

# REPORT ON STEAM TURBINE MACHINERY. No. 3398

pt. 4a.

Received at London Office

10 JUL 1941

19... When handed in at Local Office... 19... Port of LOS ANGELES HARBOR, CALIF.

o. in Survey held at LOS ANGELES HARBOR, CALIF. Date, First Survey MARCH 28<sup>th</sup> Last Survey MAY 11<sup>th</sup> 1947

Reg. Book 4265 on the STEEL SINGLE SCREW STEAMER, "U.S.S.R. VICTORY" (Number of Visits 16) Tons { Gross 7612 Net 4555

uilt at LOS ANGELES, CALIF. By whom built CALIFORNIA S.B. Corp. Yard No. V.3 When built 1944-4

Engines made at PHILADELPHIA, PA. By whom made WESTINGHOUSE ELECTRIC MANFG. Co. Engine No. HP-4-A-1330 When made 1944

Boilers made at BARBERTON, OHIO By whom made BABCOCK & WILCOX Co. Boiler No. P-3451-1 When made 1943

Shaft Horse Power at Full Power 8500 Owners INDIA STEAMSHIP Co. LTD. Port belonging to CALCUTTA

om. Horse Power as per Rule (1561) Is Refrigerating Machinery fitted for cargo purposes NO Is Electric Light fitted YES

ade for which Vessel is intended CARGO SHIP NHP=1762 MN=2032

## TEAM TURBINE ENGINES, &C.—Description of Engines ONE CROSS COMPOUND DOUBLE REDUCTION GEAR TURBINE

o. of Turbines Ahead TWO Direct coupled, single reduction geared } to ONE propelling shafts. No. of primary pinions to each set of reduction gearing TWO

Astern ONE double reduction geared }

ect coupled to { Alternating Current Generator... phase... periods per second... rated... Kilowatts... Volts at... revolutions per minute;

upplying power for driving... Propelling Motors, Type... Direct Current Generator

ed... Kilowatts... Volts at... revolutions per minute. Direct coupled, single or double reduction geared to... propelling shafts.

TURBINE LADING.	H. P.			H. P.			L. P.			ASTERN.		
	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.
ST EXPANSION	<u>1 7/8"</u>	<u>23 1/2"</u>	<u>1</u>				<u>1 7/8"</u>	<u>31"</u>	<u>1</u>	<u>1 3/16"</u>	<u>30 3/8"</u>	<u>1</u>
ND "	<u>IMPULSE 2 1/4"</u>	<u>24"</u>	<u>1</u>	<u>13 1/2" - 2 7/8"</u>	<u>19"</u>	<u>1</u>	<u>2 1/4"</u>	<u>31 3/4"</u>	<u>1</u>	<u>3 1/4"</u>	<u>32"</u>	<u>1</u>
RD "	<u>1 9/16"</u>	<u>16 3/8"</u>	<u>1</u>	<u>14 1/2" - 3 1/16"</u>	<u>19 3/8"</u>	<u>1</u>	<u>2 7/16"</u>	<u>32 5/8"</u>	<u>1</u>	<u>2 27/32"</u>	<u>31 15/16"</u>	<u>1</u>
TH "	<u>1 5/8"</u>	<u>16 1/2"</u>	<u>1</u>	<u>15 1/4" - 3 1/4"</u>	<u>19 3/4"</u>	<u>1</u>	<u>3 1/4"</u>	<u>33 3/4"</u>	<u>1</u>	<u>3 5/8"</u>	<u>33"</u>	<u>1</u>
TH "	<u>1 3/4"</u>	<u>16 3/4"</u>	<u>1</u>	<u>16 1/2" - 3 1/2"</u>	<u>20 1/4"</u>	<u>1</u>	<u>4"</u>	<u>35 1/4"</u>	<u>1</u>			
TH "	<u>1 7/8"</u>	<u>17"</u>	<u>1</u>				<u>5"</u>	<u>37 1/4"</u>	<u>1</u>			
TH "	<u>2"</u>	<u>17 1/4"</u>	<u>1</u>				<u>6"</u>	<u>39 1/4"</u>	<u>1</u>			
TH "	<u>2 1/8"</u>	<u>17 1/2"</u>	<u>1</u>				<u>7"</u>	<u>41 1/4"</u>	<u>1</u>			
TH "	<u>2 3/16"</u>	<u>17 5/8"</u>	<u>1</u>				<u>8 17/32"</u>	<u>44 5/16"</u>	<u>1</u>			
TH "	<u>2 1/4"</u>	<u>17 3/4"</u>	<u>1</u>				<u>10 5/8"</u>	<u>48 1/2"</u>	<u>1</u>			
TH "	<u>2 7/16"</u>	<u>18 1/8"</u>	<u>1</u>									
TH "	<u>2 3/8"</u>	<u>18 1/2"</u>	<u>1</u>									

Shaft Horse Power at each turbine { H.P. 4250 L.P. 4250 } Revolutions per minute, at full power, of each Turbine Shaft { H.P. 5358 L.P. 4422 } 1st reduction wheel 599 main shaft 85

tor Shaft diameter at journals { H.P. FORD - 4" L.P. ACT - 5" } Pitch Circle Diameter { 1st pinion... 1st reduction wheel... 2nd pinion... main wheel... } Width of Face { 1st reduction wheel 2 HELIX - 10 1/2" FA. main wheel 2 HELIX - 19" FA.

tance between centres of pinion and wheel faces and the centre of the adjacent bearings { 1st pinion... 16" 1st reduction wheel 42" 2nd pinion... 18 1/4" main wheel... 22"

xible Pinion Shafts, diameter { H.P. 1st 4.5" L.P. 2nd 4.5" } Pinion Shafts, diameter at bearings { External H.P. 1st 5" L.P. 2nd 5" } diameter at bottom of pinion teeth { 1st... 2nd... }

heel Shafts, diameter at bearings { 1st... 16" diameter at wheel shroud, { 1st... Generator Shaft, diameter at bearings... main... 21" Propelling Motor Shaft, diameter at bearings... }

ermediate Shafts, diameter as per rule... as fitted 19" Thrust Shaft, diameter at collars as per rule... as fitted 16" Tube Shaft, diameter as per rule... as fitted...

ew Shaft, diameter as per rule... as fitted 21" Is the tube screw } shaft fitted with a continuous liner { YES } Bronze Liners, thickness in way of bushes as per rule... as fitted 1"

ickness between bushes as per rule... as fitted 1" 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 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 other appliance fitted at the after end of the tube shaft NO Length of Bearing in Stern Bush next to and supporting propeller 7'-0 1/2"

propeller, diameter 20.5 FT. Pitch 6R-22.9' No. of Blades 4 State whether Moveable FIXED Total Developed Surface... square feet.

ingle Screw, are arrangements made so that steam can be led direct to the L.P. Turbine YES Can the H.P. or L.P. Turbine exhaust direct to the No. and size TWO - 11" x 7" x 24" - SIMPLEX. No. and size ONE - TURBO UNIT - 185 - G.P.M.

denser YES No. of Turbines fitted with astern wheels ONE Feed Pumps { How driven STEAM.

pumps connected to the Main Bilge Line { No. and size THREE - 10" x 11" x 12" - DUPLEX. (G.S.P. - BILGE - G.S.P. STANDBY). How driven STEAM.

ast Pumps, No. and size TWO - 10" x 11" x 12" DUPLEX. Lubricating Oil Pumps, including Spare Pump, No. and size ONE - 7 1/2" x 9" x 12" STEAM DUPLEX.

two independent means arranged for circulating water through the Oil Cooler YES Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge ps, No. and size:—In Engine and Boiler Room TWO - 3" DIA. & FOUR - 2 1/2" DIA. IN COFFERDAMS - ONE - 3" DIA. TUNNEL.

Holds, &c. ONE - 3" DIA. IN NOS 1 & 5 HOLDS - TWO - 3" DIA. IN NOS 2-3 & 4 HOLDS.

n Water Circulating Pump Direct Bilge Suctions, No. and size ONE - 16" DIA. Independent Power Pump Direct Suctions to the Engine Room es, No. and size ONE - 5" DIA. Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes YES PERFORATED PLATES

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

all Sea Connections fitted direct on the skin of the ship NO IN BOXES OR STOWS Are they fitted with Valves or Cocks VALVES

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

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

pipes pass through the bunkers NONE How are they protected

pipes pass through the deep tanks NONE Have they been tested as per rule

all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times YES

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 department to another YES Is the Shaft Tunnel watertight YES Is it fitted with a watertight door YES worked from E.R. FLOOR LEVEL



BOILERS, &c.— (Letter for record ) Total Heating Surface of Boilers 16440 SQ. FT. ✓  
Is Forced Draft fitted YES ✓ No. and Description of Boilers TWO S.M. TYPE WATER TUBE BOILERS Working Pressure 525 LBS.  
Is a Report on Main Boilers now forwarded? YES ✓ If so, is a report now forwarded? ✓  
Is { a Donkey } Boiler fitted? — Main Boilers — Auxiliary Boilers — Donkey Boilers —  
Plans. Are approved plans forwarded herewith for Shafting — (If not state date of approval) Oil Fuel Burning Arrangements —  
Superheaters — General Pumping Arrangements — ✓

Spare Gear. State the articles supplied:— AS PER RULE REQUIREMENTS.

PLANS ATTACHED HEREWITH:—

DWG-N° S.-43-1-1-A13 - "ARRGT. OF SHAFTING"  
" - N° S.-43-1-2 - DETAIL OF SHAFTING, STEEVE, COUPLING BOLTS & PROPELLER NUT.  
" - N° S.-48-1-101 - BILGE AND CLEAN BALLAST SYSTEM.  
" - N° S.-48-1-102 - FUEL OIL AND OILY BALLAST SYSTEM.  
" - N° S.-355-1-100 - FUEL OIL SERVICE SYSTEM.

BOILER PLANS SENT WITH 1<sup>st</sup> ENTRY REPORT ON THE S.S. "UNITED STATES VICTORY" L.A.N. RPT. N° 3.  
not received in London on 14/8/47. SW

The foregoing is a correct description,

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

SURVEYED BY AMERICAN BUREAU OF SHIPPING.

Dates of Examination of principal parts—Casings— Rotors— Blading— Gearing—  
Wheel shaft— Thrust shaft— Intermediate shafts— Tube shaft— Screw shaft—  
Propeller— Stern tube— Engine and boiler seatings— Engine holding down bolts—  
Completion of pumping arrangements— Boilers fixed— Engines tried under steam MAY 9 1947

Main boiler safety valves adjusted MAY 7 1947 Thickness of adjusting washers —

Rotor shaft, Material and tensile strength STEEL Identification Mark

Flexible Pinion Shaft, Material and tensile strength STEEL Identification Mark

Pinion shaft, Material and tensile strength STEEL Identification Mark

1st Reduction Wheel Shaft, Material and tensile strength STEEL Identification Mark

Wheel shaft, Material STEEL Identification Mark Thrust shaft, Material STEEL Identification Mark

Intermediate shafts, Material STEEL Identification Marks Tube shaft, Material Identification Marks

Screw shaft, Material STEEL Identification Marks Steam Pipes, Material STEEL Test pressure 788 LBS

Date of test APRIL 29<sup>th</sup> 1947 Is an installation fitted for burning oil fuel YES ✓

Is the flash point of the oil to be used over 150°F. NO 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 NO ✓ If so, have the requirements of the Rules been complied with —

Is this machinery a duplicate of a previous case YES If so, state name of vessel S.S. "TEMPLE VICTORY" - L.A.N. RPT. 3

General Remarks (State quality of workmanship, opinions as to class, &c.) THE MACHINERY AND BOILERS OF THIS VESSEL WERE

CONSTRUCTED UNDER THE SPECIAL SURVEY OF THE SURVEYORS TO THE AMERICAN BUREAU OF SHIPPING.

THE CONDITION AND STANDARD OF WORKMANSHIP IS CONSIDERED TO BE GOOD AND SATISFACTORY. THE

MAIN AND AUXILIARY MACHINERY EXAMINED UNDER WORKING CONDITIONS AND FOUND

SATISFACTORY. THE MAIN AND AUXILIARY MACHINERY, AS FAR AS NOW SEEN (SEE RPT. 9) ARE

GOOD CONDITION.

THE MACHINERY OF THIS VESSEL, AS FAR AS NOW SEEN, IS ELIGIBLE, IN MY OPINION TO BE

CLASSED WITH THIS SOCIETY, WITH RECORD OF L.M.C. 5-47, AND IS RECOMMENDED

FOR THE FAVOURABLE CONSIDERATION OF THE COMMITTEE.

The amount of Entry Fee .... £ : : When applied for,  
Special .... £ 652.00 : MAY 10 1947  
Donkey Boiler Fee .... £ : : When received,  
Travelling Expenses (if any) £ 3.00 : MAY 23 1947

NEW YORK JUN 11 1947 J.G.J.

Committee's Minute

Assigned: L.M.C. 5-47.

L. J. Boomer.  
Engineer Surveyor to Lloyd's Register of Shipping.



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Foundation