

# REPORT ON OIL ENGINE MACHINERY

No. 48997

Received at London Office

2 APR 1949

When handed in at Local Office

Port of NEW YORK N.Y.

held at BROOKLYN N.Y.

Date, First Survey 9<sup>TH</sup> SEPT 48 Last Survey 7<sup>TH</sup> JAN 1949

Number of Visits 3

Single }  
Twin } Screw vessel M.V. "LINDA" Ex LST No. 200 Tons { Gross 117  
Triple } Net 117

Checked by CA ILL By whom built CHICAGO BRIDGE & IRON WORKS Yard No. 4 When built 1943-2

A GRANGE ILL By whom made ELECTRO MOTIVE CORP DIVISION OF GENERAL MOTORS CORP Engine No. P.N.426 S.N.473 When made 1943-1

Renewed by MILWAUKEE WISC By whom made CLEAVER-BROOKS CO Boiler No. NB6581 When made 1942-6

Owner 1800 SHELL CARIBBEAN PETROLEUM CO Port belonging to MARACAIBO

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

Cargo intended PETROLEUM IN BULK (CURACAO-MARACAIBO-CARIBBEAN SEA)

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

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

Distance from Crank, measured from inner edge to inner edge 3+4 (P+S) 13 1/16" Is there a bearing between each crank YES

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

Journal dia. as per Rule 7 1/2" as fitted 7 1/2" Crank pin dia. 6 1/2" Crank Webs Mid length breadth 10" Thickness parallel to axis 10"

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

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

Thickness in way of bushes as per Rule 1/8" as fitted 1/8" Thickness between bushes as per Rule 1/8" as fitted 1/8" 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 YES

Is the space charged with a plastic material insoluble in water and non-corrosive YES

Is the shaft lapped or protected between the liners YES Is an approved Oil Gland or other appliance fitted at the after end of the tube YES

Length of Bearing in Stern Bush next to and supporting propeller 2'-8 1/2"

Pitch 4.583' No. of blades FOUR Material BRONZE whether Moveable SOLID Total Developed Surface 16.55 sq. feet

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

Are the cylinders fitted with safety valves NO Are the exhaust pipes and silencers water-cooled or lagged with asbestos

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

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

Can one be overhauled while the other is at work YES

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

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

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

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

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

Center Nos 1 to 7, Wing Nos 1 to 5 (P+S) ONE EACH 10" DIA; WING NOS 6 to 7 (P+S) ONE EACH 6" DIA; FORE PEAK ONE 4" DIA; CHAIN LOCKERS (P+S) ONE 2" DIA EACH; COFFERDAMS AFT (P+S) ONE 2" DIA EACH; BALLAST TANK AFT ONE 6" DIA; VOID SPACES FORD ONE 2" DIA; AFT ONE 2"; 2ND DECK (AFT) SIX 2" DIA

Are the Bilge Suctions in the Machinery Spaces fitted with strum-boxes YES Are the Bilge Suctions in the Machinery Spaces fitted with mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges YES

Are they fitted with Valves or Cocks VALVES

Are the Overboard Discharges above or below the deep water line YES

Are the Blow Off Cocks fitted with a spigot and brass covering plate YES

How are they protected VALVE STEEL

Have they been tested as per Rule YES

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

Are the 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 to another YES Is the Shaft Tunnel watertight YES Is it fitted with a watertight door NO worked from YES

What means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork YES

No. of Stages TWO Diameters 2 1/2 + 4" Stroke 3" Driven by ELE MOTORS

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

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

No. TWO HEAVY OIL UNITS 150 BHP EACH

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

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 -

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  
 CLUTCH PRESSURE INJECTION Air Receivers, No. TWO Cubic capacity of each 5 CF Is a drain fitted at the lowest part of each receiver NO  
 Seamless, lap welded or riveted longitudinal joint WELDED Material DH STEEL Range of tensile strength 55000 PSI MIN Working pressure 16" thickness 16"

**PUMPING ENGINES**  
 Starting Air Receivers, No. ONE Total cubic capacity 10 1/2 CF Internal diameter 20" thickness 20"  
 Seamless, lap welded or riveted longitudinal joint WELDED Material DH STEEL Range of tensile strength 55000 PSI MIN Working pressure 20"

**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 NO  
 (If not, state date of approval)  
 Donkey Boilers YES General Pumping Arrangements YES Pumping Arrangements in Machinery Space NO  
 Oil Fuel Burning Arrangements NO

**SPARE GEAR.**

Has the spare gear required by the Rules been supplied YES  
 State the principal additional spare gear supplied NO

The foregoing is a correct description

Manufacturer. \_\_\_\_\_  
 Dates of Survey while building { During progress of work in shops - - NO  
 { During erection on board vessel - - - NO  
 Total No. of visits NO

Dates of Examination of principal parts—Cylinders 19. 11. 48 Covers 19. 11. 48 Pistons 19. 11. 48 Rods ✓ Connecting Rods ✓  
 Crank shaft 24. 11. 48 Flywheel shaft ✓ Thrust shaft 24. 11. 48 Intermediate shafts 3. 12. 48 Tube shaft ✓  
 Screw shaft 5/3 DEC 48 Propeller S 2817 Stern tube 3. 12. 48 Engine seatings 24. 11. 48 Engines holding down ✓  
 Completion of fitting sea connections ✓ Completion of pumping arrangements 30. 12. 48 Engines tried under working condition ✓  
 Crank shaft, Material DH STEEL Identification Marks P D 4595 HT 122575 Flywheel shaft, Material ✓ Identification Mark ✓  
 Thrust shaft, Material DH STEEL Identification Mark ✓ Intermediate shafts, Material DH STEEL Identification Mark ✓  
 Tube shaft, Material ✓ Identification Mark ✓ Screw shaft, Material DH STEEL Identification Mark ✓  
 Identification Marks on Air Receivers Ⓟ ABS 5615-X Ⓢ ABS 5693-X  
 FOR PUMPING ENGINE LR 3197 GN 11. 16. 48 TP 500 WP 250 LBS

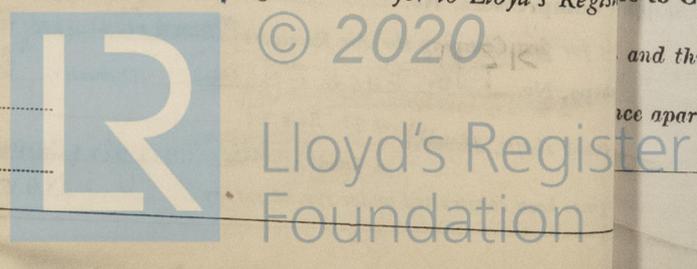
Is the flash point of the oil to be used over 150° F. YES  
 Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with YES  
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo TANKER If so, have the requirements of the Rules been complied with ✓  
 If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with NO  
 Is this machinery duplicate of a previous case YES If so, state name of vessel MV "LUIA"

**General Remarks** (State quality of workmanship, opinions as to class, &c.) The machinery of this vessel was under supervision & to the requirements of the American Bureau of Shipping & U S Navy & standard of workmanship are considered good & satisfactory.  
The main & auxiliary machinery of this vessel has been examined through trials & found satisfactory. all governors tried out.  
The machinery of this vessel is eligible, in our opinion, to be classed Society, with a record of LMC 1. 49 & the notation Dail shafts (P+S) seen 12. 48 &

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

W Bloomfield for M. S. Keller  
 Engineer Surveyor to Lloyd's Register

Committee's Minute NEW YORK MAR 16 1949  
 Assigned LMC-1, 49



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