

REPORT ON ELECTRIC LIGHTING INSTALLATION.

THURS. 29 MAR 1894

No. 5959* Port of Glasgow Dundee
 No. 1 Name of Ship Princess Victoria Built at W.B. Thompson & Co When built 20th March 1894
 Reg. Book Supt. 26 Dundee
 Electric Light Installation fitted by W.C. Martin & Co Glasgow when fitted 20th March 1894

DESCRIPTION OF DYNAMO AND ENGINE.—

with Golden dynamo Bumpstead & Chandler Engine coupled direct

Capacity of Dynamo 75 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 163 arranged in the following groups:—

A Sumner Cabin 32 lights each of 10²² - 16 candle power requiring a total current of 13.44 Amperes

B White Cabin 28 lights each of 8 candle power requiring a total current of 8.96 Amperes

C Amidships 36 lights each of 8 (2.32) candle power requiring a total current of 14.52 Amperes

D Engine Room 20 lights each of 8 candle power requiring a total current of 6.4 Amperes

E Forecastle 20 lights each of 8 (1.32) candle power requiring a total current of 8.4 Amperes

F Fore hold 16 lights each of 8 candle power requiring a total current of 5.12 Amperes

G After hold 11 lights each of 8 candle power requiring a total current of 5.12 Amperes

1 Mast head light with 1 lamps each of 32 candle power requiring a total current of 1.28 Amperes

2 Side light with 1 lamps each of 32 candle power requiring a total current of 2.5 Amperes

2 Cargo lights of 192 candle power, whether incandescent or arc lights incandescent

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

SWITCHES AND CUT-OUTS—

Position of Main Switch Board on Store bulkhead beside dynamo having switches to groups A. B. C. D. E. F. G. 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 100 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 60.62 Amperes, comprised of 2. 19 wires, each 20 legal standard wire gauge diameter

Branch cables carrying 13.44 Amperes, comprised of 19 wires, each 20 legal standard wire gauge diameter

Branch cables carrying 14.52 Amperes, comprised of 19 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 750 megohms per statute mile after 24 hours' immersion in seawater

DESCRIPTION OF INSULATION, PROTECTION, &c.—

braiding

Wires covered with india-rubber, tape, &

Joints in cables, how made, insulated, and protected

and insulated with prepared tape

thoroughly soldered with resin as flux with rubber strip, solution and

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

" " "

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

" " "

How are cables carried through decks

galv. non deck tubes

and through bulkheads

ditto with wood plugs

Are any cables run through coal bunkers

x

or cargo spaces

yes

If so, how are they protected

galvanz. 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

12

hours' duration

The insulation resistance of the whole installation was not less than

100,000

ohms

The installation is

supplied with a voltmeter and

an amperemeter, fixed

on switch board

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

Electrical Engineers

Date *20th March 1894*

COMPASSES.—

Distance between dynamo and standard compass

60 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. D. Thompson

Builder's Signature

Date

27th March 1894

Secretary.

J. D. Thomson

Surveyor's Signature

Date

28th March 1894



Lloyd's Register Foundation