

Where is Dynamo fixed *in the engine room* Whether single or double wire system is used *double*  
Position of Main Switch Board *in the engine room* having switches to groups *14* of lights, &c., as below

Rpt. 13a.

Date *9<sup>th</sup> July 1907.*

Supplement to *Copenhagen* Report No. *2512*  
on the Steam Ship *"St. Jan"* of *Copenhagen*

### COMPASSES.

Distance between dynamo or electric motors and standard compass *70 feet*  
Distance between dynamo or electric motors and steering compass *74 feet.*

The nearest cables to the compasses are as follows:—

A cable carrying	<i>15</i>	Amperes	<i>6</i>	feet from standard compass	<i>8</i>	feet from steering compass
A cable carrying	<i>35</i>	Amperes	<i>25</i>	feet from standard compass	<i>28</i>	feet from steering compass
A cable carrying	<i>2</i>	Amperes	<i>4</i>	feet from standard compass	<i>4</i>	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 *0.* degrees on *all* courses in the case of the  
standard compass and *0.* degrees on *all* course in the case of the steering compass.

AKTIESELSKABET  
BURMEISTER & WAIN'S MASKIN- OG SKIBSBYGERI

*K. g. Meldahl.*

Builder's Signature. Date *9<sup>th</sup> July 1907.*

*J. Romer.*  
Surveyor to Lloyd's Register.

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Where are the switches controlling the masthead and side lights placed *in the chart house.*

### DESCRIPTION OF CABLES.

Main cable carrying *125* Amperes comprised of *37* wires each *15* I.S.C. diameter *0.148* square inches total sectional area

# REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 2512.

Port of Copenhagen Date of First Survey 24 May Date of Last Survey 25 June 1907 No. of Visits 7  
 No. in Reg. Book 124 in Dupl. on the Iron or Steel S.S. "St Jan" Port belonging to Copenhagen  
 Built at Copenhagen By whom J. Burmeister & Wain Maskin Skibst. When built 1907  
 Owners Det Ostasiatiske Kompagni Owners' Address Copenhagen  
 Yard No. 256 Electric Light Installation fitted by J. Burmeister & Wain Maskin Skibst. When fitted 1907

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

1 single cyl. steam engine direct coupled to the dynamo. The dynamo is compound wound. 1 voltmeter 80 Volt and 1 amperemeter 175 Amp.

Capacity of Dynamo 140 Amperes at 65 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 in the engine room having switches to groups 14 of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each one in chart room with 6 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 Edison's tools used

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

Total number of lights provided for 140 incandescent lamps 2 arc lamps arranged in the following groups:—

A	<u>10</u>	lights each of	<u>10</u>	candle power requiring a total current of	<u>6</u>	Amperes
B	<u>16</u>	lights each of	<u>16 &amp; 32</u>	candle power requiring a total current of	<u>15</u>	Amperes
C	<u>52</u>	lights each of	<u>10 &amp; 16</u>	candle power requiring a total current of	<u>36</u>	Amperes
D	<u>19</u>	lights each of	<u>10 &amp; 16</u>	candle power requiring a total current of	<u>14</u>	Amperes
E & F	<u>arc lamps</u>	lights each of	<u>8 Amp</u>	candle power requiring a total current of	<u>16</u>	Amperes
H, I, K, L, M, N, O, P	<u>4-7 lights</u>	each of	<u>16-10 &amp; 25</u>	" " " " " "	<u>35</u>	"
<u>2</u>	Mast head light with	<u>1 lamp</u>	each of	<u>32</u>	candle power requiring a total current of	<u>3,2</u> Amperes
<u>2</u>	Side light with	<u>1 lamp</u>	each of	<u>32</u>	candle power requiring a total current of	<u>3,2</u> Amperes
<u>4</u>	Cargo lights of		<u>100</u>	candle power, whether incandescent or arc lights	<u>incandescent</u>	

If arc lights, what protection is provided against fire, sparks, &c. plated down to bottom of lanterns

Where are the switches controlling the masthead and side lights placed in the chart house

## DESCRIPTION OF CABLES.

Main cable carrying 125 Amperes, comprised of 37 wires, each 15 L.S.G. diameter, 0.148 square inches total sectional area

Branch cables carrying 6-15 Amperes, comprised of 7 wires, each 1.35 L.S.G. diameter, 0.0155 square inches total sectional area

Branch cables carrying 36 Amperes, comprised of 19 wires, each 1.24 L.S.G. diameter, 0.0385 square inches total sectional area

Leads to lamps carrying 5 Amperes, comprised of 1 wires, each 14 L.S.G. diameter, 0.005 square inches total sectional area

Cargo light cables carrying 5 Amperes, comprised of flexible wires, each " L.S.G. diameter, 0.0054 square inches total sectional area

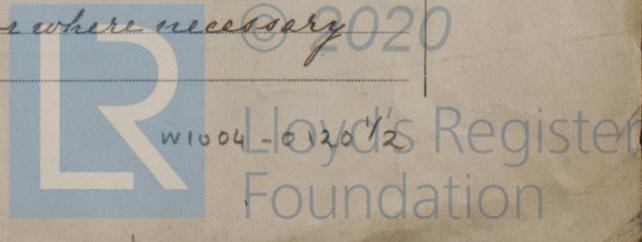
DESCRIPTION OF INSULATION, PROTECTION, ETC. The copper wires are tinned, insulated with pure and vulcanized india rubber taped & lead covered, or tinned, insulated with pure and vulcanized india rubber taped & lead covered, then taped & braided with galvanized iron wire armouring or tinned insulated with pure & vulcanized india rubber taped & protected with iron wire armouring.

Joints in cables, how made, insulated, and protected soldered and well insulated, as made in jointing-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 No

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 secured by screwed clips, or where necessary protected by iron tubes



**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 & lead covered cables used*

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

What special protection has been provided for the cables near boiler casings *Do.*

What special protection has been provided for the cables in engine room *Do.*

How are cables carried through beams *iron & lead covered cables used* through bulkheads, &c. *brass water tight screwed glands*

How are cables carried through decks *in iron tubes*

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 *iron & lead covered cables used*

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 *double wire system*

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 *on main switchboard*

When necessary by iron tubes

**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.

**AKTIESELSKABET  
BURMEISTER & WAIN'S MASKIN- OG SKIBSBYGGERI**

*K. J. Madsen*

Electrical Engineers

Date *9<sup>th</sup> July 1907*

**COMPASSES.**

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**AKTIESELSKABET  
BURMEISTER & WAIN'S MASKIN- OG SKIBSBYGGERI**

*K. J. Madsen*

Builder's Signature.

Date

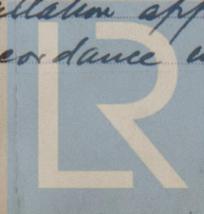
**GENERAL REMARKS.** *The whole electric installation is as above described, the material and workmanship good and all complete.*

*[Signature]*

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

Committee's Minute

*This installation appears to be fitted in accordance with the Rules*



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THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

REPORT FORM No. 1, 2, 3, 4.