

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 16763

Port of Glasgow Date of First Survey _____ Date of Last Survey _____ No. of Visits _____
 No. in _____ on the Steel S.S. Maplemore Port belonging to Liverpool
 Reg. Book _____ Built at Glasgow By whom G. Connell & Co When built 1899
 Owners Steam Ship McIntyre Limited Owners' Address Liverpool
 Yard No. 244 Electric Light Installation fitted by W. H. Allen Son & Co When fitted 1899

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Vertical open-fronted single cylinder engine direct coupled to compound continuous current dynamo both of W. H. Allen Son & Co's manufacture.

Capacity of Dynamo 175 Amperes at 60 Volts, whether continuous or alternating current Continuous

Where is Dynamo fixed Engine-room mid platform Starboard side recess of Bunker

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

Positions of auxiliary switch boards and numbers of switches on each One at engine room entrance & switches one in engine room starting platform 6 switches, one in passage to stoke hole & 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

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 wire 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 158 arranged in the following groups:—

A <u>Forecastle</u> <u>11</u> lights each of <u>16</u> candle power requiring a total current of <u>11</u> Amperes
+ <u>Cargo</u> <u>20</u> lights each of <u>16</u> candle power requiring a total current of <u>20</u> Amperes
B <u>Saloon</u> <u>21</u> lights each of <u>16</u> candle power requiring a total current of <u>21</u> Amperes
+ <u>signals</u> <u>3</u> lights each of <u>16</u> candle power requiring a total current of <u>3</u> Amperes
C <u>Cattle Decks</u> <u>22</u> lights each of <u>16</u> candle power requiring a total current of <u>22</u> Amperes
D <u>Deck</u> <u>10</u> lights each of <u>16</u> candle power requiring a total current of <u>10</u> Amperes
+ <u>Cargo</u> <u>20</u> lights each of <u>16</u> candle power requiring a total current of <u>20</u> Amperes
E <u>Engine room</u> <u>32</u> lights each of <u>16</u> candle power requiring a total current of <u>32</u> Amperes
+ <u>Engineers</u> <u>19</u> lights each of <u>16</u> candle power requiring a total current of <u>19</u> Amperes
A <u>Mast head light with</u> <u>1</u> lamps each of <u>32</u> candle power requiring a total current of <u>2</u> Amperes
<u>two</u> <u>Side light with</u> <u>1</u> lamps each of <u>32</u> candle power requiring a total current of <u>4</u> Amperes
<u>8</u> <u>Cargo lights of</u> <u>80</u> candle power, whether incandescent or arc lights <u>Incandescent</u>

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

Where are the switches controlling the masthead and side lights placed In Steering House

DESCRIPTION OF CABLES.

Main cable carrying 158 Amperes, comprised of 37 wires, each 14 L.S.G. diameter, 0.1897 square inches total sectional area

Branch cables carrying 20 Amperes, comprised of 7 wires, each 15 L.S.G. diameter, 0.0291 square inches total sectional area

Branch cables carrying 5 Amperes, comprised of 7 wires, each 20 L.S.G. diameter, 0.0073 square inches total sectional area

Leads to lamps carrying 1 Amperes, comprised of 1 wires, each 18 L.S.G. diameter, 0.0018 square inches total sectional area

Cargo light cables carrying 5 Amperes, comprised of 14.5 wires, each 38 L.S.G. diameter, 0.0042 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

vulcanised rubber & braided where in casing
armoured & lead sheathed elsewhere

Joints in cables, how made, insulated, and protected spiral joints soldered, then insulated with Selt Tape, two layers of rubber Tape & finished with bythorite Tape & Shellac varnish

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 Some on shelter Deck

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 Fore & Aft in Starboard alleyway under shelter Deck in strong wood casing.

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DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible

What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture *Lead sheathed wire in casing*

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

What special protection has been provided for the cables near boiler casings *Lead & Armour sheathed*

What special protection has been provided for the cables in engine room *Lead & Armour sheathed*

How are cables carried through beams *In Fibre Jerrules* through bulkheads, &c. *Fibre Jerrules*

How are cables carried through decks *S.S. pipes bushed with Fibre*

Are any cables run through coal bunkers *No* or cargo spaces *No* or spaces which may be used for carrying cargo, stores, or baggage

If so, how are they protected *Strong Wood Casing*

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage *None in bunkers*

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 *Cast Iron Lamps with shutters*

Are any switches or cut outs fitted in bunkers *No*

Cargo light cables, whether portable or permanently fixed *Portable* How fixed

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 *By Brass screws & wires soldered to screws*

Are all the joints with the hull in accessible positions *Yes*

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 installation is supplied with a voltmeter and *but not* an amperemeter, fixed *on switch box*

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 *2,500* 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.

For *W. H. ALLEN, SON & Compy*

Electrical Engineers

Date *Feb 13th 99*

COMPASSES.

Distance between dynamo or electric motors and standard compass *200 Feet*

Distance between dynamo or electric motors and steering compass *195*

The nearest cables to the compasses are as follows:—

A cable carrying *27* Amperes *28* feet from standard compass *34* feet from steering compass

A cable carrying *1* Amperes *5* feet from standard compass *6* 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 *every* course in the case of the standard compass and *nil* degrees on *every* course in the case of the steering compass.

G. Connell & Co

Builder's Signature.

Date *21st July 1899*

GENERAL REMARKS.

The electric lighting of this vessel has been satisfactorily carried out and tried under full power.

George Murdoch.

Surveyor to Lloyd's Register of British and Foreign Shipping

Committee's Minute

This installation appears to be fitted in accordance with the Rules

Lloyd's Register Foundation

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