

Rpt. 13.

Slid No. 29318

# REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

NOV 1926

Received at London Office  
NEWCASTLE-ON-TYNE

Date of writing Report 19 When handed in at Local Office 17/11 1926 Port of

No. in Survey held at Sunderland Date, First Survey 4 Aug Last Survey 27 Oct 1926  
Reg. Book. (Number of Visits 17)

on the M. V. Silverbeech

Tons { Gross 5311  
Net 3096

Built at Sunderland By whom built Si Pharing Smold Yard No. 695 When built 1926

Owners Silver Line Ltd Port belonging to London

Electric Light Installation fitted by Sunderland Forge & Eng Co. Ltd Contract No. 695 When fitted 1926

### System of Distribution

Double wire distribution box

Pressure of supply for Lighting 220 volts, Heating 220 volts, Power 220 220 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 rating 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, clearly marked, and furnished with sockets Yes, are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched Yes Are the lubricating arrangements of the generators as per Rule Yes

Position of Generators Engine Room Port & Starboard sides  
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 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  
Earthing, are the bed-plates 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 Engine Room Port side

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 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

if semi-insulating material is used, are all conducting parts insulated from the slab with mica or micaite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework Yes  
and is the frame effectively earthed Yes Are the fittings as per Rule regarding:— spacing or shielding of live bars

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

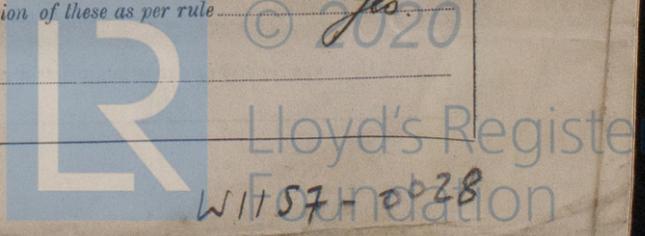
Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches D.P. of loads Reverse Current.

Circuit Breakers & Triple pole switches for Generators D.P. of load Circuit Breakers for Steering Gear & Emergency  
Dynamo, D.P. Switches & Fuses for feed circuits.

Instruments on main switchboard 5 + 1 Aux ammeters 3 + 1 Aux 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.

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

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



Cables: Single, twin, concentric, or multi-core *Single & Twin* are the cables insulated and protected as per Tables IV or V of the Rules *Yes*

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load *Lighting 4 Volts Power 6 Volts*

Cable Sockets and other connections, are the ends of all cables having a sectional area of 0.04 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 *Yes*

Support and Protection of Cables, state how the cables are supported and protected *secured to iron plate with galvan clips in Cargo Holds & Engine, Lead covered & Braided Cable in Brass Clips in Accommodation.*

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, 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 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 *All cables bonded on Lighting & Power Circuits.* 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 *Oil Engine on Engine Room Platform, Forward End.*

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*

Secondary Batteries, are they constructed and fitted as per Rule

Fittings, are all fittings on weather decks, in aloft-holds and engine rooms and where 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 *Connection & Reostats only* 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 bushes, 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 axes of rotation fore and aft *Yes (except Steering Gear)*, 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 and fitted 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

PARTICULARS OF GENERATING PLANT.

Table with columns: DESCRIPTION OF GENERATOR, No. of, Kilowatts, Volts, Amps, Revs. per Min., DRIVEN BY, WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE (Fuel Used, Flash Point of Fuel).

LIGHTING AND HEATING CONDUCTORS.

Table with columns: Ref. No., DESCRIPTION, No. of Conductors, Effective Area of each Conductor, COMPOSITION OF STRAND (No., Diameter), Total Maximum Current, Approximate Length, Insulated with, HOW PROTECTED.

MOTOR CONDUCTORS.

Table with columns: Ref. No., DESCRIPTION, No. of Motors, Effective Area of each Conductor, COMPOSITION OF STRAND (No., Diameter), Total Maximum Current, Approximate Length, Insulated with, HOW PROTECTED.



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 5th Nov. 1926.

COMPASSES.

Distance between electric generators or motors and standard compass 112 feet.  
 Distance between electric generators or motors and steering compass 112 feet.  
 The nearest cables to the compasses are as follows:—  
 A cable carrying 3.25 Amperes 15 feet from standard compass 15 feet from steering compass. ✓  
 A cable carrying .1 Amperes 10 feet from standard compass Led into feet from steering compass. ✓  
 A cable carrying .1 Amperes 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.

BIR JAMES LAING & SONS, LIMITED.

*James Laing*  
 Director

Builder's Signature. Date 9-11-26

Is this installation a duplicate of a previous case yes If so, state name of vessel Silverash

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

The above installation is in accordance with the Societies 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.A. 25/11/26*

*Signature of Surveyors*

Total Capacity of Generators 306 Kilowatts.

The amount of Fee ... £ 39 : —  
*Newcastle* %  
 Travelling Expenses (if any) £ : :  
 When applied for, 26 Oct 1926  
 When received, 30 Oct 1926

*W.T. Budget*  
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

Im. 128.—Transfer. (The Surveyors are requested not to write on or behind the space for Committee's Minute.)



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