

REPORT ON OIL ENGINE MACHINERY.

No. 49000

Received at London Office 2-APR 1949

Writing Report... 19... When handed in at Local Office... 19... Port of NEW YORK, N.Y.

Survey held at BROOKLYN N.Y. Date, First Survey 11th Oct 48 Last Survey 26th FEB 1949 Number of Visits 3

Look. Single on the Twin Triple Quadruple Screw vessel M.V. LUCIA Ex LST No 319 Tons { Gross Net

at PHILADELPHIA By whom built PHILADELPHIA NAVY YARD Yard No. When built 1943-4

was made at LA GRANGE ILL By whom made GENERAL MOTOR CORP Engine No. S.N 95 When made 1942-3

Boilers made at MILWAUKEE WISC By whom made CLEAVER-BROOKS Co Boiler No. NB 8376 When made 1942-8

Horse Power 1800 Owners SHELL CARIBBEAN PETROLEUM CO Port belonging to MARACAIBO

Horse Power as per Rule 305 MN 316 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted YES

for which Vessel is intended PETROLEUM IN BULK (CURACAO-MARACAIBO-CARIBBEAN SEA)

ENGINES, &c.—Type of Engines V-TYPE VERTICAL DIESEL 12-567 ATL 2 or 4 stroke cycle 2 Single or double acting SINGLE

Maximum pressure in cylinders Diameter of cylinders 8 1/2" Length of stroke 10" No. of cylinders 12 EACH No. of cranks 6

Indicated Pressure Cyls No. 1-2-5+6 (P+S) 12 1/8" Is there a bearing between each crank YES

of bearings, adjacent to the Crank, measured from inner edge to inner edge 3+4 (P+S) 13 1/6"

Revolutions per minute 744 Clutch Flywheel dia. 35" Weight 684 LBS Means of ignition COMPRESSION Kind of fuel used DIESEL

Material of journals as per Rule Crank pin dia. 6 1/2" Crank Webs Mid length breadth 10" Thickness parallel to axis

Material of shafts as fitted 7 1/2" Crank pin dia. 6 1/2" Crank Webs Mid length thickness 2 1/6" Thickness around eyehole

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

Shaft, diameter as fitted Screw Shaft, diameter as per Rule Is the tube shaft fitted with a continuous liner as fitted No

Propeller 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 tube YES

Propeller boss If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

When 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

When 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

Propeller, dia. 7'-0" Pitch 4-583' No. of blades FOUR Material BRONZE whether Moveable SOLID Total Developed Surface 16.85 sq. feet

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

Thickness of cylinder liners 3/8" Are the cylinders fitted with safety valves No Are the exhaust pipes and silencers water-cooled or lagged with

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

Number of Water Pumps, No. ONE FW 250 GPM EACH ONE SW CENT. FUCL Is the sea suction provided with an efficient strainer which can be cleared within the vessel YES

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

Pumps connected to the Main Bilge Line { No. and Size TWO 250 GPM, TWO 1500 GPM AND ONE 90 GPM; TWO 1750 GPM How driven ELECTRIC MOTORS; TWO 175 BHP DIESEL UNITS

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

Pumps, No. and size TWO 1500 GPM ELE Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size THREE SERVICE 20 GPM ONE TRANSFER EACH

Independent means arranged for circulating water through the Oil Cooler YES Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

No. and size:—In Machinery Spaces ER, TWO 3", SPACES P+S TWO 2", TUNNELS FOUR 2", ALL TO 3" RANGE In Pump Room THREE 2" DIA.

Tanks, &c. TANKS CENTER NOS 1 TO 7 + WINGS NOS 1 TO 5 (P+S) ONE 10" EACH; WINGS NOS 6 + 7 (P+S) ONE 6" EACH; BALLAST TANK ONE 6"; FORE PEAK ONE 4"; CHAIN LOCKERS (P+S) TWO 2"; COFFER DAMS AFT (P+S) TWO 2"; VOID SPACES FORD ONE 2" AND AFT ONE 2"; 2ND DECK (AFT) SIX 2" HATS.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size TWO, 4 DIA

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

Are the Bilge Suctions easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges YES

Sea Connections fitted direct on the skin of the ship NO, ON BOXES OR SPOOLS 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 YES

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 STEEL covering plate YES

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 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 YES Is it fitted with a watertight door No worked from

When the vessel is under way, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

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

Primary Air Compressors, No. TWO No. of Stages TWO Diameters 2 1/2" & 4" Stroke 3" Driven by ELE MOTORS

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

Provision is made for first Charging the Air Receivers MAIN + AUXILIARY ENGINES, ELECTRIC STARTING MOTORS WITH BATTERY SETS FITTED

Number of Charging Air Pumps, No. TWO, EACH ENGINE Diameter Stroke Driven by ME GEAR

Number of Auxiliary Engines crank shafts, diameter as per Rule No. TWO, HEAVY OIL UNITS 150 BHP EACH

Position of Auxiliary Engines MAIN BEARINGS 4 1/2"; CRANK PINS 3 1/2" DIA Position AUXILIARY MACHY ROOM, DIRECTLY ABOVE MAIN ER.

Auxiliary Engines been constructed under special survey U.S. NAVY + ABS Is a report sent herewith YES

AIR RECEIVERS:—Have they been made under survey. ABS & LR State No. of Report or Certificate LR C-6361

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. No Is a drain fitted at the lowest part of each receiver. YES

CLUTCH PRESSURE Injection Air Receivers, No. TWO Cubic capacity of each. 5 CF ^{OUTSIDE} Internal diameter. 16" thickness. ✓

Seamless, lap welded or riveted longitudinal joint. WELDED Material. OH STEEL Range of tensile strength. 55000 PSI Min Working pressure. ✓ by Rules. 15 Actual.

PUMPING ENGINES Starting Air Receivers, No. ONE Total cubic capacity. 10 1/2 CF Internal diameter. 20" thickness. .250 by Rules. ✓ Actual. 25

Seamless, lap welded or riveted longitudinal joint. WELDED Material. OH STEEL Range of tensile strength. 55000 PSI Min Working pressure. ✓ by Rules. 25 Actual.

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. YES

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

(If not, state date of approval)

Donkey Boilers. YES 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. ✓

The foregoing is a correct description

Manufacturer.

Dates of Survey while building: During progress of work in shops - - ✓; During erection on board vessel - - ✓; Total No. of visits. ✓

Dates of Examination of principal parts—Cylinders 27.10.48 Covers 27.10.48 Pistons 27.10.48 Rods. ✓ Connecting rods 27.10.48

Crank shaft. 18.11.48 Flywheel shaft. ✓ Thrust shaft. 18.11.48 Intermediate shafts. 17.1.49 Tube shaft. ✓

Screw shaft. 17.1.49 Propeller. ✓ Stern tube. 17.1.49 Engine seatings. 18.11.48 Engines holding down bolts. 18.11.48

Completion of fitting sea connections. ✓ Completion of pumping arrangements. 10.2.49 Engines tried under working conditions. 19.2.49

Crank shaft, Material. OH STEEL Identification Mark. S. D 5130 HT124190 Flywheel shaft, Material. ✓ Identification Mark. ✓

Thrust shaft, Material. OH STEEL Identification Mark. ✓ Intermediate shafts, Material. OH STEEL Identification Marks. ✓

Tube shaft, Material. ✓ Identification Mark. ✓ Screw shaft, Material. OH STEEL Identification Mark. B. LR 3990

Identification Marks on Air Receivers. SPARE LR 4034 MSK

FOR PUMPING ENGINE LR 3199 GN 11-16-48 TP500 WP 250

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. TANKER 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. M.V. LUISA

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this vessel was constructed under the supervision & to the requirements of the American Bureau of Shipping & U.S. Navy, the condition & standard of workmanship are considered good & satisfactory.

The main & auxiliary machinery of this vessel has been examined throughout & placed in good condition (see Rpt 9). The machinery has been subjected to full speed sea trials & found satisfactory, all governors tried out.

The machinery of this vessel is eligible, in our opinion, to be classed with the Society, with a record of LMC 2.49 & the notation Tailshaft (P+S) new 1-49 & DBS 1-

The amount of Entry Fee ... £ : : When applied for, Special ... £ : : 19 Donkey Boiler Fee ... £ : : When received, Travelling Expenses (if any) £ : : 19

Bloomfield for M.S. Keller & self Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute NEW YORK MAR 16 1949 APP

Assigned LMC-2,49



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