

## REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 3134

Port of *Philadelphia, Pa.* Date of First Survey *5<sup>th</sup> July 1918* Date of Last Survey *4<sup>th</sup> March* No. of Visits *60*  
 No. in Reg. Book on the ~~Iron~~ Steel SCREW STEAMER "SAPINERO" Port belonging to *Philadelphia, Pa.*  
 Built at *Philadelphia, Pa.* By whom *American International Corp.* When built *1919*  
 Owners *Emergency Light Corporation* Owners' Address *Washington D. C.*  
 Yard No. *503* Electric Light Installation fitted by *American International Corp.* When fitted *1919*

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

2-15 K. W. Gen. Elect. generators, compound wound, 125 Volts. Vertical marine type steam engines 80lb to 125 lb. Steam Pressure

Capacity of Dynamo 120 Amperes at 125 Volts, whether continuous or alternating current Continuous

Where is Dynamo fixed St'rb'd Engine Room Dynamo Flat Whether single or double wire system is used double wire

Position of Main Switch Board Engine Room Dynamo Flat having switches to groups 8 panels of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each Panel A-Forecastle 4 circuit; B Officers Quarters

9 Circuit; C. Bridge Deck St'rb'd; - 4 circuit; D-Bridge Deck Port- 6 circuit; F- Poop - 5 circuit; G-Engine and Boiler Room - 7 circuit; H Pilot House - 5 circuit;

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 125 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 open fuses

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

Total number of lights provided for 262 arranged in the following groups:-

A	14	lights each of 25 & 50W & 200 candle-power	requiring a total current of 8.8 Amperes
B	58	lights each of 10, 25, 50, 75, 100, 200 & 250-W	requiring a total current of 27.8 Amperes
C	25	lights each of 25, 50, 75, 200-W	requiring a total current of 12.8 Amperes
D	43	lights each of 25, 50, 75, 200-W	requiring a total current of 18.9 Amperes
F	38	lights each of 25, 50, 75, 200-W	requiring a total current of 21.0 Amperes
E G	68	lights each of 25, 50, 100-W	requiring a total current of 36.0 Amperes

2 Mast head light with 1 lamps each of 50-W candle-power requiring a total current of 0.9 Amperes

3 Side light with 1 lamps each of 50-W candle-power requiring a total current of 1.4 Amperes

12 Cargo lights of 200-W candle-power, whether incandescent or arc lights 21.8

1 Search Light of 3850-W Arc for Searchlight only 36.0 Amps

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

Connected lighting load 17.7 K.W.

Where are the switches controlling the masthead and side lights placed Panel H Wheel House

## DESCRIPTION OF CABLES.

		Stranded			
Main cable carrying	120	Amperes, comprised of	wires, each	#00 B&B diameter, 0.104	square inches total sectional area
Branch cables carrying	35	Amperes, comprised of	" wires, each	6 S.W.G. diameter, 0.021	square inches total sectional area
Branch cables carrying	18	Amperes, comprised of	" wires, each	12 S.W.G. diameter, 0.0051	square inches total sectional area
Leads to lamps carrying	22	Amperes, comprised of	" wires, each	2 S.W.G. diameter, 0.052	square inches total sectional area
	10	Amperes, comprised of	" wires, each	10 S.W.G. diameter, 0.0082	square inches total sectional area
Cargo light cables carrying	10	Amperes, comprised of	Solid " wires, each	14 0.0032	square inches total sectional area
	10	Amperes, comprised of	" wires, each	12 S.W.G. diameter, 0.0051	square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

All lighting wires in galvanized conduit 1/2 in. to 1 1/2 in. diameter

#00, #2, #6, Rubber Covered Tape and Braid Code Wire

#10, #12, #14 " " Single Braid Code Wire

Joints in cables, how made, insulated, and protected in boxes at conduit junction

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 none

How are the cables led through the ship, and how protected Conduit



© 2019

Lloyd's Register

W132102500



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 Water tight conduit with locknuts and washers at bulkheads

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

What special protection has been provided for the cables near boiler casings in conduit

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

How are cables carried through beams Steel conduit in drilled holes through bulkheads, &c.

How are cables carried through decks Steel conduit with locknuts and washers

Are any cables run through coal bunkers or cargo spaces or spaces which may be used for carrying cargo, stores, or baggage in steel conduit

If so, how are they protected in steel 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

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 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 not oil carrier

How are the lamps specially protected in places liable to the accumulation of vapour or gas not oil carrier

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.

L. Murphy

Electrical Engineers

Date Jan. 6, 1919

COMPASSES.

Distance between dynamo or electric motors and standard compass 100 ft.

Distance between dynamo or electric motors and steering compass 110 ft.

The nearest cables to the compasses are as follows:—

A cable carrying <u>40</u> Amperes	<u>8</u> feet from standard compass	<u>5</u> feet from steering compass
A cable carrying <u>4</u> Amperes	<u>6</u> feet from standard compass	<u>5</u> feet from steering compass
A cable carrying <u>2</u> Amperes	<u>4</u> feet from standard compass	<u>4</u> 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 0 degrees on 0 course in the case of the standard compass and 0 degrees on 0 course in the case of the steering compass.

G. J. James

Builder's Signature.

Date 1/7/19

GENERAL REMARKS.

This Electric Lighting Installation has been well fitted and proved satisfactory on trial

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

JWD  
8/4/19

J. Steen  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Elec. Lt.

THE JUN. 24, 1919



© 2019

Lloyd's Register Foundation

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.