

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report... 26th October 45 When handed in at Local Office... 12-11-45 Port of... Glasgow Received at London Office... 22 Nov 1945

No. in Survey held at... Yroon Reg. Book. Date, First Survey... 25-6-45 Last Survey... 20-10-45 (Number of Visits... 9)

23260 on the S.S. "EMPIRE CRUSOE" Tons (Gross 2958 Net 1672)

Built at... Yroon By whom built... Ailsa S.B. Co Yard No. 448 When built 1945

Owners... Ministry of War Transport Port belonging to... Yroon

Electrical Installation fitted by... Yelford Innes McKay and Co Ltd. Contract No. 448 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 Voltage of supply for Lighting... 110

Heating... Power... No 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... and the results found as per rule... 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... "Lindanyo", 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... D.P. switch and fuses.

and for each outgoing circuit... D.P.D.T. switch and fuses.

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... NE state maximum fall of pressure between bus bars and any point under maximum load... 3 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... NE

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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.

WELFORD, GIBER, MACKAY & CO. LTD.

[Signature] DIRECTOR

Electrical Engineers.

Date 27th Oct. 45

COMPASSES.

Minimum distance between electric generators or motors and standard compass 24 feet
 Minimum distance between electric generators or motors and steering compass 22 feet

The nearest cables to the compasses are as follows:—

A cable carrying 0.1 Ampères led into feet from standard compass led into feet from steering compass.
 A cable carrying 9 Ampères 9 feet from standard compass 5 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 LSA SHIPBUILDING CO., LIMITED

[Signature] Builder's Signature. Date _____
 MANAGING DIRECTOR

Is this installation a duplicate of a previous case Yes. If so, state name of vessel "EMPIRE DIRK"

Plans. Are approved plans forwarded herewith No. If not, state date of approval 21.8.45

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 in accordance with the requirements of the M.O.W.T., tested under full working conditions and found satisfactory. The materials and workmanship are good, with the exception of the generators, whose test sheets show a temperature rise in excess of Rule requirements. It has been arranged with DOMB(H) London to derate the generators, and the generator nameplate altered to show 11 kw 100 amps max continuous rating instead of 12½ kw. 114 amps as at present, and it is submitted that the class be made subject pending this being done.

valid
Jan 5.12.45

Total Capacity of Generators 25 22 Kilowatts.

The amount of Fee ... £ 20 : 0 : 20 NOV 1945 When applied for,
 Specification 5 : 0
 Travelling Expenses (if any) £ 2 : 0 : _____ When received.
19.....

[Signature]
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 20 NOV 1945

Assigned SEE ACCOMPANYING MACHINERY REPORT

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