

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 17572.

Port of Brecon Date of First Survey 2nd Sept. 1919 Date of Last Survey 25th Nov. 1919 No. of Visits 15
 No. in on the Iron or Steel 0.0 "Dromore Castle" Port belonging to London
 Reg. Book Built at Brecon By whom Barland & Welf When built 1919
 Owners Union Castle Mail S.S. Co Owners' Address London
 Yard No. 539 Electric Light Installation fitted by Barland & Welf When fitted 1919

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One Steam Driven Generating Set. Engine by Shanks Ltd. Striboath. Single cylinder
52"x5" Stroke. 520 R.P.M. forced lubrication. W.P. 100 lbs. "Dynamo by Holmes & Newcastle. 1000 Watts

Capacity of Dynamo 10 K.W. 100 Amperes at 100 Volts, whether continuous or alternating current continuous

Where is Dynamo fixed Starboard Side Engine Room Whether single or double wire system is used Double

Position of Main Switch Board Engineers Store Bulkhead having switches to groups 6 of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each No. Auxiliary Switchboards. Dis. boxes only fitted:-

1 in Wheel House. 1 in Bridge Deck House. 1 in Port & 1 in Engine Room for lighting circuits.

2 Dis. boxes in Engine Room basing for large circuits

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 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 fuses fitted to both flow and return wires or cables of all circuits including lamp circuits yes

Are the fuses of non-oxidizable 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 35 SWG. copper 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 224 arranged in the following groups:-

A	3	lights each of	32	candle power requiring a total current of	3.6	Amperes
B	156	lights each of	16	candle power requiring a total current of	93.6	Amperes
C	6	lights each of	8	candle power requiring a total current of	1.8	Amperes
D	36	lights each of	40 WATTS	candle power requiring a total current of	14.4	Amperes
E	6	lights each of	6 c.p. for Morse	candle power requiring a total current of	1.2	Amperes
3	Mast head light with	1 lamp each of	32	candle power requiring a total current of	2.4	Amperes
2	Side light with	1 lamp each of	32	candle power requiring a total current of	2.4	Amperes
11	Cargo lights of	96	candle power, whether incandescent or arc lights	Incandescent		
2	" " "	1000	" " " "	1/2 WATT TYPE		

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

Where are the switches controlling the masthead and side lights placed In wheel House

DESCRIPTION OF CABLES.

Main cable carrying 100 Amperes, comprised of 19 wires, each 14 S.W.G. diameter, .094 square inches total sectional area
 Branch cables carrying 38.3 Amperes, comprised of 7 wires, each 16 S.W.G. diameter, .022 square inches total sectional area
 Branch cables carrying 27 Amperes, comprised of 7 wires, each 18 S.W.G. diameter, .0125 square inches total sectional area
 Leads to lamps carrying 3.6 Amperes, comprised of 1 wires, each 17 S.W.G. diameter, .0025 square inches total sectional area
 Cargo light cables carrying 5 Amperes, comprised of 103 wires, each 38 S.W.G. diameter, .003 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

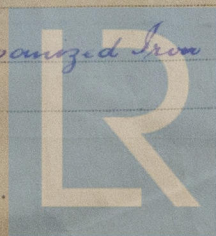
MAIN CABLES Twist bored. Armoured & Braided. 600 Megohm Grade.
 SUB " in Machinery & Crew Space. Twist bored. Armoured & Braided. 600 Megohm Grade.
 SUB " in Officers' Accommodation. R.P. 254 1/7 Lead covered.

Joints in cables, how made, insulated, and protected Cables run over open decks, viz:- Fore & After Well Decks are carried in Galvanized Iron Pipe, cables being V.I.R. single core and are joined to twist core in Joint Boxes in Forecastle. Fore & After End of Amidships Accommodation and Poop.

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances 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 No

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 on Roped Steel Trays or Galvanized Iron Pipes



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 *Galvanized Iron Pipe*

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *Wire Armoured & Braided.*

What special protection has been provided for the cables near boiler casings *Wire Armoured & Braided.*

What special protection has been provided for the cables in engine room *Wire Armoured & Braided.*

How are cables carried through beams *Fibre Baskets* through bulkheads, &c. *W.I. Bulkhead Bands.*

How are cables carried through decks *Galvanized Iron Deck Tubes 18" long and made water-tight.*

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 *Wire Armoured and braided*

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 *None*

Where are the main switches and fuses for these lights fitted *None*

If in the spaces, how are they specially protected *None*

Are any switches or fuses fitted in bunkers *None*

Cargo light cables, whether portable or permanently fixed *Portable* 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 _____

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.

FOR HARLAND & WOLFF LIMITED

Electrical Engineers

Date _____

COMPASSES.

Distance between dynamo or electric motors and standard compass *One Hundred Feet*

Distance between dynamo or electric motors and steering compass *Twenty-Six Feet*

The nearest cables to the compasses are as follows:—

A cable carrying *.3* Amperes *in instrument* feet from standard compass *in instrument* feet from steering compass

A cable carrying _____ Amperes _____ feet from standard compass _____ 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 *Nil* course in the case of the standard compass and *Nil* degrees on *Nil* course in the case of the steering compass.

FOR HARLAND & WOLFF LIMITED,

Builder's Signature.

Date *29/11/19*

GENERAL REMARKS.

The fitting of the wires in this vessel are as stated in this report, and appear to be in accordance with the Committee's requirements. Was tested under full load and found to work well.

It is submitted that this vessel is eligible for THE RECORD Elec. Light.

AWD 5/12/19 JMM

James James.

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

GLASGOW 2 DEC 1919

Elec. Light WJM.



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