

REPORT ON ELECTRIC LIGHTING INSTALLATION.

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Port of Baltimore Md. Date of First Survey Dec. 2 Date of Last Survey Dec. 31 No. of Visits 5
 No. in Reg. Book on the Iron or Steel Steamer, E. O. Morse. Port belonging to Alexandria Va.
 Built at Alexandria Va. By whom Virginia Shipbuilding Co. When built 1919
 Owners U. S. Steamship Corp. Owners' Address _____
 Yard No. 5 Electric Light Installation fitted by Virginia Shipbuilding Co. When fitted 1919

DESCRIPTION OF DYNAMO, ENGINE, ETC.

2. Machines General Electric Generators direct connected to Troy engines
 Capacity of Dynamo 80 Amperes at 110 Volts, whether continuous or alternating current direct
 Where is Dynamo fixed Dynamo platform Starboard of E.O. Whether single or double wire system is used double
 Position of Main Switch Board near dynamo having switches to groups Ten of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each one each in forward and after quarters with 6 switches each, 1 of 4 switches in Captain quarters, 1 of 8 switches in midship quarters, 1 of 8 switches in engine room. 1 telltale board of 4 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 30 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 _____ arranged in the following groups:—
 A Engine & Boiler room lights each of 16 candle power requiring a total current of 30 1/2 Amperes
 B Midship Cabin lights each of 16 candle power requiring a total current of 36 1/2 Amperes
 C Fore & After Cabin lights each of 16 candle power requiring a total current of 19 1/2 Amperes
 D Cargo lights each of 16 candle power requiring a total current of 12 Amperes
 E Searchlight 1 lights each of _____ candle power requiring a total current of 35 Amperes
 2 Mast head light with 2 lamps each of 16 candle power requiring a total current of 1 Amperes
 2 Side light with 2 lamps each of 32 candle power requiring a total current of 2 Amperes
 Cargo lights of _____ candle power, whether incandescent or arc lights
 If arc lights, what protection is provided against fire, sparks, &c. Search light in metal case with glass door.
 Where are the switches controlling the masthead and side lights placed In wheelhouse on telltale board.

DESCRIPTION OF CABLES.

Main cable carrying 55 Amperes, comprised of 4 wires, each # 1 S.W.G. diameter, .26236 square inches total sectional area
 Branch cables carrying 31 Amperes, comprised of 12 wires, each # 6 S.W.G. diameter, .03078 square inches total sectional area
 Branch cables carrying 4 Amperes, comprised of 2 wires, each # 12 S.W.G. diameter, .01026 square inches total sectional area
 Leads to lamps carrying 73 Amperes, comprised of 58 wires, each # 14 S.W.G. diameter, .18618 square inches total sectional area
 Cargo light cables carrying 12 Amperes, comprised of 2 wires, each # 12 S.W.G. diameter, .01026 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

All wires double braided packed with cotton to make round - rubber covered braided and shellaced
 Joints in cables, how made, insulated, and protected Soldered, taped with rubber tape and then with cotton tape treated 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 Cables led in iron conduits

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 *Secured in water proof boxes and led through metal conduits*

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

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 *In metal conduits* through bulkheads, &c. *" "*

How are cables carried through decks *In brass conduits 5 feet up from deck.*

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 *In metal 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 *✓*

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 *no*

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.

Virginia Ship Hldg Corp
per J. H. Hanner Plant Mgr Electrical Engineers Date *—*

COMPASSES.

Distance between dynamo or electric motors and standard compass *90 feet*

Distance between dynamo or electric motors and steering compass *85 feet*

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
<i>35</i>	<i>Amperes</i>	<i>6</i>	<i>6</i>
<i>1/4</i>	<i>Amperes</i>	<i>1</i>	<i>1</i>
<i>1/2</i>	<i>Amperes</i>	<i>6</i>	<i>6</i>
<i>8</i>	<i>Amperes</i>	<i>6</i>	<i>2</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 *nil* degrees on *—* course in the case of the standard compass and *nil* degrees on *—* course in the case of the steering compass.

Virginia Ship Hldg Corp
per J. H. Hanner Builder's Signature. Date *—*

GENERAL REMARKS.

Installation has been fitted in an efficient manner from approved plans, tried out under varying loads and found to work in satisfactory manner.

It is submitted that this vessel is suitable for

ELEC LIGHT

John M. Sheriff
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

New York FEB 3 1920



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THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.