

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 29769

Port of Hull Date of First Survey Jan 10/17 Date of Last Survey Jan 18/17 No. of Visits 5
 No. in on the Iron or Steel Strawberry Balmoral Port belonging to Gumby
 Reg. Book 16 Built at Elby By whom Cochrane Bros Ltd When built 1912-1
 Owners Green Steam Fishing Co Ltd Owners' Address Fish Dock, Grimsby
 Yard No. 665 Electric Light Installation fitted by J. H. Holmes & Co When fitted Jan 17

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One 4x3" single cyl. single crank double acting. Sissons engine
4B/P @ 600 r.p.m. 100 lbs Direct coupled to a Holmes Castle Dyo

Capacity of Dynamo 36 Amperes at 65 Volts, whether continuous or alternating current Direct

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 Three of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each One 6 way & one 8 way fixed
in Wheel House. One 4 way in Engine Room
One 3 way in Saloon Entrance

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

Are the fuses of non-oxidizable 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 Yes

Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases Yes

Total number of lights provided for 46 arranged in the following groups:—

A	<u>13</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>11.1</u>	Amperes
B	<u>9</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>7.7</u>	Amperes
C	<u>14</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>12.0</u>	Amperes
D	<u>10</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>8.6</u>	Amperes
E		lights each of		candle power requiring a total current of		Amperes

3 Mast head lights with 1 lamp each of 32 candle power requiring a total current of 5.1 Amperes

2 Side lights with 1 lamp each of 32 candle power requiring a total current of 3.4 Amperes

One Cargo light of 5/16 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 Wheel House

DESCRIPTION OF CABLES.

Main cable carrying 36 Amperes, comprised of 19 wires, each 18 S.W.G. diameter, .033 square inches total sectional area

Branch cables carrying 11.1 Amperes, comprised of 7 wires, each 18 S.W.G. diameter, .012 square inches total sectional area

Branch cables carrying 12.0 Amperes, comprised of 7 wires, each 18 S.W.G. diameter, .022 square inches total sectional area

Leads to lamps carrying 1.8 Amperes, comprised of 1 wires, each 18 S.W.G. diameter, .001 square inches total sectional area

Cargo light cables carrying 2.7 Amperes, comprised of 3 wires, each 20 S.W.G. diameter, .003 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

V.I.R. Cable an 600 megohm ins. grade

Other cables are V.I.R. lead covered & V.I.R. Lead
covered and armoured

Joints in cables, how made, insulated, and protected "Married" joints sweated & taped
with pure rubber & Black leg tape

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 Yes

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 Through bushes in the beams
otherwise the wires are open & clipped up

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 All cables are lead covered & armoured with Galv Iron wire

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

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

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

How are cables carried through beams thro' bushed holes through bulkheads, &c. Glands

How are cables carried through decks Lead deck tubes

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

If so, how are they protected Lead covered & 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 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 Main Sw. Bd.

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.

COMPASSES.

Distance between dynamo or electric motors and standard compass about 50 ft

Distance between dynamo or electric motors and steering compass about 50 Feet

The nearest cables to the compasses are as follows:—

A cable carrying <u>1.8</u> Amperes	feet from standard compass <u>2-6"</u>	feet from steering compass
A cable carrying <u>—</u> Amperes	feet from standard compass	feet from steering compass
A cable carrying <u>—</u> 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.

J. H. Cochran

Builder's Signature.

Date 5/2/1914

GENERAL REMARKS.

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 BROOD. Elec. light.

JWD 7/2/17

Frank L. Stinger

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.