

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 5393

Port of *Delfast* Date of First Survey *Sept 30th* Day of Last Survey *Jan 30th* No. of Visits *13*
 No. in Reg. Book *on the Iron or Steel* *S.S. "Walmek Castle"* belonging to *London*
 Built at *Delfast* By whom *Hauland & Wolff L^{rs}* When built *1902*
 Owners *Union Castle M.S.S. Coy L^{ds}* Owners' Address *London*
 Yard No. *142* Electric Light Installation fitted by *N. A. Allen Currier L^{ds}* When fitted *1902*

DESCRIPTION OF DYNAMO, ENGINE, ETC.

3. Bi-polar, under type, compound wound continuous current dynamo direct coupled on common bed plate to high speed, open vertical engine.
 Capacity of Dynamo *300* Amperes at *102* Volts, whether continuous or alternating current *Continuous*
 Where is Dynamo fixed *Through Head of Main Engine Room*
 Position of Main Switch Board *in Head Room* having switches to groups *A, B, C, ... L* of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each *1 Switchboard controlling 1st Saloon, port passage*
4th of 1st Saloon 11 switches, 1 do. controlling 2nd Saloon, Main passage and 2nd Saloon 9 switches
1 do. controlling 1st Saloon & 1st Mast Rm, in saloon sq. aft 1st Saloon 32 switches
 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, where double wire*
 Are the cut outs of non-oxidizable metal *yes* and constructed to fuse at an excess of *50* 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	105	16 4	63
AA	100 lights each of	candle power requiring a total current of	60 Amperes
C	100		60
B	90 lights each of	candle power requiring a total current of	54 Amperes
E	30		18
FC	30 lights each of	candle power requiring a total current of	18 Amperes
G	90		54
H-D	30 lights each of	candle power requiring a total current of	18 Amperes
I	66		40
E	30 lights each of	candle power requiring a total current of	18 Amperes
K	190		60
L	2 Mast head lights with 1 lamps each of	32 4 candle power requiring a total current of	2 15 Amperes
	2 Side light with 1 lamps each of	32 candle power requiring a total current of	2 > Amperes
	6 Cargo lights of { 128. 48.	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

Chart Room.

DESCRIPTION OF CABLES.

Main cable carrying *300* Amperes, comprised of *37* wires, each *12* L.S.G. diameter, *2206* square inches total sectional area
 Branch cables carrying *60* Amperes, comprised of *19* wires, each *16* L.S.G. diameter, *0624* square inches total sectional area
 Branch cables carrying *30* Amperes, comprised of *19* wires, each *18* L.S.G. diameter, *0351* square inches total sectional area
 Leads to lamps carrying *6* Amperes, comprised of *1* wires, each *18* L.S.G. diameter, *00180* square inches total sectional area
 Cargo light cables carrying *4.8* Amperes, comprised of *145* wires, each *38* L.S.G. diameter, *0039* square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Pure rubber cable, covered with prepared tape & braided end caps

Joints in cables, how made, insulated, and protected

Joint made with solder & insulated with pure
Pure rubber, & prepared tape

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 *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

Cable led in substantial wood casing through
deck

© 2021
W590-0099Lloyd's Register
Foundation

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 sheathing*

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *Lead sheathing & arm?*

What special protection has been provided for the cables near boiler casings *Lead sheathing & arm? J.I. wire*

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

How are cables carried through beams *fiber bushed holes* through bulkheads, &c. *W.I. bushed glands*

How are cables carried through decks *J.I. Deck tubes bushed with fiber*

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

If so, how are they protected *Cables in baggage room protected by thick wood casing*

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage *no Lamp in baggage room*

If so, how are the lamp fittings and cable terminals specially protected *fittings protected with cast iron covers*

Where are the main switches and cut outs for these lights fitted *outside space*

If in the spaces, how are they specially protected

Are any switches or cut outs fitted in bunkers *no*

Cargo light cables, whether portable or permanently fixed *portable* How fixed

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel *through cast plate below &*

How are the returns from the lamps connected to the hull *off the lead wires. Bulkhead in baggage room*

Are all the joints with the hull in accessible positions *yes*

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 installation is supplied with a voltmeter and *3* an amperemeter fixed *in main switchboard*

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 *2500* 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.

COMPASSES.

Distance between dynamo or electric motors and standard compass *246 feet*

Distance between dynamo or electric motors and steering compass *248 "*

The nearest cables to the compasses are as follows:—

Cable carrying	Ampères	feet from standard compass	feet from steering compass
18	7	5	
14	36	32	
50	48	42	

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 *nil* degrees on *all* course in the case of the standard compass and *nil* degrees on *all* course in the case of the steering compass.

GENERAL REMARKS.

This installation is of a high class, and is fitted in accordance with the Rules.

Builder's Signature. Date *8 March 1902*

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

Committee's Minute

It is submitted that this installation appears to meet the requirements of the Rules.

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.