

# REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report *14<sup>th</sup> June* 1928 When handed in at Local Office10 Port of *Copenhagen*

Received at London Office

23 JUL 1928

No. in Survey held at *Copenhagen*  
Reg. Book.Date, First Survey *2<sup>nd</sup> May*Last Survey *28<sup>th</sup> June*

1928

42833 on the *Steel Twin Screw Motor Vessel "SUD PACIFICO"*(Number of Visits *23*)Tons { Gross *4638.66*Net *2771.24*Built at *Copenhagen*By whom built *Akt. Burmeister & Wain's Maskin og Skibsbyggeri*Yard No. *547*When built *1928*Owners *7/8 Linea Sud Americana (Ivar An. Christensen)*Port belonging to *Oslo, Norway*Electric Light Installation fitted by *Akt. Burmeister & Wain's Maskin og Skibsbyggeri*. Contract No. *547*. When fitted *1928*

## System of Distribution

*Two conductors, insulated system.*

## Pressure of supply for Lighting

*110*

volts, Heating

☒volts, Power *220*

volts.

## Direct or Alternating Current, Lighting

*Direct current.*

Power

*Direct current.*

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. *0 per cent*

, 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*Are the lubricating arrangements of the generators as per Rule *yes*

## Position of Generators

*In the machinery space.*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  
*Not situated near unprotected woodwork or other combustible material.*, 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

*In the machinery space.*

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 *Not situated near unprotected woodwork or other combustible material.*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 micanite 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

*For each generator:— a three pole circuit breaker with overload and reversed current trip.**For each outgoing circuit:— a double pole switch and a double pole fuse.*

Instruments on main switchboard

*5*

ammeters

*4*

voltmeters

☒

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 *Two Voltmeters, — one for 220 Volts and one for 110 Volts are provided with Ohm scale and the switchboard is provided with 2 sets of earth testing lamps.*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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Foundation

006175-006188-014612



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

MOTOR CONDUCTORS.									
Ref. No.	DESCRIPTION.	No. of Motors.	Effective Area of each Conductor Sq. mm.	COMPOSITION OF STRAND. No.	Diameter. mm.	Total Maximum Current Amperes.	Approximate Length. (Load and Regain.) Feet.	Insulated with	HOW PROTECTED.
	BALLAST PUMP ...	1	25	7	2.13	58 ✓	abt 44	Vulcanized rubber	Lead covered and lead and steel wires around
	MAIN BILGE LINE PUMPS ...								
	GENERAL SERVICE PUMP ...								
	EMERGENCY BILGE PUMP ...								
BILGE &	SANITARY PUMPS ...	1	10	7	1.35	35 ✓	" 54	" "	" " "
	CIRC. SEA WATER PUMPS ...								
	CIRC. FRESH WATER PUMPS								
	AIR COMPRESSOR ...								
	FRESH WATER PUMP ...								
	ENGINE TURNING GEAR ...	2	6	7	1.05	20 ✓	" 30	" "	" " "
	ENGINE REVERSING GEAR ...								
	COOLING WATER AND LUBRICATING OIL PUMPS	2	70	19	2.16	118 ✓	" 56	" "	" " "
	OIL FUEL TRANSFER PUMP	1	10	7	1.35	35 ✓	" 28	" "	" " "
	WINDLASS & 2 WINCHES ...	3	150	37	2.27	194 ✓	" 135	" "	" " "
	WINCHES, FORWARD	2	150	37	2.27	194 ✓	" 74	" "	" " "
	WINCHES, AFT <sup>2 cables each</sup>	2	150	37	2.27	194 ✓	" 75	" "	" " "
	STEERING GEAR—								
	(a) MOTOR GENERATOR ...								
	(b) MAIN MOTOR ...	1	25	7	2.13	55 ✓	" 166	" "	" " "
	WORKSHOP MOTOR etc ...	6	35	19	1.53	73 ✓	" 7	" "	" " "
	VENTILATING FANS ...								
	REFRIGERATING MACHINERY.	2	10	7	1.35	38 ✓	" 60	" "	" " "
	— " — COMPRESSOR	1	10	7	1.35	26 ✓	" 4	" "	" " "
	— " — COOLING WATER PUMP	1	2.5	7	0.67	12 ✓	" 8	" "	" " "
	TURNING LATHE	1	2.5	7	0.67	9.5 ✓	" 25	" "	" " "
	DRILLING MACHINE	1	1.5	1	1.38	4 ✓	" 32	" "	" " "
	OIL PURIFIER'S	2	2.5	7	0.67	8 ✓	" 35	" "	" " "
	OIL HEATERS	1	16	7	1.70	41 ✓	" 50	" "	" " "
	WINCHES & GRIPS <sup>2 cables each</sup>	1	50	19	1.83	98 ✓	" 37	" "	" " "



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.

AKTIESELSKABET  
BURMEISTER & WAIN  
MASKIN- OG ELEKTRISKE VÆRKTØJ

Electrical Engineers.

Date

#### COMPASSES.

Distance between electric generators or motors and standard compass *About 85 feet from generator and abt 35 feet from electro motor.*

Distance between electric generators or motors and steering compass *About 82 feet from generator and abt 22 feet from electro motor.*

The nearest cables to the compasses are as follows:—

A cable carrying *3.2* Ampères *8* feet from standard compass *14* feet from steering compass.

A cable carrying *0.15* Ampères *to the lamp in room* standard compass *and in 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 *all* course in the case of the standard compass, and *0* degrees on *all* course in the case of the steering compass.

AKTIESELSKABET  
BURMEISTER & WAIN  
MASKIN- OG ELEKTRISKE VÆRKTØJ

Builder's Signature.

Date

Is this installation a duplicate of a previous case *yes* If so, state name of vessel *M/S "SUD ATLANTICO."*  
*Cpm. Opt. 127690.*

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

*The whole electric lighting and power installation as above described has been fitted in accordance with the requirements of Rules, the approved plan, and the Secretary's letter E. dated the 6<sup>th</sup> December 1927.*

*The material used in the installation and the workmanship throughout are of good description in every respect.*

*The whole electric lighting and power installation has been tested under full power working condition and found to work satisfactorily.*

*Recommend the vessel to have notation in the Register Book of "ELECTRIC LIGHT."*

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

*Elec. Light*

*24/7/28.*

Total Capacity of Generators *203* Kilowatts.

The amount of Fee ... *£ 665.66* :

When applied for,

19

When received,

*15.10.28*

Travelling Expenses (if any) £ :

*A. J. J. J.*  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRL 27 JUL 1928

Assigned

*Elec. Light*



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