

June 28-1920

Rpt. 13.

Received at London Office

WED. JUL 14 1920

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 808.

Port of Vancouver B.C. Date of First Survey Feb 27/20 Date of Last Survey June 11/20 No. of Visits 20
 No. in Reg. Book on the Iron or Steel S.S. Canadian Prospector Port belonging to Montreal
 Built at Vancouver, B.C. By whom J. Coughlan & Son Ld. When built 1920
 Owners Canadian Government Marine Owners' Address Ottawa, Ont. Canada
 Yard No. 14 Electric Light Installation fitted by J. Coughlan & Son Ld. When fitted 1920

DESCRIPTION OF DYNAMO, ENGINE, ETC.

1-10 H.P. Continuous current compound 110-120 volt Canadian General Electric Dynamo, Direct coupled to a 7 1/2 Vertical Simple Engine
 Capacity of Dynamo 90 Amperes at 110 Volts, whether continuous or alternating current Continuous
 Where is Dynamo fixed Engine Room Starboard Whether single or double wire system is used Double wire
 Position of Main Switch Board Engine Room Starboard having switches to groups A, B, C, D, E & F of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each A. Chart house, - 10 circuits B. Wireless 1 1/2 H.P. Motor, C. Crews Mess room, 10 circuits D. Engine Room casing & Circuits, E. Cargo Clusters, F. Forward Accommodation Stairs, 10 circuits Port, 10 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 Yes,

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

Total number of lights provided for 209 arranged in the following groups:-

A	16	lights each of	16	candle power requiring a total current of	6	Amperes
B	Motor & Wireless	lights each of	1 1/2 H.P.	candle power requiring a total current of	14	Amperes
C	33	lights each of	32	candle power requiring a total current of	12.5	Amperes
D	42	lights each of	32	candle power requiring a total current of	19.5	Amperes
E	14	lights each of	32	candle power requiring a total current of	14	Amperes
F	6 x lamps & 2 fans	lights each of	32	candle power requiring a total current of	36	Amperes
	2	Mast head light with 1 lamps each of	32	candle power requiring a total current of	2	Amperes
	2	Side light with 1 lamps each of	32	candle power requiring a total current of	2	Amperes
	5	Cargo lights of	192	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 Chart House,

DESCRIPTION OF CABLES.

Main cable carrying	90	Amperes, comprised of	19	wires, each	14	S.W.G. diameter, .09160 square inches total sectional area
Branch cables carrying	38	Amperes, comprised of	7	wires, each	17	S.W.G. diameter, .01758 square inches total sectional area
Branch cables carrying	28	Amperes, comprised of	7	wires, each	18	S.W.G. diameter, .01292 square inches total sectional area
Leads to lamps carrying	24	Amperes, comprised of	7	wires, each	20	S.W.G. diameter, .00727 square inches total sectional area
Cargo light cables carrying	6	Amperes, comprised of	7	wires, each	16	S.W.G. diameter, .003217 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

All Cables are Rubber Insulated Braided Lead Sheathed and armoured with Steel wire Braid.

Joints in cables, how made, insulated, and protected No Cables Spliced any joints that are made are in watertight 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 In Armoured Cable.

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 Sheathed and Steel armour with watertight fittings

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

What special protection has been provided for the cables near boiler casings Armoured Cables.

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

How are cables carried through beams Lead Bushings through bulkheads, &c. Bulkhead Glands.

How are cables carried through decks Deck Tubes.

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, are they protected Armoured Cables.

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 Approved Cargo Space Fittings

Where are the main switches and fuses for these lights fitted Main Switch Board.

If in the spaces, how are they specially protected Armoured Cable

Are any switches or fuses fitted in bunkers No

Cargo light cables, whether portable or permanently fixed How

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel How

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 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 2500 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 Loughlan & Sons Limited

Electrical Engineers

Date

COMPASSES.

Distance between dynamo or electric motors and standard compass 30 ft. and 150 ft.

Distance between dynamo or electric motors and steering compass 35 ft. and 155 ft.

The nearest cables to the compasses are as follows:—

Cable Carrying	Amperes	feet from standard compass	feet from steering compass
A cable carrying <u>10</u>	<u>13</u>	<u>15</u>	<u>15</u>
A cable carrying <u>28.5</u>	<u>38.</u>	<u>38.</u>	<u>38.</u>
A cable carrying <u>18</u>	<u>38.</u>	<u>38.</u>	<u>38.</u>

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 No degrees on any course in the case of the standard compass and No degrees on Any course in the case of the steering compass.

J. Loughlan & Sons Limited

BY

John Loughlan

Builder's Signature.

Date

GENERAL REMARKS.

The Electric Light Installation is of Good Quality
Tested under working conditions and found Satisfactory
Eligible in my opinion to be noted Electric Light
in the Register Book in the Case of This Vessel
It is submitted that
this vessel is eligible for
THE RECORD. Elec. light. 15/7/20 TUE. APR. 25 1922
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. JUL. 20 1920

TUE. NOV. 19 1920

TUE. MAY 24 1921

FRI. 17 NOV. 1922

TUE. OCT. 16 1920

TUE. 7 NOV. 1922

TUE. NOV. 30 1920

FRI. JAN. 14 1921

TUE. 4 OCT. 1921

FRI. APR. 19 1921

TUE. JUL. 5 1921

Lloyd's Register Foundation

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.