

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

15 MAR 1933

Date of writing Report **9. 2. 1933** When handed in at Local Office **10th MARCH 1933** Port of **Glasgow**
 No. in Survey held at **Glasgow** Date, First Survey **9th Sept. 1932** Last Survey **10th MARCH 1933**
 Reg. Book. on the **Sewage Sludge Works' Manucium** (Number of Visits **4**)
 Built at **Port Glasgow** By whom built **Ferguson Bros Ltd** Yard No. **305** Tons } Gross **1285.65**
 Engines made at **Port Glasgow** By whom made **Ferguson Bros Ltd** Engine No. **305** When built **1933** } Net **650.12**
 Boilers made at **Glasgow** By whom made **John McCauley** Boiler No. **208** When made **1933**
 Registered Horse Power **206** Owners **Manchester Corporation** Port belonging to **Manchester**
 Is Refrigerating Machinery fitted for cargo purposes **No** Is Electric Light fitted **Yes**
 Trade for which Vessel is intended **River Mersey, Manchester Ship Canal**

ENGINES, &c.—Description of Engines **Triple Expansion. (2 Sets)** Revs. per minute
 Dia. of Cylinders **14. 22 1/2. 37** Length of Stroke **26"** No. of Cylinders **6** No. of Cranks **6**
 Crank shaft, dia. of journals **7.262** Crank pin dia. **7.318** Crank webs Mid. length breadth **4.28"** Thickness parallel to axis **3.5716"**
 as per Rule **7.262** as fitted **7.318** Mid. length thickness **shrunk** Thickness around eye-hole **3.5716"**
 Intermediate Shafts, diameter as per Rule **6.92** Thrust shaft, diameter at collar as per Rule **7.263**
 as fitted **7.144** as fitted **7.375**
 Tube Shafts, diameter as per Rule **7.681** Is the screw shaft fitted with a continuous liner **Yes**
 as fitted **7.8125** as fitted **7.8125** Is the screw shaft fitted with a continuous liner **Yes**
 Bronze Liners, thickness in way of bushes as per Rule **.53** Thickness between bushes as per Rule **.40**
 as fitted **.518** as fitted **.518** Is the after end of the liner made watertight in the propeller boss **Yes**
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner **Yes**
 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 **Yes**
 If two liners are fitted, is the shaft lapped or protected between the liners **Yes** Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft **No**
 If so, state type **Yes** Length of Bearing in Stern Bush next to and supporting propeller **2.8"**
 Propeller, dia. **9.1 1/2"** Pitch **11.6"** No. of Blades **4** Material **CS** whether Movable **No** Total Developed Surface **32.7** sq. feet
 Feed Pumps worked from the Main Engines, No. **one** Diameter **2 7/8"** Stroke **13"** Can one be overhauled while the other is at work **Yes**
 Bilge Pumps worked from the Main Engines, No. **one** Diameter **2 7/8"** Stroke **13"** Can one be overhauled while the other is at work **Yes**
 Feed Pumps { No. and size **one WEIRS 6" x 8 1/2" x 18"** Pumps connected to the Main Bilge Line { No. and size **two 10 1/2" x 9" x 10"**
 How driven **Steam** How driven **Steam**
 Ballast Pumps, No. and size **2 10 1/2" x 9" x 10"** Lubricating Oil Pumps, including Spare Pump, No. and size **—**
 Are two independent means arranged for circulating water through the Oil Cooler **Yes** Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room **2. 2 1/2"**
 In Pump Room **—** In Holds, &c. **Fore 2. 2 1/2"**
 Main Water Circulating Pump Direct Bilge Suctions, No. and size **2. 4 1/2"** Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size **one 3 1/2"**
 Are all the Bilge Suction Pipes in holds and hull well fitted with strum-boxes **Yes**
 Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with strum-boxes at 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 stokehold plates **Yes** Are the Overboard Discharges above or below the deep water line **Yes**
 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 **Bilge, Ballast.** How are they protected **Steel plate**
 What pipes pass through the deep tanks **—** 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 apartment to another **Yes** Is the Shaft Tunnel watertight **Yes** Is it fitted with a watertight door **Yes** worked from **VER Platform**

MAIN BOILERS, &c.—(Letter for record **\$**) Total Heating Surface of Boilers **3938 #**
 Forced Draft fitted **No** No. and Description of Boilers **2 Single Ended** Working Pressure **180**
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? **Yes**
 IS A DONKEY BOILER FITTED? **No** If so, is a report now forwarded? **—**
 Is the donkey boiler intended to be used for domestic purposes only **—**
 PLANS. Are approved plans forwarded herewith for Shafting **Yes** Main Boilers **Yes** Auxiliary Boilers **—** Donkey Boilers **—**
 (If not state date of approval) **—**
 Superheaters **—** General Pumping Arrangements **Yes** Oil fuel Burning Piping Arrangements **—**

SPARE GEAR.

Is the spare gear required by the Rules been supplied **Yes**
 Is the principal additional spare gear supplied **2 Propeller shafts, one set of air feed, Bilge Pump Gears, one set of Clutch Gears, 2 Cast-Iron Propellers.**

The foregoing is a correct description, FERGUSON BROTHERS (PORT-GLASGOW), LTD.

Peter Ferguson DIRECTOR

Manufacturer.



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W103-0235

Rpt. 5a
 Date of writ
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(1932) Sept. 7-16-20. Oct. 3-13-19-27-31. Nov. 8-15-17-23-29. Dec. 1-7-8-13-16-22-26-29-30. (1933) Jan. 6-10-17-23-26-30. Feb. 2-3-8-10.
 13-14-17-20-22-25. Mar. 1-8-10.
 Dates of Survey while building
 During progress of work in shops - -
 During erection on board vessel - - -
 Total No. of visits 41.

Dates of Examination of principal parts—Cylinders 14- 11- 32 Slides 29- 11- 32 Covers 23- 11- 32
 Pistons 1- 12- 32 Piston Rods 1- 12- 32 Connecting rods 1- 12- 32
 Crank shaft 1- 12- 32 Thrust shaft 7- 12- 32 Intermediate shafts 7- 12- 32
 Tube shaft ✓ Screw shaft 6- 1- 33 Propeller 6- 1- 33
 Stern tube 10- 1- 33 Engine and boiler seatings 8- 12- 32 Engines holding down bolts 23- 1- 33
 Completion of fitting sea connections 6- 1- 33
 Completion of pumping arrangements 22 2. 33 Boilers fixed 25- 1- 32 Engines tried under steam 8- 3- 33
 Main boiler safety valves adjusted 1- 3- 33 Thickness of adjusting washers PV 27/64 B 5 27/64 PV 27/64 SV 27/64 B
 Crank shaft material S Identification Mark LLOYD'S 306 WGM Thrust shaft material L S Identification Mark LLOYD'S 629 WGM
 Intermediate shafts, material S Identification Marks LLOYD'S 628 WGM Tube shaft, material ✓ Identification Mark -
 Screw shaft, material S Identification Mark LLOYD'S 624 WGM Steam Pipes, material SDCW Test pressure 540 Date of Test 25.11.32-4
 Is an installation fitted for burning oil fuel 910 Is the flash point of the oil to be used over 150°F. ✓
 Have the requirements of the Rules for the use of oil as fuel been complied with ✓
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo 910 If so, have the requirements of the Rules been complied with ✓
 If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with ✓
 Is this machinery duplicate of a previous case 910 If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. These engines & boilers have been built under special survey in accordance with the approved plans & the workmanship & material are of good quality, they have now been securely fitted on board, and under steam & found satisfactory. The machinery is tight in my opinion for the month of + LMC. 3-33

The amount of Entry Fee ... £ 4- 0 : When applied for.
 Special ... £ 30- 18- : 10th March 1933.
 Donkey Boiler Fee ... £ - : - : When received.
 Travelling Expenses (if any) £ - : - : 28-3-1933

W. Gordon-Mitchell
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 14 MAR 1933
 Assigned + LMC 333

CERTIFICATE WRITTEN



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