

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 17276.

Port of Greenock Date of First Survey 1st Feb, 1918 Date of Last Survey 17th April, 1918 No. of Visits 25
 No. in on the Iron or Steel 0.1 'Araglass' Port belonging to Greenock
 Reg. Book Built at Sms Glasgow By whom Samuel St When built 1910
 Owners Owners' Address Greenock
 Yard No. 711 Electric Light Installation fitted by Samuel St When fitted 1910

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One 10 H.P. Compound Wound Generator coupled to Vertical 6 H.P. Sintered Lignite Acting Engine all by Messrs Clarke Chapman No. of Generator 5632 No. of Engine 2606
 Capacity of Dynamo 100 Amperes at 100 Volts, whether continuous or alternating current Continuous
 Where is Dynamo fixed Engine Room Whether single or double wire system is used Double
 Position of Main Switch Board Engine Room having switches to groups of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each

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

Are the fuses of non-oxidizable metal yes and constructed to fuse at an excess of 100 per cent over the normal current

Are all fuses 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 fuses constructed of incombustible materials and fitted on incombustible bases yes

Total number of lights provided for 119 arranged in the following groups:—

A	Boat	11	lights each of	16	candle power requiring a total current of	4.04	Amperes
B	Captain's Cabin	28	lights each of	16	candle power requiring a total current of	14.9	Amperes
C	Engine Room	24	lights each of	16	candle power requiring a total current of	15.3	Amperes
D	Accommodation	21	lights each of	16	candle power requiring a total current of	13.4	Amperes
E			lights each of		candle power requiring a total current of		Amperes
	2 Mast head light with	2	lamps each of	32	candle power requiring a total current of	2.5	Amperes
	2 Side light with	2	lamps each of	32	candle power requiring a total current of	2.5	Amperes
	1 Convoy Lamp with			32		1.28	
	5-5 Light Cargo lights of			16	candle power, whether incandescent or arc lights	Incandescent	

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

Where are the switches controlling the masthead and side lights placed in Chart Room

DESCRIPTION OF CABLES.

Main cable carrying 100 Amperes, comprised of 19 wires, each 14 S.W.G. diameter, .094 square inches total sectional area
 Branch cables carrying 14.9 Amperes, comprised of 4 wires, each 18 S.W.G. diameter, .0125 square inches total sectional area
 Branch cables carrying Amperes, comprised of wires, each S.W.G. diameter, square inches total sectional area
 Leads to lamps carrying 3.2 Amperes, comprised of 3 wires, each 20 S.W.G. diameter, .003 square inches total sectional area
 Cargo light cables carrying 3.2 Amperes, comprised of 3 wires, each 20 S.W.G. diameter, .003 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

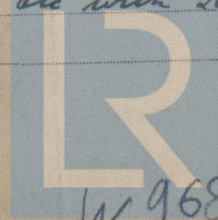
Twine 7. D R Single Wire Armoured + Braided Cable also single Lead Covered Cable

Joints in cables, how made, insulated, and protected

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 securely fixed to beams etc with lead saddles



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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 Covered

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat Arm'd & Braided Cables

What special protection has been provided for the cables near boiler casings Arm'd & Braided Cables in Gas Barrel Tubing

What special protection has been provided for the cables in engine room Arm'd & Braided Cables

How are cables carried through beams Bushed Stubs through bulkheads, &c. Bulkhead Glans

How are cables carried through decks Dick Lubes

Are any cables run through coal bunkers no or cargo spaces no or spaces which may be used for carrying cargo, stores, or baggage yes

If so, how are they protected Armoured & Braided

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 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 _____

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 _____

Is the installation supplied with a voltmeter yes, and with an amperemeter yes, fixed on Main Srv 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 _____

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 600 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.

Erin Alley Ross & Co. Ltd.

Electrical Engineers

Date 6th April 1918

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	Amperes	feet from standard compass	feet from steering compass
<u>14.9</u>	<u>14</u>	<u>13</u>	
<u>4</u>	<u>12</u>	<u>11</u>	
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 Any course in the case of the standard compass and Nil degrees on any course in the case of the steering compass.

GENERAL REMARKS.

The fitting of the wires in this vessel are as stated in this report and appear to be in accordance with the Commission's requirements.

It is submitted that this vessel is eligible for THE RECORD. Elec. Light.

Builder's Signature.

Date 15th April 1918

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

Committee's Minute

GLASGOW. 23 APR 1918

Elec. Light



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