

REPORT ON ELECTRIC LIGHTING INSTALLATION. No 28637.

Port of Glasgow Date of First Survey 11th Feb^y Date of Last Survey 2nd March No. of Visits 8
 No. in on the Iron or Steel J.P. "Amethyst" Port belonging to Glasgow
 Reg. Book Ed. Sup. Built at Bowling By whom Scott & Sons When built 1910
 Owners W. Robertson Owners' Address Glasgow
 Yard No. 319 Electric Light Installation fitted by James Espie When fitted 1910

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One 5 1/2 x 5 open fronted vertical engine, coupled direct to Compound wound multipolar dynamo, running at 1000 rev. per min.
 Capacity of Dynamo 33 Amperes at 110 Volts, whether continuous or alternating current Continuous
 Where is Dynamo fixed Engine Room Whether single or double wire system is used double wire system
 Position of Main Switch Board at dynamo having switches to groups A.B.C.D. of lights, &c., as below
 Positions of auxiliary fuse boards and numbers of switches on each Forecastle, Capt. room, Engine Rm. Engineers Rm. Aff.

If cut outs 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 cut outs fitted to both flow and return wires or cables of all circuits including lamp circuits

Are the cut outs of non-oxidizable metal yes and constructed to fuse at an excess of 100 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 56 arranged in the following groups:—

A	Fore & Midships	16	lights each of	16	candle power requiring a total current of	7	Amperes
B	Cargo Clusters	16	lights each of	16	candle power requiring a total current of	7	Amperes
C	Aft	8	lights each of	16	candle power requiring a total current of	3.5	Amperes
D	Eng. Rm.	12	lights each of		candle power requiring a total current of	5.1	Amperes
E			lights each of		candle power requiring a total current of		Amperes
	Two Mast head light with	one	lamps each of	32	candle power requiring a total current of	1.8	Amperes
	Two Side light with	one	lamps each of	32	candle power requiring a total current of	1.8	Amperes
	Two Cargo lights of			128	candle power, whether incandescent or arc lights	incandescent	

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

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

DESCRIPTION OF CABLES.

Main cable carrying	26	Amperes, comprised of	19	wires, each	18	L.S.G. diameter,	.0344	square inches total sectional area
Branch cables carrying	10.5	Amperes, comprised of	7	wires, each	18	L.S.G. diameter,	.0127	square inches total sectional area
Branch cables carrying	7	Amperes, comprised of	7	wires, each	20	L.S.G. diameter,	.0074	square inches total sectional area
Leads to lamps carrying	.5	Amperes, comprised of	1	wires, each	18	L.S.G. diameter,	.0018	square inches total sectional area
Cargo light cables carrying	3.1	Amperes, comprised of	119	wires, each	38	L.S.G. diameter,	.00335	square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Pure or vulcanized india rubber, taped & braided, 600 megohms, enclosed in screw iron tubing in No's etc, lead covered in accommodation

Joints in cables, how made, insulated, and protected

Properly interlaced, soldered, resin being used as flux, insulated with pure rubber, and adhesive strip.

Are all the joints of cables thoroughly soldered, resin only having been used as a flux 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 none in such places.

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 under deck, along ship side, enclosed in iron tubing.

DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible *yes, except in Hold or Coal Bunkers* ✓
 What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture *screwed iron tubing* ✓
 What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *screwed iron tubing* ✓
 What special protection has been provided for the cables near boiler casings *screwed iron tubing* ✓
 What special protection has been provided for the cables in engine room *screwed iron tubing* ✓
 How are cables carried through beams *in Keel wood plugs* ✓ through bulkheads, &c. *screwed iron tubing. Watertight.* ✓
 How are cables carried through decks *screwed iron tubing, standing at least 18" above deck.* ✓
 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 *screwed iron tubing* ✓
 Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage *none in such places.* ✓
 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 _____
 The installation is *also* ✓ supplied with a voltmeter ~~and~~ *on Main Switch Board* ✓

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 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 *600* ✓ 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.

James Espe

Electrical Engineers

Date *23rd Feb 1910*

COMPASSES.

Distance between dynamo or electric motors and standard compass *20 ft*
 Distance between dynamo or electric motors and steering compass *100 ft*
 The nearest cables to the compasses are as follows:—
 A cable carrying *33* Amperes *20* feet from standard compass *100* feet from steering compass
 A cable carrying *.5* Amperes *4* feet from standard compass *1* feet from steering compass
 A cable carrying *10* Amperes *20* feet from standard compass *5* 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 *0* degrees on *each* ✓ course in the case of the standard compass and *0* degrees on *each* ✓ course in the case of the steering compass.

Scott Duns

Builder's Signature.

Date *22 Feb. 1910.*

GENERAL REMARKS.

The installation has been well fitted and ran well on trial

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

A. J. Thomas.

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

Committee's Minute *GLASCOW 15-MAR. 1910*
Elec. Lights.



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THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

L.A.H. 14-3-10