Rpt. 13.

30 JUN 1928

Received at London Office _____ 19

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 2907

Port of Montreal. Date of First Survey 2nd Feb. 1928 Date of Last Survey 16th May 1928 No. of Visits 16.

No. in Reg. Book _____ on ~~the Iron or~~ Steel Twin Sc. "Quebec" Port belonging to Montreal

Built at Langon Quebec By whom Davie Shipbuilding & Repairing C°. L^d. When built 1928.

Owners Canada Steamship Lines L^d. Owners' Address

Yard No. 497. Electric Light Installation fitted by Davie Shipbuilding & Repairing C°. L^d. When fitted 1928.

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Three (3) 50 K.W. Turbo Generators, Elliot C°. Turbine
General Electric Generator. 75 H.P. 3600 R.P.M.

Capacity of Dynamo 3 - 400 Amperes at 125 Volts, whether continuous or alternating current Continuous

Where is Dynamo fixed On "D" deck in engine casing Whether single or double wire system is used double

Position of Main Switch Board adjacent to dynamos having switches to groups 14 panels of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each As shown on attached sheet

If fuses are fitted on main switch board to the cables of main circuit Circuit breakers 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 Standard fuses and constructed to fuse at an excess of 25% 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 ~

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 _____ lights each of _____ candle power requiring a total current of _____ Amperes

B _____ lights each of _____ candle power requiring a total current of _____ Amperes

C _____ lights each of _____ candle power requiring a total current of _____ 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

_____ Mast head light with 2 lamps each of 50 W. candle power requiring a total current of 1 Amperes

_____ Side light with 2 lamps each of 50 W. candle power requiring a total current of 1 Amperes

_____ Cargo lights of _____ candle power, whether incandescent or arc lights _____

attached sheet

If arc lights, what protection is provided against fire, sparks, &c. None used except Projector on Pilot house which is totally enclosed

Where are the switches controlling the masthead and side lights placed In Pilot house by automatic telltale

DESCRIPTION OF CABLES. Main cable, 500000 Cm? see below

Main cable carrying 400 Amperes, comprised of 61 wires, each #11 B&S. S.W.G. diameter, _____ square inches total sectional area

Branch cables carrying _____ Amperes, comprised of 1 wires, each 14 B&S S.W.G. diameter, .00321 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

See Below

DESCRIPTION OF INSULATION, PROTECTION, ETC.

All wires standard 600 Volts, none smaller than #14 B&S. All wires in machinery spaces run in Conduit. All passenger, Public rooms and Crews quarters wired with #14 single lead on rubber #14 to #8 3/64" rubber insulat
#00 - 500000 C.M. 4/64" rubber

Joints in cables, how made, insulated, and protected #14 B&S. screw Connectors fibre insulating sleeve over large wires spliced and soldered, rubber tape and friction tape. All joints made in metal 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 Feeders to distributing panels in rigid iron conduit.

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 Watertight fittings used also lead covered cables

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat Iron conduit kept at distance from source of heat

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

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

How are cables carried through beams Lead covered cables with bushings *through bulkheads, &c.* Watertight glands

How are cables carried through decks Deck tubes and watertight conduit fittings

Are any cables run through coal bunkers no *or cargo spaces* Yes *or spaces which may be used for carrying cargo, stores, or baggage* Yes

If so, how are they protected Run in conduit and guarded fixtures

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage no lamps in bunkers

If so, how are the lamp fittings and cable terminals specially protected Watertight fixtures in freight spaces guarded.

Where are the main switches and fuses for these lights fitted In control panel

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 ✓ *How fixed* ✓

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* Yes

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.

Electrical Engineers *Date*

COMPASSES.

Distance between dynamo or electric motors and standard compass 142 feet

Distance between dynamo or electric motors and steering compass 149 feet

The nearest cables to the compasses are as follows:—

A cable carrying 35 *Amperes* 5 *feet from standard compass* 8 *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 without

The maximum deviation due to electric currents, etc., was found to be *degrees on* *course in the case of the standard compass* *course in the case of the steering compass.*

DAVIE SHIPBUILDING & REPAIRING COMPANY, Limited,

Geo. D. Davie Manager *Builder's Signature.* *Date* 4th June 1928.

GENERAL REMARKS.

This vessel has been fitted with an Electric Light installation as above and the workmanship is good.

On completion it was tested out under full working conditions and found satisfactory.

Elec Light

G.S.T. 5/7/28. Geo. Allan *Surveyor to Lloyd's Register of Shipping.*

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE AGR...

Im.11.18.—Transfer.