

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 63256

Port of Newcastle on Tyne Date of First Survey 28 Oct Date of Last Survey 5th Nov 1912 No. of Visits _____
 No. in Reg. Book on the ~~Iron~~ Steel S.S. "FULGENS" Port belonging to London
 Built at Newcastle on Tyne By whom Wood, Skinner & Co When built 1912
 Owners Stephenson Charles & Co Owners Address London
 Yard No. 149 Electric Light Installation fitted by Barthson Electrical Engineering & Stationery Co. Ltd. North Shields When fitted 1912

DESCRIPTION OF DYNAMO, ENGINE, ETC.

"Castle" dynamo by J. & S. Holmes & Co.
Engine "Radey & Co."
 Capacity of Dynamo 90 Amperes at 100 Volts, whether continuous or alternating current continuous
 Where is Dynamo fixed Cover part Eng. Room Whether single or double wire system is used double
 Position of Main Switch Board alongside dynamo having switches to groups 4 main switches of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each an average of two lights to each switch. Each branch board fixed as near as possible to respective lights
 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 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 porcelain & slate

Total number of lights provided for 102 arranged in the following groups:—

Group	Number of lights	Candle power each	Total candle power	Amperes
A	<u>24</u>	<u>16</u>	<u>384</u>	<u>16.24</u>
B	<u>18</u>	<u>16</u>	<u>288</u>	<u>26.88</u>
C	<u>14</u>	<u>16</u>	<u>224</u>	<u>12.22</u>
D	<u>8</u>	<u>16</u>	<u>128</u>	<u>15.18</u>
E	<u>2</u>	<u>16</u>	<u>32</u>	<u>2.24</u>
Mast head light with <u>2</u> lamps each of <u>16</u> candle power requiring a total current of <u>2.24</u> Amperes				
Side light with <u>2</u> lamps each of <u>16</u> candle power requiring a total current of <u>2.24</u> Amperes				
Cargo lights of <u>16</u> cp lamps, candle power, whether incandescent or arc lights <u>incandescent</u>				

If arc lights, what protection is provided against fire, sparks, &c. no arcs

Where are the switches controlling the masthead and side lights placed in Chartroom

DESCRIPTION OF CABLES.

Main cable carrying 59.92 Amperes, comprised of 19 wires, each 14 L.S.G. diameter, 0.0944 square inches total sectional area
 Branch cables carrying 16.24 Amperes, comprised of 4 wires, each 14 L.S.G. diameter, 0.1106 square inches total sectional area
 Branch cables carrying 12.22 Amperes, comprised of 4 wires, each 14 L.S.G. diameter, 0.1254 square inches total sectional area
 Leads to lamps carrying 1.12 Amperes, comprised of 1 wires, each 14 L.S.G. diameter, 0.01810 square inches total sectional area
 Cargo light cables carrying _____ Amperes, comprised of _____ wires, each _____ L.S.G. diameter, _____ square inches total sectional area
 NOTE: Included in above

DESCRIPTION OF INSULATION, PROTECTION, ETC.

(a) Pure & vulcanized India Rubber insulated & staped & braided;
 (b) Lead covered, Lead covered & armored with galvanized iron wires
 Insains: Class (a) in Rd. Gal. Steel tubes. Accorn: "B" Class. Engine Room "C" Class.

Joints in cables, how made, insulated, and protected No joints

Are all the joints of cables thoroughly soldered, resin only having been used as a flux _____ 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 No

How are the cables led through the ship, and how protected in Rd. Galva Screwed Steel tubes



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 cover & Armad. Red Gal steel tubes

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

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

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

How are cables carried through beams Insulating ferrules through bulkheads, &c. brass watertight gland

How are cables carried through decks Gal. steel tubes (Red) stuffing box

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

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 no.

Cargo light cables, whether portable or permanently fixed permanently How fixed In Red Gal Steel tubes

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 no supplied with a voltmeter and with an amperemeter, fixed on main switchboard.

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 98 per cent. that of pure copper.

Insulation of cables is guaranteed to have a resistance of not less than 1000 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 THE NORTHERN ELECTRICAL ENGINEERING AND PLATING CO. LTD.

G. H. Elder Secretary

Electrical Engineers

Date Jan 21st 1913

COMPASSES.

Distance between dynamo or electric motors and standard compass 149 feet.

Distance between dynamo or electric motors and steering compass 144 feet.

The nearest cables to the compasses are as follows:—

A cable carrying _____ Amperes 1.5 c/s for feet from standard compass _____ feet from steering compass

A cable carrying _____ Amperes compass light 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 nil course in the case of the steering compass.

WOOD, SKINNER & Co., LIMITED.

G. H. Elder Secretary.

Builder's Signature.

Date 31st Aug 1913.

GENERAL REMARKS.

This installation has been efficiently fitted on board & tried under steam and the vessel is eligible in my opinion to have the record of Electric Light made in the Register Book

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

J. W. D. 11/5/13

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

Committee's Minute _____

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



Lloyd's Register Foundation