

REPORT ON OIL ENGINE MACHINERY.

No. 508

Received at London Office
 of writing Report 19 March 30 When handed in at Local Office 10 Port of Cleveland, Ohio
 in Survey held at Cleveland, Ohio Date, First Survey Feb 14-30 Last Survey March 13 1930
 Book. Number of Visits 7
 on the Single Screw vessel L.T.C. No 1 Tons Gross 548
Triple Net 321
 at Fore River, Quincy Mass By whom built Bethlehem S. B. Co. Yard No. 1436 When built 1930
3733
 lines made at Cleveland By whom made Winton Engine Co. Engine No. 724 When made 1930
 by Boilers made at Cleveland By whom made Winton Engine Co. Boiler No. ✓ When made ✓
 Horse Power 325 (Each) Owners LAKE TANKERS CORP. Port belonging to WILMINGTON DEL
 Horse Power as per Rule 142 Is Refrigerating Machinery fitted for cargo purposes NO Is Electric Light fitted YES
 for which vessel is intended INLAND WATERS

ENGINES, &c.—Type of Engines Winton Diesel Port & Starb. 2 or 4 stroke cycle 4 Single or double acting 5
 main pressure in cylinders 645 lbs. Diameter of cylinders 11" Length of stroke 15" No. of cylinders 6/120 No. of cranks 6/120
 of bearings, adjacent to the Crank, measured from inner edge to inner edge 13 1/2" Is there a bearing between each crank Yes
 revolutions per minute 375 Flywheel dia. 60" Weight 5360 lbs. Means of ignition Solid inj. Kind of fuel used Diesel oil
 Shaft, dia. of journals as per Rule 6.32" Crank pin dia. 7" Crank Webs Mid. length breadth 9 3/8" Thickness parallel to axis shrunk
 as fitted 7" Mid. length thickness 3 7/8" Thickness around eye hole
 Propeller Shaft, diameter as per Rule 6.32" Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as per Rule
 as fitted 7" as fitted as fitted as fitted
 Shaft, diameter as per Rule Screw Shaft, diameter as per Rule Is the tube shaft fitted with a continuous liner ✓
 as fitted as fitted as fitted
 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
 as fitted as fitted as fitted
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner
 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 ✓
 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 Movable Total Developed Surface sq. feet
 Method of reversing Engines Elect. drive Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication
 Thickness of cylinder liners 3/4" 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. 1 - 106 S.P.M. Is the sea suction provided with an efficient strainer which can be cleared within the vessel YES
2 cyl. S.A. type
 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 ONE 2 1/2" ROTARY / ONE 3" ROTARY
How driven ELECTRIC MOTOR
 Suction Pumps, No. and size ✓ Lubricating Oil Pumps, including Spare Pump, No. and size 1 - 26.5 S.P.M.
2 cyl. S.A. type
 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" DIAM. In Pump Room ONE 2 1/2"
(Tanker)
 Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size ONE 2 1/2"
 All the Bilge Suction pipes in Holds and Tunnel Well 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 YES
 All Sea Connections fitted direct on the skin of the ship YES Are they fitted with Valves or Cocks VALVES
 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 scaler line ABOVE
 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 ✓
 Pipes pass through the bunkers NONE How are they protected ✓
 Pipes pass through the deep tanks ✓ Have they been tested as per Rule ✓
 All Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times YES
 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 ✓
 Avoid 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. 1 No. of stages TWO Diameters 3 1/4-4" Stroke 4" Driven by MOTOR
 Auxiliary Air Compressors, No. 1 No. of stages TWO Diameters 2 1/2-3 1/8" Stroke 3" Driven by GASOLINE ENG.
 Suctioning Air Pumps, No. Diameter Stroke Driven by
 Many Engines crank shafts, diameter as per Rule SEE ATTACHED REPORT. as fitted

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule YES
 The internal surfaces of the receivers be examined and cleaned CLEANED Is a drain fitted at the lowest part of each receiver YES
 Pressure Air Receivers, No. ✓ Cubic capacity of each Internal diameter Thickness
 Base, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure
4000 36 cuft. 16" 3/8"
 Suctioning Air Receivers, No. 4000 Total cubic capacity 36 cuft. Internal diameter 16" Thickness 3/8"
 Base, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure
4000 36 cuft. 16" 3/8"

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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 (If not, state date of approval) ☒

Receivers ☒

Separate Tanks ☒

Donkey Boilers ☒

General Pumping Arrangements ☒

Oil Fuel Burning Arrangements ☒

SPARE GEAR.

Has the spare gear required by the Rules been supplied? ☒

State the principal additional spare gear supplied

1-CYL. COVER COMPLETE WITH VALVES ETC.

1-PISTON COMPLETE WITH RIM

1-SET OF SKEW WHEELS. 1-SET OF BOLTS FOR ENGINES BEARINGS.

The foregoing is a correct description.

S. Walters Winton Engine Co. Manufacturers.

Dates of Survey while building { During progress of work in shops-- 1930 Feb 14 24 25 26 27 28 March 5 11 13
During erection on board vessel-- 1930 APRIL 17-22-24-29 MAY 6-14-15-20-23-28.
Total No. of visits 19

Dates of Examination of principal parts--Cylinders March 5 Covers March 5 Pistons Feb 14 to Feb 14 Rods Feb 14 Connecting rods Feb 14

Crank shaft Feb 14 Flywheel shaft Thrust shaft Intermediate shafts Tube shaft

Screw shaft Propeller Stern tube Engine seatings Engines holding down bolts 6-5-30

Completion of fitting sea connections Completion of pumping arrangements Engines tried under working conditions 28-5-30

Crank shaft, Material OH. Steel Identification Mark Lloyd's 2075 & 2082 Flywheel shaft, Material Identification Mark

Thrust shaft, Material Identification Mark Intermediate shafts, Material Identification Marks

Tube shaft, Material Identification Mark Screw shaft, Material Identification Mark

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 (Port & Starboard) have been built under Special Survey, & on completion were tested under full & intermediate loads in the Shop. The materials & workmanship were found to be sound & efficient when the engines have been fitted on board the vessel & tried out, to the satisfaction of the Society's Surveyors. She will, in my opinion, be eligible for record in LMC (with date) in the Register Book. (The engines are intended to be used in connection with the electric system of propulsion. Attached hereto is copy of crank shaft drawing, & forging reports nos. 2075 & 2082 also copies of certificates for air received (see charges as per agreement with Winton Eng Co. Request No. 194)

The amount of Entry Fee ... £ : : When applied for, ... 19.
Special ... £ : :
Donkey Boiler Fee ... £ : : When received, ... 10-11-30
Travelling Expenses (if any) \$ 5 : 00 : 10-11-30

Committee's Minute. NEW YORK JUN 18 1930

Assigned + LMC 5-30

Note 2 Oil Engines connected to Elec. Motor & Sc. Shaft

Engineer Surveyor to Lloyd's Register of Shipping.
THESE ENGINES HAVE BEEN FITTED ON BOARD. QUALITY OF WORKMANSHIP & MATERIALS IS GOOD. THEY HAVE BEEN EXAMINED UNDER WORKING CONDITIONS & FOUND SATISFACTORY AND IN THE OPINION OF THE UNDERSIGNED ELIGIBLE TO ELECT. MOTOR & SCREW SHAFT.

B. Sewell Lloyd's Register of Shipping
Foundation