

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

18 MAY 1945

Received at London Office

Date of writing Report 5-8-1945 When handed in at Local Office 11/5/1945 Port of West Hartlepool
 No. in Survey held at West Hartlepool Date, First Survey 2-3-45 Last Survey 4-6-1945
 Reg. Book. 89478 on the S.S. "EMPIRE CAICOS" Tons {Gross 3538
 Net 2259
 Built at West Hartlepool By whom built Wm Gray & Co. Ltd Yard No. 1179 When built 1945
 Owners The Ministry of War Transport Port belonging to West Hartlepool
 Electrical Installation fitted by Wm Gray & Co. Ltd. Contract No. 1179 When fitted 1945
 Is vessel fitted for carrying Petroleum in bulk No Is vessel equipped with D.F. Yes E.S.D. No Gy.C. No Sub.Sig. No

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

Heating — Power 110 Direct or Alternating Current, Lighting Yes Power Yes 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 on raised platform aft of main engine

, 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 on angle frames adjacent to 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 Heavy "bindangs", 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 a double-pole, single

throw quick-break Knife Switch and double-pole fuse: a double-pole, double-throw

Knife Switch for supplying D.C. from either generator.

and for each outgoing circuit a double-pole double-throw Knife Switch and double-pole

fuse.

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

ammeters Two 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 E. lamps coupled to E through M.S. fuses

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 —,

state maximum fall of pressure between bus bars and any point under maximum load 2 6/11, are the ends of all cables having a sectional area of 0.01

square inch and above provided with soldering sockets Yes Are paper insulated and varnished cambric insulated cables sealed at the ends Yes



PARTICULARS OF GENERATING PLANT.

GENERATOR CABLES

MAIN DISTRIBUTION CABLES.

LIGHTING AND HEATING, ETC., CABLES.

MOTOR CABLES.

© 2020 0087 3/2
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 WILLIAM GRAY & CO. LIMITED

Wm. S. Simpson

Electrical Engineers.

Date 5th May, 1945

GENERAL MANAGER

COMPASSES.

Minimum distance between electric generators or motors and standard compass 176'

Minimum distance between electric generators or motors and steering compass 175'

The nearest cables to the compasses are as follows:—

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

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

FOR WILLIAM GRAY & CO. LIMITED

Wm. S. Simpson

Builder's Signature.

Date 5th May, 1945

GENERAL MANAGER

Is this installation a duplicate of a previous case yes If so, state name of vessel SS. "Empire Malle"

Plans. Are approved plans forwarded herewith No If not, state date of approval 26-9-44

Certificates. Are certificates of test for ~~motors engaged on essential services and~~ generators forwarded herewith forwarded to London 16.1.45

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 in accordance with the approved plans and the Ministry of Shipping Specification and amendments thereto. The materials used are of good quality and design and the workmanship is good. On completion the equipment was operated on load with satisfactory results, and the insulation resistance of each circuit was measured and found good. This equipment is in my opinion suitable for a classed vessel.

Noted

Wm 23.5.45

Total Capacity of Generators (2x5) 30 Kilowatts.

The amount of Fee ...

£22.10.0
Specification 5.12.6

When applied for,

16/5/1945

Travelling Expenses (if any) £

When received,

19

B. A. Rand
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 25 MAY 1945

Assigned

See F.E. machy. 2ph