

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office. 10 DEC 1941

Date of writing Report 14 Dec 1941 When handed in at Local Office 9 DEC 1941 Port of Sunderland

No. in Survey held at Sunderland Date, First Survey 9th Oct, Last Survey 28th Nov, 1941
Reg. Book. Suppt. (Number of Visits 10)

36254 on the M.V. "EMPIRE GRENELL" Tons { Gross 7238.
Net 5099.

Built at Sunderland By whom built Wm Dorman & Co., Ltd. Yard No. 678 When built 1941

Owners Ministry of War Transport Port belonging to Sunderland

Electrical Installation fitted by Campbell & Ashwood, Ltd Contract No. 678 When fitted 1941

Is vessel fitted for carrying Petroleum in bulk. No Is vessel equipped with D.F. No E.S.D. No Gy.C. No Sub.Sig. No

Have plans been submitted and approved. No System of Distribution 2 wire minimum Voltage of supply for Lighting 110V

Heating Power 110V Direct or Alternating Current, Lighting No Power No 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 No Are turbine emergency governors fitted with a

trip switch as per Rule. Generators, are they compound wound No, are they level compounded under working conditions No,

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 No 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 No and the results found as per rule No Are the lubricating arrangements and the construction

of the generators as per rule No Position of Generators Engine room starboard side aft

is the ventilation in way of generators satisfactory No are they clear of inflammable material No, 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 No, are the bedplates and frames earthed No and the prime movers and generators in metallic

contact No Switchboards, where are main switchboards placed Engine room starboard side

on after bulkhead

are they in accessible positions, free from inflammable gases and acid fumes No, are they protected from mechanical injury and damage from water, steam

and oil No, if situated near unprotected combustible material state distance from same horizontally. and vertically. what insulation

material is used for the panels. "Epony Lindamap" if of synthetic insulating material is it an Approved Type No, if of

semi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule. Is the frame effectually earthed No

Is the construction as per Rule No, including accessibility of parts No, absence of fuses on the back of the board No, individual fuses

to pilot and earth lamps, voltmeters, etc. No locking of screws and nuts No, labelling of apparatus and fuses No, fuses on the "dead"

side of switches. No Description of Main Switchgear for each generator and arrangement of equaliser switches. Double pole

air circuit breaker with overload trip and time lag device

on each pole

and for each outgoing circuit. Double pole double throw quick break knife

switch and double pole fuse

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

ammeters 2 w 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 2 lamps coupled to 2 through 2 w of fuses

Switches, Circuit Breakers and Fuses, are they as per Rule No, are the fuses an approved type No, are all fuses labelled as

per Rule No If circuit breakers are provided for the generators, at what overload current did they open when tested. are the reversed current

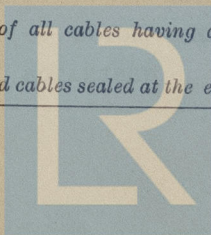
protection devices connected on the pole opposite to the equaliser connection. have they been tested under working conditions, and at what current

did they operate. Joint Boxes, Section Boards and Distribution Boards, is the construction and position as per Rule No

Cables, are they insulated and protected as per the appropriate Tables of the Rules No, if otherwise than as per Rule are they of an approved type.

state maximum fall of pressure between bus bars and any point under maximum load. 4.4 v. are the ends of all cables having a sectional area of 0.04

square inch and above provided with soldering sockets. No Are paper insulated and varnished cambric insulated cables sealed at the ends. No



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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.

CAMPBELL & ISHERWOOD, LTD.

Electrical Engineers.

Date 4th Dec 1941

COMPASSES.

Minimum distance between electric generators or motors and standard compass 118 feet

Minimum distance between electric generators or motors and steering compass 112 feet

The nearest cables to the compasses are as follows:—

A cable carrying 14 Ampères on the feet from standard compass 7 feet from steering compass.

A cable carrying 14 Ampères 7 feet from standard compass on the 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 115 degrees on Every course in the case of the standard compass, and 115 degrees on Every course in the case of the steering compass.

WILLIAM DOXFORD & SONS, Limited.

E. A. Fletcher

Builder's Signature.

Date 4-12-41

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

Plans. Are approved plans forwarded herewith No If not, state date of approval 17/10/41: 20/10/41

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 installed under special survey and in accordance with the approved plans and with the specification. The materials used are of good quality and the workmanship is good. On completion the equipment was operated under working conditions with satisfactory results and the insulation resistance of all circuits was measured and found good. This equipment is in my opinion suitable for a closed vessel.

Notes

11/12/41

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.)

Total Capacity of Generators 30 Kilowatts.

The amount of Fee ... £ 28 : 2/6 : When applied for, 1 Dec 1941

Travelling Expenses (if any) £ : : When received, 4 Dec 1941

G. Antinson

Surveyor to Lloyd's Register of Shipping.

FRI. 19 DEC 1941

Committee's Minute

Assigned See Sld. 76 33265



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