

## REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 1627

Port of Vancouver Date of First Survey May 8. 26 Date of Last Survey June 3. No. of Visits 7  
 No. in Reg. Book 27167 on the Wago Aux. Schooner 'BAYMAUD' Port belonging to LONDON  
 Built at Asker By whom Chr. Jensen When built 1917  
 Owners Hudson's Bay Co Owners' Address \_\_\_\_\_  
 Yard No. \_\_\_\_\_ Electric Light Installation fitted by E. C. Denning, Vancouver When fitted 1926

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

Delco light. gasoline engine. direct connected to D.C. generator. with control board containing relay, main switch & fuses.

Capacity of Dynamo 20 Amperes at 110 Volts, whether continuous or alternating current Continuous

Where is Dynamo fixed Eng. room. top platform. Whether single or double wire system is used 2 wire system

Position of Main Switch Board Eng. room. having switches to groups 1-60 A.D.P. 4-30 A.D.P. of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each Sub-panel in pilot house. 1 switch with fuses for P & S light. 1 switch with fuses for mast head light. fuses for Binnacle - pilot house, and Standard Compass.

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 no.

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 300 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 yes.

Total number of lights provided for \_\_\_\_\_ arranged in the following groups:—

A	<u>12</u>	lights each of	<u>25 W. H. H.</u>	candle power requiring a total current of	<u>3</u>	Amperes
B	<u>14</u>	lights each of	<u>25 W. H. H.</u>	candle power requiring a total current of	<u>3.5</u>	Amperes
C	<u>14</u>	lights each of	<u>25 W. H. H.</u>	candle power requiring a total current of	<u>3.5</u>	Amperes
D	<u>7</u>	lights each of	<u>25 W. H. H.</u>	candle power requiring a total current of	<u>1.6</u>	Amperes
E		lights each of		candle power requiring a total current of		Amperes
	<u>1</u>	Mast head light with	<u>1</u> lamps each of	<u>25 W. H. H.</u>	candle power requiring a total current of	<u>.25</u> Amperes
	<u>2</u>	Side light with	<u>1</u> lamps each of	<u>25 W. H. H.</u>	candle power requiring a total current of	<u>.5</u> Amperes

2 clusters of 4 Cargo lights of 25 W. H. H. lamp. candle power, whether incandescent or arc lights incandescent.

If arc lights, what protection is provided against fire, sparks, &c. no arc.

Where are the switches controlling the masthead and side lights placed in pilot house.

## DESCRIPTION OF CABLES.

Main cable carrying 12.35 Amperes, comprised of 7 wires, each .0466 S.W.G. diameter, .01298 square inches total sectional area

Branch cables carrying 1.6 Amperes, comprised of 7 wires, each .0305 S.W.G. diameter, .00511 square inches total sectional area

Branch cables carrying 1 Amperes, comprised of 7 wires, each \_\_\_\_\_ S.W.G. diameter, \_\_\_\_\_ square inches total sectional area

Leads to lamps carrying 1.5 Amperes, comprised of 7 wires, each .0242 S.W.G. diameter, .00322 square inches total sectional area

Cargo light cables carrying 2 Amperes, comprised of 7 wires, each .0305 S.W.G. diameter, .00511 square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

In Cabin to 14 feet above deck the main, Cargo Space and navigation lights lead covered duplex cable in conduit with H.T. fittings. In Engine room lead covered duplex cable and conduit.

Joints in cables, how made, insulated, and protected Joints are standard Code joints. Soldered and insulated with rubber & friction tape, and protected by 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 Cables lead covered & installed in conduit



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 covered in Conduit*

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

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

What special protection has been provided for the cables in engine room *Lead covered in Conduit*

How are cables carried ~~through beams~~ *Conduit under beams* through bulkheads, &c. *Conduit*

How are cables carried through decks *A.T. flange.*

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

If so, how are they protected *Lead covered in conduit.*

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 *A.T. receptacles on deck*

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 ✓

Is the installation supplied with a voltmeter *no* and with an amperemeter *yes* fixed *on switch board.*

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 ~~2000~~ *2000* 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.

*Ernest Chelmer*

Electrical Engineers

Date *June 5. 1926*

COMPASSES.

Distance between dynamo or electric motors and standard compass *40 feet.*

Distance between dynamo or electric motors and steering compass *40 feet.*

The nearest cables to the compasses are as follows:—

A cable carrying	<i>7.6</i>	Ampères	<i>6</i>	feet from standard compass	<i>5</i>	feet from steering compass
A cable carrying	<i>3</i>	Ampères	<i>12</i>	feet from standard compass	<i>10</i>	feet from steering compass
A cable carrying	<i>3.5</i>	Ampères	<i>12</i>	feet from standard compass	<i>10</i>	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 *nil* degrees on *nil* course in the case of the standard compass and *nil* degrees on *nil* course in the case of the steering compass.

Builder's Signature. Date *June 5. 1926.*

GENERAL REMARKS. *This installation has been fitted under Survey and according to rules. The material and workmanship are good, and a satisfactory trial under full and varying loads has been carried out. Fourteen "Eide" batteries are fitted in Engine Room bulkhead rated to give 20 1/2 amps for 6 hours*

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

*A. Scott.*

Surveyor to Lloyd's Register of Shipping.

*715-20.00*

*Paid 25/6/26*

Committee's Minute

*Elec. Light*

TUES 13 JUL 1926



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THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN