

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

26 JUL 1945

Date of writing Report... 5<sup>th</sup> June 1945 When handed in at Local Office... 30 6 1945 Port of... Glasgow

No. in Survey held at... Glasgow Date, First Survey... 12th March 1945 Last Survey... 12 June 1945  
Reg. Book. 89483 on the "M. V. EMPIRE BELGRAVE" (Number of Visits... 13)

Built at... Glasgow By whom built... A & J Inglis Ltd. Yard No... 1299P When built... 1945  
Owners... Ministry of War Transport Port belonging to... Glasgow

Electrical Installation fitted by... W. Muir Goodfellows & Co Ltd. Contract No... 1299P When fitted... 1945

Is vessel fitted for carrying Petroleum in bulk... Yes Is vessel equipped with D.F. — E.S.D. — Gy.C. — Sub.Sig. —

Have plans been submitted and approved... Yes System of Distribution... Two wire Voltage of supply for Lighting... 110

Heating... 110 Power... 110 Direct or Alternating Current, Lighting... D.C. Power... D.C. If Alternating Current state periodicity... — Prime Movers,

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

if not compound wound state distance between generators... — and from switchboard... — Where more than one generator is fitted are they arranged to run in parallel... No, are shunt field regulators provided... Yes Is the compound winding connected to the negative or positive pole

negative... Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing... — Have certificates of test for machines under 100 kw. been supplied... Yes and the results found as per rule... Yes Are the lubricating arrangements and the construction of the generators as per rule... Yes Position of Generators... in engine room

is the ventilation in way of generators satisfactory... Yes are they clear of inflammable material... Yes, if situated near unprotected combustible material state distance from same horizontally... — and vertically... — are the generators protected from mechanical injury and damage from water, steam and oil... Yes, are the bedplates and frames earthed... Yes and the prime movers and generators in metallic contact... Yes Switchboards, where are main switchboards placed... near generators

are they in accessible positions, free from inflammable gases and acid fumes... Yes, are they protected from mechanical injury and damage from water, steam and oil... Yes, if situated near unprotected combustible material state distance from same horizontally... — and vertically... —, what insulation material is used for the panels... Suidanyo, if of synthetic insulating material is it an Approved Type... Yes, if of semi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule... — Is the frame effectually earthed... Yes

Is the construction as per Rule... Yes, including accessibility of parts... Yes, absence of fuses on the back of the board... Yes, individual fuses to pilot and earth lamps, voltmeters, etc.,... Yes, locking of screws and nuts... Yes, labelling of apparatus and fuses... Yes, fuses on the "dead" side of switches... Yes Description of Main Switchgear for each generator and arrangement of equaliser switches... Double pole switches and fuses.

and for each outgoing circuit... Double pole switches and fuses

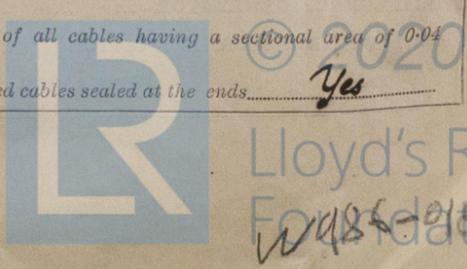
Are compartments containing switchboards composed of fire-resisting material or lined as per Rule... — Instruments on main switchboard... 3

ammeters... 3 voltmeters... — synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to the equaliser connection... — Earth Testing, state means provided... earth lamps.

Switches, Circuit Breakers and Fuses, are they as per Rule... Yes, are the fuses an approved type... Yes, are all fuses labelled as per Rule... Yes If circuit breakers are provided for the generators, at what overload current did they open when tested... —, are the reversed current protection devices connected on the pole opposite to the equaliser connection... —, have they been tested under working conditions, and at what current did they operate... — Joint Boxes, Section Boards and Distribution Boards, is the construction and position as per Rule... Yes

Cables, 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... W.E.

state maximum fall of pressure between bus bars and any point under maximum load... 6 volts, are the ends of all cables having a sectional area of 0.04 square inch and above provided with soldering sockets... Yes Are paper insulated and varnished cambric insulated cables sealed at the ends... Yes



Lloyd's Register 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.

FOR W. MUIR GOODFELLOW & COY LTD

*W. M. Goodfellow*  
Director

Electrical Engineers.

Date *16/6/45*

COMPASSES.

Minimum distance between electric generators or motors and standard compass..... *100 feet*

Minimum distance between electric generators or motors and steering compass..... *90 feet*

The nearest cables to the compasses are as follows:—

A cable carrying *.2* Ampères *led into* feet from standard compass *led into* feet from steering compass.

A cable carrying *6* Ampères *6* feet from standard compass *6* 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.

A. & J. INCLIS LIMITED.

*W. G. Thorne*

Builder's Signature.

Date *22<sup>nd</sup> June 1945*

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

Plans. Are approved plans forwarded herewith..... If not, state date of approval..... *12-4-45*

Certificates. Are certificates of test for motors engaged on essential services and generators forwarded herewith..... *Yes*

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

*equipment of this vessel has been fitted on board under special survey, tested under working conditions, and found satisfactory. All the requirements of the approved plans, and Ministry of War Transport specification have been carried out. The materials and workmanship are good.*

Total Capacity of Generators..... *49½* Kilowatts.

The amount of Fee ... .. £ *27.2.6* When applied for, *24 JUL 1945*  
SPEC. £ *6.15.6*

Travelling Expenses (if any) £ : : When received, .....19.....

*J. C. Wright*

Surveyor to Lloyd's Register of Shipping.

Committee's Minute *GLASGOW 24 JUL 1945*

Assigned..... THE ACCOMPANYING MACHINERY REPORT.

5m.4.30.—Transfer. (MADE AND PRINTED IN ENGLAND.)  
(The Surveyors are requested not to write on or below the space for Committee's Minute.)



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