

# REPORT ON ELECTRIC LIGHTING INSTALLATION.

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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 on the Iron or Steel 1/2 War Repair Port belonging to Bristol  
 Reg. Book Built at Bristol By whom C. Hill & Son When built 1918  
 Owners Richard Turpin Shipping Ltd. 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 21 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 regulation 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. —

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 3 wires, each 18 L.S.G. diameter, .0125 square inches total sectional area

Leads to lamps carrying 72 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. V. I. P. Armoured & braided. Lead covered & armoured.  
& Lead covered 600 Mchm Grade Cable

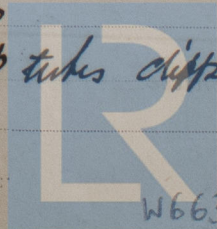
Joints in cables, how made, insulated, and protected Junction boxes protected with cast iron cover

Are all the joints of cables thoroughly soldered, resin only having been used as a flux — Are all joints in accessible positions, none being

made in bunks, 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 galvanneal iron clip



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Foundation



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 lead 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	Amperes	feet from standard compass	feet from steering compass
<i>7.2</i>	<i>Amperes</i>	<i>feet from standard compass</i>	<i>feet from steering compass</i>
<i>7.2</i>	<i>Amperes</i>	<i>feet from standard compass</i>	<i>feet from steering compass</i>
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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 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*  
*P. A. Dryden 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.

*TUE. MAY. 10 1921*

signed