

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 22999

Port of *Hull* Date of First Survey *Aug 27th* Date of Last Survey *Sep 15/10* No. of Visits *11*
 No. in on the *Iron* or Steel *Sc. K. Orientes* Port belonging to *Grimsby*
 Reg. Book *27611* Built at *Beverley* By whom *Messrs Cook, Welton & Gemmell & Co* When built *1910*
 Owners *J. Baskcomb* Owners' Address *Grimsby*
 Yard No. *Electric Light Installation fitted by Messrs Bradwell & Jannison* When fitted *1910*

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Two pole compound wound dynamo by the Electric Construction Co coupled direct to a vertical engine made by Messrs Reader & Co

Capacity of Dynamo *65* Amperes at *25* Volts, whether continuous or alternating current *continuous*

Where is Dynamo fixed *Star side Eng. Room* Whether single or double wire system is used *double*

Position of Main Switch Board *near dynamo* having switches to groups *A to P* of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each *one switch in fore-castle, one in chart room, all others on main switch board.*

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 *✓* and to each lamp circuit *yes*

If cessel 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 *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 *38* arranged in the following groups:—

A *winch* 1 lights each of *16* candle power requiring a total current of *1.6* Amperes

B *Fore-castle* 1 lights each of *16* candle power requiring a total current of *1.6* Amperes

C *Isle (portable)* 2 lights each of *16* candle power requiring a total current of *3.2* Amperes

D *Bulge* 4 lights each of *16* candle power requiring a total current of *6.4* Amperes

E *Port-casing* 4 lights each of *16* candle power requiring a total current of *6.4* Amperes

No Mast head light with *✓* lamps each of *✓* candle power requiring a total current of *✓* Amperes

No Side light with *✓* lamps each of *✓* candle power requiring a total current of *✓* Amperes

2 Cargo lights of *32* candle power, whether incandescent or are lights *incandescent*

If are lights, what protection is provided against fire, sparks, &c. *No are lights*

Where are the switches controlling the masthead and side lights placed *No mast head or side lights*

DESCRIPTION OF CABLES.

Main cable carrying *65* Amperes, comprised of *19* wires, each *15* L.S.G. diameter, *.0473* square inches total sectional area

Branch cables carrying *1.6* Amperes, comprised of *1* wires, each *16* L.S.G. diameter, *.0032* square inches total sectional area

Branch cables carrying *—* Amperes, comprised of *—* wires, each *—* L.S.G. diameter, *—* square inches total sectional area

Leads to lamps carrying *3.2 + 1.6* Amperes, comprised of *1* wires, each *16* L.S.G. diameter, *.0032* square inches total sectional area

Cargo light cables carrying *3.2* Amperes, comprised of *113* wires, each *38* L.S.G. diameter, *.0032* square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

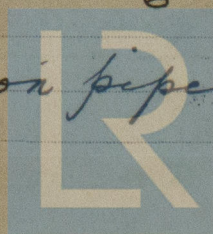
Pure and vulcanised rubber then taped, braided & compounded

Joints in cables, how made, insulated, and protected *None except mechanical ones.*

Are all the joints of cables thoroughly soldered, resin only having been used as a flux *None* 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 *None*

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 *In galvanised iron pipes*



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DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible *No* ✓
 What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture *Galvanised Iron tubes* ✓
 What special protection has been provided for the cables near galleys or oil lumps or other sources of heat *Galv. Iron tubes* ✓
 What special protection has been provided for the cables near boiler casings *do* ✓
 What special protection has been provided for the cables in engine room *do* ✓
 How are cables carried through beams *In Galv. Iron tubes* ✓ through bulkheads, &c. *W. I. Glands* ✓
 How are cables carried through decks *none through decks* ✓
 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 *Galv. Iron tubes* ✓
 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 *No* ✓
 Cargo light cables, whether portable or permanently fixed *portable* ✓ How fixed *W. I. socket* ✓
 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 *now* supplied with a voltmeter and *also* ✓ an amperemeter, fixed *main switch 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 *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.

Bracewell & Jernison

Electrical Engineers

Date *28.9.10*

COMPASSES.

Distance between dynamo ~~or electric motors~~ and standard compass *46*

Distance between dynamo ~~or electric motors~~ and steering compass *36*

The nearest cables to the compasses are as follows:—

A cable carrying	<i>3.2</i>	Amperes	<i>12</i>	feet from standard compass	<i>10</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 *Nil* ✓ degrees on *Nil* ✓ course in the case of the standard compass and *Nil* ✓ degrees on *Nil* ✓ course in the case of the steering compass.

Builder's Signature. Date

GENERAL REMARKS.

This vessel has been fitted with an Electric Light Installation as above, and is now respectfully submitted for notation in the Register Book. It is submitted that this vessel is eligible for THE RECORD. Elec. light *James Barclay*
 Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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