

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

Date of writing Report 24th Nov. 42 When handed in at Local Office 30 NOV 1942 Port of Sunderland

No. in Survey held at Sunderland Date, First Survey 27th Oct. Last Survey 24th Nov. 1942  
Reg. Book. Suppt. (Number of Visits 8)

86908 on the M.V. "HARPAGUS" Tons {Gross 727.1  
Net 504.4

Built at Sunderland By whom built W. Dorman & Co., Ltd. Yard No. 695 When built 1942

Owners National S.S. Co. Ltd. Port belonging to London

Electrical Installation fitted by Campbell & Sheworth, Ltd. Contract No. 695 When fitted 1942

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 live wire insulated Voltage of supply for Lighting 110

Heating 110 Power 110 Direct 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 No Generators, are they compound wound No, are they level compounded under working conditions No

if not compound wound state distance between generators No and from switchboard No 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 No 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 No and vertically No

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 aft 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 No and vertically No, what insulation material is used for the panels "Economy Linsamap"

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 No 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 circuit breaker with overload trip and time lag device on each pole

and for each outgoing circuit Double pole double throw knife switch and double pole fuse

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule No Instruments on main switchboard Two

ammeters Two voltmeters No synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to the equaliser connection No Earth Testing, state means provided Elamps connected to E through two 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 200 A, are the reversed current protection devices connected on the pole opposite to the equaliser connection No, have they been tested under working conditions, and at what current did they operate No

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 No, state maximum fall of pressure between bus bars and any point under maximum load 4.44, 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







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.

GAMPBELL & ISHERWOOD, LTD,

*James Gampbell* Electrical Engineers.

Date *25th Nov 1942*

#### COMPASSES.

Minimum distance between electric generators or motors and standard compass *122 feet*

Minimum distance between electric generators or motors and steering compass *120 feet*

The nearest cables to the compasses are as follows:—

A cable carrying *1/4* Ampères *on the feet from* standard compass *7* feet from steering compass.

A cable carrying *1/4* 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 *his* degrees on *every* course in the case of the standard compass, and *his* degrees on *WILLIAM GAMPBELL & SONS, Limited* course in the case of the steering compass.

*E. G. O'Keefe* Builder's Signature.

Date *24/11/42*

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

Plans. Are approved plans forwarded herewith *Yes* If not, state date of approval *18/5/42 & 29/6/42*

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 electrical*

*equipment of this vessel has been installed under special survey. The materials used and the workmanship are good. On completion the equipment was run under working conditions with satisfactory results, the protective devices of the circuit breakers were adjusted and operated, and the insulation resistance of all circuits was measured and found good. This equipment is in my opinion suitable for a classed vessel.*

*Robert*

*E. J.*

*2/12/42*

Total Capacity of Generators *30* Kilowatts.

The amount of Fee ... £ *22 : 10* : *26 Nov. 1942*

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

*Sanison*

Surveyor to Lloyd's Register of Shipping.

TUE 15 DEC 1942

Committee's Minute

Assigned *See Std. JE 335 45*



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