

MON. JUL 1 1901

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 9817.

Port of Leith Date of First Survey May 26th Date of Last Survey June 20th No. of Visits 6
 No. in Reg. Book 768 on the Iron or Steel SS Britania Port belonging to Leith
 Built at Dumfries By whom Courlay Bros When built 1877
 Owners G Gibson & Co Owners' Address Leith
 Yard No. r Electric Light Installation fitted by Thygesen, Leith. When fitted June 1901

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Thygesen two pole dynamo coupled to vertical open engine by Ramona, Sims & Jeffries, Ltd.
 Capacity of Dynamo 50 Amperes at 100 Volts, whether continuous or alternating current continuous
 Where is Dynamo fixed Stationed side engine room
 Position of Main Switch Board beside dynamo having switches to groups five of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each Branch distribution board for - aft. circuit in passage behind column - Midship circuit in Officer's mess room - engine room or near main switchboard. Accessible in passageway
 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 no
 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 about 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 59 arranged in the following groups:—
 A Aft. 19 lights each of 16 candle power requiring a total current of 11 Amperes
 B Engine room 13 lights each of 16 candle power requiring a total current of 8 Amperes
 C Midship 15 lights each of 16 candle power requiring a total current of 9 Amperes
 D Fore 10 lights each of 16 candle power requiring a total current of 6 Amperes
 E Aux 2 lights each of 3000 candle power requiring a total current of 15 Amperes
none Mast head light with — lamps each of — candle power requiring a total current of — Amperes
none Side light with — lamps each of — candle power requiring a total current of — Amperes
none Cargo lights of — candle power, whether incandescent or arc lights
 If arc lights, what protection is provided against fire, sparks, &c. enclosed in glazed lantern.

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

DESCRIPTION OF CABLES.

Main cable carrying 50 Amperes, comprised of 19 wires, each 16 L.S.G. diameter, .062 square inches total sectional area
 Branch cables carrying 11 Amperes, comprised of 7 wires, each 18 L.S.G. diameter, .072 square inches total sectional area
 Branch cables carrying 15 Amperes, comprised of 7 wires, each 16 L.S.G. diameter, .022 square inches total sectional area
 Leads to lamps carrying 3 Amperes, comprised of 3 wires, each 20 L.S.G. diameter, .003 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.

Selentman Co's make pure vulcanized rubber, tape & braiding
 Joints in cables, how made, insulated, and protected Soldered with resin & insulated with pure rubber strip, solution + prepared w. p. 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 yes
 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 casing & covering + in watertight piping.

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 none

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat none

What special protection has been provided for the cables near boiler casings none near boilers

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

How are cables carried through beams in hard wood bunks through bulkheads, &c. in hard wood bunks or metal glands

How are cables carried through decks in deck tubes

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 wire iron tubing

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

Cargo light cables, whether portable or permanently fixed — How fixed —

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

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 —

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

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.

King TC

Electrical Engineers

Date 20th June 1901

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	Amperes	feet from standard compass	feet from steering compass
<u>0.6</u>	<u>5-6</u>	<u>5-6</u>	<u>5-6</u>
<u>0.6</u>	<u>5-6</u>	<u>5-6</u>	<u>5-6</u>
<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>

Have the compasses been adjusted with and without the electric installation at work at full power without

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

GENERAL REMARKS.

This installation has been fitted in accordance with the rules & in a satisfactory manner

Thos. L. Thornton

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

Committee's Minute

This installation appears to be fitted in accordance with the Rules.

17th 3/7/01

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.