

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 634.

Port of Seattle Wash USA Date of First Survey Nov. 12, 1917 Date of Last Survey June 26 1918 No. of Visits 12

No. in Reg. Book FIRST ENTRY on the ~~Iron~~ Steel S.S. VITTORIO EMMANUELLE III Port belonging to Seattle  
Built at Seattle By whom Seattle Construction & Dry Dock Co. When built 1918

Owners U.S. Shipping Board Emergency Fleet Corp. Owners' Address \_\_\_\_\_  
Yard No. 95 Electric Light Installation fitted by Seattle Construction & Dry Dock Co. When fitted 1918

### DESCRIPTION OF DYNAMO, ENGINE, ETC.

1 Dynamo 7 1/2 KW 6 pole 110 Volts direct connected to 5' x 4 1/2' single steam engine.  
1 " 5 KW " " " " 4 1/2' x 4' " " "  
Capacity of Dynamo 68 and 45 Amperes at 110 Volts, whether continuous or alternating current Continuous  
Where is Dynamo fixed Engine room platform Whether single or double wire system is used Double  
Position of Main Switch Board Engine room platform having switches to groups A B C D E of lights, &c., as below  
Positions of auxiliary switch boards and numbers of switches on each A Running lights 6 switches. B Bridge 8 switches. C Bridge deck 8 switches. D Crew quarters 8 switches. E Engine room 12 switches.

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 25 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 \_\_\_\_\_

Total number of lights provided for 162 arranged in the following groups:—

A	4 Jungsten	lights each of	32	candle power requiring a total current of	1.4	Amperes
B	31 "	lights each of	16	candle power requiring a total current of	8.0	Amperes
C	30 "	lights each of	16	candle power requiring a total current of	8.0	Amperes
D	30 "	lights each of	16	candle power requiring a total current of	8.0	Amperes
E	30 Carbon	lights each of	16	candle power requiring a total current of	27.0	Amperes
1	Mast head light with 1 lamps each of	32	candle power requiring a total current of	.35	Amperes	
2	Side light with 1 lamps each of	64	candle power requiring a total current of	.7	Amperes	

4 Light Clusters Cargo lights of Each cluster 128 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 Chart Room

### DESCRIPTION OF CABLES.

Main cable carrying 27 Amperes, comprised of 7 wires, each 18 S.W.G. diameter, .013 square inches total sectional area  
Branch cables carrying 6 Amperes, comprised of 1 wires, each 14 S.W.G. diameter, .005 square inches total sectional area  
Branch cables carrying 4.5 Amperes, comprised of 1 wires, each 16 S.W.G. diameter, .0032 square inches total sectional area  
Leads to lamps carrying 2.5 Amperes, comprised of 1 wires, each 16 S.W.G. diameter, .0032 square inches total sectional area  
Cargo light cables carrying 2 Amperes, comprised of 27 wires, each 33 S.W.G. diameter, .00196 square inches total sectional area

### DESCRIPTION OF INSULATION, PROTECTION, ETC.

National Electric Code  
Joints in cables, how made, insulated, and protected In iron junction boxes  
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 accessible  
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 Armored cable led through holes in frames and beams and clipped to deck and bulkheads.



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 BXL Leaded and Armored cable

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat BXL Leaded & Armored cable

What special protection has been provided for the cables near boiler casings BXL Leaded and Armored cable

What special protection has been provided for the cables in engine room BXL Leaded and Armored cable

How are cables carried through beams Dilled holes and clipped to deck through bulkheads, &c. stuffing boxes

How are cables carried through decks Through iron conduits

Are any cables run through coal bunkers yes or cargo spaces yes or spaces which may be used for carrying cargo, stores, or baggage yes

If so, how are they protected Clipped to deck overhead

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage No

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

Where are the main switches and fuses for these lights fitted Main switchboard in engine room

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 on switchboard

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 600 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.

T. E. McMullen Electrical Engineers Date July 16<sup>th</sup> 1918.

COMPASSES.

Distance between dynamo or electric motors and standard compass 100 feet

Distance between dynamo or electric motors and steering compass 90 feet

The nearest cables to the compasses are as follows:—

A cable carrying	<u>1</u>	Amperes	<u>8</u>	feet from standard compass	<u>8</u>	feet from steering compass
A cable carrying	<u>1.4</u>	Amperes	<u>16</u>	feet from standard compass	<u>8</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 yes

The maximum deviation due to electric currents, etc., was found to be nil degrees on Various course in the case of the standard compass and nil degrees on Various course in the case of the steering compass.

Seattle Construction & Dry Dock Builder's Signature. Date July 16 - 1918.

GENERAL REMARKS.

The Electric lighting installation of good quality and workmanship tested under working conditions and found satisfactory. Eligible, in my opinion, to be noted in the Register Book.

It is submitted that

this vessel is eligible for  
**THE RECORD. ELEC. LIGHT**  
James Fodler  
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute Elec. Lt New York JUL 30 1918

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

