

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 16137

Port of Glasgow Date of First Survey Date of Last Survey 8 June 1898 No. of Visits
 No. in Reg. Book on the Iron or Steel "S.S. Hebrides" Port belonging to Glasgow
 Built at Luton By whom The Ailsa Shipbuilding Co When built 1898
 Owners L. McCallum & Coy Owners' Address Glasgow
 Yard No. Electric Light Installation fitted by Claud Hamilton Ltd When fitted 1898-6

DESCRIPTION OF DYNAMO, ENGINE, ETC.

High Speed Vertical Engine Coupled to Compound Wound Dynamo on same Bedplate.

Capacity of Dynamo 135 Amperes at 60 Volts, whether continuous or alternating current Continuous

Where is Dynamo fixed in Engine Room

Position of Main Switch Board in Engine Room having switches to groups A, B and C 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 cessel 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 in boxes 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 123 arranged in the following groups:-

A	<u>29</u>	lights each of <u>2/50, 3/32, & 2 1/16</u>	candle power requiring a total current of <u>29</u>	Amperes
B	<u>46</u>	lights each of <u>10/32, & 3 1/16</u>	candle power requiring a total current of <u>45</u>	Amperes
C	<u>48</u>	lights each of <u>1/32 & 4 1/16</u>	candle power requiring a total current of <u>40</u>	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
1	Mast head light with <u>1</u> lamps each of <u>32</u>		candle power requiring a total current of <u>1.6</u>	Amperes
2	Side light with <u>1</u> lamps each of <u>16</u>		candle power requiring a total current of <u>1.6</u>	Amperes
	Cargo lights of		candle power, whether incandescent or arc lights	

If arc lights, what protection is provided against fire, sparks, &c.

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

DESCRIPTION OF CABLES.

Main cable carrying 120 Amperes, comprised of 37 wires, each No 16 L.S.G. diameter, .1219 square inches total sectional area
 Branch cables carrying 45 Amperes, comprised of 19 wires, each No 17 L.S.G. diameter, .0479 square inches total sectional area
 Branch cables carrying 40 Amperes, comprised of 19 wires, each No 17 L.S.G. diameter, .0479 square inches total sectional area
 Leads to lamps carrying .8 Amperes, comprised of 1 wires, each No 17 L.S.G. diameter, .0024 square inches total sectional area
 Cargo light cables carrying _____ Amperes, comprised of _____ wires, each _____ L.S.G. diameter, _____ square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Conductors of tinned Copper wires, insulated with pure india rubber, then vulcanized india rubber, india rubber coated tape and then whole vulcanized together. Then braided with tarred flax and covered with preservative compound
 Joints in cables, how made, insulated, and protected No Joints in Cables.

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 in hard wood casing where necessary in iron pipes



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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 Strong casing

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

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

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

How are cables carried through beams in wooden thimbles through bulkheads, &c. in watertight plugs

How are cables carried through decks in flanged watertight 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 iron pipes in bunkers & strong heavy casing in cargo spaces

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 Strong iron wire guards.

Where are the main switches and cut outs for these lights fitted On Deck above holds.

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 _____ 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 _____

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 installation is efficiently supplied with a voltmeter and also an amperemeter, fixed on switchboard

The copper used is guaranteed to have a conductivity of 98% 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 CLAUD HAMILTON, LIMITED.

Electrical Engineers Date 30.6.98.

Claud Hamilton
MANAGER & SECRETARY

COMPASSES.

Distance between dynamo or electric motors and standard compass on Flying Bridge 53 feet.

Distance between dynamo or electric motors and steering compass 53 feet

The nearest cables to the compasses are as follows:—

A cable carrying <u>22</u> Amperes	<u>30</u> feet from standard compass	<u>30</u> feet from steering compass
A cable carrying <u>22</u> Amperes	<u>—</u> feet from standard compass	<u>8</u> feet from steering compass
A cable carrying <u>22</u> Amperes	<u>—</u> feet from 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 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 _____ degrees on _____ course in the case of the steering compass.

Alma Shipbuilding Co Builder's Signature. Date 29.6.98

GENERAL REMARKS.

The Electric lighting & wiring of this vessel appears to be of satisfactory description & have been tried at full power.

James Morrison
Surveyor to Lloyd's Register of British and Foreign Shipping

Committee's Minute _____

It is submitted that this installation appears to be in accordance with the Rules.
Lloyd's Register Foundation
2.7.98

REPORT FORM No. 11.

THE SURVEYOR'S NAME AND ADDRESS NOT TO WRITE ACROSS THIS MARGIN.