

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 46392

Port of Newcastle Date of First Survey Oct 26 03 Date of Last Survey Jan 16 04 No. of Visits 6
 No. in Reg. Book on the Iron or Steel of 'Lady Strathcona' Port belonging to Newcastle
 Built at Low Walker By whom Sir W. G. Armstrong Whitworth & Co. When built 1903
 Owners Wm. Peterson & Co. Owners' Address Newcastle on Tyne
 Yard No. 744 Electric Light Installation fitted by Falconer Cross & Co. When fitted 1903

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Combined diesel coupled Steam generating Set 6" x 5" Engine to 4 B.V. Dynamo.

Capacity of Dynamo 55 Amperes at 110 Volts, whether continuous or alternating current continuous

Where is Dynamo fixed Engine Room

Position of Main Switch Board Engine Room having switches to groups 4 of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each Engine Room 12, Saloon & Office cabins 24, Forecastle 6, Engineer's berths 8

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 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

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 no

Are all switches and cut-outs constructed of incombustible materials and fitted on incombustible bases yes

Total number of lights provided for 92 arranged in the following groups:—

A	<u>22</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>11</u>	Amperes
B	<u>24</u>	lights each of	"	candle power requiring a total current of	<u>12</u>	Amperes
C	<u>12</u>	lights each of	"	candle power requiring a total current of	<u>6</u>	Amperes
D	<u>14</u>	lights each of	"	candle power requiring a total current of	<u>7</u>	Amperes
E		lights each of		candle power requiring a total current of		Amperes
	<u>2</u>	Mast head lights with	<u>2</u> lamps each of	<u>32</u>	candle power requiring a total current of	<u>2</u> Amperes
	<u>2</u>	Side light with	<u>2</u> lamps each of	<u>32</u>	candle power requiring a total current of	<u>2</u> Amperes
	<u>4</u>	Cargo lights of		<u>64</u>	candle power, whether incandescent or arc lights	<u>Incandescent</u>

If arc 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 50 Amperes, comprised of 19 wires, each 16 L.S.G. diameter, .060 square inches total sectional area
 Branch cables carrying 11 Amperes, comprised of 7 wires, each 18 L.S.G. diameter, .0125 square inches total sectional area
 Branch cables carrying Amperes, comprised of wires, each L.S.G. diameter, .0018 square inches total sectional area
 Leads to lamps carrying 1 Amperes, comprised of 1 wires, each 18 L.S.G. diameter, .0018 square inches total sectional area
 Cargo light cables carrying 2 Amperes, comprised of 70 wires, each 40 L.S.G. diameter, .0018 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Cables all insulated with pure & vulcanized J. B. taped & compounded then lead covered

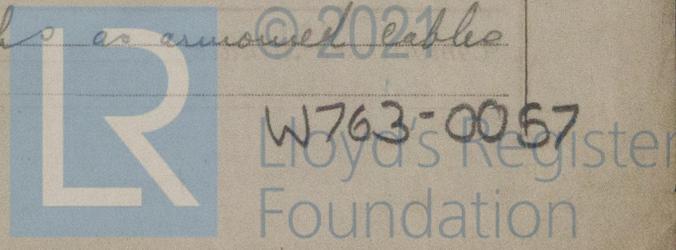
Joints in cables, how made, insulated, and protected none made

intermediate is in addition not used it is covered with insulation with

Are all the joints of cables thoroughly soldered, resin only having been used as a flux no 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 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 Through tween decks as armoured cables protected & in addition by wood casing



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 Iron pipe

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat Arrounding with G.I. Wires

What special protection has been provided for the cables near boiler casings Arrounding with G.I. Wires

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

How are cables carried through beams through insulated bushes, through bulkheads, &c. through w.t. through stuffing boxes

How are cables carried through decks through Iron 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 yes

If so, how are they protected by G.I. Wire Arrounding & wood casing

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 —

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel by brass connector swelling socket

How are the returns from the lamps connected to the hull only main are ^{or} single wired wire systems

Are all the joints with the hull in accessible positions yes

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 — an amperemeter, fixed on Main S. Board

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 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.

Galeon Cross Electrical Engineers Date 18/1/04

COMPASSES.

Distance between dynamo or electric motors and standard compass 46 feet

Distance between dynamo or electric motors and steering compass 68 feet

The nearest cables to the compasses are as follows:—

A cable carrying <u>two</u> Amperes <u>eight</u> feet from standard compass	—	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 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.

For SIR W. G. ARMSTRONG & CO. LIMITED Builder's Signature. Date 20th January 1904

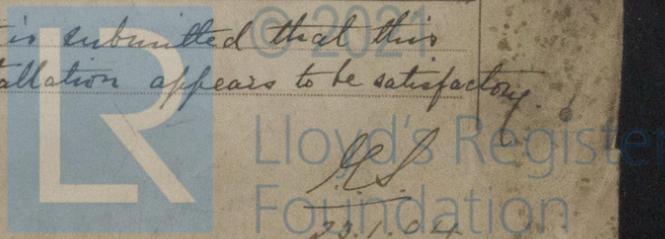
GENERAL REMARKS.

This installation appears to have been fitted in a satisfactory manner and in accordance with the Rules
G. A. Wake

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

Committee's Minute

It is submitted that this installation appears to be satisfactory



THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

REPORT FORM No. 14.