

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 3142

Port of San Francisco, Cal. Date of First Survey May 17 Date of Last Survey Aug 19 No. of Visits 9  
 No. in Reg. Book 197 on the ~~Iron or Steel~~ Steel S.S. "COTATI" Port belonging to San Francisco.  
 Built at Oakland, California. By whom Moore Shipbuilding Company. When built 1919  
 Owners' U.S. Shipping Board. Owners' Address \_\_\_\_\_  
 Yard No. 1019 Electric Light Installation fitted by Ne Page McKenny Company. When fitted 1919

**DESCRIPTION OF DYNAMO, ENGINE, ETC.**

2-20 HP Turbines direct connected to 2 - 15 KW - 120 Amp. - 125 Volt G.E. Generators

Capacity of Dynamo 15 Kw. 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 double of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each 1 - 14 cir. panel in midships house.

1 - 4 cir. panel in after quarters. 1 - 6 cir. panel in Engine Room. 1 - 5 cir. panel in Pilot House for navigation lights.

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 No wire fuses

Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases Yes

Total number of lights provided for 245 arranged in the following groups:—

A	104	lights each of	25 W	candle power requiring a total current of	26	Amperes
B	30	lights each of	25 W	candle power requiring a total current of	7½	Amperes
C	17	lights each of	25 W	candle power requiring a total current of	4	Amperes
D	43	lights each of	25 W	candle power requiring a total current of	10	Amperes
E	46	lights each of	25 & 40 W	candle power requiring a total current of	11½	Amperes
	2	Mast head light with 1 lamp each of	32	candle power requiring a total current of	1	Amperes
	2	Side light with 1 lamp each of	32	candle power requiring a total current of	1	Amperes
	9	Cargo lights of	5 16 cp.	candle power, whether incandescent or arc lights	Incandescent	

If arc lights, what protection is provided against fire, sparks, &c. No arc lights

Where are the switches controlling the masthead and side lights placed In pilot house

**DESCRIPTION OF CABLES.**

Main cable carrying 120 Amperes, comprised of 19 wires, each S.W.G. diameter, .1315 square inches total sectional area  
 Branch cables carrying 31 Amperes, comprised of 7 wires, each S.W.G. diameter, .028 square inches total sectional area  
 Branch cables carrying 12 Amperes, comprised of 7 wires, each S.W.G. diameter, .018 square inches total sectional area  
 Leads to lamps carrying 5 Amperes, comprised of 1 wires, each S.W.G. diameter, .0032 square inches total sectional area  
 Cargo light cables carrying 3 Amperes, comprised of 31 wires, each S.W.G. diameter, .0032 square inches total sectional area

**DESCRIPTION OF INSULATION, PROTECTION, ETC.**

All feeders D.B. R. C. stranded Branch circuits D.B. R.C. solid wire.

Joints in cables, how made, insulated, and protected Soldered, taped, rubber and friction, painted. All joints in junction boxes and conduits.

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 Galv. conduit



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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 **Conduit and W. P. fittings.**

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat **Conduit and S.F. fittings.**

What special protection has been provided for the cables near boiler casings **Conduits**

What special protection has been provided for the cables in engine room **Conduits**

How are cables carried through beams **Conduit** through bulkheads, &c. **Conduit**

How are cables carried through decks **Conduit**

Are any cables run through coal bunkers **No** or cargo spaces **Yes** or spaces which may be used for carrying cargo, stores, or baggage

If so, how are they protected **Conduit**

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

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 **Can be fitted with receptacles.**

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 Sw. Bd.**

**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.

**KEPAGE, McKENNY CO.**

*Keppage* Electrical Engineers

Date **Aug 28-19**

**COMPASSES.**

Distance between dynamo or electric motors and standard compass **50**

Distance between dynamo or electric motors and steering compass **50**

The nearest cables to the compasses are as follows:—

A cable carrying	<b>7</b>	Amperes	<b>50</b>	feet from standard compass	<b>42</b>	feet from steering compass
A cable carrying	<b>1/2</b>	Amperes	<b>1</b>	feet from standard compass	<b>1</b>	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 **every** course in the case of the standard compass and **Nil.** degrees on **every** course in the case of the steering compass.

*Moore Shipbuilders*

Builder's Signature.

Date

**GENERAL REMARKS.** This installation has been fitted in accordance with the Rules, tested

under working conditions and found in order and the vessel is eligible in my opinion to have notation of "Electric Light" in the Register Book.

*It is submitted that this vessel is eligible for THE RECORD. Elec Light*

*W. Lawson*

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

*Dec 21*

New York SEP 16 1919



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