

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 11331

*Lord Darling*

Port of Brimley Date of First Survey Sep 29th Date of Last Survey Dec 15th No. of Visits 6  
 No. in Reg. Book 23781 on the Steel S.C.K. "PRINCE PALATINE" Port belonging to Brimley  
 Built at Selly By whom Cochrane & Co When built 1914  
 Owners L. Kay Owners' Address 55 Duncombe Street  
 Yard No. Electric Light Installation fitted by T.P. Pollitt & Co Ltd When fitted 1919

### DESCRIPTION OF DYNAMO, ENGINE, ETC.

Engine, Robey. S.C. D.A. open type  
 Dynamo, Electromotors compound wound  
 Capacity of Dynamo 10 Amperes at 100 Volts, whether continuous or alternating current continuous  
 Where is Dynamo fixed starboard side of Engine room.  
 Position of Main Switch Board Engine room having switches to groups A. B. of lights, &c., as below  
 Positions of auxiliary switch boards and numbers of switches on each none

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 ten 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 37 arranged in the following groups:—

A	<u>11</u>	lights each of	<u>20 watts</u>	<del>candle power</del> requiring a total current of	<u>2.2</u>	Amperes
B	<u>26</u>	lights each of	<u>20</u>	<del>candle power</del> requiring a total current of	<u>5.2</u>	Amperes
C	—	lights each of	—	candle power requiring a total current of	—	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
B.	<u>1</u>	Mast head lights with	<u>1</u> lamps each of <u>20 watts</u>	<del>candle power</del> requiring a total current of	<u>.6</u>	Amperes
	<u>2</u>	Side light with	<u>1</u> lamps each of <u>20</u>	<del>candle power</del> requiring a total current of	<u>.4</u>	Amperes
	<u>2</u>	Cargo lights of	<u>20</u>	<del>candle power</del> , whether incandescent or arc lights <u>incandescent</u>		

included in B.

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

Where are the switches controlling the masthead and side lights placed in wheelhouse

### DESCRIPTION OF CABLES.

Main cable carrying 10 Amperes, comprised of 7 wires, each 20 <sup>S.W.G.</sup> ~~L.S.G.~~ diameter, .007 square inches total sectional area  
 Branch cables carrying 5 Amperes, comprised of 3 wires, each 18 <sup>S.W.G.</sup> ~~L.S.G.~~ diameter, .005 square inches total sectional area  
 Branch cables carrying 2 Amperes, comprised of 1 wires, each 18 <sup>S.W.G.</sup> ~~L.S.G.~~ diameter, .0018 square inches total sectional area  
 Leads to lamps carrying — Amperes, comprised of — wires, each — L.S.G. diameter, — square inches total sectional area  
 Cargo light cables carrying .8 Amperes, comprised of 23 wires, each 35 <sup>S.W.G.</sup> ~~L.S.G.~~ diameter, .0018 square inches total sectional area

### DESCRIPTION OF INSULATION, PROTECTION, ETC.

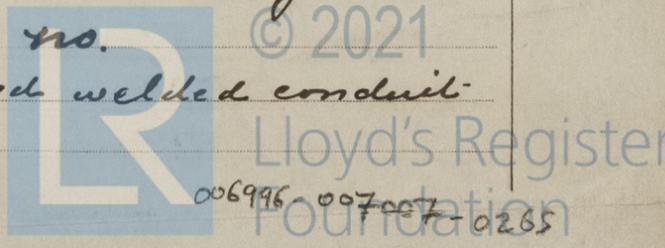
pure rubber two layers vulcanized rubber, taped & braided or taped & lead covered

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 none 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 joints

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 encased in screwed welded conduit in engine room, bunkers, fish rooms.



**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 screwed conduit

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

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

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

How are cables carried through beams ditto through bulkheads, &c. ditto

How are cables carried through decks deck glands, grommets washers & lock nuts

Are any cables run through coal bunkers yes or cargo spaces yes or spaces which may be used for carrying cargo, stores, or baggage yes

If so, how are they protected screwed conduit

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 to 2 pin 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 —

**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 an amperemeter, fixed~~

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 1200 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.

T. P. Pollitt & Co. R<sup>1</sup> Electrical Engineers, Date Nov. 3<sup>rd</sup> 1919

**COMPASSES.**

~~Distance between dynamo or electric motors and standard compass~~

~~Distance between dynamo or electric motors and steering compass~~

~~The nearest cables to the compasses are as follows:—~~

A cable carrying	Amperes	feet from standard compass	feet from steering compass
<del>_____</del>	<del>_____</del>	<del>_____</del>	<del>_____</del>
<del>_____</del>	<del>_____</del>	<del>_____</del>	<del>_____</del>
<del>_____</del>	<del>_____</del>	<del>_____</del>	<del>_____</del>

~~Have the compasses been adjusted with and without the electric installation at work at full power~~

~~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.~~

Builder's Signature. Date \_\_\_\_\_

GENERAL REMARKS. This installation has been well fitted on board & when tried under working conditions found satisfactory. The vessel is eligible in my opinion to have notation of Elec. Light in the Register Book.

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

Committee's Minute \_\_\_\_\_

REPORT FORM No. 1.

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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