

TUE NOV 11 1913

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 26879

Name of *Hull*. Date of First Survey *Oct 4th* Date of Last Survey *Nov 4th* No. of Visits *3*
 in on the *Iron or Steel* *ss. "Silvio"* Port belonging to *Hull*.
 Built at *Dundee*. By whom *The Dundee S. B. Co.* When built *1913*.
 Owners' Address *Hull*.
 Electric Light Installation fitted by *J. Wilson Sons & Co.* When fitted *1913*.

DESCRIPTION OF DYNAMO, ENGINE, ETC.

The 5½ x 5" Rober engine enclosed, forced lubrication, coupled direct to 5½ H.P. Dynamo. Compound (Hobbs' make).
 Capacity of Dynamo *55*. Amperes at *100*. Volts, whether continuous or alternating current *Continuous*.
 Whether single or double wire system is used *Double*.
 Location of Main Switch Board *Above Dynamo* having switches to group *Three circuits* of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each *Each light is fitted with a separate switch*.

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*.
 Fuse 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*.
 the cut outs of non-oxidizable metal *yes*. and constructed to fuse at an excess of *50%* per cent over the normal current
 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*. *Copper wire fuses fitted*.
 All switches and cut-outs constructed of incombustible materials and fitted on incombustible bases *yes*.

Number of lights provided for *90*. arranged in the following groups:—
 Saloon *40* lights each of *16*. candle power requiring a total current of *16.8*. Amperes
 Engine room *21* lights each of *16*. candle power requiring a total current of *8.4*. Amperes
 Do. *29* lights each of *16*. candle power requiring a total current of *11.6*. Amperes
 Do. *108* lights each of *16*. candle power requiring a total current of *1.2*. Amperes
 Mast head light with *216* CP lamps each of *16*. candle power requiring a total current of *1.2*. Amperes
 Side light with *416* CP lamps each of *16*. candle power requiring a total current of *1.2*. Amperes
 Cargo lights of *16*. candle power, whether incandescent or arc lights

For lights, what protection is provided against fire, sparks, &c. *Hexagon glass lantern is fitted*
 Are the switches controlling the masthead and side lights placed *In chart room*.

DESCRIPTION OF CABLES.

Cable carrying *55*. Amperes, comprised of *19*. wires, each *16*. L.S.G. diameter, *0.0600* square inches total sectional area
 Each cables carrying *16.8*. Amperes, comprised of *7*. wires, each *16*. L.S.G. diameter, *0.02214* square inches total sectional area
 Each cables carrying *8.4* Amperes, comprised of *7*. wires, each *18*. L.S.G. diameter, *0.01246* square inches total sectional area
 Cables to lamps carrying *11.6* Amperes, comprised of *7*. wires, each *18*. L.S.G. diameter, *0.01246* square inches total sectional area
 Light cables carrying *2*. Amperes, comprised of *136*. wires, each *40*. L.S.G. diameter, *0.00246* square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Cables are all lead covered & steel
 Wires run on wood-work are lead covered and
 Clipped up by means of brass clips.

Joints in cables, how made, insulated, and protected *No joints made*.
 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 joints made*.
 Are there any joints in or branches from the cable leading from dynamo to main switch board *No*.
 Are the cables led through the ship, and how protected *Led through beams & clipped up*
 by strong galvanized clips.

26879

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 *Lead covered and galvanized steel armouring.*

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *Lead covered & armoured.*

What special protection has been provided for the cables near boiler casings *Lead covered & armoured.*

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

How are cables carried through beams *Through drilled holes through bulkheads, &c. N.T. glands.*

How are cables carried through decks *By means of galvanized iron 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 *Lead covered & armoured.*

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 *N.T. fittings specially guarded.*

Where are the main switches and cut outs for these lights fitted *In special N.T. Boxes.*

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 *By special connection boxes.*

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 *One* supplied with a voltmeter and *One* amperemeter, 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 *100%* 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.

THOS. WILSON, SONS & CO. LD.

Electrical Engineers

Date

COMPASSES.

Distance between dynamo or electric motors and standard compass

120 ft.

Distance between dynamo or electric motors and steering compass

110 ft.

The nearest cables to the compasses are as follows:—

A cable carrying	6	Amperes	10	feet from standard compass	15	feet from steering compass
A cable carrying	6	Amperes	12	feet from standard compass	20	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 *✓* degrees on *✓* course in the case of the standard compass and *✓* degrees on *✓* course in the case of the steering compass.

FOR THE BUILDERS BUILDING CO., LTD.

Builder's Signature. Date

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. 11/11/13

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

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



Lloyd's Register Foundation