

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

26 OCT 1944

Date of writing Report 23rd August, 1944 When handed in at Local Office 23rd August, 1944 Port of Vancouver, B. C.

No. in Survey held at Vancouver, B. C. Date, First Survey 29th May, 1944 Last Survey 23rd August 1944  
Reg. Book. (Number of Visits 14)

on the Steel Single Screw Steamer "FORT ALABAMA" - Refrigerated Tons { Gross 7201.75  
Victualling Ship Net 4006.91  
(South)

Built at Vancouver, B. C. By whom built Burrard Dry Dock Co. Ltd. Yard No. 211 When built 1944

Owners Minister of Munitions & Supply of Canada. Port belonging to -

Electric Light Installation fitted by Burrard Dry Dock Co. Ltd. Contract No. - When fitted 1944

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 (50 K.W. stabilized shunt)  
are they over compounded 5 per cent. 15 K.W. - Yes if not compound wound state distance between each generator 2 = 50 K.W. Generators arranged to run in parallel

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 ship's Trial results attached. VI

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

Position of Generators 2 = 50 KW Generators: Engine Room Generator Platform first grating level starboard 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 Aft end of Starboard Generator Platform, control panel for 50 K.W. Generators at Port Generator platform

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 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 Yes, 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. linked Circuit Breakers on separate panels with overload & reverse current trips & a three pole isolating switch for each 15 K.W. generator, 450 amp. D.P. linked circuit breaker need front panel type with overload and reverse current trip relays, and a three pole isolating switch for each 50 K.W. generator. D.P. D.T. linked selector switches with a fuse 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 50 K.W. Panel 2 ammeters 2 voltmeters Selector switch on centre 15 K.W. generator voltmeter 5 ammeters 4 volt-

meters - synchronising device for paralleling purposes. For compound machines is the ammeter connected on the opposite pole to equaliser connection Yes

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system Centre 15 K.W. generator voltmeter has a selector switch wired to give ground readings in addition to generator and Bus Bar readings. Also Earth lamp & Switch.

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 23rd August, 1944

#### 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 inches feet from standard compass 9 inches feet from steering compass. (Compass Light)  
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 7 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 courses 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 23rd August, 1944.

Is this installation a duplicate of a previous case Yes If so, state name of vessel S.S. "FORT KILMAR"  
Vancouver Report No. 6216.

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, and special attention has been given to the installation of synthetic resin insulated cables, and in the Machinery spaces they have been kept at least 1" clear of all steelwork to allow for air circulation. 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, subject to the Masthead and Sidelight wiring and all other P.V.C. Cables fitted on deck, being examined within two years before the end of 8,46. Copies of particulars of ship's Trials on Generators attached. Makers' Certificates covering Steam Auxiliary Engines (driving 15 K.W. 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 Shipbuilding Ltd., to ensure that the Terms of the Specification have been fully complied with and this work has been satisfactorily carried out.

Total Capacity of Generators 145 Kilowatts.

The amount of Fee ... \$125.00

Travelling Expenses (if any) \$ 10.00

When applied for,

2nd Aug. 1944

When received,

19

W. G. Donald & A. B. M. Coleman.  
Surveyors to Lloyd's Register of Shipping. (Acting.)

Committee's Minute

Assigned