

17 JAN 1927

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 4192.

Port of Newport News, Va. Date of First Survey Sept. 15th Date of Last Survey Dec. 11th No. of Visits 8.

No. in Reg. Book 87938 on the Iron Steel S/S "ALGONQUIN" Port belonging to New York, N.Y.

Built at Newport News, Va. By whom N.Ns.S.B. & D.D.Co. When built 1926.

Owners Cherokee & Seminole S.S.Co. Owners' Address New York, N.Y.

Yard No. 317 Electric Light Installation fitted by N.Ns.S.B. & D.D.Co., When fitted 1926.

DESCRIPTION OF DYNAMO, ENGINE, ETC.

1-100 & 2-60 K.W. 250 D.C. Compound Wound. Multipolar Turbine Driven. ✓

Generating sets Mfg. by Westinghouse El. & Mfg. Co. ✓

Capacity of Dynamo 820 (total) Amperes at 250 ✓ Volts, whether continuous or alternating current continuous ✓
(double with 2 wires)

Where is Dynamo fixed Engine room starboard side ✓ Whether single or double wire system is used (Sys. for Ltg. panels.)

Position of Main Switch Board Engine room starboard side ✓ of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each 20 distribution panels with total of 215

circuits (Av. 11 circuits per panel each located at nearest available position to the center of its connected load.)

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 _____

Are the fuses of non-oxidizable metal Yes and constructed to fuse at an excess of 25% 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 1700 arranged in the following groups:—

Group	Description	Lights	Each of	Candle Power	Requiring a total current of	Amperes
A						
B						
C						
D						
E						
1	Mast head light with	2	lamps each of	40	candle power requiring a total current of	0.43 Amperes
2	Side light with	2	lamps each of	40	candle power requiring a total current of	0.87 Amperes
191	Cargo lights of	3820			candle power, whether incandescent or arc lights	Inc.

If arc lights, what protection is provided against fire, sparks, &c. Wheel House.

Where are the switches controlling the masthead and side lights placed _____

DESCRIPTION OF CABLES.

Main cable carrying 400 Amperes, comprised of 61 wires, each #32 S.W.G. diameter, .628 square inches total sectional area

Branch cables carrying 35 Amperes, comprised of 7 wires, each #16 S.W.G. diameter, .026 square inches total sectional area

Branch cables carrying 56 Amperes, comprised of 19 wires, each #17 S.W.G. diameter, .066 square inches total sectional area

Leads to lamps carrying 8 Amperes, comprised of 7 wires, each #23 S.W.G. diameter, .004 square inches total sectional area

Cargo light cables carrying 11 Amperes, comprised of 7 wires, each #18 S.W.G. diameter, .008 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Lighting leads in passenger spaces not exposed to moisture-rubber insulated spiral armoured. All other cable rubber insulated basket weave armoured and leaded.

Joints in cables, how made, insulated, and protected By splicing, soldering and taping in junction boxes and by clamped connections in suitable receptacles.

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 Secured by metal clips spaced 14" to 18" apart and piped where required for mechanical protection.



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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 Leaded and armoured.

Cable used in such spaces.

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat Leaded and armoured.

What special protection has been provided for the cables near boiler casings Leaded and armoured.

What special protection has been provided for the cables in engine room Leaded and armoured.

How are cables carried through beams Drilled holes-rounded edges through bulkheads, &c. stuffing tubes.

How are cables carried through decks kick pipes extending 18" above deck & W.T. at upper end.

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 Leaded and armoured and protected by heavy iron angles where required.

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 heavy iron guards.

Where are the main switches and fuses for these lights fitted entirely outside such spaces.

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 Yes. How fixed permanently.

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 Yes.

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 210' from main dynamo-90' from nearest motor.

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
<u>2</u>	<u>5</u>	<u>5</u>	<u>feet from steering compass</u>
<u>28</u>	<u>7</u>	<u>12</u>	<u>feet from steering compass</u>
<u>64</u>	<u>40</u>	<u>45</u>	<u>feet from steering compass</u>

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.

Thos. G. Davis

Builder's Signature.

Date

Jan. 8/27

GENERAL REMARKS.

The fitting of the wires throughout this vessel is as stated in this report, and appears to be in accordance with the Committee's requirements. A full load test was carried out and all found to be in good working order. This installation is similar to that fitted on the S/S "CHEROKEE", "SEMINOLE" and "MOHAWK".

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

JWD
26/1/27
P. J. Hudson
Surveyor to Lloyd's Register of Shipping.

Committee's Minute NEW YORK JAN - 5 1927

Note Electric Light



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