

No. 7855

Port of Belfast Date of First Survey Mar 1894 Date of Last Survey Aug 29th 1917 No. of Visits 14
No. in on the Iron or Steel L.S.S. Mahia Port belonging to Burhampton
Reg. Book Built at Belfast By whom Warkman Clark & Bay L^{rs} When built 1917
Owners Shaw Savill & Albion Coy L^{rs} Owners' Address London
o. 350 Electric Light Installation fitted by J.H. Holmes & Bay, Newcastle When fitted 1917

DESCRIPTION OF DYNAMO, ENGINE, ETC.

is supplied by Builders.
Coupled to one Holmes "Castle" Dynamo.
Volts of Dynamos Each 200. ✓ Amperes at 100. ✓ Volts, whether continuous or alternating current Continuous ✓
is Dynamo fixed in recess aft of Engine Room. Whether single or double wire system is used Single ✓
in of Main Switch Board near Dynamos. having switches to groups See Special list. of lights, &c., as below
ms of auxiliary switch boards and numbers of switches on each
See attached list (herewith)

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.
 Is wiring on the double wire system are cut outs fitted to both flow and return wires or cables of all circuits including lamp circuits —
 Are cut outs of non-oxidizable metal yes and constructed to fuse at an excess of 100 per cent over the normal current
 Are 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

number of lights provided for		arranged in the following groups:—	
lights each of		candle power requiring a total current of	Amperes
lights each of		candle power requiring a total current of	Amperes
lights each of		candle power requiring a total current of	Amperes
lights each of		candle power requiring a total current of	Amperes
lights each of		candle power requiring a total current of	Amperes
2 Mast head light with	One lamp each of 32.	candle power requiring a total current of	2.24 Amperes
2 Side light with	One lamp each of 32.	candle power requiring a total current of	2.24 Amperes
16 Cargo lights of	6 - 16	candle power, whether incandescent or arc lights	Incandescent.
10 " " "	4 - 16		

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

here are the switches controlling the masthead and side lights placed in chief cabin

DESCRIPTION OF CABLES.

main cable carrying	200	Amperes, comprised of	37	wires, each	.092	L.S.G. diameter,	.25	square inches total sectional area
branch cables carrying	16-24	Amperes, comprised of	7	wires, each	16	L.S.G. diameter,	.022	square inches total sectional area
branch cables carrying	16-8	Amperes, comprised of	7	wires, each	16	L.S.G. diameter,	.022	square inches total sectional area
leads to lamps carrying	.56	Amperes, comprised of	1	wires, each	16	L.S.G. diameter,	.003	square inches total sectional area
large light cables carrying	3.36	Amperes, comprised of	7	wires, each	20	L.S.G. diameter,	.007	square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Conductors composed of twisted copper, insulated with pure & vulcanized India Rubber, Taped, Lead covered, Taped, & Sheathed with galvanized steel wire & Taped & Braided & Compounded overall.

Joints in cables, how made, insulated, and protected none, lapsing in a system carried out, & of special connection Boxes used.

Are all the joints of cables thoroughly soldered, resin only having been used as a flux _____ 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 *None*

How are the cables led through the ship, and how protected *In accommodation & Saloon, & S.C. in and out of ship.*
In cargo spaces, Engine & Boiler spaces, galley, Scullery &c. L.C. also in side & under

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, sheathed & braided.

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat Lead covered, sheathed & braided.

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 Bushed with fibre through bulkheads, &c. Stuffing glands ✓

How are cables carried through decks in lead & then Deck Tubes, Flanged & made water tight ✓

Are any cables run through coal bunkers No or cargo spaces Yes or spaces which may be used for carrying cargo, stores, or baggage Yes

If so, how are they protected Lead covered, sheathed & braided & clipped up.

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage Not local bunkers but spaces

If so, how are the lamp fittings and cable terminals specially protected Cable Terminals with metal covers in spaces

Where are the main switches and cut outs for these lights fitted in Engine Room.

If in the spaces, how are they specially protected —

Are any switches or cut outs fitted in bunkers None

Cargo light cables, whether portable or permanently fixed Portable How fixed Socket connection.

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel Dynamo Terminal earthed to casement

How are the returns from the lamps connected to the hull with 2 turned washers, and 3/8" R. St. Brass Screw

Are all the joints with the hull in accessible positions Yes.

The installation is — supplied with 4 voltmeters and — amperemeters fixed on main switchboard

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

Insulation of cables is guaranteed to have a resistance of not less than 2,500 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.

Electrical Engineers

Date

COMPASSES.

Distance between dynamo or electric motors and standard compass 16.8 feet approximately.

Distance between dynamo or electric motors and steering compass 16.2 " " "

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
5.56	inside	inside	inside
16.8	approx. 14	approx. 10	feet from steering compass
17.92	" " 22	" " 18	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 Nil degrees on all course in the case of the standard compass and Nil degrees on all course in the case of the steering compass.

Builder's Signature.

Date

10th Sept. 1917

GENERAL REMARKS.

One pair of 7/16 lead covered, sheathed & braided cables run from main switchboard to engine room with 4.0 switch in back-up Room & 6/40 in Room. This installation appears to be of R.F. P. Bennett's good description, and has been fitted in accordance with the Rules

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

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.