

WED. 21 JUN 1911

## REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 2707

Port of *Frieste* Date of First Survey *11/5/11* Date of Last Survey *15/6/11* No. of Visits *2*  
 No. in Reg. Book on the *Iron or Steel* *Ferry Steamer* *N-10* Port belonging to *Constantinople*  
 Built at *Regensburg* By whom *Ch. Rutherford* When built *1911*  
 Owners *Soc. d. Nav. a Vapen dan la Corne* Owners' Address *Constantinople*  
 Yard No. *424* Electric Light Installation fitted by *Siemens & Schuckert Works* When fitted *1911*  
*Moscow*

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

*Compound wound Dynamo & geared Laval turbine*

Capacity of Dynamo *20* Amperes at *70* Volts, whether continuous or alternating current *Continuous*  
 Where is Dynamo fixed *In Eng Room* Whether single or double wire system is used *Double*  
 Position of Main Switch Board *80* having switches to groups *4* of lights, &c., as below  
 Positions of auxiliary switch boards and numbers of switches on each *No auxiliary switch boards*

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 *No*

If cessel 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 *No wires*

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

Total number of lights provided for *48* arranged in the following groups:—

A	<i>12</i>	lights each of	<i>16</i>	candle power requiring a total current of	<i>6</i>	Amperes
B	<i>13</i>	lights each of	<i>16</i>	candle power requiring a total current of	<i>6.5</i>	Amperes
C	<i>13</i>	lights each of	<i>16</i>	candle power requiring a total current of	<i>6.5</i>	Amperes
D	<i>9</i>	lights each of	<i>16</i>	candle power requiring a total current of	<i>4.5</i>	Amperes
E		lights each of		candle power requiring a total current of		Amperes
	<i>4</i>	lamps each of	<i>16</i>	candle power requiring a total current	<i>Included in group C</i>	Amperes
		lamps each of		candle power requiring a total current of	<i>B</i>	Amperes

Cargo lights of *No cargo lights* candle power, whether incandescent or arc lights

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

Where are the switches controlling the masthead and side lights placed *In wheel house*

## DESCRIPTION OF CABLES.

Main cable carrying *24* Amperes, comprised of *20* wires, each *17* L.S.G. diameter, *.048* square inches total sectional area  
 Branch cables carrying *6.5* Amperes, comprised of *1* wires, each *14/4* L.S.G. diameter, *.0063* square inches total sectional area  
 Branch cables carrying *4.5* Amperes, comprised of *1* wires, each *14/5* L.S.G. diameter, *.0045* square inches total sectional area  
 Leads to lamps carrying *2.5* Amperes, comprised of *1* wires, each *17* L.S.G. diameter, *.0045* square inches total sectional area  
 Cargo light cables carrying Amperes, comprised of wires, each L.S.G. diameter, square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

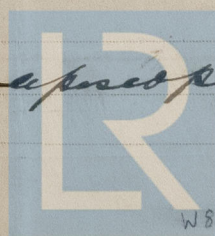
*The wire are first covered with a layer of pure rubber then with a layer of vulcanising india rubber then with a layer of rubber coated tape then with cotton water proof covering. Some of the cables are lead covered & armoured.*

Joints in cables, how made, insulated, and protected *Jointly soldered & insulated. Joints of armoured cable are in water tight 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 lead casings in a protected places armoured & lead covered cables are used.*



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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

Lead covered &

Armoured cables fitted.

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

Cables lead covered & armoured

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

Leads where necessary through bulkheads, &c.

Stuffing boxes.

How are cables carried through decks

Through pipes & stuffing boxes.

Are any cables run through coal bunkers

No

or cargo spaces

No

or spaces which may be used for carrying cargo, stores, or baggage

No

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

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

None

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

In Eng Room

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

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.

Lennus Linnick & Huke J.B. Regensburg  
Gen'l. Mgr. R. H. Allen

Electrical Engineers

Date 15. June 1911.

COMPASSES.

Distance between dynamo or electric motors and standard compass

Distance between dynamo or electric motors and steering compass

3 feet.

The nearest cables to the compasses are as follows:—

A cable carrying

the

Amperes

feet from standard compass

3

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

nil

course in the case of the steering compass.

Christoph Ruthof

in Vollmacht:

Builder's Signature.

Date

GENERAL REMARKS.

This installation has been fitted in accordance with the Rules to my satisfaction.

It is submitted that this vessel is eligible for THE RECORD Elec. light.

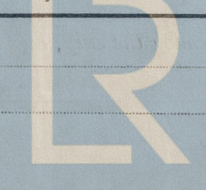
JWD 26/6/11

D. Ritchie.

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

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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