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Size of

No. 9

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

-9 MAY 1942

of writing Report. 23rd Feb. 1942. When handed in at Local Office. 23rd Feb. 1942. Port of. RICHMOND, CALIF.

in Survey held at. RICHMOND, CALIF. Date, First Survey. Dec. 30, 1941. Last Survey. Feb. 21st, 1942.  
(Number of Visits. 40)

No. and Reg. Book. on the S. S. "OCEAN VISION"

ivert hole. at. RICHMOND, CALIF. By whom built. TODD-CALIFORNIA SHIPBUILDING Yard No. 9. When built. 1942.  
Tons { Gross 7174  
Net 4272

ners. BRITISH GOVERNMENT DIVISION of THE PERMANENTE METALS CORPORATION Port belonging to. LONDON

trical Installation fitted by. TODD-CALIFORNIA SHIPBUILDING DIVISION OF THE PERMANENTE METALS CORPORATION Contract No. 9. When fitted. 1942

vessel fitted for carrying Petroleum in bulk. NO. Is vessel equipped with D.F. YES E.S.D. YES Gy.C. NO Sub.Sig. NO

plans been submitted and approved. YES System of Distribution. TWO WIRE D.C. Voltage of supply for Lighting. 115

ing. Power. 115 DC Direct or Alternating Current, Lighting. DC Power. DC If Alternating Current state periodicity. Prime Movers,

the governing been tested and found as per Rule when full load is suddenly thrown on and off. YES Are turbine emergency governors fitted with a

switch as per Rule. Generators, are they compound wound. are they level compounded under working conditions.

Are dropt compound wound state distance between generators. and from switchboard. Where more than one generator is fitted are they

nged to run in parallel. NO, are shunt field regulators provided. YES Is the compound winding connected to the negative or positive pole

POSITIVE Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing. Have certificates of

ption, for machines under 100 kw. been supplied. YES and the results found as per rule. YES Are the lubricating arrangements and the construction

Ma generators as per rule. YES Position of Generators. ENGINE ROOM, STARBOARD SIDE, INBOARD AND OUTBOARD

with A. is the ventilation in way of generators satisfactory. YES are they clear of inflammable material. YES, if situated

h Ap unprotected combustible material state distance from same horizontally. and vertically. are the generators protected from mechanical

y and damage from water, steam and oil. YES, are the bedplates and frames earthed. YES and the prime movers and generators in metallic

ct. YES Switchboards, where are main switchboards placed. ENGINE ROOM, STARBOARD SIDE

No. 1

ted they in accessible positions, free from inflammable gases and acid fumes. YES, are they protected from mechanical injury and damage from water, steam

d the oil. YES, if situated near unprotected combustible material state distance from same horizontally. and vertically. what insulation

. in al is used for the panels. EBONY ASBESTOS, if of synthetic insulating material is it an Approved Type. YES, if of

hmon insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule. YES Is the frame effectually earthed. YES

ules e construction as per Rule. YES, including accessibility of parts. YES, absence of fuses on the back of the board. YES, individual fuses

lot and earth lamps, voltmeters, etc. YES locking of screws and nuts. YES, labelling of apparatus and fuses. YES, fuses on the "dead"

of switches. YES Description of Main Switchgear for each generator and arrangement of equaliser switches. 2 POLE FUSED

SINGLE THROW KNIFE SWITCHES FOR EACH GENERATOR

for each outgoing circuit. DOUBLE, POLE, DOUBLE, THROW, KNIFE SWITCH

compartments containing switchboards composed of fire-resisting material or lined as per Rule. YES Instruments on main switchboard. 2

ters. 2 voltmeters. 0 synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to the

ser connection. Earth Testing, state means provided. EARTH LAMPS

ches, Circuit Breakers and Fuses, are they as per Rule. YES, are the fuses an approved type. YES, are all fuses labelled as

ule. YES If circuit breakers are provided for the generators, at what overload current did they open when tested. NONE, are the reversed current

tion devices connected on the pole opposite to the equaliser connection. have they been tested under working conditions, and at what current

ey operate. Joint Boxes, Section Boards and Distribution Boards, is the construction and position as per Rule. YES

ster of s, are they insulated and protected as per the appropriate Tables of the Rules. YES, if otherwise than as per Rule are they of an approved type.

maximum fall of pressure between bus bars and any point under maximum load. 1.4 volts the ends of all cables having a sectional area of 0.04

inch and above provided with soldering sockets. YES Are paper insulated and varnished cambric insulated cables sealed at the ends. YES



with insulating compound. YES or waterproof insulating tape. Are all the cable runs in accessible positions, not exposed to drip or accumulation of water or oil, high temperatures or risk of mechanical damage. YES, are cables laid under machines or floorplates. NO, if so, are they adequately protected. Are cables in machinery spaces, galleys, laundries, etc., lead covered. YES or run in conduit. State how the cables supported and protected. STEEL HANGERS AND STRAPS, STEEL PADS AND STRAPS, STEEL CASINGS, LEAD AND ARMOUR COVERED

Are all lead sheaths, armouring and conduits effectually bonded and earthed. YES. Refrigerated chambers, are the cables and fittings as per Rule. YES. Are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands. YES, where unarmoured cables pass through iron & lead, or brass beams, etc., are the holes effectively bushed. YES and with what material. All cables lead and armoured soft. Alternative Lighting the groups of lights in the engine and boiler rooms arranged as per Rule. YES. Emergency Supply, state position. NONE and method of control.

Navigation Lamps, are they separately wired. YES controlled by separate double pole switches. YES and fuses. YES. Are the switches and fuses in a position accessible only to the officers on watch. YES. Automatic indicator fitted. YES. Secondary Batteries, are they constructed and fitted as per Rule. NONE, are they adequately ventilated. what is the battery capacity in ampere hours.

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof. YES. Are fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present. NONE, if so, how are they protected.

and where are the controlling switches fitted. are all fittings suitably ventilated. are all fittings and accessories constructed and installed as per Rule. YES. Searchlight Lamps, No. of. NONE, whether fixed or portable. are their fittings as per Rule. Heating and Cooking, is the general construction as per Rule. NONE.

are the frames effectually earthed. are heaters in the accommodation of the convection type. Motors, are all motors constructed installed as per Rule. YES and placed in well-ventilated compartments in which inflammable gases cannot accumulate and free from damage from steam and oil. YES, if situated near unprotected combustible material state minimum distance from same horizontally. and vertically. motors coupled to oil fuel transfer and unit pressure pumps capable of being stopped from a position accessible in the event of fire in the pump compartment.

Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing. YES. Have certificates of test for motors 100 BHP intended for essential services been supplied and the results found as per Rule. NONE. Control Gear and Resistances, are they constructed fitted as per Rule. YES. Lightning Conductors, where required are they fitted as per Rule. NONE. Ships carrying Oil having a Flash

less than 150° F. Have all the special requirements of the Rules for such ships been complied with. are all fuses of the cartridge type. are they of an approved type. Are the fittings for pump rooms, 'tween deck spaces, etc., in accordance with the special requirements for ships. Are the cables lead covered as per Rule. Spare Gear, if the vessel is for open sea service have spares been provided. Rule. YES, are they suitably stored in dry situations. YES. Insulation Tests, has the insulation resistance of all circuits and apparatus been and found satisfactory. YES.

#### PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Ampères.	Revs. per Min.		Fuel Used.	Flash Point
MAIN	2	15 each	115	136	450	Reciprocating steam engines (2)		
EMERGENCY								
ROTARY TRANSFORMER								

#### GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
		No. in Parallel Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR	15 each	1	.1318	136	138	40	Rubber	lead and armour
" " EQUALISE								
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR								

#### MAIN DISTRIBUTION CABLES.

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
	No. in Parallel Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
SWITCHBOARDS AND SECTION BOARDS ...							
gaussing switchboard	1	.1318	95	138	20	Rubber	Lead & Armoured
Engine Room, Stbd. Side)							

#### LIGHTING AND HEATING, ETC., CABLES.

WIRELESS	1	.01297	--	31	200	Rubber	Lead & Armoured
NAVIGATION LIGHTS (4) (Double Filament)	1	.003225	.43	11.5	200	"	"
LIGHTING AND HEATING	--	--	--	--	--	--	--
Engine & Fire Rooms L1	1	.0261	25.66	48.5	60	"	"
Crews Quarters Aft L2	1	.05213	17.79	74	250	"	"
Foremast House, Cargo Lts., etc. L3	1	.0329	22.90	56	225	"	"
Officers Quarters L4 (A & B)	1	.0329	25.86	56	160	"	"
Engineers Quarters L5	1	.0329	26.3	56	100	"	"
Foremast House L6	1	.0329	17.55	56	165	"	"
Navigation Lights, etc. L7	1	.01297	--	31	250	"	"
Emergency W. T. Feeder P8	1	.01297	--	31	100	"	"
Altimeter Feeder S3	1	.01297	10.0	31	260	"	"
Portable Cargo Lights	1	.0051	5.16	16.5	25	Rubber	

#### MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
			No. in Parallel Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
Domestic Refrigerator Mach.	1	2 hp.	1	.0082	17	23	75	Rubber	Lead & Armoured
Hot Water Pump	1	1/10hp	1	.003225	2.1	11.5	15	"	"

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Registered  
Foundation



The Electrical Equipment is installed in accordance with the approved plans and the requirements of the Rules.  
All Insulated Conductors are guaranteed to have been tested at the maker's works as specified in the Rules.  
The foregoing is a correct description.

*H. Suckenberg* Chief Marine Electrician Electrical Engineers. Date *Feb. 23, 1942*

COMPASSES.

Minimum distance between electric generators or motors and standard compass..... 10 feet

Minimum distance between electric generators or motors and steering compass..... 6 feet

The nearest cables to the compasses are as follows:—

A cable carrying 2.15 Amperes 11 feet from standard compass 6 feet from steering compass.

A cable carrying .43 Amperes 3 feet from standard compass 3 feet from steering compass.

A cable carrying .43 Amperes 3 feet from standard compass 3 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 2 degrees on East course in the case of the

standard compass, and 1 1/2 degrees on S. E. course in the case of the steering compass.

*T. B. S.*  
TODD-CALIFORNIA SHIPBUILDING DIVISION Builder's Signature. Date *Mar 10<sup>th</sup> 1942*  
of THE PERMANENTE METALS CORPORATION

Is this installation a duplicate of a previous case..... YES If so, state name of vessel SS. "OCEAN VIKING", "OCEAN VESTAL" & "OCEAN VESPER", ETC.

Plans. Are approved plans forwarded herewith..... NO If not, state date of approval..... May 5th, 1941

Certificates. Are certificates of test for motors engaged on essential services and generators forwarded herewith..... NO

General Remarks (State quality of workmanship, whether insulation tests, etc., have been made, opinions as to class, etc.)

The workmanship is good, material and equipment tested in accordance with rules  
and found to be satisfactory. The steam driven generators and appliances are,  
in our opinion, eligible to be included in the record of L. M. C. 2-42

*Noted*  
*L. J.*  
*13/5/42*

Total Capacity of Generators..... 30 Kilowatts.

The amount of Fee ... £ Inclusive :  
fee  
chargeable  
Travelling Expenses (if any) £ at London :  
When applied for, ..... 19.....  
When received, ..... 19.....

*James F. Robertson*  
Surveyor to Lloyd's Register of Shipping. *Johnston*

Committee's Minute ..... NEW YORK MAR 18 1942

Assigned *Elec. light*