

Mar 29 1924

Rpt. 13.

Received at London Office

19

REPORT ON ELECTRIC LIGHTING INSTALLATION.

THE APP 13 1920

Port of Baltimore Md. Date of First Survey Feb. 5th Date of Last Survey Mar 5 No. of Visits 5
 No. in on the ~~Iron~~ or Steel Steamer Clemence, C. Morse Port belonging to Alexandria Ya.
 Reg. Book Built at Alexandria Ya. By whom Virginia S. B. Co. When built 1920
 Owners United States Transport Co Owners' Address 50 Broad St. New York.
 Yard No. 6. Electric Light Installation fitted by Virginia Shipbuilding Co. When fitted 1920

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Two General Electric generators direct driven by Troy engines 5 1/2" x 7"
Replaced 142 by 2 steam sets 110V. 136 Amps (15 KW each)
 Capacity of Dynamo each 80. Amperes at 115 Volts, whether continuous or alternating current direct
 Where is Dynamo fixed on dynamo flat in engine room Whether single or double wire system is used double
 Position of Main Switch Board near to dynamos. having switches to groups 9 circuits. of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each 1-6 switches in forecabin, 1-4 switches for masthead
quarters, 1-8 switches in midship quarters 1-8 switches in engine room 1-6 switches in
after quarters.
 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 yes.
 Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases yes.
 Total number of lights provided for 210. arranged in the following groups:—

A	5	lights each of	10 watts.	candle power requiring a total current of	.45	Amperes
B	79	lights each of	25 "	candle power requiring a total current of	27	Amperes
C	77	lights each of	40 "	candle power requiring a total current of	28	Amperes
D	33	lights each of	60 "	candle power requiring a total current of	12 1/2	Amperes
E	11	lights each of	100 "	candle power requiring a total current of	14	Amperes
1 Mast head light with 2 lamps each of 100 " candle power requiring a total current of 1 Amperes						
1 Stern light 2 lamps each of 100 " candle power requiring a total current of 2 Amperes						
2 Side light with 2 lamps each of 100 " candle power requiring a total current of 2 Amperes						
18 Cargo lights of 36 - 25 watts. candle power, whether incandescent or arc lights 9 ✓						

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 wheel house on tittale board.

DESCRIPTION OF CABLES.

Main cable carrying 177 Amperes, comprised of 4 wires, each #1 S.W.G. diameter, 83690 CM square inches total sectional area
 Branch cables carrying 153 Amperes, comprised of 12 wires, each #6 S.W.G. diameter 26250 CM square inches total sectional area
 Branch cables carrying 4 1/2 Amperes, comprised of 2 wires, each #12 S.W.G. diameter 6530 CM square inches total sectional area
 Leads to lamps carrying 10 Amperes, comprised of 2 1/2 wires, each #14 S.W.G. diameter, 4107 CM square inches total sectional area
 Cargo light cables carrying 12 1/2 Amperes, comprised of 2 wires, each #12 S.W.G. diameter, 6530 CM square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

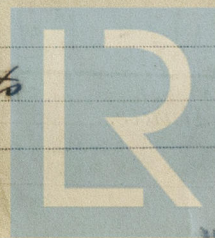
All wires covered with 3/32 insulation braided on outside.

Joints in cables, how made, insulated, and protected junction boxes (weatherproof) where splices are made
same are soldered and covered with rubber tape, then insulating tape
and shellac.

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 metal conduits



© 2019

Lloyd's Register
Foundation

W 29-0134

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 *All wires led through metal conduits*

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *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 *Metal conduits* through bulkheads, &c. *" "*

How are cables carried through decks *" "* and locknuts

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 conduits*

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* How fixed *to outriggers on masts*

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

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.

Virginia Ship Hdg Corp per D. W. H. Plaut Electrical Engineers Date *—*

COMPASSES.

Distance between dynamo or electric motors and standard compass *100 feet*

Distance between dynamo or electric motors and steering compass *92 feet*

The nearest cables to the compasses are as follows:—

Cable Carrying	Amperes	Feet from Standard Compass	Feet from Steering Compass
<i>4 1/2</i>	<i>10</i>	<i>4</i>	<i>—</i>
<i>35</i>	<i>10</i>	<i>22</i>	<i>—</i>
<i>5</i>	<i>1</i>	<i>1</i>	<i>—</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 standard compass and *Nil* degrees on *—* course in the case of the steering compass.

Virginia Ship Hdg Corp per D. W. H. Plaut Builder's Signature. Date *—*

GENERAL REMARKS.

Installation has been fitted in an approved manner tested out under varying loads and found to work in satisfactory manner

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

ELEC: LIGHT.

Wes 20/4/20

John M. Sheriff

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

New York MAR 3 0 1920