

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 14332.

Port of Greenock Date of First Survey 26th May Date of Last Survey 12th June 1905 No. of Visits 10
 No. in Reg. Book on the Iron or Steel P.S. Whittington Port belonging to London
 Built at Goker By whom Napier & Miller When built 1905
 Owners London County Council Owners' Address London
 Yard No. Electric Light Installation fitted by W. B. Martin & Co. When fitted 1905

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Compound wound dynamo direct coupled to single cylinder double acting engine with forced lubrication & carbon brushes.

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

Where is Dynamo fixed Starting platform Whether single or double wire system is used double wired

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 two in engine room 6 switches and 8 switches 6 in Bar 6 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 50 per cent over the normal current

Are all cut outs fitted in easily accessible positions _____ 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 46 arranged in the following groups:—

A 12 lights each of 16 candle power requiring a total current of 7.2 Amperes

B 20 lights each of 16 candle power requiring a total current of 12.0 Amperes

C 14 lights each of 16 candle power requiring a total current of 8.4 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

Mast head light with _____ lamps each of _____ candle power requiring a total current of _____ Amperes

Side light with _____ lamps each of _____ candle power requiring a total current of _____ Amperes

2 Gangway 4 lights of 16 candle power, whether incandescent or arc lights incandescent

If arc lights, what protection is provided against fire, sparks, &c. _____

Where are the switches controlling the masthead and side lights placed _____

DESCRIPTION OF CABLES.

Main cable carrying 27.6 Amperes, comprised of 19 wires, each 18 L.S.G. diameter, .0349 square inches total sectional area

Branch cables carrying 7.2 Amperes, comprised of 7 wires, each 20 L.S.G. diameter, .0072 square inches total sectional area

Branch cables carrying 12 Amperes, comprised of 7 wires, each 18 L.S.G. diameter, .0128 square inches total sectional area

Leads to lamps carrying 1.8 Amperes, comprised of 3 wires, each 22 L.S.G. diameter, .0019 square inches total sectional area

Cargo light cables carrying 2.4 Amperes, comprised of 70 wires, each 40 L.S.G. diameter, _____ square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

N.B. Copper wire tinned insulated with vulcanised rubber and protected with tape & braiding and drawn into galvanised steel tube

Joints in cables, how made, insulated, and protected no joints

Are all the joints of cables thoroughly soldered, resin only having been used as a flux _____ 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 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 in galvanised steel tube

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 steel tube

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

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

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

How are cables carried through beams none carried through bulkheads, &c. stuffing boxes

How are cables carried through decks steel

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

If so, how are they protected —

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 brass plugs

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 at present supplied with a voltmeter and also with 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 98 per cent. that of pure copper.

Insulation of cables is guaranteed to have a resistance of not less than 2000 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.

W. C. Martin Electrical Engineers

Date 15th June 1905

COMPASSES.

Distance between dynamo or electric motors and standard compass —

Distance between dynamo or electric motors and steering compass 8 to 12 ft.

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
<u>27.6</u>	<u>8 to 12</u>	<u>8 to 12</u>	<u>8 to 12</u>
<u>7.2</u>	<u>9</u>	<u>9</u>	<u>9</u>
<u>1.8</u>	<u>7</u>	<u>7</u>	<u>7</u>

Have the compasses been adjusted with and without the electric installation at work at full power don't know

The maximum deviation due to electric currents, etc., was found to be — degrees on — course in the case of the standard compass and — degrees on — course in the case of the steering compass.

for Napier & Miller Ltd
for J. H. Miller
Director.

Builder's Signature. Date 20th June 1905

GENERAL REMARKS.

The installation was tested on completion and found to work well.

Am

Wm R. Austin

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

Committee's Minute

Glasgow 6 JUN 1905
Records Electric Light

This installation appears to be fitted in accordance with the Rules.

Lloyd's Register
Foundation
27/6/05