

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

WFD. 10 JAN. 1923

Received at London Office

Date of writing Report

19

When handed in at Local Office

8. 1.

10-22 Port of Glasgow

No. in Survey held at

GLASGOW

Date, First Survey

21. 11. 22

Last Survey

13. 12.

1922

Reg. Book.

(Number of Visits.....)

65856 on the

"M. V. LOCHGOIL"

Tons

Gross 9500

Net

Built at

GOVAN

By whom built

MESSRS HARLAND & WOLFF Yard No. 516 C

When built

Owners

ROYAL MAIL STEAM PACKET CO.

Port belonging to

LONDON

Electric Light Installation fitted by

MESSRS HARLAND & WOLFF LTD

Contract No. 516 C

When fitted 1922..

System of Distribution

220 Volt

Direct Current

Double Wire

Pressure of supply for Lighting

220

volts, Heating

220

volts, Power

220

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 overload

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

yes.

is an adjustable regulating resistance fitted in

series with each shunt field

yes.

Are all terminals accessible and clearly marked

yes.

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

or short circuited

yes.

Are the lubricating arrangements of the generators as per Rule

yes.

Position of Generators

Port side of Main Engine Room

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 axis 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

On Platform at After end of Main Engine room.

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

Same Compartment

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, incombustible non-absorbent materials

yes.

is all insulation of high dielectric strength and of

permanently high insulation resistance

yes.

if semi-insulating material is used, are all conducting parts connected to one pole

insulated from the slab with mica or micanite and the slab similarly insulated from its framework

yes.

frame effectively earthed

yes.

Are the following fittings as per Rule, viz.:—spacing or shielding of live parts

yes.

accessibility of all parts

yes.

absence of fuses on back of board

yes.

proportion of omnibus

bars

yes.

individual fuses to voltmeter, pilot or earth lamp

yes.

connections of switches

yes.

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

500 Amp. D.P. switches

and D.P. Circuit Breakers for each Generator.

D.P. Q.B. Switches with 2 D.P. Cartridge

Fuses for each outgoing circuit. For equalizing a D.P. 500 amp Switch is interlocked with each 500 amp. circuit breaker

Instruments on main switchboard

4

ammeters

2

voltmeters

synchronising device for paralleling purposes.

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

Two lamps with

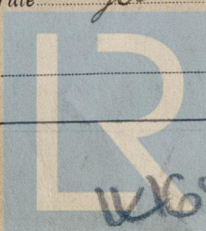
switch & fuses wired in series mid point between lamps earthed

Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules

yes.

Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule

yes.



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Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load 2 Volts

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load 2 Volts

Cable Sockets and other connections, are the ends of all cables having a sectional area of 0.007 square inch and above provided with soldering sockets

Yes.

Paper Insulated Cables. *If cables are paper covered, is the dielectric at the exposed ends of the conductor protected from moisture by being suitably sealed with insulating compound*

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, uptakes or other hot objects, or to avoidable risk of mechanical damage. *Yps.* ✓

Support and Protection of Cables, state how the cables are supported and protected. *Clipped direct to wood bulkheads and on perforated plating elsewhere except Main Decking which is in sheet iron troughing*

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 VI *yes*.

Refrigerated Chambers, if lights are fitted, are the cables and fittings in accordance with the special requirements *no lights fitting*

Joints in Cables, state if any, and how made, insulated, and protected. *No jointing of L.C. and L.S.A.B. cables made in special joint box each cable over cor. sq. in. section having a separate sweating terminal*

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

Bushes in Beams and Non-watertight Positions, 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 *All portable gear having metallic handles and radiators earthed with 3/036 copper wire* ✓

Alternative Lighting, are the groups of lights in the propelling machinery space arranged as per Rule yes.

Emergency Supply, state position and method of control of the emergency supply and how the generator is driven.....
None fitted

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

has each navigation lamp an automatic indicator as per Rule yes, are separate screens provided for the use of oil and electric side lights yes
are separate oil lanterns provided for the mast head lights and side lights yes

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, watertight yes
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 No

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected Yes in bonded
store. Special Admiralty Pattern Magazine Fitting Installed, how are the cables led

conduit

where are the controlling switches situated outside ✓

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

inflammable gases cannot accumulate and clear of all inflammable material yes

are they protected from mechanical injury and damage from water, steam or oil yes. are their axis of rotation fore and aft majority 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 yes, if not of this type, state distance of the combustible material horizontally or vertically above the motors — and —

Control Gear and Resistances, are the generator field and motor speed regulators, starters and controllers constructed as per Rule yes.

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.

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

[illegible]

All Conductors are of annealed copper conforming to British Standard Specification No. 7.

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

The foregoing is a correct description.

FOR HARLAND & WOLFF, LTD.

John Dickinson

Electrical Engineers.

Date 29th Dec 1922

Managing Director.

COMPASSES.

Distance between electric generators or motors and standard compass 95 ft.

Distance between electric generators or motors and steering compass 95 ft.

The nearest cables to the compasses are as follows:—

A cable carrying 10.8 Ampères 10 feet from standard compass 6 feet from steering compass.

A cable carrying 6 Ampères 8 feet from standard compass 8 feet from steering compass.

A cable carrying 3 Ampères 6 feet from standard compass 6 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 *all the* course in the case of the standard compass, and *nil* degrees on *all the* course in the case of the steering compass.

FOR HARLAND & WOLFF, LTD.

John Dickinson

Builder's Signature.

Date 29th Dec 1922

Managing Director.

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

General Remarks (State quality of workmanship, opinions as to class, &c. *This installation has*)

*been fitted on board under special survey.
Tested under full working conditions & found
satisfactory in every way.
The workmanship was found to be good & sound.*

It is submitted that
this vessel is eligible for
THE RECORD.

Elec. Light

A.H.D.

26/1/23

Total Capacity of Generators *400* Kilowatts

The amount of Fee ... £ *44* : *10* : *18.12.1922*

Travelling Expenses (if any) : £ : *22.12.1922*

Committee's Minute *GLASGOW*

Assigned *Elec. Light*

J.P. Rankin
Surveyor to Lloyd's Register of Shipping.

9 JAN 1923



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