

REPORT ON ELECTRIC LIGHTING INSTALLATION. No.

Port of *Newcastle-on-Tyne* Date of First Survey *Nov. 15 1901* Date of Last Survey *Nov 26 1901* No. of Visits *18*
 No. in on the *Iron or Steel* *1/2* "Kinsman" Port belonging to *London*
 Reg. Book *16 Supp.* Built at *Newcastle-on-Tyne* By whom *Sir W. G. Armstrong & Whitworth* when built *1901*
 Owners *C. J. Bowering & Co* Owners' Address *London*
 Yard No. *717* Electric Light Installation fitted by *J. A. Holmes & Co* When fitted *1901*

DESCRIPTION OF DYNAMO, ENGINE, ETC.

The 6 1/2" x 6" open type Engine Auto Gov. coupled to "Castle" dynamo
 Capacity of Dynamo *83.5* Amperes at *60* Volts, whether continuous or alternating current
 Where is Dynamo fixed *in Engine Room on starting platform*
 Position of Main Switch Board *Near dynamo having switches to groups A. B* of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each *A1 fixed in Pantry having 4 switches*
Y6 D.P. fuse A2 fixed in Wheel House with 4 switches & fuses. A3 fixed in Carpenter's Room with 3 switches & fuses. B1 fixed in Engine Room with 7 switches & 8 D.P. fuses. B2 fixed in Mess Room with 3 switches & fuses.
 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
 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 arranged in the following groups:—
 A *36* lights each of *16* candle power requiring a total current of *36* Amperes
 B *34* lights each of *16* candle power requiring a total current of *34* Amperes
 C *✓* lights each of candle power requiring a total current of 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 *2* lamps each of *16* candle power requiring a total current of *4* Amperes
2 Side light with *2* lamps each of *16* candle power requiring a total current of *4* Amperes
 Cargo lights of candle power, whether incandescent or arc lights

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

Where are the switches controlling the masthead and side lights placed *in the Wheel House*

DESCRIPTION OF CABLES.

Main cable carrying *74* Amperes, comprised of *19* wires, each *14* L.S.G. diameter, *.095* square inches total sectional area
 Branch cables carrying *19* Amperes, comprised of *19* wires, each *17* L.S.G. diameter, *.046* square inches total sectional area
 Branch cables carrying *34* Amperes, comprised of *107* wires, each *Autogen* L.S.G. diameter, *.035* square inches total sectional area
 Leads to lamps carrying *1* Amperes, comprised of *7* wires, each *2 1/2* L.S.G. diameter, *1.004* square inches total sectional area
 Cargo light cables carrying Amperes, comprised of wires, each L.S.G. diameter, square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Henley's Class C cables are insulated with pure rubbers, vulcanized taped, braided & compounded.
 Joints in cables, how made, insulated, and protected *carefully twisted & soldered & insulated with Hanson tapes*

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 *None*

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 Bunkers in strong wood casing*
Engine Room Armoured wire clipped to B. Hds.



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OF INSULATION, PROTECTION, ETC.—continued.

DONKEY B

in places always accessible

Yes

Made at

What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture

Lead Covered wire

Working

No. of

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

Armoured wire

enter

What special protection has been provided for the cables near boiler casings

Armoured wire

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

How are cables carried through beams

brushed with fibre

through bulkheads, &c.

stuffing glands

How are cables carried through decks

in lead or iron tubes flanged & made watertight

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

in Strong wood casing

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

Yes

If so, how are the lamp fittings and cable terminals specially protected

in Strong C.I. fittings with C.I. Covers

Where are the main switches and cut outs for these lights fitted

in Engine Room

If in the spaces, how are they specially protected

none

Are any switches or cut outs fitted in bunkers

none

Cargo light cables, whether portable or permanently fixed

none

How fixed

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

double wired

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

Yes

Are any switches, cut outs, or joints of cables fitted in the pump room or companion

none

How are the lamps specially protected in places liable to the accumulation of vapour or gas

in Strong W. light fittings

The installation is

Complete

supplied with a voltmeter and

not

an amperemeter, fixed on Main Board

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

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.

J. H. Brown & Co

Electrical Engineers

Date Nov 26/01

COMPASSES.

Distance between dynamo or electric motors and standard compass

about 120 feet

Distance between dynamo or electric motors and steering compass

" 112 "

The nearest cables to the compasses are as follows:—

A cable carrying

1

Amperes about

feet from standard compass

2

feet from steering compass

A cable carrying

7

Amperes "

feet from standard compass

6

feet from steering compass

A cable carrying

40

Amperes "

feet from standard compass

15

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

all

course in the case of the

standard compass and

nil

degrees on

all

course in the case of the steering compass.

Builder's Signature.

Date

28th November 1901

GENERAL REMARKS.

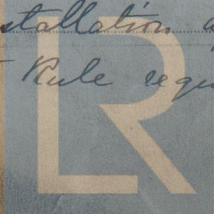
This installation has been fitted in accordance with the Rules of good satisfactory

Robert Angus

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

Committee's Minute

It is submitted that this installation appears to meet the Rule requirements.



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THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.