

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 5813.

Port of Belfast Date of First Survey 22nd Aug Date of Last Survey 29th Oct No. of Visits 14
 No. in Reg. Book on the 1st S.P. Class of Scotland Port belonging to Belfast
 Built at Belfast By whom Workmen Clark & Co When built 1904
 Owners The Star Line Limited Owners' Address London
 Yard No. 212 Electric Light Installation fitted by R. Wilson, Belfast When fitted 1904

DESCRIPTION OF DYNAMO, ENGINE, ETC.

British Electric Plant Coys, Continuous Current Multipolar, Driven by Open Cycle Cycle engine 9 cylr, 7" stroke
 Capacity of Dynamo 100 Amperes at 100 Volts, whether continuous or alternating current Continuous
 Where is Dynamo fixed Engine Room Bottom platform
 Position of Main Switch Board Bulkhead near Dynamo switches to groups 4 of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each None

If cut outs are fitted on main switch board to the cables of main circuit Yes and on each auxiliary ~~switch~~ ^{fuse} 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 50 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 168 arranged in the following groups:— A, B, C, D

A	<u>25</u> lights each of	<u>16</u> candle power requiring a total current of	<u>15</u> Amperes
B	<u>53</u> lights each of	<u>16</u> candle power requiring a total current of	<u>31</u> Amperes
C	<u>45</u> lights each of	<u>16</u> candle power requiring a total current of	<u>26</u> Amperes
D	<u>45</u> lights each of	<u>16</u> candle power requiring a total current of	<u>26</u> Amperes
E	lights each of	candle power requiring a total current of	Amperes
	<u>2</u> Mast head light with <u>1</u> lamps each of	<u>32</u> candle power requiring a total current of	<u>1.2</u> Amperes
	<u>2</u> Side light with <u>1</u> lamps each of	<u>32</u> candle power requiring a total current of	<u>1.2</u> Amperes
	<u>10</u> Cargo lights of	<u>800</u> candle power, whether incandescent or arc lights	<u>Incand^d</u>

Included in above

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

Where are the switches controlling the masthead and side lights placed In Wheel Houses

DESCRIPTION OF CABLES.

Main cable carrying 99 Amperes, comprised of 37 wires, each 16 L.S.G. diameter, .119 square inches total sectional area
 Branch cables carrying 15 Amperes, comprised of 7 wires, each 16 L.S.G. diameter, .022 square inches total sectional area
 Branch cables carrying 26 Amperes, comprised of 7 wires, each 14 L.S.G. diameter, .035 square inches total sectional area
 Leads to lamps carrying .6 Amperes, comprised of 1 wires, each 16 L.S.G. diameter, .003 square inches total sectional area
 Cargo light cables carrying 3 Amperes, comprised of 38 wires, each 38 L.S.G. diameter, .0039 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Wires protected by layer pure rubber, tapes, lead sheathed, and generally, armoured cable wire.

Joints in cables, how made, insulated, and protected Soldered, rubbered, taped & varnished Joints, (Extension boxes generally)

Are all the joints of cables thoroughly soldered, resin only having been used as a flux Yes (A few joints only) 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 Armoured wire, in cabins, wood casing



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DESCRIPTION OF INSULATION, PROTECTION, ETC., continued.

Are they in places always accessible.

No - Lane under shelter deck.

What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture.

Lead sheathed. Armour and

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

As above

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

As above

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

As above

How are cables carried through beams.

Wood ferrules

through bulkheads, &c.

Lockets

How are cables carried through decks.

Iron pipes

Are any cables run through coal bunkers.

reserve for cargo spaces

Yes or spaces which may be used for carrying cargo, stores, or baggage.

Yes

If so, how are they protected.

Armour and lead sheathed & carefully chipped up to deck between the beams.

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.

No

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.

✓

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 supplied with a voltmeter and

with an amperemeter, fixed Main Switch Board

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 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.

Robert Wilson

Electrical Engineers

Date

Nov 5th 04

COMPASSES.

Distance between dynamo or electric motors and standard compass

About 90 ft.

Distance between dynamo or electric motors and steering compass

84

The nearest cables to the compasses are as follows:—

A cable carrying 1 Amperes 6 feet from standard compass 5 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.

Yes

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

Nil

degrees on

all

course in the case of the

standard compass and

Nil

degrees on

all

course in the case of the steering compass.

PRO WORKMAN, CLARK & CO., LIMITED.

W. Prachas

Builder's Signature.

Date 10/11/04

GENERAL REMARKS.

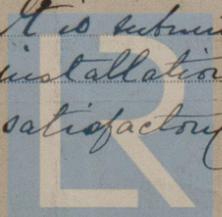
This installation appears to be of good description and has been fitted in accordance with the Rules.

R. J. O'Connell

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

12.11.04

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

REPORT FORM No. 13.