

REPORT ON ELECTRIC LIGHTING INSTALLATION. No.

Port of Vancouver, B.C. Date of First Survey Sept 3/18 Date of Last Survey July 4/19 No. of Visits 20
 No. in Reg. Book on the Iron or Steel Single Screw Steamship "War Chief" Port belonging to Vancouver, B.C.
 Built at Vancouver, B.C. By whom J. Coughlan & Son When built 1918
 Owners The Shipping Controller Owners' Address Raeburn's Walk Glasgow
 Yard No. 5 Electric Light Installation fitted by J. Coughlan & Son When fitted 1918

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Two Compound wound direct current dynamos, Manly Canadian General Electric Direct Coupled to 2-8 1/2 H.P. Simple Steam Engines 5' x 4 1/2" Rev. 550 R.M.

Capacity of Dynamo 22.5 Amperes at 110 Volts, whether continuous or alternating current Continuous

Where is Dynamo fixed Starboard in Engine Room. Whether single or double wire system is used Double

Position of Main Switch Board Starboard in Engine Room having switches to groups A, B, C, D of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each A Wheel house 6 Switches
B. Officers Quarters Starboard 8 Switches C Engine Room starboard 12 Switches
D Crew quarters Starboard 6 switches

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 of cables of all circuits including lamp circuits Yes

Are the fuses of non-oxidizable metal Yes, and constructed to fuse at an excess of 25 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 Yes

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

Total number of lights provided for 140 arranged in the following groups:--

A	14	lights each of	16	candle power requiring a total current of	8	Amperes
B	51	lights each of	16	candle power requiring a total current of	25.5	Amperes
C	60	lights each of	16	candle power requiring a total current of	30.-	Amperes
D	45	lights each of	16	candle power requiring a total current of	22.5	Amperes
E		lights each of		candle power requiring a total current of		Amperes
	2	Mast head light with 1 lamps each of	32	candle power requiring a total current of	2	Amperes
	2	Side lights with 1 lamps each of	32	candle power requiring a total current of	2	Amperes
	5	Cargo lights of	80	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

DESCRIPTION OF CABLES.

Main cable carrying 22.5 Amperes, comprised of 19/14 wires, each .400 S.W.G. diameter, .09372 square inches total sectional area

Branch cables carrying 46 Amperes, comprised of 7/14 wires, each .240 S.W.G. diameter, .03459 square inches total sectional area

Branch cables carrying 33 Amperes, comprised of 7/16 wires, each .192 S.W.G. diameter, .02214 square inches total sectional area

Leads to lamps carrying 13 Amperes, comprised of 7/12 wires, each .104 S.W.G. diameter, .008495 square inches total sectional area

Cargo light cables carrying 6 Amperes, comprised of 7/14 wires, each .080 S.W.G. diameter, .005027 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

All Cables & wires are enclosed in galvanized steel conduit and terminate in watertight boxes. Cables and wires are double Braided and rubber covered.

Joints in cables, how made, insulated, and protected All joints are Western Union with 3 layers of rubber tape and one layer of Juction tape coated with F&B Paint, and the resistance is equal to original wire.

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 In 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 Conduit or Armoured Cable

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

What special protection has been provided for the cables near boiler casings Asbestos covered wire in Conduit

What special protection has been provided for the cables in engine room Asbestos Covered wire in Conduit

How are cables carried through beams In Conduit through bulkheads, &c. In Conduit

How are cables carried through decks In Conduit

Are any cables run through coal bunkers Yes. 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

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 fuses for these lights fitted

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

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 Yes.

Is the installation supplied with a voltmeter Yes. and with an amperemeter Yes, Two. fixed on 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 2,500 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.

J. COUGHLAN & SONS

John Coughlan

Electrical Engineers

Date Jan'y 3 1919

COMPASSES.

Distance between dynamo or electric motors and standard compass 150 feet

Distance between dynamo or electric motors and steering compass 200 feet.

The nearest cables to the compasses are as follows:—

A cable carrying	<u>8</u>	Amperes	<u>10</u>	feet from standard compass	<u>100.</u>	feet from steering compass
A cable carrying	<u>6</u>	Amperes	<u>100</u>	feet from standard compass	<u>3</u>	feet from steering compass
A cable carrying	<input checked="" type="checkbox"/>	Amperes	<input checked="" type="checkbox"/>	feet from standard compass	<input checked="" type="checkbox"/>	feet from steering compass

Have the compasses been adjusted with and without the electric installation at work at full power Yes.

The maximum deviation due to electric currents, etc., was found to be Nil degrees on any course in the case of the standard compass and Nil degrees on any course in the case of the steering compass.

J. COUGHLAN & SONS

John Coughlan

Builder's Signature.

Date Jan'y 3 1919

GENERAL REMARKS.

The Electric Light is of good quality and workmanship tested under working conditions found satisfactory and eligible in my opinion to be noted as Electric Light on the Register Book, 1.19. It is submitted that this vessel is eligible for THE RECORD. Elec. light. James Murdoch & Co. C. M. Cover Surveyor to Lloyd's Register of Shipping.

56,118.—Transfer.

Committee's Minute TUE. 15. APR. 1919
FRI. 31. OCT. 1919

THE SURVEYORS ARE REQUESTED FOR TO WRITE ACROSS THIS MARGIN.

