

Rpt. 13.

Received at London Office

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 259.

Port of Cleveland Date of First Survey 7 June Date of Last Survey Oct 10 No. of Visits 7
 No. in Reg. Book 5/8 "SENECA" (N^o 495) Port belonging to Cleveland Ohio
 Built at Cleveland Ohio By whom American Shipbuilding Corp. When built 1920
 Owners Independent Steamship Co. Owners' Address Cleveland Ohio
 Yard No. 495 Electric Light Installation fitted by American Shipbuilding Corp. When fitted 1920

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One 6 pole dynamo, direct connected to reciprocating engine
R.P.M. 450 (N^o 3754)
 Capacity of Dynamo 90 Amperes at 110 Volts, whether continuous or alternating current Continuous
 Where is Dynamo fixed Engine Room, Bottom Platform Whether single or double wire system is used ✓
 Position of Main Switch Board " " having switches to groups ✓ of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each Two on Bridge Deck, one in fore
spaces, 5 circuits each
 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 no
 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 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 no (other fuses)
 Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases yes
 Total number of lights provided for 154 arranged in the following groups:—
 A Bridge spaces lights each of 25 to 40 Watts candle power requiring a total current of 14.5 Amperes
 B Machinery " lights each of " " candle power requiring a total current of 17.2 Amperes
 C Forecastle " lights each of " " candle power requiring a total current of 4.2 Amperes
 D Roop " lights each of " " candle power requiring a total current of 7.0 Amperes
 E Portable lights lights each of 50 Watts candle power requiring a total current of 8.7 Amperes
2 Mast head light with 2 lamps each of 120 Watts candle power requiring a total current of 2.2 Amperes
2 Side light with 2 lamps each of " candle power requiring a total current of 2.2 Amperes
Above Cargo lights of As stated candle power, whether incandescent or arc lights Incandescent
 If are lights, what protection is provided against fire, sparks, &c. none used for cargo, wireless fitted on independent circuit
 Where are the switches controlling the masthead and side lights placed Pilot House

DESCRIPTION OF CABLES.

Capacity 110 Amperes, comprised of 19 wires, each 13 S.W.G. diameter, 90496 square inches total sectional area
 Main cable carrying 1 wires, each 14 S.W.G. diameter, 45045 square inches total sectional area
 Branch cables carrying 45 Amperes, comprised of 11 wires, each 18 S.W.G. diameter, 11620 square inches total sectional area
 Branch cables carrying 21 Amperes, comprised of 7 wires, each 14 S.W.G. diameter, 4095 square inches total sectional area
 Leads to lamps carrying 5 Amperes, comprised of 1 wires, each 28 S.W.G. diameter, 3256 square inches total sectional area
 Cargo light cables carrying 16 Amperes, comprised of 17 wires, each 28 S.W.G. diameter, 3256 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

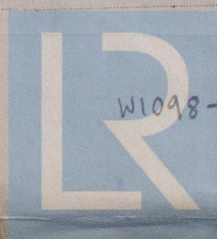
Vulcanized rubber double braided to specification & tests of National Board of Fire Underwriters

Joints in cables, how made, insulated, and protected Soldered, rubbered & 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 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 Steel conduits where exposed, wood moulding in cabins



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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 *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 *Steel Conduits*

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—run thru deck beams, or clipped thereto, & 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.

The American Ship Bldg Co 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 *About 50 feet*

The nearest cables to the compasses are as follows:—

A cable carrying *25* Amperes *5'* feet from standard compass *5'* 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 *Not 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 Bldg Co Builder's Signature. Date *5/11/20*

GENERAL REMARKS.

The above installation has been fitted in a satisfactory manner. The materials & workmanship employed therein so far as can be seen are found good.

It is submitted that this vessel is eligible for

THE RECORD. Elec Light

G. Drummond

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Elec Lt

New York NOV - 9 1920