

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 18586

Port of Hull Date of First Survey Gov. 12th Date of Last Survey 27.12.06 No. of Visits 11
 No. in on the Iron or Steel S.S. "Lebe" No 523 Port belonging to Valparaiso
 Reg. Book 35 Buff Built at Hull By whom Carlos G. Ld. When built 1906
 Owners Compania Sub-Productos de Vapores Owners' Address Valparaiso
 Yard No. 523 Electric Light Installation fitted by J. N. Holmes & Co Newcastle When fitted 1906

DESCRIPTION OF DYNAMO, ENGINE, ETC.

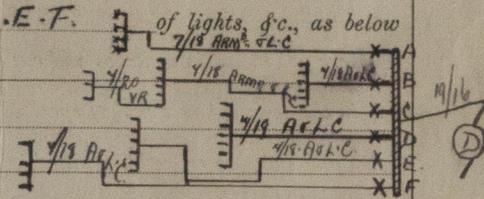
One 6" x 5" open type Foster engine 90 lbs steam pressure — coupled to —
 One 12A Dynamo, compound wound, 350 Revs: P.M.

Capacity of Dynamo 65 Amperes at 100 Volts, whether continuous or alternating current continuous

Where is Dynamo fixed Engine Room Starb^d side Whether single or double wire system is used Double

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 — Do — aft end Starb^d alleyway
 B - 1-6 — Do — in Stewards Room Aft side
 C - 1-6 — Do — in Mess Room Starb^d side
 D - 1-4 — Do — in Chart Room
 E - 1-4 — Do — Engine " fore end of Starb^d alleyway
 F - 1-4 — Do — " "



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 10A arranged in the following groups:—

Group	Description	Number of Lights	Wattage / Amps	Current	Type
A	Navigation	12	4-16-5-32-3-8	7.88	Amperes
B	Engines	16	16	8.96	Amperes
C	Cargos Fore	16	16	8.96	Amperes
D	Cargos Aft	14	16	4.64	Amperes
E	Accom ^d Starb ^d	19	16	10.44	Amperes
	" fore aft	24	20-16-4-8	13.16	Amperes
included	Mast head lights with	1 lamp each	32	1.92	Amperes
in above	Side lights with	1 lamp each	32	1.92	Amperes
	8 Cargo lights of	3-16 ep.			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.

Main cable carrying 55 Amperes, comprised of 19 wires, each 16 L.S.G. diameter, .0604 square inches total sectional area
 Branch cables carrying 8.96 Amperes, comprised of 7 wires, each 18 L.S.G. diameter, .0125 square inches total sectional area
 Branch cables carrying 4.64 Amperes, comprised of 4 wires, each 19 L.S.G. diameter, .0084 square inches total sectional area
 Leads to lamps carrying .56 Amperes, comprised of 1 wires, each 18 L.S.G. diameter, .0018 square inches total sectional area
 Cargo light cables carrying 1.68 Amperes, comprised of 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 & iron sheathing where required

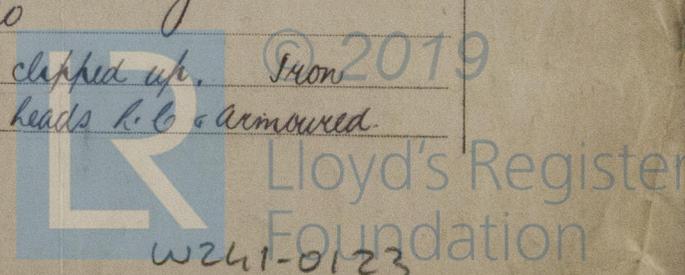
Joints in cables, how made, insulated, and protected

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 - Engines & Boiler Rooms Tunnel starb^d heads 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. 6 & arm^d cables

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 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 —————

The installation is ————— supplied with a voltmeter — But not an amperemeter, fixed on Main Bd

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.

M. H. M. Co. Electrical Engineers Date 18/12/06

COMPASSES.

Distance between dynamo or electric motors and standard compass 64 ft } about

Distance between dynamo or electric motors and steering compass 56 " }

The nearest cables to the compasses are as follows:—

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

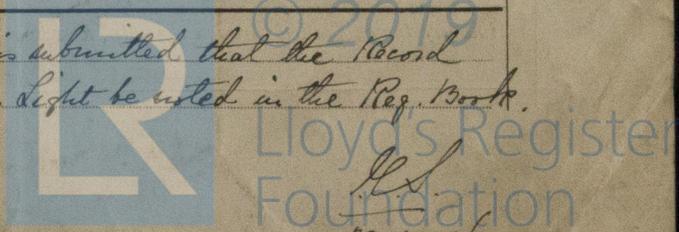
GENERAL REMARKS.

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



28.12.06

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

REPORT FORM No. 43-2m34.