

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 29406.

Port of Glasgow Date of First Survey 22nd Sept. Date of Last Survey 6-10-10 No. of Visits 8
 No. in Reg. Book on the Iron Steel S/S CLYDEMHOR Port belonging to Glasgow
 Built at Paisley By whom John Fullerton & Co When built 1910
 Owners Clyde & Co Ltd (T.B. Conner manager) Owners' Address Glasgow
 Yard No. 216 Electric Light Installation fitted by Gas Expie. Glasgow When fitted 1910

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One 5 1/2 x 5" Engine coupled direct to Compound wound dynamo running at 380 rps.

Capacity of Dynamo 3.3 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 switch boards and numbers of switches on each Forecastle, Chart Room Engine Room.

If cut outs are fitted on main switch board to the cables of main circuit No 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 yes.

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 Fifty four arranged in the following groups :-

A	Forecastle	7	lights each of	16	candle power requiring a total current of	3.5	Amperes
B	Midships	8	lights each of	16	candle power requiring a total current of	4	Amperes
C	Aft	7	lights each of	16	candle power requiring a total current of	3.5	Amperes
D	Engine, etc.	11	lights each of	16	candle power requiring a total current of	5.5	Amperes
E			lights each of		candle power requiring a total current of		Amperes
One	Mast head light with <u>one</u> lamps each of			32	candle power requiring a total current of	1.	Amperes
Two	Side light with <u>one</u> lamps each of			32	candle power requiring a total current of	2.	Amperes
Two	Cargo lights of <u>each of</u>			128	candle power, whether incandescent or arc lights	incandescent	

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

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

DESCRIPTION OF CABLES.

Main cable carrying	<u>24</u> Amperes, comprised of	<u>19</u> wires, each	<u>18</u> L.S.G. diameter,	<u>.0344</u> square inches total sectional area
Branch cables carrying	<u>3.5</u> Amperes, comprised of	<u>7</u> wires, each	<u>21</u> L.S.G. diameter,	<u>.0056</u> square inches total sectional area
Branch cables carrying	<u>7</u> Amperes, comprised of	<u>7</u> wires, each	<u>20</u> L.S.G. diameter,	<u>.0071</u> square inches total sectional area
Leads to lamps carrying	<u>.5</u> Amperes, comprised of	<u>3</u> wires, each	<u>20</u> L.S.G. diameter,	<u>.0030</u> square inches total sectional area
Cargo light cables carrying	<u>4</u> Amperes, comprised of	<u>119</u> wires, each	<u>38</u> L.S.G. diameter,	<u>.0035</u> square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Rute vulcanized india rubber taped braided. Compounded.

Joints in cables, how made, insulated, and protected No soldered joints in ship. All cables run direct to Fuse boxes, and looped from lamps to lamps, without joints.

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

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 along ship side, under deck, in iron tubing.

DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible *yes, except in Coal bunkers & Hold*

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 *screwed tubing or hardwood plug through bulkheads, &c.* *screwed tubing*

How are cables carried through decks *screwed iron tubing watertight.*

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 *No*

If so, how are the lamp fittings and cable terminals specially protected *None fitted*

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 *double wire system*

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 _____ an amperemeter, fixed *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 Copie

Electrical Engineers

Date *8th Oct. 1910*

COMPASSES.

Distance between dynamo or electric motors and standard compass *20 feet*

Distance between dynamo or electric motors and steering compass *75 feet*

The nearest cables to the compasses are as follows:—

A cable carrying	<i>28</i> Amperes	<i>20</i> feet from standard compass	<i>75</i> feet from steering compass
A cable carrying	<i>7</i> Amperes	<i>20</i> feet from standard compass	<i>20</i> feet from steering compass
A cable carrying	<i>.5</i> Amperes	<i>4</i> feet from standard compass	<i>4</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 *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.

John Fullerton & Co.

Builder's Signature.

Date *12th Oct 1910*

GENERAL REMARKS.

This installation has been fitted on board under Special Survey, tested under full working conditions and found satisfactory.

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

Seurish Davis

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

Committee's Minute

GLASGOW

18 OCT. 1910

Elec. light



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THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

J.H.H. 17-10-10.