

4b.

REPORT ON OIL ENGINE MACHINERY.

No. 49001

Received at London Office 2- APR 1949

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

Survey held at BROOKLYN, NY. Date, First Survey 14TH SEPT 48 Last Survey 16TH FEB 1949

Book. Single on the Twin Triple Quadruple Screw vessel M.V. LEONA EX LST NO 180 Number of Visits 3 Tons { Gross - Net -

at EVANSTON ILL By whom built MISSOURI VALLEY BRIDGE & IRON WORKS Yard No. 40 When built 1943-

Engines made at LA GRANGE ILL By whom made ELECTRO MOTIVE CORP DIVISION OF GENERAL MOTORS CORP P. N. 588 Engine No. S. N. 577 When made 1943-3

Boilers made at MILWAUKEE WISC By whom made GLEAVER-BROOKS CO Boiler No. NB 2784 When made 1942-

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

Horse Power as per Rule 305 MN 31b 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 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 - CYLINDERS 1-2, 5+6 (P+S) 12 3/8" No. of bearings, adjacent to the Crank, measured from inner edge to inner edge 3+4 (P+S) 13 1/8" Is there a bearing between each crank YES

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

Material of crankshaft Solid forged dia. of journals as per Rule - as fitted 7 1/2" Crank pin dia. 6 1/2" Crank Webs Mid length breadth 10" Thickness parallel to axis -

Intermediate Shafts, diameter as per Rule - as fitted 5 3/4" Thrust Shaft, diameter at collars as per Rule - as fitted -

Propeller Shaft, diameter as per Rule - as fitted - Is the tube shaft fitted with a continuous liner NO

Screw Shaft, diameter as per Rule - as fitted 6 1/8" Is the screw shaft fitted with a continuous liner NO

Liner thickness in way of bushes as per Rule - as fitted - Thickness between bushes as per Rule - as fitted - Is the after end of the liner made watertight in the stern tube YES

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 -

NO If so, state type - Length of Bearing in Stern Bush next to and supporting propeller 2-8 1/2"

Propeller, dia. 7'-0" Pitch A-583' No. of blades FOUR Material BRONZE whether Moveable SOLID Total Developed Surface 16.55 sq. feet

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

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 conducting 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 ONE FW 350 GPM EACH ONE SW CENTRIFUGAL

Is the sea suction provided with an efficient strainer which can be cleared within the vessel YES

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

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

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 -

Auxiliary 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

Are 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 ER TWO 3"; SPACES P+S TWO 2"; TUNNELS FOUR 2"; ALL TO 3" RANGE In Pump Room THREE 2" DIA

Tanks, &c. TANKS CENTERNOS 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"; CHAMLOCKERS (P+S) TWO 2"; COFFERDAMS (AFT) P+S TWO 2"; VOID SPACES FORD ONE 3" 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 all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes YES 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 YES

Are 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 brass covering plate YES

Do pipes pass through the bunkers - How are they protected -

Do pipes pass through the deep tanks - Have they been tested as per Rule -

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

Is 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 -

Are food vessels, 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 -

Auxiliary 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 -

Is provision made for first Charging the Air Receivers MAIN & AUXILIARY ENGINES, ELECTRIC STARTING MOTORS WITH BATTERY SETS FITTED

Are charging Air Pumps, No. TWO, EACH ENGINE Diameter POSITIVE DISPLACEMENT Stroke 1830 C.F.M. Driven by ME GEARS

Are Auxiliary Engines crank shafts, diameter as per Rule - as fitted MAIN BEARINGS 4 1/2"; CRANK PINS 3 1/2" DIA Position AUXILIARY MACHY ROOM, DIRECTLY ABOVE MAIN EN

Have the 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-6357

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 CF Outside diameter 16" thickness

Seamless, lap welded or riveted longitudinal joint WELDED Material OH STEEL Range of tensile strength 55000PSI Min Working pressure by Rules Actual 150

PUMPING ENGINES Starting Air Receivers, No. ONE Total cubic capacity 10 1/2 CF Internal diameter 20" thickness 2.50"

Seamless, lap welded or riveted longitudinal joint WELDED Material OH STEEL Range of tensile strength 55000PSI Min 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 YES

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

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 22-9-48 Covers 22-9-48 Pistons 22-9-48 Rods Connecting rods 22-

Crank shaft 22-11-48 Flywheel shaft Thrust shaft 22-11-48 Intermediate shafts 2-1-49 Tube shaft

Screw shaft 2-1-49 Propeller Stern tube 2-1-49 Engine seatings 22-11-48 Engines holding down bolts 22-11-

Completion of fitting sea connections Completion of pumping arrangements 3-2-49 Engines tried under working conditions 12-2-

Crank shaft, Material OH STEEL Identification Marks 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 Marks

Identification Marks on Air Receivers FOR PUMPING ENGINE LR 3195 GN 11-16-48 TP 500 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 MV LULSA

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 through & placed in good condition (see Rpt of), the machinery has been subjected to full speed sea trial & found satisfactory. all governors tried out

The machinery of this vessel is eligible in our opinion to be classed with Society with a record of LMC 2-49 & the notation Dashed shafts (P+S) new 1-49, DBS 12-48

The amount of Entry Fee ... £ ... Special ... £ ... Donkey Boiler Fee ... £ ... Travelling Expenses (if any) £ ...

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

Committee's Minute NEW YORK MAR 16 1949 Assigned LMC-2, 49

