

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.....6 JUL 1927

Date of writing Report 8. 6. 1927 When handed in at Local Office 1. 7. 1927 Port of Glasgow
 No. in Survey held at Glasgow Date, First Survey 6/4/27 Last Survey 9/6/1927
 Reg. Book. on the M. V. Dana (Number of Visits.....12)
 Tons { Gross 1760
 Net 484
 Built at Govan By whom built Harland Wolff, Ltd. Yard No. 450A When built 1924
 Owners The Anglo-Danish Petroleum Co., Port belonging to D. Copenhagen
 Electric Light Installation fitted by Messrs Harland Wolff, Ltd. Contract No. 450A When fitted 1924

System of Distribution

Pressure of supply for Lighting 100 volts, Heating 100 volts, Power 100 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

they over compounded 5 per cent.

Yes

, if not compound wound state distance between each generator

Yes

more than one generator is fitted are they arranged to run in parallel

No

, is an adjustable regulating resistance fitted in

with each shunt field

Yes

all terminals accessible and clearly marked

Yes

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

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

Yes

Are the lubricating arrangements of the generators as per Rule

Yes

Position of Generators

ventilation in way of the generators satisfactory

Yes

, are they clear of all inflammable material

Yes

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

their axis of rotation fore and aft

Yes

thing, are the bedplates and frames of the generating plant efficiently earthed

Yes

are the prime movers and

respective generators in metallic contact

Yes

in Switch Boards, where placed

Port side of Engine Room

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

se 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

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

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

breakers for generators. Set of bus bars for each generator and D.P. change over switches D.P. fuses for each outgoing circuit

Instruments on main switchboard

2

ammeters

2

volts

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 linked single pole switches across mains, mid point of lamp 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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Insulation of Cables, state type of cables, single or twin both are the cables insulated and protected as per Tables III or IV of the Rules Yes

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load 2.0

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 socket 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 none used

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 Yes

Support and Protection of Cables, state how the cables are supported and protected clipped on perforated plate. Run through iron piping on deck (1 pipe for each polarity) v.s.a.b. on portable gratings in eng. Rm. + v.c. elsewhere

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 -

Joints in Cables, state if any, and how made, insulated, and protected In a special joint box

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 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 -

-, are their connections made as per Rule Yes

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 -

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 must 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 -

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected -

-, how are the cables led -

where are the controlling switches situated -

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

Are 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 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 -

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 Yes

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 Yes

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 AND WOLFF, LIMITED,

John Dickinson

Managing Director.

Electrical Engineers.

Date 18th June 1927.

COMPASSES.

Distance between electric generators or motors and standard compass

65 ft.

Distance between electric generators or motors and steering compass

60 ft.

The nearest cables to the compasses are as follows:—

A cable carrying 3.3 Ampères 9 feet from standard compass 6 feet from steering compass.

A cable carrying 13 Ampères 12 feet from standard compass 15 feet from steering compass.

A cable carrying 20 Ampères 12 feet from standard compass 15 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 AND WOLFF, LIMITED,

John Dickinson

Builder's Signature.

Date 18th June 1927.

Managing Director.

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.)

This installation

has been fitted on board under special survey.

Tested under full working conditions and found satisfactory.

The workmanship was found to be good and sound.

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

W.D.
8/7/27

Total Capacity of Generators 12 Kiloiwatts

The amount of Fee ... £ 12.0.0

When applied for,

4/7/27

Travelling Expenses (if any) £

When received,

5.8.27

Committee's Minute GLASGOW 5-JUL 1927

Assigned Elec Light

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



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