

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 15,727

Port of Leith Date of First Survey 29-1-20 Date of Last Survey 26-2-20 No. of Visits 6
 No. in Reg. Book on the Iron Steel S. J. Dunfield Port belonging to London
 Built at Burntisland By whom Burntisland S.B. & Ld When built 1920
 Owners Sea Shipping Co. Owners' Address London
 Yard No. 103 Electric Light Installation fitted by Momonuffe Bros. Leven When fitted 1920

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Open type steam "holer" direct-coupled to Mr. Farlane's dynamo

Capacity of Dynamo 100 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 Engine room having switches to groups 15 to 25 of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each no auxiliary switchboard.

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 — 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-oxidizable metal yes and constructed to fuse at an excess of 20 % 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 yes

Total number of lights provided for 103 arranged in the following groups:—

A 20 lights each of 16 candle power requiring a total current of 12 Amperes

B 20 lights each of 16 candle power requiring a total current of 12 Amperes

C 25 lights each of 16 candle power requiring a total current of 18 Amperes

D 8 lights each of 32 candle power requiring a total current of 21 Amperes

E lights each of candle power requiring a total current of Amperes

1 Mast head light with 1 lamps each of 32 candle power requiring a total current of 1 1/3 Amperes

2 Side light with 2 lamps each of 32 candle power requiring a total current of 2 2/3 Amperes

30 Cargo lights of 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 Chart House

DESCRIPTION OF CABLES.

Main cable carrying 113 Amperes, comprised of 19 wires, each 14 S.W.G. diameter, .90442 square inches total sectional area

Branch cables carrying 18 Amperes, comprised of 4 wires, each 20 S.W.G. diameter, .004052 square inches total sectional area

Branch cables carrying 12 Amperes, comprised of 3 wires, each 20 S.W.G. diameter, .003016 square inches total sectional area

Leads to lamps carrying 4 Amperes, comprised of 3 wires, each 22 S.W.G. diameter, .001825 square inches total sectional area

Cargo light cables carrying 23 Amperes, comprised of 4 wires, each 20 S.W.G. diameter, .004052 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

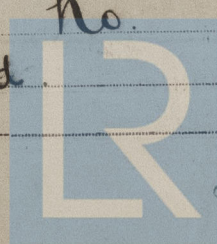
Insulated with pure V.I.T. taped, cores twisted together and made circular with wormings taped braided and armoured with galvanized steel wires and braided overall.

Joints in cables, how made, insulated, and protected porcelain connections mounted on wooden blocks.

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 no

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 Armoured



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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

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

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

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

How are cables carried through beams armoured through bulkheads, &c. bulkhead glands

How are cables carried through decks deck tubes

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

If so, how are they protected armoured

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 fuses for these lights fitted —

If in the spaces, how are they specially protected —

Are any switches or fuses fitted in bunkers —

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 —

Is the installation supplied with a voltmeter Yes, and with an amperemeter Yes, fixed engine room

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 600 megohms per statute mile at 60° Fahrenheit 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.

M^{rs}. M. M. M. B. Electrical Engineers Date 3/8/20

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	Amperes	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 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.

Builder's Signature. Date

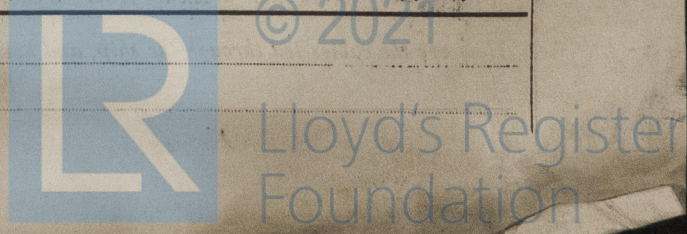
GENERAL REMARKS.

The electric light installations have been fitted in accordance with the Local rules

It is submitted that this vessel is eligible for THE RECORD ELEC. LIGHT 17/3/20

Committee's Minute

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



THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.