

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 15,803.

Port of Lith Date of First Survey 14-5-20 Date of Last Survey 14-7-20 No. of Visits 2  
 No. in on the Iron or Steel S.S. "Antinea" Port belonging to Nantes  
 Reg. Book 31393 Built at Burntisland By whom Burntisland S.B. Co. When built 1920  
 Owners Cie Auxiliaire de Navigation Owners' Address \_\_\_\_\_  
 Yard No. SW 106 Electric Light Installation fitted by Moncrieff Bros. Leven When fitted 1920

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

1-8 x 7 open engine coupled to dynamo direct Manufactured  
by Messrs W. H. Allen & Co. Bedford.  
 Capacity of Dynamo 154 Amperes at 110 Volts, whether continuous or alternating current Continuous  
 Where is Dynamo fixed Stow Spring Flat Whether single or double wire system is used Double  
 Position of Main Switch Board Beside dynamo having switches to groups \_\_\_\_\_ 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 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 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 Yes  
 Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases Yes  
 Total number of lights provided for 115 arranged in the following groups:—

A	32	lights each of	16	candle power requiring a total current of	16	Amperes
B	20	lights each of	16	candle power requiring a total current of	10	Amperes
C	22	lights each of	16	candle power requiring a total current of	11	Amperes
D	10	lights each of	16	candle power requiring a total current of	5	Amperes
E	20	lights each of	16	candle power requiring a total current of	10	Amperes
2	Mast head light with	1	lamps each of	32	candle power requiring a total current of	Amperes
2	Side light with	1	lamps each of	32	candle power requiring a total current of	Amperes
4	Cargo lights of		96	candle power, whether incandescent or arc lights		Manufactured

If arc lights, what protection is provided against fire, sparks, &c. No Arc lamps  
 Where are the switches controlling the masthead and side lights placed Chart House

## DESCRIPTION OF CABLES.

Main cable carrying 172 Amperes, comprised of 37 wires, each 14 S.W.G. diameter, .1838 square inches total sectional area  
 Branch cables carrying 16 Amperes, comprised of 7 wires, each 20 S.W.G. diameter, .007652 square inches total sectional area  
 Branch cables carrying 10 Amperes, comprised of 1 wires, each 14 S.W.G. diameter, .005027 square inches total sectional area  
 Leads to lamps carrying 11 Amperes, comprised of 1 wires, each 14 S.W.G. diameter, .005027 square inches total sectional area  
 Cargo light cables carrying 42 Amperes, comprised of 7 wires, each 22 S.W.G. diameter, .004246 square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

Vulcanized rubber taped & Braided galvanized  
Half Armoured waterproof braid outside  
 Joints in cables, how made, insulated, and protected Looped into porcelain Extensions  
Specially adapted, & protected with Cast Iron covers  
 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 Armoured & Lead covered



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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 Leadcovered  
& Armoured

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

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

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

How are cables carried through beams Armoured through bulkheads, &c. Water Tight Glands.

How are cables carried through decks Deck Tubes

Are any cables run through coal bunkers No or cargo spaces Yes, or spaces which may be used for carrying cargo, stores, or baggage Yes

If so, how are they protected Armoured.

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 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 1000 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.

James Manscuff Bros. Limited Electrical Engineers Date 17th July 1920

**COMPASSES.**

Distance between dynamo or electric motors and standard compass 200 feet

Distance between dynamo or electric motors and steering compass 210 do

The nearest cables to the compasses are as follows:—

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 Any course in the case of the standard compass and Nil degrees on Any course in the case of the steering compass.

Builder's Signature. Date

**GENERAL REMARKS.**

The electric light installations have been fitted in accordance with the Society's rules

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

RLH 9/8/20

J.R. Williamson  
Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

Im. 912.—Transfer.



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