

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 4252

Port of Newport News, Va. Date of First Survey July 16, 27 Date of Last Survey Aug 2<sup>nd</sup> No. of Visits 3

No. in Reg. Book 6220 on the Iron or Steel S/S "CHAMBLEE" Built at Duluth, Minn. Port belonging to New York, N.Y.

Owners Hammond Lumber Company. By whom McDougall Duluth Co. When built 1919

Yard No. 1332 Electric Light Installation fitted by Rudberg Co. Owners' Address 260-California St., San Francisco Cal. When fitted 1919

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

One 6" pole Dynamo direct connected to reciprocating engines at 450 revolutions per minute.

Capacity of Dynamo 91 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 one bridge deck, one in poop spaces 5 circuits each.

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 \_\_\_\_\_

Is vessel wired on the double wire system are fuses fitted to both flow and return wires or cables of all circuits Yes and to each lamp circuit No.

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 132 arranged in the following groups:—

Forecastle spaces 12 lights each of 25 watts candle power requiring a total current of 2.8 Amperes

Midship " 47 lights each of 25 " candle power requiring a total current of 10.7 Amperes

Poop " 20 lights each of 25 " candle power requiring a total current of 4.6 Amperes

Machinery " 33 lights each of 40 " candle power requiring a total current of 12.0 Amperes

Cargo Light 16 lights each of 60 " candle power requiring a total current of 9.0 Amperes

Mast head light with 1 lamps each of 120 watts candle power requiring a total current of 2.2 Amperes

Side light with 1 lamps each of 120 " candle power requiring a total current of 2.2 Amperes

Cargo lights of as stated candle power, whether incandescent or arc lights incandescent.

Are lights, what protection is provided against fire, sparks, &c. None used for cargo. Wireless installation

Are the switches controlling the masthead and side lights placed Pilot house.

## DESCRIPTION OF CABLES.

Capacity of cable carrying 107 Amperes, comprised of 19 wires, each 15 f B.S. diameter, 83690 Cir. miles square inches total sectional area

Cables carrying 65 Amperes, comprised of 7 wires, each 18.44 G. diameter, 26250 square inches total sectional area

Cables carrying 32 Amperes, comprised of 7 wires, each 18.44 G. diameter, 10380 square inches total sectional area

Cables to lamps carrying 16 Amperes, comprised of 1 wires, each 18.44 G. diameter, 4107 square inches total sectional area

Light cables carrying 13 Amperes, comprised of 37 wires, each S.W.G. diameter, 37158 sq. inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

Insulated rubber double braided to specification and tests of National Board of Fire

Writers.

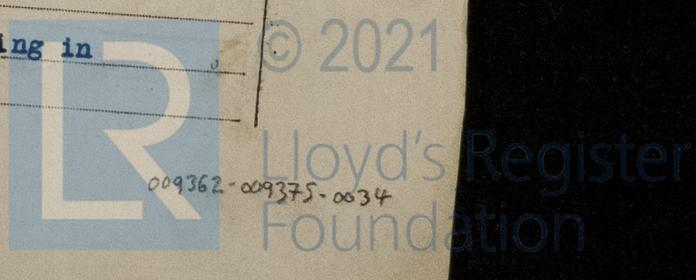
Cables, how made, insulated, and protected Soldered, rubbered and taped.

Are 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

Shipp any joints in or branches from the cable leading from dynamo to main switch board No.

Are the cables led through the ship, and how protected Steel conduits were exposed, wood moulding in



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 **steel conduits.**

What special protection has been provided for the cables in engine room **steel conduits.**

How are cables carried through beams **steel conduits** through bulkheads, &c. **W.T. fittings.**

How are cables carried through decks **W.T. 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 conduits through or clipped to deck beams and 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 **engine 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.

Electrical Engineers Date

COMPASSES.

Distance between dynamo or electric motors and standard compass **about 50 feet.**

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

The nearest cables to the compasses are as follows:—

A cable carrying	<b>.25</b>	Ampere	<b>.5</b>	feet from standard compass	<b>.5</b>	feet from steering compass
A cable carrying	<input checked="" type="checkbox"/>	Ampere	<input checked="" type="checkbox"/>	feet from standard compass	<input checked="" type="checkbox"/>	feet from steering compass
A cable carrying	<input checked="" type="checkbox"/>	Ampere	<input checked="" type="checkbox"/>	feet from standard compass	<input checked="" type="checkbox"/>	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 \_\_\_\_\_ 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.

This electric lighting installation has been fitted in a satisfactory manner and has been tested out and found efficient. It appears to be in accordance with the Committee's requirements and I am of the opinion that the Notation of "Electric light" should appear in the Register Book in the case of this vessel.

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

Electric light

*J. Hudson*  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

NEW YORK AUG 10 1927

Electric light



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THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.