

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 36856.

Port of Glasgow Date of First Survey 17/1/17 Date of Last Survey 23/4/17 No. of Visits 31
 No. in on the Iron or Steel S/S "Rumol" Port belonging to
 Reg. Book Built at Ross Glasgow By whom Messrs Russell & Co. When built 1917
 Owners Owners' Address
 Yard No. 668 Electric Light Installation fitted by The Sunderland Forge & Eng. Co. Ltd. When fitted 1917

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Two combined Plants each consisting of Vertical compound enclosed engine coupled to Multipolar compound wound dynamo. Supplied by the Admiralty.
 Capacity of Dynamo 250 Amperes at 105 Volts, whether continuous or alternating current continuous
 Where is Dynamo fixed Engine Room, Lower Platform, Aft. Whether single or double wire system is used double
 Position of Main Switch Board Close to Dynamos having switches to groups eight of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each In Wheelhouse with eight switches controlling Masthead Lights, Bow Lights, Stern Light, Steering Pedestal, Morse Light, Position Lights & not under control Lights.
 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 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
 Total number of lights provided for 305 arranged in the following groups:—

			Lighting (only)	Full Load (inc. Motors etc)	
A. Eng'rs' Ldg. Portals	40	8/50 cp. - 32/16 cp.	31.3	87.3	
Aii. " " Sid etc	75 lights each of 8/50 cp. - 67/16 cp.	candle power requiring a total current of	50.9	74.9	Amperes
i. Saloon & Nav.	70	8/50 cp. - 3/32 cp. - 49/16 cp. - 8/8 cp. - 2/2 1/2 cp.	47.0	62.0	
Bii. Po' side	48 lights each of 8/50 cp. - 40/16 cp.	candle power requiring a total current of	35.8	59.8	Amperes
i. E & B. Rooms	64	8/50 cp. - 58/16 cp.	44.8	84.8	
Cii. Deck Lighting etc	8 lights each of 8/50 cp.	candle power requiring a total current of	15.4	53.4	Amperes
D 20" Searchlight	lights each of Projector not fitted	candle power requiring a total current of	-	6.0	Amperes
E Workshop Motor	lights each of -	candle power requiring a total current of	-	4.7	Amperes
2 Mast head lights with 1 lamps each of 16		candle power requiring a total current of	1.12		Amperes
2 Side light with 1 lamp each of 16 cp. } 32 cp.		candle power requiring a total current of	1.68		Amperes
6 Cargo lights of eight 50 cp.		candle power, whether incandescent or arc lights		incandescent	
2 Gangway lights of four 16 cp.					

 If arc lights, what protection is provided against fire, sparks, &c. None.

Where are the switches controlling the masthead and side lights placed in Wheelhouse.

DESCRIPTION OF CABLES.

Main cable carrying	250	Amperes, comprised of	37	wires, each	12	S.W.G. diameter,	300	square inches total sectional area
Branch cables carrying	62.0	Amperes, comprised of	37	wires, each	13	S.W.G. diameter,	250	square inches total sectional area
3 Branch cables carrying	87.3	Amperes, comprised of	37	wires, each	15	S.W.G. diameter,	150	square inches total sectional area
Leads to lamps carrying	5	Amperes, comprised of	1	wires, each	17	S.W.G. diameter,	0025	square inches total sectional area
Cargo light cables carrying	15	Amperes, comprised of	19	wires, each	17	S.W.G. diameter,	046	square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

All Lead covered Cable to Admiralty Specification to Requirements Examined and Passed at makers Works.

Joints in cables, how made, insulated, and protected None.

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 Lead covered cables clipped to special perforated trays run on Bulkheads or underside of Deck.

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 *ditto*

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

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

How are cables carried through beams *Holes bushed with lead* through bulkheads, &c. *N.I. Admiralty pattern glands*

How are cables carried through decks *N.I. Admiralty pattern Deck Tubes*

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 *Lead covered run in protected places*

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 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 *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 *Special Admy. Palt. Gastight Guarded 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 *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. *To be to Admiralty Specification & Requirements*

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.

Electrical Engineers

Date *June 6th 1917*

COMPASSES.

Distance between dynamo or electric motors and standard compass *about 152 feet.*

Distance between dynamo or electric motors and steering compass *" 144 feet.*

The nearest cables to the compasses are as follows:—

A cable carrying	<i>10.4</i>	Ampere	<i>8</i>	feet from standard compass	<i>9</i>	feet from steering compass
A cable carrying	<i>.56</i>	Ampere	<i>7</i>	feet from standard compass	<i>led into</i>	feet from steering compass
A cable carrying	<i>.56</i>	Ampere	<i>led into</i>	feet from standard compass	<i>7</i>	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.

This installation has been well fitted on board & when tested under working conditions found satisfactory

It is submitted that this vessel is eligible to THE RECORD. Elec. light.

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

Committee's Minute

GLASGOW

3 JUL 1917

TUE JAN 1 1918



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THE SURVEYORS APPOINTED REQUESTED NOT TO WRITE ACROSS THIS MARGIN

Im. 14. — Transfer.

2.1.17
30/6/17