Rpt. 13.

Received at London Office _____ 19

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 1299

Port of New Glasgow N.S. Date of First Survey Aug 31/20 Date of Last Survey Sept. 16/20 No. of Visits 11

No. in Reg. Book _____ on the ~~Iron or~~ Steel Screw steamer "Volunda" Port belonging to Pictou, N.S.

Built at New Glasgow N.S. By whom Nova Scotia Steel & Coal Co. When built 1920

Owners Wasis Steamship Co Lim Owners' Address New Glasgow N.S.

Yard No. 7 Electric Light Installation fitted by Nova Scotia Steel & Coal Co. When fitted 1920

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Dynamo:- 4 pole Compound wound: 10 K.W. 110 volts.
Engine:- Single Cylinder open type: direct Connected to Dynamo.

Capacity of Dynamo 85 Amperes at 110 Volts, whether continuous or alternating current Continuous

Where is Dynamo fixed Stbd. side of Engine room Whether single or double wire system is used Double wire

Position of Main Switch Board 4' aft of Dynamo having switches to groups 6 of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each Engine room 1-5 switches: Galley 1-3 switches Steward's pantry 1-3 switches: Crews gtts. aft 1-3 switches: Crews gtts' fwd 1-2 switches Wheelhouse 1-4 switches.

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 3 ✓ 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 125 arranged in the following groups :—

A	18	lights each of	25 watts	candle power requiring a total current of	3.5 Amperes
B	18	lights each of	25 "	candle power requiring a total current of	3.5 Amperes
C	18	lights each of	25 "	candle power requiring a total current of	3.5 Amperes
D	36	lights each of	15 "	candle power requiring a total current of	3.5 Amperes
E	14	lights each of	25 "	candle power requiring a total current of	5 Amperes
	2	Mast head light with 2 lamps each of	60	candle power requiring a total current of	3.5 Amperes
	2	Side light with 2 lamps each of	60	candle power requiring a total current of	1 Amperes
	12	Cargo lights of	40	candle power requiring a total current of	1 Amperes

If arc lights, what protection is provided against fire, sparks, &c. — candle power, whether incandescent or arc lights Incandescent

Where are the switches controlling the masthead and side lights placed One Telltale Switchboard in Wheelhouse

DESCRIPTION OF CABLES.

Main cable carrying	125	Amperes, comprised of	19	wires, each	14	S.W.G. diameter, _____ square inches total sectional area
Branch cables carrying	14	Amperes, comprised of	7	wires, each	18	S.W.G. diameter, _____ square inches total sectional area
Branch cables carrying	10	Amperes, comprised of	7	wires, each	18	S.W.G. diameter, _____ square inches total sectional area
Leads to lamps carrying	5	Amperes, comprised of	1	wires, each	14	S.W.G. diameter, 14 1076 M. square inches total sectional area
Cargo light cables carrying	14	Amperes, comprised of	7	wires, each	18	S.W.G. diameter, _____ square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

All wire in machinery spaces holds and other exposed places, are lead Covered and armoured with wire braid galvanized iron wire; in cabins with lead-covered wire.

Joints in cables, how made, insulated, and protected Made in cast-iron junction boxes insulated with two plies of rubber Splicing tape and two plies of black friction tape.

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 Clamped with double end clips and covered with wood where exposed and leads to injury.

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 All are lead covered

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat Armoured cable

What special protection has been provided for the cables near boiler casings Armoured cable

What special protection has been provided for the cables in engine room "

How are cables carried through beams in lead bushings *through bulkheads, &c.* with water-tight gland

How are cables carried through decks with deck tubes about 18" long, bushed with wood

Are any cables run through coal bunkers yes *or cargo spaces* yes *or spaces which may be used for carrying cargo, stores, or baggage* —

If so, how are they protected with wood casings.

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 with wood casings

Where are the main switches and fuses for these lights fitted in Engine room

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 permanent *How fixed* with double end clips and cased with wood

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 Yes

Is the installation supplied with a voltmeter yes, *and with an amperemeter* yes, *fixed* 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.

Nova Scotia Steel & Coal Co. Limited

Electrical Engineers *Date* Sept 27/20

COMPASSES.

Distance between dynamo or electric motors and standard compass About eighty feet

Distance between dynamo or electric motors and steering compass About seventy five feet

The nearest cables to the compasses are as follows:—

A cable carrying 1/2 *Amperes* 1 *feet from standard compass* 1 *feet from steering compass*

A cable carrying 1/2 *Amperes* 1 *feet from standard compass* 6 *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.*

Nova Scotia Steel & Coal Co. Limited

Builder's Signature. *Date* Sept 27/20

GENERAL REMARKS.

The Electric-light installation on this vessel has been efficiently fitted tried and found in good order and safe working condition.

It is submitted that this vessel is eligible for THE RECORD. Elec. Light RCM 21/12/20

Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 24 DEC. 1920

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

Im.11,18.—Transfer.