

# REPORT ON ELECTRIC LIGHTING INSTALLATION.

*Yoruba Member*

Port of *Buenos Aires* Date of First Survey *7th August, 1918* Date of Last Survey *23rd June, 1919* No. of Visits *9*  
 No. in Reg. Book *66* on the ~~Iron~~ Steel *de. de. "ASTRA" ex "LA PLATENSE"* Port belonging to *Buenos Aires*  
 Built at *Heudrik Ids. Ambracht* By whom *Jouker & Maas* When built *1907*  
 Owners *"Aspa" Compañia Argentina de Fomento* Owners' Address *Buenos Aires, Calle 15 de Mayo, 182.*  
 Yard No. *✓* Electric Light Installation fitted by *Generosa Lavriles* *CALLE CORTES Nº 52. AVELLANEDA.* When fitted *June, 1919*

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

*a single cylinder steam engine, direct coupled to a four pole compound wound continuous current dynamo.*

Capacity of Dynamo *36* Amperes at *110* Volts, whether continuous or alternating current *continuous.*

Where is Dynamo fixed *Engine Room - Starboard side, on lower stinger.*

Position of Main Switch Board *Engine Room* having switches to groups *A.B.C.D.E.F.G.* of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each *one in chart room, with four 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 *none* 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 *90* 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 *ninety* arranged in the following groups :-

<i>7</i>	<b>A ENGINE BOILER.</b>	lights each of <i>thirty two</i>	candle power requiring a total current of <i>1.456</i>	Amperes
<i>8</i>	<b>B " FRONT " CENTRAL</b>	lights each of <i>sixteen</i>	candle power requiring a total current of <i>0.832</i>	Amperes
<i>6</i>	<b>C CORRIDORS</b>	lights each of <i>sixteen</i>	candle power requiring a total current of <i>0.624</i>	Amperes
<i>8</i>	<b>D POOP GALLEY</b>	lights each of <i>sixteen</i>	candle power requiring a total current of <i>0.832</i>	Amperes
<i>95</i>	<b>E SALOON BERTHS</b>	lights each of <i>15/ thirty two 10/ sixteen</i>	candle power requiring a total current of <i>4.160</i>	Amperes
<i>11</i>	<b>F STEERING GEAR</b>	<i>five</i> " " <i>fifty sixteen</i> " " " " " " " "	candle power requiring a total current of } <i>2.327</i>	Amperes
	<i>2</i> Side lights with <i>one</i> lamps each of <i>fifty sixteen</i> " " " " " " " "			
<i>95</i>	<b>G FORECASTLE</b>	<i>2</i> clusters Cargo lights of <i>eight</i> lamps each <i>sixteen</i> " " " " " " " "	candle power, whether incandescent or arc lights. } <i>2.600</i>	"

If are lights, what protection is provided against fire, sparks, &c. *none*

TOTAL *90*

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

## DESCRIPTION OF CABLES.

Main cable carrying *15* Amperes, comprised of *two/57* wires, each *29* L.S.G. diameter, *0.0248* square inches total sectional area

### LEADS TO LAMPS

~~Branch cables~~ carrying *9.6* Amperes, comprised of *one* wires, each *15* L.S.G. diameter, *0.0032* square inches total sectional area

Branch cables carrying *4* Amperes, comprised of *three* wires, each *19* L.S.G. diameter, *0.0028* square inches total sectional area

### BRANCH CABLE

~~Leads to lamps~~ carrying *0.8* Amperes, comprised of *three* wires, each *19* L.S.G. diameter, *0.0037* square inches total sectional area

Cargo light cables carrying *2* Amperes, comprised of *one/57* wires, each *29* L.S.G. diameter, *0.0124* square inches total sectional area

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

*Insulation of Para rubber, vulcanized rubber, two ply of paper and two ply of tinned and soldered copper armour, of 27 S.W.G. making 0.0328 inch thickness.*

Joints in cables, how made, insulated, and protected *twisted, soldered and insulated with Para rubber and black tape, protected with porcelain insulators and all covered by a metal box.*

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 bunks, 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 *on casing and under decks, protected by copper armour and all held by clips.*



**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, carried inside  
1/2" and 3/4" galv. iron pipes.  
 What special protection has been provided for the cables near galleys or oil lamps or other sources of heat inside iron pipes.  
 What special protection has been provided for the cables near boiler casings carried inside 1/2" galv. iron pipes.  
 What special protection has been provided for the cables in engine room " " " " " "  
 How are cables carried through beams with lead bushings through bulkheads, &c. (non-watertight) lead bushings.  
 How are cables carried through decks in chart room and corridors, in galv. 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 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 \_\_\_\_\_  
 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 \_\_\_\_\_  
 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.**

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 yes.  
 Are any switches, cut outs, or joints of cables fitted in the pump room or companion no.  
 How are the lamps specially protected in places liable to the accumulation of vapour or gas well glasses with rubber joints  
all air tight.  
an amperemeter, fixed on switch board  
near dynamo.  
 The installation is compound wound supplied with a voltmeter and yes

The copper used is guaranteed to have a conductivity of 98.5 per cent. that of pure copper.  
 Insulation of cables is guaranteed to have a resistance of not less than six hundred 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.

Generoso Da Vila *afm.*

(Signature above)

M. P.

Electrical Engineers

Date June 1919.

**COMPASSES.**

Distance between dynamo or electric motors and standard compass forty six - (46') feet.  
 Distance between dynamo or electric motors and steering compass thirty nine - (39') "  
 The nearest cables to the compasses are as follows:—  
 A cable carrying 9.32 Amperes 12'6" feet from standard compass 5'6" feet from steering compass  
 A cable carrying 0.104 Amperes 3'6" feet from standard compass 1'6" 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 one degrees on S.S.W. course in the case of the standard compass and one and half degrees on S course in the case of the steering compass.

Mario Lamoureux

Builder's Signature.

Date

June 1919.

**GENERAL REMARKS.**

The workmanship and materials are of good quality and all carried out in accordance with the Rules

*It is submitted that this vessel is eligible for THE RECORD.*

ELL 5/8/19

A. J. Matheson

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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