

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 5384

Port of Middleburgh Date of First Survey 10.2.04 Date of Last Survey 20.2.08 No. of Visits 5
 No. in Reg. Book 1 on the Iron or Steel S. J. Saxe Castle Port belonging to Liverpool
 Built at Middlesbrough By whom R. Briggs & Sons When built 1908
 Owners J. Chambers & Co. Owners' Address Liverpool
 Yard No. 213 Electric Light Installation fitted by J. H. Holmes & Co. When fitted 1908

DESCRIPTION OF DYNAMO, ENGINE, ETC.

6 1/2 x 6 Open type engine to work @ 100 lbs pressure & coupled direct to
15 1/2 "Castle" dynamo Compound wound 400 Revs
 Capacity of Dynamo 98 Amperes at 100 Volts, whether continuous or alternating current Continuous
 Where is Dynamo fixed Starling Platform 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 4 Way 10 Amp D.P. Junction in Starling Platform, 6 Way 5 Amp D.P. Junction in Blankroom with switches, 6 Way 5 Amp in 1st Pass Pantry, 5 Way 5 Amp in Smoking room Bulk, 6 Way 5 Amp 50 50 in Starling Platform with switches, 5 Way 5 Amp in Herring gear Room with switches
 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 74-4 arranged in the following groups :-

Group	Description	Number of Lights	Current (Amps)	Candle Power	Current (Amps)
A	4 Arc lights each of				40
B	31 Incandescent lights each of	16			17.3
C	43 Incandescent lights each of	16			24
D					
E					
	2 Mast head lights with 1 lamp each of	32			1.12
	2 Side lights with 1 lamp each of	32			1.12
	4 Cargo lights of	10 Amp			

If arc lights, what protection is provided against fire, sparks, &c. Enclosed in lampwork

Where are the switches controlling the masthead and side lights placed In Blankroom

DESCRIPTION OF CABLES.

Main cable carrying 81.3 Amperes, comprised of 19 wires, each 14 L.S.G. diameter, .095 square inches total sectional area
 Branch cables carrying 17.3 Amperes, comprised of 7 wires, each 16 L.S.G. diameter, .022 square inches total sectional area
 Branch cables carrying 24 Amperes, comprised of 7 wires, each 15 L.S.G. diameter, .028 square inches total sectional area
 Leads to lamps carrying 1.56 Amperes, comprised of 1 wires, each 18 L.S.G. diameter, .0018 square inches total sectional area
 Cargo light cables carrying 10 Amperes, comprised of 7 wires, each 18 L.S.G. diameter, .0127 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Enamel copper, Pure Para rubber, vul. rubber taped - braided

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 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

Are there any joints in or branches from the cable leading from dynamo to main switch board

How are the cables led through the ship, and how protected In iron pipe



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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 Armed

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 Bushed with fibre through bulkheads, &c. Stuffing boxes

How are cables carried through decks Sunk 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 —

If so, how are they protected In iron pipes

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 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 not supplied with a voltmeter and not an amperemeter, fixed in 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

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 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.

J. H. Thomas, Jr. Electrical Engineers Date 17/2/09

COMPASSES.

Distance between dynamo or electric motors and standard compass 108 ft.

Distance between dynamo or electric motors and steering compass 100 ft.

The nearest cables to the compasses are as follows:—

A cable carrying 7.28 Amperes 10 feet from standard compass 6 feet from steering compass

A cable carrying .56 Amperes 8 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 _____ course in the case of the standard compass and nil degrees on _____ course in the case of the steering compass.

Builder's Signature. Date

GENERAL REMARKS.

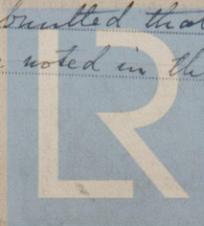
The electric light installation has been fitted under special survey & when tested under working conditions was found satisfactory

Geo. A. Milner,

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

Committee's Minute

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



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THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

REPORT FORM No. 13.-8m34.

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