

REPORT ON OIL ENGINE MACHINERY.

No. 4609

Received at London Office

Date of writing Report 31st Dec 1957 When handed in at Local Office 31st Dec 1957 Port of MontrealNo. in Survey held at 101st Reg. Book. Date, First Survey 12th NovLast Survey 15th Dec 1957

Number of Visits 8

on the Single Twin Triple Quadruple Screw vessel Motor Vessel "Ducelife"

Tons Gross 400.8 Net 208.78

uilt at 101st Reg. By whom built Marine Industries, Ltd. Yard No. 86 When built 1957.
 gines made at 101st Reg. By whom made Fairbanks, Morse & Co. Engine No. 802562 When made 1957
 akey Boilers made at 101st Reg. By whom made 101st Reg. Boiler No. 101st Reg. When made 101st Reg.
 like Horse Power 575 Owners Imperial Oil Shipping Co. Ltd. Port belonging to Vancouver B.C.
 m. Horse Power as per Rule 172 Is Refrigerating Machinery fitted for cargo purposes 101st Reg. Is Electric Light fitted 101st Reg.
 ide for which vessel is intended Carrying Gasoline, Kerosene etc in Bulk.

ENGINES, &c. Type of Engines 101st Reg. solid injection 2 or 4 stroke cycle 2 Single or double acting 1
 Minimum pressure in cylinders 750# Diameter of cylinders 14" Length of stroke 17" No. of cylinders 5 No. of cranks 5
 Indicated Pressure 500# of bearings, adjacent to the Crank, measured from inner edge to inner edge 16 13/16" Is there a bearing between each crank 101st Reg.
 Revolutions per minute 300 Flywheel dia. 48" Weight 4700# Means of ignition Comp. Kind of fuel used Diesel Oil
 Crank Shaft, dia. of journals as per Rule 8 1/8" Crank pin dia. 9" Crank Webs Mid. length breadth 4 9/16" Mid. length thickness 12" Thickness parallel to axis 101st Reg.
 as fitted 9" Thickness around eyehole 101st Reg.
 Wheel Shaft, diameter as per Rule 9" Intermediate Shafts, diameter as per Rule 101st Reg. Thrust Shaft, diameter at collars as per Rule 9"
 as fitted 9" as fitted 101st Reg.
 Shaft, diameter as per Rule 7" Is the tube screw shaft fitted with a continuous liner Continuous
 as fitted 7" as fitted 101st Reg.
 Liners, thickness in way of bushes as per Rule 1/2" Thickness between bushes as per rule 1/2" Is the after end of the liner made watertight in the
 as fitted 1/2" as fitted 101st Reg.
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner One length
 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 101st Reg. Is an approved Oil Gland or other appliance fitted at the after end of the tube
 If so, state type 101st Reg. Length of Bearing in Stern Bush next to and supporting propeller 2.6"
 Propeller, dia. 78" Pitch 46" No. of blades 3 Material Bronze whether Moveable Solid Total Developed Surface 18.95 sq. feet
 Method of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched 101st Reg. Means of lubrication
 Thickness of cylinder liners 1 1/4" - 7/8" Are the cylinders fitted with safety valves 101st Reg. Are the exhaust pipes and silencers water cooled or lagged with
 insulating 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
 Bilge Water Pumps, No. 5 1/4 x 5 1/8 2a Is the sea suction provided with an efficient strainer which can be cleared within the vessel 101st Reg.
 Pumps worked from the Main Engines, No. 1 Diameter 3 1/4" x Stroke 5 1/8" Can one be overhauled while the other is at work 101st Reg.
 Pumps connected to the Main Bilge Line No. and Size One Duplex 2" suction, 2" direct. One centrifugal 2" suction, 1 1/2" direct.
 How driven Motor driven
 Cooling water led to the bilges Overboard If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping
 arrangements 101st Reg.
 Bilge Pumps, No. and size One 3" One 4" Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 5 1/4 x 5 1/8 2a
 Are independent means arranged for circulating water through the Oil Cooler 101st Reg. Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge
 Pumps, No. and size:—In Machinery Spaces One 2" One 1 1/2" One 2" One 2" One 2 1/2" In Pump Room One 2 1/2"
 To Hold, &c. One 4" N. 3" Tank, One 3" Cofferdam, Double in Hold & Fore peak (Ballast)
 Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size Two 2" One 2 1/2" One 2" One 2" One 2 1/2" One 2 1/2"
 Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes 101st Reg. Are the Bilge Suctions in the Machinery Spaces
 from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges 101st Reg.
 All Sea Connections fitted direct on the skin of the ship 101st Reg. Are they fitted with Valves or Cocks Valves
 Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates 101st Reg. Are the Overboard Discharges above or below the deep water line Above
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel 101st Reg. Are the Blow Off Cocks fitted with a spigot and brass covering plate None
 Are pipes pass through the bunkers None How are they protected 101st Reg.
 Are pipes pass through the deep tanks 101st Reg. Have they been tested as per Rule 101st Reg.
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times 101st Reg.
 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 101st Reg. Is the Shaft Tunnel watertight 101st Reg. Is it fitted with a watertight door 101st Reg. worked from 101st Reg.
 On wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork 101st Reg.
 Air Compressors, No. 1 No. of stages 1 Diameters 8" Stroke 5 1/8" Driven by Main engine
 Auxiliary Air Compressors, No. 1 No. of stages 1 Diameters 10" Stroke 10" Driven by Motor
 Auxiliary Air Compressors, No. 1 No. of stages 1 Diameters 10" Stroke 10" Driven by Main engine
 Enging Air Pumps, No. 1 Diameter 32" Stroke 14 1/2" Driven by Main engine
 Auxiliary Engines crank shafts, diameter as per Rule 3" See Cleveland 101st Reg. No. 2 Position 101st Reg.

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule

Can the internal surfaces of the receivers be examined and cleaned *yes* Is a drain fitted at the lowest part of each receiver *yes*

High Pressure Air Receivers, No. *✓* Cubic capacity of each *✓* Internal diameter *✓* thickness *✓*

Seamless, lap welded or riveted longitudinal joint *✓* Material *✓* Range of tensile strength *✓* Working pressure *by Rules*

Starting Air Receivers, No. *3* Total cubic capacity *✓* Internal diameter *29 1/2"* thickness *3/8"*
Seamless, lap welded or riveted longitudinal joint *lap welded* Material *S.* Range of tensile strength *28 * 32 Tm* Working pressure *by Rules*
Actual *250 lbs.*

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 *yes*

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

Donkey Boilers *✓* General Pumping Arrangements *yes* Pumping Arrangements in Machinery Space *yes*

Oil Fuel Burning Arrangements *✓*

SPARE GEAR.

Has the spare gear required by the Rules been supplied *yes*

State the principal additional spare gear supplied *See Fairbanks Morse Co. list # 5884 B, sheets # 278 & 297, attached to this report.*

The foregoing is a correct description,

Self *under* *for* *Marine Industries Ltd.* Manufacturer.

Dates of Survey while building { During progress of work in shops-- *August 3. 9. 12. 17. 25. 26. 28. 1937*
During erection on board vessel-- *Nov. 12. 18. 19. 20. 24. 26. Dec. 3. 15.*
Total No. of visits *15.*

Dates of Examination of principal parts—Cylinders *Aug 3. 26* Covers *Aug 3. 26* Pistons *Aug 3. 26* Rods *✓* Connecting rods *Aug 3. 26*
Crank shaft *Aug 3. 9* Flywheel shaft *✓* Thrust shaft *✓* Intermediate shafts *✓* Tube shaft *✓*
Screw shaft *12th Nov* Propeller *18th Nov* Stern tube *19th Nov* Engine seatings *12th Nov* Engines holding down bolts *18th Nov*
Completion of fitting sea connections *19th Nov* Completion of pumping arrangements *19th Nov* Engines tried under working conditions *26th Nov*
Crank shaft, Material *O.H. steel* Identification Mark *8.9.37.42* Flywheel shaft, Material *✓* Identification Mark *✓*
Thrust shaft, Material *✓* Identification Mark *✓* Intermediate shafts, Material *✓* Identification Marks *✓*
Tube shaft, Material *✓* Identification Mark *✓* Screw shaft, Material *O.H. steel* Identification Mark *210YD5. 6777. 27.8.37.2*

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 *no* If so, state name of vessel *✓*

General Remarks (State quality of workmanship, opinions as to class, &c. *The above mentioned engines have been built under special survey, and on completion were tested under full and intermediate loads in the shop. The materials and workmanship were found to be sound and efficient. The machinery of this vessel has now been fitted on board and on completion tried under full working conditions and found satisfactory. In my opinion the vessel is eligible for the record + L.R.C. 12.37.*

The amount of Entry Fee .. £ *✓* : When applied for, *✓* 19
Special £ *Fees charged* :
Donkey Boiler Fee £ *on Hull* : When received, *✓* 19
Travelling Expenses (if any) £ *Report* :

Committee's Minute

Assigned

See Inst. Rpt. 4609

Geo Allan
Engineer Surveyor to Lloyd's Register of Shipping.

TUE 24 JAN 1938

See Ver. Rpt. 4981

2021

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