

REPORT ON ELECTRIC LIGHTING INSTALLATION.

Port of Hamburg

Received at London Office

18

91

No. 2103 *

No. in

Name of Ship

Croatia

Built at

Kiel

When built

1891.

Reg. Book.

Electric Light Installation fitted by

Otto Berner, Hamburg

when fitted

November 1891.

DESCRIPTION OF DYNAMO AND ENGINE.—

Dynamo direct coupled to single cylinder Engine

Capacity of Dynamo

34

Amperes at

100

Volts, whether continuous or alternating current

continuous

Where is Dynamo fixed

in the engine-room

LAMPS.—

Is vessel wired on single or double wire system

single wire

Total number of lights

70

arranged in the following groups:—

A Mast 34 lights each of 16 candle power requiring a total current of 18 Amperes

B Bridge 13 lights each of 16 candle power requiring a total current of 6.5 Amperes

C Forward 14 lights each of 16 candle power requiring a total current of 7 Amperes

D Engine room 9 lights each of 16 candle power requiring a total current of 4.5 Amperes

E lights each of candle power requiring a total current of Amperes

1 Mast head light with 1 lamp each of 16 candle power requiring a total current of 9.5 Amperes

2 Side lights with 2 lamps each of 16 candle power requiring a total current of 1 Amperes

2 Cargo lights each with 4 lamps of 25 candle power, whether incandescent or arc lights incandescent

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

SWITCHES AND CUT-OUTS.—

Position of Main Switch Board

in the engine-room

having switches to groups

A, B, C, D

of lights as above

Positions of other switch boards and numbers of switches on each

Saloon pantry 4, Chart room 2,

second class pantry 2.

If cut outs are fitted to main circuit

yes

and to each auxiliary circuit

yes

and at each position where cable is branched or reduced in size

yes

If vessel is wired on the double wire system are cut outs fitted on each wire

Are the cut outs of non-oxidizable metal

yes

and constructed to fuse at an excess of

10

per cent over the normal current

Are all cut outs fitted in easily accessible positions

yes

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

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

Are all switches and cut-outs constructed of unflammable materials and fitted on unflammable bases

DESCRIPTION OF CABLES.—

Main cable carrying

34

Amperes, comprised of

7

wires, each

2 mm

legal standard wire gauge diameter

Branch cables carrying

18, 6.5

Amperes, comprised of

1

wires, each

3.5 mm, 3 mm

legal standard wire gauge diameter

Branch cables carrying

7, 4.5

Amperes, comprised of

1

wires, each

3 mm

legal standard wire gauge diameter

Leads to lamps

9.5

Amperes, comprised of

1

wires, each

1 mm

legal standard wire gauge diameter

Cargo light cables carrying

3, 2

Amperes, comprised of

3.5

wires, each

0.15 mm

legal standard wire gauge diameter

The copper used has a conductivity of

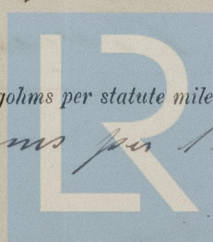
95

per cent. that of pure copper.

Insulation of cables is guaranteed to have a resistance of not less than

megohms per statute mile after 24 hours' immersion in seawater

6000 millions Ohms per 1 km.



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DESCRIPTION OF INSULATION, PROTECTION, &c.—

Copper wire lined, lagged with para-conductors, vulcanized rubber & hamp.

Joints in cables, how made, insulated, and protected Soldered & insulated with para

Are all the joints of cables thoroughly soldered, resin only having been used as a flux yes

How are cables led throughout the ship in wood batten or iron tubing

What special protection has been provided for the cables in open alleyways

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 in tubes

How are cables carried through decks special grillings and through bulkheads hard wood bushes

Are any cables run through coal bunkers no or cargo spaces If so, how are they protected

Are any lamps fitted in coal bunkers or spaces which may be used for cargo

If so, how are they specially protected

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 by brass screw on white metal

How are the returns from the lamps connected to the hull by brass screws

Are all the joints with the hull in accessible positions yes

TESTING, &c.—

Has the installation been thoroughly tested to its full capacity during a trial of 24 hours' duration yes

The insulation resistance of the whole installation was not less than ohms

The installation is supplied with a voltmeter and yes an amperemeter, fixed yes

General Remarks.—

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.

Otto Berner Electrical Engineers

Date 1. XII 1891

COMPASSES.—

Distance between dynamo and standard compass 45 feet

Distance between dynamo and steering compass 45

The nearest cables to the compasses are as follows:—

A cable carrying 1 Amperes 15 feet from standard compass 20 feet from steering compass

A cable carrying Amperes feet from standard compass feet from steering compass

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 degrees on course in the case of the standard compass

and degrees on course in the case of the steering compass.

HOWALOTSWERKE

George Konradt f. Schneider
Mr. Boucard

Builder's Signature Date Dec. 3^d 1891

Surveyor's Signature Date Dec. 2^d 1891



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