

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 125

Port of TORONTO Date of First Survey APR 24 Date of Last Survey JUNE 19, 19 No. of Visits 5
 No. in on the ~~Iron~~ Steel SS "GENERAL MORRISON" Port belonging to TORONTO
 leg. Book Built at TORONTO By whom DOMINION SHIPBUILDING CO LTD When built 1919
 Owners DOMINION SHIPBUILDING CO LTD Owners' Address TORONTO
 Yard No. 2 Electric Light Installation fitted by DOMINION SHIPBUILDING CO When fitted 1919

DESCRIPTION OF DYNAMO, ENGINE, ETC.

ONE 7 1/2 KW. ENBERG, DIRECT, CONNECTED GENERATING SET.

Capacity of Dynamo 66 Amperes at 115 Volts, whether continuous or alternating current CONTINUOUS
 Where is Dynamo fixed ENG. ROOM, FRONT PLATFORM. Whether single or double wire system is used DOUBLE
 Position of Main Switch Board ON BULKHEAD, NEAR DYNAMO having switches to groups 13 SWITCHES of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each 1. STD. CABIN. 6 SWITCHES. - 1. PORT CABIN. 6 SWITCHES. - 1. POOP. 6 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 YES
 Are the fuses of non-oxidizable metal YES and constructed to fuse at an excess of 50.2 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 139 arranged in the following groups:—
 A ENG. ROOM. 36 lights each of 16 candle power requiring a total current of 14.5 Amperes
 B CABIN PORT. 28 lights each of 16 candle power requiring a total current of 11.2 Amperes
 C STD. 25 lights each of 16 candle power requiring a total current of 10.0 Amperes
 D POOP. 21 lights each of 16 candle power requiring a total current of 8.3 Amperes
 E FORECASTLE 5 lights each of 16 candle power requiring a total current of 2.0 Amperes
2 Mast head light with 1 lamps each of 32 candle power requiring a total current of 1.5 Amperes
2 Side light with 1 lamps each of 32 candle power requiring a total current of 1.0 Amperes
4 CLUSTERS OF 5 Cargo lights of 16 candle power, whether incandescent or arc lights INCANDESCENT

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

Where are the switches controlling the masthead and side lights placed WHEEL HOUSE

DESCRIPTION OF CABLES.

				MILLS.		
Main cable carrying	<u>58</u>	Amperes, comprised of	<u>20</u>	wires, each	<u>57.1</u>	S.W.G. diameter, <u>.005</u> square inches total sectional area
Branch cables carrying	<u>14.5</u>	Amperes, comprised of	<u>7</u>	wires, each	<u>36</u>	S.W.G. diameter, <u>.007</u> square inches total sectional area
Branch cables carrying	<u>8</u>	Amperes, comprised of	<u>1</u>	wires, each	<u>64</u>	S.W.G. diameter, <u>.003</u> square inches total sectional area
Leads to lamps carrying	<u>8</u>	Amperes, comprised of	<u>1</u>	wires, each	<u>64</u>	S.W.G. diameter, <u>.003</u> square inches total sectional area
Cargo light cables carrying	<u>3</u>	Amperes, comprised of	<u>1</u>	wires, each	<u>64</u>	S.W.G. diameter, <u>.003</u> square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

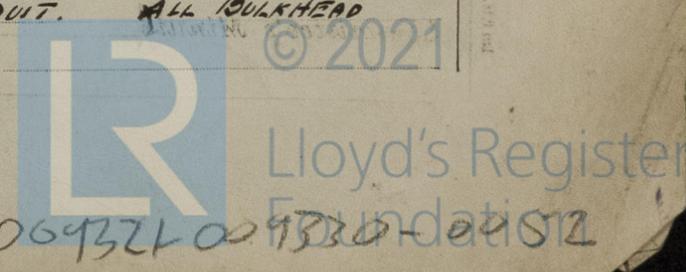
ALL WIRES DOUBLE BRAID. - RUBBER COVERED. - 600 VOLT TEST.
MAIN WIRES IN CONDUIT. - CABIN WIRES IN STEEL BRAID DUPLEX

Joints in cables, how made, insulated, and protected JOINTS SOLDERED. - RUBBERED. - TAPED & VARNISHED.
PROTECTED IN W. T. METAL JUNCTION BOXES.

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 GALVANIZED METAL CONDUIT. ALL BULKHEAD LEADS IN W. T. FITTINGS.



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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 METAL CONDUIT

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat METAL CONDUIT. NO WOOD

What special protection has been provided for the cables near boiler casings METAL CONDUIT. NO WOOD

What special protection has been provided for the cables in engine room METAL CONDUIT. NO WOOD

How are cables carried through beams IN CONDUIT. through bulkheads, &c. W.T. METAL FITTINGS.

How are cables carried through decks W.T. METAL FITTINGS.

Are any cables run through coal bunkers NO or cargo spaces NO or spaces which may be used for carrying cargo, stores, or baggage YES

If so, how are they protected IN CONDUIT. PROPERLY SECURED

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 PERMANENT. How fixed IN CONDUIT. FIXED ON BULKHEAD.

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 ON SWITCH BOARD.

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 300 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.

DOMINION SHIPBUILDING COMPANY LIMITED

Electrical Engineers

Date

June 28/19

COMPASSES.

Distance between dynamo or electric motors and standard compass 60 Ft.

Distance between dynamo or electric motors and steering compass 52 Ft.

The nearest cables to the compasses are as follows:—

A cable carrying	<u>1.5</u>	Amperes	<u>5</u>	feet from standard compass	<u>4</u>	feet from steering compass
A cable carrying	<u>2</u>	Amperes	<u>8</u>	feet from standard compass	<u>12</u>	feet from steering compass
A cable carrying	<u>1.5</u>	Amperes	<u>6</u>	feet from standard compass	<u>14</u>	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 nil degrees on _____ course in the case of the standard compass and nil degrees on _____ course in the case of the steering compass.

DOMINION SHIPBUILDING COMPANY LIMITED

Builder's Signature.

Date

June 28/19

GENERAL REMARKS. THIS INSTALLATION HAS BEEN FITTED ACCORDING TO RULES, AND TESTED UNDER FULL AND VARYING LOADS AND FOUND SATISFACTORY.

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

J.W.D. 27/7/19

Alexander Scott

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

J.M.

FRI. 25 JUL. 1919

TUES. 29. 1919

