

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

-8 APR 1929

Date of writing Report 26th March 1929 Date handed in at Local Office 4th April 1929 Port of Cadiz

No. in Survey held at Vigo Date, First Survey Jan 18/1929, Last Survey Feb 20 1929.

Reg. Book. on the SS "TORRES GARCIA" (Number of Visits.....)

Built at Vigo By whom built Lips de J. Barreras S. O. Ward No. 457 Tons { Gross ✓ Net 69.64 When built 1929.

Owners: Portuguese Government Port belonging to Lisbon

Electric Light Installation fitted by Lips de J. Barreras, S. O. Contract No. 457 When fitted 1929.

System of Distribution Parallel, direct current.

Pressure of supply for Lighting 110 Volts volts, Heating none volts, Power none volts.

Direct or Alternating Current, Lighting Direct- Power ✓

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 one generator, is an adjustable regulating resistance fitted in series with each shunt field ✓

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 Generator Starboard side of engine room. 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 three feet and none, are the generators protected from mechanical injury and damage from water, steam or oil Yes.

are their axes of rotation fore and aft Yes.

Earthing, 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 beside generator.

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.

woodwork or other combustible material, state distance of same horizontally from or vertically above the switchboards 2 feet 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 Yes.

if semi-insulating material is used, are all conducting parts insulated from the slab with mica or microwile 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. To generator, double pole overload circuit-breaker. To each outgoing circuit single pole fuse and switch. See the 15/4/29 re outgoing circuits.

Instruments on main switchboard one ammeter one voltmeter ✓ synchronising device for paralleling purposes.

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system lamp on each pole.

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.

Cables: Single, twin, concentric, or multicore single are the cables insulated and protected as per Tables IV or V of the Rules Yes.

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load none.

Cable Sockets and other connections, are the ends of all cables having a sectional area of 0.04 square inch and above provided with soldering sockets none.

Paper Insulated Cables. If cables are paper covered, is the dielectric at the exposed ends of the conductor protected from moisture by being suitably sealed with insulating compound ✓.

Cable Runs, are the cables fixed as far as possible in accessible positions not exposed to drip or accumulation of water or oil, or to high temperature from boilers, steam pipes, uptakes or other hot objects, or to avoidable risk of mechanical damage Yes.

Support and Protection of Cables, state how the cables are supported and protected Clips.

If cables are run in wood casings, are the casings and caps secured by screws ✓, are the cap screws of brass ✓, are the cables run in separate grooves ✓. If armoured and lead covered cables are secured by metal clips, are the clips spaced as per Table VIII Yes.

Refrigerated Chambers, if lights are fitted, are the cables and fittings in accordance with the special requirements ✓.

Joints in Cables, state if any, and how made, insulated, and protected ✓.

Watertight Glands and Deck Tubes, are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands Yes.

Bushes in Beams and Non-watertight Partitions, where warmmored cables pass through beams and non-watertight partitions, are the holes efficiently bushed Yes, state the material of which the bushes are made lead.

Earthing Connections, state what earthing connections are fitted and their respective sectional areas ✓.

are their connections made as per Rule ✓.

Alternative Lighting, are the groups of lights in the propelling machinery space arranged as per Rule Yes.

Emergency Supply, state position and method of control of the emergency supply and how the generator is driven ✓.

Navigation Lamps, are these separately wired Yes, controlled by separate switch and separate fuses Yes, are the fuses double pole Yes, are the switches and fuses grouped in a position accessible only to the officers on watch Yes, has each navigation lamp an automatic indicator as per Rule no.

Secondary Batteries, are they constructed and fitted as per Rule ✓.

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, watertight Yes, are any fittings placed in spaces in which goods are liable to be stacked in close proximity to them; if so, how are they protected ✓, are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected ✓, how are the cables led ✓, where are the controlling switches situated ✓.

Searchlight Lamps, No. of none, whether fixed or portable ✓, are their fittings as per Rule ✓.

Are Lamps, other than searchlight lamps, No. of ✓, are their live parts insulated from the frame or case ✓, are their fittings as per Rule ✓.

Motors, are their working parts readily accessible ✓, are the coils self-contained and readily removable for replacement ✓, are the brushes, brush holders, terminals and lubricating arrangements as per Rule ✓, are the motors placed in well-ventilated compartments in which inflammable gases cannot accumulate and clear of all inflammable material ✓, are they protected from mechanical injury and damage from water, steam or oil ✓, are their axes of rotation fore and aft ✓, if situated near unprotected woodwork or other combustible material, are the motors of the totally enclosed, pipe ventilated, forced draught, drip or flame proof type ✓, if not of this type, state distance of the combustible material horizontally or vertically above the motors ✓ and ✓.

Control Gear and Resistances, are the generator field and motor speed regulators, starters and controllers constructed and fitted as per Rule ✓.

Lightning Conductors, where lightning conductors are required, are these fitted as per Rule none.

Ships carrying Oil having a Flash Point less than 150° F. Have the special requirements of the Rules been complied with regarding switches, joint boxes, section and distribution boards, protection of cables, method of distribution, lead of cables, lights and fittings ✓.

If portable lamps for use in dangerous spaces are supplied, are they of a type approved by the Home Office ✓.

PARTICULARS OF GENERATING PLANT.									
DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.		
		Kilowatts.	Volts.	Amperes.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.	
MAIN ...	<u>one</u>	<u>1.5</u>	<u>110</u>	<u>15</u>	<u>750</u>	<u>Steam reciprocating engine</u>	<u>✓</u>	<u>✓</u>	
AUXILIARY ...	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>			
EMERGENCY ...	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>			
ROTARY TRANSFORMER	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>			

LIGHTING AND HEATING CONDUCTORS.									
Ref. No.	DESCRIPTION.	No. of Conductors.	Effective Area of each Conductor.	COMPOSITION OF STRAND.		Total Maximum Current.	Approximate Length (Lead and Return) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	MAIN GENERATOR...	<u>2</u>	<u>3.62 1/2</u>	<u>4</u>	<u>0.85 1/2</u>	<u>15</u>	<u>15</u>	<u>rubber</u>	<u>lead covered</u>
	EQUALISER CONNECTIONS	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	AUXILIARY GENERATOR	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	EMERGENCY GENERATOR	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	ROTARY TRANSFORMER...	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	AUXILIARY SWITCHBOARDS	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	ENGINE ROOM ...	<u>2</u>	<u>1.58 1/2</u>	<u>1</u>	<u>1.4 1/2</u>	<u>5</u>	<u>40 ft.</u>	<u>rubber</u>	<u>lead covered</u>
	BOILER ROOM ...	<u>2</u>	<u>1.58 1/2</u>	<u>1</u>	<u>"</u>	<u>5</u>	<u>40 ft.</u>	<u>"</u>	<u>"</u>
	ACCOMMODATION ...	<u>2</u>	<u>1.58 1/2</u>	<u>1</u>	<u>"</u>	<u>5</u>	<u>130 ft.</u>	<u>"</u>	<u>"</u>
	WIRELESS ...	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	SEARCHLIGHT ...	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	MASTEAD LIGHT...	<u>2</u>	<u>1.58 1/2</u>	<u>1</u>	<u>1.4 1/2</u>	<u>5</u>	<u>130 ft.</u>	<u>rubber</u>	<u>lead covered</u>
	SIDE LIGHTS...	<u>2</u>	<u>1.58 1/2</u>	<u>1</u>	<u>"</u>	<u>5</u>	<u>80 ft.</u>	<u>"</u>	<u>"</u>
	COMPASS LIGHTS ...	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	POOP LIGHTS ...	<u>2</u>	<u>1.58 1/2</u>	<u>1</u>	<u>1.4 1/2</u>	<u>5</u>	<u>80 ft.</u>	<u>rubber</u>	<u>lead covered</u>
	CARGO LIGHTS ...	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	ARC LAMPS ...	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	HEATERS ...	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>

MOTOR CONDUCTORS.									
Ref. No.	DESCRIPTION.	No. of Motors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Am. circ.	Approximate Length (Lead and Return) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	BALLAST PUMP ...	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	MAIN BILGE LINE PUMPS ...	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	GENERAL SERVICE PUMP ...	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	EMERGENCY BILGE PUMP ...	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	SANITARY PUMP ...	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	CIRC. SEA WATER PUMPS ...	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	CIRC. FRESH WATER PUMPS ...	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	AIR COMPRESSOR ...	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	FRESH WATER PUMP ...	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	ENGINE TURNING GEAR ...	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	ENGINE REVERSING GEAR ...	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	LUBRICATING OIL PUMPS ...	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	OIL FUEL TRANSFER PUMP ...	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	WINDLASS ...	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	WINCHES, FORWARD ...	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	WINCHES, AFT ...	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	STEERING GEAR—	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	(a) MOTOR GENERATOR...	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	(b) MAIN MOTOR ...	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	WORKSHOP MOTOR ...	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
	VENTILATING FANS ...	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>

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.

HJOS DELI BARBERAS, S. A.

UN DIRECTOR

Electrical Engineers.

Date 30th March 1929.

COMPASSES.

Distance between electric generators or motors and standard compass

30 ft.

Distance between electric generators or motors and steering compass

"

The nearest cables to the compasses are as follows:—

A cable carrying 2 Ampères 5 feet from standard compass feet from steering compass.

A cable carrying Ampères feet from standard compass feet from steering compass.

A cable carrying Ampères 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 0 degrees on straight course in the case of the standard compass, and 0 degrees on course in the case of the steering compass.

HJOS DELI BARBERAS, S. A.

UN DIRECTOR

Builder's Signature.

Date 30th March 1929.

Is this installation a duplicate of a previous case

No

If so, state name of vessel

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

This installation has been fitted in accordance with the Rules, the materials and workmanship are good and after completion was tested under working conditions and found satisfactory. In my opinion it is eligible for the record of "Electric Light".

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

Elec. Light

27. 8/4/29.

Total Capacity of Generators 1.5 Kilowatts.

The amount of Fee ...

Charged on Machinery

When applied for,

19

Travelling Expenses (if any) £

When received,

19

Thomas Miller

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

Elec. Light



© 2020

Lloyd's Register Foundation