

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 3307

Port of Philadelphia Date of First Survey 11th April 1919 Date of Last Survey 14th June 1919 No. of Visits 4
 No. in Reg. Book on the Iron or Steel S.S. Santa Elisa Port belonging to Camden N.J.
 Built at Camden N.J. U.S.A. By whom New York Ship Corp. When built 1919
 Owners Emergency Fleet Corp. Owners' Address Philadelphia Pa.
 Yard No. 197 Electric Light Installation fitted by New York Ship Corp. When fitted 1919

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Four (4) 25 KW-110 Volt Generators - Direct connected to Vertical Marine Engines - Built by Gen. Electric Co. Schenectady N.Y. U.S.A.

Capacity of Dynamo 227 Amperes at 110 Volts, whether continuous or alternating current Continuous

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

Position of Main Switch Board Eng. Room Stbd. having switches to groups 10 of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each "A" Engine Room Aft. B/Khd. (6)

"B" Bridge Deck Stbd. Passage (10) "C" Shelter Deck Fr. Amid. (6)

"D" Upper Deck Fr. 80 Amid. (9)

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 Yes

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

Total number of lights provided for 638 arranged in the following groups :-

A	175	lights each of	90 Watts	candle power requiring a total current of	52.5	Amperes
A'	109	lights each of	90 "	candle power requiring a total current of	32.7	"
B	32	lights each of	90 "	candle power requiring a total current of	9.6	Amperes
B'	55	lights each of	90 "	candle power requiring a total current of	16.5	"
C	68	lights each of	90 "	candle power requiring a total current of	20.9	Amperes
C'	115	lights each of	90 "	candle power requiring a total current of	39.5	"
D	65	lights each of	90 "	candle power requiring a total current of	19.5	Amperes
E	70	lights each of	40 "	candle power requiring a total current of	21	Amperes
2	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	2	Amperes		
8	Cargo lights of 69	candle power, whether incandescent or arc lights	Incandescent			

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

Where are the switches controlling the masthead and side lights placed Panel in Pilot House

DESCRIPTION OF CABLES.

Main cable carrying 227 Amperes, comprised of 11/19 wires, each .069 S.W.G. diameter, .355 square inches total sectional area
 Branch cables carrying 52.5 Amperes, comprised of 7/13 wires, each .072 S.W.G. diameter, .0287 square inches total sectional area
 Branch cables carrying 32.7 Amperes, comprised of 7/19 wires, each .069 S.W.G. diameter, .0229 square inches total sectional area
 Leads to lamps carrying .5 Amperes, comprised of 7/22 wires, each .025 S.W.G. diameter, .0035 square inches total sectional area
 Cargo light cables carrying 2 Amperes, comprised of 7/22 wires, each .025 S.W.G. diameter, .0035 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Conduit installation Throughout

Joints in cables, how made, insulated, and protected Good Mechanical Joints, soldered, Taped and Painted 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 Encased in Conduit

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 in conduit through bulkheads, &c. in conduit

How are cables carried through decks in conduit

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

If so, how are they protected Run in 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 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 no

Are any switches, fuses, or joints of cables fitted in the pump room or companion ✓

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 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.

Arthur Parker Electrical Engineers

Date June 4th 1919

COMPASSES.

Distance between dynamo or electric motors and standard compass Approx. 150'

Distance between dynamo or electric motors and steering compass " 150'

The nearest cables to the compasses are as follows:—

A cable carrying .5 Amperes 3 feet from standard compass feet from steering compass

A cable carrying Amperes 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.

New York Shipbuilding Corporation
H. A. Magowan Builder's Signature. Date June 4th 1919

GENERAL REMARKS.

The installation has been well fitted and proved satisfactory on trial.

It is submitted that

this vessel is eligible for

THE RECORD.

Elec Light
JUL 18/19

A. T. Thomas

Surveyor to Lloyd's Register of Shipping.

Committee's Minute Elec Lt New York JUL - 1 1919



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