

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 42152

Part of GLASGOW. Date of First Survey 25.8.22 Date of Last Survey 31.8.22 No. of Visits 4
 No. in on the Iron or Steel SS "DUNSTAFFNAGE" Port belonging to GLASGOW
 Reg. Book 78716 Built at PORT GLASGOW By whom MESRS LITHGOW'S LTD When built 1922
 Owners MESRS GLEN & CO Owners' Address
 Yard No. 434 Electric Light Installation fitted by MESRS BENNETT & RUTHERFORD LTD When fitted 1922

DESCRIPTION OF DYNAMO, ENGINE, ETC.

- TOTAL. KW. = 10 -
 One Compound Wound four pole combined Engine & Dynamo
 manufactured by Clarke Chapman & Co Ltd
 Capacity of Dynamo 100 Amperes at 100 Volts, whether continuous or alternating current Continuous
 Where is Dynamo fixed Main Engine Platform Whether single or double wire system is used Double
 Position of Main Switch Board Near Dynamo having switches to groups Seven of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each Foreboard at Forecastle, Saloon, Pantry, Wheel House, Engineer's Mess Room & Engine Room.

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 25 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 arranged in the following groups:—

A Forecastle	14 lights each of	16	candle power requiring a total current of	8.4 Amperes
B Saloon etc	22 lights each of	16	candle power requiring a total current of	13.2 Amperes
C Navigation	18 lights each of	16	candle power requiring a total current of	10.8 Amperes
D Engineer's etc	18 lights each of	16	candle power requiring a total current of	10.8 Amperes
E Engine Room	23 lights each of	16	candle power requiring a total current of	13.8 Amperes
F Clusters	25	16	candle power requiring a total current of	15.6
2 Mast head light with	1 lamps each of	32	candle power requiring a total current of	1.2 Amperes
2 Side light with	1 lamps each of	32	candle power requiring a total current of	1.2 Amperes
5 Cargo lights of		80	candle power, whether incandescent or arc lights	Incandescent

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

Where are the switches controlling the masthead and side lights placed Wheelhouse

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	10 Amperes, comprised of	7 wires, each	18 S.W.G. diameter,	.0125 square inches total sectional area
Branch cables carrying	15 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	16 S.W.G. diameter,	.003 square inches total sectional area
Cargo light cables carrying	3 Amperes, comprised of	1 wires, each	16 S.W.G. diameter,	.003 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

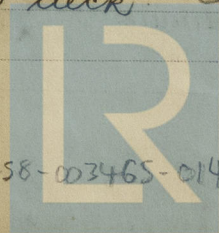
In Accommodation cables are protected by Pure Vulcanised India rubber, taped and Vulcanised together, thereafter served with lead covering. In Holds, Engine Room etc cables are armoured with galvanized Iron wires.

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 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

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 Armoured & clipped to deck



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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

Armoured

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

Armoured

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

Armoured

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

How are cables carried through beams

lined & lined with fibre

through bulkheads, &c.

W. I. glands

How are cables carried through decks

Iron deck 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

Armoured

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

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

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 main 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 and on behalf of

Bennett & Rutherford, Limited

Electrical Engineers

Date 1st September 1922

COMPASSES.

C. B. Taylor

Distance between dynamo or electric motors and standard compass

190

Distance between dynamo or electric motors and steering compass

180

The nearest cables to the compasses are as follows:—

A cable carrying	5	Amperes	10	feet from standard compass	8	feet from steering compass
A cable carrying	2	Amperes	in	feet from standard compass	in	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

degrees on

any

course in the case of the steering compass.

LITHGOWS LIMITED.

W. B. Allan

Builder's Signature.

Date

12th October 1922

GENERAL REMARKS.

Director & Secretary

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 J. Rankin

FEE - £10-0-0.

4th Oct.

12/9/22.

1/11/22

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

GLASGOW

17 OCT 1922

Elec. Light



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THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

HC 16-10-22

2m. 11.10. - Transfer.