

FRI. JUL. 24. 1914

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 7.

Port of Middlesbrough Date of First Survey While Date of Last Survey building No. of Visits 84 7/7
 No. in Reg. Book 1554 on the Iron or Steel S.S. "Osama" Port belonging to Cardiff
 Built at Middlesbrough By whom Smith's Dock Co. Ltd. When built 1914
 Owners Reale & West, Ltd. Owners' Address Cardiff Class Contemplated
 Yard No. 584 Electric Light Installation fitted by Smith's Dock Co. Ltd. When fitted 1914

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Multipolar Compound Wound Dynamo & Vertical Engine

Capacity of Dynamo 40 Amperes at 110 Volts, whether continuous or alternating current Continuous
 Where is Dynamo fixed Engine Room Whether single or double wire system is used Double
 Position of Main Switch Board Engine Room 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 & group of lights provided with switches as required.

If fuses 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 fuses fitted to both flow and return wires or cables of all circuits including lamp circuits Yes

Are the fuses of non-oxidizable metal Yes and constructed to fuse at an excess of 100 per cent over the normal current

Are all fuses 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 fuses constructed of incombustible materials and fitted on incombustible bases Yes

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

A <u>Forward</u>	<u>12</u> lights each of <u>16</u>	candle power requiring a total current of <u>6</u>	Amperes
B <u>Deck</u>	<u>24</u> lights each of <u>8-16-32</u>	candle power requiring a total current of <u>14</u>	Amperes
C <u>Aft</u>	<u>24</u> lights each of <u>16</u>	candle power requiring a total current of <u>13</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>3</u> Mast headlight with <u>4</u> lamps each of <u>32</u>	candle power requiring a total current of <u>3</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>2</u>	Amperes	
<u>1</u> Cargo lights of <u>5 lamps</u> <u>16</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 Wheel House

DESCRIPTION OF CABLES.

Main cable carrying <u>33</u> Amperes, comprised of <u>4</u> wires, each <u>16</u>	S.W.G. diameter, <u>0.22/400</u> square inches total sectional area
Branch cables carrying <u>6</u> Amperes, comprised of <u>4</u> wires, each <u>20</u>	S.W.G. diameter, <u>0.070050</u> square inches total sectional area
Branch cables carrying <u>7</u> Amperes, comprised of <u>4</u> wires, each <u>20</u>	S.W.G. diameter, <u>0.070050</u> square inches total sectional area
Leads to lamps carrying <u>1/2</u> Amperes, comprised of <u>3</u> wires, each <u>22</u>	S.W.G. diameter, <u>0.018120</u> square inches total sectional area
Cargo light cables carrying <u>2 1/2</u> Amperes, comprised of <u>3</u> wires, each <u>20</u>	S.W.G. diameter, <u>0.029940</u> square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

2.500 Megohm Grade, Lead Covered

Joints in cables, how made, insulated, and protected No joint

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances None 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 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 Strong wood trawling & covered

Galvanized Iron Pipes

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 Lead covered

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

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

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

How are cables carried through beams Lead covered + bunched through bulkheads, &c. Iron pipes

How are cables carried through decks Galvanized Iron pipes

Are any cables run through coal bunkers Yes or cargo spaces Yes or spaces which may be used for carrying cargo, stores, or baggage

If so, how are they protected Strong wood lagging + covered with wire covers

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 Watertight gland fittings

Where are the main switches and fuses for these lights fitted Engine Room

If in the spaces, how are they specially protected

Are any switches or fuses fitted in bunkers No

Cargo light cables, whether portable or permanently fixed Portable How fixed In C.I. connection box

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 ✓

Is the installation supplied with a voltmeter Yes, and with an amperemeter Yes

VESSELS BUILT FOR CARRYING PETROLEUM.

In vessels built for carrying petroleum, are all switches and fuses fitted in positions not liable to the accumulation of petroleum vapour or gas ✓

Are any switches, fuses, 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 not less than that of the Engineering Standards Committee's standard, and the wires are protected by tinning from the sulphur compounds present in the insulating material.

Insulation of cables is guaranteed to have a resistance of not less than 2500 megohms per statute mile at 60° Fahrenheit after 24 hours' immersion in water, the test being made after one minute's electrification at not less than 500 volts and while the cable is still immersed.

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.

FOR SMITH'S DOCK CO., LTD.

George Richmond

Electrical Engineers

Date 25/5/14

COMPASSES.

Distance between dynamo or electric motors and standard compass 50 ft

Distance between dynamo or electric motors and steering compass 50 ft

The nearest cables to the compasses are as follows:—

A cable carrying 1/2 Amperes 1 feet from standard compass 1 feet from steering compass

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A cable carrying 1/2 Amperes 1 feet from standard compass 1 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 every course in the case of the standard compass and Nil degrees on every course in the case of the steering compass.

FOR SMITH'S DOCK CO., LTD.

W. Cairns

Builder's Signature.

Date 26/5/14

GENERAL REMARKS.

This Electric Light Installation has been fitted on board in accordance with the Rules and tried under full working conditions with satisfactory results.

It is submitted that this vessel is eligible for

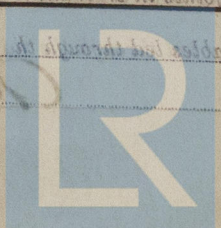
THE RECORD, Elec. light.

W.D.

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

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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