

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 4983

Port of GLASGOW Date of First Survey 20. 3. 22 Date of Last Survey 26. 5. 22 No. of Visits 7
 No. in on the Iron or Steel S.S. "SCHOLAR" Port belonging to LIVERPOOL
 Reg. Book 30265 Built at GLASGOW By whom G. GONNELL + CO LTD When built 1922
 Owners CHARENTE S.S. CO LTD Owners' Address T. J. HARRISON (MANAGERS)
 Yard No. 394 Electric Light Installation fitted by MESRS CAMPBELL + ISHERWOOD LTD When fitted 1922

DESCRIPTION OF DYNAMO, ENGINE, ETC.

TOTAL K.W. = 10

D. H. Allins Sons 4 Pole compound Dynamo Coupled direct to their Open Type Engine

Capacity of Dynamo 100 Amperes at 100 Volts, whether continuous or alternating current Continuous
 Where is Dynamo fixed Engine Room Whether single or double wire system is used Single
 Position of Main Switch Board having switches to groups of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each Engine Room 6
Chart Room 7.

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

Are the fuses of non-oxidizable metal Yes. and constructed to fuse at an excess of 80 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 126. arranged in the following groups:—

A	<u>45</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>23</u>	Amperes
B	<u>30</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>15</u>	Amperes
C	<u>30</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>15</u>	Amperes
D		lights each of		candle power requiring a total current of		Amperes
E		lights each of		candle power requiring a total current of		Amperes
1	<u>Mast head light with</u>	<u>1</u> lamps each of	<u>32</u>	candle power requiring a total current of	<u>1</u>	Amperes
2	<u>Side light with</u>	<u>2</u> lamps each of	<u>32</u>	candle power requiring a total current of	<u>2</u>	Amperes
4	<u>Cargo lights of</u>	<u>5-16 CP. 2-10x</u>		candle power, whether incandescent or arc lights	<u>both</u>	

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

Where are the switches controlling the masthead and side lights placed Chart Room.

DESCRIPTION OF CABLES.

Main cable carrying 100 Amperes, comprised of 19 wires, each .083 S.W.G. diameter, .1 square inches total sectional area
 Branch cables carrying 23 Amperes, comprised of 7 wires, each .044 S.W.G. diameter, .01 square inches total sectional area
 Branch cables carrying 15 Amperes, comprised of 7 wires, each .029 S.W.G. diameter, .0045 square inches total sectional area
 Leads to lamps carrying 15 Amperes, comprised of 7 wires, each .029 S.W.G. diameter, .0045 square inches total sectional area
 Cargo light cables carrying Amperes, comprised of wires, each S.W.G. diameter, square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Lead covered Armoured Braided

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 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 Steel tubes on 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 L. b. a. B. cable

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

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

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

How are cables carried through beams Fibre Ferrules. through bulkheads, &c. Brass Glands.

How are cables carried through decks Galv. Steel Pipe to 18" above Decks.

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 h

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

If so, how are the lamp fittings and cable terminals specially protected h

Where are the main switches and fuses for these lights fitted h

If in the spaces, how are they specially protected h

Are any switches or fuses fitted in bunkers no.

Cargo light cables, whether portable or permanently fixed Portable. How fixed Coupling Boxes on Deck

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel direct to Beams.

How are the returns from the lamps connected to the hull Between Brass Washers.

Are all the joints with the hull in accessible positions Yes.

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 h

Are any switches, fuses, or joints of cables fitted in the pump room or companion h

How are the lamps specially protected in places liable to the accumulation of vapour or gas h

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 2500 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.

Campbell & Isherwood La. Electrical Engineers Date 30th May 1922

COMPASSES.

Distance between dynamo or electric motors and standard compass 150 feet.

Distance between dynamo or electric motors and steering compass 150 feet.

The nearest cables to the compasses are as follows:—

A cable carrying	10	Amperes	10	feet from standard compass	7	feet from steering compass
A cable carrying	15	Amperes	20	feet from standard compass	20.	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 h course in the case of the standard compass and nil degrees on h course in the case of the steering compass.

For CHARLES CONNELL & CO., Limited.

H. G. Ballou SECRETARY. Builder's Signature. Date 1st June 1922

GENERAL REMARKS.

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

FAK - £10.0.0.

of 5/6/22
Date 8/6/22.

It is submitted that this vessel is eligible for RECORD. Elec. Light. J.S. Rankin
1/4/6/22 Surveyor to Lloyd's Register of Shipping.

Committee's Minute

GLASGOW 13 JUN 1922
Elec. Light



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THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

HC.
12.6.22

lp

2m.11.10—Transfer.