

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 1625

Port of *Montreal* Date of First Survey *June 27* Date of Last Survey *Oct. 22* No. of Visits *9*
 No. in Reg. Book on the *Iron or Steel* *Wood S.S. "War Quebec"* Port belonging to *Quebec*
 Built at *Quebec, P.Q.* By whom *Quebec Shipbuilding & Repair Co.* When built *1918*
 Owners *Imperial Munitions Board* Owners' Address *Ottawa, Ont.*
 Yard No. *2* Electric Light Installation fitted by *Owners* When fitted *1918*

DESCRIPTION OF DYNAMO, ENGINE, ETC.

1-10 K.W. set. High speed enclosed Goldie McCulloch engine direct coupled to a General Electric Co's dynamo.

Capacity of Dynamo *86* Amperes at *120* Volts, whether continuous or alternating current *Continuous.*

Where is Dynamo fixed *On E.R. Platform* Whether single or double wire system is used *Double.*

Position of Main Switch Board *ditto.* having switches to groups *Six* of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each *All distribution boxes.*

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 *Cartridge Fuses* 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 *Cartridge Fuses*

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

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

| | | | | | |
|------------------------|-------------------------|------|--|---------------|---------|
| A Navigation | 5 lights each of | 32 | candle power requiring a total current of | 5.5 | Amperes |
| #1 Accommodation | 40 | | | | |
| B #2 | 24 lights each of | 16 | candle power requiring a total current of | 22.0 | Amperes |
| C Cargo clusters | 36 lights each of | 16 | candle power requiring a total current of | 13.0 | Amperes |
| D Wireless | — lights each of | | candle power requiring a total current of | 11.0 | Amperes |
| E Machinery | 38 lights each of | 16 | candle power requiring a total current of | 12.0 | Amperes |
| | | | candle power requiring a total current of | 16.5 | Amperes |
| 1 Mast head light with | 2 lamps each of 1-2 cp. | 1-32 | candle power requiring a total current of | 1.5 | Amperes |
| 2 Side light with | 2 lamps each of " " | | candle power requiring a total current of | 3.0 | Amperes |
| 6 Cargo lights of | as above | | candle power, whether incandescent or arc lights | incandescent. | |

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

Where are the switches controlling the masthead and side lights placed *In Wheel House.*

DESCRIPTION OF CABLES.

| | | | | | | | |
|-----------------------------|----|-----------------------|----|-------------|------|--------------------------------|--|
| Main cable carrying | 83 | Amperes, comprised of | 19 | wires, each | 74.5 | MILLS S.W.G. diameter, 105.500 | CIR MILLS square inches total sectional area |
| Branch cables carrying | 22 | Amperes, comprised of | 7 | wires, each | 48.6 | S.W.G. diameter, 16.510 | square inches total sectional area |
| Branch cables carrying | 12 | Amperes, comprised of | 7 | wires, each | 38.5 | S.W.G. diameter, 10.380 | square inches total sectional area |
| Leads to lamps carrying | 3 | Amperes, comprised of | 7 | wires, each | 24.2 | S.W.G. diameter, 4.107 | square inches total sectional area |
| Cargo light cables carrying | 3 | Amperes, comprised of | 61 | wires, each | .010 | S.W.G. diameter, 6.530 | square inches total sectional area |

DESCRIPTION OF INSULATION, PROTECTION, ETC.

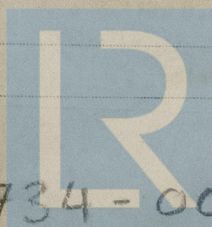
1/2" of 30% Para Rubber, Taped. Two braids & compounded. Drawn into Sheardised Conduit, Cast iron W.T. Junction boxes.

Joints in cables, how made, insulated, and protected *Extension box system, employing Porcelain extension blocks in W.T. boxes*

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances *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*

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 *All in Steel Conduit.*



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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 *All Steel Conduit.*

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

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

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

How are cables carried through beams *✓* through bulkheads, &c. *W.T. glands.*

How are cables carried through decks *W.T. tubes.*

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

If so, how are they protected *All in Steel Conduit*

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage *Yes*

If so, how are the lamp fittings and cable terminals specially protected *Fixed up between beams. Heavy cast fittings & guards.*

Where are the main switches and fuses for these lights fitted *Poop deck alleyway.*

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 *Plug & Switch in W.T. box.*

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 to *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.

Imperial Munitions Board *Per J. M. S. Dale* Electrical Engineers

Date

COMPASSES.

Distance between dynamo or electric motors and standard compass *Eighty six feet*

Distance between dynamo or electric motors and steering compass *Eighty feet.*

The nearest cables to the compasses are as follows:—

| A cable carrying | Amperes | feet from standard compass | feet from steering compass |
|------------------|---------|----------------------------|----------------------------|
| 5.5 | Amperes | 10 | 9 |
| | Amperes | | |
| | Amperes | | |

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.

Anders Shipbuilding & Repair Co. Ltd. Builder's Signature. Date

GENERAL REMARKS.

The materials & workmanship of this installation are good. The whole has been fitted on board and tried out under full working conditions with satisfactory results.

**It is submitted that
this vessel is eligible for
THE RECORD. ELEC. LIGHT 1048 YK.**

18/12/18

H. J. Alderson
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. DEC. 20 1918

FRI. JUL. 11 1921

TUE. 15. APR. 1919

FRI. APR. 16 1920

TUE. APR. 17 1920

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