

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 700.

Port of Vancouver, B.C. Date of First Survey Nov. 6th 1918 Date of Last Survey Nov. 27th 1918 No. of Visits 6
 No. in Reg. Book on the Iron-on-Steel S.S. Sloop "The Hood" Steamship, then "The Line" Port belonging to Victoria, B.C.
 Built at Victoria, B.C. By whom Cameron Genua Mills When built 1918
 Owners Easton 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., Ltd.)
 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 & office 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 207 arranged in the following groups:—

A Forty	lights each of	16	candle power requiring a total current of	19.2	Amperes
B Thirty	lights each of	16	candle power requiring a total current of	14.4	Amperes
C Thirty Two	lights each of	16	candle power requiring a total current of	15.4	Amperes
D Sixty Two	lights each of	16	candle power requiring a total current of	29.8	Amperes
E Sixteen	lights each of	16	candle power requiring a total current of	7.7	Amperes
One Mast head light with One lamps each of	16	candle power requiring a total current of	4.8	Amperes	
Two Side light with One lamps each of	16	candle power requiring a total current of	9.6	Amperes	
Thirteen Cargo lights of	4.16	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

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, -02227	square inches total sectional area
Branch cables carrying	10	Amperes, comprised of	7	wires, each	18	S.W.G. diameter, -01254	square inches total sectional area
Leads to lamps carrying	3	Amperes, comprised of	1	wires, each	17	S.W.G. diameter, -003	square inches total sectional area
Cargo light cables carrying	15	Amperes, comprised of	7	wires, each	18	S.W.G. diameter, -01267	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. W. Fraser

Electrical Engineers

Date

6th 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
<i>20</i>	<i>20</i>	<i>feet from standard compass</i>	<i>feet from steering compass</i>
<i>15</i>	<i>12</i>	<i>feet from standard compass</i>	<i>feet from steering compass</i>
<i>0.4</i>	<i>Amperes</i>	<i>Fitted in compass</i>	<i>Fitted in compass</i>

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. W. Fraser (Elec Eng)

Builder's Signature.

Date

6th 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 THE RECORD. Elec. light.
James Murdoch
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute