

REPORT ON OIL ENGINE MACHINERY.

No. 1198

10 MAR 1947

Received at London Office

Reporting Report Jan. 30th, 1947 When handed in at Local Office 1947 Port of Cleveland, Ohio.

Survey held at Milwaukee, Wis. Date, First Survey Dec. 3rd Last Survey Dec. 3rd, 1946.

Number of Visits 1

3/8" on the Twin Triple Quadruple } Screw vessel Tons { Gross - Net -

By whom built - Yard No. - When built -

Milwaukee, Wis. By whom made Nordberg Mfg. Co. Engine No. 10-044-045- When made 1946

Boilers made at - By whom made - Boiler No. - When made -

Horse Power 8 Owners Clayton Construction Co., St. Johns, Newfoundland. Port belonging to -

Horse Power as per Rule - Is Refrigerating Machinery fitted for cargo purposes - Is Electric Light fitted -

for which Vessel is intended -

ENGINES, &c. Type of Engines (3) Lister-Blackstone Diesel 2 or 4 stroke cycle 4 Single or double acting S

Working pressure in cylinders 750 lbs. Auxiliary. Diameter of cylinders 4-1/2" Length of stroke 4-3/8" No. of cylinders 1 No. of cranks 1

Indicated Pressure 80 lbs.

Bearings, adjacent to the Crank, measured from inner edge to inner edge 4.867" Is there a bearing between each crank Yes

Revolutions per minute 1200 Flywheel dia. 23" Weight - Means of ignition Solid Inj. Kind of fuel used Heavy Oil

Material { Solid forged as per Rule - Crank pin dia. 2.748" Crank Webs Mid length breadth 3-1/2" Thickness parallel to axis -

Material { Solid forged as fitted 2.373" Crank pin dia. 2.748" Crank Webs Mid length thickness 1-1/4" Thickness around eye-hole -

Propeller Shaft, diameter as per Rule - Intermediate Shafts, diameter as per Rule - Thrust Shaft, diameter at collars as per Rule -

Propeller Shaft, diameter as fitted - Intermediate Shafts, diameter as fitted - Thrust Shaft, diameter at collars as fitted -

Shaft, diameter as per Rule - Screw Shaft, diameter as per Rule - Is the { tube } shaft fitted with a continuous liner { screw }

Shaft, diameter as fitted - Screw Shaft, diameter as fitted - Is the { tube } shaft fitted with a continuous liner { screw }

Cylinder 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 stern boss -

Cylinder Liners, thickness in way of bushes as fitted - Thickness between bushes as fitted - Is the after end of the liner made watertight in the stern boss -

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 the 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 -

Propeller, dia. - Pitch - No. of blades - Material - whether Moveable - Total Developed Surface - sq. feet

Method of reversing Engines - Is a governor or other arrangement fitted to prevent racing of the engine when declutched - Means of lubrication

Thickness of cylinder liners 1/4" Are the cylinders fitted with safety valves No Are the exhaust pipes and silencers water cooled or lagged with insulating material -

If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine -

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

Pumps worked from the Main Engines, No. - Diameter - Stroke - Can one be overhauled while the other is at work -

Pumps connected to the Main Bilge Line { No. and Size - How driven -

cooling water led to the bilges - If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping arrangements -

Oil Pumps, No. and size - Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size -

Independent means arranged for circulating water through the Oil Cooler - Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size: - In Machinery Spaces - In Pump Room -

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size -

Are the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes - Are the Bilge Suctions in the Machinery Spaces

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 -

Sea Connections fitted direct on the skin of the ship - Are they fitted with Valves or Cocks -

Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates - Are the Overboard Discharges above or below the deep water line -

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel - Are the Blow Off Cocks fitted with a spigot and brass covering plate -

How are they protected -

Have they been tested as per Rule -

Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times -

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 - Is the Shaft Tunnel watertight - Is it fitted with a watertight door - worked from -

On a good vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork -

Air Compressors, No. - No. of Stages - Diameters - Stroke - Driven by -

Auxiliary Air Compressors, No. - No. of stages - Diameters - Stroke - Driven by -

Auxiliary Air Compressors, No. - No. of stages - Diameters - Stroke - Driven by -

Provision is made for first Charging the Air Receivers -

Engines crank shafts, diameter as per Rule - No. - Position -

Engines crank shafts, diameter as fitted - No. - Position -

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

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AIR RECEIVERS:—Have they been made under survey. State No. of Report or Certificate.

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

Is a drain fitted at the lowest part of each receiver

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 Actual

Starting Air Receivers, No. Total cubic capacity Internal diameter thickness

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

IS A DONKEY BOILER FITTED?

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 Receivers Separate Fuel Tanks

Donkey Boilers General Pumping Arrangements Pumping Arrangements in Machinery Space

Oil Fuel Burning Arrangements

SPARE GEAR

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

The foregoing is a correct description

Manufacturer.

Dates of Survey During progress of work in shops on building

Dates of Examination of principal parts—Cylinders 12/3/46 Covers 12/3/46 Pistons 12/3/46 Rods - Connecting rods 12/3/46 Crank shaft 12/3/46 Flywheel shaft - Thrust shaft - Intermediate shafts - Tube shaft - Propeller - Stern tube - Engine seatings - Engines holding down bolts - Completion of pumping arrangements - Engines tried under working conditions - Identification Mark 23-2502 Flywheel shaft, Material - Identification Mark - Intermediate shafts, Material - Identification Marks - Screw shaft, Material - Identification Mark -

Is the flash point of the oil to be used over 150° F. Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with 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 If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. The above mentioned engines comply with the Society's Rules and the manufacturer's approved plans. Brake horse power tests were witnessed of the engines operating under full and intermediate loads and the water jackets were tested to 60 hydrostatic pressure per square inch. On completion of tests the engines were opened up and inspected. The materials and workmanship were found free from visible defects and the test results were satisfactory.

Lister-Blackstone Inc., engines are built by the Nordberg Mfg. Co., on a mass-production line and the crank shafts and connecting rods are purchased in quantities. Affidavits of test results of crank shaft and connecting rod material is attached hereto. The brinell hardness of the forgings used in the engines now inspected was checked and found satisfactory.

The amount of Entry Fee ... £ \$ 75.00 : Special ... £ : Donkey Boiler Fee ... £ : Travelling Expenses (if any) £ \$ 34.50 : When applied for, 1/6/ 1947 When received, 1/27/ 1947

Committee's Minute NEW YORK FEB 11 1947

Assigned Transmit to London

J. Breewood Engineer Surveyor to Lloyd's Register of Shipping



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

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