

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 55595

Port of Newcastle Date of First Survey Sep 23 Date of Last Survey Oct 14/08 No. of Visits 6
 No. in ex. Lanesdale on the Iron or Steel Hessell Port belonging to Liverpool
 Reg. Book By whom Tobson & Co When built 1908
 Owners Lancaster & Liverpool Shipping Co Owners' Address St. George's Quay, Lancaster
 Yard No. 151 Electric Light Installation fitted by Missen Claud Hamilton & Co When fitted 1908

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Bellis 6x4" double acting steam engine direct coupled to 3 Kilo compound wound dynamo. 400 R.P.M.

Capacity of Dynamo 42 Amperes at 80 Volts, whether continuous or alternating current Continuous
 Where is Dynamo fixed Engine Room Whether single or double wire system is used Double
 Position of Main Switch Board Starboard side Engine Room having switches to groups three of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each None

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 16 arranged in the following groups:—

A	<u>16</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>16</u>	Amperes
B	<u>Searchlight</u>	lights each of		candle power requiring a total current of	<u>20</u>	Amperes
C	<u>10 Amp Arc Lamp</u>	lights each of		candle power requiring a total current of		Amperes
D		lights each of		candle power requiring a total current of		Amperes
E		lights each of		candle power requiring a total current of		Amperes
	<u>1</u>	Mast head light with	<u>1</u>	lamps each of	<u>1</u>	Amperes
	<u>1</u>	Side light with	<u>1</u>	lamps each of	<u>1</u>	Amperes
	<u>2</u>	Cargo lights of	<u>4 - 16</u>	candle power, whether incandescent or arc lights	<u>incandescent & Arc</u>	

Lights, what protection is provided against fire, sparks, &c. The arc lamp with guarded globe

Where are the switches controlling the masthead and side lights placed —

DESCRIPTION OF CABLES.

Main cable carrying	<u>42</u>	Amperes, comprised of	<u>19/17</u>	wires, each	L.S.G. diameter,	<u>.0462</u>	square inches total sectional area
Branch cables carrying	<u>3</u>	Amperes, comprised of	<u>3</u>	wires, each	<u>20</u>	L.S.G. diameter,	<u>.0030</u> square inches total sectional area
Branch cables carrying	<u>20</u>	Amperes, comprised of	<u>7</u>	wires, each	<u>16</u>	L.S.G. diameter,	<u>.0222</u> square inches total sectional area
Leads to lamps carrying		Amperes, comprised of		wires, each		L.S.G. diameter,	
Cargo light cables carrying	<u>3</u>	Amperes, comprised of	<u>3</u>	wires, each	<u>20</u>	L.S.G. diameter,	<u>.0030</u> square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Pure rubber vulcanized taped & braided

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

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



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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 Lead cover

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

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

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

How are cables carried through beams Lead bushes through bulkheads, &c.

How are cables carried through decks Iron deck tubes

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

If so, how are they protected —

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 fixed 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 yes an amperemeter, fixed on Main 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 100 per cent. that of pure copper.

Insulation of cables is guaranteed to have a resistance of not less than 2500 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 **CLAUD HAMILTON, Limited,**

Electrical Engineers

Date Oct. 22nd/08.

COMPASSES.

Distance between dynamo or electric motors and standard compass —

Distance between dynamo or electric motors and steering compass about 34 feet

The nearest cables to the compasses are as follows:—

A cable carrying <u>20</u> Amperes	<u>6'</u> feet from standard compass	<u>—</u> feet from steering compass
A cable carrying <u>—</u> Amperes	<u>—</u> feet from standard compass	<u>—</u> feet from 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 scarcely perceptible degrees on — course in the case of the standard compass and — degrees on — course in the case of the steering compass.

J. H. Dobson & Co

Builder's Signature.

Date 13th Nov: 1908

GENERAL REMARKS.

This installation examined, found to be as seen
Satisfactory - Tested under working conditions -

Leonard Challinor

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

Committee's Minute —

It is submitted that the Record Rec. Light
be noted in the Reg. Book.

