

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 28270

Port of Hull Date of First Survey 5-1-15 Date of Last Survey 20-1-15 No. of Visits 4
No. in on the ~~Iron or Steel~~ Sc Trawler "Cuirass" Port belonging to Grimsby
Reg. Book 69 Supp Built at Selby By whom Messrs. Cochrane & Sons, Ltd When built 1915
Owners Crown Steam Fishing Co. Ltd. Owners' Address Grimsby
Yard No. 616 Electric Light Installation fitted by A. W. Hyde. When fitted 1915.

DESCRIPTION OF DYNAMO, ENGINE, ETC.

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Enclosed vertical single cylinder double acting splash lubrication
Steam engine 180 lbs pressure direct coupled to compound wound dynamo
Capacity of Dynamo 44 Amperes at 65 Volts, whether continuous or alternating current continuous
Where is Dynamo fixed in the Engine Room Whether single or double wire system is used double wire
Position of Main Switch Board aft of the Dynamo having switches to groups A. B. C. of lights, &c., as below
Positions of auxiliary switch boards and numbers of switches on each each light and group of lights
provided with switches as required.

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 25 per cent over the normal current

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 are 53 arranged in the following groups :—

Total number of lights provided for 23
 A midships ²³ lights each of 16 candle power requiring a total current of 15 Amperes
9 ³²

B. No. Pm-Aft 15 lights each of 16 candle power requiring a total current of 5 Amperes

C. Newcastle 3 lights each of 16 candle power requiring a total current of 1 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

3 Mast head light with 1 lamps each of 50 candle power requiring a total current of 1 Amperes

2 Side light with 1 lamps each of 32 candle power requiring a total current of .75 Amperes.

Cargo lights of 48 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.

DESCRIPTION OF CABLES.

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Main cable carrying	44	Amperes, comprised of	7	wires, each	16	S.W.G. diameter, '022 ✓ square inches total sectional area
Branch cables carrying	15	Amperes, comprised of	3	wires, each	18	S.W.G. diameter, '0053 ✓ square inches total sectional area
Branch cables carrying	5	Amperes, comprised of	3	wires, each	18	S.W.G. diameter, '0053 ✓ square inches total sectional area
Leads to lamps carrying	1	Amperes, comprised of	3	wires, each	22	S.W.G. diameter, '0018 ✓ square inches total sectional area
Cargo light cables carrying	1	Amperes, comprised of	36	wires, each	38	S.W.G. diameter, '0010 ✓ square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

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600 Megohm Grade india-rubber braided cable run in Solid drawn steel
Tubes, asbestos tubes, wood casing

Joints in cables, how made, insulated, and protected no joints in any cable

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 no

How are the cables led through the ship, and how protected in Steel Tubes

DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible no

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

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

What special protection has been provided for the cables near boiler casings asbestos braiding & asbestos tubes

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

How are cables carried through beams through bulkheads, &c. in Steel tubes W. T.

How are cables carried through decks in Deck Tubes

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

If so, how are they protected in 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 C.I. connection Boxes

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 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

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.

A. W. Hyde

Electrical Engineers

Date

Jan 30. 1915

COMPASSES.

Distance between dynamo or electric motors and standard compass 50 feet

Distance between dynamo or electric motors and steering compass 50 feet

The nearest cables to the compasses are as follows:—

A cable carrying <u>5</u> Amperes	<u>1</u> feet from standard compass	<u>1</u> 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.

FOR COCHRANE & SONS LTD.

A. Cochrane

Builder's Signature.

Date

GENERAL REMARKS.

DIRECTOR.

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

THE RECORD. Elec. light. SWD 19. 2. 15.

P. Fitzgerald.

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

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.