

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 15348.

Port of *Leith* Date of First Survey *29.10.17* Date of Last Survey *2.5.18* No. of Visits *6*
 on the Iron or Steel *SS WELL PARK* Port belonging to *Grunoch*
 Book Built at *Grunoch* By whom *Grunoch & Grangemouth S.S. Co.* When built *1918*
 ers *The Edinburgh Line Steamers* Owners' Address
 d No. *371* Electric Light Installation fitted by *Messrs. Clarke Chapman & Co.* When fitted *1918*

DESCRIPTION OF DYNAMO, ENGINE, ETC.

a single cylinder double acting open type vertical engine direct coupled to a continuous current compound wound dynamo
 Capacity of Dynamo *50* Amperes at *100* Volts, whether continuous or alternating current *continuous*
 ere is Dynamo fixed *in Engine Room* Whether single or double wire system is used *Double*
 ition of Main Switch Board *Near dynamo* having switches to groups *A B C & D* of lights, &c., as below
 itions of auxiliary switch boards and numbers of switches on each *Each light & group of lights provided with switches as required*

ut 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*
 essel 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*
 the cut outs of non-oxidizable metal *Yes* and constructed to fuse at an excess of *50%* per cent over the normal current
 all cut outs fitted in easily accessible positions *Yes* Are the fuses of standard dimensions *Yes* If wire fuses *Yes*
 are permanent instructions fitted on or near each switch board giving particulars of proper size of fuse for each circuit *Yes*
 all switches and cut-outs constructed of incombustible materials and fitted on incombustible bases *Yes slate & porcelain*

l number of lights provided for *95* arranged in the following groups:-

<i>Balcon & Forward</i>	<i>36</i> lights each of <i>16</i>	candle power requiring a total current of		Amperes
<i>Engine & Aft</i>	<i>37</i> lights each of <i>16</i>	candle power requiring a total current of	<i>20.7</i>	Amperes
<i>Engine Room</i>	<i>22</i> lights each of <i>16</i>	candle power requiring a total current of	<i>12.3</i>	Amperes
<i>Wireless</i>	lights each of <i>-</i>	requiring a total current of	<i>2.5</i>	Amperes
	lights each of <i>-</i>	requiring a total current of	<i>-</i>	Amperes
<i>Mast head light with</i>	<i>1</i> lamp each of	candle power requiring a total current of	<i>1.1</i>	Amperes
<i>Side light with</i>	<i>1</i> lamp each of	candle power requiring a total current of	<i>2.2</i>	Amperes
<i>Cargo light</i>	<i>0</i>	candle power, whether incandescent or arc lights	<i>incandescent</i>	

are the switches controlling the masthead and side lights placed *in Chart Room*

DESCRIPTION OF CABLES.

cable carrying	<i>50</i> Amperes, comprised of	<i>7</i> wires, each	<i>14</i> L.S.G. diameter, <i>.035</i> square inches total sectional area
ch cables carrying	<i>20.1</i> Amperes, comprised of	<i>7</i> wires, each	<i>20</i> L.S.G. diameter, <i>.0070</i> square inches total sectional area
branch cables carrying	<i>12.3</i> Amperes, comprised of	<i>1</i> wires, each	<i>14</i> L.S.G. diameter, <i>.0050</i> square inches total sectional area
eads to lamps carrying	<i>.56</i> Amperes, comprised of	<i>1</i> wires, each	<i>18</i> L.S.G. diameter, <i>.0018</i> square inches total sectional area
argo light cables carrying	<i>3.3</i> Amperes, comprised of	<i>168</i> wires, each	<i>39</i> L.S.G. diameter, <i>.0050</i> square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Vulcanized india rubber taped & braided & lead covered where exposed steel
Armoured overall

oints in cables, how made, insulated, and protected *No joints except mechanical ones*

re all the joints of cables thoroughly soldered, resin only having been used as a flux *Yes* 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 *Yes*

re there any joints in or branches from the cable leading from dynamo to main switch board *No*

ow are the cables led through the ship, and how protected *Lead covered & Armoured cables run through*
weld & clipped to underside of deck with strong galvanized iron clips.

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 & steel*

Armoured cable

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 *" " "*

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

How are cables carried through beams *in lead bushes* through bulkheads, &c. *in WT glands*

How are cables carried through decks *in galvanized iron deck tubes*

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 & steel armoured cables*

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coats, 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 *To WT Connection Boxes*

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel *Double wire system*

How are the returns from the lamps connected to the hull *-*

Are all the joints with the hull in accessible positions *-*

Is the system supplied with a voltmeter and *also* an amperemeter, fixed *on Switchboard*

FOR CARRYING PETROLEUM.

Are all switches and cut-outs fitted in positions not liable to the accumulation of petroleum vapour or gas *-*

Are any special cables fitted in the pump room or companion *-*

How are the lamps fixed *-* liable to the accumulation of vapour or gas *-*

The copper used is guaranteed to be of *100* per cent. that of pure copper.

Insulation of cables is guaranteed to have *less than 600* megohms per statute mile after 24 hours' immersion in *-*

The foregoing statements are a correct description of the *installation* on this vessel and we declare that it is at this date in good order and safe working

For Clarke, Chapman & Co., Ltd.

W. A. M. M. M.

DIRECTOR

Electrical Engineer

COMPASSES.

Distance between dynamo or electric motors and standard compass *68 ft*

Distance between dynamo or electric motors and steering compass *62 "*

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
<i>.56</i>	<i>12</i>	<i>6</i>	<i>feet from steering compass</i>
<i>.56</i>	<i>6</i>	<i>12</i>	<i>feet from steering compass</i>
<i>-</i>	<i>-</i>	<i>-</i>	<i>feet from steering compass</i>

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* course in the case of the standard compass and *Nil* degrees on *all* course in the case of the steering compass.

FOR THE GREENOCK AND GRAMMOUTH DOCKYARD CO., LD.

Aspen Hill

Builder's Signature. Date *June 3rd 1918*

GENERAL REMARKS.

This installation appears to have been fitted in a satisfactory manner and in accordance with the Local Rule requirements.

THE RECORD. Elec. light. 7/6/18

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

Committee's Minute

NOTES ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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