

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 62600

Port of Newcastle Date of First Survey 4 June Date of Last Survey 1 July 1912 No. of Visits 7  
 No. in Reg. Book 11487 on the Iron or Steel S.S. "La Rosalina" Port belonging to W. Hartlepool  
 Built at Newcastle By whom Palmer, S.B. & Co When built 1912  
 Owners Furness Withy & Co Owners' Address \_\_\_\_\_ When fitted 1912  
 Yard No. 8/2 Electric Light Installation fitted by H. J. Boothroyd Ltd.

## DESCRIPTION OF DYNAMO, ENGINE, ETC. 2 sub

Boothroyd. Multipolar. Compound wound - dynamo coupled direct to Bowden  
Single crank - Greased lubrication Enclosed Engine  
 Capacity of Dynamo 120 Amperes at 100 Volts, whether continuous or alternating current continuous  
 Where is Dynamo fixed Top platform Port side Whether single or double wire system is used Double  
 Position of Main Switch Board Near dynamo having switches to groups 8 of lights, &c., as below  
 Positions of auxiliary switch boards and numbers of switches on each No auxiliary switchboards

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 80 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		320		arranged in the following groups:—	
A	Forward 21 lights each of 16	16	13.5	33.5	Amperes
B	Saloon Navigation 50 lights each of 16	16	32	36	Amperes
C	Off accommodation 35 lights each of 16	16	22.5	22.5	Amperes
D	Marconi 34 lights each of 16	16	22	22	Amperes
E	Engine Room 23 lights each of 16	16	53.5	53.5	Amperes
2	Mast head light with 1 lamps each of 32	32	2.6	2.6	Amperes
2	Side light with 1 lamps each of 32	32	2.6	2.6	Amperes
50	Cargo lights of 16	16			candle power, whether incandescent or arc lights <u>incandescent</u>

If are lights, what protection is provided against fire, sparks, &c. 2 arc of the Crompton make. Carbon enclosed in a hexagonal glazed lantern  
 Where are the switches controlling the masthead and side lights placed in Chart house

## DESCRIPTION OF CABLES.

Main cable carrying 120 Amperes, comprised of 19 wires, each .092 L.S.G. diameter, 12.6312 square inches total sectional area  
 Branch cables carrying 35 Amperes, comprised of 4 wires, each .080 L.S.G. diameter, 0.35182 square inches total sectional area  
 Branch cables carrying 60 Amperes, comprised of 19 wires, each .064 L.S.G. diameter, 0.61123 square inches total sectional area  
 Leads to lamps carrying 18 Amperes, comprised of 1 wires, each .048 L.S.G. diameter, 0.01809 square inches total sectional area  
 Cargo light cables carrying 3.2 Amperes, comprised of 110 wires, each .0060 L.S.G. diameter, 0.0310940 square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

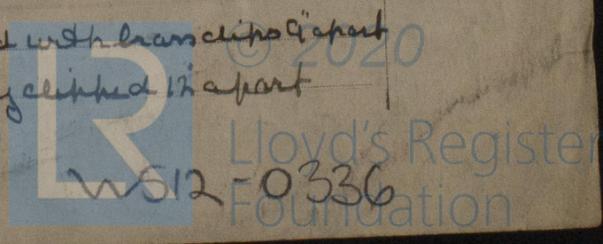
Cables insulated with Pure and Vulcanized India Rubber.

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 —

Are there any joints in or branches from the cable leading from dynamo to main switch board —

How are the cables led through the ship, and how protected Cabin lead sheathed clipped with brass clips  
Engine room etc. lead sheathed armoured & crissed over armoured clipped in a part



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**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 Lead armoured & cradled

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat Lead armoured & cradled

What special protection has been provided for the cables near boiler casings Lead armoured & cradled

What special protection has been provided for the cables in engine room Lead armoured & cradled

How are cables carried through beams Beams drilled & run from bulkheads through bulkheads, &c. Watertight glands

How are cables carried through decks tubes

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

If so, how are they protected Heavy steel galvanized tubing

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 heavy cast iron covers

Where are the main switches and cut outs for these lights fitted Engineer's Room

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 Special W.S. boxes

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 yes supplied with a voltmeter and yes 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 100 per cent. that of pure copper.

Insulation of cables is guaranteed to have a resistance of not less than 500 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.

**H. T. BOOTHROYD, LIMITED.**

*H. T. Boothroyd*

Electrical Engineers

Date

Sep. 17/1912

**COMPASSES.**

Distance between dynamo or electric motors and standard compass 116 ft

Distance between dynamo or electric motors and steering compass 110 ft

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
<u>17</u>	<u>14</u>	<u>14</u>	<u>14</u>
<u>2.6</u>	<u>14</u>	<u>14</u>	<u>14</u>
<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>

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 no degrees on no course in the case of the standard compass and no degrees on no course in the case of the steering compass.

*J. L. Swaddell*

Builder's Signature.

Date

20th Sept 1912

**GENERAL REMARKS.**

The ship has arrived from her maiden voyage & everything is reported to be satisfactory. The above installation has been fitted in accordance with the Rules in a satisfactory manner. It is submitted that this vessel is eligible for THE RECORD. *W. J. Thomas* Field. Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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