

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

8-MAR-1948

Date of writing Report. 3<sup>rd</sup> FEB 1948 When handed in at Local Office.....19..... Port of LISBON

No. in Survey held at ALFEITE Date, First Survey 22-4-47 Last Survey 3<sup>rd</sup> FEB 1948  
Reg. Book. (Number of Visits.....7.....)

32485 on the MOTOR TANKER SAMEIRO Tons {Gross...7416...  
Net...4339...}

Built at ALFEITE By whom built ARSENAL DO ALFEITE Yard No. 15 When built 1948

SOCIEDADE PORTUGUESA DE NAVIOS TANQUES, L<sup>DA</sup> "SOPONATA"  
Owners. SIA COLONIAL DE NAVEGACAO Port belonging to LISBON

Electrical Installation fitted by ARSENAL DO ALFEITE Contract No. - When fitted 1948

Is vessel fitted for carrying Petroleum in bulk YES Is vessel equipped with D.F. YES E.S.D. YES Gy.C. YES Sub.Sig. NO

Have plans been submitted and approved YES System of Distribution 2 WIRE Voltage of supply for Lighting 110

Heating 110 Power 110 Direct or Alternating Current, Lighting DIRECT Power DIRECT If Alternating Current state periodicity - Prime Movers,

has the governing been tested and found as per Rule when full load is suddenly thrown on and off YES Are turbine emergency governors fitted with a

trip switch as per Rule - Generators, are they compound wound YES, are they level compounded under working conditions YES,

if not compound wound state distance between generators - and from switchboard - Where more than one generator is fitted are they

arranged to run in parallel YES, are shunt field regulators provided YES Is the compound winding connected to the negative or positive pole

NEGATIVE Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing - Have certificates of

test for machines under 100 kw. been supplied YES and the results found as per rule YES Are the lubricating arrangements and the construction

of the generators as per rule YES Position of Generators PORT SIDE E.R. AT PLATFORM LEVEL

is the ventilation in way of generators satisfactory YES are they clear of inflammable material YES, if situated

near unprotected combustible material state distance from same horizontally - and vertically -, are the generators protected from mechanical

injury and damage from water, steam and oil YES, are the bedplates and frames earthed YES and the prime movers and generators in metallic

contact YES Switchboards, where are main switchboards placed FORWARD E.R. BULKHEAD, PORT SIDE

are they in accessible positions, free from inflammable gases and acid fumes YES, are they protected from mechanical injury and damage from water, steam

and oil YES, if situated near unprotected combustible material state distance from same horizontally - and vertically -, what insulation

material is used for the panels EBONITE & BAKELITE, if of synthetic insulating material is it an Approved Type YES, if of

semi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule - Is the frame effectually earthed YES

Is the construction as per Rule YES, including accessibility of parts YES, absence of fuses on the back of the board YES, individual fuses

to pilot and earth lamps, voltmeters, etc., YES locking of screws and nuts YES, labelling of apparatus and fuses YES, fuses on the "dead"

side of switches YES Description of Main Switchgear for each generator and arrangement of equaliser switches CIRCUIT BREAKERS WITH OVERLOAD AND REVERSE CURRENT TRIPS

and for each outgoing circuit DP LINKED SWITCHES

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule W.I. IRON Instruments on main switchboard 3

ammeters 3 voltmeters - synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to the

equaliser connection YES Earth Testing, state means provided 2 EARTH LAMPS

Switches, Circuit Breakers and Fuses, are they as per Rule YES, are the fuses an approved type YES, are all fuses labelled as

per Rule YES If circuit breakers are provided for the generators, at what overload current did they open when tested +50%, are the reversed current

protection devices connected on the pole opposite to the equaliser connection YES, have they been tested under working conditions, and at what current

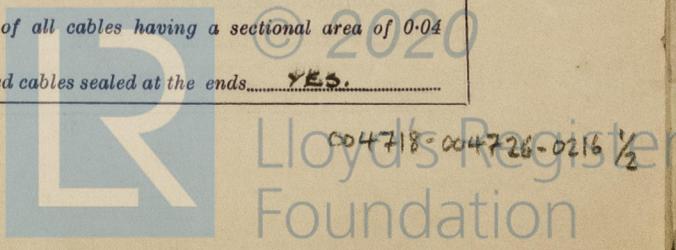
did they operate 15% Joint Boxes, Section Boards and Distribution Boards, is the construction and position as per Rule YES

Cables, are they insulated and protected as per the appropriate Tables of the Rules YES, if otherwise than as per Rule are they of an approved type -,

state maximum fall of pressure between bus bars and any point under maximum load NIL, are the ends of all cables having a sectional area of 0.04

square inch and above provided with soldering sockets YES Are paper insulated and varnished cambric insulated cables sealed at the ends YES

Handwritten initials and signature: B.P.  
B.A.A.B.



with insulating compound **YES** or waterproof insulating tape. Are all the cable runs in accessible positions, not exposed to drip or accumulation of water or oil, high temperatures or risk of mechanical damage **YES**, are cables laid under machines or floorplates **NO**, if so, are they adequately protected. Are cables in machinery spaces, galleys, laundries, etc., lead covered **YES** or run in conduit. State how the cables are supported and protected. **STEEL PLATES & CLIPS AS PER RULE**

Are all lead sheaths, armouring and conduits effectually bonded and earthed **YES**. Refrigerated chambers, are the cables and fittings as per Rule. Are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands. **GLANDS**, where unarmoured cables pass through beams, etc., are the holes effectually bushed **YES** and with what material. **BRASS**. Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule **YES**. Emergency Supply, state position. and method of control.

Navigation Lamps, are they separately wired **YES** controlled by separate double pole switches **YES** and fuses **YES**. Are the switches and fuses in a position accessible only to the officers on watch **YES**, is an automatic indicator fitted **YES**. Secondary Batteries, are they constructed and fitted as per Rule. are they adequately ventilated. what is the battery capacity in ampere hours.

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof **YES**. Are fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present **YES**, if so, how are they protected.

**W.T. & GAS TIGHT FITTINGS**  
and where are the controlling switches fitted. **INSIDE ACCOMMODATION**, are all fittings suitably ventilated. are all fittings and accessories constructed and installed as per Rule **YES**. Searchlight Lamps, No. of. whether fixed or portable. are their fittings as per Rule. Heating and Cooking, is the general construction as per Rule. are the frames effectually earthed. are heaters in the accommodation of the convection type. Motors, are all motors constructed and installed as per Rule **YES** and placed in well-ventilated compartments in which inflammable gases cannot accumulate and free from damage from water, steam and oil **YES**, if situated near unprotected combustible material state minimum distance from same horizontally and vertically. Are motors coupled to oil fuel transfer and unit pressure pumps capable of being stopped from a position accessible in the event of fire in the pump compartment. Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing. Have certificates of test for motors under 100 BHP intended for essential services been supplied and the results found as per Rule. Control Gear and Resistances, are they constructed and fitted as per Rule **YES**. Lightning Conductors, where required are they fitted as per Rule. Ships carrying Oil having a Flash Point less than 150° F. Have all the special requirements of the Rules for such ships been complied with **YES**, are all fuses of the cartridge type **YES** are they of an approved type **YES**. Are the fittings for pump rooms, tween deck spaces, etc., in accordance with the special requirements for such ships **YES**. Are the cables lead covered as per Rule **YES**. Spare Gear, if the vessel is for open sea service have spares been provided as per Rule **YES**, are they suitably stored in dry situations **YES**. Insulation Tests, has the insulation resistance of all circuits and apparatus been tested and found satisfactory **YES**.

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No. of	RATED AT				WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.		
		Kilowatts.	Volts.	Ampères.	Revs. per Min.	Fuel Used.	Flash Point of Fuel.	
MAIN	1	50	110	455	450	DIESEL ENGINE	GASOIL	ABOVE 150° F
	1	50	110	455	500	STEAM ENGINE		
EMERGENCY	1	6	110	55	750	DIESEL ENGINE	GASOIL	ABOVE 150° F
ROTARY TRANSFORMER								

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
		No. in Parallel Per Pole.	Sectional Area or No. and Dia. of Strands. sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR	50	3	95	455	465	12	NEOPRENE	LEAD SHEATHED, WIRE BRAIDED
"	50	3	95	455	465	12	"	"
EQUALISER	6	1	25	55	64	18	RUBBER	IN CONDUIT
		3	55		300		"	LEAD SHEATHED, WIRE BRAIDED
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
"								
"								

MAIN DISTRIBUTION CABLES.

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
	No. in Parallel Per Pole.	Sectional Area or No. and Dia. of Strands. sq. mm.	In the Circuit.	Rule.			
AUX. SWITCHBOARDS AND SECTION BOARDS							
No I	1	50	17	158	124	PAPER	LEAD SHEATHED & ARMOURED
II	1	8	7	49	160	"	"
III	1	21	27	93	140	"	"
IV	1	33	58	119	140	"	"
V	1	12.5	34	41	34	NEOPRENE	"
VI	1	12.5	37	41	50	"	LEAD SHEATHED & WIRE BRAIDED
VII	1	8	26	34	10	"	"
VIII	1	8	16	34	14	"	"
IX	1	5	13	25	60	"	"

LIGHTING AND HEATING, ETC., CABLES.

DESCRIPTION.	No. in Parallel Per Pole.	Sectional Area or No. and Dia. of Strands. sq. mm.	In the Circuit.	Rule.	APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
WIRELESS	1	33	25	70	146	NEOPRENE	LEAD SHEATHED & ARMOURED
NAVIGATION LIGHTS	1	8	7	49	160	PAPER	"
LIGHTING AND HEATING							

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	CONDUCTORS.	MAXIMUM CURRENT IN AMPERES.	APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
			No. in Parallel Per Pole.	In the Circuit.			
FEED PUMP	1	1	33	64	70	80	NEOPRENE
TURNING GEAR	1	1	33	64	70	80	"
EVAPORATOR FEED PUMP	1	1	21	45	57	50	"
CENTRIFUGES	-	1	33	55	70	70	"
WORKSHOP	-	1	8	23	34	30	"
VENTILATION	-	1	3.3	6	18	50	"

The Electrical Equipment is installed in accordance with the approved plans and the requirements of the Rules.  
 All Insulated Conductors are guaranteed to have been tested at the maker's works as specified in the Rules.  
 The foregoing is a correct description.

*John Small* Electrical Engineers. Date 4/3/48

**COMPASSES.**

Minimum distance between electric generators or motors and standard compass 80 m.  
 Minimum distance between electric generators or motors and steering compass 80 m.

The nearest cables to the compasses are as follows:—

A cable carrying 10 Ampères 3 m. feet from standard compass 2 m. feet from steering compass.  
 A cable carrying 1 Ampères 2 m. feet from standard compass 2 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 \_\_\_\_\_ degrees on \_\_\_\_\_ course in the case of the standard compass, and \_\_\_\_\_ degree on \_\_\_\_\_ course in the case of the steering compass.

*John Small* Builder's Signature. Date 4 de April 1948

Is this installation a duplicate of a previous case NO If so, state name of vessel \_\_\_\_\_

Plans. Are approved plans forwarded herewith \_\_\_\_\_ If not, state date of approval 16-1-47

Certificates. Are certificates of test for motors engaged on essential services and generators forwarded herewith \_\_\_\_\_

General Remarks (State quality of workmanship, whether insulation tests, etc., have been made, opinions as to class, etc.) \_\_\_\_\_

*The electrical installation has been satisfactorily fitted on board in accordance with the approved plans, the Secretary's letters and the Society's Rules. The insulation and voltage drop have been tested throughout and found satisfactory.*

*The installation in my opinion is eligible to be classed.*

*noted*  
*6.4.48.*

Total Capacity of Generators 106 Kilowatts.

The amount of Fee ... Esc: £ 11,200/00. When applied for, 3 Feb. 1948.

Travelling Expenses (if any) £ — When received, 26 Feb. 1948 *Sh.*

*John Curshaw*  
 Surveyor to Lloyd's Register of Shipping.  
*for self + M. Dixon.*

Committee's Minute FRI 16 APR 1948

Assigned See F.E. mch. rpt.

5m.4.50.—Transfer. (MADE AND PRINTED IN ENGLAND.) (The Surveyors are requested not to write on or below the space for Committee's Minute.)

