

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 62072

Port of NEWCASTLE ON TYNE Date of First Survey 14th Feb Date of Last Survey 12th Mar 1912 No. of Visits 6
 No. in Reg. Book on the Iron or Steel S.S. Elvet Port belonging to Newcastle on Tyne
 Built at Newcastle By whom Wm. Babson & Co. When built 1912
 Owners Sharp & Co. Owners' Address Newcastle on Tyne
 Yard No. Electric Light Installation fitted by Johnson & Phillips When fitted 1912

DESCRIPTION OF DYNAMO, ENGINE, ETC.

one single cylinder vertical open type engine direct coupled to a continuous current compound wound generator.

Capacity of Dynamo 65 Amperes at 110 Volts, whether continuous or alternating current continuous

Where is Dynamo fixed In engine room Whether single or double wire system is used double

Position of Main Switch Board near dynamo having switches to groups A.B.C. of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each each light and group of lights provided with switches as required.

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 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

Total number of lights provided for 87 arranged in the following groups:—

A	<u>32</u>	lights each of	<u>32</u>	candle power requiring a total current of	<u>38.5</u>	Amperes
B	<u>29</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>17.4</u>	Amperes
C	<u>26</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>15</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
	<u>2</u>	Mast head light with	<u>1</u> lamps each of	<u>32</u>	candle power requiring a total current of	<u>1.2</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>1.2</u> Amperes
	<u>four</u>	Cargo lights of	<u>8 - 32</u>	candle power, whether incandescent or arc lights	<u>Incandescent</u>	

If arc lights, what protection is provided against fire, sparks, &c. none fitted

Where are the switches controlling the masthead and side lights placed In chart room

DESCRIPTION OF CABLES.

Main cable carrying 65 Amperes, comprised of 19 wires, each 15 L.S.G. diameter, .075 square inches total sectional area

Branch cables carrying 32 Amperes, comprised of 7 wires, each 14 L.S.G. diameter, .03459 square inches total sectional area

Branch cables carrying 8.4 Amperes, comprised of 7 wires, each 18 L.S.G. diameter, .01246 square inches total sectional area

Leads to lamps carrying 6 Amperes, comprised of 1 wires, each 18 L.S.G. diameter, .00181 square inches total sectional area

Cargo light cables carrying 9.6 Amperes, comprised of 110 wires, each 36 L.S.G. diameter, .00503 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

vulcanized India rubber taped & lead covered. - where exposed steel armoured over the lead covering.

Joints in cables, how made, insulated, and protected none except mechanical ones.

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. no.

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 & steel armoured securely clipped to fore & aft stringer



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DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible no.

What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture Lead covered & Steel armoured.

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

What special protection has been provided for the cables near boiler casings do do

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

How are cables carried through beams In lead & fibre bushes. through bulkheads, &c. in Mt. Clands.

How are cables carried through decks In N.I. Gal. Iron Deck Tables.

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 Lead covered & Steel 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 By C.I. Connection Boxes.

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel Boat wire system.

How are the returns from the lamps connected to the hull —

Are all the joints with the hull in accessible positions —

The installation is now. supplied with a voltmeter and also. an amperemeter, fixed on Switchboard

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 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.

John Phillips Electrical Engineers Date 15.4.12.

COMPASSES.

Distance between dynamo or electric motors and standard compass 50 ft.

Distance between dynamo or electric motors and steering compass 47 ft.

The nearest cables to the compasses are as follows:—

A cable carrying	<u>.6</u>	Amperes	<u>2</u>	feet from standard compass	<u>6</u>	feet from steering compass
A cable carrying	<u>.6</u>	Amperes	<u>6</u>	feet from standard compass	<u>2</u>	feet from steering compass
A cable carrying	<u>—</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 nil degrees on — course in the case of the standard compass and nil degrees on — course in the case of the steering compass.

William Dobson Builder's Signature. Date 19/4/12

GENERAL REMARKS.

This installation has been fitted on board in accordance with the Rules, it has been tried & found satisfactory & in my opinion is eligible for record Elec Light

It is submitted that this vessel is eligible for THE RECORD. Elec light 19.5.12

Charles Cooper Surveyor to Lloyd's Register of British and Foreign Shipping

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

