

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 5925

Port of Belfast Date of First Survey March 27 Date of Last Survey May 25 No. of Visits 6
 No. in Reg. Book 101 on the Iron Steel Bologna Port belonging to Genoa
 Built at Belfast By whom Harland & Wolff L^r When built 1905
 Owners Italia Societa di Navigazione Owners' Address Genoa
 Yard No. 368 Electric Light Installation fitted by W. H. Allen Low & Co L^r When fitted 1905

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One 8' x 13' x 8" Engine & 4 pole dynamo compound wound
 One 7' x 6' " " " " " "

Capacity of Dynamos 200 & 72 Amperes at 105 Volts, whether continuous or alternating current continuous

Where is Dynamo fixed Larger Dynamo in Thrust Room, Smaller in Dynamo Room Main Deck level, port

Position of Main Switch Board on after bulkhead Pass having switches to groups A, B, C, D, E, F, G, H, J, K, L of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each emergency switchboard in upper Dynamo room, 3 switches

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		472		arranged in the following groups :-	
1st Class B & B Deck	62	16	16	candle power requiring a total current of	38 35 Amperes
A 1st Class Upper Deck	67	16	16	candle power requiring a total current of	21 25 Amperes
B 3rd Class Forward	44	16	16	candle power requiring a total current of	7 48 Amperes
C Deck General	84	16	16	candle power requiring a total current of	23 24 Amperes
D Police Midship	41	16	16	candle power requiring a total current of	14 20 Amperes
E Store Hold	24	16	16	candle power requiring a total current of	1.14 Amperes
2 Mast head lights	each of 1 lamp	32		candle power requiring a total current of	1.14 Amperes
2 Side lights	each of 1 lamp	32		candle power requiring a total current of	1.14 Amperes
4 Cargo lights	each of 5	20	16	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 on Bridge

DESCRIPTION OF CABLES.

Main cable carrying	200	Amperes, comprised of	61	wires, each	16	L.S.G. diameter,	.200	square inches total sectional area
Branch cables carrying	72	Amperes, comprised of	19	wires, each	15	L.S.G. diameter,	.0789	square inches total sectional area
Branch cables carrying	51	Amperes, comprised of	19	wires, each	16	L.S.G. diameter,	.062	square inches total sectional area
Branch cables carrying	41	Amperes, comprised of	19	wires, each	17	L.S.G. diameter,	.0477	square inches total sectional area
Branch cables carrying	26	Amperes, comprised of	7	wires, each	15	L.S.G. diameter,	.0291	square inches total sectional area
Leads to lamps carrying	22	Amperes, comprised of	7	wires, each	16	L.S.G. diameter,	.0229	square inches total sectional area
Leads to lamps carrying	3.5	Amperes, comprised of	7	wires, each	22	L.S.G. diameter,	.0043	square inches total sectional area
Cargo light cables carrying	2.9	Amperes, comprised of	145	wires, each	38	L.S.G. diameter,	.0043	square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

The conductor is covered with one layer pure Para rubber, then two layers vulcanizing rubber, the whole vulcanized together & finally taped & braided; the main cables, after vulcanizing, are spirally armoured with G. I. wire; the wires in Machinery spaces, after vulcanizing, are lead covered.

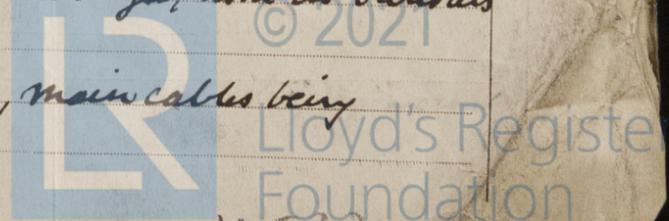
Joints in cables, how made, insulated, and protected

Thoroughly soldered, insulated with two layers pure rubber, then two layers prepared tape & varnished covered & armoured with G. I. wire

Are all the joints of cables thoroughly soldered, resin only having been used as a flux 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 yes, none in bunkers

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 in strong wood casing, main cables being armoured with G. I. wire



W 77-0030

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, served & armoured

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat none near under heat

What special protection has been provided for the cables near boiler casings Lead covered served & spirally armoured with G.I. wires

What special protection has been provided for the cables in engine room Lead covered served & spirally armoured with G.I. wires

How are cables carried through beams in fibre ferrules through bulkheads, &c. in fibre ferrules

How are cables carried through decks in G.I. pipes bushed with fibre " W.T. " in W.T. glands with brass nut

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 through bunker in iron pipe, elsewhere in stray wood casing

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

If so, how are the lamp fittings and cable terminals specially protected the glass, guard & lamp are removed & a cast the glass, guard & lamp are removed & a cast

Where are the main switches and cut outs for these lights fitted in stairway on deck above brass cap substituted completely covering the terminals

If in the spaces, how are they specially protected —

Are any switches or cut outs 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 screwed to yoke of magnet

How are the returns from the lamps connected to the hull soldered to 3/8 brass screws

Are all the joints with the hull in accessible positions yes

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 2 voltmeters and 2 amperemeters fixed on switchboards

The copper used is guaranteed to have a conductivity of 100 per cent. that of pure copper.

Insulation of cables is guaranteed to have a resistance of not less than 2500 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.

FOR W. H. ALLEN, SON & CO. LTD. C.P. Hunter Electrical Engineers Date 24.7.05

COMPASSES.

Distance between dynamo or electric motors and standard compass 90ft, to double wired fan motor in Ladies Stow 18ft

Distance between dynamo or electric motors and steering compass 90ft, ————— 20ft

The nearest cables to the compasses are as follows:—

A cable carrying <u>10</u> Amperes	<u>5</u> feet from standard compass	<u>8</u> feet from steering compass
A cable carrying _____ Amperes	_____ feet from standard compass	_____ feet from steering compass
A cable carrying _____ Amperes	<u>The above is double wired</u> from standard compass	_____ 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 every course in the case of the standard compass and nil degrees on every course in the case of the steering compass.

FOR HARLAND & WOLFF LTD. A. H. Capiner Builder's Signature. Date 1st July 1905

GENERAL REMARKS.

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

R. J. D. Munniff
Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

It is submitted that the Record Rec. Light be noted in the Reg. Books.



THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

REPORT FORM No. 14