

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

1 JUL 1943

Received at London Office

Date of writing Report... 7th June 1943 When handed in at Local Office... 14.6.43 Port of... GLASGOW

No. in Survey held at... PORT GLASGOW Date, First Survey... 24th Mar 1943 Last Survey... 10th June 1943
Reg. Book. (Number of Visits... 1st...)

86424 on the... EMPIRE FLORIZEL Tons { Gross... Net...

Built at... PORT GLASGOW By whom built... MESSRS LITHGOWS LTD Yard No... 990 When built... 1943

Owners... MINISTRY OF WAR TRANSPORT Port belonging to... GREENOCK

Electrical Installation fitted by... MESSRS W. MUIR GORDFELLOW & CO LTD Contract No... 990 When fitted... 1943

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

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

Heating... 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

Positive 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... SEE 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... 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... In engine room above 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... Sindanyo, 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.

150 AMP D.B. Knife pattern switch with fuses.

and for each outgoing circuit... 60 AMP & 30 AMP S.P. Knife pattern C.O. switches with a fuse in

each pole

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

ammeters... 2 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... 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.

supported and protected. MAINS: V.I.R (W.E) in steel pipe.

ACCOMMODATION: L.C. cable clipped to wood 207h.

Are all cables passing through decks and watertight bulkheads provided with deck plates..... Yes Refrigerated chambers, are the cables and fittings as per Rule..... Yes

beds, etc., are the holes effectively bushed Lead and with what material Lead Alternative Lighting, are the sources of light in the engine and boiler ✓

double pole switches.....Yes..... and fuses.....Yes..... Are the switches and fuses in a position accessible only to the officers on watch.....Yes....., is an

what is the battery capacity in ampère hours.....

installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present....., if so, how are they protected _____

and where are the controlling switches fitted.....

Searchlight Lamps, No. of _____, whether fixed or portable, _____

the frames effectually earthed....., are heaters in the accommodation of the convection type..... Motors, are all motors constructed and

team and oil Cleo, if situated near unprotected combustible material state minimum distance from same horizontally and vertically . Are

Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing..... Have certificates of test for motors under

ted as per Rule.....Yes..... Lightning Conductors, where required are they fitted as per Rule..... Ships carrying Oil having a Flash Point

Insulation Tests. has the insulation resistance of all circuits and apparatus been tested

PARTICULARS OF GENERATING PLANT.

ATED AT		DRIVEN	
	Days		

GENERATOR CABLES.

CONDUCTORS.		MAX
	Sectional Area or	

CONDUCTORS.		MAXIMUM C
No. in	Sectional Area or	IN AMP

LIGHTING AND HEATING, ETC., CABLES.

1	7/064	7.5	46
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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.

William Goodfellow & Co. Ltd.
C. B. Roberts

Electrical Engineers.

Date *11th June 1943*

COMPASSES.

Minimum distance between electric generators or motors and standard compass *20 FEET*

Minimum distance between electric generators or motors and steering compass *16 FEET*

The nearest cables to the compasses are as follows:—

A cable carrying *.14* Ampères *led into* ~~not from~~ standard compass *led into* ~~not from~~ steering compass.

A cable carrying *4.5* Ampères *10* 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.

LITHGOWS LIMITED

Builder's Signature.

Date *11th June 1943*

W. G. Roberts

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

Plans. Are approved plans forwarded herewith *No* If not, state date of approval *22/6/42*

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 rating of the inboard Wardleby generator No. 110405, has been reduced from 15 to 14 kW. in order that the temperature rise of the armature may not exceed 63°F. The nameplate of the machine has been altered accordingly.

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 M.O.W.T. Specification have been carried out. The materials and workmanship are good.

Noted
L.F.
6/7/43.

Total Capacity of Generators *29* Kilowatts.

The amount of Fee ... £ *22: 0: 0*

SPEC. FEE £ *5: 10: 0*

Travelling Expenses (if any) £ *1: 11: 0*

When applied for,

C. B. Roberts

When received,

12/6/42

J. M. Gardiner
Surveyor to Lloyd's Register of Shipping.

Committee's Minute **GLASGOW 28 JUN 1943**

Assigned *See fyke F.E. Rpt No 22357*



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Foundation