

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 17520

Port of New York Date of First Survey 16 July Date of Last Survey 28 Aug/9 No. of Visits 4  
 No. in 35 on the Steel S/S "Kewauke" Port belonging to Elizabethport, N.J.  
 No. Book Built at Elizabeth, New Jersey By whom Bethlehem Ship. Corp. Ltd When built 1919-8  
 Owners United States Shipping Board Owners' Address Philadelphia, Pa.  
 No. 117 Electric Light Installation fitted by Bethlehem Ship. Corp. Ltd When fitted 1919-8

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

2 General Electric, Type M.P. 6-10-475, Form C, 475 R.P.M.

Capacity of Dynamo 10 K.W. 91 Amperes at 110 Volts, whether continuous or alternating current D.C.

Where is Dynamo fixed Aft End of Engine Room Whether single or double wire system is used Double

Position of Main Switch Board Aft of Dynamo having switches to groups of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each 6 cir. Panel box in Forecastle.

8 " " " Amidships Quarters.

8 " " " Aft Quarters.

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

Whether 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 10 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 203 arranged in the following groups:—

Forecastle. 19 lights each of 25 watts, candle power requiring a total current of 8.71 Amperes

Midship Qtrs. 68 lights each of 25 " " candle power requiring a total current of 21.01 Amperes

Aft Quarters 72 lights each of 25 " " candle power requiring a total current of 22.88 Amperes

Eng. Room 34 lights each of 25 " " candle power requiring a total current of 8.84 Amperes

Searchlight. 1 lights each of 3850 " " candle power requiring a total current of 35.00 Amperes

1 Mast head light with 2 lamps each of 40 watt candle power requiring a total current of .33 Amperes

2 Side light with 1 lamps each of 40 " " candle power requiring a total current of .66 Amperes

6 Cargo lights of 240 " " candle power, whether incandescent or arc lights 11.88 "

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

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

## DESCRIPTION OF CABLES.

Main cable carrying 109.79 Amperes, comprised of wires, each S.W.G. diameter, 100,000 square inches total sectional area

Branch cables carrying 35.00 Amperes, comprised of wires, each S.W.G. diameter, 60,000 square inches total sectional area

Branch cables carrying 20.88 Amperes, comprised of wires, each S.W.G. diameter, 40,000 square inches total sectional area

Wires to lamps carrying 3.5 Amperes, comprised of wires, each S.W.G. diameter, 4,000 square inches total sectional area

Cargo light cables carrying .33 Amperes, comprised of wires, each S.W.G. diameter, 4,000 square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

1 U.S. Navy standard plain cable run in pipe throughout ship.

How are the joints in cables, how made, insulated, and protected 1. Soldered. 2. Rubber tape. 3. Friction tape.

4. Painted with P.B.

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 Run in iron pipe.



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 *Pipe*

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *Kept proper distance from same*

What special protection has been provided for the cables near boiler casings *Kept proper distance from same*

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

How are cables carried through beams *Pipe* through bulkheads, &c. *Pipe*

How are cables carried through decks *Pipe*

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 *Pipe*

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage *Yes in Cargo Hold*

If so, how are the lamp fittings and cable terminals specially protected *Used cargo hold fixtures*

Where are the main switches and fuses for these lights fitted *Panel in Forecastle*

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

Are any switches or fuses fitted in bunkers *No*

Cargo light cables, whether portable or permanently fixed *Both* How fixed *Strapped to deck*

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 on 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 *Vapor proof fixtures*

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 *625* 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.

*William Shipbuilding Corp. Home Plant* Electrical Engineers Date *Sept 20-1919*  
*Arthur L. Smith, Shipyard Manager*

COMPASSES.

Distance between dynamo or electric motors and standard compass *176 feet*

Distance between dynamo or electric motors and steering compass *175 feet*

The nearest cables to the compasses are as follows:—

| Cable                      | Amperes            | Feet from standard compass | Feet from steering compass |
|----------------------------|--------------------|----------------------------|----------------------------|
| A cable carrying <i>35</i> | <i>Searchlight</i> | <i>6</i>                   | <i>5</i>                   |
| A cable carrying <i>1</i>  |                    | <i>6</i>                   | <i>5</i>                   |
| A cable carrying <i>33</i> |                    | <i>6</i>                   | <i>5</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.

*William Shipbuilding Corp. Home Plant* Builder's Signature. Date *Sept 20-1919*  
*Arthur L. Smith, Shipyard Manager*

GENERAL REMARKS.

*The fitting of the wires throughout this vessel is as stated in this report & appears to be in accordance with the Committee's requirements.*

It is submitted that this vessel is eligible for THE RECORD Elec. light. *HUD* *18/10/19* *P. Hudson*  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute *Elec Lt*