

REPORT ON ELECTRIC LIGHTING INSTALLATION.

No. 5037 * Port of Bundee Received at London Office 11 SEP. 91
 No. in Reg. Book. Name of Ship S. S. Peregrine Built at Bundee When built 1891
 Electric Light Installation fitted by Paterson & Cooper when fitted September 1891

DESCRIPTION OF DYNAMO AND ENGINE.—

Direct Acting Engine & Dynamo running at a speed of 270 rev.

Capacity of Dynamo 90 Amperes at 100 Volts, whether continuous or alternating current continuous

Where is Dynamo fixed Stringer plate starboard side of Engine room

LAMPS.—

Is vessel wired on single or double wire system Double Total number of lights 148 arranged in the following groups:—

A	<u>Saloon, 50</u> lights each of	<u>16</u>	candle power requiring a total current of	<u>25</u>	Amperes
B	<u>19</u> lights each of	<u>16</u>	candle power requiring a total current of	<u>10</u>	Amperes
C	<u>24</u> lights each of	<u>16</u>	candle power requiring a total current of	<u>14</u>	Amperes
D	<u>13</u> lights each of	<u>16</u>	candle power requiring a total current of	<u>4</u>	Amperes
E	<u>22</u> lights each of	<u>16</u>	candle power requiring a total current of	<u>11</u>	Amperes
F	<u>11</u> lights each of	<u>16</u>	candle power requiring a total current of	<u>6</u>	Amperes
	Mast head light with <u>—</u> lamps each of	<u>—</u>	candle power requiring a total current of	<u>—</u>	Amperes
	Side light with <u>—</u> lamps each of	<u>—</u>	candle power requiring a total current of	<u>—</u>	Amperes
	<u>2</u> Cargo lights of	<u>5/16</u>	candle power, whether incandescent or arc lights <u>Incandescent</u>		

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

SWITCHES AND CUT-OUTS.—

Position of Main Switch Board Engine room having switches to groups A. B. C. D. E. F. of lights as above

Positions of other switch boards and numbers of switches on each —

If cut outs are fitted to main circuit yes and to each auxiliary circuit yes
 and at each position where cable is branched or reduced in size yes

If vessel is wired on the double wire system are cut outs fitted on each wire yes, on one wire only

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

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 —

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

Are all switches and cut-outs constructed of unflammable materials and fitted on unflammable bases yes

DESCRIPTION OF CABLES.—

Main cable carrying	<u>45</u>	Amperes, comprised of	<u>19</u>	wires, each	<u>14</u>	legal standard wire gauge diameter
Branch cables carrying	<u>25</u>	Amperes, comprised of	<u>19</u>	wires, each	<u>18</u>	legal standard wire gauge diameter
Branch cables carrying	<u>10</u>	Amperes, comprised of	<u>4</u>	wires, each	<u>18</u>	legal standard wire gauge diameter
Leads to lamps	<u>.6</u>	Amperes, comprised of	<u>1</u>	wires, each	<u>18</u>	legal standard wire gauge diameter
Cargo light cables carrying	<u>2.5</u>	Amperes, comprised of	<u>1</u>	wires, each	<u>14</u>	legal standard wire gauge diameter

The copper used has a conductivity of 98 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

DESCRIPTION OF INSULATION, PROTECTION, &c.—

*Leads & Branches carried throughout in wood Case-ing—
The insulation, of Vulcanized rubber & braided*

Joints in cables, how made, insulated, and protected *Spliced, then soldered & covered with two layers of rubber tape & finished with rubber solution & compound tape*

Are all the joints of cables thoroughly soldered, resin only having been used as a flux *yes*

How are cables led throughout the ship *Along starboard alleyway to Saloon & through aft hold to the 2nd Cabin, all in Heavy Wood Caseing*

What special protection has been provided for the cables in open alleyways *no wires in open alleyways*

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *no cables near excessive heat*

What special protection has been provided for the cables near boiler casings *no cables near boiler casing*

What special protection has been provided for the cables in engine room *Heavy Wood Caseing*

How are cables carried through decks *Brass Tubes & Teak wood (inside)* and through bulkheads *Teak Wood plugs*

Are any cables run through coal bunkers *no* or cargo spaces *yes* If so, how are they protected *Heavy Wood Caseing*

Are any lamps fitted in coal bunkers or spaces which may be used for cargo *yes*

If so, how are they specially protected *Strong Iron Fittings with Shutters*

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 _____

Are all the joints with the hull in accessible positions _____

TESTING, &c.—

Has the installation been thoroughly tested to its full capacity during a trial of *6* hours' duration *yes*

The insulation resistance of the whole installation was not less than *150,000* ohms

The installation is _____ supplied with a voltmeter and _____ an amperemeter, fixed *on Switch-boards*

General Remarks.—

The whole installation is fitted according to the Fire insurance regulations

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. Paterson & Cooper Electrical Engineers
W. C. Martin

Date *9th Sept 1891*

COMPASSES.—

Distance between dynamo and standard compass *50 Feet*

Distance between dynamo and steering compass *80 "*

The nearest cables to the compasses are as follows:—

A cable carrying *1* Amperes *10* feet from standard compass *10* feet from steering compass

A cable carrying _____ Amperes _____ 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 *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.

W. B. THOMPSON & Co., Limited.

Builder's Signature _____ Date *15th Sept 1891.*

W. H. Anderson Secretary
W. H. Anderson Surveyor's Signature

Date *10th September 1891.*



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