

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 1047

Port of Vancouver BC Date of First Survey 11 April Date of Last Survey 19 May 1923 No. of Visits 6
 No. in Reg. Book on the Iron or Steel Wood. T.S.M. "MOTOR PRINCESS" Port belonging to Victoria BC.
 Built at Esquimalt BC By whom Yarrow's Limited When built 1923-5
 Owners Canadian Pacific Railway Co. Owners' Address Montreal, Que.
 Yard No. 666 Electric Light Installation fitted by Yarrow's Limited When fitted 1923

DESCRIPTION OF DYNAMO, ENGINE, ETC.

1-10 H.P. Continuous current compound wound dynamo. Diesel Engine.

Capacity of Dynamo 80 Amperes at 125 Volts, whether continuous or alternating current Continuous
 Where is Dynamo fixed at Centre Line Aft of the Mast Whether single or double wire system is used Double
 Position of Main Switch Board at Centre Line in Engine Room having switches to groups of 6 main feeders of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each 1. 4 circuit feeder in 4. 4 circuit distribution in Pilot House. 1. 2 c. feeder & 2. 6 c. distribution in Engine Room. 1. 12 c. distribution in Upper deck. 2. 3 c. feeder & 6. 6 c. distribution & 1 Search Light from Main switch Board.
 Are fuses 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 cressel 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 10 to 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 yes
 Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases yes

Total number of lights provided for 228 arranged in the following groups :-

A	<u>43</u>	lights each of	<u>27</u>	candle power requiring a total current of	<u>10.75</u>	Amperes
B	<u>56</u>	lights each of	<u>27</u>	candle power requiring a total current of	<u>14</u>	Amperes
C	<u>98</u>	lights each of	<u>27</u>	candle power requiring a total current of	<u>24 1/2</u>	Amperes
D	<u>31</u>	lights each of	<u>27</u>	candle power requiring a total current of	<u>7.75</u>	Amperes
E		lights each of		candle power requiring a total current of		Amperes
	<u>1</u>	Mast head light with	<u>1</u> lamps each of <u>30</u>	candle power requiring a total current of	<u>1/4</u>	Amperes
	<u>1</u>	Side light with	<u>1</u> lamps each of <u>30</u>	candle power requiring a total current of	<u>1/4</u>	Amperes
	<u>none</u>	Cargo lights of	<u>yes</u>	candle power, whether incandescent or arc lights	<u>yes</u>	

If arc lights, what protection is provided against fire, sparks, &c. yes

Where are the switches controlling the masthead and side lights placed Pilot House

DESCRIPTION OF CABLES.

Main cable carrying 80 Amperes, comprised of 2 wires, each 3/0 S.W.G. diameter, 0.1318 square inches total sectional area
 Branch cables carrying 24 Amperes, comprised of 2 wires, each 6 S.W.G. diameter, 0.02895 square inches total sectional area
 Branch cables carrying 10 Amperes, comprised of 2 wires, each 10 S.W.G. diameter, 0.01287 square inches total sectional area
 Leads to lamps carrying 1 Amperes, comprised of 2 wires, each 16 S.W.G. diameter, 0.03217 square inches total sectional area
 Cargo light cables carrying yes Amperes, comprised of yes wires, each yes S.W.G. diameter, yes square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Main and branch cables insulated with rubber & lead and steel wire braided.
Lamp circuit wires #16 B.S.S. Rubber insulation.
 Joints in cables, how made, insulated, and protected All wires are looped in & connections are made under screws without any braid in wire.

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 yes, soldered in lugs.
 How are the cables led through the ship, and how protected protected with steel armour, the armour is not cased in.

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 *lead covers and steel armour with watertight fittings*

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

What special protection has been provided for the cables near boiler casings *none required*

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

How are cables carried through beams *none* through bulkheads, &c. *none*

How are cables carried through decks *Watertight bushing*

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

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 *no*

If so, how are the lamp fittings and cable terminals specially protected *✓*

Where are the main switches and fuses for these lights fitted *none*

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 *none*

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.

Smith Robinson & Co Ltd

Electrical Engineers

Date *May 29/23*

COMPASSES. *for C. Ascroft*

Distance between dynamo or electric motors and standard compass *75'-0"*

Distance between dynamo or electric motors and steering compass *76'-0"*

The nearest cables to the compasses are as follows:—

A cable carrying <i>35</i> Amperes <i>25</i> feet from standard compass <i>6</i> 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 *yes*

The maximum deviation due to electric currents, etc., was found to be *no* degrees on *any* course in the case of the standard compass and *no* degrees on *any* course in the case of the steering compass.

FOR YARROWS, LIMITED

N. J. Harris

Builder's Signature:

Date *23rd May 1923*

GENERAL REMARKS.

The Electric Light installation is of good quality it has been tested under working conditions and found satisfactory & is eligible in my opinion to be noted "Electric Light" in the Register Book.

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

Survey Fee: *\$100-*

Fee applied for *25th May 1923*

J. W. van Edwards
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Elec. Light

FRI 20 JUN 1924
TUES. 18 AUG 1925



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2m. 11.19.—Transfer.