

Report of Survey for Repairs, &c., of Engines and Boilers.

(Received at London Office 2-APR 1949)

Date of writing Report Feb. 17 1949 When handed in at Local Office Feb. 18 1949 Port of NEW YORK
 No. in Survey held at New York Date, First Survey Sept. 14 Last Survey Feb. 16 1949
 Book on the Machinery of the ~~Wood Iron or Steel~~ Tw. Sc. M.V. "LEONA" (Ex L.S.T. 180) (No. of Visits 25)

Vessel built at Evanston, Ind. By whom Missouri Valley Iron Works. Year. Month. When 1943
 Engines made at Cleveland By whom General Motors When 1942
 Boilers, when made (Main) (Donkey)
 Owners Shell Caribbean Petroleum Co. Owners' Address (if not already recorded in Appendix to Register Book.)
 Managers Port Maracaibo Voyage
 If Surveyed Afloat or in Dry Dock Both
 (State name of Dock.) Todd Shipyards Corpn.

Particulars of Classification (which must be inserted precisely as in Register Book & Supplements).

Report No. Port Brooklyn, N.Y.

Particulars of Examination and Repairs (if any)

Periodical Surveys, when held, must be reported in detail and *seriatim* in the terms of the Rules. State clearly the nature and extent of Examinations and subsequent Repairs. Repairs on account of Damage (the cause of which must be stated) should be separated from Repairs due to other causes; and details being detailed in the body of the report, should be briefly summarised at the end of the report. State also the names and initials of any letters respecting this case.

In damage cases where the Surveyor has not made a special damage report he is required to state whether he offered his services for this purpose, and why they were declined.

Has a damage report made by anyone else? If so, by whom? -

Did the Surveyor personally go inside each Main Boiler separately and make a thorough examination at this time? -

Did the Surveyor go inside each Donkey Boiler " " " " Yes

Was a survey not done, state for what reasons? -

What parts of the Boilers could not be thus thoroughly examined? -

What special means, in the absence of internal examination, were adopted by the Surveyor to assure himself of the thorough efficiency of those parts of each Boiler? -

Latest date of internal examination of each boiler Dec. 21, 1948 Present condition of funnel(s) Good

Did the Surveyor examine the Safety Valves of the Main Boiler? - To what pressure were they afterwards adjusted under steam? -

Did the Surveyor examine the Safety Valves of Donkey Boiler? Yes To what pressure were they afterwards adjusted under steam? 50 lbs.

Did the Surveyor examine all the manholes, doors and their fastenings of the Main Boilers? - and of the Donkey Boilers? Yes

Did the Surveyor examine the drain plugs of the Main Boilers? - and of the Donkey Boilers? -

Did the Surveyor examine all the mountings of the Main Boilers? - and of the Donkey Boilers? Yes

Has screw shaft now been drawn and examined? Yes Is it fitted with continuous liner? No Is an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated? -

Has shaft now been changed? Yes If so, state reasons. Shafts pitted in way of bushings.

Has the shaft now fitted been previously used? No Has it a continuous liner? No Is an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated? -

Date of examination of Screw Shaft Jan. 2, 1949 State the distance between lignum vitae or bearing metal of stern bush and top of after bearing of screw shaft. Close

Engine parts, when referred to by numbers, should be counted from forward. Is electric light and/or power fitted? Yes

Did the Surveyor examine the generators, motors, switchgear, cables and fuses? Yes

Has the insulation resistance of the generators, circuits and apparatus been tested and found to be not less than 100,000 ohms? Yes

If the Survey is not complete, state what arrangements have been made for its completion and what remains to be done. Complete.

WORK DONE: Vessel placed in dry dock, propellers, stern bushes, sea valves with their shell fastenings examined and found or now placed in good condition.

Oil shafts without liners renewed (p & s).

Works LLOYDS 3988 11-22-48 M S K

LLOYDS 3989 11-22-48 M S K

NOTE: The stern Tubes contains an inner and outer bushing with white metal bearings. The tubes are fitted with semi fluid grease with an inboard and outboard gland seal.

Machinery Survey for Classification.

Port and Starboard Main Engines: Examined all cylinders, heads and valves, pistons, liners, connecting rods, wrist pins and bushings, crankshaft and bearings, reduction gear, clutches (P.T.O.)

General Observations, Opinion, and Recommendation:— The machinery of this vessel is in good condition and it is recommended for the favorable consideration of the Committee, that the records of L.M.C. 2-49, T.S. (p&s) new 1-49 and D.B.S. 12-48 be assigned in the care of this vessel.

State clearly what alteration, if any, is suggested to be made in the existing classification of the vessel's machinery in the Register Book, consequent upon this survey, and also any alteration required to be made in the records of the vessel's machinery, boilers, working pressures, &c.; thus, for example, B.S. 9,11, B.E.M.S. 9,11, *L.M.C. 9,11, or CS 3,34.

Survey Fee (per Section 29) L.M.C. & \$400.00

Special Damage or Repair Fee (if any) T.S. \$

(per Section 29.) Exps. \$9.00

Printing expenses (if chargeable) Late \$20.00

Fees applied for Mar. 9, 1949 Received by me, 19

M. S. Keller, Bloomfield Engineer Surveyor, Lloyd's Register of Shipping.

NEW YORK MAR 16 1949

Committee's Minute signed L.M.C. - 2, 49

B. (Miller) D. B. S. 2, 49 T.S.N. 1, 49.

Insert Character of Ship and Machinery precisely as in the Register Book

Is a Certificate required? If so, to be sent to



TW. SC. M/V "LEONA" (Ex L.S.T. 180)

Intermediate shafting and bearings, attached lubricating oil, salt and fresh water cooling pumps, fuel pumps, scavenge blowers, electric starters and governors.

Main engine lubricating oil and fresh water coolers.

Generator Engines (2).

The two (2) generator engines were examined over all parts with heads and valves, pistons, liners, connecting rods, wrist pins and bushings, crankshaft and bearings, attached lubricating oil, salt and fresh water cooling pumps, fuel pumps, electric starters, intercoolers, oil filters and governors.

Pumps:

Examined 2 ballast, 2 fire and bilge, lubricating oil transfer and standby, 2 lubricating oil and 2 cooling water pumps for reduction gears, standby for reduction gear, 2 fresh water, hot water circulating boiler feed, fuel oil burner and independent bilge pump for pumproom.

Two (2) stage compressors and 2 air receivers for infalting tires to main engine clutches examined and tested.

Pumping arrangements with valves, pipes and strainers, examined, tested and proven in good working condition.

Spare parts of machinery placed on board to Rule requirements.

Electrical:

All generators and motors removed to shop, armatures removed and baked, commutators skimmed and mica undercut, insulation coated, brushes and holders overhauled, bearings examined and parts renewed as original.

Fittings on switchboards and panels examined and placed in order, insulation resistance on all circuits megger tested.

The 2 generators operated in parallel and separately to Rule requirements, reverse current relays and circuit breakers checked and operated.

Spares equipment supplied to comply with the Rules.

Donkey Boiler:

The donkey boiler was examined over all parts with mountings, safety valves, fresh water feed pump and oil burning equipment.

Safety valves adjusted under steam to 50 lbs.

NOTE: This boiler used for domestic purposes only.

CONVERSION.:

Two generator engines, donkey boiler and switchboard relocated in the auxiliary engine room on the 3rd deck as shown on plans.

New exhaust lines from all engines extend to stack properly secured, lagged for entire length, and equipped with silencers.

The 2 ballast pumps relocated as follows:

One installed in the Starboard shaft alley complete with foundation, wiring and piping.

Pump connected to sea, engine room, shaft alley bilges and ballast tank.

One pump installed in the forward pumproom connected to sea, fore peak, pumproom bilges, forward cofferdam and ballast tanks Nos. 6 and 7.

Cargo Pumps and Engines:

Two new cargo pumps installed in the main pumproom (p&s) driven by two 6 cylinder diesel

engines located in the auxiliary engine room, drive shaft extending through the pumproom bulkhead and clutch connected.

Pumps and Engines: Fairbanks Morse Co.

Type 31A 6 1/4 - H.P. 175 RPM 720 - 6 1/4" x 9"

Cargo pumps 6 stages centrifugal.

Gear Drive J

Starting air tanks for pumping engines, (for four vessels), Pressed Steel Tank Co., Milwaukee Wis. LLOYD'S Nos. 3195, 3196, 3197 and 3199 G.N.

Test 500 lbs. W.P. 250 lbs. 11-16-48.

Repairs Main Engines (2).

12 Crank pin bearings, 4 main bearings renewed.

All valve seats machined and valves ground in.

Governors, electric starters, attached lubricating oil pumps, salt water and fresh water cooling pumps removed to shop and overhauled, and renewed worn or defective parts.

Scavenge blowers removed to shop, cleaned and end seals renewed.

Clutch assemblies and reduction gears opened, checked and tested.

Engine run for dock and sea trials and proven in good working condition.

Generator Engines (2)

Renewed 6 wrist pin bushings, one cylinder liner and 2 lubricating oil coolers.

Engines removed to shop and completely overhauled.

Crankshafts checked in lathe and pins polished.

Intercoolers, water jackets, heads and exhaust manifolds chemically cleaned.

Bosch fuel pumps overhauled by the Makers.

Attached pumps overhauled and parts renewed as required. All valves reseated.

Engines run in shop, after installing in place and tests carried out to Rule requirements.

Pumps: Motor driven fire and bilge (2), reduction lubricating oil (2) and salt water cooling (2), standby for reduction gears, ballast (2), fresh water (2), fuel oil transfer and boiler feed pump removed to shop and completely overhauled renewing worn and defective parts.

All pumps tested under working conditions.

Outer bushings in stern tubes renewed with bronze bushings lined with white metal.

A spare Tail Shaft placed on board.

Marks: LLOYDS 4034 12-9-48 M.S.K.

The vessel is equipped with two spare bronze propellers. Original Navy equipment.

M. S. K.



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