

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 3277

Port of Gloucester N.J. Date of First Survey \_\_\_\_\_ Date of Last Survey \_\_\_\_\_ No. of Visits \_\_\_\_\_  
 No. in Reg. Book on the ~~Iron~~ or Steel Cargo Vessel "Henry Clay" Port belonging to Gloucester N.J.  
 Built at Gloucester N.J. By whom Pusey & Jones Co When built 1919  
 Owners \_\_\_\_\_ Owners' Address \_\_\_\_\_  
 Yard No. \_\_\_\_\_ Electric Light Installation fitted by Pusey & Jones Co When fitted 1919

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

2-15 K.W. Westinghouse-Sturtevant Direct Current Engine Generating sets

Capacity of Dynamo 136 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 \_\_\_\_\_ of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each No Auxiliary Switchboard

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 100% 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 none used

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

Total number of lights provided for 161 arranged in the following groups:—

Group	Number of Lights	Lights each of	Watts	Candle power	requiring a total current of	Amperes
A	121	40	4800	44	44	Amperes
B	30	25	1500	6.8	6.8	Amperes
C	10	60	3600	5.4	5.4	Amperes
D						Amperes
E						Amperes
1	Mast head light with 2 lamps each of 60	60	3600	6	6	Amperes
2	Side light with 2 lamps each of 120	120	7200	1.6	1.6	Amperes
9	Cargo lights (6 lights ea.) or 3240			1.2	1.2	Amperes

If arc lights, what protection is provided against fire, sparks, &c. \_\_\_\_\_

Where are the switches controlling the masthead and side lights placed Main Board with tell tale panel in Pilot House

## DESCRIPTION OF CABLES.

Main cable carrying 136 Amperes, comprised of 3 wires, each #10 S.W.G. diameter, .24867 square inches total sectional area

Branch cables carrying 15 Amperes, comprised of 2 wires, each #10 S.W.G. diameter, .01631 square inches total sectional area

Branch cables carrying \_\_\_\_\_ Amperes, comprised of \_\_\_\_\_ wires, each \_\_\_\_\_ S.W.G. diameter, \_\_\_\_\_ square inches total sectional area

Leads to lamps carrying 6 Amperes, comprised of 2 wires, each #14 S.W.G. diameter, .0655 square inches total sectional area

Cargo light cables carrying 4.9 Amperes, comprised of 2 wires, each #14 S.W.G. diameter, .0655 square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

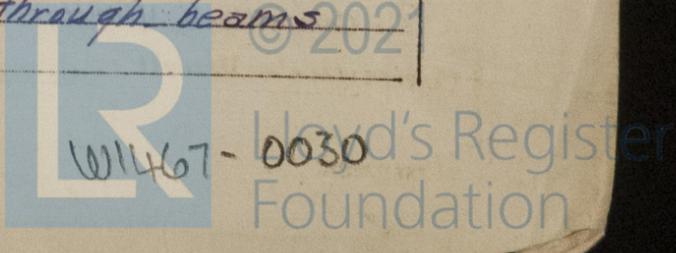
This vessel is wired throughout with Lead and Armored Cable

Joints in cables, how made, insulated, and protected No joints made

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances \_\_\_\_\_ 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 where cables are led through beams lead bushings are used.



**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 lead and armored cable

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat lead and Armored cable

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 lead bushings through bulkheads, &c. stuffing tubes

How are cables carried through decks Rick pipes

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

If so, how are they protected -

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 Switch & Receptacles & plugs

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 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 -

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.

E. Schlesinger Electrical Engineers Date 8-May-19

**COMPASSES.**

Distance between dynamo or electric motors and standard compass 200 feet

Distance between dynamo or electric motors and steering compass 210 "

The nearest cables to the compasses are as follows:—

A cable carrying <u>.02</u> Amperes <u>2</u> feet from standard compass <u>2</u> 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

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.

Joseph S. Stull Gen Supt. Builder's Signature. Date May 10, 1919

**GENERAL REMARKS.**

All cables within 10 feet of compasses are stripped of the steel armored sheathing.

The installation has been well fitted aboard, and proved satisfactory on trial

J. Adamson Surveyor to Lloyd's Register of Shipping.

Committee's Minute Elec Lt New York JUN 17 1919

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

