

3 FEB 1927

Rpt. 13.

No. 1507.

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)
Received at London Office 28 FEB 1927

Date of writing Report 14 Feb 1927 When handed in at Local Office 14 Feb 1927 Port of Nantes

No. in Survey held at St Nazaire Date, First Survey 8. 10. 26 Last Survey 12 Feb 1927
(Number of Visits 19)

Sup^{er} Reg. Book.

89453 on the T.S.S. partique owned ITAIMBÉ

Tons { Gross 4993
Net 2941

Built at St Nazaire By whom built Ch. et Atel. de St. Naz. Penhoët Yard No. 05 When built 1927-2.

Owners Companhia Nacional Navegacao Costeira Port belonging to Rio de Janeiro

Electric Light Installation fitted by Ch. et Atel. de St. Nazaire Penhoët Contract No. 05 When fitted 1927

System of Distribution Two wire direct current ✓
Pressure of supply for Lighting 110 volts, Heating _____ volts, Power 110 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 overload 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 and clearly marked Yes ✓, are they so spaced or shielded that they cannot be accidentally earthed, or short circuited Yes ✓

Position of Generators Main: on port tween deck in engine room. Emergency: on casing port side, boat deck. ✓
Are the lubricating arrangements of the generators as per Rule Yes ✓, are they clear of all inflammable material Yes ✓

is the ventilation in way of the generators satisfactory 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 axis of rotation fore and aft Yes ✓ are the prime movers and _____

Earthing, are the bedplates and frames of the generating plant efficiently earthed Yes ✓

their respective generators in metallic contact Yes ✓

Main Switch Boards, where placed Main: on starboard side behind dynamo. Emergency: on bulkhead at dynamo. ✓
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 ✓, if situated near unprotected _____

are they protected from mechanical injury and damage from water, steam or oil _____ and _____

woodwork or other combustible material, state distance of same horizontally from or vertically above the switchboards _____

are they constructed wholly of durable, incombustible 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 connected to one pole _____

insulated from the slab with mica or micaite and the slab similarly insulated from its framework Yes ✓, and is the _____

frame effectively earthed Yes ✓ Are the following fittings as per Rule, viz.:— spacing or shielding of live parts _____

_____ 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 ✓

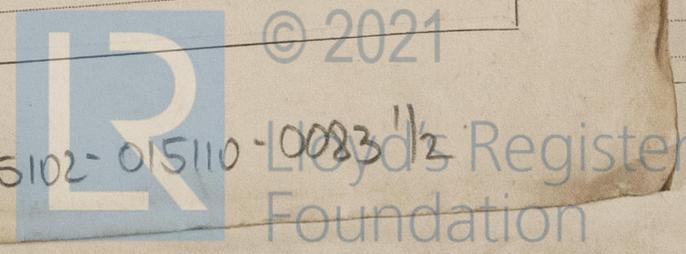
Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches Double pole main switch with overload & reverse current trips, interlocked with single pole equalizer switch for each main generator. Single pole switch for each circuit. ✓

Instruments on main switchboard 2 ammeters 2 voltmeters 2 synchronising device for paralleling purposes. 2 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 ✓

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



Insulation of Cables, state type of cables, single or twin *single* are the cables insulated and protected as per Tables III or IV of the Rules *Ys*

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load *3 Volts*

Cable Sockets and other connections, are the ends of all cables having a sectional area of 0.007 square inch and above provided with soldering sockets *Ys*

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 *Ys*

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 *Ys*

Support and Protection of Cables, state how the cables are supported and protected *All leads in E & B spaces on weather decks are lead covered armoured & braided & secured by clips. All other leads lead covered & clipped or in casings of wood. If cables are run in wood casings, are the casings and caps secured by screws *Ys*, are the cap screws of brass *Ys*, are the cables run in separate grooves *No*. If armoured and lead covered cables are secured by metal clips, are the clips spaced as per Table VI *Ys**

Refrigerated Chambers, if lights are fitted, are the cables and fittings in accordance with the special requirements *None fitted in chamber*

Joints in Cables, state if any, and how made, insulated, and protected *None except in junction boxes*

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

Bushes in Beams and Non-watertight Positions, where unarmoured cables pass through beams and non-watertight partitions, are the holes efficiently bushed *Ys* state the material of which the bushes are made *Ys*

Earthing Connections, state what earthing connections are fitted and their respective sectional areas *Ys*

are their connections made as per Rule *Ys*

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

Emergency Supply, state position and method of control of the emergency supply and how the generator is driven *Emergency dynamo fitted in room in casing port side of boat deck. Fitted with double pole switches connecting emergency groups to main or emergency boards. Driven by 4 cylinder petrol working paraffin motor.*

Navigation Lamps, are they separately wired *Ys*, controlled by separate switch and separate fuses *Ys*

are the fuses double pole *Ys*, are the switches and fuses grouped in a position accessible only to the officers on watch *Ys*

has each navigation lamp an automatic indicator as per Rule *Ys*, are separate screens provided for the use of oil and electric side lights *Ys*

are separate oil lanterns provided for the mast head lights and side lights *Ys*

Fittings, are all fittings on weather decks, in stowholds and engine rooms and wherever exposed to drip or condensed moisture, watertight *Ys*

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 *Ys*

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected *No*

how are the cables led *Ys*

where are the controlling switches situated *Ys*

are the controlling switches situated *Ys*

Searchlight Lamps, No. of *One*, whether fixed or portable *fixed*, are their fittings as per Rule *Ys*

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

Motors, are their working parts readily accessible *Ys*, are the coils self-contained and readily removable for replacement *Ys*

are the brushes, brush holders, terminals and lubricating arrangements as per Rule *Ys*, are the motors placed in well-ventilated compartments in which inflammable gases cannot accumulate and clear of all inflammable material *Ys*

are they protected from mechanical injury and damage from water, steam or oil *Ys* are their axis of rotation fore and aft *Ys*

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 *Ys*

if not of this type, state distance of the combustible material horizontally or vertically above the motors *Ys*

Control Gear and Resistances, are the generator field and motor speed regulators, starters and controllers constructed as per Rule *Ys*

Lightning Conductors, where lightning conductors are required, are these fitted as per Rule *Ys*

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 *Ys*

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

are they of a type approved by the Home Office *Ys*

are they of a type approved by the Home Office *Ys*

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No of	RATED AT				DRIVEN BY.	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Ampères.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	2	2065-130	110	590 ad.	500	Compound steam engine by W. H. Allen & Son, Bradford	—	—
AUXILIARY	—	—	—	—	—	—	—	—
EMERGENCY	1	8	110	72.5	800	4 cyl. petrol working paraffin motor by Gaudin & Mammullu	paraffin	—
ROTARY TRANSFORMER	—	—	—	—	—	—	—	—

LIGHTING AND HEATING CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Conductors.	Effective Area of each Conductor Sq. Ins. 77° F.	COMPOSITION OF STRAND.		Total Maximum Current Ampères.	Approximate Length (Lead and Return) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	MAIN GENERATOR	2	666	122	20/0	600	9	Rubber lead covered	Armoured & braided
	AUXILIARY GENERATOR	—	—	—	—	—	—	—	—
	EMERGENCY GENERATOR	2	38.2	19	16/0	—	6	—	—
	ROTARY TRANSFORMER	—	—	—	—	—	—	—	—
	AUXILIARY SWITCHBOARDS	—	—	—	—	—	—	—	—
	ENGINE ROOM	2	7.9	7	12/0	32	26	—	—
	BOILER ROOM	—	—	—	—	—	—	—	—
	Emergency light interior	2	6.65	7	11/0	24	55	—	—
	interior	2	7.92	7	12/0	26	55	—	—
	2 class 9. Meadows	2	14.1	7	16/0	26	70	—	—
	class 3. class	2	14.1	7	16/0	16	100	—	—
N° 4	Wiring, music room &c	2	25.2	19	13/0	58	60	—	—
N° 3	1 st class aft. Promenade &c	2	65.0	37	15/0	110	35	—	—
	WIRELESS	2	24.20	37	9/0	14	80	—	—
	SEARCHLIGHT	2	6.65	7	11/0	20	70	—	—
	MASTHEAD LIGHT	2	6.65	7	11/0	5	40	—	—
	SIDE LIGHTS	—	—	—	—	—	—	—	—
	COMPASS LIGHTS	—	—	—	—	—	—	—	—
	POOP LIGHTS	—	—	—	—	—	—	—	—
	CARGO LIGHTS	2	14.1	7	16/0	40	30 A/ 40 F	—	—
	ARC LAMPS	—	—	—	—	—	—	—	—
	HEATERS	—	—	—	—	—	—	—	—

MOTOR CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Motors.	Effective Area of each Conductor Sq. Ins. 77° F.	COMPOSITION OF STRAND.		Total Maximum Current Ampères.	Approximate Length (Lead and Return) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	BALLAST PUMP	—	—	—	—	—	—	—	—
	MAIN BILGE LINE PUMPS	—	—	—	—	—	—	—	—
	GENERAL SERVICE PUMP	—	—	—	—	—	—	—	—
	EMERGENCY BILGE PUMP	—	—	—	—	—	—	—	—
	SANITARY PUMP	2	14.1	7	16/0	40	20	Rubber lead covered	Armoured & braided
	CIRC. SEA WATER PUMPS	—	—	—	—	—	—	—	—
	CIRC. FRESH WATER PUMPS	—	—	—	—	—	—	—	—
	AIR COMPRESSOR	—	—	—	—	—	—	—	—
	FRESH WATER PUMP	2	3.52	7	8/0	20	10	—	—
	ENGINE TURNING GEAR	—	—	—	—	—	—	—	—
	ENGINE REVERSING GEAR	—	—	—	—	—	—	—	—
	LUBRICATING OIL PUMPS	—	—	—	—	—	—	—	—
	OIL FUEL TRANSFER PUMP	—	—	—	—	—	—	—	—
	WINDLASS	—	—	—	—	—	—	—	—
	WINCHES, FORWARD	—	—	—	—	—	—	—	—
	WINCHES, AFT	—	—	—	—	—	—	—	—
	STEERING GEAR	2	128	37	21/0	160	70	—	—
	WORKSHOP MOTOR	2	2.69	7	7/0	13	20	—	—
	VENTILATING FANS E & B	2	19.5	7	19/0	50	50 + 40	—	—
	Cold air refrigerated	2	19.5	7	9/0	53	20	—	—
	Gally. fan	2	1.3	1	12/0	2.5	50	—	—
	Bath room &c	2	1.3	1	12/0	2.0	80	—	—
	Grand oven	2	128	37	21/0	160	45	—	—
N° 1.	Washing machine &c	2	14	7	16/0	4.2	45	—	—
N° 2.	Gally motors	2	38.2	19	16/0	8.4	45	—	—

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.

J. Savallo

Electrical Engineers.

Date *24/2/27*

COMPASSES.

Distance between electric generators or motors and standard compass *36"*

Distance between electric generators or motors and steering compass *36"*

The nearest cables to the compasses are as follows:—

A cable carrying *5* Ampères *9* feet from standard compass *9* 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

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

The maximum deviation due to electric currents 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.

M. M. M.

Builder's Signature.

Date *24.2.27.*

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. *Workmanship good.*)

This installation has been specially surveyed during fitting out and is in accordance with the approved plans and otherwise in accordance with the Rules. It has successfully withstood running tests and is eligible in my opinion for the notation of electric light in the Register Book.

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

Elec. Light.

25/2/27.

Total Capacity of Generators *138* Kilowatts

The amount of Fee *incl @ 123.00* *40* *4.125* : { When applied for, *1927.*
Travelling Expenses (if any) *680.* : { When received, *11.3.27*

Geo. L. Laming
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned *Elec Light*

5c. 1248.—Transfer. (The Surrogors are requested not to write on or below the space for Committee's Minute.)



© 2021

Lloyd's Register Foundation