

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 84546.

Port of Spain Date of First Survey 17 AUG 1921 Date of Last Survey 17 AUG 1921 No. of Visits \_\_\_\_\_  
 No. in Reg. Book \_\_\_\_\_ on the Iron or Steel S.S. Salcombe Regis Port belonging to \_\_\_\_\_  
 Built at Gulston Broad Lowestoft By whom John Chambers Ltd When built 1921  
 Owners Harrison Sons & Co. Ltd. Owners' Address Cardiff  
 Yard No. 511 Electric Light Installation fitted by Chippagoulds Ltd. When fitted 1921

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

Robey Steam Engine No. 37022 direct coupled to Electromotors  
compound wound generator. No. 29412. running at 400 revs. (1K.W.)  
 Capacity of Dynamo 10 Amperes at 100 Volts, whether continuous or alternating current Continuous  
 Where is Dynamo fixed Engine room Aft side Whether single or double wire system is used Double  
 Position of Main Switch Board Engine room Port side having switches to groups A. B. C. D. of lights, &c., as below  
 Positions of auxiliary switch boards and numbers of switches on each \_\_\_\_\_

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 Yes  
 Are the fuses of non-oxidizable metal Yes and constructed to fuse at an excess of 50% 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 Yes  
 Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases Yes

Total number of lights provided for 40 arranged in the following groups:—

Group	No. of lights	Candle power each	Total current (Amperes)
A	20	28	6
B	10	28	3
C	5	28	1.5
D	1	28	.3
E	—	—	—
—	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
3.	Cargo lights of <u>✓</u>	candle power, whether incandescent or arc lights <u>Incandescent</u>	

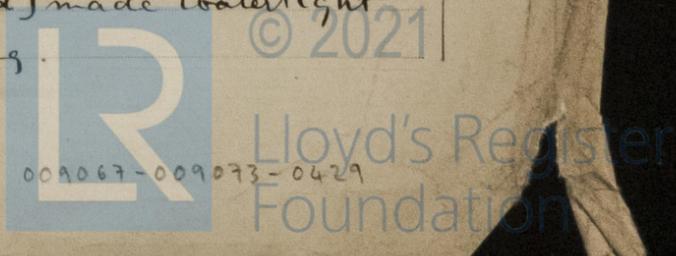
If arc lights, what protection is provided against fire, sparks, &c. ✓  
 Where are the switches controlling the masthead and side lights placed ✓

## DESCRIPTION OF CABLES.

Main cable carrying 10 Amperes, comprised of 7 wires, each 18 S.W.G. diameter, .01254 square inches total sectional area  
 Branch cables carrying 4 Amperes, comprised of 7 wires, each 20 S.W.G. diameter, .00706 square inches total sectional area  
 Branch cables carrying \_\_\_\_\_ Amperes, comprised of \_\_\_\_\_ wires, each \_\_\_\_\_ S.W.G. diameter, \_\_\_\_\_ square inches total sectional area  
 Leads to lamps carrying .3 Amperes, comprised of 1 wires, each 18 S.W.G. diameter, .0018 square inches total sectional area  
 Cargo light cables carrying 3 Amperes, comprised of 1 wires, each 18 S.W.G. diameter, .0018 square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

All main cables & branch mains installed in heavy gauge steel conduit & armoured lead covered. Circuit wiring in single lead covered wire. 600 meg. V.I.R. cables used through out.  
 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 None  
 How are the cables led through the ship, and how protected In steel conduit (screwed) made watertight & armoured lead covered & protected by wood casing.



**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 Steel conduit made thoroughly watertight.

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat Away from such sources.

What special protection has been provided for the cables near boiler casings Kept at least 2'6" away measured horizontally.

What special protection has been provided for the cables in engine room In steel conduit

How are cables carried through beams In conduit or lead bushed for <sup>through bulkheads, &c.</sup> ~~armoured cable~~ In steel conduits & watertight flanges.

How are cables carried through decks In steel conduit or caulked.

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 In steel conduit at sides and kept near top & wood cased.

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 —

How are the returns from the lamps connected to the hull —

Are all the joints with the hull in accessible positions —

Is the installation supplied with a voltmeter Yes. and with an amperemeter Yes. fixed on Main Switchboard.

**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 600 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.

Chipperfield & Co. Electrical Engineers Date 29/7/21.

**COMPASSES.**

Distance between dynamo or electric motors and standard compass 55 ft.

Distance between dynamo or electric motors and steering compass 55 ft.

The nearest cables to the compasses are as follows:—

A cable carrying	.3	Amperes	feet from standard compass	<u>15 light in binnacle</u>	feet from steering compass
A cable carrying	.3	Amperes	feet from standard compass	<u>4 ft. 6"</u>	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 ✓

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. ✓

For and on behalf of John Chambers & Co. W. G. Engle Builder's Signature Date 29 July 1921

**GENERAL REMARKS.** The electric lighting installation has been satisfactorily fitted, tried under working conditions & found satisfactory.

It is submitted that this vessel is eligible for THE RECORD & Lee Light Bell

See £5.00 applied for 13/8/21  
Epps 3.00 pd 9.2.23 WLO

A. G. Farmer  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE NOV. 29 1921 TUE FEB 20 1923



THIS MARGIN IS TO BE KEPT CLEAR FOR THE SUBMITTER'S USE