

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

10 JUL 1947

Received at London Office

Date of writing Report 19 When handed in at Local Office 19 Port of LOS ANGELES HARBOUR, CALIF.

No. in Survey held at LOS ANGELES HARBOUR, CAL. Date, First Survey April 2 Last Survey May 10 1947
Reg. Book.

84265 on the Steel Single Screw Steamer "U.S.S.R. VICTORY" (Number of Visits 8)

Built at Los Angeles, Calif. By whom built California S.B. Corpn Yard No. V-3 Tons { Gross 7612
Net 4555

Owners India Steamship Co. Ltd. Port belonging to Calcutta When built 1944

Electric Light Installation fitted by --- Contract No. -- When fitted 1944

Is the Vessel fitted for carrying Petroleum in bulk No

System of Distribution Three Wire Direct Current

Pressure of supply for Lighting 120 volts, Heating 240 volts, Power 240 volts,

Direct or Alternating Current, Lighting Direct Power Direct

If alternating current system, state frequency of periods per second ---

Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off. Yes

Generators, do they comply with the requirements regarding temperature rise American Bureau of Shipping Requirements

are they over compounded 5 per cent. ---, if not compound wound state distance between each generator 8'

Where more than one generator is fitted are they arranged to run in parallel Yes, is an adjustable regulating resistance fitted in

series with each shunt field Yes Have certificates of test results for machines under 100 kw. been submitted and

approved. --- Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing ---

Are all terminals accessible, clearly marked, and furnished with sockets Yes, are they so spaced or shielded that they cannot be accidentally earthed,

short circuited, or touched Yes Are the lubricating arrangements of the generators as per Rule Yes

Position of Generators In Engine room, First Grating Level, Starboard Side Aft. is the ventilation

in way of the generators satisfactory Yes are they clear of all inflammable material Yes if situated near unprotected

woodwork or other combustible material, state distance of same horizontally from or vertically above the generators. --- and ---

are the generators protected from mechanical injury and damage from water, steam or oil. Yes, are their axes of rotation fore and aft. Yes

Earthing, are the bedplates and frames of the generating plant efficiently earthed. Yes are the prime movers and their respective generators

in metallic contact. Yes Main Switch Boards, where placed In Engine room on Generator Flat in Fore & Aft

Direction Starboard Side If the generators and main switchboard are not placed in the same compartment, is each generator provided with

a fuse on each insulated pole as near as possible to the terminals of the generator, additional to that provided on the main switchboard. ---

Switchboards, are they placed in accessible positions, free from inflammable gases and acid fumes. Yes, are they protected from mechanical

injury and damage from water, steam or oil. Yes, if situated near unprotected woodwork or other combustible material, state distance of same

horizontally from or vertically above the switchboards. --- and ---, are they constructed wholly of durable, non-ignitable non-absorbent

materials. Yes, is all insulation of high dielectric strength and of permanently high insulation resistance. Yes

is it of an approved type. Yes, if semi-insulating material is used, are all conducting parts insulated from the slab with mica or micanite or other

non-hygroscopic insulating material, and the slab similarly insulated from its framework. ---, is the non-hygroscopic insulating material of an approved

type. Yes, and is the frame effectively earthed. Yes Are the fittings as per Rule regarding:—spacing or shielding of live parts

Yes, accessibility of all parts. Yes, absence of fuses on back of board. Yes, temperature rise of

omnibus bars. ---, individual fuses to voltmeter, pilot or earth lamp. Yes, are moving parts of switches alive in the

"off" position. No are all screws and nuts securing connections effectively locked. Yes are any fuses fitted on the live side of

switches. Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches

Each Generator: 1560 Amp. 3-Pole Linked Circuit Breaker with Overload & Reverse Current

Trips. Emergency Generator: 80 Amp. 3-Pole Linked Circuit Breaker with Overload Trips.

Outgoing Circuits: Two & Three Pole Linked Circuit Breakers, Emerg. Circuits: Two & Three

Are turbine driven generators fitted with emergency trip switch as per rule. Yes Are cupboards or compartments containing switchboards composed of

fire-resisting material or lined with approved material. Yes Instruments on main switchboard 4 ammeters. 2 volt-

meters. --- synchronizing device for paralleling purposes. For compound machines is the ammeter connected on the opposite pole to equalizer connection

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system

Ground Lamps and Switch Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules. Yes are the fusible cutouts of an approved type. Yes A.I.E.E. Have the reversed

current protection devices been tested under working conditions. Yes Joint Boxes, Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule. Yes

Cables: Single, twin, concentric, or multicore. Yes are the cables insulated and protected as per Tables IV, V, X or XI of the Rules. A.I.E.E. Standards

If the cables are insulated otherwise than as per Rule, are they of an approved type. Yes Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load. -- Cable Sockets, are the ends of all cables having a sectional area of 0.04 square inch and above provided with soldering sockets. Yes Paper Insulated and Varnished Cambric Insulated Cables.

If conductors are paper or varnished cambric insulated, is the dielectric at the exposed ends of the conductor protected from moisture by being suitably sealed with insulating compound. --, or waterproof insulating tape. Yes Cable Runs, are the cables fixed as far as possible in accessible positions not exposed to drip or accumulation of water or oil, or to high temperature from boilers, steam pipes, uptakes or other hot objects, or to avoidable risk of mechanical damage. Yes Are cables in machinery spaces, galleys, laundries, bathrooms and lavatories lead covered or run in conduit. Covered

Support and Protection of Cables, state how the cables are supported and protected. Main Cables Clipped to Steel Hanger, Protected by Flat Bars, in Hold Spaces, Clipped to Bulkheads in Accommodation

If cables are run in wood casings, are the casings and caps secured by screws. --, are the cap screws of brass. --, are the cables run in separate grooves. If armoured and lead covered cables are secured by metal clips, are the clips spaced as per Table VIII. A.I.E.E. Spacing

Refrigerated Chambers, are the cables and fittings in accordance with the special requirements. Yes

Joints in Cables, state if any, and how made, insulated, and protected. ---

Watertight Glands and Deck Tubes, are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands. Yes Bushes in Beams and Non-watertight Partitions, where unarmoured cables pass through beams and non-watertight partitions, are the holes efficiently bushed. --, state the material of which the bushes are made. ---

Earthing Connections, state what earthing connections are fitted and their respective sectional areas. Neutral Connection Grounded Through Breaker with Current Limiting Resistance in Parallel with this Breaker.

are their connections made as per Rule. ---

Alternative Lighting, are the groups of lights in the propelling machinery space arranged as per Rule. Yes Emergency Supply, state position and method of control of the emergency supply and how the generator is driven. Boat Deck Amidships. Diesel Driven

Emergency Generator Automatically Started in Case of Voltage Failure on Main Bus.

Navigation Lamps, are these separately wired. Yes, controlled by separate switch and separate fuses. Yes, are the fuses double pole. Yes are the switches and fuses grouped in a position accessible only to the officers on watch. Yes

has each navigation lamp an automatic indicator as per Rule. Yes Secondary Batteries, are they constructed and fitted as per Rule. ---

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, watertight. Yes are any fittings placed in spaces in which goods are liable to be stacked in close proximity to them; if so, how are they protected. ---

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected. ---, how are the cables led

where are the controlling switches situated.

are all fittings suitably ventilated. Yes, are all switches and lampholders constructed wholly of non-ignitable, non-absorbent materials. Yes

Heating and Cooking Appliances, are they constructed and fitted as per Rule. --, are air heaters constructed and fitted as per Rule. --

Searchlight Lamps, No. of One, whether fixed or portable. Fixed, are their fittings as per Rule. Yes

Are Lamps, other than searchlight lamps, No. of --, are their live parts insulated from the frame or case. --, are their fittings as per Rule. ---

Motors, are their working parts readily accessible. Yes, are the coils self-contained and readily removable for replacement. Yes are the brushes, brush holders, terminals and lubricating arrangements as per Rule. Yes, are the motors placed in well-ventilated compartments in which inflammable gases cannot accumulate and clear of all inflammable material. Yes, are they protected from mechanical injury and damage from water, steam or oil. Yes, are their axes of rotation fore and aft. Yes, if situated near unprotected woodwork or other combustible material, are the motors of the totally enclosed, pipe ventilated, forced draught, drip or flame proof type. Drip Proof & Totally Enclosed, if not of this type, state distance of the combustible material horizontally or vertically above the motors. --, and --

have machines of over 100 BPH been inspected by the Surveyors during manufacture and testing. -- Control Gear and Resistances, are the generator field and motor speed regulators, starters and controllers constructed and fitted as per Rule. A.I.E.E. Standards

are required, are these fitted as per Rule. -- Ships carrying Oil having a Flash Point less than 150°F. Have the special requirements of the Rules been complied with regarding switches, joint boxes, section and distribution boards, protection of cables, method of distribution, lead of cables lights and fittings. --, are all fuses of the filled cartridge type. --, are they of an approved type. --

If portable lamps for use in dangerous spaces are supplied, are they of a self-contained, battery-fed type approved by the Home Office. --

Spare Gear, if the vessel is for open sea service have spares been supplied as per Rule. Yes

PARTICULARS OF GENERATING PLANT.									
DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.		
		Kilowatts.	Volts.	Amperes.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.	
MAIN ...	2	300	120/240	1250	1200	Geared Turbine			
AUXILIARY ...									
EMERGENCY ...	1	15	120/240	62.5	1450	Diesel Engine	Diesel Oil	Above 150°F.	
ROTARY TRANSFORMER									

GENERATOR, LIGHTING AND HEATING CONDUCTORS.									
DESCRIPTION.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT. AMPERES.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED
	No. per Pole.	Total Nominal Area per Pole Sq. Ins.	No.	Diameter.	Circuit.	Rule.			
MAIN GENERATOR	3	.8235	37	.097	1250	1251	50	V.C.	L.C. & Basket Weave Armoured
Neutral CONNECTIONS	1	.1969	37	.082	--	333	35	V.C.	" "
AUXILIARY GENERATOR									
EMERGENCY GENERATOR	1	.052	7	.097	62.5	99x	30	V.C.	" "
ROTARY TRANSFORMER (Motor)									
Boiler & Engine Room Ltg. - L1	1	.0206	7	.061	50	55.5x	70	V.C.	" "
Shore Conn. - P3	2	.4712	37	.090	--	752	210	V.C.	" "
Emergency Switchboards	1	.0657	19	.066	100	117x	228	V.C.	" "
Cargo Hold L2	1	.0521	7	.097	70	99x	230	V.C.	" "
Ford. Ltg. - L3	1	.0206	7	.061	50	55.5x	220	V.C.	" "
Cargo Hold Ltg. - L3	1	.0206	7	.061	50	55.5x	220	V.C.	" "
Art. Ltg. - L4	1	.008	7	.038	20	23x	460	V.C.	" "
Crew Qtr. - Ltg. - L4	1	.008	7	.038	20	23x	460	V.C.	" "
Acc. Main Dk. Ltg. - L5A	1	.052	7	.097	90	99x	180	V.C.	" "
" " " " - L5B	1	.052	7	.097	90	99x	180	V.C.	" "
Boat Dk. - L6A	1	.032	7	.077	70	75x	30	V.C.	" "
Accommodation - L6B	1	.032	7	.077	70	75x	30	V.C.	" "
Acc. Cabin Dk. - L6B	1	.032	7	.077	70	75x	30	V.C.	" "
Test Panel - P26	1	.0658	19	.066	100	117x	164	V.C.	" "
Refrig. Control - P16	1	.0032	7	.024	15	11.5x	40	S.R.	" "
WIRELESS - P28	1	.052	7	.097	70	99x	270	V.C.	" "
SEARCHLIGHT - P1	1	.0032	7	.024	5	11.5x	40	S.R.	" "
MASTHEAD LIGHT - P1	1	.0032	7	.024	.4	11.5x	360	S.R.	" "
SIDE LIGHTS - P1	1	.0032	7	.024	.4	11.5x	80	S.R.	" "
COMPASS LIGHTS - P1	1	.0032	7	.024	.4	11.5x	80	S.R.	" "
DEGAUSSING - P4	1	.0414	7	.086	--	82	80	Rubber	Rubber
POOR LIGHTS - P18	1	.0658	19	.066	50	117x	220	V.C.	L.C. & Basket Weave Armoured
Aux. Power Panel - P21	1	.013	7	.048	10	41x	400	V.C.	" "
Aux. Power Panel - P22	1	.013	7	.048	11	41x	400	V.C.	" "

MOTOR CONDUCTORS.										
DESCRIPTION.	No. of Motors.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT. AMPERES.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED
		No. per Pole.	Total Nominal Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rule.			
BALLAST PUMP ...										
MAIN BILGE LINE PUMPS ...										
GENERAL SERVICE PUMP ...										
EMERGENCY BILGE PUMP ...										
SANITARY PUMP ...	1	1	.013	7	.048	30	41x	140	V.C.	L.C. & Basket Weave Armoured
CIRC. SEA WATER PUMPS - P10	1	1	.3148	37	.104	370	456	228	V.C.	" "
E.R. Aux. Pumps - P11	8	1	.104	19	.083	106	158x	248	V.C.	" "
CIRC. FRESH WATER PUMPS - P30 & 33	1	1	.032	7	.077	59	75x	168	V.C.	" "
AIR COMPRESSOR - No. 1 & 2 (Ea) ...	1	1	.0032	7	.024	4	11.5x	100	S.R.	" "
FRESH WATER PUMP (ea) ...	1	1	.0032	7	.024	4	11.5x	100	S.R.	" "
ENGINE TURNING GEAR - P17	1	1	.013	7	.048	40	41x	100	V.C.	" "
ENGINE REVERSING GEAR - P17	5	1	.020	7	.061	25	55.5x	140	V.C.	" "
LUBRICATING OIL PUMPS - P13	1	1	.032	7	.077	59	75x	204	V.C.	" "
OIL FUEL TRANSFER PUMP ...										
WINDLASS - P23	1	1	.104	19	.083	220	219	600	V.C.	" "
Feeders - (ea) P5-P18	4	1	.3148	37	.104	748	456	306	V.C.	" "
WINCHES - P20 & P21	2	1	.104	19	.083	374	219	204	V.C.	" "
" Feeder - P6	1	1	.104	19	.083	132	158x	532	V.C.	" "
Capstan - P2	1	1	.104	19	.083	21	41x	240	V.C.	" "
Eng. Rm. EXH. FAN - P9	1	1	.013	7	.048	21	41x	240	V.C.	" "
STEERING GEAR - P12	1	1	.104	19	.083	150	158x	450	V.C.	" "
Each Feeder - (a) Motor Generator ...										
" (b) MAIN MOTOR ...										
WORKSHOP MOTOR - P12	3	1	.020	7	.061	25	55.5x	164	V.C.	" "
Eng. Rm. (ea) - P7 & P8	1	1	.032	7	.077	50	75x	300	V.C.	" "
VENTILATING FANS - P7 & P8	1	1	.1045	19	.083	187	219	90	V.C.	" "
4 Winches (Each) - P39	1	1	.008	7	.083	21	23x	104	S.R.	" "
Aux. Condensate Pump - P31	1	1	.0658	19	.066	95	117x	42	V.C.	" "
" Cir. Pump - P29	1	1	.032	7	.077	59	75x	128	V.C.	" "
Main Con. Pump - P24 & 25	1	1	.013	7	.048	40	41x	264	V.C.	" "
Life Boat - P14 & 15	1	1	.013	7	.048	30	41x	84	V.C.	" "

All Conductors are of annealed copper conforming to British Standard Specification No. 7 (or International Electro-technical Commission Publication No. 28).

The Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.

The foregoing is a correct description.

Electrical Engineers.

Date

COMPASSES.

Distance between electric generators or motors and standard compass 65 Feet

Distance between electric generators or motors and steering compass 65 Feet

The nearest cables to the compasses are as follows:—

A cable carrying .125 Ampères .75 feet from standard compass .75 feet from steering compass.

A cable carrying --9 Ampères -- feet from standard compass -- feet from steering compass.

A cable carrying -- Ampères -- feet from standard compass -- feet from steering compass.

Have the compasses been adjusted with and without the electric installation at work at full power Yes

Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted Yes

The maximum deviation due to electric currents was found to be Nil degrees on Any course in the case of the standard compass, and Nil degrees on Any course in the case of the steering compass.

Builder's Signature.

Date

Is this installation a duplicate of a previous case Yes If so, state name of vessel S.S. "TEMPLE VICTORY"

General Remarks (State quality of workmanship, opinions as to class, &c. The Electrical Installation of this vessel was installed to the Standard of the American Bureau of Shipping and has been in operation since 1944. The plans available have been examined and found to be in accordance with A.I.E.E. Marine Standards and generally in accordance with the Rules except as noted hereafter. Three of the winch branch circuits each comprising of four winches are directly connected to feeder cables without further protection at branch thereof, but no exception has been taken to this, as each winch cable has a current carrying capacity of 48% of the feeder cable, and the feeder cable a diversity factor of 61% of the total connected load of winch motors, also breaker protecting feeder cable has an overload trip set at current rating of cable. The materials and workmanship are good, and the installation has been examined under working conditions, tested as per Rules and found satisfactory and is eligible in my opinion to have the Society's Classification and without Special Notation.

Attached hereto:— Drawing No. S62-2-1 - "Power System One Line Diagram".
" No. 6289190 - "Main Generator and Distribution Switchboard."

Total Capacity of Generators 615 Kilowatts.

The amount of Fee ... \$ 226.00 : When applied for, May 10 1947

Traveling Expenses (if any) £ : : When received, MAY 23 1947

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned Elec. light