

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 40686

Port of Glasgow. Date of First Survey 3rd Sept 1920 Date of Last Survey 16th Dec 1920 No. of Visits 9
 No. in on the Iron or Steel S.S. Dramalist Port belonging to Liverpool
 Reg. Book 56488 Built at Whiteinch By whom Messrs C. Connell & Co When built 1920
 Owners McCharente S.S. Co Ltd Owners' Address Managers T. & J. Harrison
 Yard No. 363 Electric Light Installation fitted by Messrs Campbell & Sherwood When fitted 1900

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Open type engine direct coupled to Compound Wound Dynamo

Capacity of Dynamo 170 Amperes at 102 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 do. having switches to groups Four of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each Chart Room 8 Switches

Engine " 5 "

Stokehold 4 "

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 160 arranged in the following groups:—

A	40	lights each of	16	candle power requiring a total current of	20	Amperes		
B	40	lights each of	16	candle power requiring a total current of	20	Amperes		
C	30	lights each of	16	candle power requiring a total current of	15	Amperes		
D	20	lights each of	16	candle power requiring a total current of	10	Amperes		
E		lights each of		candle power requiring a total current of		Amperes		
	1	Mast head light with	1	lamps each of	32	candle power requiring a total current of	1	Amperes
	2	Side light with	2	lamps each of	32	candle power requiring a total current of	2	Amperes
	5	Cargo lights of	5-16	2-10 Amperes		candle power, whether incandescent or arc lights	both	

If arc lights, what protection is provided against fire, sparks, &c. Globes Wire Protected

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

DESCRIPTION OF CABLES.

Main cable carrying 170 Amperes, comprised of 37 wires, each 14 S.W.G. diameter, .1838 square inches total sectional area

Branch cables carrying 35 Amperes, comprised of 7 wires, each .064 S.W.G. diameter, .0225 square inches total sectional area

Branch cables carrying 35 Amperes, comprised of 7 wires, each .064 S.W.G. diameter, .0225 square inches total sectional area

Leads to lamps carrying 5 Amperes, comprised of 1 wires, each .044 S.W.G. diameter, .0015 square inches total sectional area

Cargo light cables carrying 3 Amperes, comprised of 108 wires, each 40 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 — 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 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.C.A. + B. Cables

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

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

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

How are cables carried through beams Fibre Straps 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 Yes or cargo spaces no or spaces which may be used for carrying cargo, stores, or baggage Yes

If so, how are they protected L.C.A. + B. Cable + Cast Iron Fittings

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 Enclosed in fittings

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

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 Couplings on Deck

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel Direct to Beam

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 —

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 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, LTD.

Campbell

Electrical Engineers

Date 24/12/20

COMPASSES.

Distance between dynamo or electric motors and standard compass 180 feet

Distance between dynamo or electric motors and steering compass 180 "

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
30	8	6	6
15	12	10	10

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 — course in the case of the standard compass and nil degrees on — course in the case of the steering compass.

For CHARLES CONNELL & CO., Limited.

W. Ballin

SECRETARY

Builder's Signature.

Date 12 Jan 1921

GENERAL REMARKS.

This installation has been fitted on board under special survey. Tested under full working conditions + found satisfactory in every way.

It is submitted that this vessel is eligible for

THE RECORD. Elec Light

Cell 27/1/21

J. S. Rankin

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

Committee's Minute

GLASGOW.

25 JAN 1921

Elec. Light.



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Im. 11.13—Transfer.

22.1.21