

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 634

Port of Portland, Oregon Date of First Survey Apr. 13 '21 Date of Last Survey May 20 '21 No. of Visits 12
 No. in on the Iron or Steel Single Screw Str. "SWIFTLIGHT" Port belonging to Portland, Oregon
 Reg. Book Built at Portland, Oregon By whom Northwest Bridge & Iron Co. When built 1921
 Owners Swiftsure Oil Transport Co. Owners' Address 120 Broadway, New York
 Yard No. 45 Electric Light Installation fitted by Ne Page McKenny & Co. When fitted 1921

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Two General Electric Co. 15 K.W. 3 wire 110 V. Generators connected to two Marine type single cylinder engines.

Capacity of Dynamo 140 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 4 of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each Engine Room 4, Aft Quarters 8, Midship Qrs. 8, Signal Lights 5

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 cessel 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

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	<u>110</u> lights each of	<u>40 W 32</u> candle power requiring a total current of	<u>40</u> Amperes
B	<u>100</u> lights each of	<u>40 W 32</u> candle power requiring a total current of	<u>40</u> Amperes
C	<u>60</u> lights each of	<u>40 W 32</u> candle power requiring a total current of	<u>30</u> Amperes
D	<u>Search Light</u> lights each of	candle power requiring a total current of	<u>35</u> Amperes
E	<u>5 Deck</u> lights each of	<u>60 W 40</u> candle power requiring a total current of	<u>2</u> Amperes
	<u>1</u> Mast head light with <u>1</u> lamp each of	<u>60 W 40</u> candle power requiring a total current of	<u>1/2</u> Amperes
	<u>2</u> Side light with <u>2</u> lamp each of	<u>60 W 40</u> candle power requiring a total current of	<u>1</u> Amperes
	<u>3</u> Cargo lights of	<u>16</u> candle power, whether incandescent or arc lights	<u>incandescent</u>

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

Where are the switches controlling the masthead and side lights placed wheel house

DESCRIPTION OF CABLES.

Main cable carrying	<u>125</u> Amperes, comprised of	<u>19</u> wires, each	<u>13</u> S.W.G. diameter,	<u>.125</u> square inches total sectional area
Branch cables carrying	<u>40</u> Amperes, comprised of	<u>7</u> wires, each	<u>14</u> S.W.G. diameter,	<u>.192</u> square inches total sectional area
Branch cables carrying	Amperes, comprised of	wires, each	S.W.G. diameter,	square inches total sectional area
Leads to lamps carrying	<u>7</u> Amperes, comprised of	<u>1</u> wires, each	<u>16</u> S.W.G. diameter,	<u>.064</u> square inches total sectional area
Cargo light cables carrying	<u>5</u> Amperes, comprised of	<u>41</u> wires, each	S.W.G. diameter,	<u>.064</u> square inches total sectional area

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 galvanized metal conduits throughout except in way of compasses where brass conduit piping is used.

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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 Conduit

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

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

What special protection has been provided for the cables in engine room Metal Conduit

How are cables carried through beams Metal Conduit through bulkheads, &c. Metal Conduits and Bulkhead fittings.

How are cables carried through decks in watertight deck fittings

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 in cargo space only

If so, how are the lamp fittings and cable terminals specially protected watertight globes and guards

Where are the main switches and fuses for these lights fitted on main switchboard in Engine Room

If in the spaces, how are they specially protected watertight globes and guards

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 Yes

Are any switches, fuses, or joints of cables fitted in the pump room or companion No

How are the lamps specially protected in places liable to the accumulation of vapour or gas Vapor Proof Globes and Guards

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 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.

De Page McKenny Co. Electrical Engineers Date May 26, 1921.

COMPASSES.

Distance between dynamo or electric motors and standard compass 300 feet

Distance between dynamo or electric motors and steering compass 300 feet

The nearest cables to the compasses are as follows:—

A cable carrying	<u>1</u> Amperes	<u>in binnacle of</u>	<u>feet from</u>	standard compass	<u>in binnacle of</u>	<u>feet from</u>	steering compass
A cable carrying	<u>2</u> Amperes	<u>4</u>	<u>feet from</u>	standard compass	<u>4</u>	<u>feet from</u>	steering compass
A cable carrying	Amperes		<u>feet from</u>	standard compass		<u>feet from</u>	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 _____ course in the case of the standard compass and Nil degrees on _____ course in the case of the steering compass.

Northeast Bu dge V Dean & Co Builder's Signature Date May 28, 1921.

GENERAL REMARKS. The above installation has been made in accordance with the Rules.

The material and workmanship are good.

It is submitted that this vessel is eligible for THE RECORD.

\$225.00 paid 11/6/21

Committee's Minutes New York JUN 14 1921

Elect Light

Surveyor to Lloyd's Register of Shipping.



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