

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

116 NOV 1943

Received at London Office

Date of writing Report **9th Sept. 1943** When handed in at Local Office **9th Sept. 1943** Port of **Vancouver, B.C.**  
 No. in Survey held at **Vancouver, B.C.** Date, First Survey **16th July/43** Last Survey **9th Sept. 1943**  
 Reg. Book. (Number of Visits **8**)  
 on the **Steel Single Screw Steamer S. S. "STRATHCONA PARK"** Tons { Gross **7156.70**  
 Net **4244.14**  
 Built at **North Vancouver, B.C.** By whom built **Burrard Dry Dock Co. Ltd.** Yard No. **184** When built **1943.**  
 Owners **Minister of Munitions & Supply of Canada** belonging to  
 Electric Light Installation fitted by **Burrard Dry Dock Co. Ltd.** Contract No. When fitted **1943.**  
 Is the Vessel fitted for carrying Petroleum in bulk **No**

System of Distribution **Constant pressure Two-Wire Direct Current.**  
 Pressure of supply for Lighting **110** volts, Heating **--** volts, Power **110** 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 **Yes**, are they compound wound **Yes**  
 are they over compounded 5 per cent. **No**, if not compound wound state distance between each generator **--**  
 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 **Attached. Also** Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing **under 100 K.W. Ship's Trial results attached.**  
 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 **Engine Room Generator Platform on first grating level starboard aft** 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 **Aft end of Generator Platform Athwartships**  
 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 **same Compartment**  
 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 **Ebony Asbestos**, 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 **--**, 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 **20° F**, 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 **No**  
 Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches **150 Ampere D.P. circuit breakers on separate panels with overload and reverse current trips, and a three pole isolating switch for each generator. D.P. switches and fuses for each outgoing circuit.**  
 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 **Yes** Instruments on main switchboard **3** ammeters **3** volt-meters  
 Selector Switch on No. 2 Generator Voltmeter **Yes** 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 **No. 2 Generator Voltmeter Selector Switch wired to give ground readings in addition to Generator and Bus Bar readings. Also earth lamps and switches.** 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







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.

Burrard Dry Dock Company, Limited

Electrical Engineers.

Date 13th Sept. 1943.

COMPASSES:

Distance between electric generators or motors and standard compass

19 feet (Wireless Alternator)

Distance between electric generators or motors and steering compass

16 feet ( " )

The nearest cables to the compasses are as follows:-

A cable carrying .3 Ampères 9" feet from standard compass 9" feet from steering compass.

(Compass Lights).

A cable carrying .3 Ampères 1'4" feet from standard compass 1'4" feet from steering compass.

(Compass correction coils)

A cable carrying .3 Ampères 5 feet from standard compass 3 feet from steering compass.

(Wheelhouse light)

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 All course in the case of the standard compass, and Nil degrees on All course in the case of the steering compass.

Burrard Dry Dock Company, Limited

Builder's Signature.

Date 13th Sept. 1943.

Is this installation a duplicate of a previous case Yes If so, state name of vessel

S.S. "FORT COLUMBIA"

Vancouver Report No. 5942

General Remarks (State quality of workmanship, opinions as to class, &c. The electrical equipment of this ship has been installed under special survey in accordance with the approved plans, New York letters and Society's Rules. The material and workmanship are good. The installation has been examined under full working conditions, tested as per Rule and found satisfactory and in our opinion, is eligible to have the Society's classification without special notation. (See) (Below)

Copies of particulars of Ships trials on generators attached. Maker's certificates covering steam auxiliary engines (Driving generators) and generators attached. As fitted plan of electrical wiring attached. The electrical equipment has also been surveyed during construction and installation on behalf of Wartime Merchant Shipping Ltd., to ensure that the terms of the specification have been fully complied with and this work has been satisfactorily carried out.

A number of conductors have synthetic resin insulation and it is recommended that these be specially examined within two years, before the end of September, 1945.

Total Capacity of Generators 45 Kilowatts.

The amount of Fee \$ 125.00

When applied for, Sept. 13 1943

Travelling Expenses (if any) \$ 10.00

When received, 19

Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 21 DEC 1943

Assigned See fe made, rpl