

## REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 6013

Port of Penzance Date of First Survey 12/3/20 Date of Last Survey 20/8/20 No. of Visits 14  
 No. in Reg. Book 74109 on the Iron or Steel St. Paul & Thomas Bailey Port belonging to  
 Built at Selby By whom Cockraus & Sons Ltd When built 1914  
 Owners Devonport Dockyard Owners' Address  
 Yard No. Electric Light Installation fitted by When fitted 1920

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

L. N. W. Robey direct coupled steam generating set. Dynamo by  
Electromotors Limited

Capacity of Dynamo 10 Amperes at 100 Volts, whether continuous or alternating current Continuous  
 Where is Dynamo fixed Engine Room Whether single or double wire system is used double  
 Position of Main Switch Board Engine Room having switches to groups Two in No. of lights, &c., as below  
 Positions of auxiliary switch boards and numbers of switches on each None

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 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 34 arranged in the following groups:—  

A	21	lights each of (Metallic) 16	candle power requiring a total current of 4.2	Amperes
B	2	lights each of (Carbon) 16	candle power requiring a total current of 1.2	Amperes
C	6	lights each of (Metallic) 32	candle power requiring a total current of 3.4	Amperes
D	2	lights each of (Carbon) 16	candle power requiring a total current of 2.4	Amperes
E	3	Mast head light with one lamp each of (Carbon) 16	candle power requiring a total current of 1.8	Amperes
	2	Side light with one lamp each of (Carbon) 32	candle power requiring a total current of 1.8	Amperes
	1	Stern light of (Metallic) 16	candle power, whether incandescent or arc lights 2	Amperes

If arc lights, what protection is provided against fire, sparks, &c. None

Where are the switches controlling the masthead and side lights placed Wheelhouse

## DESCRIPTION OF CABLES.

Main cable carrying 10 Amperes, comprised of 3 wires, each 18 S.W.G. diameter, 0.0532 square inches total sectional area  
 Branch cables carrying 5 Amperes, comprised of 3 wires, each 18 S.W.G. diameter, 0.0532 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 Amperes, comprised of 1 wires, each 14 S.W.G. diameter, 0.0246 square inches total sectional area  
 Cargo light cables carrying Amperes, comprised of wires, each S.W.G. diameter, square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

All cables are rubber insulated and lead cased.

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 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 Yes

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 Clipped on to bulkheads with lead sheathing and run in conduit through bunkers.



DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible *Yes, except in bunkers & full of coal.*  
 What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture *Lead Sheathing*  
 What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *Such places avoided*  
 What special protection has been provided for the cables near boiler casings *Not near boilers*  
 What special protection has been provided for the cables in engine room *Lead Sheathing*  
 How are cables carried through beams *Lead bushes* through bulkheads, &c. *Watertight Stands*  
 How are cables carried through decks *Watertight-deck tubes*  
 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 *Cables run through bunkers in Conduit, otherwise Lead Sheathing*  
 Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage *Dish holds.*  
 If so, how are the lamp fittings and cable terminals specially protected *Glass shade or metal guard hose end terminals*  
 Where are the main switches and fuses for these lights fitted *Switches in Dish Hold, fuses in Galley.*  
 If in the spaces, how are they specially protected *Fitted near hatchway close wooden deck.*  
 Are any switches or fuses fitted in bunkers *no*  
 Cargo light cables, whether portable or permanently fixed *none* 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 *Switch board Engine Room.*

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 *2000* 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.

Electrical Engineers

Date

COMPASSES.

Distance between dynamo or electric motors and standard compass

*45 feet*

Distance between dynamo or electric motors and steering compass

*40 "*

The nearest cables to the compasses are as follows:—

A cable carrying	<i>5</i> Amperes	<i>10</i> feet from standard compass	<i>5</i> feet from steering compass
A cable carrying	<i>2</i> Amperes	<i>6</i> feet from standard compass	<i>2</i> 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 *No*

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.

*All wiring, switches, sockets, fuses, guards and fittings are of Admiralty Standard pattern. The installation remains to be tested when trials of machinery are made under steam.*

*It is submitted that this vessel is eligible for THE RECORD. Blue light 22/11/20*

*Mo. [Signature]*  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. NOV. 30 1920

TUE. JUL. 19 1921

FRI. AUG. 19 1921

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THE SUBSTANCES ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.