

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 6447.

Port of Belfast Date of First Survey Jan 10th Date of Last Survey Feb 25th No. of Visits 9
 No. in Reg. Book on the Steel I.S.S. "Ancona" Port belonging to Genoa
 Built at Belfast By whom Workman, Clark & Co. Ltd. When built 1908
 Owners Liga, la Società di Navigazione Owners' Address Genoa
 Yard No. 240 Electric Light Installation fitted by W.C. Martin & Co., Glasgow When fitted 1908

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Three, double acting compound steam engines each direct coupled to a compound wound multipolar dynamo with carbon brushes.
 Capacity of Dynamo 243 Amperes at 110 Volts, whether continuous or alternating current Continuous
 Where is Dynamo fixed Special Platform in Engine Room Whether single or double wire system is used Double
 Position of Main Switch Board Beside Dynamo having switches to groups A, B, C, D, E, F, G, H of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each Engine Room Emigrant Entrances and 1st class Passages

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 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 712 arranged in the following groups:—

A	<u>28, 48, 8</u>	lights each of	<u>5, 8, 16</u>	candle power requiring a total current of	<u>28</u>	Amperes
B	<u>24, 86, 2, 8</u>	lights each of	<u>5, 8, 12, 16</u>	candle power requiring a total current of	<u>31</u>	Amperes
C	<u>19, 94, 34, 65</u>	lights each of	<u>5, 8, 12, 16</u>	candle power requiring a total current of	<u>48</u>	Amperes
D	<u>9, 26, 56, 35</u>	lights each of	<u>5, 8, 12, 16</u>	candle power requiring a total current of	<u>56</u>	Amperes
E	<u>96</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>48</u>	Amperes
<u>2</u>	Mast head light with <u>1</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>1</u>	lamps each of	<u>32</u>	candle power requiring a total current of	<u>2</u>	Amperes

8 Cargo lights each 5 8/16 candle power, whether incandescent or arc lights Incandescent
4 arc Lamps
 If arc lights, what protection is provided against fire, sparks, &c. Enclosed with inner globe and outer Lantern

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

DESCRIPTION OF CABLES.

Main cable carrying 243 Amperes, comprised of 34 wires, each 12 L.S.G. diameter, .31 square inches total sectional area
 Branch cables carrying 48 Amperes, comprised of 19 wires, each 14 L.S.G. diameter, .094 square inches total sectional area
 Branch cables carrying 56 Amperes, comprised of 19 wires, each 16 L.S.G. diameter, .06 square inches total sectional area
 Leads to lamps carrying 3 Amperes, comprised of 1 wires, each 16 L.S.G. diameter, .003 square inches total sectional area
 Cargo light cables carrying 2.5 Amperes, comprised of 108 wires, each .006 L.S.G. diameter, .003 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

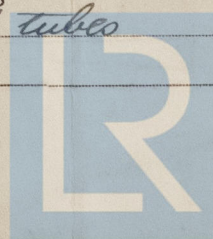
N. C. copper wire tinned, insulated with pure & V.I.R. Rubber and tape, the whole vulcanised together, braided and compounded and drawn into insulated steel tubes.

Joints in cables, how made, insulated, and protected Wires cleaned and twisted together and Soldered
Insulated with Okonite strip and prepared tape

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 all in joint Boxes

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 insulated steel tubes



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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 In Insulated steel tubes

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

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

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

How are cables carried through beams Tubes through bulkheads, &c. Tubes

How are cables carried through decks 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 Steel Tubes

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 Lamps removed and substituted

Where are the main switches and cut outs for these lights fitted At Distributing Box on Spar Deck

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 Bergman Couplings

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

The installation is at present supplied with a voltmeter and also three an amperemeters fixed on 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 2000 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.

W. C. Martin Electrical Engineers

Date 25th March 1908

COMPASSES.

Distance between dynamo or electric motors and standard compass 60 ft

Distance between dynamo or electric motors and steering compass 60 ft

The nearest cables to the compasses are as follows:—

A cable carrying <u>5</u> Amperes <u>6</u> feet from standard compass <u>6</u> 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 the same course in the case of the steering compass.

M. Hancock Builder's Signature. Date 27th March 1908

GENERAL REMARKS.

This installation appears to be of good description, and has been fitted in accordance with the Rules.

R. J. B. Bennett
Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

It is submitted that the Record Elec. Light be noted in the Reg. Book.

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.