

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 4635^c

Port of Amsterdam Date of First Survey 7 June Date of Last Survey 28 Sept No. of Visits 30
 No. in Reg. Book 1019 on the Steel V. S. Prinses Juliana Port belonging to Amsterdam
 Built at Amsterdam By whom Ned Scheepbouw Maats When built 1910
 Owners Stoom Maats Nederland Owners' Address Amsterdam
 Yard No. 105 Electric Light Installation fitted by Greenaueld, v. d. Poll & Co When fitted 1910

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Two direct coupled dynamos and one turbo dynamo

Capacity of Dynamo 400 Amperes at 115 Volts, whether continuous or alternating current Continuous

Where is Dynamo fixed in thrust block recess Whether single or double wire system is used double

Position of Main Switch Board in Engine room having switches to groups lights, motors & Ventilation of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each In Corridors

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 No

Are the cut outs of non-oxidizable metal Yes, brass and constructed to fuse at an excess of 100 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 900 arranged in the following groups:—

A	<u>900</u> lights each of <u>26 and 16</u> candle power requiring a total current of <u>310</u> Amperes
B	<u>two motor</u> lights each of <u>—</u> candle power requiring a total current of <u>55</u> Amperes
C	<u>One Searchlight</u> lights each of <u>3000</u> candle power requiring a total current of <u>25</u> Amperes
D	<u>One motor</u> lights each of <u>—</u> candle power requiring a total current of <u>6</u> Amperes
E	<u>4 Electric winches</u> lights each of <u>—</u> candle power requiring a total current of <u>300</u> Amperes
	<u>4 lighting mains</u> lights each of <u>—</u> candle power requiring a total current of <u>90</u> Amperes
	<u>2</u> Mast head light with <u>2</u> lamps each of <u>16</u> candle power requiring a total current of <u>2</u> Amperes
	<u>2</u> Side light with <u>1</u> lamps each of <u>25</u> candle power requiring a total current of <u>2</u> Amperes
	<u>12</u> Cargo lights of <u>5 lamps each</u> <u>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 Chartroom

DESCRIPTION OF CABLES.

Main cable carrying 400 Amperes, comprised of 42 wires, each 6 7/8 L.S.G. diameter, 152 7/8 square inches total sectional area

Branch cables carrying 55 Amperes, comprised of 19 wires, each 2 7/8 L.S.G. diameter, 38 1/2 square inches total sectional area

Branch cables carrying 150 Amperes, comprised of 21 wires, each 6 7/8 L.S.G. diameter, 126 7/8 square inches total sectional area

Leads to lamps carrying 1/2 — 1 Amperes, comprised of 1 wires, each 1 1/2 L.S.G. diameter, 1 1/2 square inches total sectional area

Cargo light cables carrying 2 1/2 Amperes, comprised of 19 wires, each 0.52 7/8 L.S.G. diameter, 2 7/8 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Armoured cables protected by pure vulcanized India Rubber, tanned and graded the whole vulcanized

Joints in cables, how made, insulated, and protected None

Are all the joints of cables thoroughly soldered, resin only having been used as a flux None 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 None

How are the cables led through the ship, and how protected passed on wood planking, armoured lead cable

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 *Cables in galvanized iron tubes* ✓
 What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *galvanized tubing* ✓
 What special protection has been provided for the cables near boiler casings *galvanized tubing* ✓
 What special protection has been provided for the cables in engine room *led in steel tube* ✓
 How are cables carried through beams *wood linings* ✓ through bulkheads, &c. *screwed tubes* ✓
 How are cables carried through decks *galvanized tubing* ✓
 Are any cables run through coal bunkers ✓ or cargo spaces — or spaces which may be used for carrying cargo, stores, or baggage *Yes* ✓
 If so, how are they protected *Steel tubing* ✓
 Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage *for baggage & greasing rooms* ✓
 If so, how are the lamp fittings and cable terminals specially protected *they are watertight & protected by iron guards* ✓
 Where are the main switches and cut outs for these lights fitted *in wood boxes on deck* ✓
 If in the spaces, how are they specially protected —
 Are any switches or cut outs fitted in bunkers ✓
 Cargo light cables, whether portable or permanently fixed *portable* ✓ How fixed *with plug 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 *3* voltmeters and *three* amperemeter, fixed *on switch 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 *98* ✓ 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.

Gerardus J. M. J. H. J.

Electrical Engineers

Date *26 Sept 1910*

COMPASSES.

Distance between dynamo or electric motors and standard compass *Dynamo 162 ft motor 72 ft*
 Distance between dynamo or electric motors and steering compass *" " 150 ft " 60 "*

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
<i>10</i>	<i>24</i>	<i>18</i>	
<i>12</i>	<i>26</i>	<i>30</i>	
<i>1/2</i>		<i>14</i>	

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.

NERDERLANDSCHE SCHEEPSBOUW-MAATSCHAPPIJ.

Builder's Signature.

Date *26 Sept 1910*

GENERAL REMARKS.

This Electric light installation has been fitted in an Efficient manner under Supervision of the Company's own Electrical Engineer. During 24 hours trial the whole installation proved to be a Success

It is submitted that this vessel is eligible for

THE RECORD. Elec. light. *J.W.D. 11/10/10*

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

Committee's Minute



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