

REPORT ON ELECTRIC LIGHTING INSTALLATION. No 11164.

Port of Aberdeen Date of First Survey 24.3.13 Date of Last Survey 30.4.13 No. of Visits 11.
 No. in 164 on the Iron or Steel S.S. South Bulli Port belonging to Sydney. N.S.W.
 Reg. Book 164 Sup. Built at Aberdeen By whom Wall Russell & Co. Ltd. When built 1913.
 Owners Bellambi Coal & Co. Ltd. Owners' Address 9. Bridge Street - Sydney. N.S.W.
 Yard No. 529 Electric Light Installation fitted by Clarke Chapman & Co. Ltd. When fitted 1913.

DESCRIPTION OF DYNAMO, ENGINE, ETC.

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

Capacity of Dynamo 73 Amperes at 100 Volts, whether continuous or alternating current continuous
 Where is Dynamo fixed in Engine Room. Whether single or double wire system is used double
 Position of Main Switch Board near dynamo. having switches to groups A B C + D of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each Each light & group of lights provided with switches as required

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 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. slate & porcelain.

Total number of lights provided for 112 - 16 cp arranged in the following groups:—

A	63	lights each of	16	candle power requiring a total current of	35.3	Amperes
B	27	lights each of	16	candle power requiring a total current of	15.1	Amperes
C	15	lights each of	16	candle power requiring a total current of	8.4	Amperes
D	7	lights each of	16	candle power requiring a total current of	3.9	Amperes
E	—	lights each of	—	candle power requiring a total current of	—	Amperes
2	Mast head light with	1	lamps each of	32	candle power requiring a total current of	1.1
2	Side light with	1	lamps each of	32	candle power requiring a total current of	1.1
8	Cargo lights of	6 - 16		candle power, whether incandescent or arc lights	incandescent	

If are lights, what protection is provided against fire, sparks, &c. —

Where are the switches controlling the masthead and side lights placed in Chart Room.

DESCRIPTION OF CABLES.

Main cable carrying 73 Amperes, comprised of 19 wires, each 15 L.S.G. diameter, .07500 square inches total sectional area
 Branch cables carrying 35.3 Amperes, comprised of 7 wires, each 16 L.S.G. diameter, .02214 square inches total sectional area
 Branch cables carrying 8.4 Amperes, comprised of 7 wires, each 20 L.S.G. diameter, .00700 square inches total sectional area
 Leads to lamps carrying .56 Amperes, comprised of 1 wires, each 18 L.S.G. diameter, .00781 square inches total sectional area
 Cargo light cables carrying 3.3 Amperes, comprised of 168 wires, each 38 L.S.G. diameter, .00502 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Vulcanized india rubber taped & braided, lead covered twin cables, where exposed steel armoured cable.

Joints in cables, how made, insulated, and protected no joints except mechanical ones.

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. No.

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 Lead covered & steel armoured cables clipped to underside of deck.

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 *Lead covered & steel armored.*

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

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 *in lead bushes* through bulkheads, &c. *in WT glands*

How are cables carried through decks *in galvanized iron deck tubes.*

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

If so, how are they protected *Lead covered & steel armored.*

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 *to WTC connection boxes.*

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel *double wire system*

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 *on hatchboard*

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 *2,000* 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,

Electrical Engineers

Date *May 22. 1913*

COMPASSES.

Distance between dynamo or electric motors and standard compass *Chairman 90 ft*

Distance between dynamo or electric motors and steering compass *64 "*

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
<i>.5</i>	<i>12</i>	<i>6</i>	<i>6</i>
<i>.5</i>	<i>6</i>	<i>12</i>	<i>12</i>
<i>—</i>	<i>—</i>	<i>—</i>	<i>—</i>

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

James J. Hunter

Builder's Signature.

Date *30th May 1913.*

GENERAL REMARKS.

The various parts of the installation were examined during the fitting on board, the materials and workmanship are good, and on completion the light was tried at full power and found satisfactory.

It is submitted that this vessel is eligible for THE RECORD. Elec. light.

W.D.
8/6/13.

Ridley Howell.

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

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



© 2020

Lloyd's Register Foundation