

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 528

Port of Portland, Ore Date of First Survey July 29/18 Date of Last Survey Aug 15/18 No. of Visits 11
 No. in Reg. Book on the Iron or Steel SS WESTERN MAID Port belonging to Portland, Oregon
 Built at Portland, Oregon By whom North West Steel Co. When built 1918
 Owners U.S. Emergency Fleet Corporation Owners' Address Portland, Oregon
 Yard No. 13 Electric Light Installation fitted by McC Page McKennye Co. When fitted 1918

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Two 10 KW 115 Volt Generator Sets by the Westinghouse Electric Co. connected direct to single cylinder engine by American Blower Co.
 Capacity of Dynamo 80 Amperes at 115 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 8 of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each Mast No. 6, Poop Dr. Drs. 6, Crews Drs. 6, After Dr. 6, Fwd. Dr. No 6 + 8, Midship Dr. No. 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-oxidisable 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	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	18 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.

Main cable carrying	150 Amperes, comprised of	19 wires, each	9 S.W.G. diameter, <u>19.532" C.M</u>	<u>21.600</u> square inches total sectional area
Branch cables carrying	21 Amperes, comprised of	1 wires, each	10 S.W.G. diameter, <u>10.0812</u>	<u>10.380</u> square inches total sectional area
Branch cables carrying	30 Amperes, comprised of	4 wires, each	16 S.W.G. diameter, <u>16.01421</u>	<u>16.570</u> square inches total sectional area
Leads to lamps carrying	4 Amperes, comprised of	1 wires, each	14 S.W.G. diameter, <u>14.00323</u>	<u>4.107</u> square inches total sectional area
Cargo light cables carrying	2 Amperes, comprised of	40 wires, each	30 S.W.G. diameter, <u>30.00216</u>	<u>4.106</u> square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

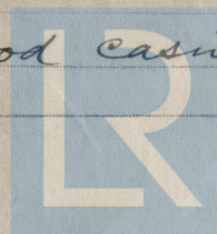
Rubber covered, double braided, National Electric Code Standard.

Joints in cables, how made, insulated, and protected Spliced, soldered and taped, splicing compound, Gutchon 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, nuts + washers.*

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 *Watertight fittings and covers.*

Where are the main switches and fuses for these lights fitted *In houses on Bridge Deck.*

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 _____

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* 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. Page - McKenny Co.
W. Page - McKenny Co.

Electrical Engineers

Date *15 Aug. 1918*

COMPASSES.

Distance between dynamo or electric motors and standard compass *75 feet*

Distance between dynamo or electric motors and steering compass *75 feet*

The nearest cables to the compasses are as follows:—

A cable carrying *35* Amperes *7* feet from standard compass *8* feet from steering compass

A cable carrying *5* Amperes *12* feet from standard compass *14* feet from steering compass

A cable carrying _____ Amperes _____ 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 *nil* course in the case of the steering compass.

WILLAMETTE IRON & STEEL WKS.
PORTLAND, OREGON.

Builder's Signature. Date *15 Aug. 1918*

GENERAL REMARKS.

The Installation has been made in accordance with the Rules, the material and workmanship are good and on trial all worked satisfactorily

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

ELEC. LIGHT.

29-10-18

J. H. Yates

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Elec. Lt.

New York OCT 1 - 1918