

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 23614

Port of Hull Date of First Survey Mar 29th Date of Last Survey Apr. 10th No. of Visits 8
 No. in Reg. Book 4088 on the Iron or Steel Boiler "Dane" Port belonging to Hull
H.O. Rupp built at Riverley By whom Messrs. Cook, Nelson & Gammels When built 1911
 Owners Imperial Steam Fishing Co. Owners' Address Hull
 Yard No. _____ Electric Light Installation fitted by The Sunderlands Supt. Eng. Co. When fitted 1911

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Wolffthalan compound wound Dynamo direct coupled to Swedish single cylinder engine both by Sunderlands Supt. & Engineering Co.
 Capacity of Dynamo 32 Amperes at 100 Volts, whether continuous or alternating current continuous
 Where is Dynamo fixed Bottom of engine room Star side Whether single or double wire system is used double
 Position of Main Switch Board Close to dynamo having switches to groups three of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each One in wheelhouse having switches for 2 side lights, stem lights, 2 compass lights, 1 cluster & 7 deck lights

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 _____
 Are the cut outs of non-oxidizable metal yes and constructed to fuse at an excess of 100 per cent over the normal current
 Are all cut outs fitted in easily accessible positions yes Are the fuses of standard dimensions no. 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 56 arranged in the following groups:—

A	<u>8</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>4.48</u>	Amperes
B	<u>5</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>2.80</u>	Amperes
C	<u>30</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>16.80</u>	Amperes
D	<u>13</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>7.28</u>	Amperes
E	<u>10</u>	lights each of		candle power requiring a total current of		Amperes
	<u>2</u>	Mast head light with _____ lamps each of _____		candle power requiring a total current of _____		Amperes
	<u>105</u>	Side light with _____ lamps each of _____	<u>32</u>	candle power requiring a total current of _____	<u>2.24</u>	Amperes
	<u>1</u>	Cargo lights of <u>6 lamps each</u>	<u>16</u>	candle power, whether incandescent or arc lights	<u>incandescent</u>	

If are lights, what protection is provided against fire, sparks, &c. _____
 Where are the switches controlling the masthead and side lights placed None fitted in Wheelhouse

DESCRIPTION OF CABLES.

Main cable carrying	<u>31.36</u> Amperes, comprised of	<u>7</u> wires, each	<u>14</u>	L.S.G. diameter, <u>.0352</u> square inches total sectional area
Branch cables carrying	<u>4.48</u> Amperes, comprised of	<u>1</u> wires, each	<u>14</u>	L.S.G. diameter, <u>.0503</u> square inches total sectional area
Branch cables carrying	<u>16.80</u> Amperes, comprised of	<u>7</u> wires, each	<u>16</u>	L.S.G. diameter, <u>.0225</u> square inches total sectional area
Leads to lamps carrying	<u>.56</u> Amperes, comprised of	<u>1</u> wires, each	<u>18</u>	L.S.G. diameter, <u>.00191</u> square inches total sectional area
Cargo light cables carrying	<u>3.20</u> Amperes, comprised of	<u>1</u> wires, each	<u>16</u>	L.S.G. diameter, <u>.00322</u> square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

On berths etc Pure rubber, vulcanized rubber, taped lead covered
Rest of ship Announced via lead covering
 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 Lead covered, & armoured cables led along inside of engine & storehold casing, then through bunker & into Captain's room.

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 Strong iron tubes

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 No

What special protection has been provided for the cables in engine room No

How are cables carried through beams Also hooked with fibre for lead cov. cables through bulkheads, &c. Watertight glands

How are cables carried through decks Watertight deck tubes

Are any cables run through coal bunkers Yes or cargo spaces No or spaces which may be used for carrying cargo, stores, or baggage No

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 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 No

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

The installation is Yes supplied with a voltmeter and No an amperemeter, fixed in 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 99 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.

PRO THE SUNDERLAND FORGE & ENGINEERING CO., LTD.

Hyman Mann Director

Electrical Engineers

Date 19 May 1911

COMPASSES.

Distance between dynamo or electric motors and standard compass About 50 feet.

Distance between dynamo or electric motors and steering compass 40

The nearest cables to the compasses are as follows:—

A cable carrying	<u>16.8</u>	Amperes	<u>16</u>	feet from standard compass	<u>10</u>	feet from steering compass
A cable carrying	<u>.56</u>	Amperes	<u>8</u>	feet from standard compass	<u>led into</u>	<u>feet from</u> steering compass
A cable carrying	<u>.56</u>	Amperes	<u>led into</u>	<u>feet from</u> standard compass	<u>8</u>	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.

Builder's Signature. Date

GENERAL REMARKS.

This installation of electric light has been well fitted. The material workmanship are good & have been tested under full working conditions & found satisfactory.

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

Committee's Minute



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