

Oct 20 1917

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REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 108

Port of CLEVELAND, OHIO Date of First Survey 8 Sep 17 Date of Last Survey 8 Oct 17 No. of Visits 5
 No. in 1 on the Iron or Steel S.S. WAR PENGUIN Port belonging to Washington
 Reg. Book 1 Built at Cleveland, O. By whom The American Shipley Co When built 1917-10
 Owners U.S. Shipping Board, Emergency Fleet Owners' Address Washington
 Card No. 467 Electric Light Installation fitted by The American Shipley Co When fitted 1917

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One 7.4 K.W. 4 Pole compound wound dynamo, coupled to reciprocating engine at 525 R.P.M.
 Capacity of Dynamo 68 Amperes at 110 Volts, whether continuous or alternating current continuous
 Where is Dynamo fixed Engine Room Whether single or double wire system is used Double
 Position of Main Switch Board with having switches to groups — of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each One in aft cabin, two in midship cabin, 5 circuits each

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 125 arranged in the following groups:—

A Forecastle	9 lights each of	32	candle power requiring a total current of	3.5	Amperes
B E & D Deck	33 lights each of	32	candle power requiring a total current of	10	Amperes
C Midship Cabin	43 lights each of	32	candle power requiring a total current of	16	Amperes
D Aft cabin	20 lights each of	16	candle power requiring a total current of	10	Amperes
E Cargo lights	16 lights each of	16	candle power requiring a total current of	8	Amperes
2 Mast head light with	1 lamps each of	32	candle power requiring a total current of	2	Amperes
2 Side light with	1 lamps each of	32	candle power requiring a total current of	2	Amperes
Above	16 Cargo lights of	16	candle power, whether incandescent or arc lights	Incandescent	

If arc lights, what protection is provided against fire, sparks, &c. None used
 Where are the switches controlling the masthead and side lights placed Chart Room

DESCRIPTION OF CABLES.

Main cable carrying	<u>68</u> Amperes, comprised of	<u>7</u> wires, each	<u>4</u> <u>8.5</u> S.W.G. diameter, <u>292194</u> square inches total sectional area
Branch cables carrying	<u>24</u> Amperes, comprised of	<u>7</u> wires, each	<u>10</u> S.W.G. diameter, <u>72667</u> square inches total sectional area
Branch cables carrying	<u>24</u> Amperes, comprised of	<u>7</u> wires, each	<u>10</u> S.W.G. diameter, <u>72667</u> square inches total sectional area
Leads to lamps carrying	<u>12</u> Amperes, comprised of	<u>1</u> wires, each	<u>14</u> S.W.G. diameter, <u>4107</u> square inches total sectional area
Cargo light cables carrying	<u>13</u> Amperes, comprised of	<u>37</u> wires, each	<u>30</u> S.W.G. diameter, <u>37155</u> square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Rubber covered, double twisted, to specification and tests of National Board of Fire Underwriters
 Joints in cables, how made, insulated, and protected In case in junction boxes soldered, rubbered and Taped
 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 Steel conduit, used in cabins

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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 *Conduits and watertight fittings*

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

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

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

How are cables carried through beams *Steel Conduits* through bulkheads, &c. *Watertight fittings*

How are cables carried through decks *Watertight fittings*

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 conduits, covered & or through deck beams & clear of damage*

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 *-*

RETAIL

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.

Electrical Engineers

Date

COMPASSES.

Distance between dynamo or electric motors and standard compass *About 50 ft*

Distance between dynamo or electric motors and steering compass *with*

The nearest cables to the compasses are as follows:—

A cable carrying	<i>25</i> Amperes	<i>5</i> feet from standard compass	<i>5</i> feet from steering compass
A cable carrying	<i>-</i> Amperes	<i>-</i> feet from standard compass	<i>-</i> feet from steering compass
A cable carrying	<i>-</i> Amperes	<i>-</i> feet from standard compass	<i>-</i> 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 *1/2* degrees on *all* course in the case of the standard compass and *1/2* degrees on *all* course in the case of the steering compass.

Builder's Signature.

Date

8 Oct 1917

GENERAL REMARKS.

The above installation has been fitted in a satisfactory manner. The materials and workmanship employed being of a high quality.

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

AWD 20/11/17

N. Lane

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Elec. light

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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