

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

9-FEB-1956

Date of writing Report 29-1-56 When handed in at Local Office 3/2/1956 Port of GENOA

No. in Survey held at GENOA Date, First Survey 31-8-55 Last Survey 17-1-1956  
Reg. Book. (No. of Visits 21)

on the SINGLE SCREW "MIRAFLORES" Tons Gross 20776 Net 1956

Built at GENOA SESTRI By whom built S.A. ANSALDO - CANTIERI NAVALI Yard No. 1490 When built 1956

Owners MIRAFLORES S.A. COMPANIA NAVIERA PANAMENA Port belonging to PANAMA

Installation fitted by S.A. ANSALDO - CANTIERI NAVALI - GENOA SESTRI When fitted 1955/1956

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. V Radar YES

Plans, have they been submitted and approved YES System of Distribution TWO WIRES - PARALLEL SYSTEM WITH CONSTANT PRESSURE Voltage of Lighting 110

Heating 220 Power 220 D.C. or A.C., Lighting DIRECT Power DIRECT If A.C. state frequency V

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 YES Generators, are they compound wound YES, and level compounded under working conditions YES

Are the generators arranged to run in parallel YES Is the compound winding connected to the negative or positive pole NEGATIVE

Have machines 100 kw. and over been inspected by the Surveyors during manufacture and testing YES Have certificates of test for machines under 100 kw. been supplied and the results found as per Rule YES Position of Generators ALL GENERATORS FITTED ON FLAT AT THE REAR END OF ENGINE ROOM

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 ON FLAT PORT SIDE OF ENGINE ROOM

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 MICA OR MICANITE BUSHES AND WASHERS, if of synthetic insulating material is it an Approved Type V, if of semi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule V 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. FOR EACH GENERATOR OF 550 KW AND 120 KW: A DOUBLE POLE CIRCUIT BREAKER WITH OVERLOAD TRIP ON EACH POLE, REVERSE CURRENT TRIP AND INTERLOCKED EQUALISER.

SWITCH-FOR THE GENERATOR OF 25 KW: A DOUBLE POLE CIRCUIT BREAKER WITH OVERLOAD TRIP ON EACH POLE

and the switch and fuse gear (or circuit breakers) for each outgoing circuit. A DOUBLE POLE CIRCUIT BREAKER WITH OVERLOAD TRIP ON EACH POLE

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule YES Instruments on main switchboard 26 ammeters, 7 voltmeters V synchronising devices. For compound machines in parallel are the ammeters and reverse current protection devices connected on the pole opposite to the equaliser connection YES Earth Testing, state means provided TWO OHMMETERS

AND EARTH INDICATING SYSTEM USING TWO LAMPS Preference Tripping, state if provided YES, and tested YES

Switches, Circuit Breakers and Fuses, are they as per Rule YES, are the fuses an Approved Type YES

make of fuses CROCI &amp; FARINELLI - MILANO, are all fuses labelled YES If circuit breakers are provided for the generators, at what overload do they operate about 150% of the rated current, and at what current do the reverse current protective devices operate 10% OF THE RATED CURRENT

Cables, are they insulated and protected as per Rule YES, if otherwise than as per Rule are they of an Approved Type V, state maximum fall of pressure between bus bars and any point under maximum load 3 volts. Are all ~~insulated~~ varnished cambric insulated cables sealed at the ends YES

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 SHORT LENGTH; if so, are they adequately protected YES State

type of cables (if in conduit this should also be stated) in machinery spaces. LEAD COVERED, ARMoured OR LEAD COVERED, ARMoured OR

and laundries. LEAD COVERED STEEL WIRE BRAIDED State how the cables are supported or protected. PERFORATED PLATES - METALLIC

CLIPS - WHERE CABLES EXPOSED TO RISK OF MECHANICAL DAMAGE PROTECTED BY STEEL SHEET PLATING

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

Have refrigeration fan motors been constructed under survey V and test certificates supplied V

Are the motors accessible for maintenance at all times V

Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule YES Emergency Supply, state position

ON PLAT # 508, STAB. SIDE

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, fitted and adequately ventilated as per Rule YES, state battery capacity in ampere hours 15 A/A 145 KVA Where required to do so does it comply with 1948 International Convention ✓

Lighting, is fluorescent lighting fitted NO If so, state nominal lamp voltage ✓ and compartments where lamps are fitted ✓

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof YES

Searchlights, No. of ONE, whether fixed or portable FIXED, are they of the carbon arc or of the filament type FILAMENT

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

Lightning Conductors, where required are they fitted as per Rule YES

Ships carrying Oil having a Flash Point of 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 F.R. MILANO or CROCI & FRATELLI-MILANO Are the fittings for pump rooms, 'tween deck spaces, etc., in accordance with the special requirements for such ships YES Are all cables lead covered as per Rule YES

E.S.D., if fitted state maker KELVIN HUGHES (MARINE) Ltd. LONDON location of transmitter and receiver COFFERDAM in D.B. TANK FRAME 50/61

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.	
			Kw. per Generator.	Volts.	Ampères.	Revs. per Min.	TYPE.	MAKER.
MAIN	2	ANSALDO-S. GIORGIO	550	230	2400	1000	STEAM TURBINE	ANSALDO-STAB. MECCANICO
	1	"	120	230	522	930	OIL ENGINE	ditto
EMERGENCY ROTARY TRANSFORMER	1	ANSALDO-S. GIORGIO	25	115	218	650	OIL ENGINE	ditto
	2	C.R.D.A. - MONFALCONE	40	115	348	3000	ELECT. MOTOR	C.R.D.A. - MONFALCONE

GENERATOR CABLES.

DESCRIPTION.	No. of	Kw.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
			No. in Parallel per Pole.	Sectional Area of Conductor sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR	2	550	4	500	2400	2920	44	V.C.	LEAD COVERED SPIRAL WIRE ARMOURED
" EQUALISER	2		2	500	-	1460	22	V.C.	"
MAIN GENERATOR	1	120	2	125	522	600	26	V.C.	"
" EQUALISER	1		1	125	-	300	13	V.C.	"
EMERGENCY GENERATOR	1	25	2	125	218	260	45	V.R.	"
ROTARY TRANSFORMER: MOTOR	2	60HP	1	125	240	300	50	V.C.	"
" GENERATOR	2	40	1	200	348	416	50	V.C.	"

MAIN DISTRIBUTION CABLES (to Auxiliary Switchboards, etc.).

DESCRIPTION.	No. of	Kw.	No. in Parallel per Pole.	Sectional Area of Conductor sq. mm.	In the Circuit.	Rule.	APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
TO POWER DISTRIBUTION BOARD in E.R. S13	1		1	315	433	560	50	V.C.	LEAD COVERED SPIRAL
" " " " " S14	1		1	315	433	560	20	V.C.	WIRE ARMOURED OR
" " " " " S15	1		1	315	646	560	50	V.C.	STEEL WIRE BRAIDED
" " " " " S16	2		2	200	918	820	30	V.C.	"
" " " " " WORKSHOP S17	1		1	16	96	84	40	V.C.	"
STEERING GEAR - STAB. LINE	1		1	250	150	280	140	V.R.	"
" " " " " PORT LINE	1		1	250	150	280	106	V.R.	"
SHORE CONNECTION	2		2	107	520	520	75	V.C.	"
TO POWER DISTRIBUTION BOARD on DECK A/A. S21	1		1	315	570	560	30	V.C.	"
" " " " " FOM. S22	1		1	195	202	240	260	V.R.	"
RADIO STATION	1		1	29	36	65	300	V.R.	"
TO LIGHTING SECTION BOARD on DECK A/A. S24	1		1	63	222	200	40	V.C.	"
" " " " " FOM. S25	1		1	195	186	240	240	V.R.	"
NAVIGATION LAMPS	1		1	14	10	45	324	V.R.	"

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

DESCRIPTION.	No. in Parallel per Pole.	Sectional Area of Conductor sq. mm.	MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
			In the Circuit.	Rule.			
TO LIGHTING DISTRI. BOARD in E.R. LM 27	1	10	36	63	50	V.C.	LEAD COVERED SPIRAL
" " " " " LM 28	1	16	39	84	90	V.C.	WIRE ARMOURED OR
" " " " " LM 29	1	10	36	63	30	V.C.	STEEL WIRE BRAIDED
" " " " " LM 30	1	10	36	63	94	V.C.	"
" " " " " B.R. LC 31	1	16	26	84	80	V.C.	"
" " " " " B.R. LC 32	1	10	32	63	20	V.C.	"
SEARCH LIGHT	1	50	27	99	492	V.R.	"
TO POWER SUB-DIST. BOARD on DECK S21/1	1	63	201	200	15	V.C.	"
" " " " " S21/2	1	63	212	200	30	V.C.	"
TO LIGHTING SUB-DIST. BOARD on DECK LNI 24/1	1	10	30	38	35	V.R.	"
" " " " " LNI 24/2	1	16	35	84	65	V.C.	"
" " " " " LNI 24/3	1	6.3	24	30	5	V.R.	"
" " " " " LNI 24/4	1	16	22	84	75	V.C.	"
" " " " " LNI 24/5	1	10	28	38	10	V.R.	"
" " " " " LNE 24/6	1	6.3	18	30	35	V.R.	"
" " " " " LNE 24/7	1	10	33	38	25	V.R.	"
" " " " " LNE 24/8	1	25	33	62	65	V.R.	"
" " " " " LNI 25/1	1	10	32	38	10	V.R.	"
" " " " " LNI 25/2	1	10	30	38	20	V.R.	"
" " " " " LNI 25/3	1	29	23	65	130	V.R.	"
" " " " " LNE 25/4	1	4.5	13	21	5	V.R.	"
" " " " " LNE 25/5	1	10	38	38	5	V.R.	"
" " " " " 25/6	1	6.3	23	30	20	V.R.	"

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	No. in Parallel per Pole.	Sectional Area of Conductor sq. mm.	In the Circuit.	Rule.	APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
MAIN CIRCULATING PUMPS	2	86	1	200	320	416	66	V.C.	LEAD COVERED SPIRAL
WET EXTRACTION PUMPS	2	30	1	50	109	169	26	V.C.	WIRE ARMOURED OR
LUB. OIL PUMPS	2	46	1	80	170	229	30	V.C.	STEEL WIRE BRAIDED
FORCED DRAUGHT FANS	3	78	1	200	300	416	90	V.C.	"
OIL FUEL PRESSURE PUMPS	2	10	1	10	41	63	36	V.C.	"
VENT. FANS for E.R. & B.R.	6		1	10	37	63	50	V.C.	"
CIRC. PUMPS for TURBODYNAMO	2	19	1	25	73	108	36	V.C.	"
NET EXTRACTION PUMPS for ditto	2	7.5	1	14	29	40	40	V.R.	"
GENERAL SERVICE PUMP	1	55	1	100	200	265	20	V.C.	"
BILGE & BALLAST PUMP	1	20	1	25	78.5	108	30	V.C.	"
F.O. TRANSFER PUMP	1	26	1	32	100	126	20	V.C.	"
TURNING GEAR	1	10	1	10	40	63	60	V.C.	"
CIRC. PUMPS for AUX. CONDENS.	2	26	1	25	100	108	20	V.C.	"
CONDENSATE TRANSFER PUMPS	2	10	1	10	40	63	25	V.C.	"
LUB. OIL PURIFIERS	2	2.5	1	4.5	12	25	55	V.R.	"
AIR COMPRESSOR	1	27	1	32	104	126	70	V.C.	"
AIR COMP. SET for AUT. CONB. CONTROL	2	7	1	14	29	40	60	V.R.	"
STEERING GEAR	2	40	1	250	150	275	140	V.R.	"
SANITARY PUMPS	2	7	1	14	28	40	50	V.R.	"
EN. SERVICE PUMPS	2	3	1	4.5	12	25	50	V.R.	"
DRINKING WATER PUMPS	2	2	1	4.5	8	25	80	V.R.	"
REFRIGERATORS	2		1	10	37	63	12	V.C.	"
AIR COND. COMPRESSOR Aft.	1	40	1	63	148	200	15	V.C.	"
" " " " " FOM.	1	18	1	25	69	108	15	V.R.	"
AIR COND. SET	3	5	1	6.3	18.5	30	43	V.R.	"
EVAPORATOR PLANT PUMPS	4	4.5	1	6.3	19	30	60	V.R.	"
" " " " " " " "	1	4	1	6.3	17	30	8	V.R.	"
" " " " " " " " CIRC. PUMPS	2	20.4	1	25	80	108	30	V.C.	"
VENTILATING FAN	1	3	1	4.5	12	25	20	V.R.	"
" " " " " " " "	3	1.7	1	2.5	7	13	30	V.R.	"

NOTE.—Use Rpt. 43 Continuation Sheet if the above space is insufficient.

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.

ANSALDO S. A.  
CANTIERI NAVALI

Electrical Contractors.

Date 30-1-56

COMPASSES.

Have the compasses been adjusted under working conditions.

ANSALDO S. A.  
CANTIERI NAVALI

Builder's Signature.

Date 30-1-56

Have the foregoing descriptions and schedules been verified and found correct. YES

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

Plans. Are approved plans forwarded herewith. NO If not, state date of approval. 1-12-55

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

General Remarks. (State quality of workmanship and materials, opinions as to class, etc.)

THE ELECTRICAL EQUIPMENT OF THIS VESSEL HAS BEEN CONSTRUCTED AND FITTED UNDER SPECIAL SURVEY AND IS IN ACCORDANCE WITH THE APPROVED PLANS, SECRETARY'S LETTERS AND RULE REQUIREMENTS. THE WORKMANSHIP AND MATERIALS ARE GOOD. UPON COMPLETION THE PLANT WAS TRIED UNDER WORKING CONDITION, THE INSULATION RESISTANCE TESTED AND ALL FOUND SATISFACTORY.

THE INSTALLATION IS ELEGIBLE, IN MY OPINION, FOR FULL CLASSIFICATION

Total Capacity of Generators 1245 Kilowatts.

The amount of Fee 200 1/2% 250.00  
When applied for, 6-2-1956  
REV. TAX 8376

Travelling Expenses (if any) 41 33.586  
When received, 19  
REV. TAX 13924

*[Signature]*  
Surveyor to Lloyd's Register of Shipping.

FRIDAY 16 MAR 1956

Committee's Minute

Assigned See Rpt. 4

1m, 7, 54—Transfer. (MADE AND PRINTED IN ENGLAND)  
(The Surveyors are requested not to write on or below the space for Committee Minutes.)



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