

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 22970

Port of Hull Date of First Survey Sept 1st Date of Last Survey 9th Sept 10 No. of Visits 6
 No. in Reg. Book on the Iron or Steel Se. to Southampton Port belonging to
 Built at Dartmouth By whom Philip & Son Ltd When built 1910
 Owners Owners' Address
 Yard No. Electric Light Installation fitted by Messrs J. H. Holmes & Co When fitted 1910

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One four pole Castle Dynamo, compound wound. Coupled to D.A. high speed engine by Messrs Beavell & Co.
 Capacity of Dynamo 33 Amperes at 60 Volts, whether continuous or alternating current continuous
 Where is Dynamo fixed On Star side of Eng Room Whether single or double wire system is used both
 Position of Main Switch Board near dynamo having switches to groups A B of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each One D.P. 3 way fuseboard in E. Room
one D.P. 4 way fuseboard in accommodation forward
One D.P. 2 do do do
 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 yes and at each position where a cable is branched or reduced in size yes 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 yes
 Are all switches and cut-outs constructed of incombustible materials and fitted on incombustible bases yes

Total number of lights provided for 21 arranged in the following groups :-

A	<u>Eng. Room</u>	<u>7</u> lights each of	<u>16</u>	candle power requiring a total current of	<u>6.5</u>	Amperes
B	<u>Ship</u>	<u>14</u> lights each of	<u>17</u>	candle power requiring a total current of	<u>13</u>	Amperes
C	<u>Row</u>	<u>1</u> lights each of	<u>18</u>	candle power requiring a total current of	<u>9.2</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
	Mast head light with	lamps each of		candle power requiring a total current of		Amperes
	Side light with	lamps each of		candle power requiring a total current of		Amperes
	Cargo lights of			candle power, whether incandescent or arc lights		

If arc lights, what protection is provided against fire, sparks, &c. No arc lights fitted.

Where are the switches controlling the masthead and side lights placed

DESCRIPTION OF CABLES.

Main cable carrying 33 Amperes, comprised of 19 wires, each 18 L.S.G. diameter, .034 square inches total sectional area
 Branch cables carrying 13 Amperes, comprised of 7 wires, each 18 L.S.G. diameter, .0125 square inches total sectional area
 Branch cables carrying 1.8 Amperes, comprised of 1 wires, each 18 L.S.G. diameter, .0018 square inches total sectional area
 Leads to lamps carrying 1.8 Amperes, comprised of 1 wires, each 18 L.S.G. diameter, .0018 square inches total sectional area
 Cargo light cables carrying Amperes, comprised of wires, each L.S.G. diameter, square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Tinned copper, pure rubber, vulcanised rubber taped & braided, and lead covered & armoured.

Joints in cables, how made, insulated, and protected None

Are all the joints of cables thoroughly soldered, resin only having been used as a flux No joints 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 Lead covered and armoured and clipped up



DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

22970

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, & galvanised iron wire armouring* ✓
 What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *do* ✓
 What special protection has been provided for the cables near boiler casings *do* ✓
 What special protection has been provided for the cables in engine room *do* ✓
 How are cables carried through beams *In bushes where lead covered* " " *armoured* through bulkheads, &c. *glands* ✓
 How are cables carried through decks *None through decks* ✓
 Are any cables run through coal bunkers *No* or cargo spaces *No* or spaces which may be used for carrying cargo, stores, or baggage *No* ✓
 If so, how are they protected ✓
 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 *None* ✓ How fixed —
 In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel *Bolt & washer to stringer near dynamo*
 How are the returns from the lamps connected to the hull *to beam angles, plating with washer & screws tapped into plate & of beam*
 Are all the joints with the hull in accessible positions *Yes*
 The installation is *now* supplied with a voltmeter and *also* an amperemeter, fixed *on switch board*

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 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 *2500* ✓ 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.

J. H. Holmes & Co

Electrical Engineers

Date *Sept. 19th 1910*

COMPASSES.

Distance between dynamo or electric motors and standard compass
 Distance between dynamo or electric motors and steering compass *40 feet*
 The nearest cables to the compasses are as follows:—
 A cable carrying *1.8* Amperes *—* feet from standard compass *6* feet from steering compass
 A cable carrying *—* Amperes *—* feet from standard compass *—* feet from steering compass
 A cable carrying *—* Amperes *—* feet from standard compass *—* 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 *—* course in the case of the standard compass and *all* ✓ degrees on *—* courses in the case of the steering compass.

Builder's Signature. Date

GENERAL REMARKS.

The Electric Light Installation on this vessel has been fitted as above, tested and found satisfactory and is now respectfully submitted for notation in the Register Book. This vessel is eligible for THE RECORD. Elec. light.
James Barclay
 Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



Lloyd's Register Foundation