

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 508.

Port of Portland, Ore. Date of First Survey May 10th 18 Date of Last Survey June 6th 18 No. of Visits 6
 No. in Reg. Book on the Iron or Steel WESTERN CITY Port belonging to Portland, Oregon
 Built at Portland Oregon By whom Columbia River S.B. Corp. When built 1918
 Owners U.S. Emergency Fleet Corp. Owners' Address Portland, Oregon
 Yard No. 6 Electric Light Installation fitted by McCoy Page McKennye Co. When fitted 1918

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Two 15 K. W. 115 Volt compound wound Generators connected to single cylinder reciprocating engines direct.
 Capacity of Dynamo 136 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 9 of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each One in Chart House bow. One in Poop Deck Quarters bow. One in After Deck House bow. Two in Fore Deck House bow. Two in Midships deck house bow. One in Crews' Quarters bow. One in Engine Room 10 bow.
 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
 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 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 17 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.

136 see above
 Main cable carrying 150 Amperes, comprised of 19 wires, each 9 S.W.G. diameter, 21,600 square inches total sectional area C.M.
 Branch cables carrying 24 Amperes, comprised of 1 wires, each 10 S.W.G. diameter, 10,380 square inches total sectional area
 Branch cables carrying 30 Amperes, comprised of 7 wires, each 16 S.W.G. diameter, 16,510 square inches total sectional area
 Leads to lamps carrying 4 Amperes, comprised of 1 wires, each 14 S.W.G. diameter, 4104 square inches total sectional area
 Cargo light cables carrying 2 Amperes, comprised of 40 wires, each 30 S.W.G. diameter, 4106 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 Soldered and taped, Splicing Compound and Gunction 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 mouldings



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 with nuts and joints above & below

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 receptacles

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 Watertight boxes and covers

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 in 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.

Page McKenny Co. R. McKenny Electrical Engineers Date 6 June 1918

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	<u>12</u> Amperes	<u>12</u> feet from standard compass	<u>20</u> feet from steering compass
A cable carrying	<u>35</u> Amperes	<u>25</u> feet from standard compass	<u>16</u> 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 _____

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.

Columbia River Shipbuilding Corp per W. B. Shaw Builder's Signature. Date June 6 1918
Chief Eng.

GENERAL REMARKS.

The above installation has been made according to the Rules, the materials and workmanship are good and on trial all worked satisfactorily.

It is submitted that this vessel is eligible for THE RECORD. Elec. Light. J. A. Hatis
J. A. Hatis
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute Elec. Light New York JUN 24 1918

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

Handwritten initials

100,110—Treasurer.

