

# REPORT ON ELECTRIC LIGHTING INSTALLATION.

Port of Bundee

11 SEP. 91

Received at London Office

No. 5037 \*

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:—

Group	Description	No. of lights	Candle power	Current (Amperes)
A	Saloon, 50 lights each of	16	25	25
B	19 lights each of	16	10	10
C	24 lights each of	16	14	14
D	13 lights each of	16	4	4
E	22 lights each of	16	11	11
F	11 Mast head light with - lamps each of	16	6	6
-	Side light with - lamps each of	-	-	-
-	2 Cargo lights of	5/16	each	Incandescent

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.—

Type	Capacity (Amperes)	Wires	Gauge
Main cable carrying	<u>45</u>	<u>19</u>	<u>14</u> legal standard wire gauge diameter
Branch cables carrying	<u>25</u>	<u>19</u>	<u>18</u> legal standard wire gauge diameter
Branch cables carrying	<u>10</u>	<u>4</u>	<u>18</u> legal standard wire gauge diameter
Leads to lamps	<u>16</u>	<u>1</u>	<u>18</u> legal standard wire gauge diameter
Cargo light cables carrying	<u>2.5</u>	<u>1</u>	<u>14</u> legal standard wire gauge diameter

The copper used has a conductivity of 95 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 casing—  
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 2<sup>nd</sup> cabin, all in heavy wood casing*

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 casing*

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 casing*

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 *9<sup>th</sup> 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 *15<sup>th</sup> Sept 1891*

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

Date *10<sup>th</sup> September 1891*



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