

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 11

Port of Detroit, Mich. Date of First Survey July 18th Date of Last Survey Augt. 9th No. of Visits 4
 No. in on the ~~Iron~~ or Steel single screw steamer "JAUTE" Port belonging to Christiania
 reg. Book Built at Wigandotte, Mich. By whom Detroit S B Coy When built 1916
 Owners Pim Pimstad and Coy. Owners' Address E. Skibgaden, Christiania
 Card No. 197 Electric Light Installation fitted by Detroit S B Coy. When fitted 1916

DESCRIPTION OF DYNAMO, ENGINE, ETC.

4 1/2 K.W. Engberg generator compound wound, 4 pole, direct connected to single cylinder (6 1/2") vertical, enclosed type engine. 500 R.P.M.
 Capacity of Dynamo 69 Amperes at 110 Volts, whether continuous or alternating current Continuous
 Where is Dynamo fixed Starboard side engine room platform Whether single or double wire system is used double
 Position of Main Switch Board S.S. engine room platform having switches to groups 14 of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each Crew quarters aft 4. Port cabin 5. Starboard cabin 5.

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 30 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 175 arranged in the following groups:—
 A Aft crew quarters lights each of 25 Watts candle power requiring a total current of 5 Amperes
 B Port cabin lights each of 25 " candle power requiring a total current of 5 Amperes
 C Starboard cabin lights each of 25 " candle power requiring a total current of 5 Amperes
 D lights each of candle power requiring a total current of Amperes
 E lights each of candle power requiring a total current of Amperes
 1 Mast head light with 2 lamps each of 60 Watts candle power requiring a total current of 2 1/2 Amperes
 2 Side light with 2 lamps each of 60 " candle power requiring a total current of 2 1/2 Amperes
 4-4 light deck Cargo lights of 160 Watts candle power, whether incandescent or arc lights Incandescent
 If arc lights, what protection is provided against fire, sparks, &c. No arc lights

Where are the switches controlling the masthead and side lights placed Chart room

DESCRIPTION OF CABLES.

Main cable carrying 90 Amperes, comprised of 2 wires, each N^o 2 B.S.G. S.W.G. diameter, 66370 square inches total sectional area
 Branch cables carrying 24 Amperes, comprised of 2 wires, each N^o 10 S.W.G. diameter, 10380 square inches total sectional area
 Branch cables carrying 24 Amperes, comprised of 2 wires, each N^o 10 S.W.G. diameter, 10380 square inches total sectional area
 Leads to lamps carrying 10 Amperes, comprised of 2 wires, each N^o 14 S.W.G. diameter, 4107 square inches total sectional area
 Cargo light cables carrying 2 Amperes, comprised of 2 wires, each N^o 14 S.W.G. diameter, 4107 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Cables - Vulcanized rubber double braided led thro' wood moulding.
All other parts, led thro' galvanized steel conduit 1/2" & 3/4" sizes

Joints in cables, how made, insulated, and protected All joints soldered, taped first with rubber then covered with friction tape and given a heavy coat of P.B. insulating paint.

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 Through steel conduits, except in cabins where wooden mouldings are used.

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Web Frames, de
BULKHEADS
V.T.BULKHEAD
Boiler Room
ENGINE ROOM
AFTER PEAK
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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 *Galvanized steel conduits, watertight.*
What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *Galvanized steel conduits.*
What special protection has been provided for the cables near boiler casings *Galvanized steel conduits.*
What special protection has been provided for the cables in engine room *Galvanized steel conduits.*
How are cables carried through beams *Conduits.*
How are cables carried through decks *Conduits.* through bulkheads, &c. *Conduits.*
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 *Plugs of bulkheads.*
In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel *No*
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 *switchboard*

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° Farhenheit 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.

COMPASSES.

Electrical Engineers Date

Distance between dynamo or electric motors and standard compass *50 feet*
Distance between dynamo or electric motors and steering compass *50 feet*
The nearest cables to the compasses are as follows:—
A cable carrying *1/4* Amperes *2* feet from standard compass *2* feet from steering compass
A cable carrying *1/4* Amperes *2* feet from standard compass *2* 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 standard compass and degrees on course in the case of the steering compass.

DETROIT SHIPBUILDING CO.

GENERAL REMARKS.

This installation of electric light has been well fitted. The material and workmanship are good. It has been tried under full working conditions and found satisfactory.

It is submitted that this vessel is eligible for

THE BROOD. Elec. light. JWD 7/10/16

J. G. Road

Committee's Minute New York SEP 21 1916

Surveyor to Lloyd's Register of Shipping.

Elec. Light