

Rpt. 13.

No. 14090

## REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

21 JAN 1955

Date of writing Report 13th Jan 1955 When handed in at Local Office 15th Jan 1955 Port of TRIESTE

No. in Survey held at Monfalcone Date, First Survey See Rpt. Last Survey 46 19  
Reg. Book.

(No. of Visits ✓)

90362 on the Mv. "FLDERAMINE" Tons { Gross 12505

Net 1406

Built at Monfalcone By whom built Cant. Rinn. dell' Adriat. Yard No. 1793 When built 1954

Owners "ROMSA" - Raffineria Olio Minerale S.A. Port belonging to GENOA

Installation fitted by Cantieri Rinniti dell' Adriatico When fitted 1954

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. ✓ Radar. yes

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

Heating 220 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. 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 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 1 machy. space stbd. - 2 machy. space port - 1 machy. space port high platform

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.

machy. space port higher platform

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. steel (dead front type) porcelain, 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. double pole circuit breaker with overload trip on each pole

reverse current trip and interlocked equalizer switch

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

trip on each pole or double pole switch with fuse on each pole

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule. yes Instruments on main switchboard 33

ammeters 9 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.

1 voltmeter with two indicating lamps

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

make of fuses. F.E.R. - Milan, are all fuses labelled. yes If circuit breakers are provided for the generators, at what

overload do they operate. 40%, and at what current do the reversed current protective devices operate. 100%

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. 5.4 Volts, 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. run in conduit Are cables in machinery spaces, galleys, laundries, etc., lead covered. yes or run in conduit. ✓

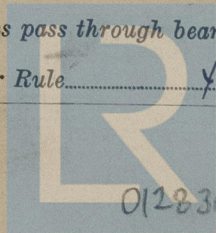
or of the "HR" type. ✓ State how the cables are supported or protected.

clipped and supported as per Rules - steel braided armoured cables

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. ✓ Refrigerated stores, are the cables and fittings as per Rule. yes



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Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule. yes Emergency Supply, state position emergency generator on Main deck in aft deck house - 24 V. battery supply for emergency use

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. 2 - 24 V. / 80 Amps. h. and 1 - 24 V. / 40 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. flameproof type of approved design in the bridge +ween dk. space and where are the controlling switches fitted. bridge Are all fittings suitably ventilated. yes

Searchlight Lamps, No. of. 1, whether fixed or portable. portable, 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. yes 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. yes, make of fuse. Stolz C/B 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. Sub. Sig. Co. Lon. location of transmitter. frs. H1 + H2 and receiver. frs. H1 + H2

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 ...	3	Cant. Rim. dell' Adr.	250	220	1135	500	H SC SA	Cant. Rim. dell' Adr.
Auxiliary	1	" "	60	220	273	530	Steam Eng.	Termomeccanica Ital.
EMERGENCY ...	1	" "	30	110	273	1000	H SC SC	Süddeutsche Bremsen A.G.
ROTARY TRANSFORMER	2	" "	50	110	455	1500	Elect. Mot.	Cant. Rim. dell' Adr.

#### 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 ...	250	3	400	1135	1164	32	Rubber	Steel braid. - Lead cov.
" " EQUALISER ...		2	315	✓	662	16	"	"
AUX. " "	60	1	250	273	283	12	"	"
" " " "		1	125	✓	176	6	"	"
EMERGENCY GENERATOR ...	30	1	250	273	283	6	"	"
ROTARY TRANSFORMER: MOTOR	75 HP	1	250	272	283	10	"	"
" " GENERATOR...	50	2	200	455	498	10	"	"

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

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 power sect. board	F 1/2	1	160	249	212	192	Rubber	Steel braid. - Lead cov.
" " " "	F 3	1	250	301	283	64	"	"
Workshop power	F 4	1	32	85	72	42	"	"
Store	F 5	1	125	151	176	54	"	"
Cond. plant	F 6	1	250	271	283	68	"	"
D. boiler service	F 7	1	100	145	158	46	"	"
Eng. power	F 8	1	315	247	662	36	"	"
" " " "	F 9	1	400	340	388	62	"	"
Kitchen power	F 10	1	6.3	19	30	78	"	"
Land connection	PT	2	200	500	498	68	"	"
Emerg. switchboard connection	QE	1	160	200	212	66	"	"

\* Preference tripping system

0 Now out of service

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

DESCRIPTION.	No. in Parallel per Pole.	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.			
Wireless	RT	1	32	50	72	198	Rubber	Steel braid. - Lead cov.
Radar		1	4	11.8	21	26	"	"
Gyrocompass		1	4	8	21	21	"	"
Gyroplot		1	4	8	21	124	"	"
Searchlight	P	1	16	13.6	48	346	"	"
Navigating lights	LN 1	1	4	23	21	196	"	"
Eng. lighting sect. board	LN 7	1	6.3	22	30	47	"	"
" " " "	LN 8	1	6.3	22	30	21	"	"
Deck	LN 5	1	32	46	72	38	"	"
" " " "	LN 6	1	32	42	72	40	"	"
" " " "	LN 3/4	1	100	94	158	154	"	"
Accum. heaters	2250 W. type (1)	1	4	14.7	21	12	"	"
" " " "	2500 W. (12)	1	4	11.3	21	18	"	"
" " " "	2000 W. (2)	1	2.5	9	11	22	"	"
" " " "	1900 W. (1)	1	2.5	8.6	11	31	"	"
" " " "	1500 W. (3)	1	2.5	6.8	11	28	"	"
Fresh water heater	2500 W. (1)	1	4	11.3	21	14	"	"
" " " "	3500 W. (1)	1	4	15.9	21	26	"	"
Kitchen furnace		1	10	32	27	18	"	"

#### MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.		No.	B.H.P.	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.			
Steering gear motor		1	25	1	50	97	97	118	Rubber	Steel braid. - Lead cov.
Rotary transformer motors		2	75	1	250	272	283	10	"	"
Main eng. cooling pumps mot.		2	72	1	250	264	283	36	"	"
" " lub. oil		2	110	2	160	400	424	58	"	"
Starting air compress. motor		1	65	1	200	242	249	62	"	"
Oil fuel transfer pump. mot.		1	50	1	160	186	212	36	"	"
" " " "		1	20	1	40	16	83	16	"	"
Bilge pump motor		1	25	1	50	97	97	14	"	"
Butterworth pump motor		1	95	1	400	345	388	38	"	"
Boiler fan motor		1	17	1	32	67	72	21	"	"
Aux. eng. cool. pumps mot.		4	6	1	10	25	27	10	"	"
Oil fuel service pumps mot.		2	28	1	4	13	21	12	"	"
Pulv. cool. pumps mot.		2	4.5	1	6.3	20	30	14	"	"
Turning eng. motor		1	15	1	25	59	62	26	"	"
Bilge pump motor		1	14	1	25	55	62	24	"	"
Mchy. space fan motors		2	10	1	16	41	48	96	"	"
D.B. burning plant motor		1	2	1	2.5	9.5	11	18	"	"
Condit. plant comp. motor		1	47	1	125	173	176	8	"	"
" " " "		1	15	1	25	59	62	14	"	"



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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 NAUTICO DI MONTEFALCONE

Electrical Contractors.

Date

#### COMPASSES.

Have the compasses been adjusted under working conditions

yes

CANTIERI RIUNITI DELL'ADRIATICO  
CANTIERE NAUTICO DI MONTEFALCONE

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

✓

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 Rule requirements and as shown and amended on the approved plans. - The workmanship and the materials are good. -  
On completion the plant was tried under full working conditions, the insulation resistance tested and all found satisfactory. -  
In my opinion this installation is eligible for full classification. -

Noted  
4/2/55

Total Capacity of Generators 840 ✓ Kilowatts.

Hire 432.000 less 15% for dual class

The amount of Fee ... £ 367.200

When applied for,

15. 1 19 55

Car fuel 9.180

When received,

19

Travelling Expenses (if any) £ 9.180

3% Rev. Tax. 11.564

Committee's Minute FRIDAY 11 FEB 1955

Assigned

See Rpt 46

DUAL CLASS  
L.R. & F.I.

Desari

Surveyor to Lloyd's Register of Shipping.



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