

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 1624

Port of New Orleans Date of First Survey Mar. 5th Date of Last Survey July 31st No. of Visits 10.
 No. in on the ~~Iron~~ or Steel T. S. S. "MEXOIL" Port belonging to Los Angeles, Cal.
 Reg. Book ✓ Built at Violet, La. By whom Ala. N. Co. Transportation Co. When built 1918
 Owners Pan-American Petroleum & Transport Co. Owners' Address Security Bldg. Los Angeles, Cal.
 Yard No. 23 Electric Light Installation fitted by Burke Electrical Works. When fitted 1918.

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One 12 K.W. 110 V. 110 amp. Ridgway Generator. One 20 K.W. 115 V. 174 amp. Ridgway Generator & Exciter. One 625 K.V.A. 480 V. 753 amp. 3 phase A.C. Generator.

Capacity of Dynamos 110, 174, 753 Amperes at 110, 115, 480 Volts, whether continuous or alternating current Direct & Alternating

Where ~~are~~ Dynamos fixed Engine room Whether single or double wire system is used double

Position of Main Switch Boards Engine room 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 Aux. switches at the following.

Motors One 2 H.P. 110 V. Ridgway motor. One 1 1/2 H.P. Diehl motor, One 1/2 H.P. Westinghouse motor, One 1/2 H.P. Diehl motor.

If fuses are fitted on main switch board to the cables of main circuit Breakers 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 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 none used.

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

Total number of lights provided for 113. arranged in the following groups:—

A Captain.	11	lights each of	25 watt	candle power requiring a total current of	2 1/2	Amperes
B Officer's room	18	lights each of	25 "	candle power requiring a total current of	4 1/2	Amperes
C Engineers.	13	lights each of	25 "	candle power requiring a total current of	3 1/4	Amperes
D Gun & Salty		lights each of	25 "	candle power requiring a total current of	4 1/2	Amperes
E Bridge, pump room & lights		lights each of	25 "	candle power requiring a total current of	4	Amperes
1 Mast head light with	2	lamps each of	40 "	candle power requiring a total current of	3/4	Amperes
2 Side light with	2	lamps each of	40 "	candle power requiring a total current of	1 1/2	Amperes
3 Cargo lights of			<u>Two 500 W. or 1000 W.</u>	candle power, whether incandescent or arc lights	<u>Incandescent.</u>	

If arc lights, what protection is provided against fire, sparks, &c. None.

Where are the switches controlling the masthead and side lights placed Telltale board in Pilot house.

DESCRIPTION OF CABLES.

Main cable carrying	120	Amperes, comprised of	19 wires, each #10	B.Y.S. S.W.G. diameter, .375	125 sq. inches total sectional area
Branch cables carrying	12	Amperes, comprised of	7 wires, each #10	B.Y.S. S.W.G. diameter, .456	10.56 sq. inches total sectional area
Branch cables carrying	8	Amperes, comprised of	7 wires, each #10	B.Y.S. S.W.G. diameter, .456	10.56 sq. inches total sectional area
Leads to lamps carrying	15	Amperes, comprised of	7 wires, each #14	B.Y.S. S.W.G. diameter, .673	10.22 sq. inches total sectional area
Cargo light cables carrying	4	Amperes, comprised of	7 wires, each #14	B.Y.S. S.W.G. diameter, .673	10.22 sq. inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

All wires are protected in galvanized conduits, and have a P.B. insulation of Standard L.E. and other wires, and lead cable

Joints in cables, how made, insulated, and protected Made electrically secure, and then soldered and taped with rubber and friction tape.

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 galvanized conduits with water-tight joints through bulkheads and decks.

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 Conduits & cable.

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

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 2 conduits. through bulkheads, &c. 2 conduits.

How are cables carried through decks 2 conduits and water-tight joints.

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

If so, how are they protected ✓

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 Russell & Stoll marine fittings.

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 switch board.

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 Vapour proof fittings.

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.

(Sgd.) Durke Electrical Works.

Electrical Engineers

Date 22nd June 1918.

COMPASSES.

Distance between dynamo or electric motors and standard compass 38 ft.

Distance between dynamo or electric motors and steering compass 35 ft.

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
<u>4</u>	<u>13</u>	<u>10</u>	<u>10</u>
<u>7</u>	<u>1</u>	<u>13</u>	<u>10</u>
<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>

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

David Hunt & N.O. J.C. Builder's Signature. Date 8/6/18

GENERAL REMARKS.

The electric lighting installation has been fitted in accordance with the Rules, the materials and workmanship are of good description; The installation has been tried with all lights on and found to work satisfactorily.

It is submitted that this vessel is eligible for THE RECORD.

ELEC. LIGHT
12-9-18

M Buchanan.
Surveyor to Lloyd's Register of Shipping.

Committee's Minute Elec. Lt. New York AUG 13 1918



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