

# REPORT ON OIL ENGINE MACHINERY.

No. 19014

10 APR 1929

28/2/29 When handed in at Local Office 5/4/29 Port of Greenock  
 Date, First Survey 6th June 1928 Last Survey 5.4.1929  
 Number of Visits 103

on the Single Twin Triple Screw vessel  
Greenock By whom built Wm. Hamilton & Co. Yard No. 406 When built 1929  
Greenock By whom made John Maccaid & Co. Engine No. 1734 When made 1929  
ditto By whom made ditto Boiler No. 1734 When made 1929  
3200 Owners United Molasses Co. Ltd. Port belonging to Loudon  
709 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes  
 which vessel is intended Foreign

GINES, &c. Type of Engines Swainston & Co. (2 Stk) 2 or 4 stroke cycle 4 Single or double acting Single  
 Pressure in cylinders 500 Diameter of cylinders 630 mm Length of stroke 1300 mm No. of cylinders 12 No. of cranks 12  
 Rings, adjacent to the Crank, measured from inner edge to inner edge 892 Is there a bearing between each crank Yes  
 per minute 110 Flywheel dia. 2620 mm Weight 13750 Kgs Means of ignition Compression Kind of fuel used Diesel  
 ft. dia. of journals as per Rule 403.3 mm Crank pin dia. 415 mm Crank Webs shrunk Thickness parallel to axis 240 mm  
 as fitted 415 mm M.d. length thickness shrunk Thickness around eye-hole 184.4 mm  
 Shaft, diameter as per Rule on approval Intermediate Shafts, diameter as per Rule 11.26 Thrust Shaft, diameter at collars as per Rule 11.8  
 as fitted 163/8 as fitted 11 3/4 as fitted 12 3/8  
 ft. diameter as per Rule 12.38 Is the shaft shaft fitted with a continuous liner Yes  
 as fitted 13 as fitted 5/8 Is the after end of the liner made watertight in the

yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner Yes  
 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  
 Is an approved Oil Gland or other appliance fitted at the after end of the tube Yes  
 Length of Bearing in Stern Bush next to and supporting propeller 52"  
 dia. 13.3" Pitch 11.0" No. of blades 4 Material Brass whether Moveable No Total Developed Surface 52 sq. feet  
 reversing Engines air Is a governor or other arrangement fitted to prevent racing of the engine when decoupled Yes Means of lubrication oil  
 Thickness of cylinder liners 36/46 mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers lagged or lagged with

lagged material lagged If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine Yes  
 Water Pumps, No. 3 (one 6" and 2 (10" & 8")) Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes  
 Pumps worked from the Main Engines, No. 2 Diameter 8" & 9" & 10" Stroke 4" & 4 1/2" & 9"  
 connected to the Main Bilge Line Steam  
 Pumps, No. and size one 8" & 9" & 10" Lubricating Oil Pumps, including Spare Pump, No. and size 2 (one 10" & 2 (4" & 8"))  
 dependent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

and size:—In Machinery Spaces 2 3 1/2" 2-3" 2-2" Fore hold 2-2"  
2-10" in each Pump Room 2-3"  
 Cent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2 5 1/2"  
 Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes Are the Bilge Suctions in the Machinery Spaces Yes  
 sily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes  
 Connections fitted direct on the skin of the ship Yes Are they fitted with Valves or Cocks both  
 d 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 below  
 h 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  
 pass through the bunkers Yes How are they protected Yes  
 pass through the deep tanks Yes Have they been tested as per Rule Yes

es, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes  
 gement 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  
 t to another Yes Is the Shaft Tunnel watertight None Is it fitted with a watertight door Yes worked from Yes  
 essel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork Yes  
 Compressors, No. 2 No. of stages 3 Diameters 600-540-120 mm Stroke 480 mm Driven by Main Engine  
 Air Compressors, No. one No. of stages 3 Diameters 450-350-62 mm Stroke 260 mm Driven by Steam  
 Hiary Air Compressors, No. Yes No. of stages Yes Diameters Yes Stroke Yes Driven by Yes  
 venging Air Pumps, No. Yes Diameter Yes Stroke Yes Driven by Yes

ary Engines crank shafts, diameter as per Rule Yes  
 RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule Yes  
 e internal surfaces of the receivers be examined Yes What means are provided for cleaning their inner surfaces Manual  
 here a drain arrangement fitted at the lowest part of each receiver Yes  
 h Pressure Air Receivers, No. 4 Cubic capacity of each 1500 litres Internal diameter 12" thickness 1/2"  
 less, lap welded or riveted longitudinal joint Manual Material S Range of tensile strength 29.33 Working pressure by Rules 1000 lbs  
 Air Receivers, No. 2 Total cubic capacity 1300 CF Internal diameter 6-4 1/16" thickness 1 1/16" & 1 1/32"  
 lap welded or riveted longitudinal joint Rivited Material S Range of tensile strength 28.32 Working pressure by Rules 350



IS ~~auxiliary~~ **BOILERS FITTED?** *yes* If so, is a report now forwarded? *yes*  
 PLANS. Are approved plans forwarded herewith for Shafting *yes* Receivers *yes* Separate Tanks *✓*  
 (If not, state date of approval)  
 Donkey Boilers *yes* General Pumping Arrangements *✓* Oil Fuel Burning Arrangements *✓*  
 SPARE GEAR

*see Separate List attached*

The foregoing is a correct description,  
 FOR JOHN G. KINCAID & COY, LIMITED

*W. B. Carter*

Manufacturer.

Dates of Survey while building { During progress of work in shops - { (1928) June 6-20 July 14-25 Aug 1-14 22-23 24-28 Sept 3-11 20-26 28 Oct 1-11 15-16 19 22-23 26 Nov 1-2 5-6 4-8 9-12 13-14 15-16 19 20-21 22-23 26 24-25  
 { During erection on board vessel - { Dec 3-5 6-9 10-12 14-17 18-21 24-26 27-28 (1929) Jan 4-9 10-11 14-16 18-23 24-25 28 31 Feb 1-6 4-11 15-18 19 20 21 22-25 26 27-28 Mar 1-4 11-12 15-18 19 21-22 25-28 Apr 1-4  
 Total No. of visits 103.

Dates of Examination of principal parts { Cylinders 3. 12. 28 Covers 19. 11. 28 Pistons 24. 12. 28 Rods 24. 12. 28 Connecting rods 24. 12. 28  
 Crank shaft 26. 11. 28 Flywheel shaft 1- 11. 28 Thrust shaft 1- 11. 28 Intermediate shafts 11- 2. 29 Tube shaft *✓*  
 Screw shaft 4. 2. 29 Propeller 4. 2. 29 Stern tube 25. 1- 29 Engine seatings 7. 2. 29 Engines holding down bolts 15. 3. 29  
 Completion of fitting sea connections 7. 2. 29 Completion of pumping arrangements 28. 3. 29 Engines tried under working conditions 15. 4. 29  
 Crank shaft, Material *S* Identification Mark LR. 1134. WG. M Flywheel shaft, Material *S* Identification Mark LR. 2641. 2642  
 Thrust shaft, Material *S* Identification Mark LR. 2641. 2642 WG. M Intermediate shafts, Material *S* Identification Marks LR. 1630. 471  
 Tube shaft, Material *✓* Identification Mark *✓* Screw shaft, Material *S* Identification Mark LR. 1584. 4703

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 *yes*

If so, have the requirements of the Rules been complied with *yes*

Is this machinery duplicate of a previous case *yes*

If so, state name of vessel

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

*These engines have been built under special survey in accordance with approved plans, & the workmanship & material are of good quality. They are now securely fitted on board and under working conditions, found satisfactory. The machinery is eligible in my opinion for the use of L.M.C. 4-29 (Notation of Donkey Boilers 1801b)*

It is submitted that this vessel is eligible for THE RECORD.

+ L.M.C. 4. 29. CL.

Oil Engines 4. S.C.S.A. 709 N.H.P. 12. Cy. 24  $\frac{13}{16}$  - 51  $\frac{3}{16}$ .  
 2. D.B. 180 lb.

The amount of Entry Fee ... £ 6 : - : When applied for,  
 Special ... £ 110 : 9 : 5th APRIL 1929.  
 Donkey Boiler Fee ... £ 25 : 3 : When received,  
 Air Receiver (if any) £ 8 : 8 : 10/4/29

Committee's Minute

GLASGOW

9 APR 1929

Assigned

+ L.M.C. 4. 29

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



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