

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 34145

Port of Glasgow Date of First Survey 14-7-17 Date of Last Survey 27th Sept 17 No. of Visits 22
 No. in Reg. Book on the Iron or Steel Boxol Port belonging to _____
 Built at Glasgow By whom Dunlop Curle & Co. When built 1917
 Owners the Admiralty Owners' Address _____
 Yard No. 548 Electric Light Installation fitted by A. Watson & Co. When fitted 1917

DESCRIPTION OF DYNAMO, ENGINE, ETC.

1 Steam Driven Dynamo supplied by Admiralty

Capacity of Dynamo 95 Amperes at 105 Volts, whether continuous or alternating current Continuous
 Where is Dynamo fixed bottom platform of Engine Room Whether single or double wire system is used double
 Position of Main Switch Board adjacent to dynamo having switches to groups 4 circuits of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each None

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-oxidisable metal Yes and constructed to fuse at an excess of 75 to 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 -

Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases Yes. All Admiralty pattern

Total number of lights provided for 151 arranged in the following groups :-

A	15 } lights each of	32 } 16 } candle power requiring a total current of	17	Amperes
B	7 } lights each of	6 } 6 } candle power requiring a total current of		Amperes
C B.	39 } lights each of	16 } 50 } candle power requiring a total current of	50	Amperes
D C	42 } lights each of	16 } 16 } candle power requiring a total current of	38	Amperes
E D	27 } lights each of	16 } 50 } candle power requiring a total current of	18.6	Amperes
	8 } lights each of	50 } candle power requiring a total current of		Amperes
1	Mast head light with 1 lamps each of	16	candle power requiring a total current of	.6 Amperes
1	Side light with 1 } lamps each of	32 } 16 } candle power requiring a total current of	1.8	Amperes

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

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

Where are the switches controlling the masthead and side lights placed on Bridge

DESCRIPTION OF CABLES.

Main cable carrying 95 Amperes, comprised of 19 wires, each 15 S.W.G. diameter, .075 square inches total sectional area
 Branch cables carrying 50 Amperes, comprised of 19 wires, each 16 S.W.G. diameter, .060 square inches total sectional area
 Branch cables carrying 17 Amperes, comprised of 19 wires, each 17 S.W.G. diameter, .046 square inches total sectional area
 Leads to lamps carrying 2-5 Amperes, comprised of 1 wires, each 17 S.W.G. diameter, .0025 square inches total sectional area
 Cargo light cables carrying _____ Amperes, comprised of _____ wires, each _____ S.W.G. diameter, _____ square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

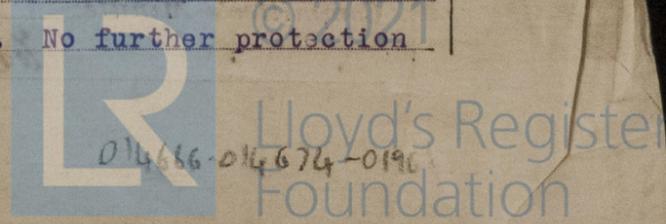
All Cables are rubber insulated Admiralty pattern lead covered.

Joints in cables, how made, insulated, and protected No joints

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances _____ 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 Cables are either clipped direct to Beams or Bulkheads or to wood grounds or perforated steel plating, with brass saddles. No further protection than the lead sheathing.



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
Nothing further than the lead sheathing

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 do

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

How are cables carried through beams with lead or fibre ferrules through bulkheads, &c. Brass W.T. Glands ✓

How are cables carried through decks in AP. Copper or Steel Deck Tubes ✓

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

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 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 — 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 Switchboard

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 Yes

Are any switches, fuses, or joints of cables fitted in the pump room or companion No

How are the lamps specially protected in places liable to the accumulation of vapour or gas By Gas Tight Fittings

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 2000 megohms per statute mile at 1000 v^s 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.

K. S. S. S. DIRECTOR Electrical Engineers Date 25th Oct. 1917

COMPASSES.

Distance between dynamo or electric motors and standard compass 150 Ft.

Distance between dynamo or electric motors and steering compass 144 Ft.

The nearest cables to the compasses are as follows:—

A cable carrying <u>.5</u> Amperes	<u>2</u> feet from standard compass	<u>2</u> feet from steering compass
A cable carrying <u>17</u> Amperes	<u>8</u> feet from standard compass	<u>6</u> feet from steering compass
A cable carrying <u>—</u> Amperes	<u>—</u> feet from standard compass	<u>—</u> 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 — course in the case of the standard compass and nil degrees on — course in the case of the steering compass.

H. J. J. J. Builder's Signature. Date —

GENERAL REMARKS.

This installation has been made under special survey and has been tested and found satisfactory.

It is submitted that this vessel is eligible for THE RECORD. Elec. Light. JWD 7/11/17. D. Ritchie Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 6 - NOV. 1917 Elec. Light

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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