

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 14333

Port of Glasgow Date of First Survey _____ Date of Last Survey 10th April No. of Visits _____
 No. in _____ on the Iron Steel S.S. Okinawa Maru Port belonging to Tokio
 Reg. Book _____ Built at Keppel By whom Schmitz & Co Ltd When built 1896
 Owners The Imperial Japanese Government Owners Address _____
 Yard No. 435 Electric Light Installation fitted by W.C. Martin & Co When fitted 1896

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Two dynamos compound wound with drum armatures coupled direct to 2 compound engines. Cylinders 6" and 9", 6" stroke
 Capacity of Dynamo each 140 Amperes at 65 Volts, whether continuous or alternating current continuous
 Where is Dynamo fixed Engine room. Port side under main deck.
 Position of Main Switch Board Near Dynamos having switches to groups A B C D E F of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each Saloon Amundships Engine Room Forecastle, cable tanks.

If cut outs are fitted on main switch board to the cables of main circuit yes and on each auxiliary switch boards 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 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 _____
 Are all switches and cut-outs constructed of incombustible materials and fitted on incombustible bases yes. slate.

Total number of lights provided for 204 arranged in the following groups:—

| | |
|---|---|
| A | Saloon 50 lights each of 16 candle power requiring a total current of 47 Amperes |
| B | Forecastle 48 lights each of 16 candle power requiring a total current of 45 Amperes |
| C | Cable Tanks 20 lights each of 16 candle power requiring a total current of 19 Amperes |
| D | Amundships 54 lights each of 16 candle power requiring a total current of 50 Amperes |
| E | Engine Room 32 lights each of 16 candle power requiring a total current of 30 Amperes |
| F | Search light. one are light. one Mast head light with one lamp each of 50 candle power requiring a total current of 3 Amperes |
| | Each Side light with one lamp each of 50 candle power requiring a total current of 6 Amperes |

Four Cargo lights of 4 incandescent lamps each 50 candle power, whether incandescent or arc lights and one are light 15 amperes.
 If arc lights, what protection is provided against fire, sparks, &c. enclosed in a square lantern.

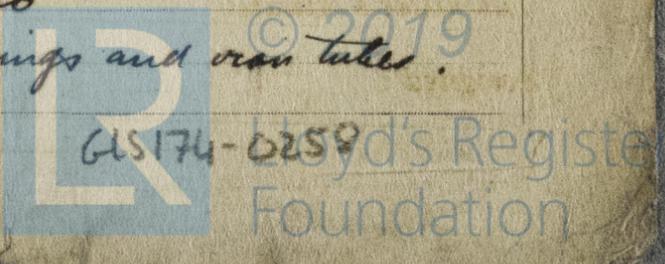
Where are the switches controlling the masthead and side lights placed in whalhouse on bridge

DESCRIPTION OF CABLES.

Main cable carrying 188 Amperes, comprised of 37 wires, each 14 L.S.G. diameter, .186 square inches total sectional area
 4 Branch cables carrying 59, 60, each 47, 45 Amperes, comprised of 19 wires, each 16 L.S.G. diameter, .0611 square inches total sectional area
 2 Branch cables carrying 30, 19 Amperes, comprised of 19 wires, each 16 L.S.G. diameter, .0225 square inches total sectional area
 Leads to lamps carrying 3 Amperes, comprised of one wire, each 16 L.S.G. diameter, .0032 square inches total sectional area
 Cargo light cables carrying 12 Amperes, comprised of 7 wires, each 18 L.S.G. diameter, .0127 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Pure & vulcanized India Rubber taped and vulcanized together and braided with yarn & compounded.
 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 bunker, 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 strong wooden casings and iron tubes.



14333 G.C.

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 iron tubes.*

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

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

What special protection has been provided for the cables in engine room *iron tube.*

How are cables carried through beams *holes lined with teak ferrules* through bulkheads, &c. *Glands.*

How are cables carried through decks *Deck tubes*

Are any cables run through coal bunkers *no* or cargo spaces *None* or spaces which may be used for carrying cargo, stores, or baggage *yes*

If so, how are they protected *in iron tubes*

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 *Fork connections*

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

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 supplied with a voltmeter and *two* amperemeter, fixed *on* *Switch 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 *1,000* 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 *10th April 1896*

COMPASSES.

Distance between dynamo or electric motors and standard compass *104 feet*

Distance between dynamo or electric motors and steering compass *94 "*

The nearest cables to the compasses are as follows:—

| | | | | | | |
|------------------|-----------|---------|-----------|----------------------------|-----------|----------------------------|
| A cable carrying | <i>60</i> | Amperes | <i>10</i> | feet from standard compass | <i>10</i> | feet from steering compass |
| A cable carrying | <i>45</i> | Amperes | <i>22</i> | feet from standard compass | <i>12</i> | feet from steering compass |
| A cable carrying | <i>19</i> | Amperes | <i>22</i> | feet from standard compass | <i>12</i> | 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 *Nil* course in the case of the

standard compass and *Nil* degrees on *Nil* course in the case of the steering compass.

LOBNITZ & Co., LIMITED.

W. J. ...

Director.

Builder's Signature

Date *14 April 1896.*

GENERAL REMARKS.

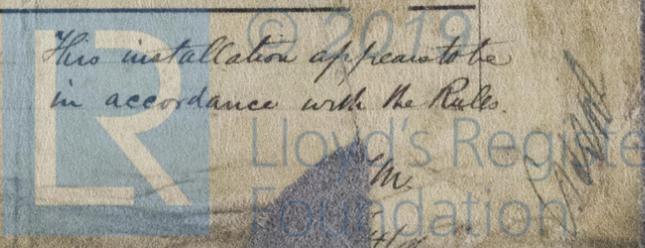
This vessel has been fitted with the above described electric installation on the double wire system and is in my opinion satisfactory.

C. J. Stromeyer

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

Committee's Minute

This installation appears to be in accordance with the Rules.



THIS MARGIN TO THE SURVEYORS ARE REQUESTED

REPORT FORM No. 13.