

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 11398

Port of Aberdeen Date of First Survey 7th Jan Date of Last Survey 28th Jan No. of Visits 7
 No. in Reg. Book on Steel S.S. "BEGA." Port belonging to Fleetwood
 Built at Aberdeen By whom Messrs J. Guthrie & Son S.S. When built 1914
 Owners Messrs The New Dock Steam Trawling Co Owners' Address Fleetwood
 Card No. 398 Electric Light Installation fitted by Messrs Pratt & Keith When fitted 1914

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Vertical, double acting engine, direct coupled to a four pole semi-enclosed dynamo

Capacity of Dynamo 30 Amperes at 100 Volts, whether continuous or alternating current Continuous

Where is Dynamo fixed Engine room Whether single or double wire system is used double

Position of Main Switch Board In engine room near dynamo having switches to groups _____ of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each The whole of the lights throughout the vessel except in Cabin, Forecastle & Chart room are controlled from the main switchboard on which are 14 switches. The Cabin, Forecastle & Chart room have local 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 50 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 55 arranged in the following groups :-

A	21	lights each of	50	candle power requiring a total current of	12.6	Amperes
B	2	lights each of	50	candle power requiring a total current of	1.6	Amperes
C	9	lights each of	32	candle power requiring a total current of	5.4	Amperes
D	15	lights each of	25	candle power requiring a total current of	6.0	Amperes
E	5	lights each of	16	candle power requiring a total current of	1.5	Amperes
1	Mast head light with 1 lamps each of	25	candle power requiring a total current of	.4	Amperes	
2	Side light with 1 lamps each of	25	candle power requiring a total current of	.8	Amperes	
One	Cargo lights of 6 lamps each of	32	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 On main switch board

DESCRIPTION OF CABLES.

Main cable carrying 28.3 Amperes, comprised of 7 wires, each 16 L.S.G. diameter, .02214 square inches total sectional area
 Branch cables carrying _____ Amperes, comprised of _____ wires, each _____ L.S.G. diameter, _____ square inches total sectional area
 Branch cables carrying _____ Amperes, comprised of _____ wires, each _____ L.S.G. diameter, _____ square inches total sectional area
 Leads to lamps carrying 3 Amperes, comprised of 1 wires, each 18 L.S.G. diameter, .00181 square inches total sectional area
 Cargo light cables carrying 4.8 Amperes, comprised of 64 wires, each 38 L.S.G. diameter, .02214 square inches total sectional area

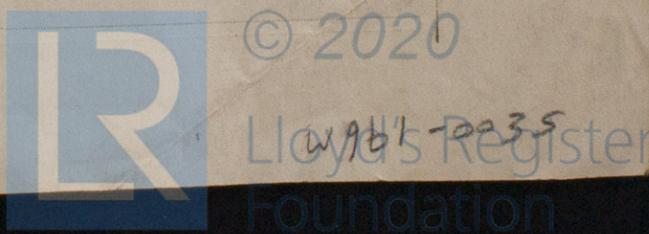
DESCRIPTION OF INSULATION, PROTECTION, ETC.

All wires & cables insulated with pure & vulcanized india rubber, taped & lead covered in Cabin, Forecastle & Chart room, and in all other parts of the vessel as above with the addition of a coating of tape & armoring of galvanized iron wire
 Joints in cables, how made, insulated, and protected _____

Are all the joints of cables thoroughly soldered, resin only having been used as a flux No joints 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 No joints

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 Through holes bored in beams bushed with lead cables protected by armoring.



DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible except in coal bunkers.

What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture lead covered and armoured

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

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 Holes bushed with lead through bulkheads, &c. at deck level, holes bushed with lead

How are cables carried through decks Galvanized iron tubes, filled in with pitch.

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 Lead covered and armoured.

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 Strong wire guards

Where are the main switches and cut outs for these lights fitted On main switch board

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 ✓

How are the returns from the lamps connected to the hull ✓

Are all the joints with the hull in accessible positions ✓

The installation is with supplied with a voltmeter and with an amperemeter, fixed on main switch board.

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 100 per cent. that of pure copper.

Insulation of cables is guaranteed to have a resistance of not less than 600 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.

pro Pratt & Keith. Thomson Electrical Engineers Date 5th February 1914

COMPASSES.

Distance between dynamo ~~electric motor~~ and standard compass about 40 feet

Distance between dynamo ~~electric motor~~ and steering compass 46

The nearest cables to the compasses are as follows:—

A cable carrying	<u>2.88</u>	Amperes	<u>two</u>	feet from standard compass	<u>one</u>	feet from steering compass
A cable carrying	<u>.12</u>	Amperes	<u>—</u>	feet from standard compass	<u>for Compass light</u>	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 Yes

The maximum deviation due to electric currents, etc., was found to be nil degrees on any course in the case of the standard compass and nil degrees on any course in the case of the steering compass.

THE JOHN DUTHIE TORRY SHIPBUILDING COY John Liddes Builder's Signature. Date 12th Feb 1914

GENERAL REMARKS. The various parts of the installation were examined while fitting on board; the materials and workmanship are good, and on completion the light was tried under full power and found satisfactory.

It is submitted that this vessel is eligible for THE RECORD. Elec. light. J. S. Selles. Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

