

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Date of writing Report 10th October 42 When handed in at Local Office 19 Port of Portland, Maine (New York) U.S.A.  
 No. in Survey held at South Portland, Maine Date, First Survey 30th June, 1942 Last Survey 19th September 42  
 Reg. Book. on the "OCEAN SEAMAN" (Number of Visits Continuous)  
 Built at So. Portland, Maine By whom built Todd-Bath Iron Shipbuilding Corp. Yard No. 22 When built 1942  
 Engines made at Lachine, Que. By whom made Canadian Allis-Chalmers Engine No. 71 When made 1942  
 Boilers made at Schenectady, New York By whom made American Locomotive Corp. Boiler No. S7,8,19 When made 1941.  
 Registered Horse Power x Owner 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 Revs. per minute 76  
 Dia of Cylinders  $24\frac{1}{2} \times 37 \times 70$  Length of Stroke 48" No. of Cylinders 3 No. of Cranks 3  
 Crank shaft, dia. of journals as per Rule 13.97" as fitted 14 $\frac{1}{4}$ " Crank pin dia. Crank webs Mid. length breadth 24 $\frac{1}{2}$  Thickness parallel to axis 9" & 9 $\frac{1}{2}$ " L.P.  
 Intermediate Shafts, diameter as per Rule 13.32" as fitted 13.5" Thrust shaft, diameter at collars as per Rule 13.97" as fitted 14-1/4"  
 Tube Shafts, diameter as per Rule none as fitted Screw Shaft, diameter as per Rule 14.86" as fitted 15.25" Is the ~~shaft~~ screw shaft fitted with a continuous liner { x yes  
 Bronze Liners, thickness in way of bushes as per Rule .75" 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. tight fit.  
 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 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 5'1" Total Developed Surface 117 sq. ft.  
 Propeller, dia. 18.6" Pitch 16.0" No. of Blades 4 Material Bronze whether Moveable No Can one be overhauled while the other is at work x  
 Feed Pumps worked from the Main Engines, No. None Diameter x Stroke x Can one be overhauled while the other is at work yes  
 Bilge Pumps worked from the Main Engines, No. two Diameter 4 $\frac{1}{2}$ " 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 { No. and size 2 @ 4 $\frac{1}{2}$ "x26" and One Duplex 10"x11"x12" Main Engine Steam  
 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 $\frac{1}{2}$ "  
 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.  
 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 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 Multibular 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

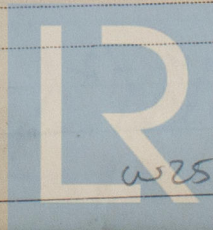
## SPARE GEAR.

Has the spare gear required by the Rules been supplied No. Spare propeller not supplied in time. Will be placed on board at first opportunity.  
 State the principal additional spare gear supplied 1 main bearing complete (2 halves).

The foregoing is a correct description

TODD-BATH IRON SHIPBUILDING CORP.

Manufacturer.



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During progress of work in shops - -  
Dates of Survey while building  
During erection on board vessel - - -  
Continuous from 30th June, 1942, until 19th September, 1942.  
Total No. of visits

Dates of Examination of principal parts—Cylinders 11, 13, 20, June, 1942 Slides 11, 13, 20, June, 1942 Covers 11, 13, 20, June, 1942  
Pistons 11, 13, 20, June, 1942 Piston Rods 15th June, 1942 Connecting rods 10th June, 1942  
Crank shaft 29th June, 1942 Thrust shaft 20th June, 1942 Intermediate shafts 25, 30th July, & 13th August, 1942  
Tube shaft x Screw shaft 14th May, 1942 Propeller 9th June, 1942.  
Stern tube 11th August, 1942 Engine and boiler seatings 29th August, 1942 Engines holding down bolts 29th August, 1942.  
Completion of fitting sea connections 14th August, 1942.  
Completion of pumping arrangements 13th September, 1942 Boilers fixed 29th August, 1942 Engines tried under steam 14th September, 1942.  
Main boiler safety valves adjusted 10th September, 1942 Thickness of adjusting washers No washers. Locknuts.  
Crank shaft material O.H. Steel Identification Mark 4063 H.G.S. Thrust shaft material O.H. Steel Identification Mark Lloyd's 4023  
Intermediate shafts, material O.H. Steel Identification Marks Lloyd's 4640, 4651, 4643, 4639, 4650, 4648. Tube shaft, material x Identification Mark x  
Screw shaft, material O.H. Steel Identification Mark Lloyd's 4635 CC Steam Pipes, material S.D. Steel Test pressure 660 lbs. Date of Test 10th 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 machinery of this vessel has been built under  
Special Survey as stated in Montreal Report No. 5654 and New York Rpt. Nos. S7, S8, S19 attached  
hereto. The machinery has been fitted on board the vessel in accordance with the Rules and approved  
plans and been tried under working condition with satisfactory results.

In our opinion, the machinery of this vessel is in good and safe working condition and is eligible  
to be classed with records of L.M.C. 8.42 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. subject to a spare propeller being supplied at first opportunity.

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

Committee's Minute

Assigned + LMC-9, 42.

72 M. S. Keller, self.

Engine Surveyor to Lloyd's Register of Shipping.



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NOTE-CL  
3 SB (Spt) 220 lbs.