

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 4061

Port of Philadelphia Date of First Survey Nov 23 1920 Date of Last Survey 15 Dec 1920 No. of Visits 6
 No. in Reg. Book on the Steel S.S. "Eugene V.R. Thayer" Port belonging to New York
 Built at Wilmington, Del. By whom Bethlehem S.B. Corpn. (Harlan Plant) When built 1920
 Owners Sinclair Navigation Co. Owners' Address _____
 Yard No. 3473 Electric Light Installation fitted by Bethlehem S.B. Co. (Harlan Plant) When fitted 1920.

DESCRIPTION OF DYNAMO, ENGINE, ETC.

2 - 15 K.W. D.C. generators, direct connected to two single cylinder steam engines, made by General Electric Company, Schenectady, N.Y.
 Capacity of Dynamo 120 Amperes at 115 Volts, whether continuous or alternating current Continuous
 Where is Dynamo fixed Engine Room - little platform Whether single or double wire system is used Double
 Position of Main Switch Board At dynamo 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 A - Forecastle, 4 Circuit; B - Midship, 8 Circuit, C - Quarters under Peep deck, 8 Circuit; and quarters on Peep deck, 4 circuit; D - Running light circuit; E - Engine and fire room; Pump Room circuit and cargo plug line; one circuit for wireless.
 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 50% 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 not used
 Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases yes
 Total number of lights provided for 231 arranged in the following groups:—

A	12	lights each of	40 Watt	requiring requiring a total current of	2.5	Amperes
B	55	lights each of	40 "	requiring requiring a total current of	19.	Amperes
C	86	lights each of	40 "	requiring requiring a total current of	31.	Amperes
D	7	lights each of	32	candle power requiring a total current of	7.	Amperes
E	57	lights each of	40 Watt	requiring requiring a total current of	20.	Amperes
One 35 amp. searchlight.						
1	Mast head light with	2	lamps each of	32	candle power requiring a total current of	1.
2	Side light with	1	lamps each of	32	candle power requiring a total current of	3.
6	Cargo lights of	150 Watt	whether incandescent or gas lights			

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

Where are the switches controlling the masthead and side lights placed In Pilot house.

DESCRIPTION OF CABLES.

Main cable carrying	120	Amperes, comprised of	61	wires, each	#14	S.W.G. diameter,	.322	square inches total sectional area
Branch cables carrying	19	Amperes, comprised of	37	wires, each	#18	S.W.G. diameter,	.0472	square inches total sectional area
Branch cables carrying	31	Amperes, comprised of	19	wires, each	#17	S.W.G. diameter,	.0316	square inches total sectional area
Leads to lamps carrying	3	Amperes, comprised of	7	wires, each	#22	S.W.G. diameter,	.0033	square inches total sectional area
Cargo light cables carrying	2	Amperes, comprised of	40	wires, each	#28	S.W.G. diameter,	.00588	square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Main feeder cables are U.S. Standard Navy wire, in galvanized iron armored conduit; all auxiliary panels are placed in steel boxes with steel doors, slate lined. Branch cable: Branch wires where tapped are wrapped mechanically tight, securely soldered, and tapped with epsilon and friction tape, painted with insulating compound.
 Joints in cables, how made, insulated, and protected _____

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 iron armored conduit, with lock nuts and washers, and grommets, through decks and bulkheads.

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.

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat In conduit at safe distance.

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

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

How are cables carried through beams through bulkheads, &c. Iron armored conduit with lock nuts and washers.

How are cables carried through decks Iron armored conduit with lock nuts and washers.

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 " " " " "

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 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 " " " " "

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 500 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.

Electrical Engineers

Date

COMPASSES.

Distance between dynamo or electric motors and standard compass 300 feet.

Distance between dynamo or electric motors and steering compass 300 feet

The nearest cables to the compasses are as follows:—

A cable carrying	<u>35</u>	Amperes	<u>8</u>	feet from standard compass	<u>6</u>	feet from steering compass
A cable carrying	<u>1/5</u>	Amperes	<u>2</u>	feet from standard compass	<u>2</u>	feet from steering compass
A cable carrying	<u>7</u>	Amperes	<u>12</u>	feet from standard compass	<u>10</u>	feet from steering compass

Have the compasses been adjusted with and without the electric installation at work at full power

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.

Builder's Signature.

Date

GENERAL REMARKS.

This installation has been well fitted as described above, and tried under full power with satisfactory results.

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

ELL
26/1/21
Elec Lt

J. H. Carey

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

New York JAN - 4 1921

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.