

# REPORT ON ELECTRIC LIGHTING INSTALLATION.

NOV. OCT. 1 - 1918  
No. 10219

Port of Bristol Date of First Survey 9<sup>th</sup> Sept Date of Last Survey 21<sup>st</sup> Sept No. of Visits 4  
 No. in Reg. Book on the Iron or Steel 1/5 War Repair Port belonging to Bristol  
 Built at Bristol By whom C. Hill & Son When built 1918  
 Owners Richard Turpin Shipping Co. Managers Owners Address \_\_\_\_\_  
 Yard No. 128 Electric Light Installation fitted by C. Hill & Son When fitted 1918

### DESCRIPTION OF DYNAMO, ENGINE, ETC.

Open Type, Inverted Vertical Single Cylinder Engine  
 Capacity of Dynamo 100 Amperes at 100 Volts, whether continuous or alternating current Continuous  
 Where is Dynamo fixed Engine Room  
 Position of Main Switch Board Bulkhead having switches to groups 5 groups of lights, &c., as below  
 Positions of auxiliary switch boards and numbers of switches on each Staring Way 25 switches accommodation. Engine Room 9 switches  
Chart Room 12 switches, Saloon 11 switches, Poop 2 switches

If cut outs are fitted on main switch board to the cables of main circuit Yes and on each auxiliary switch boards 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 cessel 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 50 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 124 arranged in the following groups:—  
 A Navigation lights each of Admiralty requirement candle power requiring a total current of \_\_\_\_\_ Amperes  
 B Cabin & Berth accommodation lights each of 16 candle power requiring a total current of 20 Watts per lamp Amperes  
 C Engine & Boiler Room lights each of 16 candle power requiring a total current of 56 .. .. Amperes  
 D Cargo lights each of 16 candle power requiring a total current of 56 .. .. Amperes  
 E Wireless lights each of \_\_\_\_\_ candle power requiring a total current of \_\_\_\_\_ Amperes  
 Mast head light with \_\_\_\_\_ lamps each of Admiralty requirement candle power requiring a total current of \_\_\_\_\_ Amperes  
 Side light with \_\_\_\_\_ lamps each of \_\_\_\_\_ candle power requiring a total current of \_\_\_\_\_ Amperes  
4 Cluster Cargo lights of 16 candle power, whether incandescent or arc lights Incandescent

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

Where are the switches controlling the masthead and side lights placed Chart Room with master switch on bridge

### DESCRIPTION OF CABLES.

Main cable carrying 113 Amperes, comprised of 19 wires, each 14 L.S.G. diameter, .094 square inches total sectional area  
 Branch cables carrying 46 Amperes, comprised of 7 wires, each 16 L.S.G. diameter, .022 square inches total sectional area  
 Branch cables carrying 34 Amperes, comprised of 7 wires, each 18 L.S.G. diameter, .0125 square inches total sectional area  
 Leads to lamps carrying 7.2 Amperes, comprised of 3 wires, each 22 L.S.G. diameter, .0018 square inches total sectional area  
 Cargo light cables carrying 24 Amperes, comprised of 7 wires, each 20 L.S.G. diameter, .0070 square inches total sectional area

### DESCRIPTION OF INSULATION, PROTECTION, ETC.

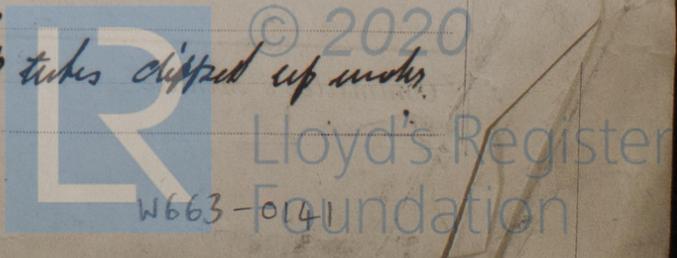
Cable Makers. Ass. Y. I. P. Armoured & braided. Lead covered & armoured.  
 & Lead covered 600 mgohm Grade Cable

Joints in cables, how made, insulated, and protected Junction boxes protected with cast iron cover

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 Yes

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 Through W. T. glands & deck tubes clipped up under deck with galvanized iron clip



**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 Armoured & braided

Lead covered & armoured & lead covered

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat Lead covered & armoured

What special protection has been provided for the cables near boiler casings Lead covered & armoured

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

How are cables carried through beams Lead bushed holes through bulkheads, &c. W.T glands

How are cables carried through decks Iron tubes

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 In Bunker cables in iron tubing elsewhere had covered & armoured

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 Plugs & sockets

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 —

**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 installation is — supplied with a voltmeter and — an amperemeter, fixed

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.

Mark Hillman Electrical Engineers Date 27.9.18

**COMPASSES.**

Distance between dynamo or electric motors and standard compass 68 ft

Distance between dynamo or electric motors and steering compass 64 ft

The nearest cables to the compasses are as follows:—

A cable carrying	<u>7.2</u>	Amperes	<u>—</u>	feet from standard compass	<u>—</u>	feet from steering compass
A cable carrying	<u>7.2</u>	Amperes	<u>—</u>	feet from standard compass	<u>—</u>	feet from steering compass
A cable carrying	<u>7.2</u>	Amperes	<u>—</u>	feet from standard compass	<u>—</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 — degrees on — course in the case of standard compass and — degrees on — course in the case of the steering compass.

Mark Hillman Builder's Signature Date 27.9.18

**GENERAL REMARKS.**

This Electric Light Installation has been fitted in accordance with the Rules of this Society & the approved specification & has been tried under working condition with satisfactory results

G. A. Dyden Toynce  
Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute : FRI. OCT. 11. 1918

TUE. 17. DEC. 1918

FRI. JUL. 30 1920

FRI. 24. JAN. 1919

FRI. 31. OCT. 1919

It is submitted that this vessel is eligible for THE RECORD. Lloyd's Register of Shipping Foundation

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