

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No.

Port of Lauford Date of First Survey 26/8-24 Date of Last Survey 26/8-24 No. of Visits 1  
 No. in Reg. Book 5003 on the ~~Iron~~ Steel "Beulah of Heiren" Port belonging to Lauford  
 Built at Ferri By whom Randolph Skibbyggri When built 1913  
 Owners Beulah and Heiren Owners' Address Lauford  
 Yard No. 111 Electric Light Installation fitted by Heim Johansen When fitted Sept. 24

DESCRIPTION OF DYNAMO, ENGINE, ETC. Likstroms 110 volt direct current tillable explosion motor

Capacity of Dynamo 30 Amperes at 110 Volts, whether continuous or alternating current Continuous  
 Where is Dynamo fixed in engine room Whether single or double wire system is used double  
 Position of Main Switch Board in engine room having switches to groups of lights, &c., as below  
 Positions of auxiliary switch boards and numbers of switches on each switch board switches only on main

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 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 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 10 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 58 arranged in the following groups:—  
 A Engine 7 lights each of 25 candle power requiring a total current of 175 watt Amperes.  
 B Poop 26 lights each of 25 candle power requiring a total current of 650 Amperes  
 C amidship 9 lights each of 25 candle power requiring a total current of 380 Amperes  
 D Forecastle 15 lights each of 25 candle power requiring a total current of 380 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 Amperes  
 Side light with lamps each of candle power requiring a total current of Amperes  
 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.

30 2 x 15 1/2 cable  
 Main cable carrying 50 Amperes, comprised of 4 wires, each S.W.G. diameter 2 x 4 square inches total sectional area  
 Branch cables carrying 6 Amperes, comprised of wires, each S.W.G. diameter, 2 x 1.5 square inches total sectional area  
 Branch cables carrying Amperes, comprised of wires, each S.W.G. diameter, square inches total sectional area  
 Leads to lamps carrying Amperes, comprised of wires, each S.W.G. diameter, square inches total sectional area  
 Cargo light cables carrying Amperes, comprised of wires, each S.W.G. diameter, square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

all cables outside cabins wire protected lead and rubber insulates.

Joints in cables, how made, insulated, and protected metal boxes, filled with insulation masses

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances 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 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 under deck, wire protected (annoyed) cables with lead and fused lead cables.



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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 *exposed (wire protected) painted lead cable*

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *wire protected lead cable*

What special protection has been provided for the cables near boiler casings *wire protected lead cable*

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

How are cables carried through beams *drilled through* through bulkheads, &c. *boxes with flange*

How are cables carried through decks *water proof boxes with flanges and packed*

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

If so, how are they protected *wire protected painted cable*

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 *no*

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

Is the installation supplied with a voltmeter *yes*, and with an amperemeter *yes*, fixed *main switch board*

**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. *yes*

Insulation of cables is guaranteed to have a resistance of not less than *25000* 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. *yes*

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.

*Blum-Jensen* 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 electric lighting installation has been fitted as above and in accordance with Norwegian law.  
It is submitted that this vessel is eligible for THE RECORD. The light

*Per Björn Røli*  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute **FRI. 10 OCT 1924**  
**TUES. 28 OCT 1924**



THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

2 in. 11.20. Transfer.