Rpt. 13.

SAT. 9 MAY 1908

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REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 19911

Port of Hull Date of First Survey Mar 2nd Date of Last Survey Mar 16/08 No. of Visits 5

No. in Reg. Book 50 Supp. on the ~~Iron or~~ Steel S/Trawler "LABRADOR" Port belonging to Boulogne

Built at Selby By whom Cochrane & Sons When built 1908

Owners Jos. Hurel Owners' Address Boulogne

Yard No. 421 Electric Light Installation fitted by Clarke Chapman & co Ltd When fitted 1908

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One single Cylinder double acting open type vertical Engine direct coupled to a continuous current compound wound dynamo

Capacity of Dynamo 61·5 Amperes at 65 Volts, whether continuous or alternating current Continuous

Where is Dynamo fixed in Engineroom Whether single or double wire system is used Double

Position of Main Switch Board near dynamo having switches to groups A & B. of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each Each light & groups of lights fitted with switches as required

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 Yes 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 Yes

Are the cut outs of non-oxidizable metal Yes and constructed to fuse at an excess of 50 per cent over the normal current

Are all cut outs 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 cut-outs constructed of incombustible materials and fitted on incombustible bases Yes, Slate & porcelain

Total number of lights provided for 444 arranged in the following groups :—

A	3	lights each of	32	candle power requiring a total current of	5·1	Amperes
~~A~~	11	lights each of	16	candle power requiring a total current of	9·4	Amperes
B	10	lights each of	32	candle power requiring a total current of	17·2	Amperes
~~B~~	20	lights each of	16	candle power requiring a total current of	17·2	Amperes
E		lights each of		candle power requiring a total current of		Amperes
3	Mast head light with	1	lamps each of	32	candle power requiring a total current of	5·1 Amperes
2	Side light with	1	lamps each of	32	candle power requiring a total current of	3·4 Amperes
3	Cargo lights of	each 4 – 16			candle power, whether incandescent or arc lights	Incandescent.

If arc lights, what protection is provided against fire, sparks, &c. None fitted

Where are the switches controlling the masthead and side lights placed in Wheelhouse

DESCRIPTION OF CABLES.

Main cable carrying	49	Amperes, comprised of	19	wires, each	16	L.S.G. diameter,	·0600 square inches total sectional area
Branch cables carrying	35	Amperes, comprised of	7	wires, each	14	L.S.G. diameter,	·0345 square inches total sectional area
Branch cables carrying	7	Amperes, comprised of	7	wires, each	20	L.S.G. diameter,	·0070 square inches total sectional area
Leads to lamps carrying	·9	Amperes, comprised of	1	wires, each	18	L.S.G. diameter,	·0018 square inches total sectional area
Cargo light cables carrying	3·6	Amperes, comprised of	176	wires, each	38	L.S.G. diameter,	·0057 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Vulcanized india-rubber taped and braided and lead covered overall. Where exposed Steel armoured over the lead covering.

Joints in cables, how made, insulated, and protected No joints except mechanical ones.

Are all the joints of cables thoroughly soldered, resin only having been used as a flux 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, 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 Lead covered and Steel armoured secured to underside of decks with Strong W.I. clips.

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 Lead covered and Steel armoured.

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat Lead Covered & armoured

What special protection has been provided for the cables near boiler casings do. do.

What special protection has been provided for the cables in engine room do. do.

How are cables carried through beams in lead bushes *through bulkheads, &c.* in Bulkhead Glands

How are cables carried through decks in galvanized iron 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 Lead covered & armoured Cased with iron covers thro' bunkers

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 No

Cargo light cables, whether portable or permanently fixed Portable *How fixed* To watertight Connection Boxes

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel Double wire System

How are the returns from the lamps connected to the hull —

Are all the joints with the hull in accessible positions —

The installation is Now *supplied with a voltmeter ~~and~~ ~~an amperemeter~~, fixed* Main Switchboard

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.

For CLARKE, CHAPMAN & Co. LTD.

J. Watkin Director *Electrical Engineers* *Date* April 23rd 1908.

COMPASSES.

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

Distance between dynamo or electric motors and steering compass 32ft.

The nearest cables to the compasses are as follows:—

A cable carrying .9 *Amperes* 6 *feet from standard compass* 12 *feet from steering compass*

A cable carrying .9 *Amperes* 12 *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* ✓ *course in the case of the standard compass and* ✓ *degrees on* ✓ *course in the case of the steering compass.*

Cochrane & Sons. *Builder's Signature.* *Date* 27/4/08.

GENERAL REMARKS. This installation of electric light as far as can be seen is well fitted & the workmanship good: & tried under working conditions & found satisfactory

John W. Gwynne

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

Committee's Minute It is submitted that the Record Elec. Light be noted in the Reg. Book.

9.5.08

REPORT FORM No. 18.—2m,3,4.

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.