

Rpt. 13.

No. 3320 E

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 23 FEB 1951

Date of writing Report 3-2 1951. When handed in at Local Office 6-2 1951. Port of Rotterdam

No. in Survey held at Rotterdam. Date, First Survey 30-6-49 Last Survey 13-12-1950  
Reg. Book. (No. of Visits 38)

66333 on the Motor Tanker "La Plata" Tons Gross 11633 Net 6533

Built at Rotterdam. By whom built Messrs P. Smit Yard No. 597 When built 1950

Owners Yacimientos Petroliferos Fiscales Port belonging to Buenos Aires

Installation fitted by Messrs Handels Compagnie When fitted 1950

Is vessel equipped for carrying Petroleum in bulk. Yes Is vessel equipped with D.F. Yes E.S.D. Yes Gy.C. Yes Sub.Sig. No Radar Yes

Plans, have they been submitted and approved. Yes System of Distribution two wire insul. Voltage of Lighting 110

Heating 220 Power 220 D.C. or A.C., Lighting 9.L. Power 9.L. If A.C. state frequency -

Prime Movers, has the governing been found as per Rule when full load is thrown on and off. Yes Are turbine emergency governors fitted with a trip switch - Generators, are they compound wound. Yes, and level compounded under working conditions. Yes, if not compound wound state distance between generators - and from switchboard - Are the generators arranged to run in parallel. Yes, are shunt field regulators provided. Yes Is the compound winding connected to the negative or positive pole. Negative pole Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing. Yes Have certificates of test for machines under 100 kw. been supplied. Yes and the results found as per Rule. Yes

Position of Generators Main generators: E.R. floor level Motor generators (lighting): Boatdeck Harbour generator: Boatdeck

is the ventilation in way of generators satisfactory. Yes are they clear of inflammable material and protected from mechanical injury and damage from water, steam and oil. Yes Switchboards, where are main switchboards placed. Power: E.R. 1st platform against forward bulkhead lighting: boatdeck

are they in accessible positions, free from inflammable gases and acid fumes and protected from mechanical injury and damage from water, steam and oil. Yes, what insulation is used for the panels. Dead front type switchboard, if of synthetic insulating material is it an Approved Type - if of semi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule - Is the construction as per Rule, including locking of screws and nuts. Yes Description of Main Switchgear for each generator and arrangement of equaliser switches. 3-pole manually operated C.B. with O/L trips in twin poles and R/L trip in positive pole; third pole used for equaliser. C.B. equipped with P/R and h/W trip

and the switch and fuse gear (or circuit breakers) for each outgoing circuit. 2.P. or 2.P. 2.T. switches and 2.P. fuses

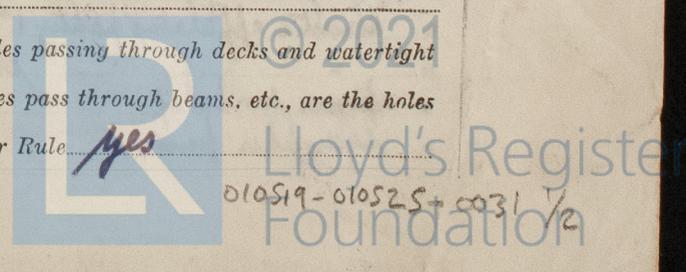
Are compartments containing switchboards composed of fire-resisting material or lined as per Rule. Yes Instruments on main switchboard. 3 ammeters. 2 voltmeters. - synchronising devices. For compound machines in parallel are the ammeters and reversed current protection devices connected on the pole opposite to the equaliser connection. Yes Earth Testing, state means provided. earth indicating lamps protected by 2.P. fuses and connected to "E" through 2.P. push button

Switches, Circuit Breakers and Fuses, are they as per Rule. Yes, are the fuses an Approved Type. Yes make of fuses. fuses are all fuses labelled. Yes If circuit breakers are provided for the generators, at what overload do they operate. direct acting 100amps time delay, and at what current do the reversed current protective devices operate. 15amp

Joint Boxes, Section Boards and Distribution Boards, is the construction as per Rule. Yes

Cables, are they insulated and protected as per Rule. 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. <6% are the ends of all cables having a sectional area of 0.01 square inch and above provided with soldering sockets. Yes Are all paper insulated and varnished cambric insulated cables sealed at the ends. - 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 any cables laid under machines or floorplates. Yes, if so, are they adequately protected. Yes Are cables in machinery spaces, galleys, laundries, etc., lead covered. Yes or run in conduit. partly yes or of the "HR" type. - State how the cables are supported or protected. Machinery spaces: h.l. & h.w.B. cable clipped to metal frame work or perforated plating. Accommodation Spaces: h.l. cable clipped to surface or wood grounds. Along underside of fore- and aft gangway: h.l. & h.w.B. cable fitted in a sheet iron trunk & covered with sheet iron plates

Are all lead sheaths, armouring and conduits effectually bonded and earthed. Yes Are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands. Yes, where unarmoured cables pass through beams, etc., are the holes effectively bushed. Yes Refrigerated chambers, are the cables and fittings as per Rule. Yes



Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule... *yes* Emergency Supply, state position *main generator public*

Emergency battery placed on boat deck supplied part of lighting equipment automatically in case of faulting *yes*

Navigation Lamps, are they separately wired... *yes* controlled by separate double pole switches 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* Is an alternative supply provided... *yes*

Secondary Batteries, are they constructed and fitted as per Rule... *yes* are they adequately ventilated... *yes* state battery capacity in ampere hours... *Emergency battery nickel iron type 92 cells 100 amp hours 110 volts*

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof... *yes* Are any 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... *Flame proof type fittings (KEMA approved type)* and where are the controlling switches fitted... *outside these spaces* Are all fittings suitably ventilated... *yes*

Searchlight Lamps, No. of *—*, whether fixed or portable... *—*, are they of the carbon arc or of the filament type... *—*

Heating and Cooking, is the general construction as per Rule... *yes* are the frames effectually earthed... *yes* are heaters in the accommodation of the convection type... *—* Motors, are all motors constructed and installed as per Rule and placed in well-ventilated compartments in which inflammable gases cannot accumulate and protected from damage from water, steam and oil... *yes*

Are motors coupled to oil fuel transfer and pressure pumps capable of being stopped from a position accessible in the event of fire in the pump compartment... *yes* Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing... *yes*

Have certificates of test for motors under 100 BHP intended for essential sea services been supplied and the results found as per Rule... *yes*

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 an Approved Cartridge Type... *yes* make of fuse... *Lechers* Are the fittings for pump rooms, 'ween deck spaces, etc., in accordance with the special requirements for such ships... *yes* Are the cables lead covered as per Rule... *yes*

E.S.D., if fitted state make... *Magnum M21B* Location of transmitter... *double bottom 1st* and receiver... *double bottom 1st*

Spare Gear, if the vessel is for open sea service have spares been provided as per Rule and 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	MAKER.	RATED AT			PRIME MOVER.	
			Kilowatts per Generator.	Volts.	Ampères.	Revs. per Min.	TYPE.
MAIN	2	B.T.M.	230	220	1045	420	Diesel engine Puchmeister & Pohn
Harbour	1	Smit Klipperen	26	110	235	2000	Electric motor Smit Klipperen.
EMERGENCY ROTARY TRANSFORMER	1	B.T.M.	30	220	139	1000	Diesel engine Thronlund

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return) m.	INSULATION.	PROTECTIVE COVERING.
		No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rate.			
MAIN GENERATOR I	230	5	105	1045	1175	30		
" EQUALISER		3	105		705	19		
" II	230	5	105	1045	1175	32		
" EQUALISER		3	105		705	16		N.A.R. h.c. & M.W.B.
lighting generator I	26	1	185	235	235	0		
" II	26	1	185	235	235	12		
Harbour EMERGENCY GENERATOR	30	1	120	139	175	16		
ROTARY TRANSFORMER: MOTOR								
" GENERATOR								

MAIN DISTRIBUTION CABLES (to Section Boards, Distribution Fuse Boards, etc.).

DESCRIPTION.	No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rate.	APPROX. LENGTH (lead plus return) m.	INSULATION.	PROTECTIVE COVERING.
Supplied from main matchboard 220 volts (from main generators only)							
aux. matchboard placed on boat deck	1	110	110	175	98		N.A.R. h.c. & M.W.B.
central starting panel placed in E.R.	2	185	450	470	8		
controlled by P/R.							
G.F.B. domestic apparatus parting 2nd "H.C."	1	4	126	225	66		
" ventilation fans acc. aft "H.A."	1	35	66	70	100		N.A.R. h.c. & M.W.B.
" ventilation fans acc. middle "H.B."	1	10	33	38	100		
Supplied from main matchboard 220 volts (either from main generators or from harbour set) (cont. by P/R)							
G.F.B. refrigerating plant alt	1	35	61	70	100		
" domestic apparatus parting 1st el.	1	4	125	225	104		
" power workshop	1	4	135	225	112		N.A.R. h.c. & M.W.B.
" hypophosph pumps	1	10	32	38	54		
" "	1	25	55	63	84		

LIGHTING, HEATING, WIRELESS, NAVIGATION LIGHTS, ETC., CABLES.

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return) m.	INSULATION.	PROTECTIVE COVERING.
	No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rate.			
Continuation main distribution cables:							
Supplied from aux. matchboard 220 volts placed on boat deck							
Wireless equipment	1	25	6	63	229		
alt. supply emerg. bilge pump	1	50	87	99	20		N.A.R. h.c. & M.W.B.
alt. supply part of main matchboard	1	50	46	99	102		
supply gyrocompass, auto. helmsman and radar	1	25	29	83	220		
Supplied from main matchboard lighting 110 volts placed on boat deck							
From motor generators only							
aux. lighting matchboard in E.R. (part of main matchboard)	1	150	200	205	98		N.A.R. h.c. & M.W.B.
From motor generators alt. from emergency battery							
G.F.B. emerg. lighting aft	1	4	4	22.5	66		
" " " " " " " "	1	4	4.5	22.5	60		
" " " " " " " "	1	4	16	22.5	238		
" " " " " " " "	1	4	12	22.5	100		N.A.R. h.c. & M.W.B.
" " " " " " " "	1	4	7	22.5	23		
" " " " " " " "	1	16	6	49	246		
" " " " " " " "	1	4	2	22.5	256		
Supply charging equipment 220 volts battery	1	2.5	7	16.5	20		
Supplied from aux. lighting matchboard 110 volts placed in E.R. (part of main matchboard)							
G.F.B. lighting aft	1	10	25	38	32		
" " " " " " " "	1	10	26	38	102		
" " " " " " " "	1	25	40	63	168		
" " " " " " " "	1	16	19	49	162		N.A.R. h.c. & M.W.B.
" " " " " " " "	1	4	12	22.5	52		
" " " " " " " "	1	4	17	22.5	48		
" " " " " " " "	1	4	14	22.5	116		
" " " " " " " "	1	16	16	49	166		

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return) m.	INSULATION.	PROTECTIVE COVERING.
			No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rate.			
Supplied from main matchboard 220 volts; from main generators only									
Steering gear motor 1	1	40	1	120	138	175	124		
" " " " " " " "	1	40	1	120	138	175	152		
Turning gear motor 1	1	15	1	25	60.6	63	66		N.A.R. h.c. & M.W.B.
" " " " " " " "	1	15	1	25	60.6	63	60		
Emergency bilge pump	1	22	1	50	87	99	100		
controlled by P/R.									
Oil fuel transfer pump	1	8	1	10	32.9	35	54		N.A.R. h.c. & M.W.B.
Ventilation fans accomm.	4	3.9	1	4	15.6	22.5	76-70		
Supplied either from main generators or from harbour set; controlled by P/R									
hub. oil operators	2	4	1	10	22	38	26-38		
Oil fuel centrifuges	2	7	1	10	22	38	70-72		
Tackle motors	2	6	1	6	25.5	29	30-34		N.A.R. h.c. & M.W.B.
Sanitary pump	1	6.5	1	10	27.3	38	60		
Harbour jacking water pump	1	4	1	4	17.1	22.5	32		
Oil fuel dist. pump	1	1.5	1	2.5	7	16.5	70		
Supplied from aux. matchboard 220 volts; placed on boat deck									
Motor of motor generator lighting	1	41	1	120	157	175	26		N.A.R. h.c. & M.W.B.
" " " " " " " "	1	41	1	120	157	175	52		
Supplied from central starting panel									
hub. oil pump	1	110	2	150	408	410	31		
Fresh cooling water pump	1	36	1	95	138	150	30		
hub. oil pump	1	110	1	150	408	410	27		N.A.R. h.c. & M.W.B.
Space cooling water pump	1	36	1	95	138	150	26		
Sea cooling water pump	1	36	1	95	138	150	34		
Supplied from G.F.B. "H.C." E.R.									
Hot water circulating pump	1	1	1	1.5	4.5	9.5	6		
Sea water hyposph. pump	1	3	1	4	12.7	22.5	8		
" " " " " " " "	1	3	1	4	12.7	22.5	8		N.A.R. h.c. & M.W.B.
Jacking water pump ref. equipment	1	1.25	1	1.5	4.5	9.5	10		
Fresh water hyposph. pump	1	2	1	2.5	7.85	15.5	10		
" " " " " " " "	1	2	1	2.5	7.85	15.5	12		

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.

**N. V. HANDELSCOMPAGNIE**  
**ELECTROTECHNISCHE AFDELING**

Electrical Contractors. Date

*W. M. Smit*

**COMPASSES.**

Have the compasses been adjusted under working conditions *yes*

Machinefabriek & Scheepswerf van  
P. Smit Jr N.V.

Builder's Signature.

Date *14-2-51.*

*P. M. van Beuningen*

Have the foregoing descriptions and schedules been verified and found correct *yes*

Is this installation a duplicate of a previous case *yes* If so, state name of vessel *P. Smit 596 "Visconten Madriaga"*

Plans. Are approved plans forwarded herewith *no* If not, state date of approval *9<sup>th</sup> March 1950*

Certificates. Are certificates of test for motors engaged on essential sea services and generators forwarded herewith *yes*

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

The electrical equipment of this vessel has been constructed and installed under special survey in conformity with the Society's Rules and Regulations as well as the approved plans, with the exception of the Flame Proof Fittings type 505 D fitted in tween deck spaces which are made by N.V. Heutschappij van Metaalbewerking Industrie at Rotterdam - Hillegersberg. These fittings however are tested by N.V. tot Heming van Electrotechnische Materialen (H.E.M.A.) at Arnhem and covered by a certificate.

The materials used are of good quality and the design and workmanship are good. On completion the equipment was tried out under full working conditions and found satisfactory.

This equipment is in my opinion suitable for a classed vessel having the notation "Carrying Petroleum in Bulk."

*Note SW 5/3/51*

Total Capacity of Generators *440* Kilowatts.

The amount of Fee ... *£ 1425.-* When applied for, *27/10 1950*

Travelling Expenses (if any) *£ 67.-* When received, *1/12 1950*

**FRI. 9 MAR 1951**

*Maat* (H. D. SLUIS)  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned *See F.E. meby. rpt*

2m.3.40.—Transfer. (MADE AND PRINTED IN ENGLAND.)  
(The Surveyors are requested not to write on or below the space for Committee's Minute.)



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