

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 1671

Port of Montréal Date of First Survey 1884 Date of Last Survey 1884 No. of Visits 1
 No. in Reg. Book 100 on the Iron or Steel of "War Sorel" Port belonging to Quebec.
 Built at Quebec P.Q. By whom Quebec Shipbuilding & Repair Co. Ltd. When built 1918
 Owners Imperial Munitions Board Owners' Address Ottawa Ont.
 Yard No. 3 Electric Light Installation fitted by Owners When fitted 1918

DESCRIPTION OF DYNAMO, ENGINE, ETC.

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One 10 H.P. set consisting of a high speed Goldie McCulloch engine direct coupled to a General Electric Company's Dynamo

Electric Company's Dynamo
Capacity of Dynamo 86 Amperes at 120 Volts, whether continuous or alternating current *continuous*
Where is Dynamo fixed *Bottom platform in Engine Room* Whether single or double wire system is used *double*
Position of Main Switch Board *ditto* having switches to groups 6 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

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 Carbide fuses used

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

Total number of lights provided for		Arranged as follows		
A	Navigation 5 lights each of	32	candle power requiring a total current of	5.5 Amperes
#1	Accommodation 40			22.0
B	#2 " 24 lights each of	16	candle power requiring a total current of	13.0 Amperes
C	Cargo 36 lights each of	16	candle power requiring a total current of	11.0 Amperes
D	Wireless - lights each of	—	candle power requiring a total current of	12.0 Amperes
E	Machinery 38 lights each of	16	candle power requiring a total current of	16.5 Amperes
1	Master head light with 2 lamps each of 1-2cp	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	16	candle power, whether incandescent or arc lights	Incandescent

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

Where are the switches controlling the masthead and side lights placed In wheel house.

DESCRIPTION OF CABLES.

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Main cable carrying	83 Amperes, comprised of	19 wires, each	74.5 MILLS S.W.G. diameter,	105.500 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	24.02 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.

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 1/32" of Para rubber, taped. Ins. braids & Compounded. Ground in Sherardized conduit with
 CI W.T. Junction Boxes

Joints in cables, how made, insulated, and protected
 Extension box system employing porcelain exhibition
 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 in steel conduit*

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

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

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

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 *Prop duct.*

If so, how are they protected *All 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 *Heavy cast iron guards.*

Where are the main switches and fuses for these lights fitted *Prop duct 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. boxes.*

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.

John S. Sedale for Imperial Munitions Board Electrical Engineers Date _____

COMPASSES.

Distance between dynamo or electric motors and standard compass *Slightly in feet*

Distance between dynamo or electric motors and steering compass *Slightly in feet*

The nearest cables to the compasses are as follows:—

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

Builder's Signature. Date _____

GENERAL REMARKS.

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

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

W.D.
18/5/19.

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

Committee's Minute

FRI. JUN. 6-1919

WED. 6-1919

FRI. 8-AUG. 1919

FRI. 7-NOV. 1919



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