

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 25544

Port of *Shull* Date of First Survey *Oct 9th* Date of Last Survey *Oct 11th* No. of Visits *3*
 No. in Reg. Book *12 Supp.* on the ~~Iron~~ Steel *Shawler "Ingolfur Arnarson"* Port belonging to *Reykjavik*
 Built at *Selby* By whom *Cochrane & Sons* When built *1912*
 Owners *P. J. Thorsteinsson* Owners' Address *Reykjavik*
 Yard No. Electric Light Installation fitted by *Campbell & Sherwood Ltd.* When fitted *1912*

DESCRIPTION OF DYNAMO, ENGINE, ETC.

A Campbell & Sherwood four pole compound wound dynamo, direct coupled to a Lison engine

Capacity of Dynamo *30* Amperes at *100* Volts, whether continuous or alternating current *Continuous*
 Where is Dynamo fixed *Starboard side of Engine room* Whether single or double wire system is used *double*
 Position of Main Switch Board *Bulkhead* having switches to groups *3* of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each *Wheelhouse 7 and a switch in a convenient position to each light*

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 *75* 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 *42 of 16 & 5 of 32* arranged in the following groups:—

| | | | | | | |
|---|----------------------|-----------------|-----------------|--|----------------------|---------|
| A | <i>Navigation</i> | lights each of | <i>5 of 32</i> | candle power requiring a total current of | <i>5.5</i> | Amperes |
| B | <i>Midships</i> | lights each of | <i>22 of 16</i> | candle power requiring a total current of | <i>12.1</i> | Amperes |
| C | <i>Aft.</i> | lights each of | <i>20 of 16</i> | candle power requiring a total current of | <i>11.55</i> | Amperes |
| D | | lights each of | | candle power requiring a total current of | | Amperes |
| E | | lights each of | | candle power requiring a total current of | | Amperes |
| 3 | Mast head light with | 1 lamps each of | <i>32</i> | candle power requiring a total current of | <i>Included in A</i> | Amperes |
| 2 | Side light with | 1 lamps each of | <i>32</i> | candle power requiring a total current of | <i>"</i> | Amperes |
| 2 | Cargo lights of | <i>5 of 16</i> | | candle power, whether incandescent or arc lights | <i>Incandescent</i> | |

If arc lights, what protection is provided against fire, sparks, &c.

Where are the switches controlling the masthead and side lights placed *Wheelhouse*

DESCRIPTION OF CABLES.

Main cable carrying *30* Amperes, comprised of *19* wires, each *18* L.S.G. diameter, *.034* square inches total sectional area
 Branch cables carrying *12.1* Amperes, comprised of *7* wires, each *18* L.S.G. diameter, *.0125* square inches total sectional area
 Branch cables carrying *5.5* Amperes, comprised of *7* wires, each *20* L.S.G. diameter, *.007* square inches total sectional area
 Leads to lamps carrying *1.65* Amperes, comprised of *1* wires, each *18* L.S.G. diameter, *.0018* square inches total sectional area
 Cargo light cables carrying *2.75* Amperes, comprised of *60* wires, each *30* L.S.G. diameter, *.0066* square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Accommodation - Lead covered vulcanised rubber.
Engine & Boiler rooms - Lead covered armoured & braided

Joints in cables, how made, insulated, and protected *None made*

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 *—*

How are the cables led through the ship, and how protected *Clipped to casing bulkhead etc., vulcanised rubber lead cover armour & braid*

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

Screwed galvanized

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

Lead covered armoured & braided

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

"

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

"

How are cables carried through beams

Fibre ferrules.

through bulkheads, &c. W.T. glands.

How are cables carried through decks

Iron pipes flanged to deck

Are any cables run through coal bunkers

No.

or cargo spaces

Yes.

or spaces which may be used for carrying cargo, stores, or baggage

Yes.

If so, how are they protected

Lead covered armoured & braided

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

Cargo light cables, whether portable or permanently fixed

Portable

How fixed

Special sockets in C.I. box.

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

also

supplied with a voltmeter and

also

an amperemeter, fixed

On main board

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 100 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.

Campbell & Isherwood Ltd

Electrical Engineers

Date Oct 25th 1912

COMPASSES.

Distance between dynamo or electric motors and standard compass

45 ft

Distance between dynamo or electric motors and steering compass

50 ft

The nearest cables to the compasses are as follows:—

| A cable carrying | Amperes | feet from standard compass | feet from steering compass |
|------------------|---------|----------------------------|----------------------------|
| 5.5 | 1 | 1 | |
| 2.75 | 6 | 6 | |
| 5.5 | 10 | 10 | |

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

The maximum deviation due to electric currents, etc., was found to be

degrees on

course in the case of the

standard compass and

degrees on

course in the case of the steering compass.

Bochmann & Sons

Builder's Signature.

Date 28.10.12

GENERAL REMARKS.

This installation of electric light has been well fitted, the materials workmanship are good, it has been tried under full working conditions found satisfactory. It is submitted that this vessel is eligible for the RECORD Elec. light.

J.W.D. 30/10/12

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

Committee's Minute.

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



© 2020

Lloyd's Register Foundation