

REPORT ON ELECTRIC LIGHTING INSTALLATION.

No. 4310 *
 Port of Belfast Received at London Office TUES. 12 DEC 18
 No. in 3 Name of Ship S. S. Wagon Built at Belfast When built 18 93
 Reg. Book. 3
 Electric Light Installation fitted by J. H. Holmes & Co when fitted 18 93 - 10m.

DESCRIPTION OF DYNAMO AND ENGINE.—

1. 7 x 6 Vertical engine open type auto governor coupled direct to
1. No 13 Dynamo Castle type 275

Capacity of Dynamo 110 Amperes at 60 Volts, whether continuous or alternating current Continuous

Where is Dynamo fixed Starting Platform

LAMPS.—

Is vessel wired on single or double wire system Single Wire Total number of lights 47 arranged in the following groups:—

A Forward 15 lights each of 16 candle power requiring a total current of 15 Amperes

B Midships 17 lights each of 16 candle power requiring a total current of 17 Amperes

C Aft 15 lights each of 16 candle power requiring a total current of 15 Amperes

D lights each of candle power requiring a total current of 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

— Cargo lights of — candle power, whether incandescent or arc lights —

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

SWITCHES AND CUT-OUTS.—

Position of Main Switch Board Near Dynamo having switches to groups A. B. C. of lights as above

Positions of other switch boards and numbers of switches on each

1. Board in Engine Room with 4 switches

1. do Forward " 4 "

1. do Aft " 4 "

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 —

Are the cut outs of non-oxidizable metal yes and constructed to fuse at an excess of 50 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 — Amperes, comprised of — wires, each — legal standard wire gauge diameter

Branch cables carrying — Amperes, comprised of — wires, each — legal standard wire gauge diameter

Branch cables carrying — Amperes, comprised of — wires, each — 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 2000 megohms per statute mile after 24 hours' immersion in seawater

DESCRIPTION OF INSULATION, PROTECTION, &c.—

Pure para rubber, tape + 2 coats vulcanising rubber, all vulcanised together braided + compounded with patent damp resisting compound

Joints in cables, how made, insulated, and protected The wires to be joined are first bared + thoroughly cleaned, then twisted or woven together + soldered so as to make a strong metallic joint. The joint is then lapped with rubber tape + varnished with shellac

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

How are cables led throughout the ship In wood casing

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

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 *W. I. deck tubes* and through bulkheads *stuffing boxes*

Are any cables run through coal bunkers *—* or cargo spaces *yes* If so, how are they protected *strong casing*

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

If so, how are they specially protected

Cargo light cables, whether portable or permanently fixed *Portable* How fixed *screwed*

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel Return sweat into a brass socket then bolted to hull

How are the returns from the lamps connected to the hull Return twisted round brass screw between 2 brass washers + screwed tight up

Are all the joints with the hull in accessible positions *yes*

TESTING, &c.—

Has the installation been thoroughly tested to its full capacity during a trial of *5* hours' duration

The insulation resistance of the whole installation was not less than *280,000* ohms

The installation is supplied with a voltmeter and *not* an amperemeter, fixed *on main 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.

A. H. Holmes. Esq.

Electrical Engineers

Date *Nov 2-93.*

COMPASSES.—

Distance between dynamo and standard compass

Distance between dynamo and steering compass

The nearest cables to the compasses are as follows:—

A cable carrying *10* Amperes *30* feet from standard compass *feet from steering compass*

A cable carrying *2* Amperes *6* 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 degrees on course in the case of the standard compass

and degrees on course in the case of the steering compass.

Builder's Signature

Date

A. L. Jones

Surveyor's Signature

Date

6th Nov 1893



Lloyd's Register Foundation