

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 41826

Port of GLASGOW Date of First Survey 22.12.21 Date of Last Survey 26.1.22 No. of Visits 4  
 No. in on the Iron or Steel S.S. KOHINUR Port belonging to LONDON  
 Reg. Book 21144 Built at GREENOCK By whom MESRS LITHGOW LTD When built 1922  
 Owners THE ASIATIC S.N. CO LTD Owners' Address  
 Yard No. 734 Electric Light Installation fitted by MESRS TELFORD, GRIER & MACKAY LTD When fitted 1922

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

TOTAL K.W. = 7.5.

ONE OPEN TYPE HIGH SPEED ROBEY ENGINE, DIRECT COUPLED TO A COMPOUND WOUND  
 4 POLE CONTINUOUS CURRENT GENERATOR

Capacity of Dynamo 75 Amperes at 100 Volts, whether continuous or alternating current CONTINUOUS  
 Where is Dynamo fixed ENGINE STARTING PLATFORM Whether single or double wire system is used DOUBLE  
 Position of Main Switch Board NEAR GENERATOR 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 AUXILIAR SWITCHBOARD FITTED

If fuses are fitted on main switch board to the cables of main circuit YES and on each auxiliary FUSE 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 28 arranged in the following groups:—

A FORWARD.	10 lights each of	16	candle power requiring a total current of	5	Amperes
B MIDSHIP	17 lights each of	16	candle power requiring a total current of	4	Amperes
C ENGINE + BOILER RM	20 lights each of	16	candle power requiring a total current of	6	Amperes
D AFT.	26 lights each of	16	candle power requiring a total current of	7	Amperes
E NAVIGATION.	5 lights each of	32	candle power requiring a total current of	7	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
4 Cargo lights of	SLAMPS EACH	16	candle power, whether incandescent or arc lights	INCANDESCENT.	

If arc lights, what protection is provided against fire, sparks, &c. NO ARC LAMPS.

Where are the switches controlling the masthead and side lights placed IN WHEEL HOUSE.

## DESCRIPTION OF CABLES.

Main cable carrying 75 Amperes, comprised of 19 wires, each 16 S.W.G. diameter, .06 square inches total sectional area  
 Branch cables carrying 10 Amperes, comprised of 7 wires, each 18 S.W.G. diameter, .026 square inches total sectional area  
 Branch cables carrying 10 Amperes, comprised of 7 wires, each 18 S.W.G. diameter, .026 square inches total sectional area  
 Leads to lamps carrying 4 Amperes, comprised of 1 wires, each 16 S.W.G. diameter, .003 square inches total sectional area  
 Cargo light cables carrying 4 Amperes, comprised of 70 wires, each .004 S.W.G. diameter, .003 square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

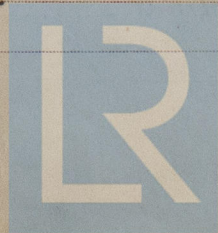
PURE INDIA RUBBER, VULCANISED RUBBER, LEAD COVERED, ARMoured AND BRAIDED  
LEAD COVERED IN ACCOMMODATION.

Joints in cables, how made, insulated, and protected NO JOINTS.

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

How are the cables led through the ship, and how protected CLIPPED TO BULKHEADS, BEAMS, ETC.  
AND PROTECTED BY ARMOURING.



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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

LEAD COVERED ARMORED AND BRAIDED

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

What special protection has been provided for the cables near boiler casings LEAD COVERED AND ARMORED

What special protection has been provided for the cables in engine room LEAD COVERED ARMORED + BRAIDED

How are cables carried through beams UNARMORED THROUGH BUSHED HOLES through bulkheads, &c. WATERTIGHT GLANDS

How are cables carried through decks WATERTIGHT DECK PIPES

Are any cables run through coal bunkers NO or cargo spaces NO or spaces which may be used for carrying cargo, stores, or baggage NO

If so, how are they protected ✓

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage ✓

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 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.

Selford Grier & Mackay Electrical Engineers

Date 8.3.22.

COMPASSES.

Distance between dynamo or electric motors and standard compass 90

Distance between dynamo or electric motors and steering compass 80

The nearest cables to the compasses are as follows:—

A cable carrying 4 Amperes 10 feet from standard compass 10 feet from steering compass

A cable carrying 3 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.

Wm. Allan

Builder's Signature.

Date 17.3.22.

GENERAL REMARKS.

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

It is submitted that this vessel is eligible for

FEE - £4-10-0  
EXP 10-6.

Pa at G.R. RECORD.  
4/2/22. Mored.

Dec. Light. J. S. Rankin.  
2/3/22. Surveyor to Lloyd's Register of Shipping.

Committee's Minute

GLASGOW 28 MAR 1922

Elec. Light



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THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.