

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 25 APR 1934

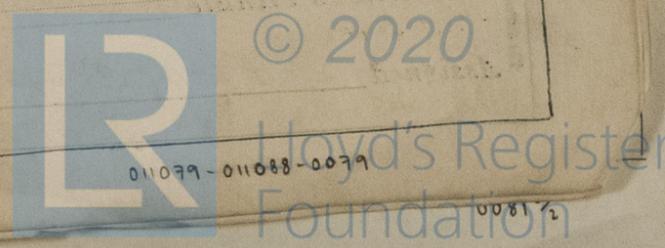
Port of Glasgow  
 Date, First Survey 11 Sept 1933 Last Survey 12 April 1934  
 (Number of Visits 63)  
 When handed in at Local Office Glasgow  
 Date, First Survey 11 Sept 1933 Last Survey 12 April 1934  
 (Number of Visits 63)  
 Tons { Gross 2212  
 Net 1098  
 Yard No. 538 When built 1934.H.  
 Engine No. 538 When made 1934.  
 Boiler No. 538 When made 1934.  
 Owners Union S.S. Co. of Australasia Port belonging to Dunedin.  
 Is Refrigerating Machinery fitted for cargo purposes N/A Is Electric Light fitted N/A  
 Registered Horse Power 353.1

**ENGINES, &c.**—Description of Engines Simple Expansion  
 No. of Cylinders 3 Revs. per minute 3  
 No. of Cranks 3  
 Length of Stroke 39"  
 Thickness parallel to axis 7 1/2"  
 Thickness around eye-hole 5 1/2"  
 Crank pin dia. 11 1/2"  
 Crank webs Mid. length breadth 1  
 Mid. length thickness 11-3"  
 Thrust shaft, diameter at collars 13 1/2"  
 Is the shaft fitted with a continuous liner N/A  
 Is the after end of the liner made watertight in the stern tube N/A  
 Tube Shafts, diameter as per Rule 11 3/8"  
 Screw Shaft, diameter as per Rule 13"  
 Thickness between bushes as per Rule 3/16"  
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner N/A  
 If two liners are fitted, is the space charged with a plastic material insoluble in water and non-corrosive N/A  
 Is an approved Oil Gland or other appliance fitted at the after end of the tube N/A  
 Length of Bearing in Stern Bush next to and supporting propeller 48"  
 Total Developed Surface 65 sq. feet  
 No. of Blades 4 Material Brass whether Moveable No.  
 Can one be overhauled while the other is at work N/A  
 Stroke 20"  
 Can one be overhauled while the other is at work N/A  
 Diameter 8 1/2"  
 No. and size 10 9/16 x 10 1/2 x 10" Packed N/A  
 How driven Steam  
 Lubricating Oil Pumps, including Spare Pump, No. and size N/A  
 Suctions, connected to both Main Bilge Pumps and Auxiliary N/A  
 Are two independent means arranged for circulating water through the Oil Cooler N/A  
 Bilge Pumps;—In Engine and Boiler Room 4 @ 3" x 10 1/2"  
 In Pump Room 1 @ 2 1/2" x 10 1/2"  
 Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 @ 6"  
 Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes N/A  
 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 N/A  
 Are they fitted with Valves or Cocks Both  
 Are the Overboard Discharges above or below the deep water line Below  
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates N/A  
 Are the Blow Off Cocks fitted with a spigot and brass-covering plate N/A  
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel N/A  
 How are they protected N/A  
 What Pipes pass through the bunkers N/A  
 Have they been tested as per Rule N/A  
 What pipes pass through the deep tanks N/A  
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times N/A  
 Are 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 N/A  
 Is the Shaft Tunnel watertight N/A  
 Is it fitted with a watertight door N/A  
 worked from Top platform

**MAIN BOILERS, &c.**—(Letter for record S) Total Heating Surface of Boilers 5406 sq  
 No. and Description of Boilers 2 Simple Ended Working Pressure 200 lbs  
 Is Forced Draft fitted N/A  
**IS A REPORT ON MAIN BOILERS NOW FORWARDED?** N/A  
**IS A DONKEY BOILER FITTED?** No.  
 If so, is a report now forwarded? N/A  
 Is the donkey boiler intended to be used for domestic purposes only N/A  
 Main Boilers N/A Auxiliary Boilers N/A Donkey Boilers N/A  
**PLANS.** Are approved plans forwarded herewith for Shafting 11-9-33  
 (If not state date of approval)  
 General Pumping Arrangements N/A Oil fuel Burning Piping Arrangements N/A  
 Superheaters N/A

**SPARE GEAR.**  
 Has the spare gear required by the Rules been supplied N/A  
 State the principal additional spare gear supplied 1. piston rod, 1 pair crank pin brasses & cross head brasses, 1 crank rock propeller, 1 air pump rod, 1 valve spindle, 1 set nichell thrust pads, screw shaft, lock rim types, 1 air pump rod, 1 feed pump rod, 1 centrifugal air pump impeller & chest, 50 endurance feed pumps, journal centre pump, ballast pump & oil fuel transfer pumps, 1 main & 1 aux stop valve, 12 plain & 2 stop tubes, 1 safety valve spring.

The foregoing is a correct description,  
 OF  
**ALEXANDER STEPHEN & SONS, LIMITED.**  
 Manufacturer.  
Alex MacLellan Director



1933 Sep. 11 15 20 Oct. 5 6 9 12 18 24 30 Nov. 7 9 14 17 21 23 27 30 Dec  
 During progress of work in shops -- 4 7 11 12 14 18 22 27 28 (1934) Jan. 5 8 10 12 15 17 19 22 25 30 Feb. 2 5 6  
 Dates of Survey while building During erection on board vessel --- 13 15 21 22 26 Mar. 1 2 3 5 7 8 12 15 16 19 20 26 27 29 Apr. 5 10 12  
 Total No. of visits 63

Dates of Examination of principal parts—Cylinders 26.2.34 Slides 13.2.34 Covers 26.2.34  
 Pistons 26.2.34 Piston Rods 5.3.34 Connecting rods 22.2.34  
 Crank shaft 30.1.34 Thrust shaft 5.1.34 Intermediate shafts 22.1.34  
 Tube shaft ✓ Screw shaft 1.3.34 Propeller 15.2.34  
 Stern tube 21.2.34 Engine and boiler seatings 21.2.34 Engines holding down bolts 5.4.34  
 Completion of fitting sea connections 21.2.34  
 Completion of pumping arrangements 12.4.34 Boilers fixed 5.4.34 Engines tried under steam 12.4.34  
 Main boiler safety valves adjusted 5.4.34 Thickness of adjusting washers Pat. P. 2. 5. 34. Pat. P. 15 34.  
 Crank shaft material *St. In. hypot steel* Identification Mark *309-510-511-512* Thrust shaft material *St. In. hypot steel* Identification Mark *459-4663-516*  
 Intermediate shafts, material *do* Identification Marks *4663-CSP, 4664* Tube shaft, material *do* Identification Mark *do*  
 Screw shaft, material *do* Identification Mark *CSP, 4666* Steam Pipes, material *Steel* Test pressure 600 lbs. Date of Test 29.3.34  
 Is an installation fitted for burning oil fuel *Yes* Is the flash point of the oil to be used over 150°F. *Yes*  
 Have the requirements of the Rules for the use of oil as fuel been complied with *Yes*  
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo *Yes* If so, have the requirements of the Rules been complied with *Yes*  
 If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with *Yes*  
 Is this machinery duplicate of a previous case *No.* If so, state name of vessel *do.*

**General Remarks** (State quality of workmanship, opinions as to class, &c.)

The machinery of this vessel has been built under special survey and in accordance with the Rules. The materials and workmanship are good. On completion it has been placed on load and efficiently secured in position and afterwards examined under full working conditions with satisfactory results.

The machinery of this vessel is eligible, in my opinion, to be classed in the Register Book with notation of + L.M.C. 4.34.

NOTE: Fitted for oil fuel 4.34. F.P. above 150°F

*21/4/34.*

The amount of Entry Fee ... £ 5 : - : When applied for, 24 APR 1934  
 Special ... £ 74 : 19 :  
 Donkey Boiler Fee ... £ : :  
 Travelling Expenses (if any) £ : : 8.6.1934  
 When received, 8.6.1934  
 Engineer Surveyor to Lloyd's Register of Shipping.  
 TUE 8 MAY 1934

Committee's Minute GLASGOW 24 APR 1934

Assigned + L.M.C. 4.34. F.P.  
 Fitted for oil fuel 4.34.  
 F.P. above 150°F.

Certificates to be sent to GLASGOW

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

