

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 742

Port of Vancouver B.C. Date of First Survey 3/3/19 Date of Last Survey June 11/19 No. of Visits 15  
 No. in on the ~~Iron~~ or Steel SS Canadian Volunteer Port belonging to Montreal  
 Reg. Book Built at Vancouver, B.C. By whom Wallace Shipyard Ltd. When built 1919  
 Owners Canadian Government Owners' Address Ottawa, Canada.  
 Yard No. 100 Electric Light Installation fitted by Mundy Rowland & Co. When fitted 1919

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

Direct Connected Generator built by General Electric Co  
Schenectady Simple Engine + Piston Valve,  
 Capacity of Dynamo 80 Amperes at 125 Volts, whether continuous or alternating current Continuous  
 Where is Dynamo fixed Starboard Side Engine Room Whether single or double wire system is used Double  
 Position of Main Switch Board Near Generator having switches to groups Six, of lights, &c., as below  
 Positions of auxiliary switch boards and numbers of switches on each Wireless Engine Room 5 Switches,  
After Accommodation 8 Switches Cargo Space 6  
Switches Navigation Lights 7 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 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 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 None used.  
 Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases Yes.

Total number of lights provided for 172. arranged in the following groups:—

A	Forward Accommodation 35 lights each of 40 Watts	32 candle power requiring a total current of	22	Amperes
B	Aft " 25 lights each of 40 Watts	32 candle power requiring a total current of	10	Amperes
C	Engine Room 36 lights each of 40 Watts	32 candle power requiring a total current of	14.40	Amperes
D	Cargo Space 6 lights each of	32 candle power requiring a total current of	6.00	Amperes
E	✓ lights each of ✓	candle power requiring a total current of	✓	Amperes
1	Mast head light with 1 lamps each of 2 1/2	candle power requiring a total current of	10	Amperes
2	Side light with 1 lamps each of 2 1/2	candle power requiring a total current of	20	Amperes
5	Cargo lights of 6 light each	32 candle power, whether incandescent or arc lights	Incandescent	

If arc lights, what protection is provided against fire, sparks, &c. None

Where are the switches controlling the masthead and side lights placed In Wheelhouse,

## DESCRIPTION OF CABLES.

Main cable carrying	80 Amperes, comprised of	17 wires, each 14 B.S.	S.W.G. diameter, .0641	.0546	.06532 square inches total sectional area
Branch cables carrying	10 Amperes, comprised of	2 wires, each 10 B.S.	S.W.G. diameter, .1018	.01634	.008153 square inches total sectional area
Branch cables carrying	6 Amperes, comprised of	2 wires, each 14 B.S.	S.W.G. diameter, .0640	.00642	.003225 square inches total sectional area
Leads to lamps carrying	6 Amperes, comprised of	2 wires, each 14 B.S.	S.W.G. diameter, .0640	.00642	.003225 square inches total sectional area
Cargo light cables carrying	6 Amperes, comprised of	2 wires, each 16 B.S.	S.W.G. diameter, .0508	.00408	.002028 square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

All wires are enclosed in lead covered armoured cables except those in use in accommodation quarters when the armoured sheath is omitted

Joints in cables, how made, insulated, and protected Regulation Splice soldered and taped with Both rubber friction tape to same resistance as original installation

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 No.

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 Fastened to Steel Girders Protected with Armoured cover,

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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

Enclosed in lead cover

Armoured casing fitted with weatherproof fittings

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

Avoided hot places

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

Armoured lead covered cables used and run clear of casings

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

Armoured lead covered cables used run clear of casings

How are cables carried through beams

Through lead thimbles through bulkheads, &c. Metallic Stuffing Box.

How are cables carried through decks

By Deck Tubes with rubber Gaskets.

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

Run in Steel armoured casings

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

With Watertight 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

Yes.

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

No.

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 600 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.

*E. G. Mundy* *Mundy Rowland & Co*

Electrical Engineers

Date June 11/19

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	Amperes	feet from standard compass	feet from steering compass
1/2	10	10	
✓	✓	✓	✓
✓	✓	✓	✓

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.

*Wallace Shipyard*

Builder's Signature.

Date

GENERAL REMARKS.

The Electric Light Installation is of Good Quality and Workmanship tested under working conditions and found Satisfactory Eligible in my opinion to be noted Electric Light in Register Book.

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

*Geo. C. McQuinn*

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE JUL 15 1919

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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