

WED. JUL 27 1913

REPORT ON ELECTRIC LIGHTING INSTALLATION.

No. 16491

Port of GreenockDate of First Survey 19th May/13Date of Last Survey 16th June 1913No. of Visits 8No. in
Reg. Book

on the Iron or Steel

S.S. Bergosimos

Port belonging to

Built at

W. H. Mitchell

By whom

Rapier & Miller LtdWhen built 1913

Owners

Owners' Address

Yard No. 190

Electric Light Installation fitted by

J. H. Holmes & CoWhen fitted 1913

DESCRIPTION OF DYNAMO, ENGINE, ETC.

On 6 1/2' x 6' open type Engine Coupled direct to 1-Holmes
Dynamo Coupled wound. 350 Revs per min

Capacity of Dynamo

90

Amperes at

100

Volts, whether continuous or alternating current

Continuous

Where is Dynamo fixed

Whether single or double wire system is used

double

Position of Main Switch Board

Near Dynamo

having switches to groups

A. B. C. D

of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each 6 way SA DP. fuse Box with Swt fixed in Eng Rm. 6 way SA
DP. fuse Box fixed in Passage. 3 way SA fuse Box Rm. Rm. 9 way SA DP. fuse Box with Swt fixed in Eng Rm. 2 way 15A
fuse Box in Pastry 6 way SA fixed in Pastry 9 way DP. fuse Box in Chart Rm 6 way SA fuse Box in Eng Rm.

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

100

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

arranged in the following groups:—

A	45	lights each of	40 - 16 3 - 32	candle power requiring a total current of	25.8	Amperes
B	20	lights each of	32	candle power requiring a total current of	22.4	Amperes
C	38	lights each of	30 - 16 8 - 32	candle power requiring a total current of	25.8	Amperes
D	30	lights each of		candle power requiring a total current of	16.8	Amperes
E		lights each of		candle power requiring a total current of		Amperes
2	Mast head light with	1 lamps each of	32	candle power requiring a total current of	2.24	Amperes
2	Side light with	1 lamps each of	32	candle power requiring a total current of	2.24	Amperes
5	Cargo lights of	6 x 16		candle power, whether incandescent or arc lights	Incandescent.	

If arc lights, what protection is provided against fire, sparks, &c. ✓Where are the switches controlling the masthead and side lights placed in Wheel House

DESCRIPTION OF CABLES.

Main cable carrying 90 Amperes, comprised of 19 wires, each 14 L.S.G. diameter, .094 square inches total sectional area

Branch cables carrying 22.4 Amperes, comprised of 7 wires, each 16 L.S.G. diameter, .022 square inches total sectional area

Branch cables carrying 25.8 Amperes, comprised of 7 wires, each 15 L.S.G. diameter, .028 square inches total sectional area

Leads to lamps carrying 56 Amperes, comprised of 1 wires, each 18 L.S.G. diameter, .0018 square inches total sectional area

Cargo light cables carrying 2.8 Amperes, comprised of 3 wires, each 20 L.S.G. diameter, .003 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Insulation with pure Para rubber, 2 layers of high grade vulcanized rubber
covered with proof tape the whole vulcanized together & braided overall

Joints in cables, how made, insulated, and protected

carefully twisted. Soldered & insulated with
Olonite & black tapes

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

Yes

Are all joints in accessible positions, none being

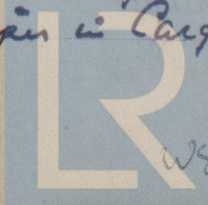
made in bunkers, cargo spaces, or spaces which may at any time be used for carrying cargo, stores, or baggage

now

Are there any joints in or branches from the cable leading from dynamo to main switch board

now

How are the cables led through the ship, and how protected

L. Covered wires clipped up in Acc'd Spaces
L. Covered & Arms in Eng Rm clipped up. U.S.R. wires in wire pipes in Cargo SpacesLloyd's Register
Foundation

DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible *Yes except when Cargo is being carried in holds*
 What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture *L.C. Armoured or V.I.R. in pipes*
 What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *ditto*
 What special protection has been provided for the cables near boiler casings *"*
 What special protection has been provided for the cables in engine room *"*
 How are cables carried through beams *bushed with fibre* through bulkheads, &c. *Stuffing glands*
 How are cables carried through decks *in deck tubes flanges & made watertight*
 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 *in strong iron pipes*
 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 *C. I. fittings with metal covers*
 Where are the main switches and cut outs for these lights fitted *in Engine Room*
 If in the spaces, how are they specially protected *none*
 Are any switches or cut outs fitted in bunkers *none*
 Cargo light cables, whether portable or permanently fixed *Portable* How fixed *W.T. Brass Connection*
 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 *not* an amperemeter, fixed *on main Board*

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 *100* per cent. that of pure copper.
 Insulation of cables is guaranteed to have a resistance of not less than *600* 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.

J. H. Jones & Co. Electrical Engineers Date *2/6/13*

COMPASSES.

Distance between dynamo or electric motors and standard compass *approx 96 feet*

Distance between dynamo or electric motors and steering compass *approx 91*

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
<i>25</i>	<i>14</i>	<i>10</i>	<i>10</i>
<i>12</i>	<i>10</i>	<i>6</i>	<i>6</i>
<i>56</i>	<i>inside</i>	<i>3</i>	<i>3</i>

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 deviation* degrees on *no deviation* course in the case of the standard compass and *no deviation* degrees on *no deviation* course in the case of the steering compass.

For Hafner & Miller Ltd Builder's Signature. Date *24 June 1913*
George Miller Director

GENERAL REMARKS.

The materials & workmanship are good. On completion the installation was tested and worked satisfactorily. It is submitted that this vessel is eligible for THE RECORD. Elec. light.

J.W.D. 3/7/13

Wm. H. Austin

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

Committee's Minute

GLASGOW 1-JUL 1913

Elec. Light.



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