

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 29190

Port of Hull Date of First Survey 17.1/16 Date of Last Survey 10/3/16 No. of Visits 4
 No. in Reg. Book upt 45 on the Iron or Steel Belgaum Port belonging to Reykjavik
 Built at Zelby By whom Cochrane Bros & Co When built 1916-3
 Owners J. Olguiston Owners' Address Reykjavik
 Yard No. 649 Electric Light Installation fitted by Northern Electrical Co. When fitted 1916-3

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Enclosed Engine direct-coupled to two pole Dynamo
 Capacity of Dynamo 44 Amperes at 65 Volts, whether continuous or alternating current Continuous
 Where is Dynamo fixed Starboard side of Engine Whether single or double wire system is used Double
 Position of Main Switch Board Near Dynamo having switches to groups _____ of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each Distribution board in wheel House with switches

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 _____ 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-oxidisable metal Yes and constructed to fuse at an excess of 50 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
 Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases Yes

Total number of lights provided for 44 arranged in the following groups :-

| | | | | | | |
|---|-----------|----------------------|----------------------------------|--|--------------------------|---------|
| A | <u>16</u> | lights each of | <u>16</u> | candle power requiring a total current of | <u>16</u> | Amperes |
| B | <u>5</u> | lights each of | <u>32</u> | candle power requiring a total current of | } <u>23</u> | Amperes |
| C | <u>23</u> | lights each of | <u>16</u> | candle power requiring a total current of | | |
| D | | lights each of | | candle power requiring a total current of | | Amperes |
| E | | lights each of | | candle power requiring a total current of | | Amperes |
| | <u>3</u> | Mast head light with | <u>1</u> lamps each of <u>32</u> | candle power requiring a total current of | <u>Included in above</u> | Amperes |
| | <u>2</u> | Side light with | <u>1</u> lamps each of <u>32</u> | candle power requiring a total current of | <u>-</u> | Amperes |
| | <u>4</u> | Cargo lights of | <u>16</u> | 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 In wheel House

DESCRIPTION OF CABLES.

Main cable carrying 39 Amperes, comprised of 19 wires, each 16 S.W.G. diameter, .06 square inches total sectional area
 Branch cables carrying 23 Amperes, comprised of 7 wires, each 16 S.W.G. diameter, .022 square inches total sectional area
 Branch cables carrying 3 Amperes, comprised of 1 wires, each 18 S.W.G. diameter, .0018 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 4 Amperes, comprised of 110 wires, each 38 S.W.G. diameter, .0032 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Vulcanized Rubber Taped & Braided Run in Galvanized Steel tubing Cabin & Chart Room same in wood casing

Joints in cables, how made, insulated, and protected none made

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 _____

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 Galvanized Solid Drawn Steel Tubing slipped to underside of deck & bulkheads



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 Galv'd Steel Pipes

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 " " "

How are cables carried through beams lead bushes on steel pipes through bulkheads, &c. water tight joints

How are cables carried through decks franked tubes

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

If so, how are they protected Steel tubes

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 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 on Switchboard

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.

Percy Watson
THE NORTHERN ELECTRICAL CO.

Electrical Engineers

Date —

COMPASSES.

Distance between dynamo or electric motors and standard compass About 40 ft.

Distance between dynamo or electric motors and steering compass " 35 "

The nearest cables to the compasses are as follows:—

A cable carrying 1 Amperes 5 feet from standard compass 0 feet from steering compass

A cable carrying 23 Amperes to 11 feet from standard compass 6 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.

FOR COCHRANE & SONS LTD.

J. M. Cochrane

Builder's Signature.

Date

30/3/1916

GENERAL REMARKS.

DIRECTOR

This vessel has been fitted with an electric light installation as above & the workmanship is good on completion it was tested under full working conditions & found satisfactory.

It is submitted that this vessel is eligible for

THE RECORD. Elec. light.

JWD

6/4/16

Frank L. Sturgeon

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

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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