

# REPORT ON ELECTRIC LIGHTING INSTALLATION.

No. 5953\*

No. *1* Name of Ship *Glasgow*

Reg. Book *Sept. 15*

Electric Light Installation fitted by *W.C. Martin & Co*

Port of *Glasgow Dundee*

Built at *Caledon Ship Yards Dundee*

When built *1st March 1914*

when fitted *1st March 1914*

Received at London Office **THURS. 29 MAR 1894**

## DESCRIPTION OF DYNAMO AND ENGINE.—

*Belliss's Vertical engine coupled direct with Crompton Horizontal Type Dynamo.*

Capacity of Dynamo *65* Amperes at *100* Volts, whether continuous or alternating current *Continuous*

Where is Dynamo fixed *Starboard side of engine room*

## LAMPS.—

Is vessel wired on single or double wire system *double* Total number of lights *81* arranged in the following groups:—

A (Saloon)	27	lights each of	16	candle power requiring a total current of	17.28	Amperes
B (Midships)	26	lights each of	16	candle power requiring a total current of	16.64	Amperes
C (Holds)	12	lights each of	16	candle power requiring a total current of	7.68	Amperes
D (Engine Room)	16	lights each of	16	candle power requiring a total current of	10.24	Amperes
E		lights each of		candle power requiring a total current of		Amperes
— Mast head light with lamps each of candle power requiring a total current of Amperes						
— Side light with lamps each of candle power requiring a total current of Amperes						
<i>2</i>		Cargo lights of	<i>96</i>	candle power, whether incandescent or arc lights	<i>incandescent</i>	

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

## SWITCHES AND CUT-OUTS.—

Position of Main Switch Board *Starboard side of eng. room* having switches to groups *A B C D* of lights as above

Positions of other switch boards and numbers of switches on each

If cut outs are fitted to main circuit *yes* and to each auxiliary circuit *yes*

and at each position where cable is branched or reduced in size *yes*

If vessel is wired on the double wire system are cut outs fitted on each wire *yes*

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

Are all cut outs fitted in easily accessible positions *yes*

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

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

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

## DESCRIPTION OF CABLES.—

Main cable carrying *55.68* Amperes, comprised of *2-19* wires, each *20* legal standard wire gauge diameter

Branch cables carrying *A 17.28* Amperes, comprised of *19* wires, each *20* legal standard wire gauge diameter

*B 16.64* Amperes, comprised of *19* wires, each *20* legal standard wire gauge diameter

Branch cables carrying *C 7.68* Amperes, comprised of *7* wires, each *20* legal standard wire gauge diameter

*D 10.24* Amperes, comprised of *7* wires, each *20* legal standard wire gauge diameter

Leads to lamps Amperes, comprised of wires, each legal standard wire gauge diameter

Cargo light cables carrying Amperes, comprised of wires, each legal standard wire gauge diameter

The copper used has a conductivity of *98* per cent. that of pure copper.

Insulation of cables is guaranteed to have a resistance of not less than *450* megohms per statute mile after 24 hours' immersion in seawater



DESCRIPTION OF INSULATION, PROTECTION, &c.—

Wires covered with india rubber, tape, and braiding

Joints in cables, how made, insulated, and protected

Joints thoroughly soldered using resin as flux and insulated with rubber strip, solution, and prepared tape

Are all the joints of cables thoroughly soldered, resin only having been used as a flux

yes

How are cables led throughout the ship

wood casing and galvanized iron tubing

What special protection has been provided for the cables in open alleyways

galvanized iron tubing

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

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

galvanized iron tubing

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

"

How are cables carried through decks

galvanized iron deck tube

and through bulkheads wood plugs & iron tube

Are any cables run through coal bunkers

or cargo spaces

yes

If so, how are they protected

galvanized iron tube

Are any lamps fitted in coal bunkers or spaces which may be used for cargo

yes

If so, how are they specially protected

cast iron shutters

Cargo light cables, whether portable or permanently fixed

portable

How fixed

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

TESTING, &c.—

Has the installation been thoroughly tested to its full capacity during a trial of

6

hours' duration

The insulation resistance of the whole installation was not less than

150,000

ohms

The installation is

supplied with a voltmeter and

an amperemeter, fixed

on switchboard

General Remarks.—

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.

W. C. Martin & Co. Electrical Engineers

Date

1st March 1894

COMPASSES.—

Distance between dynamo and standard compass

48 feet

Distance between dynamo and steering compass

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	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

Installation not at work

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.

W. B. THOMPSON & Co. Limited.

Builder's Signature

Builder's Signature

Date

27th March 1894

Secretary

J. P. Thomson

Surveyor's Signature

Date

28th March 1894