

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 4684.

Port of *Amsterdam* Date of First Survey *11 October* Date of Last Survey *26 November* No. of Visits *8*
 No. in Reg. Book on the ~~Iron~~ *Steel* *Motor lighter Cornelis* Port belonging to *Ternouwen*
41 in Ship Built at *Halt Hommel* By whom *J. Meijers Scheepbouw Co* When built *1910*
 Owners *J. van Rompen* Owners' Address *Ternouwen*
 Yard No. *309* Electric Light Installation fitted by *Allgemeine Electricitats Gesellschaft* When fitted *1910*

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Dynamo driven by a Diesel motor with transmission ✓

Capacity of Dynamo *40* Amperes at *220* Volts, whether continuous or alternating current *Continuous* ✓

Where is Dynamo fixed *in Motor room* ✓

Position of Main Switch Board *in Motor room* ✓ having switches to groups *6* ✓ of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each *One, 4 switches* ✓

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 *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 *37* arranged in the following groups:—

A	<i>18</i>	lights each of	<i>50</i>	candle power requiring a total current of	<i>3 1/2</i>	Amperes
B	<i>19</i>	lights each of	<i>16</i>	candle power requiring a total current of	<i>4.7</i>	Amperes
C		lights each of		candle power requiring a total current of		Amperes
D		lights each of		candle power requiring a total current of		Amperes
E		lights each of		candle power requiring a total current of		Amperes
	<i>One</i>	Mast head light with <i>One</i> lamps each of	<i>16</i>	candle power requiring a total current of	<i>1/4</i>	Amperes
	<i>two</i>	Side light with <i>One</i> lamps each of	<i>16</i>	candle power requiring a total current of	<i>1/2</i>	Amperes
	<i>two</i>	Cargo lights of	<i>16</i>	candle power, whether incandescent or arc lights	<i>incandescent</i>	

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

Where are the switches controlling the masthead and side lights placed *in Captains room*

DESCRIPTION OF CABLES.

Main cable carrying	<i>16</i>	Amperes, comprised of	<i>14</i>	wires, each	<i>2.77</i>	L.S.G. diameter,	<i>83</i> ^{m/m} square inches total sectional area
Branch cables carrying	<i>36</i>	Amperes, comprised of	<i>36</i>	wires, each	<i>4.52</i>	L.S.G. diameter,	<i>576</i> ^{m/m} square inches total sectional area
Branch cables carrying	<i>1</i>	Amperes, comprised of	<i>2</i>	wires, each	<i>1.36</i>	L.S.G. diameter,	<i>2.9</i> ^{m/m} square inches total sectional area
Leads to lamps carrying	<i>1</i>	Amperes, comprised of	<i>2</i>	wires, each	<i>1.36</i>	L.S.G. diameter,	<i>2.9</i> ^{m/m} square inches total sectional area
Cargo light cables carrying		Amperes, comprised of		wires, each		L.S.G. diameter,	

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Cable made of tinned Copper layer of Para. 2 layers Vulcanized Rubber, One Ribbon One braided cotton, Vulcanized together. ✓

Joints in cables, how made, insulated, and protected *are fitted in Copper boxes.* ✓

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* ✓

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 *teak casings.* ✓

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Required
02 1/2 sq in
33 or 36
33 - 36
.064 - .001
.064 - .001

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 *Galvanized iron tubes* ✓
 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 *Armoured cables in* ✓
 How are cables carried through beams *None* ✓ through bulkheads, &c. *Copper glands* ✓
 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 *Connecting boxes* ✓
 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 ✓
 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 installation is *being* supplied with a voltmeter and an amperemeter, fixed *on switchboard* ✓
 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.

ALLGEMEINE ELEKTROTECHNISCHE GESELLSCHAFT
 INSTALLATION

Electrical Engineers

Date *November 1910*

COMPASSES.

Distance between dynamo or electric motors and standard compass *36 ft* ✓
 Distance between dynamo or electric motors and steering compass *25 ft* ✓
 The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
<i>1/2</i>			
A cable carrying	<i>18</i>	<i>36</i>	<i>25</i>
A cable carrying	<i>19</i>	<i>26</i>	<i>25</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 *November 1910*

GENERAL REMARKS.

Vessel fitted with two motors to drive the winches, connected to switchboard with a portable cable. Electric light installation has been fitted in an efficient manner. Motor and dynamo working during 24 hours trial in an efficient manner without hitches or heating.
 Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

REPORT FORM NO. 13.

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