

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 509

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

DESCRIPTION OF DYNAMO, ENGINE, ETC.

TWO GEN. ELECTRIC COS 20 K.W. VOLT COMPOUND WOUND GENERATORS DIRECT
CONNECTED TO SINGLE CYL. UPRIGHT ENG. OPERATING AT 80° STEAM PRESS. — ONE 10 K.W. DIRECT
CURRENT GENERATOR CONNECTED TO 16 H.P. 4 CYL. GAS ENGINE
 Capacity of Dynamo 162 Amperes at 125 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 THREE 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-STARBOARD 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:—

A	91	lights each of	40 WATTS	candle power requiring a total current of	29.5	Amperes
B	112	lights each of	40 WATTS	candle power requiring a total current of	35.8	Amperes
C	4	lights each of	200 "	candle power requiring a total current of	6.4	Amperes
C	45	lights each of	40 WATTS	candle power requiring a total current of	14.4	Amperes
C	3	lights each of	250 "	candle power requiring a total current of	6	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 WATT	candle power requiring a total current of	0.5
2		Side light with	2 lamps each of	40 "	candle power requiring a total current of	0.5
6		Cargo lights of	40 WATT	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 PILOT HOUSE

DESCRIPTION OF CABLES.

FROM GEN. Main cable carrying 160 Amperes, comprised of _____ wires, each _____ S.W.G. diameter, 211,600 CIRCULAR MILLS square inches total sectional area
 EMERGENCY FEED Branch cables carrying 96 Amperes, comprised of _____ wires, each _____ S.W.G. diameter, 300,000 CIRC. MILLS square inches total sectional area
 AFTER QUARTERS Branch cables carrying 51.2 Amperes, comprised of _____ wires, each _____ S.W.G. diameter, 30,780 CIRC. MILLS square inches total sectional area
 AFTER QUARTERS Leads to lamps carrying 4 Amperes, comprised of 1 wires, each 64 MILLS S.W.G. diameter, 4,096 CIRC. MILLS square inches total sectional area
 Cargo light cables carrying 4 Amperes, comprised of _____ wires, each _____ S.W.G. diameter, 2,601 CIRC. MILLS 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 & 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 bunks, 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

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 & ASBESTOS INSULATIONS

What special protection has been provided for the cables in engine room CONDUITS & 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 & 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 A ^{UNDERWRITERS 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 25-1917

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 <u>0.5</u> Amperes	<u>1/2</u> feet from standard compass	<u>1/2</u> feet from steering compass
A cable carrying _____ Amperes	_____ feet from standard compass	_____ 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 _____ degrees on _____ course in the case of the steering compass.

Skinner + Eddy Corp 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

It is submitted that this vessel is eligible for THE RECORD. Elec. light. 9/11/17. J.M.

James Fowler
Surveyor to Lloyd's Register of Shipping.

Committee's Minute



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THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.