

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 38958.

Port of Glasgow Date of First Survey 28.3.19 Date of Last Survey 11.7.19 No. of Visits 7  
 No. in Reg. Book on the ~~Iron~~ Steel SS. Killarney Port belonging to London  
 Built at Point house By whom Messrs A. & J. Inglis Ltd When built 1919  
 Owners City of Cork Steam Packet Co. Ltd Owners' Address London  
 Yard No. 311 Electric Light Installation fitted by Messrs Salford Grier & McKay Ltd When fitted 1919

### DESCRIPTION OF DYNAMO, ENGINE, ETC.

High speed 2 crank enclosed compounded engine direct coupled to  
Protected type compound wound multipolar Dynamo.  
 Capacity of Dynamo 200 Amperes at 100 Volts, whether continuous or alternating current continuous  
 Where is Dynamo fixed starboard side of engine room Whether single or double wire system is used  
 Position of Main Switch Board near dynamo. having switches to groups 4 of lights, &c., as below  
 Positions of auxiliary switch boards and numbers of switches on each none

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 none 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-oxidisable metal yes and constructed to fuse at an excess of 100 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 235 arranged in the following groups :-

A	12	lights each of	16	candle power requiring a total current of	6	Amperes
B	56	lights each of	30 watt + 16	candle power requiring a total current of	24	Amperes
C	41	lights each of	30 watt + 16	candle power requiring a total current of	19	Amperes
D	40	lights each of	30 watt + 16	candle power requiring a total current of	17	Amperes
E	21	lights each of	16	candle power requiring a total current of	11	Amperes
	2	Mast head light with	1 lamp each of	32	candle power requiring a total current of	2
	2	Side light with	1 lamp each of	32	candle power requiring a total current of	2
	3	Cargo lights of	96	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 on Bridge.

### DESCRIPTION OF CABLES.

Main cable carrying 160 Amperes, comprised of 37 wires, each .083 S.W.G. diameter, .200 square inches total sectional area  
 Branch cables carrying 6 Amperes, comprised of 7 wires, each 20 S.W.G. diameter, .007 square inches total sectional area  
 Branch cables carrying 24 Amperes, comprised of 7 wires, each 16 S.W.G. diameter, .022 square inches total sectional area  
 Leads to lamps carrying 3 Amperes, comprised of 1 wires, each 17 S.W.G. diameter, .002 square inches total sectional area  
 Cargo light cables carrying 3 Amperes, comprised of 1 wires, each 14 S.W.G. diameter, .005 square inches total sectional area

### DESCRIPTION OF INSULATION, PROTECTION, ETC.

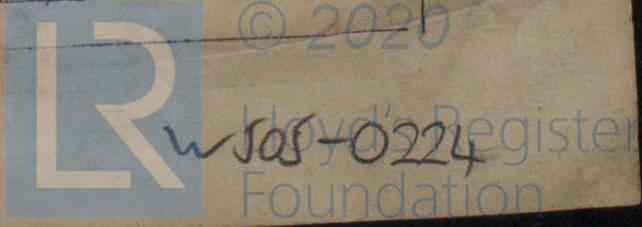
Vulcanized India Rubber taped & braided protected with galvanised iron wire  
armour then braided & compounded over all.

Joints in cables, how made, insulated, and protected none.

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances none 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 none

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 clipped to underside of decks, all beams are bored & cable fed through.



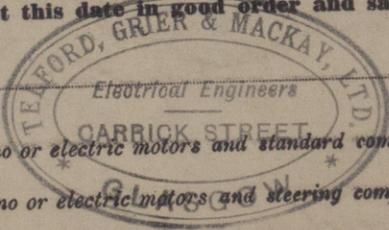
**DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.**

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 braided  
 What special protection has been provided for the cables near galleys or oil lamps or other sources of heat armoured + braided  
 What special protection has been provided for the cables near boiler casings armoured + braided  
 What special protection has been provided for the cables in engine room armoured + braided  
 How are cables carried through beams boxed holes through bulkheads, &c. watertight packed glands  
 How are cables carried through 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 galvanized steel deck tubes  
 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 well glass with strong metal  
 Where are the main switches and fuses for these lights fitted  
 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 cast W.T. Connection Box  
 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  
 Is the installation supplied with a voltmeter yes and with an amperemeter yes, fixed on 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.



Electrical Engineers Date 10-11-19

**COMPASSES.**

Distance between dynamo or electric motors and standard compass 50ft from nearest ventilating fan motor  
 Distance between dynamo or electric motors and steering compass 40ft

The nearest cables to the compasses are as follows:—

A cable carrying	8	Amperes	18	feet from standard compass	10	feet from steering compass
A cable carrying	1	Amperes	3	feet from standard compass	3	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 any course in the case of the standard compass and nil degree on any course in the case of the steering compass.

**A. & J. INGLIS, LIMITED.**

*James J. Inglis*  
 DIRECTOR

Builder's Signature. Date 13th Nov 1919.

**GENERAL REMARKS.**

This Installation has been fitted on board under special survey. Tested under full working conditions & found satisfactory.

It is submitted that this vessel is eligible for

**THE RECORD. ELEC. LIGHT** 20/11/19

*J. Stanley Rankin*  
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute **GLASGOW 18 NOV 1919**

*Elec. Light*



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