

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

6 MAR 1944

Date of writing Report January 21 1944 When handed in at Local Office 19 Port of Saint John, N. B.
 No. in Survey held at Saint John, N. B. Date, First Survey Sept. 18, 1942 Last Survey Dec. 8 1943
 Reg. Book. (Number of Visits 31)
 on the steel twin screw steamer "RIDING MOUNTAIN PARK" Tons { Gross 1854
 Net _____
 Built at Sorel, P. Q. By whom built Canadian Gov't Yard Yard No. --- When built 1905
 Owners Park Steamship Co. Port belonging to Montreal
 Electric Light Installation fitted by St. John Drydock and Shipbuilding Co. Ltd. Contract No. 364 When fitted 1943
 Is the Vessel fitted for carrying Petroleum in bulk _____

System of Distribution Two wire ✓
Pressure of supply for Lighting 110 ✓ volts, **Heating** --- volts, **Power** --- volts.
Direct or Alternating Current, Lighting Direct ✓ **Power** _____
 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 Yes ✓, are they compound wound Yes ✓
 are they over compounded 5 per cent. Yes ✓, if not compound wound state distance between each generator ---
 Where more than one generator is fitted are they arranged to run in parallel ---, 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 Generator Engine room platform between Frames 9 and 14, 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 --- **Main Switch Boards**, where placed Engine room platform at after peak bulkhead.
 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 Yes ✓, is the non-hygroscopic insulating material of an approved type ---, 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 No fuses, temperature rise of omnibus bars Nil ✓, 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 Yes ✓. **Main Switchgear**, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches _____
 Are turbine driven generators fitted with emergency trip switch as per rule --- Are cupboards or compartments containing switchboards composed of fire-resisting material or lined with approved material --- **Instruments** on main switchboard One ✓ ammeters One ✓ voltmeters --- synchronising device for paralleling purposes. For compound machines is the ammeter connected on the opposite pole to equaliser connection _____
Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system _____
Grounding lamps Yes ✓ **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 ✓, have the reversed _____

current protection devices been tested under working conditions. --- **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 single ✓ of the cables insulated and protected as per Tables IV, V, X or XI of the Rules Yes ✓
 If the cables are insulated otherwise than as per Rule, are they of an approved type. --- **Fall of Pressure**, state maximum between bus bars and any point of the installation under maximum load Nil ✓ **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 --- **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 Lead covered in conduits ✓
Support and Protection of Cables, state how the cables are supported and protected Cables in rigid steel conduits.

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 ---

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

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 Yes ✓ state the material of which the bushes are made Lead ✓

Earthing Connections, state what earthing connections are fitted and their respective sectional areas All grounded ✓
 ---, are their connections made as per Rule Yes ✓

Alternative Lighting, are the groups of lights in the propelling machinery space arranged as per Rule --- **Emergency Supply**, state position and method of control of the emergency supply and how the generator is driven ---

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 Metal guards ✓, and watertight globes. ✓
 are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected
 Pump room fitted with approved vapor proof fittings ✓, how are the cables led
 In conduit outside of pump room chamber ✓
 where are the controlling switches situated Outside ✓
 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 ---, whether fixed or portable ---, are their fittings as per Rule ---

Arc 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 ---, are the coils self-contained and readily removable for replacement ---, are the brushes, brush holders, terminals and lubricating arrangements as per Rule ---, are the motors placed in well-ventilated compartments in which inflammable gases cannot accumulate and clear of all inflammable material ---, are they protected from mechanical injury and damage from water, steam or oil ---, are their axes of rotation fore and aft ---, 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 ---, if not of this type, state distance of the combustible material horizontally or vertically above the motors --- and ---
 have machines of over 100 BHP 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 --- **Lightning Conductors**, where lightning conductors 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 Yes ✓ are they of an approved type Yes ✓
 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 ...	1	23	115	200	305	Steam	---	---
AUXILIARY ...								
EMERGENCY ...								
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 ...	1	.458	19	.1055	225	406	20 ft.	rubber	conduit
EQUALISER CONNECTIONS ...									
AUXILIARY GENERATOR ...									
EMERGENCY GENERATOR ...									
ROTARY TRANSFORMER (MOTOR GENERATOR) ...									
ENGINE ROOM ...	1	.107	7	.0612	50	153	100 ft.	"	"
BOILER ROOM ...	1	.107	7	.0612	50	153	150 ft.	"	"
AUXILIARY SWITCHBOARDS ...									
ACCOMMODATION Aft. ...	1	.107	7	.0612	50	153	90 ft.	"	"
Midships ...	1	.107	7	.0612	50	153	300 ft.	"	"
WIRELESS ...	1	.107	7	.0612	50	153	350 ft.	"	"
SEARCHLIGHT ...									
MASTHEAD LIGHT ...	1	.040	7	.0242	15	82	370 ft.	"	"
SIDE LIGHTS ...	1	.040	7	.0242	15	82	100 ft.	"	"
COMPASS LIGHTS ...	1	.040	7	.0242	15	82	25 ft.	"	"
POOP LIGHTS ...	1	.040	7	.0242	15	82	30 ft.	"	"
CARGO LIGHTS ...	1	.040	7	.0242	15	82	300 ft.	"	"
ARC LAMPS ...									
HEATERS ...									

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 ...										
CIRC. SEA WATER PUMPS ...										
CIRC. FRESH WATER PUMPS ...										
AIR COMPRESSOR ...										
FRESH WATER PUMP ...										
ENGINE TURNING GEAR ...										
ENGINE REVERSING GEAR ...										
LUBRICATING OIL PUMPS ...										
OIL FUEL TRANSFER PUMP ...										
WINDLASS ...										
WINCHES, FORWARD ...										
WINCHES, AFT ...										
STEERING GEAR—										
(a) MOTOR GENERATOR ...										
(b) MAIN MOTOR ...										
WORKSHOP MOTOR ...										
VENTILATING FANS ...										
Exhaust fans for Crew's Quarters	2	1	.040	7	.0242	15	82	60 ft.	Rubber	Conduit
Refrigeration Motor	1	1	.040	7	.0242	15	82	25 ft.	"	"

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.

For St. John Dry Dock & Shipbuilding Co. Ltd.

J. H. Hase
General Superintendent

Electrical Engineers.

Date *Feb. 11th 1944*

COMPASSES.

Distance between electric generators or motors and standard compass 105'-0"

Distance between electric generators or motors and steering compass 100'-0"

The nearest cables to the compasses are as follows:—

Compass lighting only.

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

A cable carrying 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 0 degrees on -- course in the case of the standard

compass, and 0 degrees on -- course in the case of the steering compass.

For St. John Dry Dock & Shipbuilding Co. Ltd.

J. H. Hase
General Superintendent

Builder's Signature.

Date *Feb. 11th 1944*

Is this installation a duplicate of a previous case No If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.)

The electrical equipment of this vessel has been fitted in accordance with the Society's Rules and Regulations; the materials and workmanship used throughout are of good and sound quality. The installation has been tested under full working conditions and found satisfactory.

RETAIN

Total Capacity of Generators 23 Kilowatts.

The amount of Fee ... \$75.00 : When applied for, Feb. 3 1944
Travelling Expenses (if any) £ : When received, 19
(Included with Mch. Rpt).

P. B. To G. Lee
Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRL 21 APR 1944

Assigned see minute on J.E. Rpt.

Im-4-42.—Transfer. Printed in U.S.A.
(The Surveyors are requested not to write on or below the space for Committee's Minute)



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