

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 114670

Port of Glasgow Date of First Survey \_\_\_\_\_ Date of Last Survey \_\_\_\_\_ No. of Visits \_\_\_\_\_  
 No. in Reg. Book 36 on the Iron or Steel SS. La Plata Port belonging to \_\_\_\_\_  
 Built at Glasgow By whom R. Napier & Sons (Lm) When built 1896  
 Owners Royal Mail S.P.C. Owners Address \_\_\_\_\_  
 Yard No. 449 Electric Light Installation fitted by Wm Compton & Co When fitted \_\_\_\_\_

## DESCRIPTION OF DYNAMO, ENGINE, ETC. *State whether single or double wire system*

Dynamo built by Compton & Co. Compound wound  
 Engine by Bell & Co. single stroke open type fly wheel governor  
 Capacity of Dynamo 150 Amperes at 110 Volts, whether continuous or alternating current Continuous  
 Where is Dynamo fixed in Engine Room  
 Position of Main Switch Board in Eng Room near Dynamo having switches to groups \_\_\_\_\_ of lights, &c., as below  
 Positions of auxiliary switch boards and numbers of switches on each all in positions easily accessible but in teard locked boxes.

If cut outs are fitted on main switch board to the cables of main circuit yes and on each auxiliary switch boards 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 single wire  
 Are the cut outs of non-oxidisable 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 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 217 arranged in the following groups:—

A	30	lights each of	16	candle power requiring a total current of	16	Amperes
B	25	lights each of	16	candle power requiring a total current of	13	Amperes
C	31	lights each of	16	candle power requiring a total current of	16 1/2	Amperes
D	27	lights each of	16	candle power requiring a total current of	12 1/2	Amperes
E	27	lights each of	16	candle power requiring a total current of	15	Amperes
		Mast head light with <u>16 1/2</u> lamps each of	<u>16 1/2</u>	candle power requiring a total current of	—	Amperes
		Side light with — lamps each of	—	candle power requiring a total current of	—	Amperes
		Five Cargo lights of <u>8</u> —	<u>16 1/2</u>	candle power, whether incandescent or arc lights	<u>d.c.</u>	

*5. 28 lights 16 amp. 9. 25 lights 14 amp. 4. 26 lights 14 amp.*

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

Where are the switches controlling the masthead and side lights placed no mast head light

## DESCRIPTION OF CABLES.

Main cable carrying 118 Amperes, comprised of 19 wires, each 12 L.S.G. diameter, .164 square inches total sectional area  
 Branch cables carrying 16.5 Amperes, comprised of 7 wires, each 15 L.S.G. diameter, .029 square inches total sectional area  
 Branch cables carrying \_\_\_\_\_ Amperes, comprised of \_\_\_\_\_ wires, each \_\_\_\_\_ L.S.G. diameter, \_\_\_\_\_ square inches total sectional area  
 Leads to lamps carrying 55 Amperes, comprised of 7 wires, each 18 L.S.G. diameter, .0018 square inches total sectional area  
 Cargo light cables carrying 44 Amperes, comprised of 7 wires, each 22 L.S.G. diameter, .0043 square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

Mains & unbranched lead covered 1000 megohm insulation  
 Branches — " — 1000 " "  
 " in Eng Room vulcanised lead 1000 " "  
 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 no joints 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 Lamps in tween Decks

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 Wood casing. Iron Pipes in Engine Dept.



14620 lbs.

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 none exposed

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

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

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

How are cables carried through beams Wood plugs through bulkheads, &c. do

How are cables carried through decks Deck tubes

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

If so, how are they protected 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 Wood casing. Lamps guarded fittings

Where are the main switches and cut outs for these lights fitted In distributing boxes

If in the spaces, how are they specially protected do

Are any switches or cut outs fitted in bunkers No

Cargo light cables, whether portable or permanently fixed Portable How fixed by plugs

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel By gun metal bolt to beam

How are the returns from the lamps connected to the hull Gun metal 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 do

Are any switches, cut outs, or joints of cables fitted in the pump room or companion do

How are the lamps specially protected in places liable to the accumulation of vapour or gas do

The installation is 7 supplied with a voltmeter Yes also an amperemeter, fixed in Engine Room

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 1000 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 certify that it is at this date in good order and safe working condition.

Brompton & Perwalle Dixon & Co. Electrical Engineers Date 11 Aug 9

COMPASSES.

Distance between dynamo or electric motors and standard compass 100'-0"

Distance between dynamo or electric motors and steering compass 109'-0"

The nearest cables to the compasses are as follows:—

A cable carrying	<u>13</u>	Amperes	<u>24</u>	feet from standard compass	feet from steering compass
A cable carrying	<u>13</u>	Amperes	<u>40</u>	feet from standard compass	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 do

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

R. NAPIER & SONS, Limited.  
C. F. Jones Builder's Signature Date 24 Aug 1899

GENERAL REMARKS.

This installation has been fitted on board and appears to be in accordance with the Rules of this Society  
A. McKeand  
 Secretary

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

Committee's Minute

This installation appears to be in accordance with the Rules of Lloyd's Register of Shipping  
2.9.96

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