

REPORT ON OIL ENGINE MACHINERY.

No. 8521

Received at London Office

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Date of writing Report 29th Jan. 1940 When handed in at Local Office 29th Jan. 1940 Port of Hongkong
 No. in Survey held at Hongkong Date, First Survey Oct 23rd 1939 Last Survey 27th Jan. 1940
 Reg. Book. Number of Visits 22

on the Single Twin Triple Quadruple Screw vessel "TROYADOR" Tons Gross 79.00
Net 11.02
 Built at Hongkong By whom built The Hongkong & Whampoa Dockyard Co. Ltd No. 828 When built 1940
 Engines made at Oakland, Calif. By whom made Union Diesel Engine Co. Engine No. 30517 When made 1930
 Donkey Boilers made at None By whom made ✓ Boiler No. ✓ When made ✓
 Brake Horse Power 225 Owners Visayan Stevedore Transportation Co. Inc. Port belonging to Hoilo, P.I.
 Nom. Horse Power as per Rule 65 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted yes
 Trade for which vessel is intended Towing Services in Philippine Islands.

OIL ENGINES, &c.—Type of Engines Solid injection 2 or 4 stroke cycle 4 Single or double acting Single
 Maximum pressure in cylinders 600 lbs. Diameter of cylinders 10 1/2" Length of stroke 15" No. of cylinders 6 No. of cranks 6
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 12 1/2" Is there a bearing between each crank yes
 Revolutions per minute 280 Flywheel dia. 3'-7 1/4" Weight 2250 lbs. Means of ignition Compression Kind of fuel used Diesel oil
 Crank Shaft, dia. of journals as per Rule 6.07" Crank pin dia. 6 3/8" Crank Webs Mid. length breadth 9 1/2" Thickness parallel to axis shrunk Thickness around eye hole ✓
 Flywheel Shaft, diameter as per Rule 6.07" Intermediate Shafts, diameter as fitted 4" Thrust Shaft, diameter at collars as per Rule 4.57"
 Tube Shaft, diameter as fitted 6 1/2" (Crank shaft) as per Rule 4.3" Is the tube shaft fitted with a continuous liner yes
 Screw Shaft, diameter as fitted 4 1/2" Is the screw shaft fitted with a continuous liner yes
 Bronze Liners, thickness in way of bushes as per Rule 4.25" Thickness between bushes as fitted 7/16" Is the after end of the liner made watertight in the propeller boss yes
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner one length
 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 fits tightly
 If two 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 ✓
 shaft No If so, state type ✓ Length of Bearing in Stern Bush next to and supporting propeller 22"
 Propeller, dia. 4'-9" Pitch 4'-23 1/4" No. of blades Four Material Bronze whether Moveable No Total Developed Surface 10.5 sq. feet
 Method of reversing Engines direct Is a governor or other arrangement fitted to prevent racing of the engine when disengaged yes Means of lubrication ✓
 Forced Hand Thickness of cylinder liners 1" Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Water
 Cooling Water Pumps, No. one M.E. & one Auxiliary Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes
 What special arrangements are made for dealing with cooling water if discharged into bilges discharged overboard.
 Bilge Pumps worked from the Main Engines, No. one Diameter 2 1/6" Stroke 2" Can one be overhauled while the other is at work ✓
 Pumps connected to the Main Bilge Line No. and Size one 2 1/6" dia. x 2" Stroke one Vertical 3" dia x 6" Stroke (D.A. pump)
 G.S. How driven Main Engine by 5 H.P. electric motor.
 Ballast Pumps, No. and size 1-3" dia x 6" Stroke Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 1 1/2" x 1 3/4" + one Hand
 Are 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 1-2" dia.
 In Holds, &c. 1-2" in aft hold, 1-2" in fore hold + 1-2" in cofferdam. (1-2" in Forehold + 1-2" in aft hold connected to Hand pump)
 Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1-2" dia. Are the Bilge Suctions in the Machinery Spaces yes
 Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes Are they fitted with Valves or Cocks Valves
 Are all Sea Connections fitted direct on the skin of the ship yes Are the Overboard Discharges above or below the deep water line above
 Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates yes Are the Blow Off Cocks fitted with a spigot and brass covering plate ✓
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel yes How are they protected ✓
 What pipes pass through the bunkers None Have they been tested as per Rule ✓
 What pipes pass through the deep tanks None Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes
 Is the 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 No Tunnel Is it fitted with a watertight door W.T. door in aft bulkhead worked from upper deck to crew space.

If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork ✓
 Main Air Compressors, No. one No. of stages one Diameters 5 7/8" Stroke 5" Driven by Main engine
 Auxiliary Air Compressors, No. one No. of stages Two Diameters 4 1/2" + 1 7/8" Stroke 4 Driven by Lister 15 HP oil engine
 Small Auxiliary Air Compressors, No. ✓ No. of stages ✓ Diameters ✓ Stroke ✓ Driven by hand starting
 Scavenging Air Pumps, No. ✓ Diameter ✓ Stroke ✓ Driven by ✓
 Auxiliary Engines crank shafts, diameter as per Rule 2 3/4" Position Port side of Engine room

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes Is a drain fitted at the lowest part of each receiver yes
 Can the internal surfaces of the receivers be examined and cleaned yes Internal diameter ✓ thickness ✓
 High Pressure Air Receivers, No. None Cubic capacity of each ✓ Range of tensile strength ✓ Working pressure Actual
 Seamless, lap welded or riveted longitudinal joint ✓ Material ✓ thickness 3/8"
 Starting Air Receivers, No. Two Total cubic capacity 50 cub. ft. Internal diameter 24" Working pressure by Rules 287.6 lbs
 Seamless, lap welded or riveted longitudinal joint Riveted Material Steel Range of tensile strength 28 Tons Working pressure Actual 250 lbs.

IS A DONKEY BOILER FITTED? No

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 Shafing Inter + Tail Shafts
(If not, state date of approval) Kobe 16-9-39

Receivers ✓

Separate Tanks ✓

Donkey Boilers ✓

General Pumping Arrangements Kobe 28/6/39, 30/10/39

Oil Fuel Burning Arrangements Kobe 30/10/39

SPARE GEAR.

Has the spare gear required by the Rules been supplied No.

State the principal additional spare gear supplied

No spare gear was forwarded along with the machinery, but the Owner's Representative stated that a complete set of spare gear to Rule requirements is in Manila + will be placed on board on vessel's arrival there. The Manila Surveyor has been notified.

Auxiliaries:- One "Lister" heavy oil engine (hand starting) 15 H.P., driving auxiliary air compressor + 5 H.W. electric generator by belts.
one G.S. Pump driven by 5-H.P. electric motor. (geared)
1- 1 H.W. electric generator driven by belt from main engine.

The foregoing is a correct description.

Heed.

Manufacturer.

1939
Dates of Survey while building { During progress of work in shops - - { Oct. 23, 26, 31, Nov. 13, 14, 16, 24, 25, Dec. 14, 22,
{ During erection on board vessel - - { Dec. 7, 9, 23, 27, 30, 1940 Jan. 2, 5, 6, 10, 11, 16, 27.
Total No. of visits 22

Dates of Examination of principal parts—Cylinders 13-11-39 Covers 13-11-39 Pistons 13-11-39 Rods 13-11-39 Connecting rods 13-11-39

Crank shaft 13-11-39 Flywheel shaft 13-11-39 Thrust shaft 22-12-39 Intermediate shafts 22-12-39 Tube shaft ✓

Screw shaft 22-12-39 Propeller 14-12-39 Stern tube 27-12-39 Engine seatings 4-12-39 Engines holding down bolts 5-1-40.

Completion of fitting sea connections 4-12-39 Completion of pumping arrangements 11-1-40 Engines tried under working conditions 11-1-40 and 27-1-40

Crank shaft, Material ✓ Identification Mark ✓ Flywheel shaft, Material ✓ Identification Mark ✓

Thrust shaft, Material O.H. Steel Identification Mark LLOYD'S N°828 Intermediate shafts, Material (O.H. Steel) LLOYD'S N°828 Identification Marks ✓

Tube shaft, Material ✓ Identification Mark ✓ Screw shaft, Material O.H. Steel Identification Mark LLOYD'S N°828

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 No.

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 "LUSTEVECO"

General Remarks (State quality of workmanship, opinions as to class, &c. This machinery was previously fitted in a wood launch in Manila + was not built under special survey. (See H.T. Letter dated 21st June 1939 + London letter dated 4th July 1939).

All working parts of main + auxiliary machinery, including air receivers, were opened up + examined throughout, water passages tested 50 lbs. hyd. press.; air pipes tested 500 lbs. + air receivers tested 425 lbs. + all found or placed in good condition.

Thrust shaft, intermediate shafts + tail shaft were made here (Forging report enclosed)

This machinery has been satisfactory installed in the vessel in accordance with the Rules + tried under working conditions + it is recommended that the vessel be classed with Lloyd's Machinery Certificate + the record of LMC 1-40, Made 1930, Refitted 1-1940, be made in the Register Book.

Plan of general arrangement of engine room enclosed. Forging report enclosed.

The amount of Entry Fee .. £4 = Rs 65 :

When applied for.

Special ... £14 = Rs 227 :

27th Jan 1940

Installation £10-16-8 = Rs 175 :

When received.

Donkey Boiler Fee ... Rs 10 :

Cablegram ... Rs 50 :

Travelling Expenses (if any) Rs 527-00 :

2/3/1940 (Personal recd 2/3/40)

Committee's Minute

Assigned

LMC, 1-40

NE 30 refitted 1-40

oil Eng. CL

W. S. Morrison

Engineer Surveyor to Lloyd's Register of Shipping.



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