

## REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 829/2.

Port of Liverpool Date of First Survey 8.9.21 Date of Last Survey 17.10.21 No. of Visits 4  
 No. in Reg. Book 37524 on the Iron or Steel S.S. 'Glencullen' Port belonging to Dublin  
 Built at Lytham By whom Lytham S.B. & Eng. Co. When built 1921  
 Owners Alliance & Dublin Consumers Gas Co. Owners' Address Dublin  
 Yard No. 600 Electric Light Installation fitted by J. Scott. Ltd. When fitted 1921

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

One 3 K.W. Generating Set. Engine Enclosed Type. Dynamo Direct Current, Compound Wound, Protected Type.  
 Capacity of Dynamo 30 Amperes at 110 Volts, whether continuous or alternating current Continuous  
 Where is Dynamo fixed Engine Room Whether single or double wire system is used Twin  
 Position of Main Switch Board Engine Room having switches to groups \_\_\_\_\_ of lights, &c., as below  
 Positions of auxiliary switch boards and numbers of switches on each Engine Room 5 Switches  
Chart Room 4 Switches Navigation Controls. All other switches local to lights  
 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 50 arranged in the following groups:—  
 A 15 lights each of 20 Watt. M.F. candle power requiring a total current of 3 Amperes  
 B 15 lights each of - candle power requiring a total current of 3 Amperes  
 C 15 lights each of - candle power requiring a total current of 3 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  
One Mast head light with One lamp each of 32 candle power requiring a total current of 1 Amperes  
Two Side light with One lamp each of 32 candle power requiring a total current of 2 Amperes  
Two Cargo lights of 160 candle power, whether incandescent or arc lights Clusters  
 If arc lights, what protection is provided against fire, sparks, &c. No Arc Lights Fitted  
 Where are the switches controlling the masthead and side lights placed Chart Room

## DESCRIPTION OF CABLES.

Main cable carrying 30 Amperes, comprised of 7 wires, each 14 S.W.G. diameter, 0.0225 square inches total sectional area  
 Branch cables carrying 10 Amperes, comprised of 7 wires, each 20 S.W.G. diameter, 0.070 square inches total sectional area  
 Branch cables carrying - Amperes, comprised of - wires, each - S.W.G. diameter, - square inches total sectional area  
 Leads to lamps carrying 2 Amperes, comprised of 3 wires, each 20 S.W.G. diameter, 0.030 square inches total sectional area  
 Cargo light cables carrying 3 Amperes, comprised of 7 wires, each 22 S.W.G. diameter, 0.042 square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

Steel Tubing, Armoured Cable, Leadcovered Cable, All Cables 600 Megohm grade C.M.A.  
 Joints in cables, how made, insulated, and protected No Joints. Loop in System  
 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 Steel Tubing, Iron Inspection Boxes



**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 Leadcovered Cables, Watertight Fittings with Packing Glands

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

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

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

How are cables carried through beams Bushed Holes through bulkheads, &c. Bushed Holes

How are cables carried through decks Deck Ripes with Watertight Packing Glands

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

If so, how are they protected Steel Tubing

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

Cargo light cables, whether portable or permanently fixed Portable How fixed Plug box with switch

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 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.

James Scott Ltd

Electrical Engineers

Date 26 October 1921

**COMPASSES.**

Distance between dynamo or electric motors and standard compass

Distance between dynamo or electric motors and steering compass

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	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

The maximum deviation due to electric currents, etc., was found to be \_\_\_\_\_ degrees on \_\_\_\_\_ course in the case of the standard compass and \_\_\_\_\_ degrees on \_\_\_\_\_ course in the case of the steering compass.

Builder's Signature. Date

**GENERAL REMARKS.**

The electric light installation of this vessel has been fitted on board in an efficient manner, and the vessel is now eligible for record of Electric Light.

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

Elec. Light. J.S. 1/11/21.

44:—£5-0-0.

25 OCT 1921

Not Vet.

P. Youneud.

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

LIVERPOOL. 28 OCT 1921

Electric Light.

When fee is paid



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THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.