

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 1273

Port of *Quebec* Date of First Survey *Messis (S)* Date of Last Survey *Quebec* No. of Visits  
 No. in Reg. Book on the *Iron* or Steel *Messis (S)* Port belonging to *Quebec*  
 Built at *Laurion* By whom *G. J. Davis & Sons* When built *1910*  
 Owners *Quebec & Lewis Ferry Co Ltd* Owners' Address *Electric Light Installation fitted by Thomas D. Donegan* When fitted *1910*

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

10-K.W. 500-R.P.M. 116/120-volts, Type "NI" direct current Generators, mounted on common base with and direct connected to; 5 x 6 Robb Armstrong Vertical Engines 500-R.P.M. at 100 lbs. pressure.

Capacity of Dynamo *10 Kilowatt* Amperes at *128* Volts, whether continuous or alternating current *Continuous*

Where is Dynamo fixed *In Engine room fastened to bottom of Boat*

Position of Main Switch Board *along side of Dynamo* having switches to groups of *twelve* of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each *one switch for each circuit*

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 *Standard* and constructed to fuse at an excess of *Standard* 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

Are all switches and cut-outs constructed of incombustible materials and fitted on incombustible bases *Yes*

Total number of lights provided for *86-16-C.P.* arranged in the following groups:

Group	Number of lights	Each of	Candle power	Amperes
A	12	lights each of	16-C.P.	Amperes
B	12	lights each of	"	Amperes
C	12	lights each of	"	Amperes
D	12	lights each of	"	Amperes
E	12	lights each of	"	Amperes
1 Mast head light with 2 lamps each of 16-C.P.				
2 Side light with 2 lamps each of 16-C.P.				
Cargo lights of candle power, whether incandescent or arc lights <i>Incandescent</i>				

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

Where are the switches controlling the masthead and side lights placed *On switchboard*

## DESCRIPTION OF CABLES.

Main cable carrying *80* Amperes, comprised of *2* wires, each *#3* L.S.G. diameter, *.0997* square inches total sectional area  
 Branch cables carrying *32* Amperes, comprised of *2* wires, each *#8* L.S.G. diameter, *.0402* square inches total sectional area  
 Branch cables carrying *Amperes*, comprised of *wires*, each *L.S.G. diameter*, *square inches* total sectional area  
 Leads to lamps carrying *5* Amperes, comprised of *2* wires, each *#14* L.S.G. diameter, *.010* square inches total sectional area  
 Cargo light cables carrying *Amperes*, comprised of *wires*, each *L.S.G. diameter*, *square inches* total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

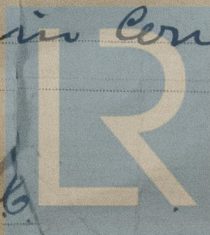
*Galvanized iron conduit system, Duplex wire*

Joints in cables, how made, insulated, and protected *++ wires where spliced are mechanically & electrically secure, soldered & taped with rubber & friction tape, then painted with P.B. compound*

Are all the joints of cables thoroughly soldered, resin only having been used as a flux *Yes* 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 in boxes*

Are there any joints in or branches from the cable leading from dynamo to main switch board *No*

Are the cables led through the ship, and how protected *wires are carried in conduit throughout*



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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 *The wire used on this boat is known as duplex & is run in galvanized iron conduit through*

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *run in Conduit*

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

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

How are cables carried through beams *Conduit*

through bulkheads, &c.

How are cables carried through decks

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

If so, how are they protected *X*

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 cut outs for these lights fitted

If in the spaces, how are they specially protected

Are any switches or cut outs fitted in bunkers

Cargo light cables, whether portable or permanently fixed

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

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 installation is supplied with a rheostat and

an amperemeter, fixed on

The copper used is guaranteed to have a conductivity of *ninety eight* per cent. that of pure

Insulation of cables is guaranteed to have a resistance of not less than *the wire used is the standard* megohms statute mile after 24 hours immersion in seawater.

*I approved by nature & Board of*

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.

*Thos. P. Louisa*

Electrical Engineers

Date *April 5-19*

COMPASSES.

Distance between dynamo or electric motors and standard compass

*43 feet*

Distance between dynamo or electric motors and steering compass

The nearest cables to the compasses are as follows:—

A cable carrying Amperes feet from standard compass 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

The maximum deviation due to electric currents, etc., was found to be degrees on course in the case of

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

Builder's Signature. Date

GENERAL REMARKS.

*This steamer is employed on the Ferry between Quebec & Lewis, which is less than a mile.*

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

*JWD 9/2/12*

*Jos. Samson*

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

Committee's Minute

TUE. FEB. 13. 1912



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Assigned

*made 1910*