

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 53553

Port of Newcastle Date of First Survey Aug 21 Date of Last Survey Sep 20 07 No. of Visits 6
 No. in Reg. Book 37 Sup. on the ~~Iron~~ Steel SS. "AUSTRALIC" Port belonging to Gyöthenburg
 Built at Iddeburn By whom R. & W. Hawthorn Leslie & Co. Ltd. When built 1907
 Owners W. R. B. Lundgren Owners' Address Gyöthenburg
 Yard No. 421 Electric Light Installation fitted by J. H. Holmes & Co. Ltd. When fitted 1907

DESCRIPTION OF DYNAMO, ENGINE, ETC.

6 1/2 x 6 open Bugie & work @ 90 lbs Stein Press coupled to
 a Holmes 1577 Comp^d Dynamo 100 V. 72 A. 250 Revs.
 Capacity of Dynamo 72 Amperes at 100 Volts, whether continuous or alternating current Continuous
 Where is Dynamo fixed Starting Platform Whether single or double wire system is used double
 Position of Main Switch Board Near Dynamo having switches to groups A. B. C. D of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each 4 way SA SP. fuse box in passage forward.
6 way SA SP. fuse box in Engⁿ mess. 2 way 15 A. Section box in mess. 4 way SA SP. fuse box in mess.
2 way in Ch Engⁿ room. 8 way in 1st Glass pantry 6 way in Chart Room with Sw. 6 way in Engⁿ with
 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 500% 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

Total number of lights provided for 108-16 C. P. + 5-32 C. P. arranged in the following groups:—

A Forward	10 lights each of	16	candle power requiring a total current of	5.6	Amperes
B Midship	56 lights each of	"	candle power requiring a total current of	31.3	Amperes
C Engine Rm	20 lights each of	"	candle power requiring a total current of	11.2	Amperes
D Cargo	32 lights each of	"	candle power requiring a total current of	17.9	Amperes
E	lights each of		candle power requiring a total current of		Amperes
2 Mast head light with	1 lamps each of	32	candle power requiring a total current of	2.24	Amperes
2 Side light with	1 lamps each of	32	candle power requiring a total current of	do	Amperes
4 Cargo lights of	8 x 16 C. P.		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 in Chart Room

DESCRIPTION OF CABLES.

Main cable carrying 66 Amperes, comprised of 19 wires, each 15 L.S.G. diameter, .077 square inches total sectional area
 Branch cables carrying 31.3 Amperes, comprised of 19 wires, each 18 L.S.G. diameter, .034 square inches total sectional area
 Branch cables carrying 17.9 Amperes, comprised of 7 wires, each 17 L.S.G. diameter, .017 square inches total sectional area
 Leads to lamps carrying 1.1 Amperes, comprised of 1 wires, each 18 L.S.G. diameter, .0018 square inches total sectional area
 Cargo light cables carrying 4.4 Amperes, comprised of 7 wires, each 2 1/2 L.S.G. diameter, .0049 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

pure rubber, vulcanised rubber & braided, Lead covered, taped & Arm^d

Joints in cables, how made, insulated, and protected

Are all the joints of cables thoroughly soldered, resin only having been used as a flux now 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 now

Are there any joints in or branches from the cable leading from dynamo to main switch board now

How are the cables led through the ship, and how protected L. C. & Armoured



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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

L.C. & Arm²

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

Holes bushed with fibre

through bulkheads, &c.

Shipping Glands

How are cables carried through decks

Steel tubes made w. tight

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

L. Co. & 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 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

W.T. Sockets

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 on Main board

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 99 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.

COMPASSES.

Distance between dynamo or electric motors and standard compass

84 feet

Distance between dynamo or electric motors and steering compass

88 "

The nearest cables to the compasses are as follows:—

A cable carrying	7.2	Amperes	10	feet from standard compass	10	feet from steering compass
A cable carrying	3.2	Amperes	4	feet from standard compass	8	feet from steering compass
A cable carrying	.56	Amperes	1	feet from standard compass	1	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

degrees on

course in the case of the

standard compass and

degrees on

course in the case of the steering compass.

R. & W. HANTHORN, LESLIE & CO. LIMITED,

Builder's Signature.

Date

GENERAL REMARKS.

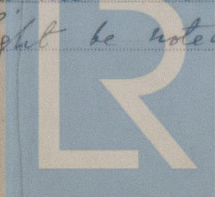
The installation was tested during a 6 hour trial to the satisfaction of the Bureau Super
This installation as fitted appears satisfactory

L. J. Finlay

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

Committee's Minute

It is submitted that the Record Rec. Light be noted in the Reg. Book



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THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

REPORT FORM No. 1, 2, 3, 4.