

Power

MON. DEC. 1 - 1914
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REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 14265

Hamburg Date of First Survey *18 April 14* Date of Last Survey *31 July 14* No. of Visits *15*
Steel Twin S. Motor Vessel "Fritz" Port belonging to *Hamburg*
Blohm + Voß By whom *Blohm + Voß* When built *1914*
Hamburg Owners' Address *Hamburg*
 Electric Light Installation fitted by *The Builders* When fitted *1914*

DYNAMO, ENGINE, ETC.

4 stroke cycle, 3 cylinders, coupled direct to 2 Siemens Schuckert
running at 200-300 revolutions per minute.
288 Amperes at *220* Volts, whether continuous or alternating current *continuous*
Engine Room Whether single or double wire system is used *double*
Board Engine Room having switches to groups *30* of lights, &c., as below
 switch boards and numbers of switches on each *Number of auxiliary Engines, electrically driven:*
13 Winches, 1 Steering Engine, 2 Ballast pumps, 1 pump for Fire service,
oil service, 1 pump for oil fuel, 1 turning Engine & 1 auxiliary compressor.
 main switch board to the cables of main circuit *yes* and on each auxiliary switch board to the cables of auxiliary
 and at each position where a cable is branched or reduced in size *—* and to each lamp circuit *—*
 double wire system are fuses fitted to both flow and return wires or cables of all circuits including lamp circuits
 indizable metal *yes* and constructed to fuse at an excess of *25* per cent over the normal current
 easily accessible positions *yes* Are the fuses of standard dimensions *yes* If wire fuses are used
 fuses fitted on or near each switch board giving particulars of proper size of fuse for each circuit *yes*
 fuses constructed of incombustible materials and fitted on incombustible bases *yes*
 provided for *—* arranged in the following groups:—

lights each of	candle power requiring a total current of	Amperes
lights each of	candle power requiring a total current of	Amperes
lights each of	candle power requiring a total current of	Amperes
lights each of	candle power requiring a total current of	Amperes
lights each of	candle power requiring a total current of	Amperes
with lamps each of	candle power requiring a total current of	Amperes
with lamps each of	candle power requiring a total current of	Amperes
Cargo lights of	candle power, whether incandescent or arc lights	—

ion is provided against fire, sparks, &c. *4 sets of Transformer fitted, each fitted with an*
motor coupled direct to 3 generators for windlass, winches, pumps and
controlling the masthead and side lights placed *Steering Engine*

WIRING.

<i>88</i> Amperes, comprised of <i>37</i> wires, each <i>2.26</i> S.W.G. diameter, <i>2 a 150</i> square inches total sectional area
<i>100</i> Amperes, comprised of <i>19</i> wires, each <i>2.19</i> S.W.G. diameter, <i>70</i> square inches total sectional area
<i>160</i> Amperes, comprised of <i>19</i> wires, each <i>1.83</i> S.W.G. diameter, <i>50</i> square inches total sectional area
<i>163</i> Amperes, comprised of <i>19</i> wires, each <i>1.53</i> S.W.G. diameter, <i>35</i> square inches total sectional area
<i>288</i> Amperes, comprised of <i>19</i> wires, each <i>1.53</i> S.W.G. diameter, <i>35</i> square inches total sectional area
<i>98</i> " " <i>19</i> " " <i>1.53</i> " " <i>35</i> " " " " " "

INSULATION, PROTECTION, ETC.

<i>ic 88</i> " " <i>19</i> " " <i>1.53</i> " " <i>35</i> " " " " " "
<i>ressor 28</i> " " <i>7</i> " " <i>1.05</i> " " <i>6</i> " " " " " "
<i>24</i> " " <i>7</i> " " <i>1.7</i> " " <i>16</i> " " " " " "
<i>13</i> " " <i>7</i> " " <i>1.79</i> " " <i>2.5</i> " " " " " "

insulated, and protected *DESCRIPTION OF INSULATION, PROTECTION, ETC.:*
ch cables copper tinned, coated with Para caoutchouc, coated with impregnated jute tape,
on with impregnated jute band, double iron bound and jute spun + asphalted.

thoroughly soldered, and the flux used not containing acids or other corrosive substances *yes* Are all joints in accessible
made in bunkers, cargo spaces, or spaces which may at any time be used for carrying cargo, stores, or baggage *yes*
branches from the cable leading from dynamo to main switch board *no*
ough the ship, and how protected *Main and branch cables carried open.*

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 —

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 fuses for these lights fitted —

If in the spaces, how are they specially protected —

Are any switches or fuses fitted in bunkers —

Cargo light cables, whether portable or permanently fixed — 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 *main switch board*

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

Are any switches, fuses, 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 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 *50 million Siemens Units Kilometer* 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.

The Builders are the Electrical Engineers Date —

COMPASSES.

Distance between dynamo or electric motors and standard compass *55 ft.*

Distance between dynamo or electric motors and steering compass *58 ft.*

The nearest cables to the compasses are as follows:—

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 *nil* degrees on — course in the case of the standard compass and *imperceptible* degrees on — course in the case of the steering compass.

[Signature]

Builder's Signature. Date

GENERAL REMARKS. —

This arrangement of power-driven auxiliaries on board of this vessel are worked by electricity and the cables in connection with them are in accordance with the Society's Rules for cables for electric Light.

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

Committee's Minute

FRI JUL 16 1920
TUE JUL 16 1920

FRI NOV 18 1921

TUE OCT. 10 1922

FRI SEP. 3 1920

FRI DEC. 3 1920

FRI AUG. 31 1923

TUES. 22 JUL 1924

FRI OCT. 14 1921

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