

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 585

Port of Portland, Oregon Date of First Survey Oct. 29 '19 Date of Last Survey Dec. 1 '19 No. of Visits 12
 No. in 1000 on the Steel Single Screw S. "CORVUS" Port belonging to Portland, Oregon
 Reg. Book Built at Portland, Oregon By whom Columbia River S.B. Corp'n When built 1919
 Owners The Green Star S. S. Co. Owners' Address New York
 Card No. 33 Electric Light Installation fitted by Ne Page McKenny Co. When fitted 1919

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Two 16 K.W. Engberg's Generator Sets, coupled to two Engberg's marine type single cylinder reciprocating engines.

Capacity of Dynamo 136 Amperes at 110 Volts, whether continuous or alternating current continuous
 Where is Dynamo fixed Engine Room Whether single or double wire system is used double
 Position of Main Switch Board Engine Room having switches to groups Seven of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each Chart Ho. 6, Poop Deck Qrs. 6, Crew's Qrs. 6,
After Deck Qrs. 6, Fwd. Deck Ho. 6 & 8, Midship Qrs. 6, Engine Room 10.

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 10 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 Yes

Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases Yes

Total number of lights provided for 300 arranged in the following groups:—

A	9	lights each of	40 W 32	candle power requiring a total current of	3	Amperes
B	54	lights each of	40 W 32	candle power requiring a total current of	16	Amperes
C	51	lights each of	40 W 32	candle power requiring a total current of	14	Amperes
D	38	lights each of	40 W 32	candle power requiring a total current of	13	Amperes
E	46	lights each of	40 W 32	candle power requiring a total current of	15	Amperes
1	Mast head light with 1 lamps each of	40 W 32	candle power requiring a total current of	32	Amperes	
2	Side light with 1 lamps each of	40 W 32	candle power requiring a total current of	64	Amperes	
80	Cargo lights of	40 W 32	candle power, whether incandescent or arc lights	incandescent		

If arc lights, what protection is provided against fire, sparks, &c.

Where are the switches controlling the masthead and side lights placed In Chart House

DESCRIPTION OF CABLES.

	Amperes	comprised of	wires, each	S.W.G. diameter	total sectional area
Main cable carrying	150	19	9	S.W.G. diameter, 211.600	<u>C.M.</u> square inches
Branch cables carrying	21	1	10	S.W.G. diameter, 10.380	square inches
Branch cables carrying	32	7	16	S.W.G. diameter, 16.510	square inches
Leads to lamps carrying	4	1	14	S.W.G. diameter, 4.107	square inches
Cargo light cables carrying	2	40	32	S.W.G. diameter, 4.106	square inches

DESCRIPTION OF INSULATION, PROTECTION, ETC.

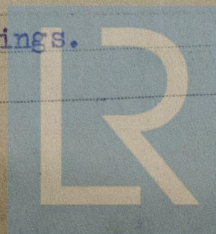
Rubber covered, double braided. National Electric Code Standard.

Joints in cables, how made, insulated, and protected Spliced, soldered and taped. Splicing compound, friction tape and P. B. Electric Paint.

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 Metal conduits or wood casings.



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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 metal conduits

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

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

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

How are cables carried through beams metal conduits through bulkheads, &c. metal conduits

How are cables carried through decks metal conduits, joints and nuts

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 Metal Conduits

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage Yes

If so, how are the lamp fittings and cable terminals specially protected Gas-tight fittings

Where are the main switches and fuses for these lights fitted In houses in Bridge Deck

If in the spaces, how are they specially protected Gas-tight fittings

Are any switches or fuses fitted in bunkers No

Cargo light cables, whether portable or permanently fixed Portable How fixed

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 Yes and with an amperemeter Yes, fixed Engine Room

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 1000 megohms per 1000 feet 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. Page McKenny & Co. Electrical Engineers Date Dec. 4, 1919
R. C. McKenny mgt.

COMPASSES.

Distance between dynamo or electric motors and standard compass 75 ft.

Distance between dynamo or electric motors and steering compass 75 ft.

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
<u>10</u>	<u>Amperes</u>	<u>12</u>	<u>20</u>
<u>25</u>	<u>Amperes</u>	<u>25</u>	<u>16</u>
<u>Amperes</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 _____ degrees on _____ course in the case of the standard compass and _____ degrees on _____ course in the case of the steering compass.

Columbia River Shipbuilding Corp. per W. H. Elshaw Chief Engineer Builder's Signature. Date Dec. 4, 1919

GENERAL REMARKS.

The above installation has been made in accordance with the Rules. The materials and workmanship are good.

It is submitted that this vessel is eligible for THE RECORD ELEC. LIGHT. 12/1/20.

F. A. Mates
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

DEC 16 1919



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