

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office - 8 MAY 1942

Port of Portland, Maine (New York)

Survey held at South Portland, Me. U.S.A. Date, First Survey 17 March, 1941 Last Survey 16th March 1942

on the "OCEAN LIBERTY" (Number of Visits See Back)

built at South Portland, Me. By whom built Todd-Bath Iron Shipbuilding Corp. Yard No. 1 When built 1941-2

engines made at Hamilton, Ohio By whom made General Machinery Corp. Engine No. 6522 When made 1941

boilers made at Schenectady, New York By whom made American Locomotive Co. Boilers No. S85, S87, S89 When made 1941

Registered Horse Power 505 Owners British Ministry of War Transport Port belonging to London

Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes

made for which Vessel is intended Carrying Dry & Perishable Cargo.

Engines, &c.—Description of Engines Triple Expansion Revs. per minute 76  
of Cylinders 24 1/2 x 37 x 70 Length of Stroke 48 No. of Cylinders 3 No. of Cranks 3

Crank shaft, dia. of journals as per Rule 13.97 Crank pin dia. 14 1/4" Mid. length breadth 20" Thickness parallel to axis Solid Forged Crank Shaft.  
as fitted 14 1/4" Crank webs as per Rule 13.32 Mid. length thickness 9" shrunk Thickness around eye-hole 13.97.

Intermediate Shafts, diameter as per Rule 13.5 Thrust shaft, diameter at collars as per Rule 14.86.  
as fitted 13.5 as fitted 14.86. Is the screw shaft fitted with a continuous liner Yes

Propeller Shafts, diameter as per Rule None Screw Shaft, diameter as per Rule .75"  
as fitted X as fitted 15.25" Is the tube shaft fitted with a continuous liner Yes

Liner thickness in way of bushes as per Rule .78" Thickness between bushes as per Rule 0.56"  
as fitted .78" as fitted 0.69" Is the after end of the liner made watertight in the Yes

Propeller, dia. 18'-6" Pitch 16'-0" No. of Blades 4 Material Bronze whether Moveable No. Total Developed Surface 117. sq. ft.

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

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

Oil Pumps, No. and size One 10" x 11 1/2" Lubricating Oil Pumps, including Spare Pump, No. and size None

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

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

Pipes pass through the bunkers Bilge & Ballast pipes. How are they protected Strong Wood Casings.

IN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 7140 sq. ft.

Boilers are fitted with Forced Draft 3 main Which Boilers are fitted with Superheaters 3 main Boilers

REPORT ON MAIN BOILERS NOW FORWARDED? Yes

DONKEY BOILER FITTED? No. If so, is a report now forwarded? X

Are approved plans forwarded herewith for Shafting 22/8/41 Main Boilers 28/4/41 Auxiliary Boilers X Donkey Boilers X

SPARE GEAR. Spare gear required by the Rules been supplied Yes

Principal additional spare gear supplied 1 Main bearing complete, 1 spare propeller

The foregoing is a correct description

J. M. Main VICE PRESIDENT

Todd-Bath Manufacturer.



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Continuous attendance from 17th March, 1941 until 11th September, 1941.

Dates of Survey while building { During progress of work in shops - - } { During erection on board vessel - - - } Total No. of visits

Continuous attendance from 23rd July, 1941 until 16th March, 1942.

Dates of Examination of principal parts - Cylinders 10/9/41 Slides 10/9/41 Covers 10/9/41
Pistons 10/9/41 Piston Rods 10/9/41 Connecting rods 10/9/41
Crank shaft 10/9/41 Thrust shaft 13/8/41 Intermediate shafts 13 & 20/5/41, 6 & 27/6/41 & 29/7/41
Tube shaft None Screw shaft 14/5/41 Propeller 6/10/41
Stern tube 30/11/41 Engine and boiler seatings 21/1/42 Engines holding down bolts 21/1/42

Completion of fitting sea connections 9/12/41
Completion of pumping arrangements 3/4/42 Boilers fixed 8/11/41 Engines tried under steam 19 & 20/2/42
Main boiler safety valves adjusted 27/2/42 Thickness of adjusting washers No washers. Lock nuts.

Crank shaft material O.H. Steel Identification Mark Lloyds 3705, 3727, 3580, Thrust shaft material Steel Identification Mark 3576 A
Intermediate shafts, material O.H. Steel Identification Marks 3581, 3583 Tube shaft, material X Identification Mark X
Screw shaft, material O.H. Steel Identification Mark 3585 Steam Pipes, material S.D. Steel Test pressure 660lbs. Date of Test 1/12/41

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", etc.

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 New York Report Nos. 41513, S87, S87 & S 89 attached hereto.
The machinery has been fitted on board the vessel in accordance with the Rules and approved plans and has been tried under full working conditions with good 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. 3.42 and tail shaft seen C.L. with notations 3 S.B. (Spt) H.S. 7140 G.S. 172, 220 lb. F.D. 9 c f.

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

The amount of Entry Fee ... £ Inclusive: fee per vessel to be charged } When applied for, in London 19.
Donkey Boiler Fee ... £ } When received,
Travelling Expenses (if any) £ at London: 19.

Entry \$ 30 Classification machinery etc = \$912.34
NEW YORK APR 15 1942

Committee's Minute Assigned + LMC-3,42

For S. Pickering & others.
W. Haskell & C. Macpherson
Engineer Surveyor to Lloyd's Register of Shipping



NOTE-CL
3 SB (Cat) 220 lbs.