

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY,

Date of writing Report 31st August, 1942 When handed in at Local Office Port of Portland, Maine, (New York)
 Received at London Office 27 NOV 1942
 No. in Survey held at South Portland, Maine, U.S.A. Date, First Survey 30th April Last Survey 12th August 1942
 Reg. Book. on the "OCEAN MERCHANT" (Number of Visits) Continuous
 Built at So. Portland, Maine By whom built Todd-Bath Iron Shipbuilding Corp. Yard No. 16 Tons Gross 7178
Net 4280
 Engines made at Hamilton, Ohio By whom made General Machinery Corp. Engine No. 6746 When built 1942 - 7
 Boilers made at Schenectady, New York By whom made American Locomotive Corp. Boiler No. S15,23,36 When made 1941
 Registered Horse Power x Owners British Ministry of War Transport Port belonging to London
 Nom. Horse Power as per Rule 505 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
 Trade for which Vessel is intended Carrying Dry & Perishable Cargoes.

ENGINES, &c.—Description of Engines Triple Expansion

Dia of Cylinders 24 1/2 x 37" x 70" Length of Stroke 48" No. of Cylinders 3 Revs. per minute 76
 as per Rule 13.97" No. of Cranks 3
 Crank shaft, dia. of journals 14 1/4" Crank pin dia. 14 1/2" Mid. length breadth 29-5/8" Thickness parallel to axis 9"
 as fitted 14 1/4" Crank webs 9" Mid. length thickness 9" Thickness around eye-hole 7-5/8"
 Intermediate Shafts, diameter as per Rule 13.32" Thrust shaft, diameter at collars as per Rule 13.97"
 as fitted 13.5" as fitted 14.24"
 Tube Shafts, diameter as per Rule none Screw Shaft, diameter as per Rule 14.86"
 as fitted .75" as fitted 15.25" Is the ~~xxx~~ screw shaft fitted with a continuous liner x
 as fitted .78" Thickness between bushes as per Rule .56" as fitted .69" 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 tight fit.
 If two liners are fitted, is the shaft lapped or protected between the liners x Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft no
 If so, state type x Length of Bearing in Stern Bush next to and supporting propeller 5'11"
 Propeller, dia. 18.6" Pitch 16.0" No. of Blades 4 Material whether Moveable No Total Developed Surface 117 sq. ft.
 Feed Pumps worked from the Main Engines, No. None Diameter x Stroke x Can one be overhauled while the other is at work x
 Bilge Pumps worked from the Main Engines, No. two Diameter 4 1/2" Stroke 26" Can one be overhauled while the other is at work yes
 Feed (No. and size Two 12"x8"x24", One 9"x6"x10" Pumps connected to the 2@4 1/2"x26" and One Duplex 10"x11"x12"
 Pumps (How driven Steam Steam Main Bilge Line (How driven Main Engine Steam
 Ballast Pumps, No. and size One 10"x11"x12" (Duplex) Lubricating Oil Pumps, including Spare Pump, No. and size None
 Are two independent means arranged for circulating water through the Oil Cooler x Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room 5 @ 3", 1 portable hose connection 2 1/2"
 In Pump Room x In Holds, &c. 2 @ 3" in each hold, 1 @ 5" in each deep tank.
 (main bilge line size)

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 One 5"
 Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes No strainers on Bilge Wells yes
 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 yes
 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 Bilge & Ballast Pipes How are they protected Strong wood casings.
 What pipes pass through the deep tanks None Have they been tested as per Rule yes x
 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 No worked from x

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 7140 sq. feet.
 Which Boilers are fitted with Forced Draft 3 main Which Boilers are fitted with Superheaters 3 main
 No. and Description of Boilers 3 Multitubular Scotch Marine Working Pressure 220 lb. per sq.in.
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes
 IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? x
 Can the donkey boiler be used for domestic purposes only x

PLANS. Are approved plans forwarded herewith for Shafting 22/8/41 Main Boilers 28/4/41 Auxiliary Boilers x Donkey Boilers x
 (If not state date of approval)
 Superheaters 5/11/41 General Pumping Arrangements 5/22/9/41 & 1/10/41 Oil fuel Burning Piping Arrangements Coal fired.

SPARE GEAR.

Has the spare gear required by the Rules been supplied yes
 State the principal additional spare gear supplied 1 main bearing complete, 1 Spare Propeller.

The foregoing is a correct description

J. M. Main EXEC. VICE PRESIDENT
 TODD-BATH IRON SHIPBUILDING CORP. Manufacturer.



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Dates of Survey while building

During progress of work in shops - -

During erection on board vessel - - -

Total No. of visits

Continuous from 30th April, 1942, until 12th August, 1942.

Dates of Examination of principal parts — Cylinders 25th July, 1942 Slides 25th July, 1942 Covers 25th July, 1942

Pistons 25th July, 1942 Piston Rods 27th June, 1942 Connecting rods 27th June, 1942

Crank shaft 27th June, 1942 Thrust shaft 20th May, 1942 Intermediate shafts 16, 19, 20, 21, 23 May & 29th June

Tube shaft x Screw shaft 16th March, 1942 Propeller 25th April, 1942.

Stern tube 23rd June, 1942 Engine and boiler seatings 10th July, 1942 Engines holding down bolts 10th July, 1942

Completion of fitting sea connections 26th June, 1942.

Completion of pumping arrangements 28th July, 1942 Boilers fixed 10th July, 1942 Engines tried under steam 29th July, 1942

Main boiler safety valves adjusted 23rd July, 1942 Thickness of adjusting washers x

Crank shaft material O.H. Steel Identification Mark A.B. 142 W.D. Thrust shaft material O.H. Steel Identification Mark 107 A.B. Lloyd's 4553, 4578, 4577, 4576,

Intermediate shafts, material O.H. Steel Identification Marks 4556, 4574. Tube shaft, material x Identification Mark x

Screw shaft, material O.H. Steel Identification Mark Lloyd's 4563 CC Steam Pipes, material S.D. Steel Test pressure 660 lbs. Date of Test 8th July

Is an installation fitted for burning oil fuel No Is the flash point of the oil to be used over 150°F. x

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

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 x

If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with x

Is this machinery duplicate of a previous case yes If so, state name of vessel "OCEAN VANGUARD, "OCEAN LIBERTY", et

General Remarks (State quality of workmanship, opinions as to class, &c. The main engine of this vessel has not been built under Special Survey. It has been built under the Special Survey of the American Bureau of Shipping as per copy of their certificate herewith. It has been opened up and examined and found to comply with the Rules and the workmanship and materials appear to be good.

The boilers have been built under Special Survey as per New York Reports Nos. S15, S23, S36, attached herewith.

The machinery has been tried under working conditions and found satisfactory and is now in good and safe working condition, and eligible in our opinion to receive the notation L.M.C. 7.42 and tail shaft seen C.L. with notation 3 S.B. (Spt) H. S. 7140 G. S. 172, 220 lbs. F.D. 9 c.f.

Certificate to be sent to

The amount of Entry Fee ...	\$ 30.00	:	When applied for,
Special ...	\$ 912.34	:	19
Donkey Boiler Fee ...	£ :	:	When received,
Travelling Expenses (if any) £	:	:	19

W. G. Mackall's self.

[Signature]

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute NEW YORK OCT 7 1942

Assigned LMC (R) - 7, 42

NOTE - CL
3 S.B. (Spt) 220 lbs.

