

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.

Date of writing Report 14th January 1954 When handed in at Local Office 23rd Jan 1954 Port of TRIESTE

No. in Survey held at Monfalcone Date, First Survey Please See Last Survey Rpt 4a 19  
Reg. Book.

40067 on the Single screw S/T. "MIRELLA d'AMICO" Tons Gross 20.417 Net 12.504

Built at Monfalcone By whom built Cant. Riva dell'Adriatic Yard No. 1775 When built 1954

Owners Società di Navigazione d'Amico Port belonging to Palermo

Installation fitted by Cantieri Riuniti dell'Adriatico When fitted 1954

Is vessel equipped for carrying Petroleum in bulk. ☒ Is vessel equipped with D.F. ☒ E.S.D. ☒ Gy.C. ☒ Sub.Sig. ☒ Radar. ☒Plans, have they been submitted and approved. ☒ System of Distribution two wire Voltage of Lighting 110Heating ☒ Power 220 D.C. or A.C., Lighting D.C. Power D.C. If A.C. state frequency ☒Prime Movers, has the governing been found as per Rule when full load is thrown on and off. ☒ Are turbine emergency governors fittedwith a trip switch. ☒ Generators, are they compound wound ☒, and level compounded under working conditions. ☒if not compound wound state distance between generators. ☒ and from switchboard. ☒ Are the generators arranged to runin parallel. ☒ are shunt field regulators provided. ☒ Is the compound winding connected to the negative or positive polenegative Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing. ☒ Have certificates oftest for machines under 100 kw. been supplied. ☒ and the results found as per Rule. ☒

Position of Generators Machinery space - higher platform aft and abaft

is the ventilation in way of generators satisfactory. ☒ are they clear of inflammable material and protected from mechanical injury anddamage from water, steam and oil. ☒ Switchboards, where are main switchboards placed.

Machinery space higher platform port side

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

steam and oil. ☒ what insulation is used for the panels (dead front type) porcelain if of synthetic insulatingmaterial is it an Approved Type. ☒ if of semi-insulating material (slate or marble) are all conducting parts insulated therefrom asper Rule. ☒ Is the construction as per Rule, including locking of screws and nuts. ☒ Description of Main Switchgear

for each generator and arrangement of equaliser switches. double pole circuit breaker with overload trip on each

pole, reverse current trip and interlocked equalizer switch for the 450 kw generators and

the rotary transformer dynamos - double pole circuit breaker with overload trip on each pole for the

and the switch and fuse gear (or circuit breakers) for each outgoing circuit. (100 kw aux. generator)

double pole circuit breaker with overload trip on each pole

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule. ☒ Instruments on main switchboard 20ammeters 7 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. positive Earth Testing, state means provided.

one voltmeter and two indicating lamps

Switches, Circuit Breakers and Fuses, are they as per Rule. ☒ are the fuses an Approved Type. ☒make of fuses. F.E.R. Milan are all fuses labelled. ☒ If circuit breakers are provided for the generators, at what

overload do they operate. 35% and at what current do the reversed current protective devices operate. 10%

Joint Boxes, Section Boards and Distribution Boards, is the construction as per Rule. ☒Cables, are they insulated and protected as per Rule. ☒ 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. 5 volts are the ends of all cables having a sectional

area of 0.01 square inch and above provided with soldering sockets. ☒ Are all paper insulated and varnished cambric insulatedcables 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. ☒ are any cables laid under machines or floorplates. ☒ if so, are theyadequately protected. ☒ Are cables in machinery spaces, galleys, laundries, etc., lead covered. ☒ or run in conduit. ☒or of the "HR" type. ☒ State how the cables are supported or protected.

Clipped as per Rule - lead covered and steel braided or spiral wire

armoured where required

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



Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule yes Emergency Supply, state position 100 kw aux eng. gener. set - mchy. space higher platform std.

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 24 Vols - 80 Amps/h.

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 ✓

and where are the controlling switches fitted ✓ Are all fittings suitably ventilated ✓

Searchlight Lamps, No. of 2 whether fixed or portable 1 fixed 1 portable are they of the carbon arc or of the filament type filament

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 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 yes 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 Stolz make of fuse Eletroconduzione - Milan 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

E.S.D., if fitted state maker SUBSIG E.C. - London location of transmitter frs. 51/52 and receiver frs. 51/52

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.	MAKER.
MAIN ...	2	Cant. Rinn. dell' Adri.	450	220	2045	800	Steam turb.	Fuscaldo - Genoa
EMERGENCY ...	1	"	100	220	455	400	SC SF	"
ROTARY TRANSFORMER	2	"	40	110	364	1500	Elect. Motor	Cant. Rinn. dell' Adriat.

#### GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return) in ft.	INSULATION.	PROTECTIVE COVERING.
		No. in Parallel per Pole.	Sectional Area of Strands sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR ...	450	6	400	2045	2328	30	Rubber	Lead cov. - Steel braid.
" " EQUALISER ...	✓	3	400	✓	1164	15	"	"
EMERGENCY GENERATOR ...	100	2	200	455	498	30	"	"
ROTARY TRANSFORMER: MOTOR ...	✓	1	200	220	249	31	"	"
" " GENERATOR ...	40	1	400	364	388	37	"	"
" " EQUALISER ...	✓	1	200	✓	249	18	"	"

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

DESCRIPTION.								
Mchy. sp. power sect. board	FM 1	1	400	305	388	90	"	"
"	FM 1A	1	63	108	116	96	"	"
"	FM 2	2	200	343	498	77	"	"
"	FM 3	1	315	276	331	68	"	"
"	FM 4	1	160	109	212	46	"	"
"	FM 5	1	315	235	331	80	"	"
Deck power	SSC	1	250	217	283	20	"	Spir. wir. arm.
Fans	STV	2	200	408	498	100	"	Steel braid.
Refrig. plant	FF	1	100	104	158	110	"	"
Workshop	FO	1	63	84	116	14	"	"
Low power supply	PT	2	200	450	498	59	"	"

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

DESCRIPTION.		CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return) in ft.	INSULATION.	PROTECTIVE COVERING.
		No. in Parallel per Pole.	Sectional Area of Strands sq. mm.	In the Circuit.	Rule.			
Deck lighting sect. b.	SLC 1	3	100	151	474	280	Rubber	Lead cov. - Spir. wir. arm.
"	SLC 2	1	200	197	249	100	"	" - Steel braid.
Mchy. lighting	SLM 1	1	32	51	72	55	"	"
"	SLM 2	1	50	68	97	25	"	"
Navigation lighting sect. b.	QFN	1	4	2	21	300	"	" - Spir. wir. arm.
Signals sect. b.	SV	1	20	20	57	300	"	"
Wireless	RT	1	63	50	116	255	"	"
Gyrocompass		1	6.3	12	30	25	"	" - Steel braid.
Radar		1	6.3	8.4	30	14	"	"
Suez Searchlight	P	1	20	14	57	450	"	" - Spir. wir. arm.

#### MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.		No.	B.H.P.		V.		INSULATION.	PROTECTIVE COVERING.
Steering gear	2	40	1	100	150	158	91	Rubber
Main cond. cool. pumps	2	80	1	250	292	283	61	"
O.F. burning pumps	2	10	1	16	40	48	58	"
Main cond. extrac. pumps	2	35	1	80	130	136	91	"
Bilge & Ballast pump	1	20	1	40	79	83	46	"
Bilge & Fire pump	1	53	1	160	202	212	92	"
Reduct gear L.O. pumps	2	23	1	80	125	136	52	"
Turbodyna. cond. extr. pumps	2	8.5	1	10	35	37	50	"
" " cool. - "	2	20	1	40	79	83	52	"
Fux cond. cool. pumps	2	20	1	40	79	83	41	"
Evapor. cool. pumps	2	20.4	1	40	80	83	50	"
Mchy. spaces fans	4	10	1	16	40.5	48	68	"
" " " " " "	2	5.5	1	6.3	23.3	30	106	"
Air compressor	1	27	1	63	104	116	59	"
Boiler fans	2	118	2	200	430	498	87	"
Rotary transformers	2	60	1	200	220	249	31	"
Diesel gener. cool. pump.	1	3	1	6.3	13.6	30	43	"
" " " " " "	1	11	1	16	44	48	38	"
Turning gear	1	12.25	1	20	48.5	57	96	"
Evapor. feeding pump	1	4	1	6.3	17	30	30	"
Cond. transfer pumps	2	10	1	16	40.5	48	58	"
O.F. transfer pump	1	26	1	6.3	100	116	58	"
Burning plant compress.	2	6	1	10	25	37	46	"
Air condit. plant	1	44	1	125	163	176	18	"
Refriger. compress.	2	11	1	16	43.5	48	15	"
Cargo pumps cond. cool. p.	1	30	1	63	115	116	68	"
Air condit. compressors	1	19	1	32	74	72	15	"



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.

CANTIERI RIUNITI DELL'ADRIATICO  
CANTIERE NAVALE MONFALCONE

*Montanari*

Electrical Contractors.

Date

#### COMPASSES.

Have the compasses been adjusted under working conditions

CANTIERI RIUNITI DELL'ADRIATICO  
CANTIERE NAVALE MONFALCONE

*Montanari*

Builder's Signature.

Date

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.

*yes*

If not, state date of approval.

*✓*

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 installation of this vessel has been fitted under special survey in accordance with or equivalent to RPE requirements and approved plans.

The workmanship and materials are good.

On completion the plant was tried under full working conditions, the insulation resistance tested and app found satisfactory.

In my opinion, this installation is eligible for full classification.

*Noted 28  
18/2/54*

Total Capacity of Generators 1000 *✓* Kilowatts.

The amount of Fee ... £ 387.600.-

*Per Tax 3% 11,630*

When applied for,

25.1 19.54

When received,

19

Travelling Expenses (if any) £ see Rpt. HQ

Committee's Minute

Assigned

*See Rpt. HQ*

TUESDAY 16 MAR 1954

DUAL CLASS  
L.R. & P.I.

*Slesari*

Surveyor to Lloyd's Register of Shipping.