

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 29158

Port of Hull. Date of First Survey 22/1/16 Date of Last Survey 25/1/16 No. of Visits 3
 No. in Reg. Book 13. on the Iron or Steel SS "PACIFIC." Port belonging to Hull.
 Built at Sunderland. By whom Sunderland S.B. Co. When built 1916.
 Owners Lancashire Spg Co. J. Chambers Owners' Address Charles S.B. & Co. Ld. When fitted 1916.
 Yard No. Electric Light Installation fitted by Charles S.B. & Co. Ld.

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Open type single stroke engine by Robey & Co., Lincoln, coupled to a 11 kilo-watt dynamo by J.H. Holmes & Co., Newcastle on Tyne.

Capacity of Dynamo 110 Amperes at 100. Volts, whether continuous or alternating current Continuous.

Where is Dynamo fixed Star^d side of engine room Whether single or double wire system is used Double.

Position of Main Switch Board Star^d side of E.R. having switches to groups 5 circuits of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each One in chart room with 8 switches one in engine room star^d side with 6 switches.

If fuses 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 fuses fitted to both flow and return wires or cables of all circuits including lamp circuits yes.

Are the fuses of non-oxidizable metal yes. and constructed to fuse at an excess of 50 per cent over the normal current

Are all fuses 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 fuses constructed of incombustible materials and fitted on incombustible bases porcelain.

Total number of lights provided for 111 arranged in the following groups:—

A Accommodation	30 lights each of 16	candle power requiring a total current of 16.80	Amperes
B Engine room	19 lights each of 16	candle power requiring a total current of 10.64	Amperes
C Deck	13 lights each of 16	candle power requiring a total current of 7.28	Amperes
D Cargo	30 lights each of 16	candle power requiring a total current of 16.80	Amperes
E Navigation	3 arc lamps 7 lights each of 16	candle power requiring a total current of 15	Amperes
2 Mast head light with 1 lamps each of 32	32	candle power requiring a total current of 1.12 each	Amperes
2 Side light with 1 lamps each of 32	32	candle power requiring a total current of 1.12 "	Amperes
5 Cargo lights of 16	16	candle power, whether incandescent or arc lights	

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

Enclosed type.

Where are the switches controlling the masthead and side lights placed Chart room.

DESCRIPTION OF CABLES.

Main cable carrying 79.4 Amperes, comprised of 19 wires, each 14 S.W.G. diameter, .095 square inches total sectional area

Branch cables carrying 16.8 Amperes, comprised of 7 wires, each 18 S.W.G. diameter, .0126 square inches total sectional area

Branch cables carrying 10.64 Amperes, comprised of 7 wires, each 20 S.W.G. diameter, .0070 square inches total sectional area

Leads to lamps carrying 56 Amperes, comprised of 1 wires, each 18 S.W.G. diameter, .00180 square inches total sectional area

Cargo light cables carrying 3.27 Amperes, comprised of 108 wires, each 38 S.W.G. diameter, .0030 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

All main cables viz: India Rubber & Gutta Percha taped & braided. All wires in rooms, engine room, crew space etc lead covered.

Joints in cables, how made, insulated, and protected None. All mechanical connections at Distribution Boxes.

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances ✓ 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 None.

How are the cables led through the ship, and how protected Through pipes in Bridge at space both fore and aft.

DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible Bridge deck space. (yes)

What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture Lead covered wire.

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

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 through bulkheads, &c. A.T. Gland.

How are cables carried through decks Deck pipes secured nuts washers to bottom of BK.

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 Galvanized iron pipes with C.I. inspection boxes.

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage none.

If so, how are the lamp fittings and cable terminals specially protected ✓

Where are the main switches and fuses for these lights fitted ✓

If in the spaces, how are they specially protected ✓

Are any switches or fuses fitted in bunkers none.

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 ✓

Is the installation supplied with a voltmeter yes., and with an amperemeter yes., fixed Main S. board

VESSELS BUILT FOR CARRYING PETROLEUM.

In vessels built for carrying petroleum, are all switches and fuses fitted in positions not liable to the accumulation of petroleum vapour or gas ✓

Are any switches, fuses, 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 not less than that of the Engineering Standards Committee's standard, and the wires are protected by tinning from the sulphur compounds present in the insulating material.

Insulation of cables is guaranteed to have a resistance of not less than 600 megohms per statute mile at 60° Fahrenheit after 24 hours' immersion in water, the test being made after one minute's electrification at not less than 500 volts and while the cable is still immersed.

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.

ENGINEERING COMPANY, LIMITED.

Cartwright Electrical Engineers

Date 28/2/16

COMPASSES.

Distance between dynamo or electric motors and standard compass 130 feet

Distance between dynamo or electric motors and steering compass 120 feet.

The nearest cables to the compasses are as follows:—

A cable carrying <u>7.28.</u> Amperes <u>12</u>	feet from standard compass <u>10</u>	feet from steering compass <u>✓</u>
A cable carrying <u>✓</u> Amperes <u>✓</u>	feet from standard compass <u>✓</u>	feet from steering compass <u>✓</u>
A cable carrying <u>✓</u> Amperes <u>✓</u>	feet from standard compass <u>✓</u>	feet from steering compass <u>✓</u>

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.

ENGINEERING COMPANY, LIMITED.

Cartwright Builder's Signature. Date 28/2/16

GENERAL REMARKS.

This installation of electric light has been well fitted. The materials & workmanship are good. It has been tried under full working and found satisfactory.

It is submitted that this vessel is eligible for THE RECORD Elec. light.

J.W.D. 2/3/16

J.G. MacKillop.

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

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

Im. 1143. Transfer.



© 2020

Lloyd's Register Foundation