

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 5572

Port of *Belfast* Date of First Survey *30/1/03* Date of Last Survey *6/8/03* No. of Visits *8*
 No. in Reg. Book *on the Iron of Steel* Port belonging to *Colonial*
 Built at *Belfast* By whom *Northrup* *Liverpool* *1903*
 Owners *Charles H. Carr L.* Owners' Address *Liverpool*
 Yard No. *198* Electric Light Installation fitted by *H. H. Allen & Co. L.* When fitted *1903*

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One Single Cylinder Engine Coupled direct to one bipolar dynamo

Capacity of Dynamo *150* Amperes at *62* Volts, whether continuous or alternating current *Continuous*
 Where is Dynamo fixed *Middle platform Staircase side in bracket*
 Position of Main Switch Board *alongside dynamo* having switches to groups *A, B, C, D* of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each *✓*

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 where double wired*
 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* 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 *128* arranged in the following groups:—

<i>Cap. Room</i>	<i>35</i> lights each of	<i>16</i>	candle power requiring a total current of	<i>35</i>	Amperes
<i>Forecastle Top</i>	<i>16</i> lights each of	<i>16</i>	candle power requiring a total current of	<i>16</i>	Amperes
<i>Mach. Space</i>	<i>35</i> lights each of	<i>16</i>	candle power requiring a total current of	<i>35</i>	Amperes
<i>Deck Cargo</i>	<i>42</i> lights each of	<i>16</i>	candle power requiring a total current of	<i>42</i>	Amperes
<i>E</i>	lights each of		candle power requiring a total current of		Amperes
<i>1</i>	Mast head light with <i>1</i> lamp each of	<i>32</i>	candle power requiring a total current of	<i>2</i>	Amperes
<i>2</i>	Side light with <i>1</i> lamp each of	<i>32</i>	candle power requiring a total current of	<i>4</i>	Amperes
<i>4</i>	Cargo lights of	<i>32</i>	candle power, whether incandescent or arc lights	<i>Incandescent</i>	

If are lights, what protection is provided against fire, sparks, &c. *Also 3-25 Amp. Arc lamps, with heavy brass framed lanterns, plate glass panes & wire nets for same.*
 Where are the switches controlling the masthead and side lights placed *in wheelhouse or bridge*

DESCRIPTION OF CABLES.

Main cable carrying	<i>150</i> Amperes, comprised of	<i>37</i> wires, each	<i>14</i> L.S.G. diameter, <i>1/80</i> square inches total sectional area
Branch cables carrying	<i>35</i> Amperes, comprised of	<i>19</i> wires, each	<i>18</i> L.S.G. diameter, <i>0.035</i> square inches total sectional area
Branch cables carrying	<i>7</i> Amperes, comprised of	<i>7</i> wires, each	<i>20</i> L.S.G. diameter, <i>0.007</i> square inches total sectional area
Leads to lamps carrying	<i>23</i> Amperes, comprised of	<i>431</i> wires, each	<i>30</i> L.S.G. diameter, <i>0.032</i> square inches total sectional area
Cargo light cables carrying	<i>6</i> Amperes, comprised of	<i>145</i> wires, each	<i>38</i> L.S.G. diameter, <i>0.04</i> square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Cables insulated with layers of pure India rubber protected with strong braided hemp then lead sheathed, served with jute & finally covered with galv. steel armouring.

Joints in cables, how made, insulated, and protected *None except in rooms. These are soldered insulated with pure rubber & Bakelite tape then varnished.*

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

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 *In Galv. Iron Pipe laid in Shells Decr Midships, thence forward & aft clipped & supported by Cable Cars & sheathed & armoured in Subways.*

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 Sheathed Served

Armoured was employed

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

stump wood casing

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

Lead sheathed, Served & Armoured.

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

How are cables carried through beams

None through beams through bulkheads, &c.

brass glands

How are cables carried through decks

all in piping in decks

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

P

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

brass socket in dynamo pole piece

How are the returns from the lamps connected to the hull

to brass earth screw

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

(1)

supplied with a voltmeter and

(1)

an amperemeter, fixed in switchboard

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

2500

mégohms 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.

W. H. Hallam, P. M. C. H. L.

C. P. Hunter.

Electrical Engineers

Date

24/3/13

COMPASSES.

Distance between dynamo or electric motors and standard compass

about 100 feet

Distance between dynamo or electric motors and steering compass

" " "

The nearest cables to the compasses are as follows:—

A cable carrying

Ampere

18

feet from standard compass

10

feet from steering compass

A cable carrying

(all wiring in vicinity of compasses in double run system)

feet from standard compass

feet from steering compass

A cable carrying

Ampere

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

every

course in the case of the

standard compass and

nil

degrees on

every

course in the case of the steering compass.

PRO WORKMAN, CLARK & CO., LIMITED

W. H. Hallam

Builder's Signature.

Date

24/3/13.

GENERAL REMARKS.

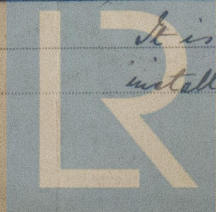
This installation is of good description throughout, and has been fitted in accordance with the Rules.

R. J. Reever

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

Committee's Minute

It is submitted that this installation appears to be satisfactory



Lloyd's Register Foundation

4-4-03

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

REPORT FORM No. 14.