

REPORT ON ELECTRIC LIGHTING INSTALLATION. No 22609

Port of London Date of First Survey 16th Jan 05 Date of Last Survey 11th March 05 No. of Visits 12
 No. in Reg. Book on the Iron or Steel S.S. Craighall Port belonging to _____
 Built at _____ By whom _____ When built _____
 Owners _____ Owners' Address _____
 Yard No. _____ Electric Light Installation fitted by Archibald Low (Partner) When fitted 11/3/05

DESCRIPTION OF DYNAMO, ENGINE, ETC.

2 pole compound wound dynamo, slot wound armature, direct coupled to de Laval Patent Steam Turbine running at 2,400 revs per min.
 Capacity of Dynamo 66 Amperes at 100 Volts, whether continuous or alternating current Continuous
 Where is Dynamo fixed In Engine Room
 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 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 No and at each position where a cable is branched or reduced in size No 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 25 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 _____
 Are all switches and cut-outs constructed of incombustible materials and fitted on incombustible bases Yes

Total number of lights provided for 96 arranged in the following groups:—

A	<u>42</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>25</u>	Amperes
B	<u>37</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>22</u>	Amperes
C	<u>17</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>10</u>	Amperes
D		lights each of		candle power requiring a total current of		Amperes
E		lights each of		candle power requiring a total current of		Amperes
	<u>1</u>	Mast head light with <u>1</u> lamp, each of	<u>32</u>	candle power requiring a total current of	<u>1</u>	Amperes
	<u>2</u>	Side lights with <u>1</u> lamps each of	<u>32</u>	candle power, requiring a total current of	<u>2</u>	Amperes
	<u>5</u>	Cargo lights of <u>6</u> . <u>16</u>		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 In wheel house

DESCRIPTION OF CABLES.

Main cable carrying 47 Amperes, comprised of 19 wires, each 18 L.S.G. diameter, .03399 square inches total sectional area
 Branch cables carrying 47 Amperes, comprised of 19 wires, each 18 L.S.G. diameter, .03399 square inches total sectional area
 Branch cables carrying 20-680 Amperes, comprised of 7 wires, each 18 L.S.G. diameter, .017540 square inches total sectional area
 Leads to lamps carrying 6.800 Amperes, comprised of 15 wires, each 16 L.S.G. diameter, .0032170 square inches total sectional area
 Cargo light cables carrying 3.6 Amperes, comprised of 108 wires, each .006 L.S.G. diameter, _____ square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Lead covered wire used in Saloon & State Rooms
Armoured wire throughout Engine Room Forecastle
 Joints in cables, how made, insulated, and protected No joints - done with Petroleum Vates
 Are all the joints of cables thoroughly soldered, resin only having been used as a flux _____ 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
 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 Armoured wire clipped to 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 In iron tube

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat _____

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

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

How are cables carried through beams Holes Bored through bulkheads, &c.

How are cables carried through decks Watertight joints

Are any cables run through coal bunkers ~~No~~ or cargo spaces Yes or spaces which may be used for carrying cargo, stores, or baggage Yes

If so, how are they protected Armoured wire

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 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 Watertight Plugs

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel Double

How are the returns from the lamps connected to the hull _____

Are all the joints with the hull in accessible positions Yes

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 No

Are any switches, cut outs, 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 _____

The installation is _____ supplied with a voltmeter and _____ an amperemeter, fixed on

Switchboard

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.

Richardson & Co Electrical Engineers Date 13 March 1905

COMPASSES.

Distance between dynamo or electric motors and standard compass 150 feet

Distance between dynamo or electric motors and steering compass 96 feet

The nearest cables to the compasses are as follows:—

A cable carrying	<u>25</u>	Amperes	<u>32</u>	feet from standard compass	<u>12</u>	feet from steering compass
A cable carrying	<u>22</u>	Amperes	<u>24</u>	feet from standard compass	<u>22</u>	feet from steering compass
A cable carrying	<u>10</u>	Amperes	<u>24</u>	feet from standard compass	<u>22</u>	feet from steering compass

Have the compasses been adjusted with and without the electric installation at work at full power With

The maximum deviation due to electric currents, etc., was found to be _____ degrees on _____ course in the case of the standard compass and _____ degrees on _____ course in the case of the steering compass.

J. R. Anderson Director, Builder's Signature. Date 14th Mar 1905

GENERAL REMARKS.

This installation has been well fitted on board and when run under ordinary working conditions was satisfactory.

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

Committee's Minute Glasgow 27 MAR 1905

Approved Electric Light

It is submitted that this installation appears to be satisfactory
Lloyd's Register Foundation

28.3.05

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

REPORT FORM NO. 13.