

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 1672

Port of Newport News Date of First Survey Oct. 21 Date of Last Survey Nov. 16 No. of Visits 5
 No. in on the ~~Iron~~ Steel SS "AGWIDALE" Port belonging to Newport News Va
 Reg. Book NEN Built at Newport News Va By whom Newport News S.S. Co When built 1918-11
 Owners Atlantic Gulf & West Indies S.S. Co. Owners' Address New York
 Yard No. 212 Electric Light Installation fitted by Newport News S.S. Co When fitted 1918-11

DESCRIPTION OF DYNAMO, ENGINE, ETC. 15 KW. General Electric Co's Marine Type direct connected to 8"x6" Vertical engine

Capacity of Dynamo 136 Amperes at 110 Volts, whether continuous or alternating current Continuous
 Where is Dynamo fixed Engine starting platform whether single or double wire system is used Double
 Position of Main Switch Board near dynamo having switches to groups 11 of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each Two in Bridge Quarters
4 switches + 6 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 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 Standard
 Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases yes

Total number of lights provided for 194 arranged in the following groups :-

| | | | | | | |
|---|------------------------|----------------------|------------------------|---|---------------------------|---------|
| A | <u>35</u> <u>24</u> | lights each of | <u>MAZDA 16</u> | candle power requiring a total current of | <u>10.5</u> <u>7.2</u> | Amperes |
| B | <u>9</u> <u>15</u> | lights each of | " | candle power requiring a total current of | <u>2.7</u> <u>4.5</u> | Amperes |
| C | <u>11</u> <u>12</u> | lights each of | " | candle power requiring a total current of | <u>3.9</u> <u>3.6</u> | Amperes |
| D | <u>38</u> <u>10</u> | lights each of | " | candle power requiring a total current of | <u>11.6</u> <u>3.0</u> | Amperes |
| E | <u>16</u> | lights each of | " | candle power requiring a total current of | <u>1.8</u> | Amperes |
| | <u>1</u> | Mast head light with | <u>2</u> lamps each of | <u>32</u> candle power requiring a total current of | <u>1</u> | Amperes |
| | <u>2</u> | Side light with | <u>2</u> lamps each of | <u>32</u> candle power requiring a total current of | <u>1</u> | Amperes |
| | <u>6</u> | Cargo lights of | <u>64</u> | candle power, whether incandescent or arc lights | <u>incandescent</u> | |

If arc lights, what protection is provided against fire, sparks, &c.

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

DESCRIPTION OF CABLES.

Main cable carrying 136 Amperes, comprised of 37 wires, each #15 S.W.G. diameter, .150 square inches total sectional area
 Branch cables carrying 13.7 Amperes, comprised of 4 wires, each #18 S.W.G. diameter, .125 square inches total sectional area
 Branch cables carrying 6.5 Amperes, comprised of 4 wires, each #19 S.W.G. diameter, .087 square inches total sectional area
 Leads to lamps carrying 3 Amperes, comprised of 1 wires, each #16 S.W.G. diameter, .032 square inches total sectional area
 Cargo light cables carrying 2 Amperes, comprised of 1 wires, each #16 S.W.G. diameter, .032 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

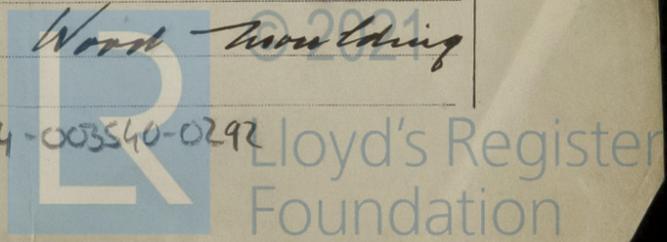
Rubber tapes, bands, no iron Conduit - Flexible Water tubing + wood moulding in Cabins

Joints in cables, how made, insulated, and protected Solignum, Rubber tape, braid in iron junction boxes.

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 Iron Conduit. Wood moulding in Bridge Quarters -



DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible no

What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture Iron conduit

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat Iron conduit

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

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

How are cables carried through beams Iron conduit through bulkheads, &c. Conduit & Glass

How are cables carried through decks W.T. Blanks

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 Iron conduit

Are any lamps fitted in ~~coal bunkers~~ spaces which may at times be used for cargo, coals, or baggage yes

If so, how are the lamp fittings and cable terminals specially protected W.T. Blanks, Iron Conduit, Glass cover blanks

Where are the main switches and fuses for these lights fitted Main Switchboard

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 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 ✓

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.

Newport News Shipbuilding & Dry Dock Co.,
 By A. H. Wood Electrical Engineers Date 22nd March 1918
 Assistant to the President

COMPASSES.

Distance between dynamo or electric motors and standard compass 125'

Distance between dynamo or electric motors and steering compass 120'

The nearest cables to the compasses are as follows:—

| | | | |
|------------------|--------------------|--------------------------------------|--------------------------------------|
| A cable carrying | <u>1/2</u> Amperes | <u>5</u> feet from standard compass | <u>2</u> feet from steering compass |
| A cable carrying | <u>3</u> Amperes | <u>15</u> feet from standard compass | <u>10</u> 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 ✓

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.

Newport News Shipbuilding & Dry Dock Co.,
 By A. H. Wood Builder's Signature. Date 22nd March 1918
 Assistant to the President

GENERAL REMARKS. The installation has been fitted in accordance with Rule requirements. The workmanship and protection are good. The vessel is eligible in my opinion to have the return "Electric Light"

It is submitted that this vessel is eligible for THE RECORD. ELEC. LIGHT yes
19-12-18.
Wm H. Sparrowden
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute Elec. dt.

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

56,817.—Transfer.

