

## REPORT ON ELECTRIC LIGHTING INSTALLATION.

MON. 14 DEC 1904

No. 2990

Port of *Genoa* Date of First Survey *Oct 10<sup>th</sup>* Date of Last Survey *Feb 9<sup>th</sup>* No. of Visits *6*  
 No. in Reg. Book on the ~~Iron or~~ Steel *S.S. "Bars"* Port belonging to *Genoa*  
 Built at *Sampierdarena* By whom *Soc Cooperativa di Prod<sup>e</sup>* When built *1903*  
 Owners *Societa Anonima per Riepore-* Owners' Address *Genoa*  
*Sottomerini* *Societa Esercizio Rami*  
 Yard No. *1* Electric Light Installation fitted by *Officina Elettrica* When fitted *1903*

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

*The single cylinder engine with extended bed plate to carry dynamo coupled direct to one shunt wound dynamo.*

Capacity of Dynamo *70* Amperes at *110* Volts, whether continuous or alternating current *Continuous*  
 Where is Dynamo fixed *On the port side of the engine room just above the platform*  
 Position of Main Switch Board *Near the dynamo* having switches to groups *3* of lights, &c., as below  
 Positions of auxiliary switch boards and numbers of switches on each *None - all in the E. Room.*

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 *Yes*

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

Total number of lights provided for *69* arranged in the following groups:—

A <i>E. Room</i>	<i>24</i>	lights each of <i>12 of 10 + 12 of 16</i>	candle power requiring a total current of	<i>10</i>	Amperes
B <i>Deck</i>	<i>42</i>	lights each of <i>32 of 10 + 10 of 16</i>	candle power requiring a total current of	<i>15</i>	Amperes
C <i>Signals</i>	<i>3</i>	lights each of <i>32</i>	candle power requiring a total current of	<i>3</i>	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
<i>1</i>	Mast head light with	<i>1</i> lamps each of <i>32</i>	candle power requiring a total current of	<i>1</i>	Amperes
<i>2</i>	Side light with	<i>1</i> lamps each of <i>32</i>	candle power requiring a total current of	<i>2</i>	Amperes
<i>10</i>	Cargo lights of	<i>16</i>	candle power, whether incandescent or arc lights	<i>Incandescent</i>	

If arc lights, what protection is provided against fire, sparks, &c. *No arc lights*

Where are the switches controlling the masthead and side lights placed *In the chart room on the bridge*

## DESCRIPTION OF CABLES.

Main cable carrying	<i>61</i>	Amperes, comprised of	<i>19</i>	wires, each	<i>16</i>	L.S.G. diameter, <i>061123</i>	square inches total sectional area
Branch cables carrying	<i>10</i>	Amperes, comprised of	<i>17</i>	wires, each	<i>14</i>	L.S.G. diameter, <i>00502657</i>	square inches total sectional area
Branch cables carrying	<i>15</i>	Amperes, comprised of	<i>55</i>	wires, each	<i>28</i>	L.S.G. diameter, <i>00879627</i>	square inches total sectional area
Leads to lamps carrying	<i>3</i>	Amperes, comprised of	<i>1</i>	wires, each	<i>14</i>	L.S.G. diameter, <i>00879627</i>	square inches total sectional area
Cargo light cables carrying	<i>5</i>	Amperes, comprised of <i>2 x 64</i>	<i>suplex</i>	wires, each	<i>36</i>	L.S.G. diameter, <i>0050265</i>	square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

*Lined, then covered with a layer of india rubber, then with a separator, then with a layer of vulcanized india rubber, then with a layer of india rubber tape, and the whole vulcanized together*

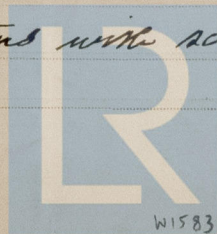
Joints in cables, how made, insulated, and protected *No joints*

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

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 wooden battens with screened covers.*

Office Fee = *-10-0*  
 Fee = *-1-10-0*  
 Exp = *-2-0*  
 £ *2-2-0*



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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

In insulated iron pipes

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

Hard wooden battens + insulated iron pipes

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

In iron pipes insulated.

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

In hard wooden battens

How are cables carried through beams

In insulated bunnies

through bulkheads, &amp;c. none through bulkheads

How are cables carried through decks

In insulated iron pipes

Are any cables run through coal bunkers

No

or cargo spaces

No

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

Yes

If so, how are they protected

In hard wooden casings under the deck.

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coal, or baggage

Yes

If so, how are the lamp fittings and cable terminals specially protected

Cast iron galvanized covers

Where are the main switches and cut outs for these lights fitted

On the main switch board

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

✓

## VESSELS BUILT FOR CARRYING PETROLEUM.

Not made 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 installation is

Yes

supplied with a voltmeter and

No

an amperemeter, fixed

On the switch board

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

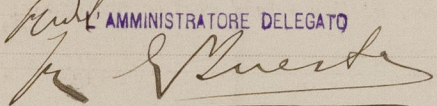
megohms per

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.

SOCIETÀ ESERCIZIO BAGINI

L'AMMINISTRATORE DELEGATO



Electrical Engineers

Date December 11<sup>th</sup> 1903

## COMPASSES.

Distance between dynamo or electric motors and standard compass

20 feet

Distance between dynamo or electric motors and steering compass

20 "

The nearest cables to the compasses are as follows:—

A cable carrying	Amperes	feet from standard compass	feet from steering compass
10	10	10	10
15	20	20	20
-	-	-	-

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

each

course in the case of the

standard compass and

0

degrees on

each

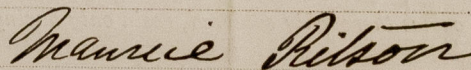
course in the case of the steering compass.

Builder's Signature.

Date

## GENERAL REMARKS.

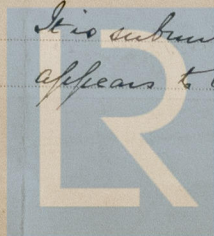
The workmanship & materials of this installation are good, & in accordance with the rules requirements.



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

Committee's Minute

It is submitted that this installation appears to be satisfactory.



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14.12.03