

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 602.

Port of Vancouver Date of First Survey _____ Date of Last Survey Aug 21/17 No. of Visits 4
 No. in Reg. Book on the ~~Iron~~ or Steel wood auxly veh. Esquimaux Port belonging to Victoria B.C.
 Built at Victoria By whom Cameron Benson Mills Shipbldg Co. When built 1917
 Owners Canada West Coast Navigation Co. Owners' Address Standard Bank Building, Vancouver
 Yard No: 3 Electric Light Installation fitted by Mundy, Rowland & Co. When fitted 1917

DESCRIPTION OF DYNAMO, ENGINE, ETC.

1. Westinghouse Type Sa Direct current generator 550 R.P.M. shaft connects to Bolinder Crude Oil Engine
 Capacity of Dynamo 4 1/2 KW. Amperes at 125 Volts, whether continuous or alternating current Direct ✓
 Where is Dynamo fixed on Platform side of Engine Room Whether single or double wire system is used Double ✓
 Position of Main Switch Board amidships on Platform deck having switches to groups A B C D E of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each Engine Room Cabinet in Pantry in cabin quarters
three circuits

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 10 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 None used
 Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases Yes

Total number of lights provided for 82 arranged in the following groups :-

Group	Description	Quantity	Light Type	Watts	Amperes
A	Cabins	27	lights each of 6-60	1035	Watts
B	Crews Quarters	10	lights each of 10-40	250	Amperes
C	Pumny light	8	lights each of 3-40	245	Amperes
D	Engine Room	21	lights each of 4-40	585	Amperes
E	Hold	12	lights each of 60	720	Amperes
	1 Mast head light with 1 lamp each of 40			40	Amperes
	2 Side light with 1 lamp each of 40			80	Amperes
	4 Cargo lights of 60				Amperes

Note: candle power requiring a total current of

If arc lights, what protection is provided against fire, sparks, &c. No arc lights
 Where are the switches controlling the masthead and side lights placed In wheel house

DESCRIPTION OF CABLES.

Number of Cables	Amperes	Wires	W.G. diameter	S.W.G. diameter	Square inches total sectional area
Main cable carrying <u>28</u>	Amperes, comprised of <u>2</u> wires, each <u>26250</u>		<u>CM area</u>		square inches total sectional area
Branch cables carrying <u>10</u>	Amperes, comprised of <u>2</u> wires, each <u>10380</u>				square inches total sectional area
Branch cables carrying <u>6</u>	Amperes, comprised of <u>2</u> wires, each <u>10380</u>				square inches total sectional area
Leads to lamps carrying <u>6</u>	Amperes, comprised of <u>2</u> wires, each <u>10380</u>				square inches total sectional area
Cargo light cables carrying <u>6</u>	Amperes, comprised of <u>2</u> wires, each <u>4107</u>				square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

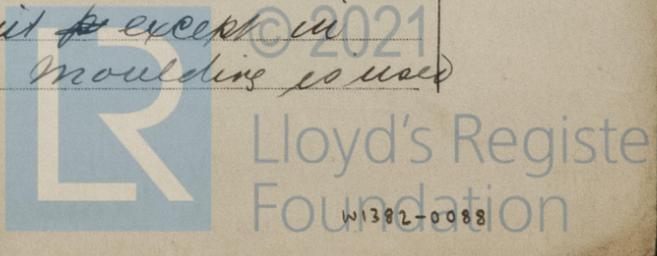
20% Para covered with Cotton braid

Joints in cables, how made, insulated, and protected Soldered & Taped with rubber friction tape

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 rigid iron conduit except in Cabin where double grooved wood moulding is used



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 run in conduit

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 run in conduit

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

How are cables carried through beams in conduit through bulkheads, &c. in conduit ✓

How are cables carried through decks with standard deck tubes with brass flanges ✓

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

If so, how are they protected in conduit or wood moulding in lazaret

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 gas light fittings

Where are the main switches and fuses for these lights fitted at switchboard

If in the spaces, how are they specially protected none

Are any switches or fuses fitted in bunkers none

Cargo light cables, whether portable or permanently fixed portable How fixed Attached to main tight plug

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 at 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 Yes

Are any switches, fuses, or joints of cables fitted in the pump room or companion no

How are the lamps specially protected in places liable to the accumulation of vapour or gas gas light fittings

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 _____ 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.

MUNDY, ROWLAND & CO

Electrical Engineers

Date August 20th 1917

COMPASSES.

PER J. R. Rowland

Infinite

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>6</u> Amperes	<u>5</u> 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 the _____ standard compass and _____ degrees on _____ course in the case of the steering compass.

Builder's Signature. Date _____

GENERAL REMARKS.

This electric light installation has been specially surveyed during the time it was being fitted on board the vessel and been running satisfactorily. Both material and workmanship are of good quality and eligible in my opinion to be noted in the Register Book. Elec. Light

It is submitted that this vessel is eligible for

J. R. Rowland

THE RECORD. Elec. light. JWR 18/9/17 Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 18 JAN. 1918

50,117-Transfer.

