surface            square feet.  
 No. of Feed Pumps fitted to the Main Engines            Diameter of ditto            Stroke            Can one be overhauled while the other is at work             
 No. of Bilge Pumps fitted to the Main Engines            Diameter of ditto            Stroke            Can one be overhauled while the other is at work             
 Total number and size of power driven Feed and Bilge Auxiliary Pumps             
 No. and size of Pumps connected to the Main Bilge Line             
 No. and size of Ballast Pumps            No. and size of Lubricating Oil Pumps, including Spare Pump             
 Are two independent means arranged for circulating water through the Oil Cooler            No. and size of suction connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room            and in Holds, &c.             
 No. and size of Main Water Circulating Pump Bilge Suctions            No. and size of Donkey Pump Direct Suctions to the Engine Room Bilges             
 Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes             
 Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges             
 Are all connections with the sea direct on the skin of the ship Yes. Are they Valves or Cocks both.  
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes. Are the Discharge Pipes 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 are carried through the bunkers            How are they protected             
 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 Screw Shaft Tunnel watertight            Is it fitted with a watertight door            worked from           

**MAIN BOILERS, &c.**—(Letter for record           ) Total Heating Surface of Boilers             
 Is Forced Draft fitted            No. and Description of Boilers            Working Pressure             
**IS A REPORT ON MAIN BOILERS NOW FORWARDED?**  
**IS A DONKEY BOILER FITTED?** If so, is a report now forwarded?             
**PLANS.** Are approved plans forwarded herewith for Shafting            Main Boilers            Auxiliary Boilers            Donkey Boilers             
 (If not state date of approval)             
 General Pumping Arrangements            Oil fuel Burning Piping Arrangements             
**SPARE GEAR.** State the articles supplied:—  
            
            
            
          

The foregoing is a correct description,

Manufacturer.



If not, state whether, and when, one will be sent

Is a Report also sent on the Hull of the Ship?

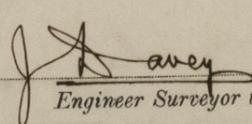
During progress of work in shops -- }  
 Dates of Survey while building } (1924) Dec. 29. (1925) Jan. 7. Feb. 3. 21. Mar 23.  
 During erection on board vessel --- }  
 Total No. of visits 5

Dates of Examination of principal parts - Cylinders \_\_\_\_\_ Slides \_\_\_\_\_  
 Covers \_\_\_\_\_ Pistons \_\_\_\_\_ Rods \_\_\_\_\_  
 Connecting rods \_\_\_\_\_ Crank shaft \_\_\_\_\_ Thrust shaft \_\_\_\_\_  
 Tunnel shafts \_\_\_\_\_ Screw shaft \_\_\_\_\_ Propeller \_\_\_\_\_  
 Stern tube \_\_\_\_\_ Engine and boiler seatings 2 2/3/25. Engines holding down bolts \_\_\_\_\_  
 Completion of pumping arrangements \_\_\_\_\_ Boilers fixed \_\_\_\_\_ Engines tried under steam \_\_\_\_\_  
 Completion of fitting sea connections 3/2/25. Stern tube 2 1/2/25. Screw shaft and propeller 2 2/3/25.  
 Main boiler safety valves adjusted \_\_\_\_\_ Thickness of adjusting washers \_\_\_\_\_  
 Material of Crank shaft \_\_\_\_\_ Identification Mark on Do. \_\_\_\_\_  
 Material of Thrust shaft \_\_\_\_\_ Identification Mark on Do. \_\_\_\_\_  
 Material of Tunnel shafts \_\_\_\_\_ Identification Marks on Do. \_\_\_\_\_  
 Material of Screw shafts \_\_\_\_\_ Identification Marks on Do. \_\_\_\_\_  
 Material of Steam Pipes \_\_\_\_\_ Test pressure \_\_\_\_\_ Date of Test \_\_\_\_\_  
 Is an installation fitted for burning oil fuel \_\_\_\_\_ Is the flash point of the oil to be used over 150°F. \_\_\_\_\_  
 Have the requirements of the Rules for carrying and burning oil fuel been complied with \_\_\_\_\_  
 Is this machinery duplicate of a previous case \_\_\_\_\_ If so, state name of vessel \_\_\_\_\_

**General Remarks** (State quality of workmanship, opinions as to class, &c.)  
 The engine and boiler seatings, sea connections, stern tube and screw shaft have been well fitted on board the vessel.  
 The vessel has now left for Glasgow, where the engines and boilers will be fitted on board. Glasgow Surveyors notified.

Certificate to be sent to  
 The Surveyors are requested not to write on or below the space for Committee's Minute.

The amount of Entry Fee ... £	:	:	When applied for,
Special ... £	:	:	19.
Donkey Boiler Fee ... £	:	:	When received,
Travelling Expenses (if any) £	:	:	19.

  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **GLASGOW 26 MAY 1925**  
 Assigned See G.S. Rpt. No. 44682