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REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 624

Port of Portland, Oregon Date of First Survey Jan. 21 '21 Date of Last Survey Feb. 25 '21 No. of Visits 14
No. in on the Steel Screw Steamer "SWIFTSTAR" Port belonging to New York, N.Y.
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. 42 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 E 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	110	lights each of	40 W 32	candle power requiring a total current of	40	Amperes
B	100	lights each of	40 W 32	candle power requiring a total current of	40	Amperes
C	60	lights each of	40 W 32	candle power requiring a total current of	30	Amperes
D	Search Light	lights each of		candle power requiring a total current of	35	Amperes
E	5 Deck	lights each of	60 W 40	candle power requiring a total current of	2	Amperes
	1 Mast head light with	1 lamps each of	60 W 40	candle power requiring a total current of	$\frac{1}{2}$	Amperes
	2 Side light with	2 lamps each of	60 W 40	candle power requiring a total current of	1	Amperes
	3 Cargo lights of		16	candle power, whether incandescent or are lights	incandescent	

If are 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	125	Amperes, comprised of	19 wires, each	13	S.W.G. diameter,	.125	square inches total sectional area
Branch cables carrying	40	Amperes, comprised of	7 wires, each	14	S.W.G. diameter,	.168	square inches total sectional area
Branch cables carrying		Amperes, comprised of	wires, each		S.W.G. diameter,	.0032	square inches total sectional area
Leads to lamps carrying	7	Amperes, comprised of	1 wires, each	16	S.W.G. diameter,	.004	square inches total sectional area
Cargo light cables carrying	5	Amperes, comprised of	41 wires, each	--	S.W.G. diameter,	.004	square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

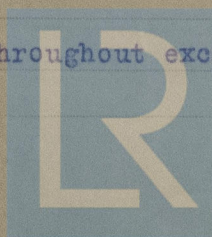
Rubber covered, double braided National Electric Code Standard

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 1000 ft. 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.

Mc Page - Mc Kenny & Co. R. C. Kenny, Mgr. Electrical Engineers Date March 5, 1921.

COMPASSES.

Distance between dynamo or electric motors and standard compass 300 ft.

Distance between dynamo or electric motors and steering compass 300 ft.

The nearest cables to the compasses are as follows:—

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

Northwest Bridge & Iron Co.
by D. Merrill Builder's Signature. Date March 4, 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.

Elec Lt.
\$225.00 paid 11/8/21
6/19/21

Rel
12/4/21

Elec Lt.

J. H. Yates
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

New York MAR 15 1921



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