

Rpt. 13.

No. 17735

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

SEP 18 1937

Date of writing Report *2nd Sept 1937* When handed in at Local Office *4th Sept, 1937* Port of *West Hartlepool*No. in Survey held at *West Hartlepool*
Reg. Book.Date, First Survey *25th May* Last Survey *2nd September 1937*
(Number of Visits *See*)21167 on the *S.S. "BELGRAVIAN"*Tons { Gross *3136*
Net *1401*Built at *West Hartlepool* By whom built *W. Gray & Co. Ltd.* Yard No. *1073* When built *1937*Owners *Ellerman Lines Ltd.*Port belonging to *Liverpool*Electric Light Installation fitted by *The Sunderland Forge & Eng. Co. Ltd.* Contract No. *1073* When fitted *1937*Is the Vessel fitted for carrying Petroleum in bulk *No* ✓System of Distribution *Double wire* ✓Pressure of supply for Lighting *110* ✓

volts, Heating —

volts, Power *110* ✓

volts.

Direct or Alternating Current, Lighting *Direct* ✓Power *Direct* ✓

If alternating current system, state frequency of periods per second —

Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off *Yes* ✓Generators, do they comply with the requirements regarding temperature rise *Yes* ✓are they compound wound *Yes* ✓are they over compounded 5 per cent. *Yes* ✓

if not compound wound state distance between each generator —

Where more than one generator is fitted are they arranged to run in parallel *Only one fitted* ✓

is an adjustable regulating resistance fitted in

series with each shunt field *Yes* ✓

Have certificates of test results for machines under 100 kw. been submitted and

approved *Yes, Cert. Herwich* Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing —Are all terminals accessible, clearly marked, and furnished with sockets *Yes* ✓

are they spaced or shielded that they cannot be accidentally earthed,

short circuited, or touched *Yes* ✓Are the lubricating arrangements of the generators as per Rule *Yes* ✓Position of Generators *Engine room starboard side* ✓

is the ventilation

in way of the generators satisfactory *Yes* ✓are they clear of all inflammable material *Yes* ✓

if situated near unprotected

woodwork or other combustible material, state distance of same horizontally from or vertically above the generators —

and —

are the generators protected from mechanical injury and damage from water, steam or oil *Yes* ✓are their axes of rotation fore and aft *Yes* ✓Earthing, are the bedplates and frames of the generating plant efficiently earthed *Yes* ✓

are the prime movers and their respective generators

in metallic contact *Yes* ✓Main Switch Boards, where placed *Engine room starboard side* ✓

If the generators and main switchboard are not placed in the same compartment, is each generator provided with

a fuse on each insulated pole as near as possible to the terminals of the generator, additional to that provided on the main switchboard —

Switchboards, are they placed in accessible positions, free from inflammable gases and acid fumes *Yes* ✓

are they protected from mechanical

injury and damage from water, steam or oil *Yes* ✓

if situated near unprotected woodwork or other combustible material, state distance of same

horizontally from or vertically above the switchboards —

and — are they constructed wholly of durable, non-ignitable non-absorbent

materials *Yes* ✓ is all insulation of high dielectric strength and of permanently high insulation resistance —

is it of an approved type — if semi-insulating material is used, are all conducting parts insulated from the slab with mica or micanite or other

non-hygroscopic insulating material, and the slab similarly insulated from its framework *Yes* ✓

is the non-hygroscopic insulating material of an approved

type *Yes* ✓ and is the frame effectively earthed *Yes* ✓

Are the fittings as per Rule regarding: — spacing or shielding of live parts

accessibility of all parts *Yes* ✓absence of fuses on back of board *Yes* ✓

temperature rise of

omnibus bars *Yes* ✓individual fuses to voltmeter, pilot or earth lamp *Yes* ✓

are moving parts of switches alive in the

“off” position *No* ✓are all screws and nuts securing connections effectively locked *Yes* ✓

are any fuses fitted on the live side of

switches *No* ✓

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches

D.P. sw. & D.P. fuse on dynamo main; D.P. sws. & D.P. fuses on outgoing circuits ✓

Are turbine driven generators fitted with emergency trip switch as per rule —

Are cupboards or compartments containing switchboards composed of

fire-resisting material or lined with approved material *Yes* ✓Instruments on main switchboard *Yes* ✓ammeter *Yes* ✓

voltage

synchronising device for paralleling purposes: For compound machines is the ammeter connected on the opposite pole to equalizer connection

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system

E. lamps coupled to E. through switches & fuses ✓

Switches, Circuit Breakers and Fusible Cut-outs,

do these comply with the requirements of the Rules *Yes* ✓are the fusible cut-outs of an approved type *Yes* ✓

have the reversed

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All Conductors are of annealed copper conforming to British Standard Specification No. 7 (or International Electro-technical Commission Publication No. 28).

The Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.

The foregoing is a correct description:

16²²²⁷ Sundaland Forge & Eng Co Ltd.
A. J. Gomer.

Electrical Engineers.

Date 2-9-1937

COMPASSES.

Distance between electric generators or motors and standard compass 300 feet

Distance between electric generators or motors and steering compass 285 feet

The nearest cables to the compasses are as follows:—

A cable carrying .14 Ampères on the feet from standard compass 15 feet from steering compass.

A cable carrying .14 Ampères 15 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 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.

Jos. S. Simpson
GENERAL MANAGER

Builder's Signature.

Date

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

General Remarks (State quality of workmanship, opinions as to class, &c.) The above installation has been fitted out under special survey. The materials used and the workmanship are good. On completion the dynamo, governor, main board, switches, fuses, cables, motors and fittings were examined and tested under working conditions and found satisfactory and suitable for a classed vessel. This vessel is eligible in my opinion to have the entry E.S.D D.F. in the Register Book.

Noted
J.P.
21/9/37

Total Capacity of Generators 18 Kilowatts.

The amount of Fee ... £ 16 : 10 : When applied for, 16th Sept, 1937.

Travelling Expenses (if any) £ : : When received, 12-10-37

G. Anderson

Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI 24 SEP 1937

Assigned See other F.E. report



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