

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 2030

Port of PHILADELPHIA Date of First Survey 28.3.13 Date of Last Survey June 5.13 No. of Visits 9
 No. in on the Iron or Steel S.S. "SOCONY" Port belonging to New York
 Reg. Book 175 Built at Camden N.J. By whom New York L.E.C. When built 1913-6
 Owners Standard Oil Co Owners' Address 26 Broadway New York
 Yard No. 134 Electric Light Installation fitted by New York L.E.C. When fitted 1913-6

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Direct connected generator steam turbines (Curtis) built by General Electric Co
 Capacity of Dynamo 3140 Amperes at 110 Volts, whether continuous or alternating current continuous
 Where is Dynamo fixed engine room midplatform Whether single or double wire system is used double
 Position of Main Switch Board do having switches to groups A, A1, B, B1, C, C1, D, E of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each A engine room (6) A1 dark quarters aft (6)
B fore room (6) B1 quarters amidships (10) C fore castle (6) C1 towing machine
D pump room switches placed in engine room (4) E port quarters aft (6)
 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 100 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 wires used
 Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases yes
 Total number of lights provided for 235 arranged in the following groups:—

A	26	lights each of	16	candle power requiring a total current of	13	Amperes
A1	26	lights each of	16	candle power requiring a total current of	10	Amperes
B	20	lights each of	16	candle power requiring a total current of	22	Amperes
B1	44	lights each of	16	candle power requiring a total current of	10	Amperes
C	20	lights each of	16	candle power requiring a total current of	9.5	Amperes
C1	19	lights each of	16	candle power requiring a total current of	2.5	Amperes
D	50	lights each of	16	candle power requiring a total current of	10	Amperes
E	20	lights each of	16	candle power requiring a total current of	1	Amperes
1	Mast head light with 2 lamps each of	16	candle power requiring a total current of	2	Amperes	
2	Side light with 2 lamps each of	16	candle power requiring a total current of	1	Amperes	
4	Cargo lights of <u>C1</u>	16	candle power, whether incandescent or arc lights	<u>incandescent</u>		

If arc lights, what protection is provided against fire, sparks, &c. no arc lamps used

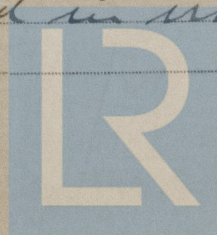
Where are the switches controlling the masthead and side lights placed switch board in pilot-house

DESCRIPTION OF CABLES.

Main cable carrying 140 Amperes, comprised of 4/16 wires, each # 2 S.W.G. diameter, .182 square inches total sectional area
 Branch cables carrying 50 Amperes, comprised of 19/15 wires, each # 2 S.W.G. diameter, .075 square inches total sectional area
 Branch cables carrying 50 Amperes, comprised of 9/15 wires, each # 2 S.W.G. diameter, .075 square inches total sectional area
 Leads to lamps carrying 5 Amperes, comprised of 1 wires, each # 14 S.W.G. diameter, .0042 square inches total sectional area
 Cargo light cables carrying 3 Amperes, comprised of 4/32 wires, each # 14 S.W.G. diameter, .0042 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

white rope double rubber covered & double braided with Grimsshaw Tape
 Joints in cables, how made, insulated, and protected mechanical joint-soldered (resin used as flux) covered with vulcanite rubber, taped & coated with insulating compound
 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 completely encased in insulating



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 *iron conduits*

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *iron conduits*

What special protection has been provided for the cables near boiler casings *do*

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

How are cables carried through beams *iron conduits* through bulkheads, &c. *Watertight-fitting*

How are cables carried through decks *Watertight-fittings*

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 *permanent fixture* How fixed *permanent W.T. fittings in upper deck*

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-two*, and with an amperemeter *yes-two*, fixed *on 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 *vapour proof lamps*

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.

Hallagan

Electrical Engineers

Date *June 12-13*

COMPASSES.

Distance between dynamo or electric motors and standard compass *150 feet*

Distance between dynamo or electric motors and steering compass *140*

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
<i>.5</i>	<i>1</i>	<i>1</i>	
<i>.5</i>	<i>20</i>	<i>4</i>	
<i>.5</i>	<i>10</i>	<i>10</i>	

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 *no* degrees on *all* course in the case of the standard compass and *—* degrees on *—* course in the case of the steering compass.

Hallagan

Builder's Signature.

Date *June 12-13*

GENERAL REMARKS.

This installation has been fitted in accordance with the Rules. The workmanship is sound & good. The electric light has been tried throughout & found to work well.

It is submitted that this vessel is eligible for

THE RECORD. Elec. light *JWD 23/6/13.* Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

TUE. JUN. 24. 1913



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