

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report 19th Jan. 1940. When handed in at Local Office 22.1.40 Port of Glasgow. Received at London Office JAN 24 1940

No. in Survey held at Port Glasgow. Date, First Survey 1939 Nov. 13 Last Survey 18th Jan. 1940
Reg. Book. 41225 on the S.S. "TEMPLE ARCH". (Number of Visits 11)

Built at Port Glasgow. By whom built Lithgows Ltd. Yard No. 929. When built 1940
Owners Temple, S.S. & Co. Ltd. Port belonging to London.
Electric Light Installation fitted by H.T. Robertson & Co. Contract No. 929. When fitted 1940
Is the Vessel fitted for carrying Petroleum in bulk No.

System of Distribution *Low wire*
Pressure of supply for Lighting 110. volts, Heating 110 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 *No*, 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* 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 so 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 *15 kw. generator in engine room. 5 kw. Aux. generator special platform, fore engine room bulkhead.* 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 *15 kw. fore & aft- 5 kw. thwart: slip.*
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 *near generator.*

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 *Yes*, is it of an approved type *Yes*, if semi-insulating material is used, are all conducting parts insulated from the slab with mica or mica-nite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework *Indanite*, 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 switchgear *No*.

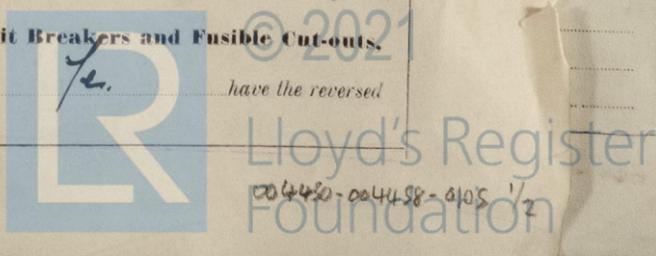
Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches
Each generator controlled by D.P. Switch & fuses, each outgoing circuit controlled by S.P. Switch & D.P. fuses

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 — Instruments on main switchboard / ammeters /

voltmeters — synchronising device for paralleling purposes. For compound machines is the ammeter connected on the opposite pole to equaliser connection —

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

do these comply with the requirements of the Rules *Yes*, are the fusible cutouts of an approved type *Yes*, have the reversed



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.

H. T. Robertson & Co. Electrical Engineers. Date *22/1/40*

COMPASSES.

Distance between electric generators or motors and standard compass *30 feet*

Distance between electric generators or motors and steering compass *30 feet*

The nearest cables to the compasses are as follows:—

A cable carrying *2* Ampères *led into* ~~feet from~~ standard compass *led into* ~~feet from~~ steering compass.

A cable carrying *10* Ampères *10* feet from standard compass *8* 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.

LITHGOWS LIMITED.

James Fullerton Secretary Builder's Signature. Date *22/1/40*

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

General Remarks (State quality of workmanship, opinions as to class, &c. *The electrical equipment of this vessel has been fitted on board under special survey, tested under full working conditions and found satisfactory. The materials and workmanship are good.*

RB
22/1/40

W.H.S.
26/1/40

Total Capacity of Generators *20* Kilowatts.

The amount of Fee ... £ *17 : 10 :* When applied for, _____
Travelling Expenses (if any) £ *1 : 1/6 :* When received, *4/2/1940*

A. G. Findlay
Surveyor to Lloyd's Register of Shipping.

Committee's Minute **GLASGOW 23 JAN 1940**

Assigned **SEE ACCOMPANYING MACHINERY REPORT.**



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750,000—Transfer.
The Signatories are requested not to write on or behind the space for Committee's Minute.