

July 24, 1920

THE AUG. 12 1920

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 2883

Port of Baltimore, Md. Date of First Survey May 6<sup>th</sup> Date of Last Survey June 30<sup>th</sup> No. of Visits 4  
 No. in Book 504 on the Iron or Steel Steamer John. R. Gibbons Port belonging to Philadelphia  
970 Built at Baltimore, Md. By whom Union Shipbuilding Co. When built 1920  
 Owners American Brauxite Co. Owners' Address Philadelphia, Pa.  
 Ord No. 8 Electric Light Installation fitted by Union Shipbuilding Co. When fitted 1920

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

2 Onberg generators direct driven by Onberg engines 6" x 6" 450 RPM.  
 Capacity of Dynamo each 87 Amperes at 110 Volts, whether continuous or alternating current continuous  
 There is Dynamo fixed on Weather deck in engine Room Whether single or double wire system is used double  
 Position of Main Switch Board near dynamos having switches to groups 13 of lights, &c., as below  
 Positions of auxiliary switch boards and numbers of switches on each all lights controlled directly from main  
switch board with snap switches at lights and fuses at junction boxes only.  
 Are fuses 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 134 arranged in the following groups :-

Group	Description	Watts	Candle Power	Current (Amperes)
A	<u>34</u> lights each of	<u>35</u> watts	<u>candle power</u> requiring a total current of	<u>7.7</u> Amperes
B	<u>28</u> lights each of	<u>25</u> "	<u>candle power</u> requiring a total current of	<u>14</u> Amperes
C	<u>54</u> lights each of	<u>25</u> "	<u>candle power</u> requiring a total current of	<u>28.5</u> Amperes
D	<u>26</u> lights each of	<u>25</u> "	<u>candle power</u> requiring a total current of	<u>8.2</u> Amperes
E	lights each of		<u>candle power</u> requiring a total current of	Amperes
2	Mast head light with <u>2</u> lamps each of	<u>40</u> watts	<u>candle power</u> requiring a total current of	<u>2</u> Amperes
2	Side light with <u>2</u> lamps each of	<u>40</u> "	<u>candle power</u> requiring a total current of	<u>2</u> Amperes
10	<u>clusters (4).</u> Cargo lights of	<u>240</u> "	<u>candle power, whether incandescent or arc lights</u>	<u>Incandescent</u>

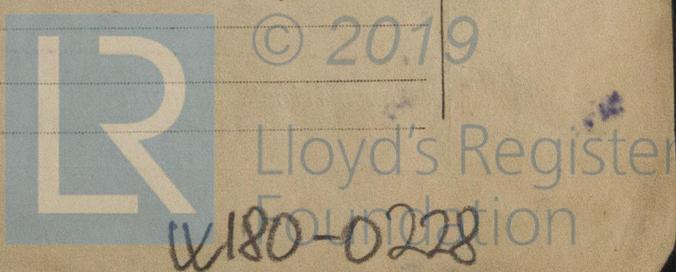
If arc lights, what protection is provided against fire, sparks, &c. Searchlight in metal case with glass door.  
 Where are the switches controlling the masthead and side lights placed On telltale board in pilot house.

## DESCRIPTION OF CABLES.

Main cable carrying 127 Amperes, comprised of 4 wires, each 0 S.W.G. diameter, 0.625 square inches total sectional area  
 Branch cables carrying 14 Amperes, comprised of 7 wires, each 10 S.W.G. diameter, 0.514 square inches total sectional area  
 Branch cables carrying 9.5 Amperes, comprised of 7 wires, each 12 S.W.G. diameter, 0.336 square inches total sectional area  
 Leads to lamps carrying 2 Amperes, comprised of 2 wires, each 14 S.W.G. diameter, 0.1225 square inches total sectional area  
 Cargo light cables carrying \_\_\_\_\_ Amperes, comprised of \_\_\_\_\_ wires, each \_\_\_\_\_ S.W.G. diameter, \_\_\_\_\_ square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

Main wiring in metal conduits. In midships accommodation wires insulated and covered with lead. All wires covered with standard insulation  
 Joints in cables, how made, insulated, and protected in junction boxes, some spliced and soldered covered with rubber tape with treated cotton and shellaced.  
 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 none  
 How are the cables led through the ship, and how protected In metal 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 *Metal Conduits*

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

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 " "

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 and air tight fittings*

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 —

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.

*W.A. Blakeman* Electrical Engineers Date

**COMPASSES.**

Distance between dynamo or electric motors and standard compass *113 feet.*

Distance between dynamo or electric motors and steering compass *110 feet.*

The nearest cables to the compasses are as follows:—

A cable carrying	<i>0.5</i>	Ampere	<i>0.5</i>	feet from standard compass	<i>0.5</i>	feet from steering compass
A cable carrying	<i>30</i>	Ampere	<i>10.0</i>	feet from standard compass	<i>5.0</i>	feet from steering compass
A cable carrying	<i>1</i>	Ampere	<i>0.75</i>	feet from standard compass	<i>6'-0"</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 *Nil* degrees on \_\_\_\_\_ course in the case of the standard compass and *Nil* degrees on \_\_\_\_\_ course in the case of the steering compass.

*W.A. Blakeman* Builder's Signature. Date

**GENERAL REMARKS.**

*Installation has been fitted in an efficient manner tried out under varying loads and found to work in a satisfactory manner*

THE RECORD. Elec Lt  
*Hell*  
*18/8/20*

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

Committee's Minute Elec Lt New York JUL 27 1920

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

