

REPORT ON ELECTRIC LIGHTING INSTALLATION.

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No. 11398

Port of *Greenock* Date of First Survey *6th Jan/96* Date of Last Survey *4th Feb/96* No. of Visits *8*
 No. in *on the Iron or Steel* *John S. Lawrie & Co.* Port belonging to *Parad.*
 Thickness *20* Built at *Port Glasgow* By whom *Russell & Co.* When built *1896*
 Pitch of *The Amazon S. N. Co. (Linn.)* Owners Address *34, Great St. Helens, London.*
 No. of Stays to d *388.* Electric Light Installation fitted by *Clarke Chapman & Co* When fitted *Jan/Feb/96*

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Combined Engine & Dynamo mounted on one bedplate, capable of an output of 6600 watts at 350 revolutions per minute
 Capacity of Dynamo *100* Amperes at *65* Volts, whether continuous or alternating current *Continuous*
 There is Dynamo fixed *on Engine Room Grating level with deck*
 Position of Main Switch Board *agst forward (head) level with dynamo* having switches to groups *A B C* of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each *Branches carried from this board to the 3 different circuits, one circuit in Engine room, one forward & one in aft part of vessel - 22 on Spar Deck, 24 Main Deck, 12 in Engine Room & Stokchols*
 Cut outs are fitted on main switch board to the cables of main circuit *Yes* and on each auxiliary switch boards 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*
 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 *82* arranged in the following groups :-
 A *12 Engine Room* lights each of *16* candle power requiring a total current of *12* Amperes
 B *46 Main Deck* lights each of *16* candle power requiring a total current of *46* Amperes
 C *24 Spar Deck* 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
None Mast head light with lamps each of candle power requiring a total current of Amperes
None Side light with lamps each of candle power requiring a total current of Amperes
4 Cargo lights of *6 - 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

DESCRIPTION OF CABLES.

Main cable carrying *50* Amperes, comprised of *19* wires, each *16* L.S.G. diameter, *.061* square inches total sectional area
 Branch cables carrying *22* Amperes, comprised of *7* wires, each *16* L.S.G. diameter, *.022* square inches total sectional area
 Branch cables carrying *12* Amperes, comprised of *7* wires, each *18* L.S.G. diameter, *.0127* square inches total sectional area
 Leads to lamps carrying *1* Amperes, comprised of *1* wires, each *16 or 18* L.S.G. diameter, *.0018* square inches total sectional area
 Cargo light cables carrying *6* Amperes, comprised of *351 & 44* wires, each *.006 & .018* L.S.G. diameter, *.119 + .154* square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

K & R Silvertown's manufacture
 Cables in machinery spaces exposed portions lead covered
 Joints in cables, how made, insulated, and protected *Soldered, pure rubber, pure rubber tape, pure rubber solution, prepared tape & varnished*
 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 *None*
 How are the cables led through the ship, and how protected *In strong wood casing*

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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

Lead cov'd in strong wood casing.

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

Lead cov'd & strong casing

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

do

How are cables carried through beams

In hardwood insulators, and bales with through bulkheads, &c.

How are cables carried through decks

In deck tubes projecting 12" above decks

Are any cables run through coal bunkers

No or cargo spaces — or spaces which may be used for carrying cargo, stores, or baggage

If so, how are they protected

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage

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

Special cons attached Con Boxes

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

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

Yes

supplied with a voltmeter and

no

an amperemeter, fixed

on main Switchboard

The copper used is guaranteed to have a conductivity of

96

per cent. that of pure copper.

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

600

megohms per

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.

For

Clarke, Chapman & Co. Ltd. Electrical Engineers

Date 13. 2. 96

COMPASSES.

Distance between dynamo or electric motors and standard compass

Chairman

73 ft

Distance between dynamo or electric motors and steering compass

77 ft

The nearest cables to the compasses are as follows:—

A cable carrying

75

Amperes

15 ft

feet from standard compass

15

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 (no deviation) degrees on

✓

course in the case of the

standard compass and (no deviation) degrees on

✓

course in the case of the steering compass.

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Builder's Signature

Date 14th Feb 1896

GENERAL REMARKS.

The above named installation has been fitted under our inspection and to our satisfaction.

J. J. House, A. L. Heron,

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

Committee's Minute

This installation appears to be satisfactory

Lloyd's Register of British and Foreign Shipping

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THE