

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 5384

Port of *Middleburgh* Date of First Survey *10.2.08* Date of Last Survey *20.2.08* No. of Visits *5*
 No. in Reg. Book *1* on the Iron or Steel *S.S. Saver Castle* Port belonging to *Liverpool*
 Built at *Middleburgh* By whom *R. Briggs & Sons* When built *1908*
 Owners *J. Chambers & Co.* Owners' Address *Liverpool*
 Yard No. *213* Electric Light Installation fitted by *J. H. Holmes & Co.* When fitted *1908*

DESCRIPTION OF DYNAMO, ENGINE, ETC.

*6 1/2" x 6" Open type engine to work @ 100 lbs pressure & coupled direct to
 15/16" "Castle" dynamo Compound wound 400 Revs*
 Capacity of Dynamo *98* Amperes at *100* Volts, whether continuous or alternating current *Continuous*
 Where is Dynamo fixed *Starting Platform* Whether single or double wire system is used *Double*
 Position of Main Switch Board *Near dynamo* having switches to groups *A. B. C.* of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each *4 Way 10 Amp D.P. Junction in Starting Platform, 6 Way 5 Amp
 D.P. Junction in Blankroom with switches, 6 Way 10 Amp in 1st Floor Pantry, 5 Way 10 Amp in Dining Room
 6 Way 5 Amp 10 Amp in Starting Platform with switches, 5 Way 10 Amp in Starting Platform with 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*
 Are the cut outs of non-oxidizable metal *Yes* and constructed to fuse at an excess of *25* 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 *74.4 Amps* arranged in the following groups:—
 A *4* *Arc* lights each of *10* candle power requiring a total current of *40* Amperes
 B *Engine room* *31* lights each of *16* candle power requiring a total current of *17.3* Amperes
 C *Ship* *43* lights each of *16* candle power requiring a total current of *24* 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*
2 Mast head lights with *1* lamp each of *32* candle power requiring a total current of *1.12* Amperes
2 Side lights with *1* lamp each of *32* candle power requiring a total current of *1.12* Amperes
4 Cargo lights of *10 Amp* ~~candle power~~ whether incandescent or arc lights
 If arc lights, what protection is provided against fire, sparks, &c. *Enclosed in lamp*
 Where are the switches controlling the masthead and side lights placed *In Blankroom*

DESCRIPTION OF CABLES.

Main cable carrying *81.3* Amperes, comprised of *19* wires, each *14* L.S.G. diameter, *.095* square inches total sectional area
 Branch cables carrying *17.3* Amperes, comprised of *7* wires, each *16* L.S.G. diameter, *.022* square inches total sectional area
 Branch cables carrying *24* Amperes, comprised of *7* wires, each *15* L.S.G. diameter, *.028* square inches total sectional area
 Leads to lamps carrying *1.56* Amperes, comprised of *1* wires, each *18* L.S.G. diameter, *.0018* square inches total sectional area
 Cargo light cables carrying *10* Amperes, comprised of *7* wires, each *18* L.S.G. diameter, *.0127* square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Laminated copper, Pure Para rubber, vul. rubber taped & braided

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 *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

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

How are the cables led through the ship, and how protected *In iron pipe*



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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 Armed

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

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 boxes

How are cables carried through decks

Duck tubes

Are any cables run through coal bunkers

Yes or cargo spaces

Yes or spaces which may be used for carrying cargo, stores, or baggage

If so, how are they protected

In iron pipes

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

Loose

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 in Main house

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

99

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.

COMPASSES.

Electrical Engineers

Date

17/2/09

Distance between dynamo or electric motors and standard compass

108 ft.

Distance between dynamo or electric motors and steering compass

100 ft.

The nearest cables to the compasses are as follows:—

A cable carrying

7.28

Amperes

10

feet from standard compass

6

feet from steering compass

A cable carrying

5.56

Amperes

8

feet from standard compass

4

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

course in the case of the

standard compass and

nil

degrees on

course in the case of the steering compass.

Builder's Signature.

Date

GENERAL REMARKS.

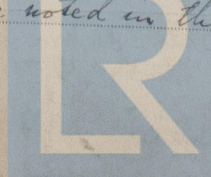
The electric light installation has been fitted under special survey & when tested under working conditions was found satisfactory

Geo. A. Milner

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

Committee's Minute

It is submitted that the Record Book Light be noted in the Reg. Book.



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THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.