

*Scampolo* MAR 31 1919  
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# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 700.

Port of *Vancouver B.C.* Date of First Survey *Nov. 6<sup>th</sup> 1918* Date of Last Survey *Nov. 27<sup>th</sup> 1918* No. of Visits *6*  
 No. in Reg. Book on the *Iron on Stool Single Sea Hood Steamship, then the same* Port belonging to *Victoria, B.C.*  
 Built at *Victoria, B.C.* By whom *Cameron Genoa Mills* When built *1918*  
 Owners *Coston Greig & Co.* Owners' Address *Glasgow*  
 Yard No. *10* Electric Light Installation fitted by *W.W. Hesser, Vancouver B.C.* When fitted *1918*

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

*15 H.P. De Laval Steam Turbo Generator*  
*(Generator by General Electric Co., Scot.)*  
 Capacity of Dynamo *90* Amperes at *110* Volts, whether continuous or alternating current *Continuous*  
 Where is Dynamo fixed *Engine room (Lower Platform)* Whether single or double wire system is used *Double*  
 Position of Main Switch Board *Engine room near dynamo* having switches to groups *(1) Six in all* of lights, &c., as below  
 Positions of auxiliary switch boards and numbers of switches on each *Navigation + affairs in bridge quarters 12 Sw.*  
*Forecastle 3 switches, Cargo Deck at Midships Quarters 8 switches, Midships circuit 7 switches*  
*Engine room circuit 8 switches, Wireless 1 switch in Captain's Room + Wireless Room*  
 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  
 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  
 Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases

Total number of lights provided for *200* arranged in the following groups:—

A <i>Forty</i>	lights each of <i>16</i>	candle power requiring a total current of <i>19.2</i>	Amperes
B <i>Thirty</i>	lights each of <i>16</i>	candle power requiring a total current of <i>14.4</i>	Amperes
C <i>Thirty Two</i>	lights each of <i>16</i>	candle power requiring a total current of <i>15.4</i>	Amperes
D <i>Sixty Two</i>	lights each of <i>16</i>	candle power requiring a total current of <i>29.8</i>	Amperes
E <i>Sixteen</i>	lights each of <i>16</i>	candle power requiring a total current of <i>7.7</i>	Amperes
<i>One</i>	Mast head light with <i>One</i> lamps each of <i>16</i>	candle power requiring a total current of <i>.48</i>	Amperes
<i>Two</i>	Side light with <i>One</i> lamps each of <i>16</i>	candle power requiring a total current of <i>.96</i>	Amperes
<i>Thirteen</i>	Cargo lights of <i>4.16</i>	candle power, whether incandescent or arc lights <i>Incandescent</i>	

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

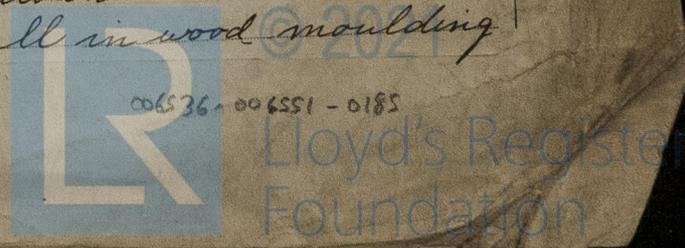
Where are the switches controlling the masthead and side lights placed

## DESCRIPTION OF CABLES.

Main cable carrying *90* Amperes, comprised of *37* wires, each *15* S.W.G. diameter, *1489* square inches total sectional area  
 Branch cables carrying *20* Amperes, comprised of *7* wires, each *16* S.W.G. diameter, *2227* square inches total sectional area  
 Branch cables carrying *10* Amperes, comprised of *7* wires, each *18* S.W.G. diameter, *1254* square inches total sectional area  
 Leads to lamps carrying *3* Amperes, comprised of *1* wires, each *17* S.W.G. diameter, *103* square inches total sectional area  
 Cargo light cables carrying *15* Amperes, comprised of *7* wires, each *18* S.W.G. diameter, *2127* square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

*30% Pure Para Rubber, tape and braiding with water-proof compound.*  
 Joints in cables, how made, insulated, and protected *Spliced, soldered, taped with pure rubber and friction tape*  
 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 water-tight galvanised iron conduit except in living quarters which are all in wood moulding*



**DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.**

Are they in places always accessible Yes except in cargo space where holds are full of cargo  
 What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture All wires in such places are in iron conduit.  
 What special protection has been provided for the cables near galleys or oil lamps or other sources of heat Iron conduit.  
 What special protection has been provided for the cables near boiler casings Iron conduit  
 What special protection has been provided for the cables in engine room Iron conduit  
 How are cables carried through beams Iron conduit through bulkheads, &c. Water-tight glands  
 How are cables carried through decks Water-tight glands  
 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 iron conduit. No wires terminate in cargo spaces.  
 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 From water-tight fitting on deck  
 In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel Double  
 How are the returns from the lamps connected to the hull None  
 Are all the joints with the hull in accessible positions None  
 Is the installation supplied with a voltmeter Yes, and with an amperemeter Yes, fixed 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.

W. Fraser

Electrical Engineers

Date 6<sup>th</sup> Dec 1918

**COMPASSES.**

Distance between dynamo or electric motors and standard compass 150 Feet +

Distance between dynamo or electric motors and steering compass 150 Feet +

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
<u>20</u>	<u>20</u>	<u>feet from standard compass</u>	<u>feet from steering compass</u>
<u>15</u>	<u>12</u>	<u>feet from standard compass</u>	<u>feet from steering compass</u>
<u>0.4</u>	<u>fitted in compass</u>	<u>feet from standard compass</u>	<u>feet from steering compass</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 nothing degrees on \_\_\_\_\_ course in the case of the standard compass and \_\_\_\_\_ degrees on \_\_\_\_\_ course in the case of the steering compass.

W. Fraser (Elec Eng)

Builder's Signature.

Date 6<sup>th</sup> Dec 1918

**GENERAL REMARKS.**

The Electric Light Installation of good quality and workmanship tested under working conditions and found satisfactory. Eligible in my opinion to be noted Electric Light in Register 12-18

It is submitted that this vessel is eligible for TBE RECORD. Elec light.

HW  
5/4/19

James Murdoch  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE 8-APR. 1919

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

No. 118—Transfer.

