

Rpt. 13.

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 147

Port of CLEVELAND, OHIO. Date of First Survey 9. 2. 18 Date of Last Survey 19. 4. 18 No. of Visits 7  
 No. in Reg. Book on the Iron or Steel S.S. Lake Jessup Port belonging to L. Rein  
 Built at L. Rein Ohio By whom The American Shipley Co When built 1915  
 Owners U.S. Shipping Board Emergency Fleet Corp. Address Washington  
 Yard No. 727 Electric Light Installation fitted by The American Shipley Co When fitted 1918

**DESCRIPTION OF DYNAMO, ENGINE, ETC.**

*Four Pole Dynamo direct connected to Reupercating Engine*

Capacity of Dynamo 60 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 Engine Room having switches to groups of lights, &c., as below  
 Positions of auxiliary switch boards and numbers of switches on each Two in Bridge Deck. 5 Circuits each  
One in Prop Space 5 Circuits

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 126 - 25 Watts arranged in the following groups:-  
 A Bridge Space lights each of 25 Watts candle power requiring a total current of 12.5 Amperes  
 B Prop. Space lights each of 25 candle power requiring a total current of 3.4 Amperes  
 C Fore Deck lights each of 25 candle power requiring a total current of 1.5 Amperes  
 D Middy Space lights each of 25 candle power requiring a total current of 7.3 Amperes  
 E White Light lights each of 25 candle power requiring a total current of 3.6 Amperes  
 2 Mast head light with 1 lamps each of 60 Watts candle power requiring a total current of 1.2 Amperes  
 2 Side light with 1 lamps each of 60 candle power requiring a total current of 1.2 Amperes

Above Cargo lights of as stated candle power, whether incandescent or arc lights Incandescent  
 If arc lights, what protection is provided against fire, sparks, &c. Incandescent. One 35 amp search light fitted top of Pilot House. a independent Circuit. Winkler fitted with.  
 Where are the switches controlling the masthead and side lights placed Pilot House

**DESCRIPTION OF CABLES.**

*CAPACITY.*  
 Main cable carrying 70 Amperes, comprised of 7 wires, each 12 S.W.G. diameter, 41763 square inches total sectional area  
 Branch cables carrying 50 Amperes, comprised of 7 wires, each 14 S.W.G. diameter, 26250 square inches total sectional area  
 Branch cables carrying 25 Amperes, comprised of 7 wires, each 18 S.W.G. diameter, 10392 square inches total sectional area  
 Leads to lamps carrying 15 Amperes, comprised of 1 wires, each 14 S.W.G. diameter, 4107 square inches total sectional area  
 Cargo light cables carrying 13 Amperes, comprised of 37 wires, each 30 S.W.G. diameter, 37157 square inches total sectional area

**DESCRIPTION OF INSULATION, PROTECTION, ETC.**

Natural gut Rubber, double twisted. To specification and tests of National Board of Fire Underwriters.

Joints in cables, how made, insulated, and protected Soldered, Rubbed 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 bunks, 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 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. *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 *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. *W. T. fittings* ✓

How are cables carried through decks *Water tight fittings* ✓

Are any cables run through coal bunkers *Yes* or cargo spaces *Yes* or spaces which may be used for carrying cargo, stores, or baggage *Yes*

If so, how are they protected *Steel conduit covered three or clapped to such extent as to be safe from 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 *Plug Boxes*

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 *Eng. Room*

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.

*[Signature]* 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 \_\_\_\_\_

The nearest cables to the compasses are as follows:—

A cable carrying _____ Amperes	_____ feet from standard compass	_____ feet from steering compass
A cable carrying _____ Amperes	_____ feet from standard compass	_____ feet from steering compass
A cable carrying _____ Amperes	_____ feet from standard compass	_____ feet from steering compass

Have the compasses been adjusted with and without the electric installation at work at full power *Kept level up, but yet adjusted*

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.

*The American Ship Building Co.* Builder's Signature. Date \_\_\_\_\_

GENERAL REMARKS.

The above installation has been fitted in a satisfactory manner. The material and workmanship employed, so far as can be seen, are sound and good.

It is submitted that this vessel is eligible for THE RECORD. Elec. light. *HW 6/6/18.* *M. Lane* Surveyor to Lloyd's Register of Shipping.

Committee's Minute *Elec light*

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

118—Transfer.

