

REPORT ON OIL ENGINE MACHINERY.

2 OCT 1930 1924

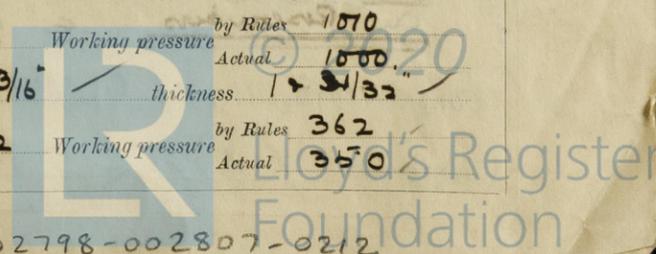
Received at London Office 2 OCT 1930

Date of writing Report 28.1.30 When handed in at Local Office 26th SEPTEMBER 1930 Port of Greenock
Date, First Survey 14th JANUARY 1930 Last Survey 26th SEPTEMBER 1930
Number of Visits 80

on the SS "El Morlo" Screw vessel
Tons { Gross 8088
Net 4930
Built at Glasgow By whom built Blyth Wood & Co. Ltd. Yard No. 29 When built 1930
Engines made at Greenock By whom made John & Maccaud Ltd. Engine No. 116 When made 1930
Boilers made at Greenock By whom made John & Maccaud Ltd. Boiler No. 114 When made 1930
Horse Power 2625 Owners Lobitos Oil Fields Ltd. Port belonging to LONDON
Horse Power as per Rule 653 Is Refrigerating Machinery fitted for cargo purposes 870 Is Electric Light fitted yes
Type for which vessel is intended Foreign 29 1/2 - 59 1/2

ENGINES, &c.—Type of Engines Vertical 4 stroke cycle 4 Single or double acting Single
Maximum pressure in cylinders 500 Diameter of cylinders 740 mm Length of stroke 1500 mm No. of cylinders 8 No. of cranks 8
Distance of bearings, adjacent to the Crank, measured from inner edge to inner edge 990 mm Is there a bearing between each crank yes
Revolutions per minute 115 Flywheel dia. 2489 mm Weight 2414 kgs Means of ignition Compression Kind of fuel used Diesel
Crank Shaft, dia. of journals as per Rule 480 mm as fitted 495 mm Crank pin dia. 495 mm Crank Webs Mid. length breadth shrunk Thickness parallel to axis 310 mm
Wheel Shaft, diameter as per Rule None as fitted None Intermediate Shafts, diameter as per Rule None as fitted None Thrust Shaft, diameter at collars as per Rule 14.28 as fitted 19 1/2
Propeller Shaft, diameter as per Rule 14.99 as fitted 19 1/2 Is the lube screw shaft fitted with a continuous liner yes
Cylinder Liners, thickness in way of bushes as per Rule .75 as fitted 7/8 Thickness between bushes as per rule .56 as fitted 7/8 Is the after end of the liner made watertight in the stern boss yes 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 — Length of Bearing in Stern Bush next to and supporting propeller 6.0 1/4
Propeller, dia. 16.9 Pitch 12.0 No. of blades 4 Material Bronze Whether Moveable Yes Total Developed Surface 88 sq. feet
Method of reversing Engines Air Is a governor — fitted to prevent racing of the engine yes Means of lubrication —
Thickness of cylinder liners 32/53 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with conducting 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 —
Suction Water Pumps, No. 2 (one 10x10) (one 6x6) Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes
Pumps worked from the Main Engines, No. None Diameter — Stroke — Can one be overhauled while the other is at work —
Pumps connected to the Main Bilge Line { No. and Size 2. 7x8x8 9x10x10
How driven Steam
Auxiliary Pumps, No. and size one 9x10x10 Lubricating Oil Pumps, including Spare Pump, No. and size 2 6x6 10x10
Are 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 3 at 3 1/2 2. 2" Coffordam 1-3" In Pump Room 2. 2 1/2"
In Holds, &c. 2. 2 1/2"
Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2. 1 1/2"
Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes — Are the Bilge Suctions in the Machinery Spaces easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges yes
Are Sea Connections fitted direct on the skin of the ship yes Are they fitted with Valves or Cocks None
Are they fixed 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 None
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
Are pipes pass through the bunkers — How are they protected —
Are pipes pass through the deep tanks — Have they been tested as per Rule —
Are 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 compartment 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 —

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes
Are the internal surfaces of the receivers be examined and cleaned yes Is a drain fitted at the lowest part of each receiver yes
Pressure Air Receivers, No. 2 Cubic capacity of each 200 litres Internal diameter 14" thickness 1/2"
Material SDS Range of tensile strength 29/33 Working pressure by Rules 1070 Actual 1000
Welding Air Receivers, No. 2 Total cubic capacity 1400 CF Internal diameter 6.03/16 thickness 1.21/32
Material TR.DBS Range of tensile strength 28.32 Working pressure by Rules 362 Actual 350



Auxiliary
 IS A ~~DONKEY~~ BOILERS FITTED? *yes* If so, is a report now forwarded? *yes*

Is the donkey boiler intended to be used for domestic purposes only

PLANS. Are approved plans forwarded herewith for Shafting *yes* Receivers *yes* Separate Tanks *yes*
Aux 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

Spare Glueless head & Liner complete also Piston Rod & Propeller Shaft

The foregoing is a correct description,
 For John G. Kincaid & Co. Ltd.

J. G. Kincaid Director. Manufacturer.

Dates of Survey while building
 During progress of work in shops - (1930) Jan. 14, 23 Feb. 11, 19, 26, 24, 28 Mar. 10, 18, 20, 21, 31 Apr. 1, 8, 11, 14, 19, 21, 25, 30 May 1, 2, 5, 8, 9, 12, 13, 20, 22, 23, 24, 28, 29, 30 June 2, 4, 5, 9, 10, 12, 13, 16, 17, 19
 During erection on board vessel - July 1, 15, 21, 22, 24, 25, 28, 29 Aug. 1, 4, 5, 8, 13, 15, 18, 19, 20, 21, 22, 26, 24, 29 Sept. 12, 14, 25, 26
 Total No. of visits 80

Dates of Examination of principal parts - *LINES* Cylinders 22. 5-30 Covers 2. 5-30 Pistons 20. 6-30 Rods 20. 6-30 Connecting rods 1. 4-30

Crank shaft 1. 4-30 Flywheel shaft *✓* Thrust shaft 18. 6-30 Intermediate shafts *✓* Tube shaft *✓*

Screw shaft 18. 6-30 Propeller 18. 6-30 Stern tube 2. 6-30 Engine seatings *see report* Engines holding down bolts 15. 8-30

Completion of fitting sea connections *see report* Completion of pumping arrangements 14. 9-30 Engines tried under working conditions 26. 9-30

Crank shaft, Material S Identification Mark LR WGM. K154 Flywheel shaft, Material *✓* Identification Mark *✓*

Thrust shaft, Material S Identification Mark LR. 1460 WGM Intermediate shafts, Material *✓* Identification Marks *✓*

Tube shaft, Material *✓* Identification Mark *✓* Screw shaft, Material S Identification Mark LR. WGM. 3113

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 *✓* 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 & Boiler have been built under special survey in accordance with the approved plans & the workmanship and material are of good quality. They are now securely fitted on board and under working conditions I found satisfactory. The Machinery is eligible in my opinion for the record of L.M.C. 9.30 (Notation of Donkey Boiler, 180 lbs)

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 9.30 C-L

Oil Engines 4 S.C.S.A. 8 cy. 29 1/8" - 59" 2 D.B. 180 lbs.

The amount of Entry Fee .. £ 6 : - : When applied for,
 Special ... £ 104 : 13 : 24th SEPTEMBER 1930.
Aux Boiler Fee ... £ 24 : 2 : When received,
Aux Reservoir *Traveling Expenses (if any)* £ 8 : 8 : 24th SEPTEMBER 1930.

Committee's Minute GLASGOW 1 OCT 1930

Assigned + L.M.C. 9.30

J.M.
 2 DB-180lb

J. G. Kincaid
 Engineer Surveyor to Lloyd's Register of Shipping.



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