

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 1571

Port of Montreal Que. Date of First Survey July 23 Date of Last Survey Aug. 26 No. of Visits 11  
 No. in Reg. Book on the Iron or Steel S.S. "Samnanger" Port belonging to Montreal  
 Built at Montreal, Que. By whom Canadian Dickers Ltd When built 1918  
 Owners Wesfall Larsen. (Furness Withy & Co) Owners' Address \_\_\_\_\_  
 Yard No. 9 Electric Light Installation fitted by Canadian Dickers Ltd When fitted 1918

### DESCRIPTION OF DYNAMO, ENGINE, ETC.

1- 10 H.P. direct coupled generating set of Vickers, Goldie-McBallough manufacture Enclosed forced lubrication engine.  
 Capacity of Dynamo 91 Amperes at 110 Volts, whether continuous or alternating current continuous  
 Where is Dynamo fixed Bottom platform of Engine Room Whether single or double wire system is used Double  
 Position of Main Switch Board " " " " having switches to groups A B C & D of lights, &c., as below  
 Positions of auxiliary switch boards and numbers of switches on each No auxiliary switch boards. Fixed distribution boxes 1 in Engine Room - 1 in Officers Pantry - 1 in Engineers pantry - 1 in Chart House - 1 in Crews quarters all 10 way.  
 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 100 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 Cartridge fuses  
 Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases Yes  
 Total number of lights provided for 158 arranged in the following groups :-  
 A Eng. Bk Room 36 lights each of 5-16cp. 31-40W. candle power requiring a total current of 14 Amperes  
 B Food Accommodation 41 lights each of 4-15W. 8-25W. 29-40W. candle power requiring a total current of 13.6 Amperes  
 C Nav. circuit 22 lights each of 6-8cp. 3-2 1/2cp. 2-5cp. candle power requiring a total current of 3.65 Amperes  
 D Off Accom 19 lights each of 1-16cp. 4-25W. 14-40W. candle power requiring a total current of 6.55 Amperes  
 E lights each of \_\_\_\_\_ candle power requiring a total current of \_\_\_\_\_ Amperes  
 2 Mast head light with 1 lamps each of 2 1/2 candle power requiring a total current of .16 Amperes  
 2 Side light with 1 lamp each of 5 candle power requiring a total current of .35 Amperes  
 5 Cargo lights of clusters each of 6-32 candle power, whether incandescent or arc lights incandescent  
 If arc lights, what protection is provided against fire, sparks, &c. No arc lamps.

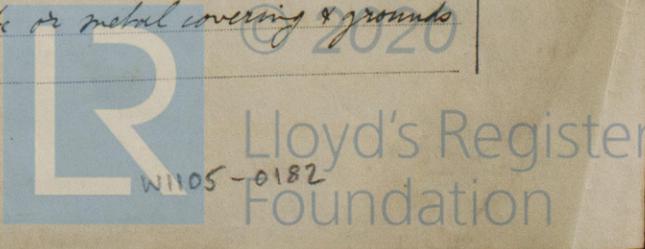
Where are the switches controlling the masthead and side lights placed Inside Chart house on Navigating bell pole.

### DESCRIPTION OF CABLES.

Main cable carrying 90-100 Amperes, comprised of 19 wires, each # 10 S.W.G. diameter, 1.535 square inches total sectional area  
 Branch cables carrying \_\_\_\_\_ Amperes, comprised of 7 wires, each # 10 S.W.G. diameter, .081 square inches total sectional area  
 Branch cables carrying \_\_\_\_\_ Amperes, comprised of 7 wires, each # 8 S.W.G. diameter, .0729 square inches total sectional area  
 Leads to lamps carrying \_\_\_\_\_ Amperes, comprised of 7 wires, each # 14 S.W.G. diameter, .0224 square inches total sectional area  
 Cargo light cables carrying 35 Amperes, comprised of 7 wires, each # 6 S.W.G. diameter, .0206 square inches total sectional area

### DESCRIPTION OF INSULATION, PROTECTION, ETC.

Rubber insulated, lead covered in accommodation spaces, Rubber covered lead covered and steel wire braided in Machinery Spaces  
 Joints in cables, how made, insulated, and protected No joints all connections in W.T. boxes to special terminal blocks  
 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 bunks, 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 Securely clipped to casings or metal covering & grounds



**DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.**

Are they in places always accessible *Yes except for a short length under the bridge deck.*  
 What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture *All lead covered*  
 What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *Lead covered & armoured*  
 What special protection has been provided for the cables near boiler casings *Lead covered*  
 What special protection has been provided for the cables in engine room *Lead covered & armoured*  
 How are cables carried through beams *Through lead bushes.* through bulkheads; &c. *W.T. glands*  
 How are cables carried through decks *Through W.T. deck tubes.*  
 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 *Lead covered and armoured and in steel steel 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 *Special heavy fixtures with heavy cast guards*  
 Where are the main switches and fuses for these lights fitted *On main switch board in Engine Room.*  
 If in the spaces, how are they specially protected   
 Are any switches or fuses fitted in bunkers *Yes Ins W.T. switches*  
 Cargo light cables, whether portable or permanently fixed *Permanently fixed to socket & W.T. switch for portable lead to clusters* 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 *on sideboard*

**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 *350* 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.

*M. Miller* Electrical Engineers Date \_\_\_\_\_

**COMPASSES.**

Distance between dynamo or electric motors and standard compass *120 ft*  
 Distance between dynamo or electric motors and steering compass *100 ft*  
 The nearest cables to the compasses are as follows:— *No separate single lead or return wire near compasses.*  
 A cable carrying \_\_\_\_\_ Amperes \_\_\_\_\_ feet from standard compass \_\_\_\_\_ 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  
 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.

*M. Miller* Builder's Signature. Date \_\_\_\_\_

**GENERAL REMARKS.**

*The compass is lighted by an electric lamp & wires are run as feeds for same but are around clipped together. The materials & workmanship of this installation are good. The whole installation has been examined under full working conditions and found satisfactory.*

*It is submitted that this vessel is eligible for THE RECORD. ELEC. LIGHT.*  
*J. H. Alderson*  
 15-10-18

*H. J. Alderson*  
 Surveyor to Lloyd's Register of Shipping.

TUE. 15 OCT. 1918

Committee's Minute

FRI. 25 OCT. 1918



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