

REPORT ON ELECTRIC LIGHTING INSTALLATION. No.

Report of Detroit. Mich Date of First Survey 28th Nov Date of Last Survey 21st Dec 1917 No. of Visits 6
 on the Leam-on Steel Steamer "War Martin" Port belonging to Washington
 Book Built at Lynardotte. Mich By whom Detroit Shipbuilding Co When built 1917
 Owners U.S. Shipping Board Emergency Fleet Corporation Owners' Address Washington. D.C. U.S.A.
 Card No. 214 Electric Light Installation fitted by Detroit Shipbuilding Co When fitted 1917

DESCRIPTION OF DYNAMO, ENGINE, ETC.

1/2 H.P. Ingersoll Generator. Compound 4 pole, direct coupled to a single cylinder vertical enclosed type engine.

Capacity of Dynamo 69 Amperes at 110 Volts, whether continuous or alternating current Continuous

Where is Dynamo fixed Engine Room platform Whether single or double wire system is used double

Position of Main Switch Board Engine Room platform having switches to groups 114 of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each
Crews quarters aft 4
Port Cabin 5
Starboard 5

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 Standard fuses

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

Total number of lights provided for 175 arranged in the following groups:—

<u>Crews quarters aft</u>	lights each of	<u>25</u>	candle power requiring a total current of	<u>4</u>	Amperes
<u>Port Cabin</u>	lights each of	<u>25</u>	candle power requiring a total current of	<u>5</u>	Amperes
<u>Starboard Cabin</u>	lights each of	<u>25</u>	candle power requiring a total current of	<u>5</u>	Amperes
<u>✓</u>	lights each of	<u>✓</u>	candle power requiring a total current of	<u>✓</u>	Amperes
<u>✓</u>	lights each of	<u>✓</u>	candle power requiring a total current of	<u>✓</u>	Amperes
<u>2 Mast head light</u>	with 1 lamps each of	<u>60 watts</u>	candle power requiring a total current of	<u>1/2</u>	Amperes
<u>2 Side light</u>	with 1 lamps each of	<u>60 watts</u>	candle power requiring a total current of	<u>1/2</u>	Amperes
<u>4 (4 light) Cargo lights</u>	of	<u>160 watts</u>	candle power, whether incandescent or arc lights	<u>incandescent</u>	

Are lights, what protection is provided against fire, sparks, &c. ✓

Where are the switches controlling the masthead and side lights placed Chart Room

DESCRIPTION OF CABLES.

69 see above.

Main cable carrying	<u>90</u> Amperes, comprised of	<u>2</u> wires, each	<u>no 2</u> S.W.G. diameter,	<u>66 370</u> square inches total sectional area
Branch cables carrying	<u>24</u> Amperes, comprised of	<u>2</u> wires, each	<u>no 10</u> S.W.G. diameter,	<u>10 380</u> square inches total sectional area
Branch cables carrying	<u>24</u> Amperes, comprised of	<u>2</u> wires, each	<u>no 10</u> S.W.G. diameter,	<u>10 380</u> square inches total sectional area
Leads to lamps carrying	<u>10</u> Amperes, comprised of	<u>2</u> wires, each	<u>no 14</u> S.W.G. diameter,	<u>4 107</u> square inches total sectional area
Cargo light cables carrying	<u>10</u> Amperes, comprised of	<u>2</u> wires, each	<u>no 14</u> S.W.G. diameter,	<u>4 107</u> square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Cables vulcanized rubber, double braided, led through wood mouldings: all other cables led through galvanized steel conduits

How are the joints in cables, how made, insulated, and protected all joints soldered, taped first with rubber, then covered with friction tape & given a heavy coating of P.V.C. solution

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 Through steel conduits except in cabins, where wood mouldings are used.



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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 *Steel conduits*

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

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

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

How are cables carried through beams *Steel Conduits* through bulkheads, &c. *W.T. Steel Conduits*

How are cables carried through decks *W.T. Steel Conduits*

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

If so, how are they protected *Steel 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 *Yes*

Where are the main switches and fuses for these lights fitted *Yes*

If in the spaces, how are they specially protected *No*

Are any switches or fuses fitted in bunkers *Yes*

Cargo light cables, whether portable or permanently fixed *Portable* How fixed *Plugs or deck house*

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel *Yes*

How are the returns from the lamps connected to the hull *Yes*

Are all the joints with the hull in accessible positions *Yes*

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 warrant that it is at this date in good order and safe working condition.

DETROIT SHIPBUILDING CO.

Harold A. G. Electrical Engineers

Date

COMPASSES.

Distance between dynamo or electric motors and standard compass

58 feet

Distance between dynamo or electric motors and steering compass

58 feet

The nearest cables to the compasses are as follows:—

Cable carrying	Amperes	feet from standard compass	feet from steering compass
<i>1/4</i>	<i>2</i>	<i>2</i>	<i>2</i>
<i>1/4</i>	<i>2</i>	<i>2</i>	<i>2</i>

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.

Builder's Signature. Date

GENERAL REMARKS.

This installation has been fitted in accordance with the Rules, and in a satisfactory manner, the materials and workmanship are sound & good. It has been tried under working conditions and found satisfactory.

It is submitted that this vessel is eligible for

THE RECORD. Elec. light.

J.W.D.

J.M.

J. Sells

Surveyor to Lloyd's Register of Shipping

Committee's Minute

Elec. Light



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