

# REPORT ON OIL ENGINE MACHINERY.

No. 5061.

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29 JAN 1945

Date of Report Dec. 23rd 1944 When handed in at Local Office Dec. 28th 1944 Port of HALIFAX, Nova Scotia.Survey held at Meteghan, N. S., Date, First Survey APRIL 19th, Last Survey NOV. 21st, 1944  
Number of Visits 17.on the Single Screw vessel "M.M.S. 1055" Tons {Gross 288  
Net 105at Meteghan, N. S., By whom built Clare Shipbuilding Co. Id., Yard No. 185 When built 1944.Engines made at Springfield, Ohio. By whom made National Supply Co., Engine No. 11123 When made 1944.Boilers made at - By whom made - Boiler No. - When made -Horse Power 500 Owners British Admiralty Port belonging to -Horse Power as per Rule 112 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes.Service for which Vessel is intended MINESWEEPING.ENGINES, &c.—Type of Engines Vertical Marine 2 or 4 stroke cycle 4 Single or double acting SingleMaximum pressure in cylinders 760 Diameter of cylinders 12" Length of stroke 15 No. of cylinders 8 No. of cranks 8Indicated Pressure 73 lbs./sq" of bearings, adjacent to the Crank, measured from inner edge to inner edge 15 ins. Is there a bearing between each crank YesRevolutions per minute 400 Flywheel dia. 36.5 ins. Weight 1596 lbs. Means of ignition Comp. Kind of fuel used Light Diesel.Material of journals Solid forged as per Rule 6.9 ins. Crank pin dia. 8.125 ins. Mid length breadth 13.25" Thickness parallel to axis -Crank webs shrunk as fitted 8.5 ins. Mid length thickness 3.5" Thickness around eyehole -Crankshaft diameter as per Rule 4.5" as per Rule 4.5" as per Rule 4.5" as per Rule 4.5"Flywheel on crankshaft. Intermediate Shafts, diameter as fitted 8.5" Thrust Shaft, diameter at collars as fitted As crankshaftScrew Shaft, diameter as per Rule 4.9" Is the screw shaft fitted with a continuous liner YesScrew Shaft, diameter as fitted 8.5" as per Rule .41" as per Rule .31"Thickness between bushes as fitted 7/16" Is the after end of the liner made watertight in the stern tube YesIf the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner YesIf 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 fits tightly.If liners are fitted, is the shaft lapped or protected between the liners - Is an approved cutless or other appliance fitted at the after end of the tube YesIf so, state type Cutless rubber- Length of Bearing in Stern Bush next to and supporting propeller 2 ft. 11 ins.Propeller, dia. 59" Pitch 47" No. of blades 4 Material bronze whether Moveable fixed Total Developed Surface 12 sq. feetMethod of reversing Engines direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication oilThickness of cylinder liners 7/8" Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with conducting material YesIf the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine -Cooling Water Pumps, No. 1 F.W.: 1 S.W. Is the sea suction provided with an efficient strainer which can be cleared within the vessel YesBilge Pumps worked from the Main Engines, No. One - Centrifugal - 2" suct Can one be overhauled while the other is at work -Pumps connected to the Main Bilge Line {No. and Size 1 - 2" centrifugal : 1 - 3" centrifugal : 1 - 2 1/2" DowntonHow driven Main Engine : Aux. Diesel. : Hand cranks.Is cooling water led to the bilges No If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping arrangements -Lubricating Oil Pumps, No. and size - Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2 - 1 1/2" gear type.Are two 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 Three 2 1/2"; One 1". In Pump Room -In Hold, &c. Four 2" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size One - 2 1/2"Are all the Bilge Suction pipes fitted with strum-boxes Yes 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 YesAre all Sea Connections fitted direct on the skin of the ship Yes 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 No Are the Overboard Discharges above or below the deep water line aboveAre 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 -Do all pipes pass through the bunkers None How are they protected -Do all pipes pass through the deep tanks - Have they been tested as per Rule -Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery accessible at all times YesIs the arrangement of valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into machinery spaces, or from compartment to another Yes Is the Shaft Tunnel watertight - 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 Enclosed crankcase and drip trays.Number of Air Compressors, No. One No. of Stages Two Diameters 5.25" & 3" Stroke 3.5 ins. Driven by Main engine.Auxiliary Air Compressors, No. - No. of stages - Diameters - Stroke - Driven by -All Auxiliary Air Compressors, No. One No. of stages Two Diameters 1" Stroke - Driven by -Is provision made for first Charging the Air Receivers Electric starter on port aux. Diesel clutch coupled to Aux. compressor.Number of Ventilating Air Pumps, No. - Diameter - Stroke - Driven by -Auxiliary Engines crank shafts, diameter as per Rule 2.4" No. Threeas fitted 3" Position Port and Ford. and Aft Star. Have the Auxiliary Engines been constructed under special survey Port only. Is a report sent herewith Yes

503 and 2 lines 003434-003443-0214

AIR RECEIVERS:—Have they been made under survey. No. State No. of Report or Certificate. 8102;8117;8092;8094

Is each receiver, which can be isolated, fitted with a safety valve as per Rule. Fusible plug on each receiver. Safety valve on each receiver. Yes. Is a drain fitted at the lowest part of each receiver. Yes.

Injection Air Receivers, No. NONE. Cubic capacity of each. Internal diameter. thickness.

Seamless, lap welded or riveted longitudinal joint. Material. Range of tensile strength. Working pressure. 1 @ 20"x5ft.

Starting Air Receivers, No. Five. Total cubic capacity. 74 cu.ft. Internal diameter. 1 @ 20"x8ft. thickness. 250 ins

Seamless, lap welded or riveted longitudinal joint. welded. Material. steel. Range of tensile strength. 55000 lbs min. Working pressure. 500 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.

PLANS. Are approved plans forwarded herewith for Shafting. 12-4-43. Receivers. See note below. Separate Fuel Tanks. 30-3-43

Donkey Boilers. General Pumping Arrangements. 11-4-44. Pumping Arrangements in Machinery Space. 11-4-44.

Oil Fuel Burning Arrangements.

SPARE GEAR.

Has the spare gear required by the Rules been supplied. YES

State the principal additional spare gear supplied.

The foregoing is a correct description

CLARK SHIP BUILDING COMPANY LIMITED

MELBOURNE, N. S.

Manufacturer.

Dates of Survey while building. During progress of work in shops. Engine not built under Special Survey. During erection on board vessel. 1944--APR. 19; JULY 1, 14, 25; SEPT. 15, 21; OCT. 16, 18, 26; NOV. 2(2); 3, 10, 12, 20, 21. Total No. of visits. 17.

Dates of Examination of principal parts—Cylinders. Covers. Pistons. Rods. Connecting rods.

Crank shaft. Flywheel shaft. Thrust shaft. Intermediate shafts. Tube shaft.

Screw shaft. Propeller. 3-12-43. Stern tube. 23-12-43. Engine seatings. 17-6-44. Engines holding down bolts. 28-6-44.

Completion of fitting sea connections. 4-6-44. Completion of pumping arrangements. 20-9-44. Engines tried under working conditions. 18-10-44.

Crank shaft, Material. Forged Steel. Identification Mark. Flywheel shaft, Material. As crankshaft. Identification Mark.

Thrust shaft, Material. As crankshaft. Identification Mark. Intermediate shafts, Material. Steel. Identification Marks. LLOYD'S 19

Tube shaft, Material. Identification Mark. Screw shaft, Material. Steel. Identification Mark. LLOYD'S 26

Identification Marks on Air Receivers. FORD. PORT: 250 lbs. 8102 RSE 12-3-42::FORD. STBD: 250 lbs. 8117 RSE 12-7

AFTER PORT: " 8092 " 12-3-42::AFTER STBD: " 8098 " 12-3

Large receivers certified by American Navy Dept., all re-tested to 500 lbs. before installation. FORD. (Small) L.R. 1228 T.M. 18-2

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. No. 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. Yes. If so, state name of vessel. "N.M.S. 1053"

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

The machinery of this vessel has not been built under Special Survey but is stated to have

manufactured under the inspection of the American Navy, and supplied to the British Admiralty

under Lend Lease arrangements.

The machinery has been installed on board to comply with the Rules, approved plans and the

British Admiralty Specification, and has been tried under full working conditions and found sat

isfactory. The workmanship and materials used are good and the vessel is eligible in my opinion

to receive the notation L.M.C. (R) 11-44 and T.S. (CL.) 11-44.

The amount of Entry Fee ... \$ 10.00 : When applied for,

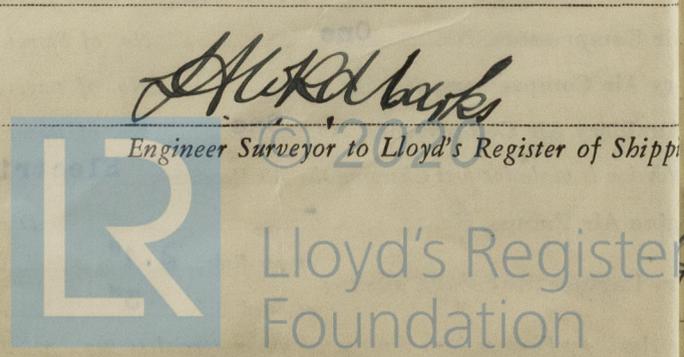
Installation Special Fee ... \$ 140.00 : Dec. 28, 1944

Donkey Boiler Fee ... £ : When received,

Travelling Expenses (if any) \$ 300.00 : 19

Committee's Minute. FEB 9 1945

Assigned LMC(R) 11,44 Oil Eng. C.L.



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