

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 10 MAY 1928

Date of writing Report

19

When handed in at Local Office

- 9 MAY 1928

Port of SUNDERLAND.

No. in Survey held at

Sunderland.

Date, First Survey

11.8.28

Last Survey

11.11.1928

Reg. Book. Supp.

(Number of Visits.....)

40843 on the S.S. "Forthbridge"

Tons { Gross 5140
Net 3156

Built at Sunderland

By whom built Wm Boxford & Sons Ltd

Yard No. 587

When built 1928

Owners Crosby Images & Co Ltd

Port belonging to West Hartlepool.

Electric Light Installation fitted by Messrs Sunderland Forge & Eng Co Contract No. 587. When fitted 1928

System of Distribution

DOUBLE WIRE. ✓

Pressure of supply for Lighting

110 ✓

volts, Heating

volts, Power

volts.

Direct or Alternating Current, Lighting

DIRECT. ✓

Power

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

, is an adjustable regulating resistance fitted in series with each shunt field

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 IN 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

, 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 IN 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

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

, 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. DOUBLE POLE SWITCH &

FUSES FOR MAIN GENERATOR, SINGLE POLE SWITCH & DOUBLE POLE FUSES FOR EACH OUTGOING CIRCUIT.

Instruments on main switchboard

1

ammeters

1

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

EARTH LAMP, SWITCH &

FUSE ON EACH POLE

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.

W494-0344



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Lloyd's Register
Foundation

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 *YES.*

Support and Protection of Cables, state how the cables are supported and protected. **MAINS & MACHINERY SPACES:-** LEAD COVERED ARMoured & BRAIDED SECURED WITH GAL IRON CLIPS. **ACCOMMODATION:-** LEAD COVERED SECURED WITH 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 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 NONE MADE.

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* _____

Alternative Lighting, are the groups of lights in the propelling machinery space arranged as per Rule — *755*.

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 _____

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 _____

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....., are the coils self-contained and readily removable for replacement.....

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

inflammable gases cannot accumulate and clear of all inflammable material

are they protected from mechanical injury and damage from water, steam or oil _____ are their axis of rotation fore and aft _____

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

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

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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.

The SUNDERLAND FORGE & ENGINEERING CO. LTD.

Electrical Engineers.

Date 16th April 1928.

COMPASSES.

Distance between electric generators or motors and standard compass 120 FEET

Distance between electric generators or motors and steering compass 112 FEET.

The nearest cables to the compasses are as follows:—

A cable carrying 5.5 Ampères 10 feet from standard compass 10 feet from steering compass.

A cable carrying 2 Ampères 10 feet from standard compass LED INTO feet from steering compass.

A cable carrying 2 Ampères LED INTO feet from standard compass 10 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 course in the case of the standard compass, and nil degrees on all course in the case of the steering compass.

WILLIAM DOXFORD & SONS, Limited.

W. Hallacher

Builder's Signature.

Date 23/4/28

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 above installation is in accordance with the Society's Rules. The vessel is eligible in my opinion for notation elec light wireless

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

W.D.
9/5/28

Total Capacity of Generators 8 Kilowatts

The amount of Fee ... £ 10 :

When applied for,
19 Mar 1928

Travelling Expenses (if any) £ :

When received,
22 Mar 1928

W.T. Badger

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

elec light



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