

## REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 79457

Port of London Date of First Survey 19<sup>th</sup> Oct Date of Last Survey 14<sup>th</sup> Nov No. of Visits 4  
 No. in on the Iron on Steel S.S. "Weymouth" Port belonging to Trull  
 Reg. Book 309 Built at Boale By whom Boale L.B. & Rys. Co. Ltd When built 1912-6  
 Owners Cunningham Shaw & Co. Ltd Owners' Address —  
 Yard No. — Electric Light Installation fitted by Messer Campbell & Sherwood When fitted 1916

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

Single Cylinder Robey Engine & Co. S. standard multipolar compound wound dynamo.  
 Capacity of Dynamo 45 Amperes at 100 Volts, whether continuous or alternating current Continuous  
 Where is Dynamo fixed In Engine Room Whether single or double wire system is used Single  
 Position of Main Switch Board El. Carving having switches to groups A. B. C. of lights, &c., as below  
 Positions of auxiliary switch boards and numbers of switches on each One in Engine Room 2 Circuits  
One Saloon entrance 4 circuits.

If fuses 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 fuses fitted to both flow and return wires or cables of all circuits including lamp circuits —

Are the fuses of non-oxidizable metal Yes and constructed to fuse at an excess of 25 per cent over the normal current

Are all fuses 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 —

Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases Yes

Total number of lights provided for 23 arranged in the following groups:—

A	<u>Wireless</u>	lights each of		candle power requiring a total current of	<u>10</u>	Amperes
B	<u>Eng. R. 10</u>	lights each of	<u>16 cp</u>	candle power requiring a total current of	<u>5</u>	Amperes
C	<u>Saloon 10</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>7</u>	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
—	<u>Mast head light with</u>	<u>—</u> lamps each of		candle power requiring a total current of	<u>—</u>	Amperes
	<u>2 Side light with</u>	<u>1</u> lamps each of	<u>32</u>	candle power requiring a total current of	<u>2</u>	Amperes
	<u>One</u>	<u>Cargo lights of</u>	<u>80</u>	candle power, whether incandescent or arc lights	<u>incandescent</u>	

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

Where are the switches controlling the ~~masthead~~ and side lights placed Saloon Entrance

## DESCRIPTION OF CABLES.

Main cable carrying	<u>45</u> Amperes, comprised of	<u>7</u> wires, each	<u>14</u> S.W.G. diameter,	<u>.03483</u> square inches total sectional area
Branch cables carrying	<u>10</u> Amperes, comprised of	<u>7</u> wires, each	<u>20</u> S.W.G. diameter,	<u>.007182</u> square inches total sectional area
Branch cables carrying				
Leads to lamps carrying	<u>2</u> Amperes, comprised of	<u>3</u> wires, each	<u>22</u> S.W.G. diameter,	<u>.001826</u> square inches total sectional area
Cargo light cables carrying	<u>2.5</u> Amperes, comprised of	<u>40</u> wires, each	<u>36</u> S.W.G. diameter,	<u>.001810</u> square inches total sectional area

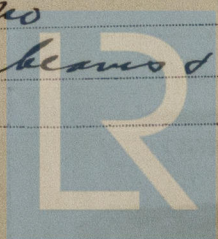
## DESCRIPTION OF INSULATION, PROTECTION, ETC.

Pure Para & too layers of high grade vulcanising India rubber covered with tape, the whole vulcanised heat covered, braided & annealed with layers of glass? steel wire braided compound -  
 Joints in cables, how made, insulated, and protected None

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances — 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 no

How are the cables led through the ship, and how protected Bushed holes in beams & protected by armoring -





**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 covered

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

What special protection has been provided for the cables near boiler casings No

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

How are cables carried through beams Holes bushed through bulkheads, &c. ✓

How are cables carried through decks Deck pipes

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

If so, how are they protected Armoured & lead covered.

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 fuses for these lights fitted ✓

If in the spaces, how are they specially protected ✓

Are any switches or fuses fitted in bunkers No

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 Bolted to shell.

How are the returns from the lamps connected to the hull Terminal screws in beams

Are all the joints with the hull in accessible positions Yes

Is the installation supplied with a voltmeter Yes and with an amperemeter Yes, fixed Main board

**VESSELS BUILT FOR CARRYING PETROLEUM.**

In vessels built for carrying petroleum, are all switches and fuses fitted in positions not liable to the accumulation of petroleum vapour or gas ✓

Are any switches, fuses, 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 not less than that of the Engineering Standards Committee's standard, and the wires are protected by tinning from the sulphur compounds present in the insulating material.

Insulation of cables is guaranteed to have a resistance of not less than 1200 megohms per statute mile at 60° Fahrenheit after 24 hours' immersion in water, the test being made after one minute's electrification at not less than 500 volts and while the cable is still immersed.

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.

GAMPBELL & ISHERWOOD LTD

Electrical Engineers

Date 28<sup>th</sup> Oct. 1916

**COMPASSES.**

Distance between dynamo ~~on electric motors~~ and standard compass 48 ft.

Distance between dynamo ~~on electric motors~~ and steering compass 48 ft.

The nearest cables to the compasses are as follows:—

A cable carrying 5 Amperes 9 feet from standard compass 9 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 1/8 degrees on course in the case of the standard compass and 1/8 degrees on course in the case of the steering compass.

Builder's Signature. Date

**GENERAL REMARKS.**

The installation is fitted in accordance with the Rules & is good & substantial—

It is submitted that this vessel is eligible for THE RECORD Elec. light.

J.W.D.  
20/11/16

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

Committee's Minute