

REPORT ON OIL ENGINE MACHINERY.

metl. Rpt. No. 6987

Received at London Office

5 DEC 1946

Date of writing Report 7th Nov. 1946 When handed in at Local Office 8th Nov. 1946 Port of QUEBEC, P.Q.

No. in Survey held at Quebec, P.Q. Date, First Survey 1st March Last Survey 31st Oct. 1946

Reg. Book. 88367 on the Single Screw vessel M/V "MAYGLEN" (ex "Ottawa Mayglen") Tons { Gross 342.26 Net 117.20

Built at Quebec, P.Q. By whom built St. Lawrence Metal & Marine Works, Inc. No. 67 When built 1946

Engines made at San Francisco, Calif. By whom made Enterprise Eng. Foundry Co Engine No. 42200 When made 1944

Donkey Boilers made at Amherst, N.S. By whom made Robb Engineering Works Ltd Boiler No. B1814/2 When made 1946

Brake Horse Power 500 Owners Mayglen Shipping Co. Port belonging to Montreal

Nom. Horse Power as per Rule 112.3 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

Trade for which Vessel is intended Coastal Trade

OIL ENGINES, &c. Type of Engines Vertical Diesel Engine 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 675 Diameter of cylinders 12" Length of stroke 15" No. of cylinders 8 No. of cranks 8

Mean Indicated Pressure 90 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 12.125" Is there a bearing between each crank Yes

Revolutions per minute 400 Flywheel dia. 33" Weight 1355 Means of ignition Injection Kind of fuel used Diesel

Crank Shaft, Solid forged as per Rule. Crank pin dia. 8" Crank Webs Mid length breadth 13-7/8" Thickness parallel to axis --
Semi cast dia. of journals as fitted 8 1/2" as fitted. Mid length thickness 3-1/8" Thickness around eyehole --
Cast iron as per Rule. as per Rule. as per Rule. as per Rule.

Flywheel Shaft, diameter as fitted -- Intermediate Shafts, diameter as fitted 8" Thrust Shaft, diameter at collars as fitted 7"

Tube Shaft, diameter as fitted -- Screw Shaft, diameter as fitted 6" Is the solid shaft fitted with a continuous liner No.

Bronze Liners, thickness in way of bushes as per Rule. Thickness between bushes as per Rule. 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 --

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 two 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 shaft Yes If so, state type Newark Oil Gland Length of Bearing in Stern Bush next to and supporting propeller 25"

Propeller, dia. 60" Pitch 60" No. of blades Three Material Bronze whether Movable Fixed Total Developed Surface 9 sq. feet

Method of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication Forced Thickness of cylinder liners 51/64 Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with non-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 --

Cooling Water Pumps, No. Two Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

Bilge Pumps worked from the Main Engines, No. One Diameter 1 1/2" Stroke Rotary Can one be overhauled while the other is at work --

Pumps connected to the Main Bilge Line { No. and Size Two x 7 1/2" x 5" x 10"
How driven Steam

Is the 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 --

Ballast Pumps, No. and size One x 7 1/2" x 5" x 10" Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size One x 18 G.P.M.
One x 24 G.P.M.

Are two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pump No. and size:—In Machinery Spaces Four x 2 1/2" In Pump Room --

In Holds, &c. Two x 2" each hold - one x 2" each cofferdam

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size one x 4" - one x 1 1/2"

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes Are the Bilge Suctions in the Machinery Spaces led from easily accessible mud-boxes, placed above the level of the working floor, with straight 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 Valves

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 below

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 --

What pipes pass through the bunkers Heating Coils & Suction Pipes How are they protected --

What pipes pass through the deep tanks Suction Pipes 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 compartment to another Yes Is the Shaft Tunnel watertight -- Is it fitted with a watertight door -- worked from --

If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork -- Belt from Main Eng.

Main Air Compressors, No. One No. of Stages Two Diameters 4 1/2" & 2 1/2" Stroke 3 1/2" Driven by Main Eng.

Auxiliary Air Compressors, No. One Removed 10.50 replaced by No. of Stages Two Diameters 4 1/2" & 1 1/2" Stroke 4" Driven by Steam Engine

Small Auxiliary Air Compressors, No. -- One No. of Stages 2 Diameters 1 1/2" & 1" Stroke -- Driven by Oil Eng.

What provision is made for first Charging the Air Receivers Steam driven auxiliary compressor.

Scavenging Air Pumps, No. -- Diameter -- Stroke -- Driven by --

Auxiliary Engines crank shafts, diameter as per Rule -- as fitted -- Position --

Have the Auxiliary Engines been constructed under special survey -- Is a report sent herewith --

1M 1-45 Printed in U.S.A.



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AIR RECEIVERS:—Have they been made under survey Yes State No. of Report or Certificate Nos. 4728, 4729, 4730.

Is each receiver, which can be isolated, fitted with a safety valve as per Rule. Yes

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

Injection 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. Three Total cubic capacity 56.5 cu. ft. Internal diameter 22" thickness Shell 5/16" Head 13/32"

Seamless, lap welded or riveted longitudinal joint Welded Material O.H. Steel Range of tensile strength 28.1 Working pressure by Rules Actual 250

IS A DONKEY BOILER FITTED? Yes If so, is a report now forwarded? Yes

Is the donkey boiler intended to be used for domestic purposes only. No - Auxiliary Machinery Steam Driven

PLANS. Are approved plans forwarded herewith for Shafting 18-3-46 New York Receivers. -- Separate Fuel Tanks. --

Donkey Boilers. -- General Pumping Arrangements. -- Pumping Arrangements in Machinery Space 1-2-46 New York

Oil Fuel Burning Arrangements. --

SPARE GEAR.

Has the spare gear required by the Rules been supplied Coastal Service.

State the principal additional spare gear supplied

The foregoing is a correct description

Audie Seaman Manufacturer.

Dates of Survey while building During progress of work in shops - - During erection on board vessel - - Total No. of visits 1st March to 31st October, 1946. Continuous Attendance

Dates of Examination of principal parts—Cylinders -- Covers -- Pistons -- Rods -- Connecting rods 7/8/44 31/8/44 5/9/46

Crank shaft 21/2/44 Flywheel shaft Lloyd's 346 Thrust shaft -- Intermediate shafts 17/4/46 Tube shaft --

Screw shaft 16/8/45 Propeller WEM 20/6/45 Stern tube 30/10/45 TOME Engine seatings 11/3/46 Engines holding down bolts 1/8/46

Completion of fitting sea connections 17/6/46 Completion of pumping arrangements 30/10/46 Engines tried under working conditions 31/10/46

Crank shaft, Material Steel Identification Mark 21/2/44 Flywheel shaft, Material -- Identification Mark --

Thrust shaft, Material Steel Identification Mark 11-H 75361 Intermediate shafts, Material O.H. Steel Identification Marks L.R. 4718

Tube shaft, Material -- Identification Mark -- Screw shaft, Material O.H. Steel Identification Mark L.R. A-102

Identification Marks on Air Receivers. B1889J - 4728; B1889K - 4729; B1889L - 4730 all 9/8/46 T.O.M.

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 Not desired.

Is this machinery duplicate of a previous case Yes If so, state name of vessel "MAYMERE" (ex "Ottawa Maymere")

General Remarks (State quality of workmanship, opinions as to class, &c. The Forgings for this Engine have been made and tested by the Surveyors to the American Bureau of Shipping (Copies of Certificates attached) and the completed engine shop tested by the United States Navy Surveyor (Copy of Certificate attached). This Main Engine has now been installed aboard this vessel opened up, examined, tested and closed in good order. The Machinery has been tried out under full working conditions and found satisfactory. The workmanship and materials are good and sound. The Boiler Safety Valves have been adjusted under steam, tested for accumulation and thickness of washers noted. It is recommended for the favourable consideration of the Committee that this Vessel be classed in the Society's Register Book L.M.C. 10,46 and have notations T.S. (O.G.) and D.B. fitted for oil fuel 10,46 F.P. above 150° F.

The amount of Entry Fee ... \$ 10.00 : When applied for, Special ... \$ 200.00 : 200.00-1946 Donkey Boiler Fee ... \$: 00 : When received, Travelling Expenses (if any) \$ 20.00 : 19.

D. Subit Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute Assigned LMC 10,46 Oil Eng. E made '44 fitted '46 DBS/10,46 S (OG) 10,46 WTDB 20076.

