

Rpt. 13.

No. 28808

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.....

WFD. 28 MAY. 1924

Date of writing Report

10

When handed in at Local Office

27 MAY 1924

Port of

SUNDERLAND.

No. in Survey held at

SUNDERLAND.

Date, First Survey

3rd May

Last Survey

11th May 1924

Reg. Book.

on the

S/S "Silverelm"

(Number of Visits.....)

Tons

Gross 4351

Net 2638

Built at

SUNDERLAND.

By whom built

P. Delford & Sons. Yard No. 549.

When built

1924.

Owners

Silvercedar Shipping Co. Ltd. Port belonging to London.

Electric Light Installation fitted by

The Sunderland Forge & Eng. Co.

Contract No.

When fitted

1924

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.

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,

Are short circuited

YES.

Are the lubricating arrangements of the generators as per Rule

YES.

Position of Generators

IN 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

CLOSE TO GENERATORS

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

YES

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.

, and is the

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

SWITCHES & FUSES FOR GENERATORS & MOTOR CIRCUITS, SINGLE POLE SWITCHES & DOUBLE POLE FUSES FOR

LIGHTING CIRCUITS. EQUALISER SWITCH FITTED.

Instruments on main switchboard

TWO

ammeters

TWO

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 LAMPS AND SWITCH.

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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Lloyd's Register
Foundation

WED. 28 MAY. 1924

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load 3 volts.

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*

Support and Protection of Cables, state how the cables are supported and protected L.C ARMoured & BRAIDED, ALSO V.I.R CABLES
RUN IN PIPE, CLIPPED TO BEAMS

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* **NO JOINTS MADE**

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.**

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.

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.

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

where are the controlling switches situated _____

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

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 _____

Ships carrying Oil having a Flash Point less than 150° F. Have the special requirements of the Rules been complied with regarding stowage, fire 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.....

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY.	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Ampères.	Horse Power Min.		Fuel Used.	Flash Point of Fuel.
MAIN	2	12½	110.	114	340	INVERTED OPEN TYPE		
AUXILIARY						STEAM ENGINE.		
EMERGENCY								
ROTARY TRANSFORMER								

LIGHTING AND HEATING CONDUCTORS

[illegible]

MOTOR CONDUCTORS

Ref. No.	DESCRIPTION.	No. of Motors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Amperes.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	BALLAST PUMP								
	MAIN BILGE LINE PUMPS ...								
	GENERAL SERVICE PUMP ...								
	EMERGENCY BILGE PUMP ...								
	SANITARY PUMP								
	CIRC. SEA WATER PUMPS ...								
	CIRC. FRESH WATER PUMPS								
	AIR COMPRESSOR								
	FRESH WATER PUMP								
	ENGINE TURNING GEAR ...								
	ENGINE REVERSING GEAR ...								
	LUBRICATING OIL PUMPS ...								
	OIL FUEL TRANSFER PUMP								
	WINDLASS								
	WINCHES, FORWARD								
	WINCHES, AFT								
	STEERING GEAR								
	WORKSHOP MOTOR	1.	.00701	7.	.036	12.✓	80.	V. I. R.	LEAD COVERED.
	VENTILATING FANS								ARM'S & BRIDGES
	CRANE MOTOR	1.	.00701.	7	.036	20.✓	80	V. I. R.	do do
	OIL PURIFIER MOTORS EACH	2.	.00701.	7	.036.	20.✓	60	V. I. R.	do. do.

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.

p.pro. THE SUNDERLAND FORGE & ENGINEERING CO. LTD.

Electrical Engineers.

Date 19th May 1924.

Director

COMPASSES.

Distance between electric generators or motors and standard compass 120 FEET.

Distance between electric generators or motors and steering compass 110 FEET.

The nearest cables to the compasses are as follows:—

A cable carrying 68 Ampères 10 feet from standard compass 15 feet from steering compass.

A cable carrying 55 Ampères 10 feet from standard compass LED INTO feet from steering compass.

A cable carrying 55 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. Gallacher

Builder's Signature.

Date

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 in a satisfactory manner and in accordance with the Rules and on completion was tried under working conditions with satisfactory results.

THE RECORD.

Eleo Light

2/6/24

Total Capacity of Generators 25 Kilowatts

The amount of Fee ... £ 20 : - : When applied for, 9th May 24

Travelling Expenses (if any) £ : : When received, 12th May 24

W.T. Badger + L.H. Hake
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

Im. 3.22.—Transfer.
(The Surveyors are requested not to write on or below the space for Committee's Minute.)



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