

# REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

11 MAR 1929

Received at London Office

Date of writing Report 26<sup>th</sup> Feb. 1929 When handed in at Local Office 1<sup>st</sup> Mar. 1929 Port of Bilbao

No. in Survey held at Bilbao Date, First Survey Nov. 25<sup>th</sup> 1928 Last Survey Feb. 19<sup>th</sup> 1929  
 Reg. Book. (Number of Visits 12)

on the Steel ex. M.V. "AYALA-MENDI" Tons { Gross 2954.69  
 Net 1527.06

Built at Bilbao By whom built Bia Euskalduna Yard No. 79 When built 1929

Owners Bia Nav. Sola y Aznar Port belonging to Bilbao

Electric Light Installation fitted by Bia Euskalduna Contract No. ✓ When fitted 1929

System of Distribution Constant pressure, parallel, two wire insulated system

Pressure of supply for Lighting 110 ✓ volts, Heating 220 ✓ volts, Power 220 ✓ volts.

Direct or Alternating Current, Lighting Direct ✓ Power Direct ✓

If alternating current system, state frequency of periods per second ✓

Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off Yes

Generators, do they comply with the requirements regarding rating Yes ✓, are they compound wound Yes ✓

are they over compounded 5 per cent. Yes ✓, if not compound wound state distance between each generator. ✓

Where more than one generator is fitted are they arranged to run in parallel Yes ✓, is an adjustable regulating resistance fitted in series with each shunt field Yes ✓

Are all terminals accessible, clearly marked, and furnished with sockets Yes ✓, are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched Yes ✓

Position of Generators Port side of Engine Room ✓, are the lubricating arrangements of the generators as per Rule Yes ✓

is the ventilation in way of the generators satisfactory Yes ✓, are they clear of all inflammable material Yes ✓

if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the generators ✓

and ✓, are the generators protected from mechanical injury and damage from water, steam or oil Yes ✓

are their axes of rotation fore and aft Yes ✓

Earthling, are the bedplates and frames of the generating plant efficiently earthed Yes ✓ are the prime movers and their respective generators in metallic contact Yes ✓

Main Switch Boards, where placed On platform across forward end of Engine Room ✓

If the generators and main switchboard are not placed in the same compartment, is each generator provided with a fuse on each insulated pole as near as possible to the terminals of the generator, additional to that provided on the main switchboard ✓

Switchboards, are they placed in accessible positions, free from inflammable gases and acid fumes Yes ✓

are they protected from mechanical injury and damage from water, steam or oil Yes ✓, if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the switchboards ✓ and ✓

are they constructed wholly of durable, non-ignitable non-absorbent materials Yes ✓, is all insulation of high dielectric strength and of permanently high insulation resistance Slate panels ✓, if semi-insulating material is used, are all conducting parts insulated from the slab with mica or micamite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework Yes ✓

and is the frame effectively earthed Yes ✓ Are the fittings as per Rule regarding: — spacing or shielding of live parts Yes ✓

accessibility of all parts Yes ✓, absence of fuses on back of board Yes ✓, proportion of omnibus bars Yes ✓, individual fuses to voltmeter, pilot or earth lamp Yes ✓, connections of switches Yes ✓

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches Each generator fitted with double pole automatic switch, with reverse and overload trips, and with interlocked equalizer switch. Each outgoing circuit fitted with double pole switch, with fuses on each pole. ✓

Instruments on main switchboard 3 ✓ ammeters 3 ✓ voltmeters and ✓ synchronising device for paralleling purposes. Earth lamps ✓

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system ✓

Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules Yes ✓

Joint Boxes Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule Yes ✓



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All Conductors are of annealed copper conforming to British Standard Specification No. 7.

The Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.

The foregoing is a correct description.

El Director Técnico,

Electrical Engineers.

Date

#### COMPASSES.

Distance between electric generators or motors and standard compass 16 metres

Distance between electric generators or motors and steering compass 13 "

The nearest cables to the compasses are as follows:—

A cable carrying 10 Amperes feet from standard compass 2 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

Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted Yes

The maximum deviation due to electric currents was found to be 11 degrees on course in the case of the standard compass, and degrees on the case of the steering compass.

El Director Técnico,

Builder's Signature.

Date

Is this installation a duplicate of a previous case Yes If so, state name of vessel "ANBOTO-MENDI"

General Remarks (State quality of workmanship, opinions as to class, etc.)

The Electrical Installation has been satisfactorily fitted on board this vessel, in accordance with the Rules as approved, and is eligible in my opinion to be classed, with the notation of "Electric Light" and "Wireless D.F." in the Register Book.

Note:— In consequence of an accident the auxiliary oil engine for No. 3 dynamo was considerably damaged and returned to the maker (Messrs. Sulzer Bros.) There was insufficient time for a new engine to be made, and as a temporary measure a completed engine of a somewhat smaller power was forwarded and connected to No. 3 dynamo. The Installation was tested and found mechanically efficient, however it is recommended that the class of the vessel be subject to an auxiliary oil engine of proper power being fitted to No. 3 dynamo. It is stated that a new auxiliary oil engine is under construction and will be forwarded on completion to be fitted on board the vessel.

It is submitted that this vessel is eligible for THE RECORD. ELEC. LIGHT.

Total Capacity of Generators 185 Kilowatts.

The amount of Fee ... 1728 = { When applied for, 6/3 1929. When received, 6/3 1929. Travelling Expenses (if any) £ : : 6/3 1929.

Committee's Minute

Assigned

TUE. 12 MAR 1929

Elec Light

Surveyor to Lloyd's Register of Shipping.

FRI. 21 JUN 1929

FRI. 19 JUL 1929

TUE. 24 SEP 1929

TUE. 19 NOV 1929

TUE. 10 DEC 1929

TUE. 14 JAN 1930

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