

## REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 509

Port of Seattle Wash USA Date of First Survey March 12 Date of Last Survey June 8 '17 No. of Visits 28  
No. in 1 on the Iron or Steel Steamer "JOSIAH MACY" Port belonging to Bayonne N. J.  
Reg. Book Seattle By whom Skinner & Eddy Corporation When built 1917  
FIRST ENTRY Built at Seattle Owners' Address Standard Oil Company, New Jersey  
Yard No. 4 Electric Light Installation fitted by Skinner & Eddy Corporation When fitted 1917

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

TWO GEN. ELECTRIC CO'S 20 K.W. 12.5 VOLT COMPOUND WOUND GENERATORS  
DIRECT CONNECTED TO SINGLE CYL. UPRIGHT ENG. OPERATING AT 80°  
STEAM PRESS — ONE 10 K.W.D.C. GENERATOR CONNECTED TO 16 H.P. 4 CYL. GAS ENGINE  
Capacity of Dynamo 162 Amperes at 12.5 Volts, whether continuous or alternating current D.C. ✓  
Where is Dynamo fixed ON PLATFORM IN ENG ROOM Whether single or double wire system is used DOUBLE ✓  
Position of Main Switch Board AFT OF GENERATORS having switches to groups FOUR of lights, &c., as below  
Positions of auxiliary switch boards and numbers of switches on each #1-PASSAGE TO ENG. ROOM-14 SWITCHES -#2-DYNAMO-  
PLATFORM-4 SWITCHES -#3-DYNAMO PLATFORM-5 SWITCHES -#4-PASSAGE TO OFFICERS-  
QUARTERS-18 SWITCHES -#5-MIDSHIP HOUSE ON MAIN DECK-10 SWITCHES -#6-PORT PUMP-  
ROOM CASING-6 SWITCHES -#7-STARBORD PUMP ROOM CASING-6 SWITCHES -#8-FORECASTLE HEAD-10 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 YES

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 IN SOME CASES

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

Total number of lights provided for 248 arranged in the following groups:— SPECIAL ARRANGEMENT OF ALL  
LIGHTING IN TWO GROUPS FED FROM BOTH MAIN GENERATORS AND THE EMERGENCY GENERATOR DOES NOT ALLOW  
A PRACTICAL LIST OF THE ARRANGEMENT TO BE COMPILED

A	lights each of	candle power requiring a total current of	Amperes
B	lights each of	candle power requiring a total current of	Amperes
C	lights each of	candle power requiring a total current of	Amperes
D	lights each of	candle power requiring a total current of	Amperes
E	lights each of	candle power requiring a total current of	Amperes
1	Mast head light with 2 lamps each of 40 W.	candle power requiring a total current of 0.5	Amperes
2	Side light with 2 lamps each of 40 W.	candle power requiring a total current of 0.5	Amperes
6	Cargo lights of 40 W.	candle power, whether incandescent or are lights <u>INCANDESCENT</u>	

If arc lights, what protection is provided against fire, sparks, &c.

Where are the switches controlling the masthead and side lights placed IN PILOT HOUSE.

## DESCRIPTION OF CABLES.

Main cable carrying	Amperes, comprised of	wires, each	S.W.G. diameter,	square inches total sectional area
Branch cables carrying	Amperes, comprised of	wires, each	S.W.G. diameter,	square inches total sectional area
Branch cables carrying	Amperes, comprised of	wires, each	S.W.G. diameter,	square inches total sectional area
Leads to lamps carrying	Amperes, comprised of	wires, each	S.W.G. diameter,	square inches total sectional area
Cargo light cables carrying	Amperes, comprised of	wires, each	S.W.G. diameter,	square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

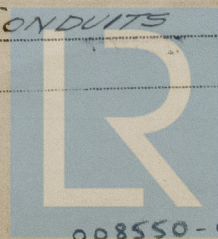
30% PARA RUBBER AND DOUBLE BRAID

Joints in cables, how made, insulated, and protected SOLDERED, TAPED AND PAINTED.

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 IN IRON AND BRASS CONDUITS



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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 IN CONDUITS

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat IN CONDUITS

What special protection has been provided for the cables near boiler casings CONDUITS AND ASBESTOS INSULATION

What special protection has been provided for the cables in engine room CONDUITS AND ASBESTOS INSULATION WHERE NEEDED

How are cables carried through beams IN CONDUITS through bulkheads, &c. IN CONDUITS ✓

How are cables carried through decks IN 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 IN 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 IN WATER TIGHT GUARDED FIXTURES

Where are the main switches and fuses for these lights fitted IN CABINET IN FORECASTLE HEAD

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 PERMANENT 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 YES

Is the installation supplied with a voltmeter YES, and with an amperemeter YES, fixed YES

**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 GUARDED

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 UNDERWATERS STANDARD 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.

C. N. McCallum

Electrical Engineers

Date June 25-17

**COMPASSES.**

Distance between dynamo or electric motors and standard compass

Distance between dynamo or electric motors and steering compass

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
0.5	1/2	1/2	

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 — degrees on — course in the case of the steering compass.

Skinner & Eddy Corporation  
by C. N. McCallum

Builder's Signature.

Date June 25-1917

**GENERAL REMARKS.**

The electric lighting installation of the best quality and workmanship, tested under working conditions and found satisfactory, eligible, in my opinion, to be noted in the Register Book

Awant particulars of cables

James Fowler  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Elec. Light

New York JUL 3 1 1917

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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