

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. **2693A**

Port of **GLASGOW** Date of First Survey **17th Aug** Date of Last Survey **27th Aug** No. of Visits **5**
 No. in Reg. Book on the ~~Iron or Steel~~ **Sand Pump "Tinga"** Port belonging to
 Built at **Renfrew** By whom **Wm Simons Col^l** When built **1908**
 Owners _____ Owners' Address _____
 Yard No. **458** Electric Light Installation fitted by **J. Charters, Glasgow** When fitted **1908**

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One enclosed type compound engine coupled direct to dynamo

Capacity of Dynamo **170** Amperes at **100** Volts, whether continuous or alternating current **Continuous**
 Where is Dynamo fixed **But^m platform Port side** Whether single or double wire system is used **double**
 Position of Main Switch Board **beside dynamo** having switches to groups **A. B. C. D** — of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each **One in Engine room 15 switches, one in Port deck house 3 switches.**

If cut outs are fitted on main switch board to the cables of main circuit **no** and on each auxiliary switch board to the cables of auxiliary circuits **yes** and at each position where a cable is branched or reduced in size **yes** and to each lamp circuit **yes**

If vessel is wired on the double wire system are cut outs fitted to both flow and return wires or cables of all circuits including lamp circuits **yes**

Are the cut outs of non-oxidizable metal **tin** and constructed to fuse at an excess of **100** per cent over the normal current

Are all cut outs fitted in easily accessible positions **yes** Are the fuses of standard dimensions **Wire** If wire fuses are used are permanent instructions fitted on or near each switch board giving particulars of proper size of fuse for each circuit **yes**

Are all switches and cut-outs constructed of incombustible materials and fitted on incombustible bases **yes**

Total number of lights provided for **90 + Projector** arranged in the following groups:—

A **Recessed** **37** lights each of **30 & 16 + 3 & 100** candle power requiring a total current of **21** Amperes

B **Eng. Rm** **45** lights each of **42 & 16 + 3 & 100** candle power requiring a total current of **27** Amperes

C **Clusters** **12** lights each of **50** candle power requiring a total current of **20** Amperes

D **Projector** lights each of candle power requiring a total current of **75** Amperes

E lights each of candle power requiring a total current of Amperes

no Mast head light with lamps each of candle power requiring a total current of Amperes

no Side light with lamps each of candle power requiring a total current of Amperes

no Cargo lights of candle power, whether incandescent or arc lights

If arc lights, what protection is provided against fire, sparks, &c. **no**

Where are the switches controlling the masthead and side lights placed **no**

DESCRIPTION OF CABLES.

Main cable carrying **170** Amperes, comprised of **37** wires, each **14** L.S.G. diameter, **.1824** square inches total sectional area

Branch cables carrying **75** Amperes, comprised of **19** wires, each **15** L.S.G. diameter, **.075** square inches total sectional area

Branch cables carrying **27** Amperes, comprised of **7** wires, each **15** L.S.G. diameter, **.028** square inches total sectional area

Leads to lamps carrying **.5** Amperes, comprised of **1** wires, each **18** L.S.G. diameter, **.0018** square inches total sectional area

Cargo light cables carrying Amperes, comprised of wires, each L.S.G. diameter, square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

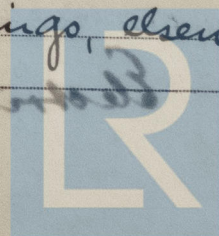
Pure & vulcanized India Rubber, I. R. coated tape, braiding & compound.

Joints in cables, how made, insulated, and protected **no joints**

Are all the joints of cables thoroughly soldered, resin only having been used as a flux **yes** Are all joints in accessible positions, none being made in bunkers, cargo spaces, or spaces which may at any time be used for carrying cargo, stores, or baggage **yes**

Are there any joints in or branches from the cable leading from dynamo to main switch board **yes**

How are the cables led through the ship, and how protected **in cabins in wood casings, elsewhere in Screened iron tubing.**



DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible yes

What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture Iron tubing

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat Iron tubing

What special protection has been provided for the cables near boiler casings Iron tubing

What special protection has been provided for the cables in engine room Iron tubing

How are cables carried through beams under beams through bulkheads, &c. in tubing

How are cables carried through decks in deck pipes

Are any cables run through coal bunkers yes or cargo spaces ✓ or spaces which may be used for carrying cargo, stores, or baggage ✓

If so, how are they protected In iron tubes

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage no

If so, how are the lamp fittings and cable terminals specially protected ✓

Where are the main switches and cut outs for these lights fitted ✓

If in the spaces, how are they specially protected ✓

Are any switches or cut outs fitted in bunkers no

Cargo light cables, whether portable or permanently fixed ✓ How fixed ✓

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel Double wire

How are the returns from the lamps connected to the hull ✓

Are all the joints with the hull in accessible positions ✓

The installation is — supplied with a voltmeter and — an amperemeter, fixed on board.

VESSELS BUILT FOR CARRYING PETROLEUM.

In vessels built for carrying petroleum, are all switches and cut-outs fitted in positions not liable to the accumulation of petroleum vapour or gas ✓

Are any switches, cut outs, or joints of cables fitted in the pump room or companion ✓

How are the lamps specially protected in places liable to the accumulation of vapour or gas ✓

The copper used is guaranteed to have a conductivity of 100 per cent. that of pure copper.

Insulation of cables is guaranteed to have a resistance of not less than 2500 megohms per statute mile after 24 hours' immersion in seawater.

The foregoing statements are a correct description of the Electric Light installation fitted by us on this vessel and we declare that it is at this date in good order and safe working condition.

J. Charters

Electrical Engineers

Date 25/8/08

COMPASSES.

Distance between dynamo or electric motors and standard compass

Distance between dynamo or electric motors and steering compass 110 ft.

The nearest cables to the compasses are as follows:—

A cable carrying <u>75</u> Amperes	<u>8</u> feet from standard compass	<u>8</u> feet from steering compass
A cable carrying <u>2</u> Amperes	<u>6</u> feet from standard compass	<u>6</u> feet from steering compass
A cable carrying <u>1</u> Amperes	<u>1</u> feet from standard compass	<u>1</u> feet from steering compass

Have the compasses been adjusted with and without the electric installation at work at full power

The maximum deviation due to electric currents, etc., was found to be — degrees on — course in the case of the standard compass and — degrees on — course in the case of the steering compass.

FOR WM. SIMONS & CO., LTD.

Wm. H. Simons

Builder's Signature.

Date

29 August 1908

GENERAL REMARKS.

This installation has been well fitted on board and when run working under ordinary conditions was satisfactory

A. McLean & T. H. Pidditch

Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute GLASGOW 8 SEP. 1908

Electric light. L.B.C.

It is submitted that the Record Elec. Light be noted in the Reg. Book

Lloyd's Register Foundation

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

REPORT FORM No. 13-3m.34.