

REPORT ON ELECTRIC LIGHTING INSTALLATION.

Received at London Office

24 AUG 1889

No. 3089

3089

Port of Montreal

Date of First Survey

Date of Last Survey

No. of Visits

No. in
Reg. Bookon the ~~Iron~~ or Steel Triple screw "Fleur-de-lis"

Port belonging to

Built at MontrealBy whom Canadian Vickers Ltd.When built 1929Owners Canadian GovernmentOwners' Address OttawaYard No. 108

Electric Light Installation fitted by

Canadian Vickers Ltd.When fitted 1929

DESCRIPTION OF DYNAMO, ENGINE, ETC.

2. Main Generators, Westinghouse Electric Lighting 600 P.P.M. Compound Style 83

1. Turbo Generator for emergency purposes $7\frac{1}{2}$ H.P. Style National 6" Type 7.

Capacity of Dynamos

167

Amperes at

120Volts, whether continuous or alternating current Direct currentWhere is Dynamo fixed 1 Port & 1 Star side of Eng. RoomWhether single or double wire system is used DoublePosition of Main Switch Board Port side of Engine Room having switches to groups9

of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each 1 Distribution box in Engine Room 22 lights and 6 plugs, 1 Distribution box in aft accommodation, 17 lights & 3 plugs, 1 Distribution box in Wheel house 13 lights & 7 plugs, 1 Dist. box For Acc. 27 lights & 2 plugs, 1 Dist. box Night lights 11 lights and 2 Cluster plugs.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 YesIf 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 YesAre the fuses of non-oxidizable metal Yesand constructed to fuse at an excess of 25%

per cent over the normal current

Are all fuses fitted in easily accessible positions YesAre 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 YesAre all switches and fuses constructed of incombustible materials and fitted on incombustible bases YesTotal number of lights provided for 90 + 20 Plug outlets arranged in the following groups:-

A	6 Plugs	13	lights each of	40 ^{Watts}	candle power requiring a total current of	7	Amperes
B	3 "	13	lights each of	25 "	candle power requiring a total current of	6	Amperes
C	7 "	10	lights each of	40 "	candle power requiring a total current of	6	Amperes
D	2 "	21	lights each of	25 ^{Watts}	candle power requiring a total current of	9	Amperes
E	2 "	11	lights each of	40 "	candle power requiring a total current of	5	Amperes
1	Mast head light with	2	lamps each of	16	candle power requiring a total current of		Amperes
2	Side light with	2	lamps each of	16	candle power requiring a total current of		Amperes
✓	Cargo lights of				candle power, whether incandescent or arc lights		Amperes

If arc lights, what protection is provided against fire, sparks, &c. Search light is grounded to steel deck frameWhere are the switches controlling the masthead and side lights placed in Wheel house on Bell-tale Indicator

DESCRIPTION OF CABLES.

Main cable carrying	167	Amperes, comprised of	19	wires, each	105.5	S.W.G. diameter, .16619	square inches total sectional area
Branch cables carrying	50	Amperes, comprised of	7	wires, each	.62	S.W.G. diameter, .020618	square inches total sectional area
Branch cables carrying	10	Amperes, comprised of	7	wires, each	38.5	S.W.G. diameter, .0081548	square inches total sectional area
Leads to lamps carrying	5	Amperes, comprised of	7	wires, each	24.2	S.W.G. diameter, .0032254	square inches total sectional area
Cargo light cables carrying	3	Amperes, comprised of	7	wires, each	24.2	S.W.G. diameter, .0032254	square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Rubber insulated lead covered, also rubber moulded lead covered and armouredJoints in cables, how made, insulated, and protected all on loop in system, no jointsAre all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances no joints 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 noAre there any joints in or branches from the cable leading from dynamo to main switch board noHow are the cables led through the ship, and how protected on sheet metal runways lead covered and armoured wires used, lead bushings through beams, bulkhead glands and deck

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 *✓*

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *Protected by asbestos*

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

What special protection has been provided for the cables in engine room *Armoured cables and conduits*

How are cables carried through beams *through lead bushings* through bulkheads, &c. *bulkhead glands*

How are cables carried through decks *deck tubes*

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

If so, how are they protected *✓*

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage *✓*

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 *✓*

Cargo light cables, whether portable or permanently fixed *Portable* How fixed *on ship's casing*

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel *2 wire system*

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 - 2* 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 *N.E. standard* 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 *50 feet*

Distance between dynamo or electric motors and steering compass *55 "*

The nearest cables to the compasses are as follows:—

A cable carrying <i>1/4</i>	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. Wardle Builder's Signature. Date *Aug 2nd 29.*

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.

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

See \$90.00 24.10.29 APR. 6/9/29

G. Allan Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 6 SEP 1925

Electric light



Lloyd's Register Foundation