

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 7330

Port of Belfast Date of First Survey 3rd Dec. 1913 Date of Last Survey 9th Jan. 1914 No. of Visits 10
 No. in Reg. Book on the Iron or Steel T.S.S. "Star of Victoria" Port belonging to Belfast
 Built at Belfast By whom Workman Clark & Co. Ltd. When built 1914
 Owners Star Line Ltd. (J.P. Carry & Co.) Owners' Address London
 Yard No. 328 Electric Light Installation fitted by Sunderland Forge & Eng. Co. Ltd. When fitted 1914

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Two Multipolar Pallion Dynamos coupled to Workman Clark & Co's open type engines

Capacity of Dynamo each 260 Amperes at 100 Volts, whether continuous or alternating current Continuous ✓
 Where is Dynamo fixed In thrust recess Whether single or double wire system is used double ✓
 Position of Main Switch Board Near Dynamo having switches to groups Nine circuits of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each no Auxiliary board

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 Timed copper and constructed to fuse at an excess of 100 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 All on slate and porcelain bases

Total number of lights provided for 348-16 c.p. arranged in the following groups:—
362-8 c.p.

A	106	lights each of	16	candle power requiring a total current of	63.3	Amperes
B	68	lights each of	16	candle power requiring a total current of	40.8	Amperes
C	53	lights each of	16	candle power requiring a total current of	31.8	Amperes
D	121	lights each of	16	candle power requiring a total current of	72.6	Amperes
E	Wireless Telegraphy	lights each of		candle power requiring a total current of	30	Amperes
	2 Mast head light with 1 lamps each of	32	candle power requiring a total current of	2.4	Amperes	
	2 Side light with 1 lamps each of	32	candle power requiring a total current of	2.4	Amperes	
	15 Cargo lights of	80	candle power, whether incandescent or arc lights	incandescent		

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

Where are the switches controlling the masthead and side lights placed In Wheelhouse

DESCRIPTION OF CABLES.

Main cable carrying 260 Amperes, comprised of 37 wires, each .112" S.W.G. diameter, .35 square inches total sectional area
 Branch cables carrying 63.3 Amperes, comprised of 19 wires, each 16 S.W.G. diameter, .060 square inches total sectional area
 Branch cables carrying 31.8 Amperes, comprised of 7 wires, each 18 S.W.G. diameter, .0125 square inches total sectional area
 Leads to lamps carrying 3 Amperes, comprised of 7 wires, each 25 S.W.G. diameter, .0022 square inches total sectional area
 Cargo light cables carrying 3 Amperes, comprised of 114 wires, each 38s S.W.G. diameter, .003 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Insulated with pure rubber vulcanised rubber, taped, lead covered and braided on lead covered armoured and braided where required. Insulation resistance

2500 megohm.

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 ✓

How are the cables led through the ship, and how protected Clipped up with galvanised iron clips and then cased in with Bitumised wood.

Circuits.
 F. 42-8 c.p. lamps.)
 G. 110-8 c.p.) These are not fitted. Mains and fuse boxes laid in for them only.
 H. 110-8 c.p.)
 I. 100-8 c.p.)

WEB FR
FRAMES, In Fe
No. of Side
FRAMES, In E
FRAMES, In A

No. of Side
Size of Face
ET PLATES
Frames, depth

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DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible Yes in tween decks

What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture Lead covered, and Braided cables used in these places.

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

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

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

How are cables carried through beams in Holes bushed with fibre through bulkheads, &c. W.T. Glands.

How are cables carried through decks in Galvanised iron deck pipes.

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 Clipped on wood grounds and boxed over.

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 in Cast iron boxes.

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

If in the spaces, how are they specially protected With cast iron covers.

Are any switches or fuses fitted in bunkers No.

Cargo light cables, whether portable or permanently fixed Portable.

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 2, and with an amperemeter Yes 2, fixed on 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 7500 megohms per statute mile at 60° Farhenheit 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.

P. PRO THE SUNDERLAND FORGE & ENGINEERING CO., LTD.

Electrical Engineers

Date 26/1/14.

COMPASSES.

Distance between dynamo or electric motors and standard compass 290 ft.

Distance between dynamo or electric motors and steering compass 285 ft.

The nearest cables to the compasses are as follows:—

A cable carrying	30	Amperes	115	feet from standard compass	100	feet from steering compass
A cable carrying	10	Amperes	16	feet from standard compass	6	feet from steering compass
A cable carrying	1	Amperes	10	feet from standard compass	6	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 None degrees on all courses in the case of the standard compass and None degrees on all course in the case of the steering compass.

PRO WORKMAN CLARK & CO., LIMITED.

Builder's Signature.

Date

29th July 1914

GENERAL REMARKS.

This installation is of good description, and has been fitted in accordance with the Rules.

It is submitted that this vessel is eligible for

THE RECORD. Elec. light.

P. L. Beveridge

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

Committee's Minute FRI. FEB. 6-1914

TUE. FEB. 10. 1914

TUE. MAR. 28. 1914

FRI. JUN. 26. 1914

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Lloyd's Register
Foundation

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