

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 6

Port of PORT ARTHUR, ONT. Date of First Survey Sept. 1st. Date of Last Survey May. 13/14 No. of Visits 50
 No. in on the 1878 Steel Screw Pass. & Freight "Neronic" Port belonging to Northern Navigation Co. Ltd.
 Reg. Book Built at PORT ARTHUR, ONTARIO. By whom WESTERN DRY DOCK & SBCo. Ltd. When built 11/13.
 Owners Northern Navigation Company Limited Owners' Address Sarnia, Ontario.
 Yard No. 6. Electric Light Installation fitted by Western Dry Dock & SHBCo. Ltd. When fitted 11/13.

DESCRIPTION OF DYNAMO, ENGINE, ETC.

2- Crocker & Wheeler Dynamos 50 K. W. Compound wound. Size 53D, Type CCD. 275 R.P.M. direct connected to a American Blower Co. Engine.

Capacity of Dynamo 400 Amperes at 125 Volts, whether continuous or alternating current CONTINUOUS.

Where is Dynamo fixed Port Engine Room. Whether single or double wire system is used DOUBLE.

Position of Main Switch Board Port Side Engine room having switches to groups Twenty Seven Cir. of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each Engine Room One 16 Circuit Board, Entrance Hall One 6 Circuit Board, Spar Deck Four 8 Circuit Boards, Promenade Deck Four 8 Circuit Boards, Observation Deck One 16 Circuit Board, Boat Deck One 6, 8 & 12 Circuit Boards, Pilot House 1-50B.

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-oxidisable metal YES and constructed to fuse at an excess of 250/o 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 WIRE FUSES.

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

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

A <u>Engine Room</u> lights each of _____ candle power requiring a total current of _____ Amperes
B <u>Entrance Hall</u> lights each of _____ candle power requiring a total current of _____ Amperes
C <u>Spar Deck</u> lights each of _____ candle power requiring a total current of _____ Amperes
D <u>" " Aft.</u> lights each of _____ candle power requiring a total current of _____ Amperes
E <u>Promenade Deck.</u> lights each of _____ candle power requiring a total current of _____ Amperes
<u>ONE</u> Mast head light with <u>TWO</u> lamps each of <u>Thirty Two</u> candle power requiring a total current of <u>TWO</u> Amperes
<u>TWO</u> Side light with " lamps each of " " candle power requiring a total current of <u>FOUR</u> Amperes
<u>Eighty Four</u> Cargo lights of <u>Sixteen</u> candle power, whether incandescent or arc lights <u>Incandescent.</u>

If arc lights, what protection is provided against fire, sparks, &c. NO ARC.

Where are the switches controlling the masthead and side lights placed in Pilot House on tell tale board.

DESCRIPTION OF CABLES.

Main cable carrying _____ Amperes, comprised of _____ wires, each _____ S.W.G. diameter, _____ square inches total sectional area
Branch cables carrying _____ Amperes, comprised of _____ wires, each _____ S.W.G. diameter, _____ 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 _____ Amperes, comprised of _____ wires, each _____ S.W.G. diameter, _____ square inches total sectional area
Cargo light cables carrying _____ Amperes, comprised of _____ wires, each _____ S.W.G. diameter, _____ square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

All Wires are 3/32" R. C. and Braid Marine Wires. All in Metal Conduits with Vapor Proof fittings throughout, except inside cabins.

Joints in cables, how made, insulated, and protected All joints are mechanically secure, Soldered, Rubber, Friction tape and Painted with insulating compound.

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 in Loricated Conduits.



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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 **in metal conduits.**

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat **Conduits.**

What special protection has been provided for the cables near boiler casings **Conduits.**

What special protection has been provided for the cables in engine room **Metal Conduits.**

How are cables carried through beams **Metal Conduits.** through bulkheads, &c.

How are cables carried through decks **Conduit Bushings.**

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 **Metal Conduits.**

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 **Vapor Proof Fixture and Guard.**

Where are the main switches and fuses for these lights fitted **in Engine Room.**

If in the spaces, how are they specially protected **NONE.**

Are any switches or fuses fitted in bunkers **NO.**

Cargo light cables, whether portable or permanently fixed **PERMANENT**

How fixed **BOLTED TO BEAMS.**

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.** sized **on 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 _____ 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.

WESTERN DRY DOCK & SHIPBUILDING COMPANY Ltd. Electrical Engineers

Date **November 26th 1914**

COMPASSES.

Distance between dynamo or electric motors and standard compass

Distance between dynamo or electric motors and steering compass

The nearest cables to the compasses are as follows:—

A cable carrying **One & One half** Amperes **Thirty** feet from standard compass **Thirty** 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 **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.

WESTERN DRY DOCK & SHIPBUILDING Co. Ltd.

no one around to sign this

Builder's Signature, Date **June 5th 1914.**

GENERAL REMARKS. All Signal Lights are operated from an Automatic Tell Tale Board in Pilot House which indicates when a light goes out. The Main Switchboard has both fused main switch and circuit breakers. There is Tell Tale Lights on Main Switchboard and all circuits in cargo holds and signal lights. There is a ground detection switch on main board.

The workmanship and Materials are good.

It is submitted that this vessel is eligible for

THE RECORD, Elec. light.

JWD 17/11

Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.