

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 12052.

Port of *Greenock* Date of First Survey *10th May* Date of Last Survey *30th May* No. of Visits, *8*
 No. in *on the Iron or Steel Twin Screw Steamer "J. E. Fuller"* Port belonging to *Cape Town*
 Reg. Book *47* Built at *Port Glasgow* By whom *D. J. Dunlop & Co.* When built *1898*
 Owners *Table Bay Harbour Board* Owners Address *Cape Town*
 Yard No. *241* Electric Light Installation fitted by *Clarke Chapman & Co.* When fitted *June 1898*

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One single cylinder double acting vertical engine coupled direct to a continuous current compound wound dynamo

Capacity of Dynamo *117* Amperes at *65* Volts, whether continuous or alternating current
 Where is Dynamo fixed *in engine room starboard side*
 Position of Main Switch Board *above the dynamo* having switches to groups *5* of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each

If 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*

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 *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 *45* arranged in the following groups:—

A	<i>14</i>	lights each of	<i>10-16 & 4-32</i>	candle power requiring a total current of	<i>16</i>	Amperes
B	<i>10</i>	lights each of	<i>16</i>	candle power requiring a total current of	<i>10</i>	Amperes
C	<i>12</i>	lights each of	<i>16</i>	candle power requiring a total current of	<i>12</i>	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
<i>2</i>	Mast head light with	<i>2</i>	lamps each of	<i>32</i>	candle power requiring a total current of	<i>2</i> Amperes
<i>2</i>	Side light with	<i>2</i>	lamps each of	<i>32</i>	candle power requiring a total current of	<i>2</i> Amperes

3 Decklight Cargo lights of *3-50 CP* in each candle power, whether incandescent or arc lights *incandescent*

If arc lights, what protection is provided against fire, sparks, &c. *one arc light fitted in Projector on top of wheel house*

Where are the switches controlling the masthead and side lights placed

DESCRIPTION OF CABLES.

Main cable carrying	<i>117</i>	Amperes, comprised of	<i>19</i>	wires, each	<i>12</i>	L.S.G. diameter, <i>.1647</i> square inches total sectional area
Branch cables carrying	<i>16</i>	Amperes, comprised of	<i>7</i>	wires, each	<i>14</i>	L.S.G. diameter, <i>.0356</i> square inches total sectional area
Branch cables carrying	<i>12</i>	Amperes, comprised of	<i>7</i>	wires, each	<i>18</i>	L.S.G. diameter, <i>.0128</i> square inches total sectional area
Leads to lamps carrying	<i>1</i>	Amperes, comprised of	<i>1</i>	wires, each	<i>18</i>	L.S.G. diameter, <i>.0018</i> square inches total sectional area
Cargo light cables carrying	<i>9</i>	Amperes, comprised of	<i>7</i>	wires, each	<i>18</i>	L.S.G. diameter, <i>.0128</i> square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Insulated with pure & vulcanized india rubber taped & braided

Joints in cables, how made, insulated, and protected

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 *none*

How are the cables led through the ship, and how protected *in wood casing through beams insulated with fibre*

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

pass through

iron piping

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

armoured cable being used

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

armoured cable

How are cables carried through beams

through bulkheads, &c.

watertight glands

How are cables carried through decks

in deck tubes

Are any cables run through coal bunkers

no

or cargo spaces

no

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

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

Cargo light cables, whether portable or permanently fixed

Portable

How fixed

to cast iron connection box

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

supplied with a voltmeter and

Yes

an amperemeter, fixed

on Switchboard

The copper used is guaranteed to have a conductivity of

98

per cent. that of pure copper.

Insulation of cables is guaranteed to have a resistance of not less than

750

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.

FOR CLARKE, CHAPMAN & CO. LTD.

John B. Furneaux

Electrical Engineers

Date

June 14/98

COMPASSES.

MANAGING DIRECTOR

Distance between dynamo or electric motors and standard compass

60 feet

Distance between dynamo or electric motors and steering compass

The nearest cables to the compasses are as follows:—

A cable carrying

1

Amperes

4

feet from standard compass

feet from steering compass

A cable carrying

80

Amperes

6

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

course in the case of the

standard compass and

nil

degrees on

course in the case of the steering compass.

David J. Dunlop

Builder's Signature

Date

15th June 1898

GENERAL REMARKS.

The electric light installation is fitted as described in this vessel and to our satisfaction.

A. C. Mearns J. J. House

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

Committee's Minute

This installation appears to be fitted in accordance with the Rules

14/6/98

Lloyd's Register Foundation

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN