

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 18444

Port of *Hull* Date of First Survey *Oct 10th* Date of Last Survey *26th Oct* No. of Visits *eight*
 No. in Reg. Book *22* on the ~~Iron or Steel~~ *Sc. Sr. Iron* Port belonging to *Valparaiso*
 Built at *Hull* By whom *Charles G. La* When built *1906*
 Owners *Comp. Sud Americana de Vap* Owners' Address *Valparaiso*
 Yard No. *522* Electric Light Installation fitted by *J. H. Holmes & Co Newcastle* When fitted *1906*

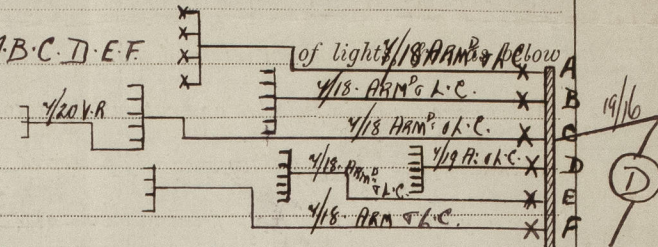
DESCRIPTION OF DYNAMO, ENGINE, ETC.

One *6" x 5"* Open type *Foster* Engine *90 lbs* steam pressure = coupled to —
 One *12/11* Dynamo Compound Wound *550 Revs* per minute by *J. H. Holmes & Co*
 Capacity of Dynamo *65* Amperes at *100* Volts, whether continuous or alternating current *continuous*

Where is Dynamo fixed *Engine Room Starboard Side*

Position of Main Switch Board *near Dynamo* having switches to groups *A B C D E F*

Positions of auxiliary switch boards and numbers of switches on each
 A. *1-4 way DP fusebox aft end Starboard Alleyway* D. *1-4 way DP fusebox in to port Room*
 B. *1-6 " " in Stewards Room Port Side* E. *1-6 " " " Engine Room*
 C. *1-6 " " " Mess Room Starboard Side* F. *1-4 " " " Ford's End Starboard Alleyway*
 C. *1-5 " " " Carpenters Berth Ford*



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 *50* 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

Yes 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 *104* arranged in the following groups:—

Group	Description	Number of Lights	Each of	Candle Power	Requiring a total current of	Amperes
A	Navigation	12	lights each of	16 cp. 5-32 cp 3-8 cp	4.88	Amperes
B	Engines	16	lights each of	16	8.96	Amperes
C	Cargo and Stow	16	lights each of	16	8.96	Amperes
D	Cargo aft	14	lights each of	16	4.64	Amperes
E	Accommodation	19	lights each of	16	10.74	Amperes
F	Port aft	24	lights each of	20-16 + 7-8	12.16	"
	2" Mast head light with 1 lamp each of	32			1.92	Amperes
	2" Side light with 1 lamp each of	32			1.92	Amperes
	8 Cargo lights of 3-16				incandescent	

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

Where are the switches controlling the masthead and side lights placed *Chart House*

DESCRIPTION OF CABLES.

Description	Amperes	Comprised of	Wires	Each	L.S.G. diameter	Square inches total sectional area
Main cable carrying	55		19	wires, each	16	L.S.G. diameter, .0604 square inches total sectional area
Branch cables carrying	8.96		4	wires, each	18	L.S.G. diameter, .0125 square inches total sectional area
Branch cables carrying	4.64		4	wires, each	19	L.S.G. diameter, .0084 square inches total sectional area
Leads to lamps carrying	.56		1	wire, each	18	L.S.G. diameter, .0018 square inches total sectional area
Cargo light cables carrying	1.68		108	wires, each	38	L.S.G. diameter, .0032 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Cables are insulated with pure rubber, Vulcanised & taped & further protected by lead or iron sheathing where required

Joints in cables, how made, insulated, and protected

Splined Soldered & insulated with rubber protective tapes &c.

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 Cabins, lead covered clipped up, Iron pipes in Holds, Tween Decks, Engine Boiler Rooms. Tunnel shafts leads L.C. & Armoured*

DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible

Yes When cargo is out

What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture

L.C. & Unmoored cables

What special protection has been provided for the cables near galley 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

Insulating Bushes

through bulkheads, &c.

Bulkhead glands

How are cables carried through decks

Deck 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 pipes

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

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

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 supplied with a voltmeter ~~no~~ But not

an amperemeter, fixed on main Bd.

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.

J. H. Holmes - Co

Electrical Engineers

Date

22/11/06

COMPASSES.

Distance between dynamo or electric motors and standard compass

64 ft } about
56 ft }

Distance between dynamo or electric motors and steering compass

The nearest cables to the compasses are as follows:—

A cable carrying	7.88	Amperes	16	feet from standard compass	13	feet from steering compass
A cable carrying	8.96	Amperes	30	feet from standard compass	25	feet from steering compass
A cable carrying	5.32	Amperes	30	feet from standard compass	25	feet from steering compass

Have the compasses been adjusted with and without the electric installation at work at full power

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.

Builder's Signature.

Date

GENERAL REMARKS.

This vessel having been fitted with an Electric Light Installation, is eligible in my opinion to have same noted in the Register Book.

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

Committee's Minute

It is submitted that the Record Elec. Light be noted in the Reg. Book.

Lloyd's Register Foundation

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

REPORT FORM No. 17.