

REPORT ON ELECTRIC LIGHTING INSTALLATION.

No. 36468

Port of GLASGOWDate of First Survey 24th Nov. 1916Date of Last Survey 4th March 1917No. of Visits 14No. in Reg. Book on the Iron or Steel S. S. NantesPort belonging to LondonBuilt at LondonBy whom Ailsa Shipbuilding Co. LtdWhen built 1917Owners European Gas Co. London (H. B. Bigham)Yard No. 292Electric Light Installation fitted by Teleford, Gird & Mackay Ltd.When fitted 1917

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One enclosed type splash lubricated engine direct coupled to open multipolar protected type dynamo compound wound

Capacity of Dynamo 70Amperes at 100Volts, whether continuous or alternating current continuousWhere is Dynamo fixed Abd. side starting platformPosition of Main Switch Board Beside DynamoWhether single or double wire system is used DoublePositions of auxiliary switch boards and numbers of switches on each None

of lights, &c., as below

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 50 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 84-16 C.P. - 532 C.P. - 94-16 C.P. arranged in the following groups:—

A	14	lights each of	16 C.P.	candle power requiring a total current of	8	Amperes
B	7	lights each of	5-32 C.P. 2-16 C.P.	candle power requiring a total current of	6	Amperes
C	46	lights each of	16 C.P.	candle power requiring a total current of	28	Amperes
D	22	lights each of	16 C.P.	candle power requiring a total current of	13	Amperes
E		lights each of		candle power requiring a total current of		Amperes
2		Mast head light with 1 lamp each of	32 C.P.	candle power requiring a total current of	2	Amperes
2		Side light with 1 lamp each of	32 C.P.	candle power requiring a total current of	2	Amperes
4		Cargo lights of each of	96 C.P.	candle power, whether incandescent or arc lights	Incandescent	

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

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

DESCRIPTION OF CABLES.

Main cable carrying 70 Amperes, comprised of 19 wires, each 16 S.W.G. diameter, .06 square inches total sectional area

Branch cables carrying 28 Amperes, comprised of 7 wires, each 16 S.W.G. diameter, .022 square inches total sectional area

Branch cables carrying 7 Amperes, comprised of 7 wires, each 20 S.W.G. diameter, .007 square inches total sectional area

Leads to lamps carrying 4 Amperes, comprised of 1 wires, each 17 S.W.G. diameter, .002 square inches total sectional area

Cargo light cables carrying 4 Amperes, comprised of 1 wires, each 17 S.W.G. diameter, .002 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

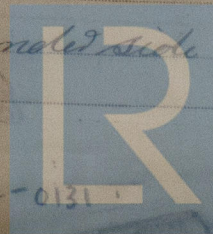
Cargo spaces Engine & Boiler spaces etc. V. I. R. Cable in Galv. Iron screwed Tubing. Crew space. Twin, Armoured Braided Accommodation. Lead covered wire.

Joints in cables, how made, insulated, and protected None

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 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 clipped to Bulkheads & under side of Deck. By Tubing Armoured or Lead



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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

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

What special protection has been provided for the cables near boiler casings Galv. Iron Tube

What special protection has been provided for the cables in engine room Galv. Iron Tube

How are cables carried through beams None through bulkheads, &c. Tubing made w.t.

How are cables carried through decks Galv. Deck Tubes rendered watertight

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 Galv. Iron Tubes

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

If so, how are the lamp fittings and cable terminals specially protected Tube set direct into heavy guarded fittings

Where are the main switches and fuses for these lights fitted Engine room

If in the spaces, how are they specially protected None

Are any switches or fuses fitted in bunkers None

Cargo light cables, whether portable or permanently fixed Permanent How fixed Cast metal Term. Box

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel None

How are the returns from the lamps connected to the hull None

Are all the joints with the hull in accessible positions None

Is the installation supplied with a voltmeter yes and with an amperemeter yes, fixed on 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 None

Are any switches, fuses, or joints of cables fitted in the pump room or companion None

How are the lamps specially protected in places liable to the accumulation of vapour or gas None

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.

ELFORD, GRIER & MACKAY, LTD

Electrical Engineers

Date 10-5-17

COMPASSES.

Distance between dynamo or electric motors and standard compass 40 feet

Distance between dynamo or electric motors and steering compass 40 feet

The nearest cables to the compasses are as follows:—

A cable carrying <u>7</u> Amperes <u>9</u> feet from standard compass	<u>7</u> feet from steering compass
A cable carrying <u>3</u> Amperes <u>3</u> feet from standard compass	<u>3</u> feet from steering compass
A cable carrying <u>3</u> Amperes <u>3</u> feet from standard compass	<u>3</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 0° degrees on any course in the case of the steering compass.

standard compass and 0° degrees on any course in the case of the steering compass.

AILSA SHIPBUILDING CO., LIMITED

Builder's Signature.

Date 15th May, 1917.

GENERAL REMARKS.

This installation has been fitted under special survey, tried and found to work satisfactorily.

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

J.W.D. 30/5/17
29 MAY 1917

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

Committee's Minute **GLASGOW**

Elec. Light.



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