

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 41131

Port of Glasgow. Date of First Survey 16th March Date of Last Survey 10th May 1921 No. of Visits 9
 No. in Reg. Book 80602 on the Iron or Steel S.S. MARIA KYRIAKIDES Port belonging to Kyriakides
 Built at Paisley By whom Messrs Bow & Lachlan & Co When built 1921
 Owners Kyriakides Owners' Address _____
 Yard No. 389 Electric Light Installation fitted by Messrs Bow & Lachlan & Co When fitted 1921

DESCRIPTION OF DYNAMO, ENGINE, ETC.

TOTAL K.W. OUTPUT 4.4

Single Cylinder Engine Cylinder 5'4" coupled direct to dynamo

Capacity of Dynamo 40 Amperes at 110 Volts, whether continuous or alternating current Continuous
 Where is Dynamo fixed Engine Room Starboard side Whether single or double wire system is used Double
 Position of Main Switch Board Engine Room Starboard side having switches to groups A. B. C. D. E. of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each No auxiliary switch board, switches on main board
Control the following distribution boards - Engine Room - Forward Crew Space - Saloon - Chart 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 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 95 arranged in the following groups :-

A Engine Room	23 lights each of	16 candle power requiring a total current of	11 1/2 Amperes
B Forward Accommodation	13 lights each of	16 candle power requiring a total current of	3 Amperes
C Mid "	26 lights each of	16 candle power requiring a total current of	6 Amperes
D Chart Room	8 lights each of	16 candle power requiring a total current of	2 Amperes
E Cargo Cluster	20 lights each of	16 candle power requiring a total current of	10 Amperes
2 Mast head light with	1 lamps each of	32 candle power requiring a total current of	2 Amperes
2 Side light with	1 lamps each of	32 candle power requiring a total current of	2 Amperes
1 Stem " "	1 "	32 " " " " " "	"
4 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 Chart Room

DESCRIPTION OF CABLES.

Main cable carrying 40 Amperes, comprised of 19 wires, each 18 S.W.G. diameter, .034 square inches total sectional area
 Branch cables carrying 10 Amperes, comprised of 3 wires, each 20 S.W.G. diameter, .0030 square inches total sectional area
 Branch cables carrying 11 1/2 Amperes, comprised of 7 wires, each 20 S.W.G. diameter, .0070 square inches total sectional area
 Leads to lamps carrying 2 Amperes, comprised of 3 wires, each 22 S.W.G. diameter, .0018 square inches total sectional area
 Cargo light cables carrying 2 1/2 Amperes, comprised of 3 wires, each 22 S.W.G. diameter, .0018 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Cables in Cabins & Crew Space V.I.R. lead covered
 " " Engine & Boiler Rooms V.I.R. Armoured & Braided overall
 " " Room Tunnel V.I.R. Lead covered & Armoured
 Joints in cables, how made, insulated, and protected None

} all 600 megohm Grade

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 None
 How are the cables led through the ship, and how protected All cables in accommodation lead covered, clipped to the surface - cables in Engine Room, Boiler Room & Cargo Holds, Armoured & Braided, clipped under decks -

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 Armoured & Braided overall

What special protection has been provided for the cables near boiler casings Armoured & Braided overall

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

How are cables carried through beams Lead Bushes through bulkheads, &c. Watertight Glands

How are cables carried through decks Deck Tubes 12" above decks

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 Coal Bunkers, sheet steel cover over cables—cargo spaces Armoured cables clipped under Decks

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 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.

How, M. LACHLAN & CO. LTD.
J. Macmillan Electrical Engineers Date 18th May 1921

COMPASSES.

Distance between dynamo or electric motors and standard compass DIRECTOR. 66 ft

Distance between dynamo or electric motors and steering compass 60 ft

The nearest cables to the compasses are as follows:—

A cable carrying	$\frac{1}{4}$	Amperes	fitted in	feet from standard compass	fitted in	feet from steering compass
A cable carrying	1	Amperes	5	feet from standard compass	2	feet from steering compass
A cable carrying	4	Amperes	10	feet from standard compass	6	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 — degrees on — course in the case of the steering compass.

How, M. LACHLAN & CO. LTD.
J. Macmillan Builder's Signature. Date 18th May 1921.

GENERAL REMARKS.

This installation has been fitted on board under survey. Tested under full working conditions and found satisfactory.

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

FEE. 15-0-0. 31/5/21

J. S. Rankin.
 Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute GLASGOW 31 MAY 1921
Elec. Light.

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

1m.11.13.—Transfer.
 20/5/21

