

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 37421

Port of Glasgow Date of First Survey 25<sup>th</sup> March Date of Last Survey 25.4.18 No. of Visits 7  
 No. in on the Iron or Steel S.S. "War Prophet" Port belonging to London  
 Reg. Book 123 Built at Glasgow By whom Mr Charles Connel Esq When built 1918  
 Owners Shipping Controller Owners' Address \_\_\_\_\_  
 Yard No. 386 Electric Light Installation fitted by H. J. Robertson Esq When fitted 1918

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

One compound wound dynamo multipolar type coupled direct to an enclosed forced lubrication engine having cylinders 5 1/2" x 5" stroke @ 520 rev  
 Capacity of Dynamo 100 Amperes at 100 Volts, whether continuous or alternating current Continuous  
 Where is Dynamo fixed Engine room, starting platform Whether single or double wire system is used single wire  
 Position of Main Switch Board near dynamo having switches to groups A, B, C, D, E, F of lights, &c., as below  
 Positions of auxiliary switch boards and numbers of switches on each No auxiliary switch boards

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-oxidisable metal yes and constructed to fuse at an excess of 50 per cent over the normal current  
 Are all fuses fitted in easily accessible positions yes Are the fuses of standard dimensions wire 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 167 arranged in the following groups:—

(A) Navigation	4	lights each of	16	candle power requiring a total current of	4.5	Amperes
(B) Wireless	—	lights each of	—	candle power requiring a total current of	20.	Amperes
(C) Cargo	25	lights each of	16	candle power requiring a total current of	15.	Amperes
(D) Amships	16	lights each of	30 watt 16	candle power requiring a total current of	19.2	Amperes
(E) aft	20	lights each of	30 watt 16	candle power requiring a total current of	15.3	Amperes
(F) Engine room	50	lights each of	16	candle power requiring a total current of	30.	Amperes
Mast head light with	1	lamps each of	16	candle power requiring a total current of	included in (A)	Amperes
Two Side lights with	1	lamps each of	16	candle power requiring a total current of	"	Amperes
Five Cargo lights of			96	candle power, whether incandescent or arc lights	incandescent	

If arc lights, what protection is provided against fire, sparks, &c. No arcs  
 Where are the switches controlling the masthead and side lights placed In Bridge where there are Master Switch on Bridge

## DESCRIPTION OF CABLES.

Main cable carrying 100 Amperes, comprised of 19 wires, each 13 S.W.G. diameter, .126 square inches total sectional area  
 Branch cables carrying 20 Amperes, comprised of 7 wires, each 16 S.W.G. diameter, .0225 square inches total sectional area  
 Branch cables carrying 15 Amperes, comprised of 7 wires, each 18 S.W.G. diameter, .0127 square inches total sectional area  
 Leads to lamps carrying 6 Amperes, comprised of 1 wires, each 17 S.W.G. diameter, .00446 square inches total sectional area  
 Cargo light cables carrying 36 Amperes, comprised of 119 wires, each 35 S.W.G. diameter, .00322 square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

Raw india rubber then vulcanizing india rubber & rubber coated tape, the whole vulcanized together, taped from cover in masthead accommodation; elsewhere armoured rubber sheath  
 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 No joints 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 No joints  
 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 Forward thro beams under bridge deck (forward bulkhead rail in fore steel tube) aft thro tunnel to Prop. Accommodation



**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 wire in galv steel tube

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

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

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

How are cables carried through beams in steel tubes through bulkheads, &c. with light glands

How are cables carried through decks in galv iron pipes & glands

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

If so, how are they protected Armoured & Braided

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 ground wire

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 cable

**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 yes

Are any switches, fuses, or joints of cables fitted in the pump room or companion no

How are the lamps specially protected in places liable to the accumulation of vapour or gas Strong glass rubber gaskets & special melting fitting air tight

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.

H. J. Robertson & Co Electrical Engineers Date 13<sup>th</sup> June 1918

**COMPASSES.**

Distance between dynamo or electric motors and standard compass 104 Feet

Distance between dynamo or electric motors and steering compass 100 Feet

The nearest cables to the compasses are as follows:—

A cable carrying	<u>4.5</u> Amperes	<u>7</u> feet from standard compass	<u>77</u> feet from steering compass
A cable carrying	<u>.6</u> Amperes	<u>4</u> feet from standard compass	<u>74</u> feet from steering compass
A cable carrying	<u>.3</u> Amperes	<u>into</u> feet from standard compass	<u>7.3 into</u> 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.

For CHARLES CONNELL & CO., Limited.  
D. W. Callum SECRETARY. Builder's Signature. Date 19<sup>th</sup> June 1918

**GENERAL REMARKS.**

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

Committee's Minute GLASGOW. 25. JUN 1918  
Elec Light

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

500,612—Transfer.

