

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 3182.

Part of Dublin Date of First Survey 17 July Date of Last Survey 29<sup>th</sup> July No. of Visits 5  
 No. in SS Wheattlands on the Iron Steel Cardiff Port belonging to  
 Built at Dublin By whom Dublin Dockyard Co When built 1912.  
 Owners Spillers & Bakers Ltd Owners' Address Cardiff  
 Yard No. 77 Electric Light Installation fitted by Frank G. Sherwood Dublin When fitted 1912.

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

Direct coupled vertical steam engine & multipolar dynamo  
by Messrs The Sunderland Forge Co Ltd  
 Capacity of Dynamo 3.5 Kilowatt Amperes at 110 Volts, whether continuous or alternating current continuous  
 Where is Dynamo fixed Engine Room  
 Position of Main Switch Board " having switches to groups 4 circuits a total of 50 lights, &c., as below  
 Positions of auxiliary switch boards and numbers of switches on each no auxiliary switch boards - auxiliary fuse  
boxes in the following positions A Engine Room B Captain's Room - Amidships  
C Fore-castle D Signal light circuit E aft accommodation  
 If cut outs 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 cut outs fitted to both flow and return wires or cables of all circuits including lamp circuits yes  
 Are the cut outs of non-oxidizable metal yes and constructed to fuse at an excess of 100 per cent over the normal current  
 Are all cut outs 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 cut-outs constructed of incombustible materials and fitted on incombustible bases yes

Total number of lights provided for 50 arranged in the following groups :-

A	10	lights each of	16	candle power requiring a total current of	5.5	Amperes
B	19	lights each of	16	candle power requiring a total current of	10.3	Amperes
C	8	lights each of	16	candle power requiring a total current of	4.5	Amperes
D	6	lights each of	32	candle power requiring a total current of	5.5	Amperes
E	11	lights each of	16	candle power requiring a total current of	6.0	Amperes
1	Mast head light with	1 lamps each of	32	candle power requiring a total current of		Amperes
2	Side light with	1 lamps each of	32	candle power requiring a total current of		Amperes
4	Cargo lights of	6 16 CP each cluster		candle power, whether incandescent or arc lights		Incandescent

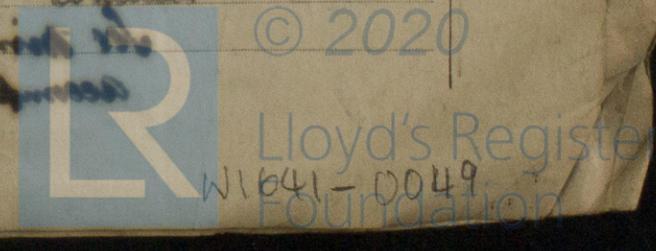
If arc lights, what protection is provided against fire, sparks, &c. no arc lights  
 Where are the switches controlling the masthead and side lights placed in chart room

## DESCRIPTION OF CABLES.

Main cable carrying	33	Amperes, comprised of	7	wires, each	14 <sup>s</sup>	L.S.G. diameter,	.034	square inches total sectional area	
Branch cables carrying	10	Amperes, comprised of	7	wires, each	20	L.S.G. diameter,	.007	square inches total sectional area	.0076
Branch cables carrying	6	Amperes, comprised of	7	wires, each	22	L.S.G. diameter,	.004	square inches total sectional area	.0018
Leads to lamps carrying	3	Amperes, comprised of	3	wires, each	20	L.S.G. diameter,	.003	square inches total sectional area	
Cargo light cables carrying	3.5	Amperes, comprised of	113	wires, each	38 <sup>s</sup>	L.S.G. diameter,	flexible	square inches total sectional area	

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

800 megohm grade (2500 Test) vulcanized cable - braided & compounded  
- wrapped taped & lead covered overall in accommodation  
 Joints in cables, how made, insulated, and protected no joints  
 Are all the joints of cables thoroughly soldered, resin only having been used as a flux no 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 galvanized screwed conduit



**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 covering

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat lead covering + secured G-B

What special protection has been provided for the cables near boiler casings secured gun barrel

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

How are cables carried through beams gun barrel clipped through through bulkheads, &c. W.T glands

How are cables carried through decks Deck laths

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 galvanized gun barrel

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 cut outs for these lights fitted ///

If in the spaces, how are they specially protected ///

Are any switches or cut outs fitted in bunkers ///

Cargo light cables, whether portable or permanently fixed Portable How fixed W.T Plug

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 ///

**VESSELS BUILT FOR CARRYING PETROLEUM.**

In vessels built for carrying petroleum, are all switches and cut-outs fitted in positions not liable to the accumulation of petroleum vapour or gas

Are any switches, cut outs, 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 installation is supplied with a voltmeter and an amperemeter, fixed

The copper used is guaranteed to have a conductivity of 98% per cent. that of pure copper.

Insulation of cables is guaranteed to have a resistance of not less than 800 megohms per statute mile after 24 hours' immersion in seawater.

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.

J. G. Sherwood Electrical Engineers Date 1/8/12

**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	<u>30</u> Amperes	<u>20</u> 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.

The Dublin Dockyard Co. Builder's Signature. Date Sept. 16<sup>th</sup> 1912.

**GENERAL REMARKS.**

To Complete - The E & B spaces are to fit up in Glasgow, & all to the satisfaction of the Surveyors at that Port.

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

Committee's Minute GLASGOW 24 SEP. 1912

See minute on accompanying Gls. rpt.



THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

VER  
No.  
Made a  
Worked  
Valves  
If fitted  
Material  
Dia. of  
Worked  
Diameter  
Worked  
Diameter  
S.P.A.  
Date  
of Survey  
when  
built  
Date  
Conn  
Stern  
Comp  
Main  
Mate  
Mate  
Mate  
Gen

REPORT FORM No. 11.