

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 3629.

Port of Dublin Date of First Survey 25 Aug/16 Date of Last Survey 4 Oct/16 No. of Visits 5
 No. in on the Iron or Steel S.S. Ford Austria Port belonging to Belfast
 Reg. Book 797 Built at Belfast By whom Workman Clark & Co When built 1902
 Owners Irish Ship Owners Co Ltd (Incorporated in Ireland) Owners' Address _____
 Yard No. _____ Electric Light Installation fitted by J. G. Sherwood When fitted Sept 16

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Engine by Swainland Torge Co direct acting 385 R.P.M. 7" dia x 5" stroke @ 86 lbs
 direct coupled to dynamo on same bed plate

Capacity of Dynamo 73 Amperes at 110 Volts, whether continuous or alternating current Continuous

Where is Dynamo fixed Starboard of engine room Whether single or double wire system is used double

Position of Main Switch Board engine room having switches to groups Five of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each No auxiliary switch boards = auxiliary fuse boards
 situated A engine room B messroom C Pantry D chart Room E Forward accommodation

If fuses 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 fuses fitted to both flow and return wires or cables of all circuits including lamp circuits yes

Are the fuses of non-oxidizable metal yes and constructed to fuse at an excess of 50 per cent over the normal current

Are all fuses fitted in easily accessible positions _____ Are the fuses of standard dimensions _____ 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 fuses constructed of incombustible materials and fitted on incombustible bases yes

Total number of lights provided for 112 arranged in the following groups:—

A	<u>21</u>	lights each of <u>14-16 cp 7-8 cp</u>	candle power requiring a total current of	<u>10</u>	Amperes
B	<u>20</u>	lights each of <u>16 cp</u>	candle power requiring a total current of	<u>10</u>	Amperes
C	<u>15</u>	lights each of <u>10-50 watt 5 cp</u>	candle power requiring a total current of	<u>8</u>	Amperes
D	<u>4 also mast head etc</u>	lights each of <u>16</u>	candle power requiring a total current of	<u>2.2</u>	Amperes
E	<u>10</u>	lights each of <u>16</u>	candle power requiring a total current of	<u>5.5</u>	Amperes
	<u>2</u>	Mast head light with <u>1</u> lamps each of <u>double filament 32</u>	candle power requiring a total current of	<u>1.1</u>	Amperes
	<u>2</u>	Side light with <u>1</u> lamps each of " " "	candle power requiring a total current of	<u>1.1</u>	Amperes
	<u>5</u>	Cargo lights of <u>cluster of 6 16 = 30 lamps</u>	candle power, whether incandescent or arc lights	<u>16.4</u>	

If arc lights, what protection is provided against fire, sparks, &c. no arc lights also 18.0 amperes for mercury
72.3

Where are the switches controlling the masthead and side lights placed chart room

DESCRIPTION OF CABLES.

	Main cable carrying	<u>73</u> Amperes, comprised of	<u>19</u> wires, each	<u>16</u> S.W.G. diameter,	<u>.06</u> square inches total sectional area
A	Branch cables carrying	<u>10</u> Amperes, comprised of	<u>7</u> wires, each	<u>20</u> S.W.G. diameter,	<u>.007</u> square inches total sectional area
B	Branch cables carrying	<u>10</u> Amperes, comprised of	<u>7</u> wires, each	<u>20</u> S.W.G. diameter,	<u>.007</u> square inches total sectional area
	Leads to lamps carrying	<u>1</u> Amperes, comprised of	<u>1</u> wires, each	<u>18</u> S.W.G. diameter,	<u>.0018</u> square inches total sectional area
	Cargo light cables carrying	<u>3.3</u> Amperes, comprised of	<u>138</u> wires, each	<u>38</u> S.W.G. diameter,	<u>.0044</u> square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

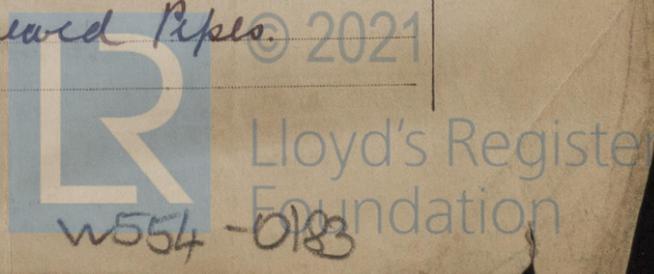
vulcanized india rubber - lapped braided & compounded overall
800 megohms resistance
also lead covered in accommodation

Joints in cables, how made, insulated, and protected no joints - all wires lapped in

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances 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

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 galvanized iron - screwed pipes



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 covering.

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

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

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

How are cables carried through beams clipped to underside of beam through bulkheads, &c. W.T. glands.

How are cables carried through decks deck tubes. 15" high

Are any cables run through coal bunkers Yes or cargo spaces Yes or spaces which may be used for carrying cargo, stores, or baggage Yes.

If so, how are they protected galvanised iron piping

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage no - portable lamp used

If so, how are the lamp fittings and cable terminals specially protected ///

Where are the main switches and fuses for these lights fitted ///

If in the spaces, how are they specially protected ///

Are any switches or fuses fitted in bunkers no

Cargo light cables, whether portable or permanently fixed portable How fixed portable to connecting plugs.

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel double wire

How are the returns from the lamps connected to the hull ///

Are all the joints with the hull in accessible positions ///

Is the installation supplied with a voltmeter Yes and with an amperemeter Yes, fixed on main S. Board.

VESSELS BUILT FOR CARRYING PETROLEUM.

In vessels built for carrying petroleum, are all switches and fuses fitted in positions not liable to the accumulation of petroleum vapour or gas

Are any switches, fuses, 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 not for such use

The copper used is guaranteed to have a conductivity of not less than that of the Engineering Standards Committee's standard, and the wires are protected by tinning from the sulphur compounds present in the insulating material.

Insulation of cables is guaranteed to have a resistance of not less than 800 megohms per statute mile at 60° Fahrenheit after 24 hours' immersion in water, the test being made after one minute's electrification at not less than 500 volts and while the cable is still immersed.

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. G. Sherwood Electrical Engineers Date 27/8/16
24 Bachelors Walk Dublin

COMPASSES.

Distance between dynamo or electric motors and standard compass

Distance between dynamo or electric motors and steering compass

The nearest cables to the compasses are as follows:—

A cable carrying <u>E. 5.5</u> Amperes	<u>30</u> feet from standard compass	<u>30</u> feet from steering compass
A cable carrying <u>B. 10.0</u> Amperes	<u>30</u> feet from standard compass	<u>30</u> 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

GENERAL REMARKS.

This installation has been fitted in accordance with the Rules. It has been tested, & is apparently satisfactory in every respect.

THE RECORD.

Elect Light MacWilliam
16.10.16. Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



Im 9, 14.—Transfer.