

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

19 JUN 1958

of writing Report 28th May, 1958 When handed in at Local Office 28/5/1958 Port of GENOA

in Survey held at GENOA Date, First Survey 18/3/58 Last Survey 13/5/1958 =  
(No. of Visits 9 = )

on the Single screw vessel "MIRADOR" Tons { Gross 21020 =  
Net

at GENOA = SESTRI By whom built ANSALDO S.p.A. - CANTIERI NAVALI Yard No. 1522 When built 1958

ners "MIRADOR" Cia.Nav.Panamena S.p.A. Port belonging to Panama R.P.

allation fitted by ANSALDO S.p.A. - CANTIERI NAVALI. = When fitted 1958

essel equipped for carrying Petroleum in bulk. yes Is vessel equipped with D.F. yes E.S.D. yes Gy.C. yes Sub.Sig. - Radar. yes.

s, have they been submitted and approved. yes System of Distribution Constant pressure Voltage of Lighting 110  
two wire - D.C.

ting 220 Power 220 D.C. or A.C., Lighting D.C. Power D.C. If A.C. state frequency -

ne Movers, has the governing been found as per Rule when full load is thrown on and off. yes Are turbine emergency governors fitted

a trip switch. yes Generators, are they compound wound. yes, and level compounded under working conditions. yes

the generators arranged to run in parallel. yes Is the compound winding connected to the negative or positive pole. negative

ne machines 100 kw. and over been inspected by the Surveyors during manufacture and testing. yes Have certificates of test for machines

er 100 kw. been supplied and the results found as per Rule. yes Position of Generators. On flat aft of engine room.

the ventilation in way of generators satisfactory. yes are they clear of inflammable material and protected from mechanical injury and  
nage from water, steam and oil. yes Switchboards, where are main switchboards placed. On flat - port side of  
engine room.

they in accessible positions, free from inflammable gases and acid fumes and protected from mechanical injury and damage from water,  
m and oil. yes, what insulation is used for the panels. dead front type. if of synthetic insulating

erial is it an Approved Type. - if of semi-insulating material (slate or marble) are all conducting parts insulated therefrom as  
Rule. - Is the construction as per Rule, including locking of screws and nuts. yes Description of Main Switchgear

each generator and arrangement of equaliser switches. for each generator a double pole circuit breaker with over-  
ad trip on each pole, reverse current trip and interlocked equaliser switch.

the switch and fuse gear (or circuit breakers) for each outgoing circuit. a double pole circuit breaker with overload  
ip on each pole.

compartments containing switchboards composed of fire-resisting material or lined as per Rule. yes Instruments on main switchboard 5

eters 5 voltmeters - synchronising devices. For compound machines in parallel are the ammeters and reverse current  
tection devices connected on the pole opposite to the equaliser connection. yes Earth Testing, state means provided. ohmmeter-

rth indicating lamps Preference Tripping, state if provided. yes, and tested. yes

itches, Circuit Breakers and Fuses, are they as per Rule. yes, are the fuses an Approved Type. yes

te of fuses. Croci & Farinelli, are all fuses labelled. yes If circuit breakers are provided for the generators, at what  
load do they operate. 25% O.L. and at what current do the reverse current protective-

ices operate. 5% F.L. current Cables, are they insulated and protected as per Rule. yes

therwise than as per Rule are they of an Approved Type. - state maximum fall of pressure between bus bars and any point  
er maximum load. 5% Are all ~~paper insulated and~~ varnished cambric insulated cables sealed at the ends. yes

all the cable runs in accessible positions not exposed to drip or accumulation of water or oil, high temperatures or risk of mechanical  
age. yes, are any cables laid under machines or floorplates. yes, if so, are they adequately protected. yes State

e of cables (if in conduit this should also be stated) in machinery spaces. T-PKAR and G-PRAR, galleys. T-PKAR and G-PRAR (4)

laundries. - State how the cables are supported or protected. supported by perforated plating and  
ed by metal clips - Where cables exposed to risk of mechanical damage protected by steel plating.

all lead sheaths, armouring and conduits effectually bonded and earthed. yes Are all cables passing through decks and watertight  
kheads provided with deck tubes or watertight glands. yes, where unarmoured cables pass through beams, etc., are the holes

ctively bushed. yes Refrigerated ~~chambers~~ stores, are the cables and fittings as per Rule. yes

ve refrigeration fan motors been constructed under survey. - and test certificates supplied

the motors accessible for maintenance at all times. -

G-PRAR = V.R. Insulated - Lead covered - P.V.C. sheathed - steel wire braided - P.V.C. sheathed.  
T-PKAR = V.C. Insulated - Lead covered - P.C.P. sheathed - steel wire braided - P.V.C. sheathed.

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

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 40 A/h - 110 V. 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 2, 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 -

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 steel masts

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 Croci & Farinelli or FER 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 LONDON location of transmitter and receiver between frames 50 & 51

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				TYPE	PRIME MOVER.
			Kw. per Generator.	Volts.	Amps.	Revs. per Min.		
MAIN	2	ANSALDO-SAN GIORGIO, GENOA	550	230	2400	1000	steam turbine	ANSALDO - GENOA
Port service	1	JUPITER, GENOA	120	230	522	430	oil eng.	ANSALDO - GENOA
EMERGENCY ROTARY TRANSFORMER	2	C.R.D.A. - MONFALCONE	50	115	435	1400	electric 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 Strands Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR	2	550	4	400	2400	2708	48	T	PKAR
" " EQUALISER	-	-	2	400	-	1354	24	"	"
Port service generator	1	120	1	315	522	569	26	"	"
" " equaliser	-	-	1	160	-	360	13	"	"
EMERGENCY GENERATOR	2	55	1	125	275	301	50	T	PKAR
EMERGENCY ROTARY TRANSFORMER: MOTOR	2	50	1	250	435	474	50	"	"

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

DESCRIPTION.	No. of	Kw.	No. in Parallel per Pole.	Sectional Area of Strands Sq. ins. or sq. mm.	MAXIMUM CURRENT IN AMPERES.	APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
E.R. Power Dist. Board	P 012	1	80	208	230	10	T	PKAR
" " " " "	P 015	1	25	96,5	108	10	"	"
" " " " "	P 016	1	63	127	197	30	"	"
Workshop	P 039	1	16	66,5	84	40	"	"
Power section board on dk fore	No.1	1	63	126,5	197	260	"	"
" " " " " aft	P 018	1	250	390	474	35	"	"
Shore connection		1	315	520	564	75	"	"
Steering gear	Port	1	63	150	197	140	"	"
" " " " "	Stbd	1	63	150	197	130	"	"
Radio station		1	63	36	197	300	"	"
Power dist. board on dk fore	P 103	1	10	35,4	37	30	G	PRAR
" " " " " aft.	P 018/A	1	25	87	108	26	T	PKAR
" " " " " "	P 018/B	1	16	35,5	49	36	G	PRAR
" " " " " "	P 018/C	1	16	68	84	70	T	PKAR

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

DESCRIPTION.	No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands Sq. ins. or sq. mm.	MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.	
			In the Circuit.	Rule.				
E.R. Lighting dist. board	ERL 053	1	10	28	37	60	G	PRAR
" " " " "	ERL 054	1	10	41	63	20	T	PKAR
B.R. " " " "	BRL 055	1	10	14,5	37	60	G	PRAR
" " " " "	BRL 056	1	16	19	49	20	"	"
Navigation light dist. board	NL 057	1	16	2,7	49	324	"	"
Suez Chanel Search Light		1	40	27	146	492	T	PKAR
Lighting section board on dk fore No.1		1	160	128	360	240	"	"
" " " " " aft. No.2		1	63	175	197	40	"	"
Lighting dist. board on dk fore	LNI 118	1	10	26,4	37	20	G	PRAR
" " " " " "	LNE 119	1	10	28	37	40	"	"
" " " " " "	LNE 120	1	10	9	37	40	"	"
" " " " " "	LNI 121	1	10	31	37	50	"	"
" " " " " "	LNI 122	1	10	23,6	37	110	"	"
Emergency light dist. board No. 800		1	6,3	25,4	30	10	"	"
Lighting dist. board on dk aft	LNI 201	1	10	23,5	37	75	"	"
" " " " " "	LNI 202	1	10	20	37	30	"	"
" " " " " "	LNI 203	1	10	28	37	20	"	"
" " " " " "	LNI 209	1	10	25,5	37	60	"	"
" " " " " "	LNI 205	1	10	33	37	30	"	"
" " " " " "	LNE 206	1	25	38	108	80	T	PKAR
" " " " " "	LNE 207	1	16	28	49	40	G	PRAR

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	No. in Parallel per Pole.	Sectional Area of Strands Sq. ins. or sq. mm.	MAXIMUM CURRENT IN AMPERES.	APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.	
Steering gear pumps	2	40	1	63	150	197	10	T	PKAR
Lub. oil circ. pumps	2	49	1	63	183	197	28	"	"
Main circ. pumps	2	86	1	160	320	360	56	"	"
Main extraction pumps	2	30	1	40	109	146	40	"	"
Fire and bilge pump	1	60	1	80	220	230	40	"	"
Bilge and ballast pump	1	20	1	16	78	84	30	"	"
F.O. Transfer pump	1	26	1	63	100	197	40	"	"
Circ. pumps for turbogenerator sets	2	19	1	16	73	84	20	"	"
Extraction pumps for ditto	2	7,5	1	10	29,5	37	35	G	PRAR
Aux. condenser circ. pump	1	26	1	25	100	108	50	T	PKAR
Condensate transfer pumps	2	10	1	16	40,5	49	40	G	PRAR
E.R. Ventilating fans	4	12	1	10	45,5	63	100	T	PKAR
F.D. Fans	2	67	1	100	258	264	89	"	"
F.O. Pressure pumps	2	14	2	16	56,5	98	40	G	PRAR
Aut. comb. control air compressor	2	7	1	10	29	37	65	"	"
Air compressor	1	27	1	25	104	108	60	T	PKAR
B.R. Ventilating Fans	2	12	1	10	45,5	63	110	"	"
Evaporator set pumps	2	16	1	10	61	63	16	"	"
" " pump	1	5	1	6,3	20	30	36	G	PRAR
" " pumps	2	2,3	1	2,5	10	15	50	"	"
" " pumps	2	2	1	2,5	8,8	15	70	"	"
F.W. Service pumps	2	3	1	2,5	12,4	15	50	"	"
Drinking water pumps	2	2	1	2,5	8	15	70	"	"
Sanitary service pumps	2	7	1	10	27,5	37	70	"	"
Hot F.W. Service pumps	2	8	1	2,5	9	15	50	"	"
Lub. oil Purifiers	2	3	1	2,5	11	15	62	"	"
Compressors for air cond. set/ aft	1	17	1	16	77	84	50	T	PKAR
" " " " " fore	1	10	1	16	48,5	49	25	G	PRAR
Thermotanks	3	5,5	1	6,3	23	30	50	"	"
Air conditioning set	1	5	1	6,3	21	30	10	"	"
Exhaust fans	2	4,5	1	4	19	22	20	"	"
Exhaust fans	2	2	1	2,5	9	15	60	"	"
Exhaust fans	2	1,2	1	1,6	5,5	10	30	"	"
Air conditioning sets	7	0,15	1	1,6	1	10	40	"	"
Prov. Stores Refrig. Compressors	2	7,5	1	10	30	37	20	"	"
Circ. pump for ditto	1	3	1	2,5	13	15	80	"	"

NOTE.—Use Rpt. 13 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

Il Direttore

Electrical Contractors.

Date 29 MAG. 1958

COMPASSES.

Have the compasses been adjusted under working conditions... yes

ANSALDO S. A.  
CANTIERI NAVALI

Il Direttore

Builder's Signature.

Date 29 MAG. 1958

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 23/12/57 = 3/1/58.

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 Letter and Rules requirements. The material and workmanship are good.

Upon completion the plant was tried under full working condition, the insulation resistance tested and all found satisfactory.

This installation is eligible for full Classification.

Total Capacity of Generators 1220 Kilowatts.

The amount of Fee ...	48,900.-	When applied for,
Len 15% =	415,650.-	3/6/58
SUNRAY FEE =	7,000.-	
Travelling Expenses (if any) (See Rpt. 1)		When received,
		19

(S. Gasperini)  
Surveyor to Lloyd's Register of Shipping.

FRIDAY - 4 JUL 1958

Committee's Minute

Assigned

See Rpt. 1.

Em. 6.56 - Transfer. (MADE AND PRINTED IN ENGLAND)  
(The Surveyors are requested not to write on or below the space for Committee Minutes.)

4. AR  
10.6.58



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