

June 28-1920

Rpt. 13.

Received at London Office

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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 Sons L^d When built 1920
 Owners Canadian Government Marine Department Owners' Address Ottawa, Ont. Canada
 Yard No. 14 Electric Light Installation fitted by J. Coughlan Sons L^d When fitted 1920

DESCRIPTION OF DYNAMO, ENGINE, ETC.

1-10 H.P. Continuous current compound 110-120 Volt Canadian General Electric Co. 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 Messroom, 10 circuits, D. Engine Room casing 8, 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 :-

Group	Description	Number of Lights	Candle Power	Current (Amperes)
A	lights each of 16	16	6	6
B	Motor and vessel lights each of 1 1/2 H.P.	14	14	14
C	lights each of 32	33	12.5	12.5
D	lights each of 32	42	19.5	19.5
E	lights each of 32	14	14	14
F	6 x lamps & 2 fans	2	2	2
	Mast head light with 1 lamps each of 32	1	2	2
	Side light with 1 lamps each of 32	2	2	2
	Cargo lights of 192	5	2	2

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.

Description	Amperes	Wires	Wires Each	S.W.G. diameter	Square inches total sectional area
Main cable carrying	90	19	14	.09160	square inches total sectional area
Branch cables carrying	38	7	17	.01758	square inches total sectional area
Branch cables carrying	28	7	18	.01292	square inches total sectional area
Leads to lamps carrying	24	7	20	.00727	square inches total sectional area
Cargo light cables carrying	6	7	16	.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.

J. COUGHLAN & SONS LIMITED
John Luckhart

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:—

A cable carrying	10	Amperes	13	feet from standard compass	15	feet from steering compass
A cable carrying	28.5	Amperes	38.	feet from standard compass	38.	feet from steering compass
A cable carrying	18	Amperes	38.	feet from standard compass	38.	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 **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. COUGHLAN & SONS LIMITED

John Luckhart

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. **ALD**
Geo. P. McGowan

Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE JUL 20 1920 FRI OCT 15 1920 TUE MAY 24 1921
 FRI 17 NOV. 1922 TUE NOV. 19 1920 FRI JAN. 14 1921 TUE. 4 OCT. 1921
 TUE. OCT. 16 1920 TUE. 7 NOV. 1922 FRI APR. 19 1921 TUE JUL. 2 1921
 TUE NOV. 30 1920

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

Im. 11.18.—(Transfer)

