

August 23, 1917

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 2550

Port of San Francisco, Cal. Date of First Survey May 10th, Date of Last Survey Aug. 6, 1917 No. of Visits Five.

No. in on the Iron or Steel S.S. "FREDERIC R. KELLOGG" Port belonging to Los Angeles, Cal.

Built at Oakland, California. By whom Moore & Scott Iron Works When built 1917

Owners Pan-American Petroleum & Transport Co Owners' Address Los Angeles, Cal.

Card No. 111 Electric Light Installation fitted by Herzog Electric & Eng. Co. When fitted 1917

DESCRIPTION OF DYNAMO, ENGINE, ETC.

General Electric Dynamo connected to reciprocating engine; 1-10 K.W. and 1-15 K.W.

Capacity of Dynamo 360 Amperes at 110 Volts, whether continuous or alternating current Continuous

Where is Dynamo fixed Engine Room. Whether single or double wire system is used Double

Position of Main Switch Board Near Dynamos. having switches to groups 14 of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each Forecastle 8 switches; Midship 6 switches;

Captain's Quarters 8 switches; Engine Room 6 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 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 Yes

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

Total number of lights provided for 275 arranged in the following groups:—

A	50	lights each of	25	candle power requiring a total current of	12½	Amperes
B	70	lights each of	25	candle power requiring a total current of	17½	Amperes
C	90	lights each of	25	candle power requiring a total current of	22½	Amperes
D	60	lights each of	25	candle power requiring a total current of	15	Amperes
E	5	lights each of	40	candle power requiring a total current of	2½	Amperes
3	Mast head light with 1	lamps each of	40	candle power requiring a total current of	1½	Amperes
2	Side light with 1	lamps each of	40	candle power requiring a total current of	1	Amperes
3	Cargo lights of		80	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 Pilot House.

DESCRIPTION OF CABLES.

Main cable carrying 180 Amperes, comprised of 19 wires, each S.W.G. diameter, .211 square inches total sectional area

Branch cables carrying 12½ Amperes, comprised of 19 wires, each S.W.G. diameter, .041 square inches total sectional area

Branch cables carrying 17½ Amperes, comprised of 19 wires, each S.W.G. diameter, .041 square inches total sectional area

Leads to lamps carrying 22½ Amperes, comprised of 19 wires, each S.W.G. diameter, .041 square inches total sectional area

Cargo light cables carrying 2½ Amperes, comprised of 28 wires, each S.W.G. diameter, .0042 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Rubber covered Double Braid wire in conduit.

Joints in cables, how made, insulated, and protected Soldered, insulated with rubber tape and friction tape and painted with P. & B. Paint.

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

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.

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

What special protection has been provided for the cables near boiler casings Conduit.

What special protection has been provided for the cables in engine room Conduit.

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 or cargo spaces Yes, or spaces which may be used for carrying cargo, stores, or baggage Yes.

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 Yes.

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

Where are the main switches and fuses for these lights fitted Panel Board under Forecastle head.

If in the spaces, how are they specially protected _____

Are any switches or fuses fitted in bunkers _____

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., sized 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 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.

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.

HERZOG ELECTRIC & ENG. CO.

Electrical Engineers

Date August 4th, 1917.

COMPASSES.

Distance between dynamo or electric motors and standard compass 200 feet.

Distance between dynamo or electric motors and steering compass 200 feet.

The nearest cables to the compasses are as follows:—

A cable carrying	$\frac{1}{2}$	Amperes	1	feet from standard compass	1	feet from steering compass
A cable carrying	$\frac{1}{2}$	Amperes	4	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 all course in the case of the standard compass and Nil degrees on all course in the case of the steering compass.

MOORE & SCOTT IRON WORKS,

By _____

Builder's Signature.

Date August 15th, 1917.

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

SWK
19/9/17
Elec. light

J Blackett
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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