

Rpt. 13.

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19

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 3100

Port of *Baltimore Md* Date of First Survey *Feb 23rd* Date of Last Survey *March 26th* No. of Visits *9*
 No. in on the Iron or Steel *Steamer Agwipond* Port belonging to *New York*
 Reg. Book Built at *Sparrows pt. Md.* By whom *Bethlehem S.B. Corp.* When built *1921*
 Owners *Atlantic Gulf & West Indies S.S. Co* Owners' Address *New York*
 Yard No. *4206* Electric Light Installation fitted by *Bethlehem Shipbuilding Corp* When fitted *1921*

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Two 20 K.W. Generators made by General Electric Co. direct connected to a single vertical engine 400 R.P.M.

Capacity of Dynamo *182* Amperes at *110* Volts, whether continuous or alternating current *Continuous*

Where is Dynamo fixed *Dynamo flat Engine room* Whether single or double wire system is used *double*

Position of Main Switch Board *adjacent to dynamo* having switches to groups *A1-2 B1-2 C1-2 D1-2* lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each *On 10 Cir. panel Bridge deck, 10 Cir. panel midship house, pump room 8 Cir. panel, 10 + 4 Cir. panels Crews quarters port side 10 Cir. panel Crews quarters starboard side 10 Cir. panel engine room 10 Cir. panel Boilers room, Two 10 Cir. panel in Aft way (Household)*

If fuses are fitted on main switch board to the cables of main circuit *Cir. Breaker* 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

Are the fuses of non-oxidizable metal *yes* and constructed to fuse at an excess of *200* 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

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

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

<i>1 Bridge deck 58</i>		<i>21</i>		<i>13.18</i>	
<i>A 2 Crews quarters 63</i>	lights each of	<i>21</i>	candle power requiring a total current of	<i>17.3</i>	Amperes
<i>1 Deck portable 18</i>	lights each of	<i>21</i>	candle power requiring a total current of	<i>4.09</i>	Amperes
<i>B 2 " 10 ft</i>	lights each of	<i>21</i>	candle power requiring a total current of	<i>2.2</i>	Amperes
<i>1 Engine room 38</i>	lights each of	<i>21</i>	candle power requiring a total current of	<i>8.88</i>	Amperes
<i>C 1 Boilers room 21</i>	lights each of	<i>21</i>	candle power requiring a total current of	<i>4.77</i>	Amperes
<i>D Pump room 12</i>	lights each of	<i>21</i>	candle power requiring a total current of	<i>2.7</i>	Amperes
<i>1 Midship house 70</i>	lights each of	<i>18" 21</i>	candle power requiring a total current of	<i>15.9</i>	Amperes
<i>E 2 Search light 1</i>	lights each of	<i>18" 21</i>	candle power requiring a total current of	<i>33.0</i>	Amperes
<i>2 Mast head light with 2</i>	lamps each of	<i>40</i>	candle power requiring a total current of	<i>1.8</i>	Amperes
<i>2 Side light with 2</i>	lamps each of	<i>40</i>	candle power requiring a total current of	<i>1.8</i>	Amperes

6 Cargo clusters Cargo lights of 6 lamps each 240 candle power, whether incandescent or arc lights

If arc lights, what protection is provided against fire, sparks, &c. *no arc lights used*

Where are the switches controlling the masthead and side lights placed *Pilot house*

DESCRIPTION OF CABLES.

Main cable carrying <i>150</i> Amperes, comprised of <i>61</i> wires, each <i>#16</i>	S.W.G. diameter, <i>.1952</i>	square inches total sectional area
<i>13.18</i>	<i>#19</i>	<i>.0444</i>
Branch cables carrying <i>15.9</i> Amperes, comprised of wires, each <i>#19</i>	S.W.G. diameter, <i>.0732</i>	square inches total sectional area
<i>33</i>	<i>#18</i>	<i>.0304</i>
Branch cables carrying <i>14.3</i> Amperes, comprised of wires, each <i>#17</i>	S.W.G. diameter, <i>.0175</i>	square inches total sectional area
<i>#</i>	<i>#</i>	<i>#</i>
Leads to lamps carrying <i>.2</i> Amperes, comprised of wires, each <i>22</i>	S.W.G. diameter, <i>.0042</i>	square inches total sectional area
<i>#</i>	<i>#</i>	<i>#</i>
Cargo light cables carrying <i>2.7</i> Amperes, comprised of wires, each <i>30</i>	S.W.G. diameter, <i>.0017</i>	square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

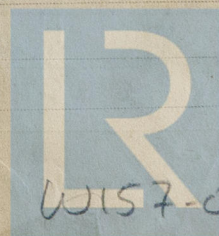
Heavy Standard Cable. The wires are stranded, rubber covered, taped with an insulating tape. Cabled with jute filler. Again taped & covered with a heavy cotton braid, impregnated with a waterproof insulating compound

Joints in cables, how made, insulated, and protected *All joints in cables are made with an approved type of cable splice, taped with rubber and friction tape*

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 rigid conduit*



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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 *rigid conduit*

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

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

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

How are cables carried through beams *run in conduit* through bulkheads, &c. *Conduit lock nuts both sides*

How are cables carried through decks *Conduit & stuffing boxes*

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 *run in conduit*

Are any lamps fitted in coal bunkers or 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 *By wire guards & junction boxes*

Where are the main switches and fuses for these lights fitted *Main Switch-board*

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 *Main Switch-board*

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 *yes*

Are any switches, fuses, or joints of cables fitted in the pump room or companion *no*

How are the lamps specially protected in places liable to the accumulation of vapour or gas *By gas light globes & guards*

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 *200* 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.

BETHLEHEM SHIPBUILDING CORP., LTD.
SPARROWS POINT PLANT

Electrical Engineers

Date

COMPASSES.

Distance between dynamo or electric motors and standard compass *150*

Distance between dynamo or electric motors and steering compass *155*

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
<i>5</i>	<i>1-1/2"</i>	<i>4-0"</i>	
<i>8</i>	<i>8"</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.

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

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

Elec. Lt. RCL 20/3/21

L. Rosworthy

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

New York

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