

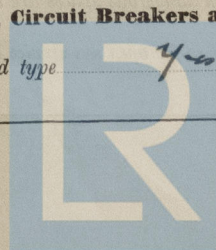
REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

7 AUG 1935

Date of writing Report 26-7-35 When handed in at Local Office 3. 8. 35 Port of Glasgow
 No. in Survey held at Paisley Date, First Survey 28. 6. 35 Last Survey 24-7-1935
 Reg. Book. (Number of Visits... 3)
 on the hon Propelling Buckel. Steamer "WOODBROOK" Tons { Gross 398
 Net 360
 Built at Paisley By whom built Fleming & Ferguson Yard No. 524 When built 1935
 Owners Woodbrook Steam Navigation Co. Ltd. Port belonging to —
 Electric Light Installation fitted by Messrs J. Chastars Contract No. 524 When fitted 1935
 Is the Vessel fitted for carrying Petroleum in bulk —

System of Distribution Two wire
 Pressure of supply for Lighting 110 volts, Heating — volts, Power 110 volts.
 Direct or Alternating Current, Lighting Direct Power Direct
 Is an 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
 Do the generators, do they comply with the requirements regarding temperature rise Yes, are they compound wound Yes
 Do they over compound 5 per cent. Yes, if not compound wound state distance between each generator —
 Are more than one generator is fitted are they arranged to run in parallel —, is an adjustable regulating resistance fitted in
 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,
 or circuited, or touched Yes Are the lubricating arrangements of the generators as per Rule Yes
 Location of Generators Engine Room, is the ventilation
 way of the generators satisfactory Yes are they clear of all inflammable material Yes if situated near unprotected
 work 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
 Is anything, 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 In engine room near to generators.
 If the generators and main switchboard are not placed in the same compartment, is each generator provided with
 a cable on each insulated pole as near as possible to the terminals of the generator, additional to that provided on the main switchboard —
 Are the 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
 of an approved type Yes, if semi-insulating material is used, are all conducting parts insulated from the slab with mica or micanite or other
 hygroscopic insulating material, and the slab similarly insulated from its framework Indurite, is the non-hygroscopic insulating material of an approved
Yes, and is the frame effectively earthed Yes Are the fittings as per Rule regarding:— spacing or shielding of live parts
Yes, accessibility of all parts Yes, absence of fuses on back of board Yes, temperature rise of
 bus bars Yes, individual fuses to voltmeter, pilot or earth lamp Yes, are moving parts of switches alive in the
 position No. are all screws and nuts securing connections effectively locked Yes are any fuses fitted on the live side of
No. Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches
Double pole switch & fuses for generator. D.P. switch & fuses for each outgoing circuit
 Are cupboards or compartments containing switchboards composed of
 insulating material or lined with approved material — Instruments on main switchboard 1 ammeters 1
 Is there a 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
Good Lamps Switches, Circuit Breakers and Fusible Cut-outs,
 do these comply with the requirements of the Rules Yes are the fusible cutouts of an approved type Yes have the reversed



Joint Boxes, Section and Distribution Boards, is the

construction, protection, insulation, material, and position of these as per rule

Cables: Single, twin, concentric, or multicore Single are the cables insulated and protected as per Tables IV, V, X or XI of the Rules Yes

If the cables are insulated otherwise than as per Rule, are they of an approved type

Fall of Pressure, *state maximum between bus bars and*

any point of the installation under maximum load 1.5 Volt

Cable Sockets, *are the ends of all cables having a sectional*

area of 0.04 square inch and above provided with soldering sockets

Paper Insulated and Varnished Cambric Insulated Cables.

If conductors are paper or varnished cambric insulated, is the dielectric at the exposed ends of the conductor protected from moisture by being suitably sealed with insulating compound _____, or waterproof insulating tape _____

Cable Runs, are the cables fixed as far as possible in accessible positions

not exposed to drip or accumulation of water or oil, or to high temperature from boilers, steam pipes, uplates or other hot objects, or to avoidable risk of mechanical damage. Yes Are cables in machinery spaces, galleys, laundries, bathrooms and lavatories lead covered or run in conduit. Yes

Support and Protection of Cables, state how the cables are supported and protected *L.C. Cables run throughout installation. Clipped to ways, bulkheads & decks by means of brass clips.*

If cables are run in wood casings, are the casings and caps secured by screws _____, are the cap screws of brass _____, are the cables run in separate grooves _____. If armoured and lead covered cables are secured by metal clips, are the clips spaced as per Table VIII yes

Refrigerated Chambers, are the cables and fittings in accordance with the special requirements..... — 2400 000

Joints in Cables, state if any, and how made, insulated, and protected none.

Watertight Glands and Deck Tubes, are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands

Yes Bushes in Beams and Non-watertight Partitions, where unarmoured cables pass through beams and non-watertight partitions, are the holes efficiently bushed *Yes* state the material of which the bushes are made *Lead.*

Earthing Connections, state what earthing connections are fitted and their respective sectional areas. *Lead sheathing of cables bonded & earthed.*

are their connections made as per Rule ☒

Alternative Lighting, are the groups of lights in the propelling machinery space arranged as per Rule _____ **Emergency Supply**, state position and method of control of the emergency supply and how the generator is driven. _____

Navigation Lamps, are these separately wired _____, controlled by separate switch and separate fuses _____, are the fuses double pole _____
are the switches and fuses grouped in a position accessible only to the officers on watch _____

has each navigation lamp an automatic indicator as per Rule _____. **Secondary Batteries**, are they constructed and fitted as per Rule _____

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, watertight
are any fittings placed in spaces in which goods are liable to be stacked in close proximity to them; if so, how are they protected

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected None

where are the controlling switches situated.

are all fittings suitably ventilated Yes, are all switches and lampholders constructed wholly of non-ignitable, non-absorbent materials Yes

Heating and Cooking Appliances, are they constructed and fitted as per Rule _____, are air heaters constructed and fitted as per Rule _____

Searchlight Lamps, No. of _____, whether fixed or portable _____, are their fittings as per Rule _____

Arc Lamps, other than searchlight lamps, No. of —, are their live parts insulated from the frame or case —, are their fittings as per Rule —

Motors, are their working parts readily accessible.....Yes....., are the coils self-contained and readily removable for replacement.....Yes.....

are the brushes, brush holders, terminals and lubricating arrangements as per Rule Yes, are the motors placed in well-ventilated compartments in which

flammable gases cannot accumulate and clear of all inflammable material 725, are they protected from mechanical injury and damage from

water, steam or oil Yes are their axes of rotation fore and aft Yes, if situated near unprotected woodwork or other combustible

material, are the motors of the totally enclosed, pipe ventilated, forced draught, drip or flame proof type

....., if not of this type, state distance of the combustible material horizontally or vertically above the motors..... and

have machines of over 100 BHP been inspected by the Surveyors during manufacture and testing. Control Gear and Resistances, are the generato

field and motor speed regulators, starters and controllers constructed and fitted as per Rule 705 **Lightning Conductors**, where lightning conductors

are required, are these fitted as per Rule _____ Ships carrying Oil having a Flash Point less than 150° F. Have the special requirements of _____

the Rules been complied with regarding switches, joint boxes, section and distribution boards, protection of cables, method of distribution, lead of cables, lights and

fittings.....are all fuses of the filled cartridge type.....are they of an approved type.....

If portable lamps for use in dangerous spaces are supplied, are they of a self-contained, battery-fed type approved by the Home Office.....

Spare Gear, if the vessel is for open sea service have spares been supplied as per Rule _____

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Amperes.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	ONE	6.6	110	60	650	Steam Engine	✓	✓
AUXILIARY								
EMERGENCY								
ROTARY TRANSFORMER								

GENERATOR, LIGHTING AND HEATING CONDUCTORS.

[illegible]

MOTOR CONDUCTORS.

[illegible]

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.

Waters. Electrical Engineers.

Date *24th July '35.*

COMPASSES.

Distance between electric generators or motors and standard compass *Non propelling vessel no compasses fitted.*

Distance between electric generators or motors and steering compass ☒

The nearest cables to the compasses are as follows:—

A cable carrying ☒ Ampères ☒ feet from standard compass ☒ feet from steering compass.

A cable carrying ☒ Ampères ☒ feet from standard compass ☒ 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 ☒

Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted ☒

The maximum deviation due to electric currents was found to be ☒ degrees on ☒ course in the case of the standard compass, and ☒ degrees on ☒ course in the case of the steering compass.

A. H. D. Bestwood Builder's Signature.

Date *21.7.35.*

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*)

The vessel has been fitted on board under special survey, tested under full working conditions and found satisfactory. The materials & workmanship were found to be good and sound.

3/8/35.

*Noted
8/8/35.*

Total Capacity of Generators *6.6* Kilowatts.

The amount of Fee ... £ *6 : 10 : 0*

Travelling Expenses (if any) £

When applied for, *6 - AUG 1935*
When received, *15-8-35*

H. Haffner
Surveyor to Lloyd's Register of Shipping.

Committee's Minute *GLASGOW 6 - AUG 1935*

Assigned *SEE ACCOMPANYING MACHINERY REPORT.*

2m. 5.34.—Transfer.
The Surveyors are requested not to write on or below the space for Committee's Minute.)



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