

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 19756

Port of Sunderland Date of First Survey ✓ Date of Last Survey 8 July 1899 No. of Visits ✓
 No. in on the Iron or Steel S.S. "Wilcannia" Port belonging to London
 Reg. Book 252 Built at Sunderland By whom Sld. S.B. Co. Ltd When built 1899
 Owners W. Lund Owners' Address London
 Yard No. 199 Electric Light Installation fitted by Troupe Curtis & Co When fitted 1899

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Combined plant coupled direct under-type Dynamo. Vertical
Engine open type at 90 lbs steam pressure
 Capacity of Dynamo 250 Amperes at 60 Volts, whether continuous or alternating current continuous
 Where is Dynamo fixed in Engine Room
 Position of Main Switch Board " " having switches to groups 5 of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each 1 in Steward's Pantry 7 switches & cutouts
1 in Lower Saloon 4 switches & cutouts 1 in after circuit 3 switches & cutouts
1 in 3rd class Forward 4 switches & cutouts
 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 & cutouts
 Are the cut outs of non-oxidizable metal yes and constructed to fuse at an excess of 10 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
 Total number of lights provided for 250 arranged in the following groups:—
 A Engine Room ⁴⁵ lights each of 16 candle power requiring a total current of about 45 Amperes
 B Saloon ⁷⁵ lights each of 16 candle power requiring a total current of 75 Amperes
 C Amphip ⁴⁰ lights each of 16 candle power requiring a total current of 40 Amperes
 D Aft circuit ²⁰ lights each of 16 candle power requiring a total current of 20 Amperes
 E Forward ⁴⁵ lights each of 16 candle power requiring a total current of 45 Amperes
1 Mast head light with 1 lamps each of 32 candle power requiring a total current of 1.8 Amperes
2 Side light with 1 lamps each of 32 candle power requiring a total current of 3.6 Amperes
4 Cargo lights of 3-32 cp each candle power, whether incandescent or are lights Incandescent
 If are lights, what protection is provided against fire, sparks, &c.

Where are the switches controlling the masthead and side lights placed In Chart Room

DESCRIPTION OF CABLES.

Main cable carrying 250 Amperes, comprised of 19/10 wires, each .128 L.S.G. diameter, .2498 square inches total sectional area
 Branch cables carrying 75 Amperes, comprised of 19/14 wires, each " L.S.G. diameter, .0976 square inches total sectional area
 Branch cables carrying 50 Amperes, comprised of 19/16 wires, each .064 L.S.G. diameter, .0624 square inches total sectional area
 Leads to lamps carrying 1 Amperes, comprised of 1 wires, each 1/16 L.S.G. diameter, .0032 square inches total sectional area
 Cargo light cables carrying 6 Amperes, comprised of 290 wires, each .38 L.S.G. diameter, .008120 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Insulation Resistance - Main cables 2000 Megohms
Branch cables 3000 megohms

Joints in cables, how made, insulated, and protected by best known methods

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 No

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 Simplex steel tubing & 2021 wood casing where led through bulkheads moulded with ebonite bushes

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 exposed in alleyway

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

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

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

How are cables carried through beams through insulated holes bulkheads, &c. do

How are cables carried through decks "

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 Simpson's Steel tubing

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 There are none

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 "

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 "

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 yes an amperemeter, fixed on the board

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.

Troup Curtis & Co Electrical Engineers Date 17 July 1909

COMPASSES.

Distance between dynamo or electric motors and standard compass 86 feet

Distance between dynamo or electric motors and steering compass "

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	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 "

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 SUNDERLAND SHIPBUILDING CO. LD.

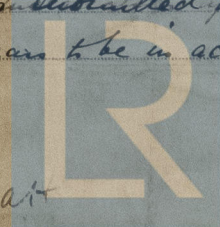
Builder's Signature. Date 21. 7. 99

GENERAL REMARKS.

Wm. R. Pinner SECRETARY
21/7/99
This installation as far as seen appears to be fitted in accordance with the Rules.
J. J. Findlay
Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

It is submitted that this installation appears to be in accordance with the Rules.



Lloyd's Register Foundation

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.