

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 4248.

Port of *Amsterdam* Date of First Survey *10 June* Date of Last Survey *19 July* No. of Visits *10*.
 No. in Reg. Book *2 Sup* on the *Iron or Steel* *Barge Limburg* Port belonging to *Batavia*
 Built at *Amsterdam* By whom *Ned Scheepsbouwers* When built *1909*.
 Owners *Ned Indische Handelsboot Maats* Owners Address *S. Graevenhage*
 Yard No. *99* Electric Light Installation fitted by *Graevenhage v.d. Hall* When fitted *1909*.

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Shunt dynamo direct driven by a petroleum motor.

Capacity of Dynamo *16* Amperes at *110* Volts, whether continuous or alternating current *Continuous*

Where is Dynamo fixed *in turtle poop.*

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

Positions of auxiliary switch boards and numbers of switches on each *One in fore-castle. One in bridge house and One in mess-room aft.*

If cut outs are fitted on main switch board to the cables of main circuit *Yes* and on each auxiliary switch boards 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 *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 *25* arranged in the following groups :-

A	<i>6</i>	lights each of	<i>16</i>	candle power requiring a total current of	<i>3.</i>	Amperes
B	<i>11</i>	lights each of	<i>16</i>	candle power requiring a total current of	<i>5.5</i>	Amperes
C	<i>6</i>	lights each of	<i>16</i>	candle power requiring a total current of	<i>3.</i>	Amperes
D	<i>-</i>	lights each of	<i>-</i>	candle power requiring a total current of	<i>-</i>	Amperes
E	<i>-</i>	lights each of	<i>-</i>	candle power requiring a total current of	<i>-</i>	Amperes
	<i>-</i>	Mast head light with	<i>-</i>	lamps each of	<i>-</i>	Amperes
	<i>Two</i>	Side light with	<i>One</i>	lamps each of	<i>32</i>	Amperes
	<i>One</i>	Cargo lights of	<i>6 lamps each</i>	<i>16</i>	candle power, whether incandescent or arc lights	<i>incandescent</i>

If arc lights, what protection is provided against fire, sparks, &c. *-*

Where are the switches controlling the masthead and side lights placed *in Bridge house, Captain room*

DESCRIPTION OF CABLES.

Main cable carrying	<i>13.5</i>	Amperes, comprised of	<i>7</i>	wires, each	<i>7/12</i>	L.S.G. diameter,	<i>10</i>	$\frac{3}{16}$ square inches total sectional area
Branch cables carrying	<i>3.</i>	Amperes, comprised of	<i>1</i>	wires, each	<i>1/11</i>	L.S.G. diameter,	<i>6</i>	$\frac{3}{16}$ square inches total sectional area
Branch cables carrying	<i>7.5</i>	Amperes, comprised of	<i>1</i>	wires, each	<i>1/13</i>	L.S.G. diameter,	<i>4</i>	$\frac{3}{16}$ square inches total sectional area
Leads to lamps carrying	<i>1/2</i>	Amperes, comprised of	<i>1</i>	wires, each	<i>1/17</i>	L.S.G. diameter,	<i>1 1/2</i>	$\frac{3}{16}$ square inches total sectional area
Cargo light cables carrying	<i>3</i>	Amperes, comprised of	<i>-</i>	wires, each	<i>-</i>	L.S.G. diameter,	<i>1 1/4</i>	$\frac{3}{16}$ square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

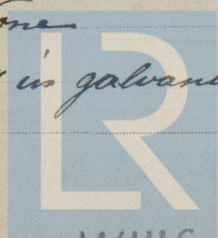
Conductors of tinned Copper wire, insulated pure and vulcanized India rubber India rubber tape, the whole vulcanized together and lead covered.

Joints in cables, how made, insulated, and protected *No joints in cable*

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 *Cables and wires fitted in galvanized iron pipe*



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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 *Iron pipes on top of trunk deck*

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 *through bulkheads, &c.*

How are cables carried through decks

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

If so, how are they protected

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage

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

Cargo light cables, whether portable or permanently fixed *Portable* How fixed *in Connection box*

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

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 *Yes*

Are any switches, cut outs, or joints of cables fitted in the pump room or companion *None*

How are the lamps specially protected in places liable to the accumulation of vapour or gas

The installation is supplied with a voltmeter and an amperemeter, fixed *on Switch board*

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 *960-1000* 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.

Electrical Engineers

Date

July 1909

General Manager J. J. J.

COMPASSES.

Distance between dynamo or electric motors and standard compass

Distance between dynamo or electric motors and steering compass *90 ft*

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
<i>3</i>		<i>15</i>	
<i>5.5</i>		<i>9</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.

Builder's Signature

Date

July 24 1909

NEDERLANDSCHE SCHEEPBOUW-MAATSCHAPPIJ
voor den Directeur.

GENERAL REMARKS.

This installation has been fitted in an efficient manner. Motor and dynamo inspected after a 24 hours trial found satisfactory.

It is submitted the notation of
Electric light be assigned to this vessel.
#58, 4-8-09.

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

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.