

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 25374

Port of Ball Date of First Survey Aug 2nd Date of Last Survey Aug 14th No. of Visits 6
 No. in Reg. Book 67 on the Iron or Steel of Tractor BALDWIN Port belonging to Rykyarik
 Built at Petty By whom Frederick S. M. When built 1912
 Owners Alfred S. S. Thorsen Owners' Address Campbell & Schenck St. When fitted 1912-8
 Yard No. Electric Light Installation fitted by

DESCRIPTION OF DYNAMO, ENGINE, ETC.

A Campbell & Schenck four pole compound wound continuous current dynamo direct coupled to a Brown single cylinder, vertical enclosed engine.

Capacity of Dynamo 30 Amperes at 100 Volts, whether continuous or alternating current Continuous

Where is Dynamo fixed Star side of engine room Whether single or double wire system is used Double

Position of Main Switch Board Star having switches to groups 3 of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each Wheelhouse & a switch to each light

If cut outs 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 cut outs fitted to both flow and return wires or cables of all circuits including lamp circuits Yes

Are the cut outs of non-oxidizable metal Yes and constructed to fuse at an excess of 75 per cent over the normal current

Are all cut outs 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 cut-outs constructed of incombustible materials and fitted on incombustible bases Yes

Total number of lights provided for 47 arranged in the following groups:—

A	<u>Masthead</u> 5 lights each of <u>32</u>	candle power requiring a total current of <u>5.5</u>	Amperes
B	<u>Masthead</u> 22 lights each of <u>16</u>	candle power requiring a total current of <u>12.1</u>	Amperes
C	<u>Aft</u> 20 lights each of <u>16</u>	candle power requiring a total current of <u>11.55</u>	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
	<u>3</u> Mast head light with <u>1</u> lamps each of <u>32</u>	candle power requiring a total current of	Amperes
	<u>2</u> Side light with <u>1</u> lamps each of <u>32</u>	candle power requiring a total current of	Amperes
	<u>(5 each) 2</u> Cargo lights of <u>16</u>	candle power, whether incandescent or arc lights <u>Incandescent</u>	

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

Where are the switches controlling the masthead and side lights placed Wheelhouse

DESCRIPTION OF CABLES.

Main cable carrying 30 Amperes, comprised of 19 wires, each 18 L.S.G. diameter, .034 square inches total sectional area

Branch cables carrying 12.1 Amperes, comprised of 7 wires, each 18 L.S.G. diameter, .012 square inches total sectional area

Branch cables carrying 5.5 Amperes, comprised of 7 wires, each 20 L.S.G. diameter, .007 square inches total sectional area

Leads to lamps carrying 1.65 Amperes, comprised of 1 wires, each 18 L.S.G. diameter, .0018 square inches total sectional area

Cargo light cables carrying 2.75 Amperes, comprised of 60 wires, each 30 L.S.G. diameter, .0066 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

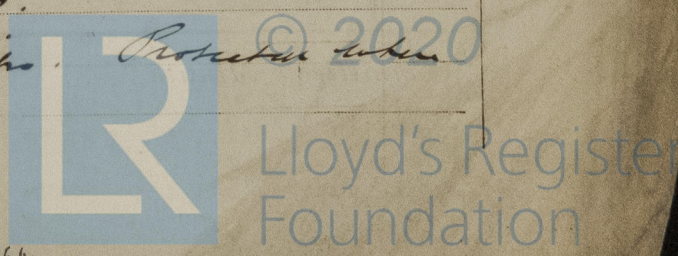
Vulcanized rubber & lead covers
Lead covers & amoures

Joints in cables, how made, insulated, and protected None

Are all the joints of cables thoroughly soldered, resin only having been used as a flux ✓ 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 ✓

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 Lined with non clip. Protected with necessary with sheet lead for chafing.



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 *Sawed galvanized iron pipe*

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *Lead covered, armoured, braid*

What special protection has been provided for the cables near boiler casings *5*

What special protection has been provided for the cables in engine room *5*

How are cables carried through beams *Like furring* through bulkheads, &c. *W.T. flanges*

How are cables carried through decks *W.T. socket flanges & deck*

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 *Lead covered, armoured, braid*

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 cut outs for these lights fitted *✓*

If in the spaces, how are they specially protected *✓*

Are any switches or cut outs fitted in bunkers *✓*

Cargo light cables, whether portable or permanently fixed *Portable* How fixed *Spun in cable & P.T. Box*

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 *✓*

The installation is _____ supplied with a voltmeter and _____ an amperemeter, fixed *in Purkin's trunk*

VESSELS BUILT FOR CARRYING PETROLEUM.

In vessels built for carrying petroleum, are all switches and cut-outs fitted in positions not liable to the accumulation of petroleum vapour or gas

Are any switches, cut outs, 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 _____ per cent. that of pure copper.

Insulation of cables is guaranteed to have a resistance of not less than _____ megohms per statute mile after 24 hours' immersion in seawater.

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.

Campbell & Sheppard Electrical Engineers Date *28th Aug 1912*

COMPASSES.

Distance between dynamo or electric motors and standard compass *about 45 ft.*

Distance between dynamo or electric motors and steering compass *50 ft.*

The nearest cables to the compasses are as follows:—

	Amperes	feet from standard compass	feet from steering compass
A cable carrying <i>5.5</i>	<i>1</i>	<i>1</i>	<i>1</i>
A cable carrying <i>2.75</i>	<i>6</i>	<i>6</i>	<i>6</i>
A cable carrying <i>5.5</i>	<i>10</i>	<i>10</i>	<i>10</i>

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.

Builder's Signature. Date

GENERAL REMARKS.

This installation of electric lights has been well fitted the materials & workmanship are good & the same are in full working condition - found satisfactory

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

John W. Soyars
Surveyor to Lloyd's Register of British and Foreign Shipping.

J.W.D.
24/8/12

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.