

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 24241

Port of Hull Date of First Survey 25th July Date of Last Survey 8th Dec 1911 No. of Visits 6
 No. in Reg. Book 263 on the ~~Iron~~ Steel Sc. Sr. Harrogate Port belonging to Hull
 Built at Hull By whom Messrs. Carles & Co. Ltd When built 1911
 Owners J. Wilson Sons & Co. Ltd Owners' Address Hull
 Yard No. 578 Electric Light Installation fitted by J. Wilson Sons & Co. Ltd When fitted 1911

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Compound wound Dynamo by The Brush & Co. Ltd coupled direct to a vertical direct acting Eng. by Messrs. Robey & Co. Ltd
 Capacity of Dynamo 120 Amperes at 100 Volts, whether continuous or alternating current continuous
 Where is Dynamo fixed Star side of Eng. Room Whether single or double wire system is used double
 Position of Main Switch Board near dynamo having switches to groups A. B. C. D. E of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each Each light and group of lights provided with switches as necessary.

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 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 yes
 Are all switches and cut-outs constructed of incombustible materials and fitted on incombustible bases yes

Total number of lights provided for 127 arranged in the following groups:—

A Eng. Room	29 lights each of	16	candle power requiring a total current of	14.5	Amperes
B Saloon	40 lights each of	16	candle power requiring a total current of	20.0	Amperes
C aft	20 lights each of	16	candle power requiring a total current of	10.0	Amperes
D Forecastle	12 lights each of	16	candle power requiring a total current of	6.0	Amperes
E Amidship	18 lights each of	16	candle power requiring a total current of	9.0	Amperes
2 Mast head light with	2 lamps each of	32	candle power requiring a total current of	2.0	Amperes
2 Side light with	2 lamps each of	32	candle power requiring a total current of	2.0	Amperes

Four of 6. Two of 4 Cargo lights of 16 candle power, whether incandescent or arc lights incandescent
 If arc lights, what protection is provided against fire, sparks, &c. No arc lights

Where are the switches controlling the masthead and side lights placed Chart House

DESCRIPTION OF CABLES.

Main cable carrying 70 Amperes, comprised of 19 wires, each 16 L.S.G. diameter, .0612 square inches total sectional area
 Branch cables carrying 14.5 Amperes, comprised of 7 wires, each 18 L.S.G. diameter, .0127 square inches total sectional area
 Branch cables carrying 20 Amperes, comprised of 7 wires, each 16 L.S.G. diameter, .0225 square inches total sectional area
 Leads to lamps carrying .5 Amperes, comprised of 1 wires, each 18 L.S.G. diameter, .00181 square inches total sectional area
 Cargo light cables carrying 3 Amperes, comprised of 110 wires, each 36 L.S.G. diameter, .005 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

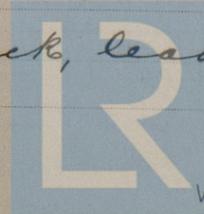
Pure rubber, taped, braided, and lead covered in accommodation, steel armoured, where exposed.

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

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 No

How are the cables led through the ship, and how protected Clipped up under deck, lead covered and armoured.



DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible No

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

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

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

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

How are cables carried through beams In holes through bulkheads, &c. W.I. glands

How are cables carried through decks in Galv Iron pipes

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 and 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 Brass guards & Iron caps

Where are the main switches and cut outs for these lights fitted In tween decks

If in the spaces, how are they specially protected C.I. Boxes

Are any switches or cut outs fitted in bunkers No

Cargo light cables, whether portable or permanently fixed portable How fixed W.I. Sockets

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 now supplied with a voltmeter and also an amperemeter, fixed on main switch 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 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.

FOR THOS. WILSON, SONS & CO. LTD.

W.S. Hays

Electrical Engineers Date _____

SUPR'S ENGINEER.

COMPASSES.

Distance between dynamo or electric motors and standard compass 95 feet

Distance between dynamo or electric motors and steering compass 90 feet

The nearest cables to the compasses are as follows:—

A cable carrying	<u>1</u>	Amperes	<u>3</u>	feet from standard compass	<u>8</u>	feet from steering compass
A cable carrying	<u>.5</u>	Amperes	<u>is fitted inside</u>	<u>feet from</u> standard compass	<u>and also</u>	<u>feet from</u> steering compass
A cable carrying	<u>—</u>	Amperes	<u>—</u>	feet from standard compass	<u>—</u>	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 all courses in the case of the standard compass and Nil degrees on all course in the case of the steering compass.

FOR EARLE'S SHIPBUILDING & ENGINEERING CO. LTD. SECRETARY.

Builder's Signature. Date 5th Dec 1911

GENERAL REMARKS.

This vessel has been fitted with an Electric Installation as above, it was tested, & found satisfactory and is eligible in my opinion for notation in Register Book. This vessel is eligible for THE RECORD, Elec. light.

James Barclay
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