

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 1362

Port of Montreal Date of First Survey Aug. 19. Date of Last Survey Dec. 9. No. of Visits 16.
 No. in on the Iron or Steel T.S.S. "Mikula Selianinovitch" Port belonging to Petrograd
 Reg. Book app. 4. Built at Montreal, P. Q. By whom Canadian Vickers Ltd. When built 1916
 Owners Imperial Russian Government Owners' Address Marine Dept. Imp' Admiralty. Petrograd.
 Yard No. 1 Electric Light Installation fitted by Builders When fitted 1916

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Compound, enclosed, forced lubrication engines. Compound, enclosed, ventilated, four pole dynamos. Two sets.

Capacity of Dynamo 180 Amperes at 110 Volts, whether continuous or alternating current Continuous ✓

Where is Dynamo fixed Lower deck in Engine Room Whether single or double wire system is used Double ✓

Position of Main Switch Board On Dynamo Platform having switches to groups 2 main 10 circuits of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each Fused W.T. Junction and Distribution boxes fitted in convenient positions & suit the lights controlled

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 ✓ 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

Are the fuses of non-oxidizable metal Yes and constructed to fuse at an excess of 75 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 Standard cartridge fuses used.

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

Total number of lights provided for 402 arranged in the following groups:—

A 8-5 - 1 Navigating lights each of 8-16 - 32 candle power requiring a total current of 5.5 Amperes

B Night Lights 2-75 lights each of 8-16 candle power requiring a total current of 38.5 Amperes

C 7th. Accomd. 7-103 lights each of 8-16 candle power requiring a total current of 54.0 Amperes

D Alt " 7-48 lights each of 8-16 candle power requiring a total current of 28.5 Amperes

E Engine Room 2-67 lights each of 8-16 candle power requiring a total current of 34.0 Amperes

Boiler " 55-22 lights each of 16-32 candle power requiring a total current of 50.0 Amperes

2 Mast head light with 1 lamps each of 16 candle power requiring a total current of 1.0 Amperes

2 Side light with 1 lamps each of 1-16 P 1-32 S. candle power requiring a total current of 1.5 Amperes

4 Cargo lights of 6 lamps each 32 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 Wheelhouse on navigating light bell-pole.

DESCRIPTION OF CABLES.

Main cable carrying each 180 Amperes, comprised of 19 wires, each .1058 S.W.G. diameter, .166 square inches total sectional area

Branch cables carrying 80 Amperes, comprised of 19 wires, each .0840 S.W.G. diameter, .104 square inches total sectional area

Branch cables carrying 25 Amperes, comprised of 7 wires, each .0614 S.W.G. diameter, .03204 square inches total sectional area

Leads to lamps carrying Max. 4 Amperes, comprised of 7 wires, each .0243 S.W.G. diameter, .00046 square inches total sectional area

Cargo light cables carrying 9.5 Amperes, comprised of 27 wires, each 36 S.W.G. diameter, square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

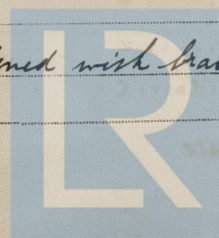
Lead covered rubber insulated in accommodation. Cotton braided & rubber flexible & portable lamps & fans in accommodation. Lead covered, rubber insulated & armoured in Machinery spaces Cab Tyre flexible & cargo chokers.

Joints in cables, how made, insulated, and protected No joints. All junction 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 Led through alleyways. Fastened with brass clips & steel grounds. All cables are open.



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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 Lead covered cables filled

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

What special protection has been provided for the cables near boiler casings Lead covered & steel wire armoured cable

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

How are cables carried through beams Lead bushes in holes through bulkheads, &c. Packed brass W.T. glands

How are cables carried through decks Iron pipes with brass glands (W.T. deck 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 Cables are lead covered & run 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 Iron piping & watertight fitting

Where are the main switches and fuses for these lights fitted In alley ways, outside bunkers etc.

If in the spaces, how are they specially protected Sheet steel boxes enclose portable bunker fittings

Are any switches or fuses fitted in bunkers Combined switch and receptacle is used for bunker portables.

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 (2), 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 345 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.

FOR CANADIAN VIKINGS LIMITED

Electrical Engineers

Date 11th Dec^r /16

COMPASSES.

Distance between dynamo or electric motors and standard compass

Distance between dynamo or electric motors and steering compass

The nearest cables to the compasses are as follows:—

A cable carrying <u>100</u> Amperes	<u>8</u> feet from standard compass	<u>8.5</u> feet from steering compass
A cable carrying <u>1</u> Amperes	<u>3</u> feet from standard compass	<u>6</u> feet from steering compass
A cable carrying <u> </u> Amperes	<u> </u> feet from standard compass	<u> </u> 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.

FOR CANADIAN VIKINGS LIMITED

Builder's Signature.

Date 11th Dec^r /16

GENERAL REMARKS.

This installation of electric light has been well fitted. The materials and workmanship are good.

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

AWD. 15/1/17.
Elec. Light

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

Committee's Minute

New York DEC 28 1916

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