

## REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 54026

Port of Newcastle Date of First Survey Nov 26 Date of Last Survey Dec 21 '07 No. of Visits 6  
 No. in Reg. Book 413 on the ~~Iron~~ Steel S.S. "OBERON" Port belonging to Liverpool  
 Built at Low Walker By whom Sir W. G. Armstrong Whitworth & Co. When built 1907  
 Owners B. T. Bowring & Co. Ltd. Owners' Address Liverpool  
 Yard No. 801 Electric Light Installation fitted by J. B. Holmes & Co. Newcastle When fitted 1907

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

5 1/2" x 5" Open type Engine "B" type 200: 100 lbs & Press, & stand 180 lbs.  
12 1/2" "Castle" Dynamo Compound 400 Revs

Capacity of Dynamo 48 Amperes at 110 Volts, whether continuous or alternating current Continuous

Where is Dynamo fixed Starting Platform Whether single or double wire system is used Double

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

Positions of auxiliary switch boards and numbers of switches on each 3 Way S.P. switch in M. Mess. Passage, 3 Way in Paint room  
6 Way in Wheelhouse, 9 Way in M. Mess. Passage, 6 Way in Mess. Passage  
9 Way in main board, 4 Way outside of Pump room

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 79 arranged in the following groups:—

A	<u>42</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>23.5</u>	Amperes
B	<u>21</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>11.7</u>	Amperes
C	<u>16</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>8.9</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 lights with	<u>1</u>	lamps each of	<u>32</u>	candle power requiring a total current of	<u>2.24</u> Amperes
<u>2</u>	Side lights with	<u>1</u>	lamps each of	<u>32</u>	candle power requiring a total current of	<u>2.24</u> Amperes
<u>2</u>	Cargo lights of		<u>50</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 Wheelhouse

## DESCRIPTION OF CABLES.

Main cable carrying 44 Amperes, comprised of 19 wires, each 17 L.S.G. diameter, .0467 square inches total sectional area  
 Branch cables carrying 23.5 Amperes, comprised of 7 wires, each 15 L.S.G. diameter, .0285 square inches total sectional area  
 Branch cables carrying 8.9 Amperes, comprised of 7 wires, each 18 L.S.G. diameter, .0127 square inches total sectional area  
 Leads to lamps carrying Amperes, comprised of wires, each L.S.G. diameter, square inches total sectional area  
 Cargo light cables carrying 1.7 Amperes, comprised of 3 wires, each 20 L.S.G. diameter, .003 square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

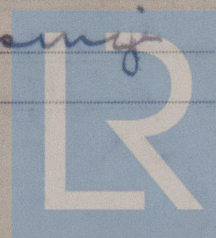
Prime Prime rubber, vul. rubber, taped & braided & for machinery space  
Lead covered taped & braided

Joints in cables, how made, insulated, and protected

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 yes

How are the cables led through the ship, and how protected In hard wood casing



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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 L.B. - am

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

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

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

How are cables carried through beams Under beams in casing

through bulkheads, &c. stapling glands

How are cables carried through decks Dark tubes

Are any cables run through coal bunkers Yes

or cargo spaces No

or spaces which may be used for carrying cargo, stores, or baggage No

If so, how are they protected In hard wood casing

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage yes

If so, how are the lamp fittings and cable terminals specially protected Special heavy fittings with metal doors

Where are the main switches and cut outs for these lights fitted Ship's passage

If in the spaces, how are they specially protected No

Are any switches or cut outs fitted in bunkers No

Cargo light cables, whether portable or permanently fixed Portable

How fixed W.T. 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

The installation is

supplied with a voltmeter and not

an amperemeter, fixed on Main 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 yes

Are any switches, cut outs, or joints of cables fitted in the pump room or companion No

How are the lamps specially protected in places liable to the accumulation of vapour or gas 3 in high fittings

The copper used is guaranteed to have a conductivity of 99 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.

COMPASSES.

Distance between dynamo or electric motors and standard compass 168 ft.

Distance between dynamo or electric motors and steering compass 173

The nearest cables to the compasses are as follows:—

A cable carrying 6.7 Amperes 8 feet from standard compass 12 feet from steering compass

A cable carrying .56 Amperes 4 feet from standard compass 4 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 all

course in the case of the

standard compass and nil

degrees on all

course in the case of the steering compass.

For

SIR W. G. ARMSTRONG WHITWORTH & CO. LIMITED

Builder's Signature.

Date

3rd January 1908

GENERAL REMARKS.

Edwin L. Orde. This installation has been efficiently fitted & examined under working conditions found satisfactory.

Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

It is submitted that the Record Elec. Light be noted in the Reg. Book.

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THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

REPORT FORM No. 12.—3m.34.