

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 3 JUL 1947

Date of writing Report 16th May, 1947 When handed in at Local Office 27th May 1947 Port of Baltimore, Maryland

No. in Survey held at Baltimore, Maryland Date, First Survey March 4th, Last Survey March 20th, 1947

Reg. Book 71601 on the S.S. "DAULTON MANN" (Number of Visits 12)

Tons { Gross 7176 Net 4380

Built at Richmond, California By whom built Permanente Metals Corporation Yard No. 2136 When built 1944

Engines made at Portland, Oregon By whom made Willamette Iron & Steel Corp Engine No. 176 When made 1944

Boilers made at Los Angeles, Cal. By whom made Western Pipe and Steel Co. Boiler No. 446 484 When made 1944

Registered Horse Power 2500 Owners Scindia Steam Navigation Company Port belonging to Bombay

Nom. Horse Power as per Rule 644.8 668 MN Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

Trade for which Vessel is intended General Cargo.

ENGINES, &c. Description of Engines Triple Expansion Revs. per minute 76

Dia. of Cylinders 24" x 37" x 70" Length of Stroke 48" No. of Cylinders Three No. of Cranks Three

Crank shaft, dia. of journals as per Rule 14.28 as fitted 14.25 Crank pin dia. 14.28 Crank webs Mid. length breadth 28.5" Thickness parallel to axis 7.125

Intermediate Shafts, diameter as per Rule 13.6 as fitted 13.5 Thrust shaft, diameter at collars as per Rule 14.28 as fitted 14.25

Tube Shafts, diameter as per Rule - as fitted - Screw Shaft, diameter as per Rule 15" as fitted 15.25 Is the screw shaft fitted with a continuous liner Yes

Bronze Liners, thickness in way of bushes as per Rule .757" as fitted .8125" Thickness between bushes as per Rule .567" as fitted .6875" 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 -

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 -

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

Propeller, dia 18' 6" Pitch 16' No. of Blades Four Material Bronze whether Moveable No Total Developed Surface 117 sq. ft.

Feed Pumps worked from the Main Engines, No. None Diameter - Stroke - Can one be overhauled while the other is at work -

Bilge-Pumps worked from the Main Engines, No. Two Diameter 4.5" Stroke 26" Can one be overhauled while the other is at work Yes

Feed Pumps {No. and size Two (12"x8"x24") Simplex Pumps connected to the Main Bilge Line {No. and size Two (10"x11"x12") Duplex + 2 N.E. Rams

Ballast Pumps, No. and size One (10"x11"x12") Duplex Lubricating Oil Pumps, including Spare Pump, No. and size -

Are two independent means arranged for circulating water through the Oil Cooler - Suctions, connected to both Main Bilge Pumps and Auxiliary

Bilge Pumps; - In Engine and Boiler Room 2-2 1/2", 2-3", 2-5" in E.R., 2-3" in B.R. In Pump Room - In Holds, &c. 2-3" in each hold

Main Water Circulating Pump Direct Bilge Suctions, No. and size One - 10" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2-5"

Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes Strainers in bilge wells.

Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges. Yes

Are all Sea Connections fitted direct on the skin of the ship. Yes Are they fitted with Valves or Cocks. Valves

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates. Yes Are the Overboard Discharges above or below the deep water line below

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 brass covering plate. No

What Pipes pass through the bunkers. None How are they protected. -

What pipes pass through the deep tanks. None Have they been tested as per Rule. -

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. Yes Is it fitted with a watertight door. Yes worked from Thrust recess

MAIN BOILERS, &c. (Letter for record) Total Heating Surface of Boilers 4704 square feet.

Which Boilers are fitted with Forced Draft P & S Which Boilers are fitted with Superheaters P & S

No. and Description of Boilers Two Water Tube Cross Drum Working Pressure 240 lbs. per square inch

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes

IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? -

Can the donkey boiler be used for domestic purposes only. -

PLANS. Are approved plans forwarded herewith for Shafting. Yes Main Boilers. Yes Auxiliary Boilers. - Donkey Boilers. -

Superheaters. - General Pumping Arrangements. Yes Oil fuel Burning Piping Arrangements. -

## SPARE GEAR.

Has the spare gear required by the Rules been supplied. With the exception of impeller shaft for main circulating pump, Valve lid for main

State the principal additional spare gear supplied. (feed check and one set coupling bolts.)

The foregoing is a correct description

Manufacturer.



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003800-003807-0165

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 March 7th Slides March 7th Covers March 7th

Pistons March 7th Piston Rods March 7th Connecting rods March 7th

Crank shaft March 7th Thrust shaft March 7th Intermediate shafts March 7th

Tube shaft - Screw shaft March 4th Propeller March 4th

Stern tube March 4th Engine and boiler seatings March 7th Engines holding down bolts March 7th

~~Examination of~~ sea connections March 4th

Completion of pumping arrangements - Boilers fixed - Engines tried under steam March 20th

Main boiler safety valves adjusted March 20th Thickness of adjusting washers -

Crank shaft material - Identification Mark - Thrust shaft material - Identification Mark -

Intermediate shafts, material - Identification Marks - Tube shaft, material - Identification Mark -

Screw shaft, material - Identification Mark - Steam Pipes, material - Test pressure - Date of Test -

Is an installation fitted for burning oil fuel Yes  Is the flash point of the oil to be used over 150°F. Yes

Have the requirements of the Rules for the use of oil as fuel been complied with Yes

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo <sup>part</sup> Yes  If so, have the requirements of the Rules been complied with Yes

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 U.S.M.C. "Liberty" EC2-S-CL

General Remarks (State quality of workmanship, opinions as to class, &c.) The machinery of this vessel has been built and installed under the supervision of the American Bureau of Shipping and as far as now seen appears to be of good and sound construction and carefully installed. On completion of the survey, the two main boilers, the main and auxiliary machinery and the electrical installation have been examined under working conditions and found satisfactory. Feed water regulators in accordance with Section 34 Clause 6 Page 121 of the Rules have now been fitted.

It is the opinion of the undersigned that the machinery of this vessel is suitable to be classed with this Society with records of LMC 3-47 and TS (CL) seen 3-47.

The shaft tunnel of this vessel is fitted with a quick closing W.T. door operated from the thrust recess. It has been pointed out to the Owners that to comply with the Rules, the door must be operable from the freeboard deck and that arrangements should be made to install a W.T. door in accordance with the Rules at the earliest opportunity.

The Surveyors are requested not to write on or below the space for Committee's Minute.

The amount of Entry Fee ...	\$ 350.00	: When applied for, 17th May 19 47
Special ...	\$ :	
Donkey Boiler Fee Sun. ...	\$ 10.00	: When received, - 19
Travelling Expenses (if any) \$	6.75	

*[Signature]*  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute NEW YORK JUN 4 1947 *[Signature]*

Assigned LMC-347