

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 26608

Port of *Hull*. Date of First Survey *July 14th* Date of Last Survey *July 30th* No. of Visits *5*
 No. in Reg. Book *4 Sap.* on the ~~Iron~~ Steel *S. K. "Snawilliam"* Port belonging to *Grimsby*
 Built at *Grimsby* By whom *Cochran & Sons Ltd* When built *1913*
 Owners *Hecla Steam Fishing* Owners' Address *Grimsby*
 Yard No. Electric Light Installation fitted by *M. Jennison, Grimsby* When fitted *1913*

DESCRIPTION OF DYNAMO, ENGINE, ETC.

*Direct Coupled.*Capacity of Dynamo _____ Amperes at *25* 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 _____ of lights, &c., as belowPositions of auxiliary switch boards and numbers of switches on each *One in wheel house with four switches and others in cabins etc. with 1, 2, & 3 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 *✓* 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 *✓*Are the cut outs of non-oxidizable metal *yes* and constructed to fuse at an excess of *50* per cent over the normal currentAre all cut outs fitted in easily accessible positions *yes* 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 *Only one size supplied*Are all switches and cut-outs constructed of incombustible materials and fitted on incombustible bases *yes*Total number of lights provided for *65* arranged in the following groups:—

A Forecastle 2 lights each of <i>25</i>	candle power requiring a total current of <i>2</i>	Amperes
B Bridge 10 lights each of <i>25</i>	candle power requiring a total current of <i>10</i>	Amperes
C Casings 8 lights each of <i>25</i>	candle power requiring a total current of <i>8</i>	Amperes
D — 8 lights each of <i>25</i>	candle power requiring a total current of <i>8</i>	Amperes
E aft & general 14 lights each of <i>25</i>	candle power requiring a total current of <i>16</i>	Amperes
3 Mast head light with 1 lamps each of <i>25</i>	candle power requiring a total current of <i>3</i>	Amperes
2 Side light with 2 lamps each of <i>25</i>	candle power requiring a total current of <i>2</i>	Amperes
2 Cargo lights of <i>4-25-100</i>	candle power, whether incandescent or arc lights <i>incandescent</i>	

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

Where are the switches controlling the masthead and side lights placed *in wheel house*

DESCRIPTION OF CABLES.

Main cable carrying *80* Amperes, comprised of *19* wires, each *16* L.S.G. diameter, *.06* square inches total sectional areaBranch cables carrying *10* Amperes, comprised of *7* wires, each *22* L.S.G. diameter, *.0042* square inches total sectional areaBranch cables carrying *3* Amperes, comprised of *1* wires, each *16* L.S.G. diameter, *.0032* square inches total sectional areaLeads to lamps carrying *1* Amperes, comprised of *1* wires, each *18* L.S.G. diameter, *.0018* square inches total sectional areaCargo light cables carrying *4* Amperes, comprised of *70* wires, each *36* L.S.G. diameter, *.0036* square inches total sectional area

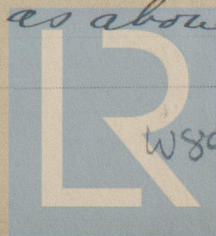
DESCRIPTION OF INSULATION, PROTECTION, ETC.

Vulcanized I.R. Cable taped & braided generally sheath cable type on boiler casing and run throughout in screwed steel solid drawn galvanized conduits with special connecting boxes.

Joints in cables, how made, insulated, and protected

*None, except mechanical joints in boxes, on porcelain bases.*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 *no*

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

In conduit as above

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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 ✓

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat Cable is sheathed in boiler

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 Tubing through bulkheads, &c. Tubing.

How are cables carried through decks Running joints with

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

If so, how are they protected as above.

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 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 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 ✓ supplied with a voltmeter and ✓ an amperemeter, fixed Engine room.

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.

Ernest Johnson

Electrical Engineers

Date Aug 26th 1913.

COMPASSES.

Distance between dynamo or electric motors and standard compass 43 feet

Distance between dynamo or electric motors and steering compass 43 feet

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
5	6	6	6
8	4	4	4
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.

FOR COCHRANE & SONS LTD.

J.M. Cochrane.

Builder's Signature.

Date August 28th 1913.

GENERAL REMARKS.

This installation of electric light has been well fitted. The materials & workmanship are good & it has been tried under full working conditions & found satisfactory. It is submitted that this vessel is eligible for

J.W.D. 30/8/13

THE RECORD. Elec. light.

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

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.