

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 15800.

Port of **Greenock** Date of First Survey **11th May 1910** Date of Last Survey **6th June** No. of Visits **10**
 No. in Reg. Book on the Iron or Steel **Steel 4, "Roseric"** Port belonging to **London**
 Built at **Port Glasgow** By whom **Russell & Co.** When built **1910**
 Owners **A. Wain & Co.** Owners' Address **London**
 Yard No. **605** Electric Light Installation fitted by **Thames & Mersey** When fitted **1910**

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Brush 11½ KW Dynamo. Compound wound single cylinder
Boley 7½ x 7½" stroke
 Capacity of Dynamo **120** Amperes at **110** 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 **Engine Room** having switches to groups **5 groups** of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each

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 **10 %** 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 **86** arranged in the following groups :-

A	Engine Room	lights each of	24	candle power requiring a total current of	14	Amperes
B	Navigation	lights each of	8	candle power requiring a total current of	52	Amperes
C	Forecastle	lights each of	10	candle power requiring a total current of	9	Amperes
D	Cargo lights	lights each of	10	candle power requiring a total current of	18	Amperes
E	Below	lights each of	10	candle power requiring a total current of	20	Amperes
2	Mast head light with	1 lamp each of	32	candle power requiring a total current of		Amperes
2	Side light with	1 lamp each of	32	candle power requiring a total current of		Amperes
26	Cargo lights of		80 CP	candle power, whether incandescent or arc lights	in can mount	

If arc lights, what protection is provided against fire, sparks, &c. **No arc lights**

Where are the switches controlling the masthead and side lights placed **Wheel House**

DESCRIPTION OF CABLES.

Main cable carrying	86 Amperes, comprised of	19 wires, each	14 L.S.G. diameter, .0956 square inches total sectional area
Branch cables carrying	23.22 Amperes, comprised of	4 wires, each	16 L.S.G. diameter, .023 square inches total sectional area
Branch cables carrying	12.5 Amperes, comprised of	4 wires, each	18 L.S.G. diameter, .0127 square inches total sectional area
Leads to lamps carrying	3.22 Amperes, comprised of	1 wires, each	16 L.S.G. diameter, .0032 square inches total sectional area
Cargo light cables carrying	3.22 Amperes, comprised of	1 wires, each	16 L.S.G. diameter, .0032 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Armoured Lead covered R.T.B.
Cable **Wenley D. 2500 S2**

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 **—**

How are the cables led through the ship, and how protected **Armoured & lead covered**

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 covered

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat as before detailed

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 fiber in insulation ✓ through bulkheads, &c. Lead bushes ✓

How are cables carried through decks Lead tubes ✓

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 as before detailed ✓

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 by brass guards ✓

Where are the main switches and cut outs for these lights fitted mess Room ✓

If in the spaces, how are they specially protected water tight CI switches ✓

Are any switches or cut outs fitted in bunkers no ✓

Cargo light cables, whether portable or permanently fixed portable ✓ How fixed secured by clamps ✓

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 " supplied with a voltmeter and " an amperemeter, fixed main on board ✓

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 yes ✓

Are any switches, cut outs, or joints of cables fitted in the pump room or companion yes ✓

How are the lamps specially protected in places liable to the accumulation of vapour or gas yes ✓

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.

P. J. & P. J. Stagers Electrical Engineers

Date 13 June 1910

COMPASSES.

Distance between dynamo or electric motors and standard compass 100 ft. ✓

Distance between dynamo or electric motors and steering compass 92 ft. ✓

The nearest cables to the compasses are as follows:—

A cable carrying <u>3.22</u> Amperes <u>10 ft.</u> feet from standard compass <u>5 ft.</u> feet from steering compass
A cable carrying <u>12.5</u> Amperes <u>24 ft.</u> feet from standard compass <u>20 ft.</u> feet from steering compass
A cable carrying _____ Amperes _____ 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 all course in the case of the standard compass and nil degrees on all course in the case of the steering compass.

Russell & Co. Builder's Signature. Date 15 June 1910

GENERAL REMARKS.

The materials and workmanship are good, then completed the installation was tested and worked satisfactorily.

It is submitted that this vessel is eligible for THE RECORD. Elec. light yes ✓

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

Committee's Minute GLASGOW 5 JUL 1910

Elec. light



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