

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 20290

Port of Glasgow Date of First Survey Date of Last Survey No. of Visits
 No. in Reg. Book 1148 on the Steel S.S. "Commonwealth" Port belonging to London
 Built at Whiteinch, Glasgow By whom Barclay, Curle & Co. Ltd When built 1902
 Owners William Lund Owners' Address 3 East India Avenue, Leadenhall St, London, E.C.
 Yard No. 432 Electric Light Installation fitted by William Barrie & Co. 222 Broomielaw When fitted 1902

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Compound wound dynamos (2) coupled direct to Compound engines (2) open type
 Capacity of Dynamo 220 Amperes at 110 Volts, whether continuous or ~~alternating~~ current
 Where is Dynamo fixed as at thrust & main rudder platform
 Position of Main Switch Board rudder platform having switches to groups 7 of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each None

If cut outs are fitted on main switch board to the cables of main circuit no and on each auxiliary fuse 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
 Are the cut outs of non-oxidizable metal yes and constructed to fuse at an excess of 20% 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 arranged in the following groups:—

A	<u>42</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>25.2</u>	Amperes
B	<u>46</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>27.6</u>	Amperes
C	<u>55</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>33.0</u>	Amperes
D	<u>46</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>27.6</u>	Amperes
E	<u>58</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>34.8</u>	Amperes
	<u>2</u>	Mast head light with <u>1</u> lamps each of	<u>32</u>	candle power requiring a total current of	<u>2.4</u>	Amperes
	<u>2</u>	Side light with <u>1</u> lamps each of	<u>32</u>	candle power requiring a total current of	<u>2.4</u>	Amperes
	<u>P</u>	Cargo lights of <u>5</u> <u>16 ea</u>		candle power, whether incandescent or arc lights	<u>74</u>	

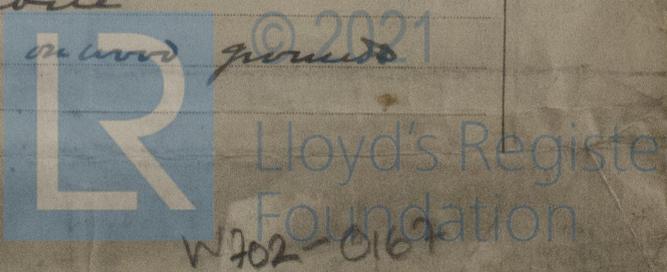
If arc lights, what protection is provided against fire, sparks, &c.
 Where are the switches controlling the masthead and side lights placed In Chart Room

DESCRIPTION OF CABLES.

Main cable carrying 25.2 Amperes, comprised of 4 wires, each 14 L.S.G. diameter, .0352 square inches total sectional area
 Branch cables carrying 27.6 Amperes, comprised of 4 wires, each 14 L.S.G. diameter, .0352 square inches total sectional area
 Branch cables carrying 33 Amperes, comprised of 7 wires, each 14 L.S.G. diameter, .0352 square inches total sectional area
 Leads to lamps carrying 27.6 Amperes, comprised of 7 wires, each 14 L.S.G. diameter, .0352 square inches total sectional area
 Cargo light cables carrying 3 Amperes, comprised of 70 wires, each 40 L.S.G. diameter, .336 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Insulated & lead covered in Saloons & living rooms armors & braided in addition in engine rooms & holds
 Joints in cables, how made, insulated, and protected None
 Are all the joints of cables thoroughly soldered, resin only having been used as a flux None 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 None
 Are there any joints in or branches from the cable leading from dynamo to main switch board None
 How are the cables led through the ship, and how protected Armored cables on wood grounds



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 Armoured

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

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

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

How are cables carried through beams Wood plugs through bulkheads, &c. Glands

How are cables carried through decks G.I. tubes

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

If so, how are they protected Armoring

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 Portable How fixed W.T. cargo boxes

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel By bolt into tapped

How are the returns from the lamps connected to the hull (Same) and fixed into beams

Are all the joints with the hull in accessible positions Yes

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 installation is supplied with a voltmeter and an amperemeter, fixed on Main S/B

The copper used is guaranteed to have a conductivity of 98 per cent. that of pure copper.

Insulation of cables is guaranteed to have a resistance of not less than 600 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.

WILLIAM HARVIE & CO. LIMITED.

W. Harvie
SECRETARY

Electrical Engineers

Date 23/10/02

COMPASSES.

Distance between dynamo or electric motors and standard compass 150 feet (about)

Distance between dynamo or electric motors and steering compass

The nearest cables to the compasses are as follows:—

A cable carrying <u>6</u> Amperes	<u>10</u> feet from standard compass	<u>10</u> feet from steering compass
A cable carrying _____ Amperes	_____ feet from standard compass	_____ feet from steering compass
A cable carrying _____ Amperes	_____ feet from standard compass	_____ feet from steering compass

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

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

FOR BARCLAY, CURLE & CO., LTD

W. B. Ferguson
Secretary

Builder's Signature.

Date 25th Oct. 1902

GENERAL REMARKS.

The electric lighting of this vessel has been satisfactorily carried out & tried under full power.

H Gardner-Smith

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

Committee's Minute Glasgow, 27 OCT. 1902

Record: Electric light

It is submitted that this installation appears to be satisfactory.

Lloyd's Register Foundation

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

REPORT FORM No. 1

28.10.02