

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 1204

Port of *Bremerhaven* Date of First Survey *6th Octob* Date of Last Survey *7th Nov.* No. of Visits *7*
 No. in on the *Steel* *S. S. Rotenfels* Port belonging to *Bremen*
 Reg. Book *30 in. Log.* Built at *Geestemünde* By whom *J. C. Tecklenborg & Co.* When built *1906*
 Owners *D. D. Gen. Hansa* Owners' Address *Bremen*
 Yard No. *214* Electric Light Installation fitted by *St. E. G. Berlin* When fitted *1906*
Algemeine Elektricitäts-Gesellschaft

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Direct current generator Type M.P.M. 200, 8 poles, 300 revolutions p. min. 110 Volts
 Capacity of Dynamo *150* Amperes at *110* Volts, whether continuous or alternating current *continuous*
 Where is Dynamo fixed *in the engine room* Whether single or double wire system is used *double*
 Position of Main Switch Board *engine-room* having switches to groups *at. & B* of lights, &c., as below
 Positions of auxiliary switch boards and numbers of switches on each *1 switchboard in salon with 8 switches and 1 cut out for back. 1 switchboard in men's room with 3 switches, 1 switchboard in poop with 3 switches, 1 switchboard in the steering engine room with 4 switches, 1 switchboard in the forecabin with 3 switches, one switch for spotlight under forecabin deck.*
 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 *yes* including lamp circuits *yes*
 Are the cut outs of non-oxidizable metal *yes* and constructed to fuse at an excess of *50* 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 *130* arranged in the following groups:—
 A *5* lights each of *25 NK* candle power requiring a total current of *4* Amperes
 B *90* lights each of *16 NK* candle power requiring a total current of *45* 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
2 Mast head light with *1* lamps each of *32* candle power requiring a total current of *2* Amperes
2 Side light with *1* lamps each of *32* candle power requiring a total current of *2* Amperes
7 Cargo lights of *5 lights each 16 NK* candle power, whether incandescent or arc lights *2 are lights*
 If arc lights, what protection is provided against fire, sparks, &c. *glas bell with iron plate*

Where are the switches controlling the masthead and side lights placed *in the house of the steersman*

DESCRIPTION OF CABLES.

Main cable carrying *130* Amperes, comprised of *7* wires, each *3.5* L.S.G. diameter, *50 mm square inches* total sectional area
 Branch cables carrying *60* Amperes, comprised of *1* wires, each *4.5* L.S.G. diameter, *16 " square inches* total sectional area
 Branch cables carrying *40* Amperes, comprised of *1* wires, each *3.5* L.S.G. diameter, *10 " square inches* total sectional area
 Leads to lamps carrying *—* Amperes, comprised of *—* wires, each *—* L.S.G. diameter, *1.5 " square inches* total sectional area
 Cargo light cables carrying *—* Amperes, comprised of *—* wires, each *—* L.S.G. diameter, *4 " square inches* total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Iron armoured, india rubber sheathed lead cables

Joints in cables, how made, insulated, and protected *watertight 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 *no*

How are the cables led through the ship, and how protected *in the holds in gas-pipes, on deck in cement-canals*

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 ^{our} armed cables

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat dr. insulated

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 stuffing boxes through bulkheads, &c.

How are cables carried through decks gas-pipes with nuts

Are any cables run through coal bunkers no or cargo spaces yes or spaces which may be used for carrying cargo, stores, or baggage yes

If so, how are they protected the cables are in gas-pipes

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 —

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 at main 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 100% 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 ELEKTRICITÄTS-GESELLSCHAFT
ABTHEILUNG J. S.

Elektriker

Electrical Engineers

Date 26 October 06

COMPASSES.

Distance between dynamo or electric motors and standard compass 100 ft

Distance between dynamo or electric motors and steering compass 105 ft

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
<u>130</u>	<u>25</u>	<u>25</u>	
<u>—</u>	<u>—</u>	<u>—</u>	
<u>—</u>	<u>—</u>	<u>—</u>	

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 None degrees on any course in the case of the standard compass and none degrees on any course in the case of the steering compass.

JOH. C. TECKLENBORG A.-G.

Schiffswerk und Maschinenfabrik.

Georg. Hansen

Builder's Signature.

Date 8th Nov. 1906

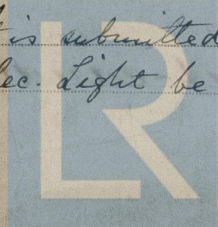
GENERAL REMARKS. This installation has been tried on a 12 hours trial trip in my presence, from Geestmünde to Hamburg and found to work well. I therefore beg to submit that the note "Electric Lighted" might be added to the steamers class in the Register Book.

J. Thomsen

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

Committee's Minute

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



Lloyd's Register
Foundation

12.11.06

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.