

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 73989

Port of London. Date of First Survey 1st Sept Date of Last Survey 4th Sep No. of Visits 2
 No. in 437 on the Iron on Steel "Highland Laddie" Port belonging to London.
 Reg. Book 437 Built at Birkenhead By whom Cammell, Laird & Co. Ltd When built 1910. 4.
 Owners The Nelson Ste. Nav Co. (H.W. Nelson) Owners' Address supplied
 Yard No. Additional Electric Light Installation fitted by H. J. Boothroyd & Co. Liverpool When fitted 1911.

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One 25 K.W. dynamo, Compound wound (six pole.) Single Cylinder double Acting
Engine R. F. M. 550 Open type
 Capacity of Dynamo 227 Amperes at 110 Volts, whether continuous or alternating current Continuous
 Where is Dynamo fixed Bottom platform Engine room Whether single or double wire system is used Double
 Position of Main Switch Board " having switches to groups 8-50 Amperes 2-50 Amperes lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each the way single pole

If cut outs are fitted on main switch board to the cables of main circuit " 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 " and to each lamp circuit "

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 "

Are the cut outs of non-oxidizable metal " and constructed to fuse at an excess of " per cent over the normal current "

Are all cut outs fitted in easily accessible positions " Are the fuses of standard dimensions " 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 "

Are all switches and cut-outs constructed of incombustible materials and fitted on incombustible bases "

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

A	lights each of	candle power requiring a total current of	Amperes
B	lights each of	candle power requiring a total current of	Amperes
C	lights each of	candle power requiring a total current of	Amperes
D	lights each of	candle power requiring a total current of	Amperes
E	lights each of	candle power requiring a total current of	Amperes
	Mast head light with	lamps each of	candle power requiring a total current of
	Side light with	lamps each of	candle power requiring a total current of
	Cargo lights of	candle power, whether incandescent or arc lights	

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

Where are the switches controlling the masthead and side lights placed "

DESCRIPTION OF CABLES.

Main cable carrying 227 Amperes, comprised of 61 wires, each 15 L.S.G. diameter, 25.48 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 " Amperes, comprised of " wires, each " L.S.G. diameter, " square inches total sectional area
 Cargo light cables carrying " Amperes, comprised of " wires, each " L.S.G. diameter, " square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Vulcanised India rubber. Taped + braided 600 Megohm Grade.

Joints in cables, how made, insulated, and protected "

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 "

How are the cables led through the ship, and how protected "



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DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible

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

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

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

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

Dynamo in main, slates on wooden grounds

How are cables carried through beams

through bulkheads, &c.

How are cables carried through decks

Are any cables run through coal bunkers or cargo spaces or spaces which may be used for carrying cargo, stores, or baggage

If so, how are they protected

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

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

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 supplied with a voltmeter and an amperemeter, fixed

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 *98* 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.

For *H. & W. Nelson Ltd*

A. Blackburn Supt. Engineer

Electrical Engineers

Date

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

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.

Builder's Signature.

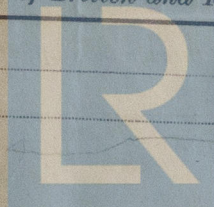
Date

GENERAL REMARKS.

The Dynamo now fitted on board is an addition to the Electric Light Installation & the work, in my opinion appears to have been satisfactorily carried out. It is submitted that this vessel is eligible to remain as CLASSED.

Surveyor to Lloyd's Register of British and Foreign Shipping

Committee's Minute



Lloyd's Register Foundation

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.