

Landshell

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REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 41075.

Port of Glasgow. Date of First Survey 18. 9. 1920 Date of Last Survey 30. 3. 1921 No. of Visits 5
 No. in on the Iron or Steel S.S. "ARDMORE" Port belonging to London
 Reg. Book 44386 S. Built at Ardrrossan By whom The Ardrrossan S.S. Co. Ltd. When built 1921
 Owners City of Cork Steam Packet Co. Owners' Address _____
 Yard No. 308 Electric Light Installation fitted by Messrs Campbell & Dehwood When fitted 1921

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Total K.W. on Vessel = 40

2 - Howdens totally enclosed engines directly coupled to
2 - C & I. Ld. 4 Pole Compound Wound Dynamoes.

Capacity of Dynamoes 200 Amperes at 100 Volts, whether continuous or alternating current Continuous

Where is Dynamo fixed Engine Room Whether single or double wire system is used single

Position of Main Switch Board do. having switches to groups seven of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each Engine Room. 18 Switches

Chart " 13 "

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 _____

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 Yes

Total number of lights provided for 270 arranged in the following groups :-

A	<u>44</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>22</u>	Amperes
B	<u>22</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>11</u>	Amperes
C	<u>22</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>11</u>	Amperes
D	<u>48</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>24</u>	Amperes
E	<u>36</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>18</u>	Amperes
<u>2</u>	Mast head light with <u>2</u> lamps each of	<u>32</u>	candle power requiring a total current of	<u>2</u>	Amperes	
<u>2</u>	Side light with <u>2</u> lamps each of	<u>32</u>	candle power requiring a total current of	<u>2</u>	Amperes	
<u>4</u>	Cargo lights of <u>2 at 6-16</u> <u>2-1/2 Watt</u> candle power, whether incandescent or arc lights			<u>Incandescent.</u>		

If arc lights, what protection is provided against fire, sparks, &c. no arc lamps fitted

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

DESCRIPTION OF CABLES.

Main cable carrying 200 Amperes, comprised of 37 wires, each .092 S.W.G. diameter, .2431 square inches total sectional area

Branch cables carrying 22 Amperes, comprised of 4 wires, each .036 S.W.G. diameter, .0040 square inches total sectional area

Branch cables carrying 24 Amperes, comprised of 4 wires, each .036 S.W.G. diameter, .0040 square inches total sectional area

Leads to lamps carrying 5 Amperes, comprised of 1 wires, each .044 S.W.G. diameter, .0015 square inches total sectional area

Cargo light cables carrying 3 Amperes, comprised of 108 wires, each .40 S.W.G. diameter, _____ square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

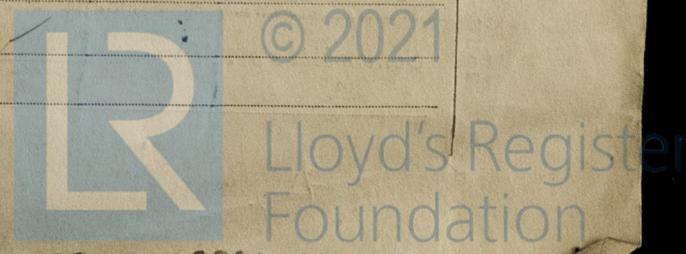
Lead Covered Armoured Braid.

Joints in cables, how made, insulated, and protected no joints

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 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 L.C. & B.



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 L.C.A. B.

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 Fibre Ferrules. through bulkheads, &c. Brass Glands.

How are cables carried through decks Galv. Steel Pipe 18" above Decks

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

If so, how are they protected L.C.A. B. & enclosed fittings.

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 L.C.A. B. enclosed fittings

Where are the main switches and fuses for these lights fitted Engine Room.

If in the spaces, how are they specially protected —

Are any switches or fuses fitted in bunkers No.

Cargo light cables, whether portable or permanently fixed Portable How fixed Couplings on Deck.

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel Direct to Bulkhead.

How are the returns from the lamps connected to the hull Between Brass Washers.

Are all the joints with the hull in accessible positions Yes.

Is the installation supplied with a voltmeter Yes. and with an amperemeter Yes. , fixed main switchboard

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.

Campbell & Isherwood & Co. Electrical Engineers Date 26/4/21.

COMPASSES.

Distance between dynamo or electric motors and standard compass Benzine Approx 100 feet.

Distance between dynamo or electric motors and steering compass " do.

The nearest cables to the compasses are as follows:—

A cable carrying	<u>12</u>	Ampères	<u>8</u>	feet from standard compass	<u>6</u>	feet from steering compass
A cable carrying		Ampères		feet from standard compass		feet from steering compass
A cable carrying		Ampères		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 nil degrees on — course in the case of the standard compass and nil degrees on — course in the case of the steering compass.

J. S. Rankin Builder's Signature. Date 5.5.21.

GENERAL REMARKS.

This installation has been fitted on board under special survey. Tested under full working conditions & found satisfactory. The passenger accommodation has not yet been completed & is fitted for cattle space at present & will be converted later. All bulkheads fitted are for final use.

F.F.F. £25.0.0. Expenses 17/6 of 10/5/21. Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute GLASGOW. 10 MAY 1921

Elec Light



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