

REPORT ON ELECTRIC LIGHTING INSTALLATION.

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No. 10718

Port of Rotterdam Date of First Survey 6-12-10 Date of Last Survey 13 Jan 19 No. of Visits 4
 No. in Reg. Book on the Iron or Steel Steam Heamer "Iris" Port belonging to Gravenhage
 Built at Bolnes By whom Gebr. Pott When built 1910
 Owners P&H elby. "La Corona" Owners' Address Gravenhage
 Yard No. 700 Electric Light Installation fitted by Pietschoten & Bouwens When fitted 1910

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One steam dynamo, consisting of double acting engine, direct coupled to compound wound dynamo

Capacity of Dynamo 115 Amperes at 110 Volts, whether continuous or alternating current continuous

Where is Dynamo fixed in engine room Whether single or double wire system is used double

Position of Main Switch Board near dynamo having switches to groups 5 of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each no auxiliary switchboards, only distribution boxes in different places, each with one double pole switch and one double pole fuse for the whole box and double pole fuses for the lamp circuits

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 100 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 193 lamps + 16 fans arranged in the following groups:—

A	<u>67 l + 6 f</u>	lights each of	<u>16 (metal)</u>	candle power requiring a total current of	<u>15</u>	Amperes
B	<u>52 l + 10 f</u>	lights each of	<u>16 and 32</u>	candle power requiring a total current of	<u>15</u>	Amperes
C	<u>36 l</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>6</u>	Amperes
D	<u>38 l</u>	lights each of	<u>16</u>	candle power requiring a total current of	<u>7</u>	Amperes
E	<u>wireless telegr.</u>	lights each of		candle power requiring a total current of		Amperes
	<u>2 Mast head light with</u>	<u>1</u> lamps each of	<u>32</u>	candle power requiring a total current of	<u>1</u>	Amperes
	<u>2 Side light with</u>	<u>1</u> lamps each of	<u>32</u>	candle power requiring a total current of	<u>1</u>	Amperes
	<u>7 Cargo lights of</u>		<u>6 x 16</u>	candle power, whether incandescent or arc lights	<u>incandescent</u>	

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	<u>15</u> Amperes, comprised of	<u>7</u> wires, each <u>1.71</u> m.m. S.W.G. diameter,	<u>16</u> square inches total sectional area
Branch cables carrying	<u>6</u> Amperes, comprised of	<u>7</u> wires, each <u>1.35</u> S.W.G. diameter,	<u>10</u> square inches total sectional area
Branch cables carrying	<u>6</u> Amperes, comprised of	<u>1</u> wires, each <u>2, 26</u> S.W.G. diameter,	<u>4</u> square inches total sectional area
Leads to lamps carrying	<u>16</u> Amperes, comprised of	<u>1</u> wires, each <u>1, 38</u> S.W.G. diameter,	<u>1 1/2</u> square inches total sectional area
Cargo light cables carrying	<u>1</u> Amperes, comprised of	<u>24</u> wires, each <u>0.45</u> S.W.G. diameter,	<u>4</u> square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Tinned copper, insulated with white vulcanised IR, black vul. IR. IR coated tape, braided cotton, preservative compound, most of them lead covered

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

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 in galvanised iron tubes or in teakwood casings

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 galvanised iron tubes or teakwood casings, filled with whitelead.

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

What special protection has been provided for the cables near boiler casings galvanised iron tubes, (lead covered)

What special protection has been provided for the cables in engine room lead covered

How are cables carried through beams through hard wood fittings, through bulkheads, &c. hard wood fittings

How are cables carried through decks galvanised iron 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 galvanised iron 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 Yes

Are any switches, fuses, or joints of cables fitted in the pump room or companion no

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.

N. V. Van Rietschoten & Houwens
Technisch-Industrieel Mij.

Electrical Engineers

Date 11 Jan. 1919

COMPASSES.

Distance between dynamo or electric motors and standard compass reflector beam

Distance between dynamo or electric motors and steering compass —

The nearest cables to the compasses are as follows:—

2 A cable carrying	$\frac{1}{2}$	Amperes	4	feet from standard compass	20	feet from steering compass
2 A cable carrying	$\frac{1}{2}$	Amperes	$7\frac{1}{2}$	feet from standard compass	16	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 whul degrees on every course in the case of standard compass and whul degrees on every course in the case of the steering compass.

[Signature]



Builder's Signature. Date

GENERAL REMARKS.

This installation has been fitted in accordance with the Rules and found in a good working condition when tried and measured in my opinion, the Committee's approval

It is submitted that this vessel is eligible for THE RECORD. Elec Light.

[Signatures] 7/2/19

[Signature]
Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 11 FEB. 1919

BIJLAGE No 233

