

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 14305.

Port of Swanwick Date of First Survey 28th March 1918 Date of Last Survey 29th May 1918 No. of Visits 23
 No. in Reg. Book on the Iron or Steel 00 "Roquette" Port belonging to London
 Built at Campbell Iron By whom Campbell & Co Ltd When built 1918
 Owners Owners' Address
 Yard No. Electric Light Installation fitted by Hindley Son & Co When fitted 1918

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One 10 K.W. Compound Wound "Mawdsley" Generator (100 Volts) coupled to a Vertical Enclosed "Hindley" Single Cylinder Engine 15 BHP at 400 R.P.M.

Capacity of Dynamo 100 Amperes at 100 Volts, whether continuous or alternating current Continuous
 Where is Dynamo fixed Engine Room Whether single or double wire system is used Double
 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 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 — and at each position where a cable is branched or reduced in size — 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 yes

Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases yes

Total number of lights provided for 128 arranged in the following groups:—

A	<u>43</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>8.6</u>	Amperes
B	<u>22</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>4.4</u>	Amperes
C	<u>23</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>4.6</u>	Amperes
D	<u>16</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>3.2</u>	Amperes
E	<u>14</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>2.8</u>	Amperes
1	<u>Mast head light with 1 lamp</u>	each of	<u>2 1/2</u>	candle power requiring a total current of	<u>.1</u>	Amperes
2	<u>Stem light with 1 lamp</u>	each of	<u>2 1/2</u>	candle power requiring a total current of	<u>.1</u>	Amperes
1	<u>Side light with 1 lamp</u>	each of	<u>8</u>	candle power requiring a total current of	<u>.6</u>	Amperes
1	<u>Conway Lt.</u>		<u>32</u>		<u>1.2</u>	
	<u>5-6lt Cargo lights of</u>		<u>16</u>	candle power, whether incandescent or arc lights	<u>Incandescent</u>	

If arc lights, what protection is provided against fire, sparks, &c. —

Where are the switches controlling the masthead and side lights placed in Chart Room with Mast Switches on Bridge

DESCRIPTION OF CABLES.

Main cable carrying 40 Amperes, comprised of 19 wires, each 14 S.W.G. diameter, .094 square inches total sectional area
 Branch cables carrying 8.6 Amperes, comprised of 7 wires, each 18 S.W.G. diameter, .0125 square inches total sectional area
 Branch cables carrying 4.6 Amperes, comprised of 4 wires, each 20 S.W.G. diameter, .007 square inches total sectional area
 Leads to lamps carrying 1 Amperes, comprised of 3 wires, each 20 S.W.G. diameter, .003 square inches total sectional area
 Cargo light cables carrying 12 Amperes, comprised of 3 wires, each 20 S.W.G. diameter, .003 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

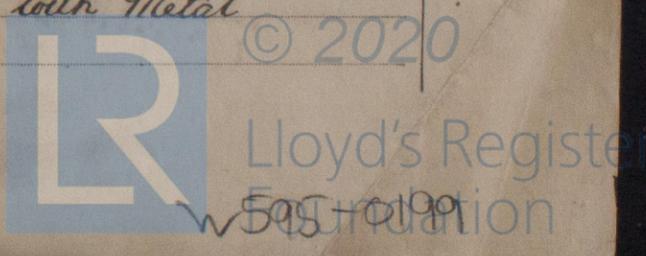
Twin & 3 R Single Wire Armoured & Braided Cables also single & 3 R Lead Covered Cables

Joints in cables, how made, insulated, and protected —

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 securely fixed to beams etc with Metal thread screws.



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 Armoured & Braided cables

What special protection has been provided for the cables near boiler casings Armoured & Braided cables in Gas Saver Tubing

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

How are cables carried through beams Bushed Holes through bulkheads, &c. Bulkhead Flanges

How are cables carried through decks 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 Armoured & Braided

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.W. 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 600 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.

Emmellay Ross & Co. Ltd. Electrical Engineers Date 11th June 1918.
per John P. Emmellay senr

COMPASSES.

Distance between dynamo or electric motors and standard compass 160 ft.

Distance between dynamo or electric motors and steering compass 65 ft.

The nearest cables to the compasses are as follows:—

A cable carrying	<u>12.9</u>	Amperes	<u>216</u>	feet from standard compass	<u>10</u>	feet from steering compass
A cable carrying	<u>27.5</u>	Amperes	<u>208</u>	feet from standard compass	<u>20</u>	feet from steering compass
A cable carrying	<u>10.2</u>	Amperes	<u>144</u>	feet from standard compass	<u>70</u>	feet from steering compass

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

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

Campbell's Shipbuilding Co. Ltd. Builder's Signature. Date 14th June 1918.
William A. Brown Director

GENERAL REMARKS.

The fitting of the wires in this vessel is as stated in this report and appears to be in accordance with the Committee's requirements.

It is submitted that this vessel is eligible for
 THE RECORD. Elec. Light. W.D. 26/6/18. James Brown
 Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute GLASGOW: 25 JUN 1918
Elec. Light

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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