

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 41735

Port of Glasgow Date of First Survey 27.9.1921 Date of Last Survey 1.2.22 No. of Visits 4
 Built on the Iron or Steel S.S. Drake Port belonging to London
 Book No. 6 Built at Ayr By whom Messrs The Ayr S.B.C.O When built 1922
 Owners The General St. Mar. Co. Ltd Owners' Address
 No. 373 Electric Light Installation fitted by Messrs Claude Hamilton & Co When fitted 1922

DESCRIPTION OF DYNAMO, ENGINE, ETC.

one 5 1/2 x 5" Enclosed type high speed steam engine direct coupled to a compound wound ship lighting dynamo running at 480 R.P.M.
 Capacity of Dynamo 90 Amperes at 100 Volts, whether continuous or alternating current continuous
 Where is Dynamo fixed Engine Rm. Whether single or double wire system is used double
 Position of Main Switch Board Engine Rm. having switches to groups 8 of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each None.

Are fuses fitted on main switch board to the cables of main circuit yes and on each ^{Fuse} auxiliary 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
 Where 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
 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 yes
 Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases yes

Total number of lights provided for 188 arranged in the following groups:—

<u>26</u>	lights each of <u>16</u>	candle power requiring a total current of <u>13</u>	Amperes
<u>24</u>	lights each of <u>16</u>	candle power requiring a total current of <u>12</u>	Amperes
<u>26</u>	lights each of <u>—</u>	candle power requiring a total current of <u>13</u>	Amperes
<u>38</u>	lights each of <u>—</u>	candle power requiring a total current of <u>19</u>	Amperes
<u>6</u>	lights each of <u>32</u>	candle power requiring a total current of <u>6</u>	Amperes
<u>11</u>	lights each of <u>16</u>	candle power requiring a total current of <u>6.5</u>	Amperes
<u>24</u>	lights each of <u>—</u>	candle power requiring a total current of <u>12</u>	Amperes
<u>33</u>	lights each of <u>—</u>	candle power requiring a total current of <u>16.5</u>	Amperes
<u>2</u>	Mast head light with <u>1</u> lamps each of <u>32</u>	candle power requiring a total current of <u>2</u>	Amperes
<u>2</u>	Side light with <u>1</u> lamps each of <u>32</u>	candle power requiring a total current of <u>2</u>	Amperes
<u>8</u>	Cargo lights of <u>each 6-16</u>	candle power, whether incandescent or arc lights <u>incandescent</u>	

Are arc lights, what protection is provided against fire, sparks, &c. no arc lamps fitted

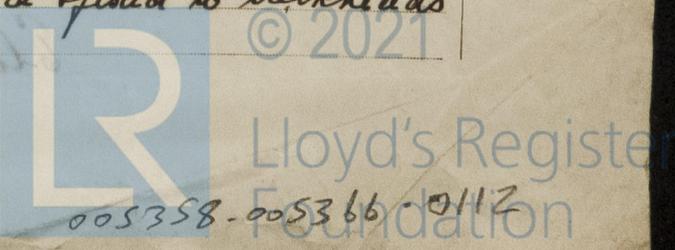
Where are the switches controlling the masthead and side lights placed In wheel house.

DESCRIPTION OF CABLES.

1/2 inch cable carrying 90 Amperes, comprised of 19 wires, each .053" diameter, .1 square inches total sectional area
 3/4 inch cables carrying 19 Amperes, comprised of 4 wires, each .064" diameter, .0225 square inches total sectional area
 1/2 inch cables carrying 18 Amperes, comprised of 4 wires, each .052" diameter, .0146 square inches total sectional area
 Wires leading to lamps carrying 2 Amperes, comprised of 3 wires, each .029" diameter, .002 square inches total sectional area
 Cargo light cables carrying 12 Amperes, comprised of 7 wires, each .052" diameter, .0146 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Copper wire insulated with pure & vulcanized india rubber lapped and lead covered or armoured.
 How are the 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 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
 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 or armoured fixed to bulkheads or under decks by means of brass or iron clips.



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 Lead covered.

What special protection has been provided for the cables near boiler casings Armoured with Galvanised Steel Wire

What special protection has been provided for the cables in engine room Armoured with Galvanised Steel Wire

How are cables carried through beams Lead Bushes through bulkheads, &c. W.T. Standards

How are cables carried through decks W.T. Deck Tubes

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 with galvanised steel wire

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage yes.

If so, how are the lamp fittings and cable terminals specially protected Cast Iron guards

Where are the main switches and fuses for these lights fitted outside spaces.

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 Connection box.

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 In Electric 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 ✓

Are any switches, fuses, 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 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 2500 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.

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.

W. B. Bagot Electrical Engineers Date 14th Feb. 22

COMPASSES.

Distance between dynamo or electric motors and standard compass Director 60

Distance between dynamo or electric motors and steering compass 68.

The nearest cables to the compasses are as follows:—

A cable carrying	<u>12</u>	Amperes	<u>20</u>	feet from standard compass	<u>22</u>	feet from steering compass
A cable carrying	<u>3</u>	Amperes	<u>10</u>	feet from standard compass	<u>10</u>	feet from steering compass
A cable carrying	<u>2</u>	Amperes	<u>in</u>	feet from standard compass	<u>in</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 any course in the case of the standard compass and nil degrees on any course in the case of the steering compass.

AILS A SHIPBUILDING CO., LIMITED.

A. H. Howell Secretary. Builder's Signature. Date 16th Feb. 1922.

GENERAL REMARKS.

This installation has been fitted on board under special survey. Tested under full working conditions & found satisfactory

Inst. = 19-0-0 of 21/2/22. Elec. Light. C. J. Rankin
Exp = 1-1-0 pd 23/2/22 L.J. 23/2/22 Surveyor to Lloyd's Register of Shipping.

Committee's Minute

GLASGOW 21 FEB 1922
Elec. Light.



© 2021

Lloyd's Register Foundation

HC 29.2.22

20.11.19—Transfer.