

TUES - SEP 1919

Rpt. 13.

Received at London Office

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 751.

Port of *Vancouver, B.C.* Date of First Survey *May 5/19* Date of Last Survey *Aug 5/19* No. of Visits *15*
 No. in Reg. Book *on the Iron or Steel S.S. Canadian Hooper* Port belonging to *Montreal*
 Built at *Port Vancouver, B.C.* By whom *Wallace Shipyard* When built *1919*
 Owners *Canadian Government* Owners' Address *Ottawa, Canada*
 Yard No. *Electric Light Installation fitted by Mundy Rowland & Co.* When fitted *1919*

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Continuous current General Electric Generator Direct connected to Goldie & McCulloch Engine.

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 *Engine Room Stairs* having switches to groups *500* of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each *Wheeler Engine Room 5 Cts, Accommodation 4 Cts, 1st Accommodation 8 Cts, Cargo Space 6 Cts, Navigation 7 Cts.*

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-oxidisable metal *Yes* and constructed to fuse at an excess of *20* 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 arranged in the following groups:—

A	1st Accommodation	lights each of 40 Watts 32	candle power requiring a total current of	22.8	Amperes
B	2nd Accommodation	lights each of 40 Watts 32	candle power requiring a total current of	10.0	Amperes
C	Engine Room	36 lights each of 40 Watts 32	candle power requiring a total current of	14.4	Amperes
D	Cargo Space	6 lights each of 32	candle power requiring a total current of	6.0	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	1	Amperes
2	Side light with 1	lamps each of 2 1/2	candle power requiring a total current of	2	Amperes
5	Cargo lights of 4 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 Chart Room*

DESCRIPTION OF CABLES.

Main cable carrying	80	Amperes, comprised of	17	wires, each #14 B.S. .0641 S.W.G. diameter, .05500 square inches total sectional area
Branch cables carrying	10	Amperes, comprised of	2	wires, each #10 B.S. .048 S.W.G. diameter, .01621 square inches total sectional area
Branch cables carrying	6	Amperes, comprised of	2	wires, each #14 B.S. .0640 S.W.G. diameter, .003225 square inches total sectional area
Leads to lamps carrying	6	Amperes, comprised of	2	wires, each #14 B.S. .0640 S.W.G. diameter, .003225 square inches total sectional area
Cargo light cables carrying	6	Amperes, comprised of	2	wires, each #16 B.S. .0508 S.W.G. diameter, .002021 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

All wire enclosed in lead covered armoured cable except those in use in accommodation quarters where the armoured sheath is omitted

Joints in cables, how made, insulated, and protected *Regular Splice Soldered & Taped with Both Rubber friction Taped to same resistance as original insulation*

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 *Fastened to Steel Girders protected with armour 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 covered Armoured Casings & fitted with Watertight 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 & 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 sheathing through bulkheads, &c. Metallic Slipping Box.*

How are cables carried through decks *By deck tubes with rubber Gaskets.*

Are any cables run through coal bunkers *No* or cargo spaces *No.* or spaces which may be used for carrying cargo, stores, or baggage *No.*

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 Plugs.*

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 Dutch brand

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 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.

Mundy Rowland & Co. Electrical Engineers

Date *Aug. 7/19*

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
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 *any* degrees on *any* course in the case of the steering compass.

WALLACE SHIPYARDS, LTD.

Wallace

Builder's Signature.

Date *Aug 6/19*

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.

Geo. C. M. Gouen

Surveyor to Lloyd's Register of Shipping

Committee's Minute TUE 16 SEP 1919

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN



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