

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 24326

Port of Glasgow Date of First Survey 4 July Date of Last Survey 10 Aug No. of Visits 6
 No. in on the Iron or Steel SS Superior Port belonging to Glasgow
 Reg. Book 1790 Built at Port Glasgow By whom Russell & Co. Ltd. When built 1906
 Owners Bank Line Ltd. Owners' Address
 Yard No. 548 Electric Light Installation fitted by Fletcher Kilpatrick & Co. When fitted 1906

DESCRIPTION OF DYNAMO, ENGINE, ETC.

1. Open Type Engine 8" Dia x 7" Stroke Running at 350 R.P.M. Coupled Direct to a Compound Wound 4 Pole Generator
 Capacity of Dynamo 100 Amperes at 100 Volts, whether continuous or alternating current Continuous
 Where is Dynamo fixed Engine Room Whether single or double wire system is used Double
 Position of Main Switch Board Engine Room having switches to groups 5 Circuits of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each Chart Room. 6

If cut outs are fitted on main switch board to the cables of main circuit yes 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 yes and constructed to fuse at an excess of 25% per cent over the normal current
 Are all cut outs fitted in easily accessible positions yes Are the fuses of standard dimensions yes 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 120 lights arranged in the following groups:—

A	<u>59</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>29.5</u>	Amperes
B	<u>52</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>26</u>	Amperes
C	<u>31</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>15.5</u>	Amperes
D	<u>28</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>14</u>	Amperes
E	<u>10</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>5</u>	Amperes
1	Mast head light with	1 lamps each of	<u>32</u>	candle power requiring a total current of	<u>1</u>	Amperes
2	Side light with	1 lamps each of	<u>32</u>	candle power requiring a total current of	<u>2</u>	Amperes
7	Cargo lights of	<u>100</u>	candle power, whether incandescent or arc lights	<u>incandescent</u>		

If arc lights, what protection is provided against fire, sparks, &c.

Where are the switches controlling the masthead and side lights placed In Chartroom

DESCRIPTION OF CABLES.

Main cable carrying 90 Amperes, comprised of 19 wires, each 14 L.S.G. diameter, 1.09442 square inches total sectional area
 Branch cables carrying 30 Amperes, comprised of 7 wires, each 14 L.S.G. diameter, 0.5483 square inches total sectional area
 Branch cables carrying 26 Amperes, comprised of 7 wires, each 1.5 L.S.G. diameter, 0.2822 square inches total sectional area
 Leads to lamps carrying 2 Amperes, comprised of 1 wires, each 1.6 L.S.G. diameter, 0.03214 square inches total sectional area
 Cargo light cables carrying 3 Amperes, comprised of 70 wires, each 40 L.S.G. diameter, square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

H.C. Copper Wire tinned Insulated with Pure & Vulcanized India Rubber & Yarn. The whole Vulcanized together & compounded Lead Covered & Armoured with Galvanized Steel Wire
 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 — 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 —

Are there any joints in or branches from the cable leading from dynamo to main switch board No

How are the cables led through the ship, and how protected Clipped to Deck & Armoured

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

Lead Covered & Armoured

Lead Covered

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

Lead & Armoured

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

Lead Covered & Armoured

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

" " " "

How are cables carried through beams

Through Holes

through bulkheads, &c. Watertight & Land

How are cables carried through decks

Through pipe flush with coverings

Are any cables run through coal bunkers

No or cargo spaces No or spaces which may be used for carrying cargo, stores, or baggage No

If so, how are they protected

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

Cargo light cables, whether portable or permanently fixed

Fixed

How fixed Clipped to Deck

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

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 in Engine Room

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 4000 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.

Fletcher Kilpatrick & Co

Electrical Engineers

Date 4/9/06

COMPASSES.

Distance between dynamo or electric motors and standard compass

60 fms

Distance between dynamo or electric motors and steering compass

60 fms

The nearest cables to the compasses are as follows:—

A cable carrying

6

Amperes

8

feet from standard compass

8

feet from steering compass

A cable carrying

1

Amperes

2 Light in

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

The maximum deviation due to electric currents, etc., was found to be

nil

degrees on

any

course in the case of the

standard compass and

nil

degrees on

any

course in the case of the steering compass.

For Russell & Co

Builder's Signature.

Date Sept. 15th 1906

GENERAL REMARKS.

The Electric Lighting of this vessel has been satisfactorily carried out & tried under full power.

H. Sandner-Smith.

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

Committee's Minute

Glasgow 28 SEP 1906

Record "Electric Light."

It is subd that the Record
Elec Light be noted in
the Reg. Book
Lloyd's Register
Foundation

27.9.06

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

REPORT FORM No. 13-2m34.