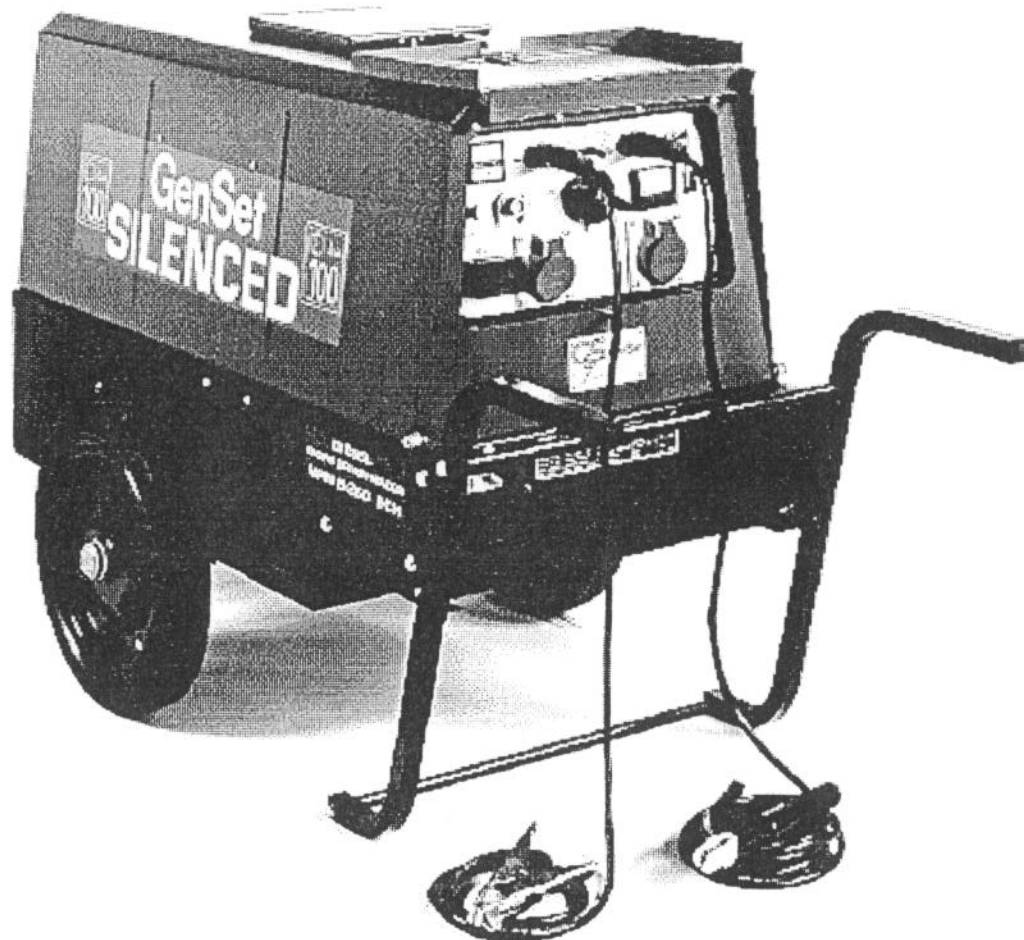


ENGINE DRIVEN WELDER GENERATING SET



MPM 8/300 I-EL

SAFETY STANDARDS

- The environment in which the welding machines are to be operated **should be large and airy**.
When used in a small room , it is indispensable to discharge the exhaust gases outside by means of proper pipes.
- Make sure not to use the welder near containers of inflammable substances or in environments where explosive fumes are present .
- Fuel filling should be done only when the engine is off .
- The welding machine grounding connection is necessary when it is used as a generating unit .
The connection is to be made with a copper plait with a size of not less than 10 sq. mms between the terminal and "ground" .
The unit may operate in humid or wet environments , or where large metal masses (heavy carpentry) being equipped with a differential protection (30 mA) .
- Check the effective insulation of the connections and wires used .
- Any inspections of electrical parts must be performed when the engine is off and by specialized staff only .
- Always use suitable protection during welding : mask , gloves .
- Make sure that the welding machine is used fairly far off from the welding site to avoid sparks setting fire to any fuel leaks from the engine .



The MPM 8/300 I-EL is a continuous current welding machine with :

- ♦ Excellent striking voltage and stability of the welding arc .
- ♦ Excellent performance with all kinds of electrodes .
- ♦ Possibility of being used as a professional generator unit A.C. 50 Hz three-single phase

SPECIFICATION

WELDING GENERATOR D.C.

Maximum current output	300 A
Rated output at 60 % duty cycle	270 A
Range of continuous control	30 - 300 A
Striking voltage	70 V
Insulation class	F

AUXILIARY GENERATOR

Asynchronous generator	GEN SET
Three phase power	8 kVA 415 V
Single phase power	7 kVA 240 V
Single phase power	4 kVA 110 V
Frequency	50 Hz

ENGINE

Make/Type	Diesel Ruggerini RD 210
Number of cylinders	2
Displacement	954 cc.
Diesel engine output	15 (20) kW (CV)
Engine speed	3000 r.p.m.
Cooling	Air
Fuel tank capacity	34 l.
Oil capacity	2,7 l.
Starter	Electric
Battery	12 V 43 Ah
Weight	375 kg
Dimension (L. x W. x H.)	1240 x 620 x 800 mm
Specific fuel consumption	250 gr/kW/h
Average operating hours	15 h ca.



1.1 INTRODUCTION

You will get the best results from the welding set carrying out scrupulously the operation recommended by **RUGGERINI USE and MAINTENANCE** booklet .

1.2 WARRANTY

For the engine warranty service , please send back the Service Certificate to **RUGGERINI** just at the date of purchase .

1.3 SPARE PARTS

Spare parts should be ordered as follows :

- ♦ **For the engine :** Get in touch with a RUGGERINI service centre quoting the reference numbers indicated in RUGGERINI "Spare parts use and maintenance" manual .
- ♦ **For the generator and relevant equipment :** Get in direct touch with GEN SET quoting the machine type and the part number
- ♦ RUGGERINI guarantee proper assistance with a wide range of delalers all over abroad.

WARNING

The sets are supplied without oil.

Obtain a supply of 2,7 liters of good quality multiviscose engine oil 10W40, recommended for general all temperature use.

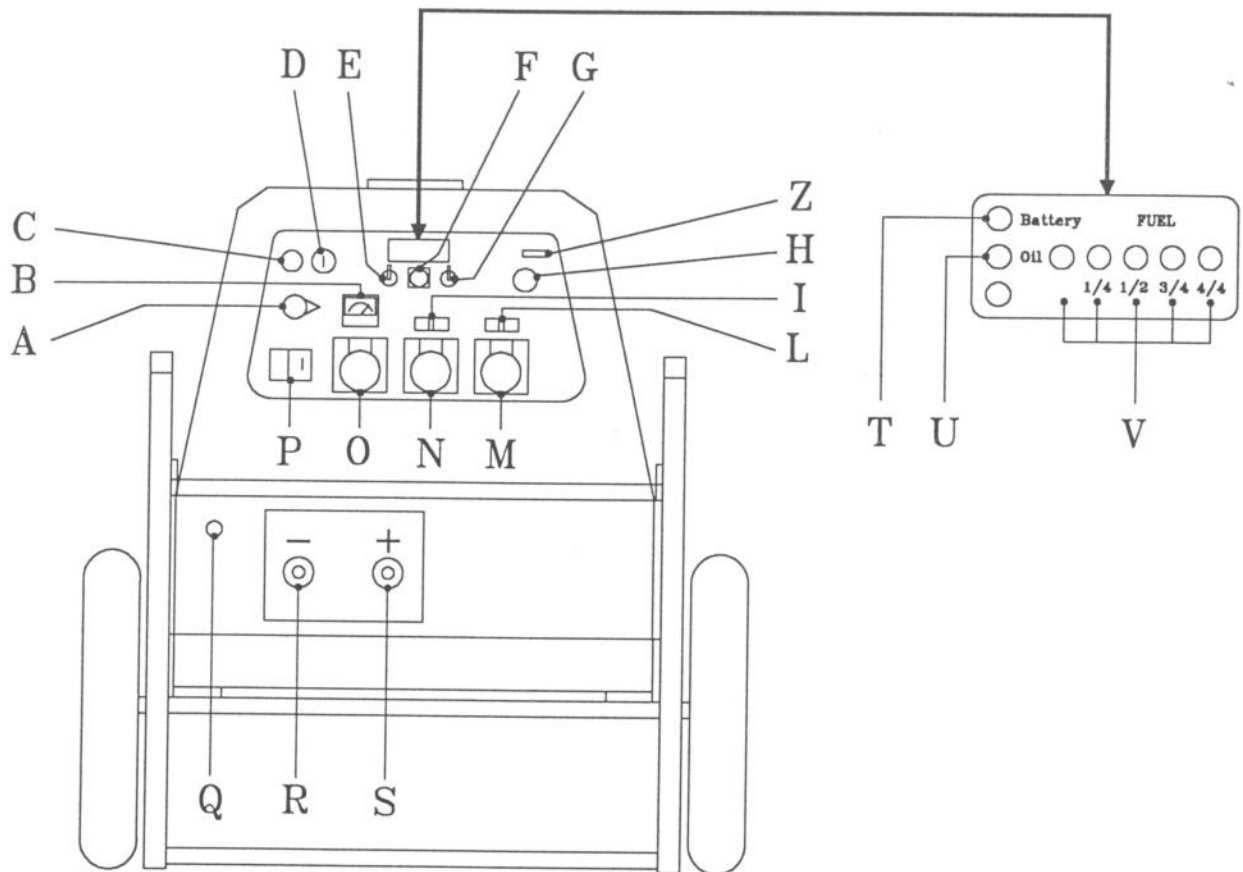
The dry-charged battery is supplied sealed . Fill the battery with electrolytic acid as soon as the seales have been removed , to avoid oxidation of the cells . Once the battery has been filled , let it rest for one hour before use.

You must absolutely earth the machine before starting the engine.

1.4 RUNNING IN

In the first 50 hours of operation do not exceed 70% of the maximum power of the machine

FRONT PANEL DESCRIPTION



A	Throttle knob	N	240 V 50 Hz single phase outlet
B	Voltmeter	O	415 V 50 Hz three phase outlet
C	Stop knob	P	Earth leakage circuit breaker
D	Ignition key	Q	Earth clamp connection
E	Arc Force switch	R	Welding socket : negative connection
F	Remote control jack	S	Welding socket : positive connection
G	Remote control switch	T	Battery charge led
H	Welding current control	U	Oil pressure led
I	240 V circuit breaker	V	Fuel led
L	110 V circuit breaker	Z	Serial number
M	110 V 50 Hz single phase outlet		

OPERATING INSTRUCTIONS

2.1 STARTING OF DIESEL ENGINE

- ♦ Check oil level .
- ♦ Check that throttle knob **A** is at minimum speed position .
- ♦ Close the earth leakage circuit breaker **P** .
- ♦ For starting turn key **D** .
- ♦ After starting wait 10 minute before loading the set in order that the engine warms up .

3.1 USE OF MACHINE AS WELDER

- ♦ Insert welding cable plugs into relevant sockets **R** and **S** .
- ♦ The throttle knob **A** must in the position of maximum speed .
- ♦ Setting of the welding current is obtained by turning the potentiometer **H** fixed on the front panel of machine - take care that switch **G** is in **0** (OFF) position .
- ♦ The Arc Force control **E** can be **I** (ON) or **0** (OFF) position .
- ♦ Setting of welding current may be obtained at distance with a special remote control device (supplied on request) .
- ♦ When operating with remote control put switch **G** to position **I** (ON) and current the cable of the remote control unit to outlet **F** .
- ♦ For basic and cellulosic electrodes the welding **PLIERS** have to be connected to the positive terminal .
- ♦ For rutile and acid electrodes the welding **PLIERS** have to be connected to the negative terminal .



4.1 USE OF MACHINE AS GENERATING SET

- ♦ Proceeded as 2.1 .
- ♦ The voltmeter indicates the value of single phase voltage - about 240 V - while the value of three phase voltage is aprox . 415 V .

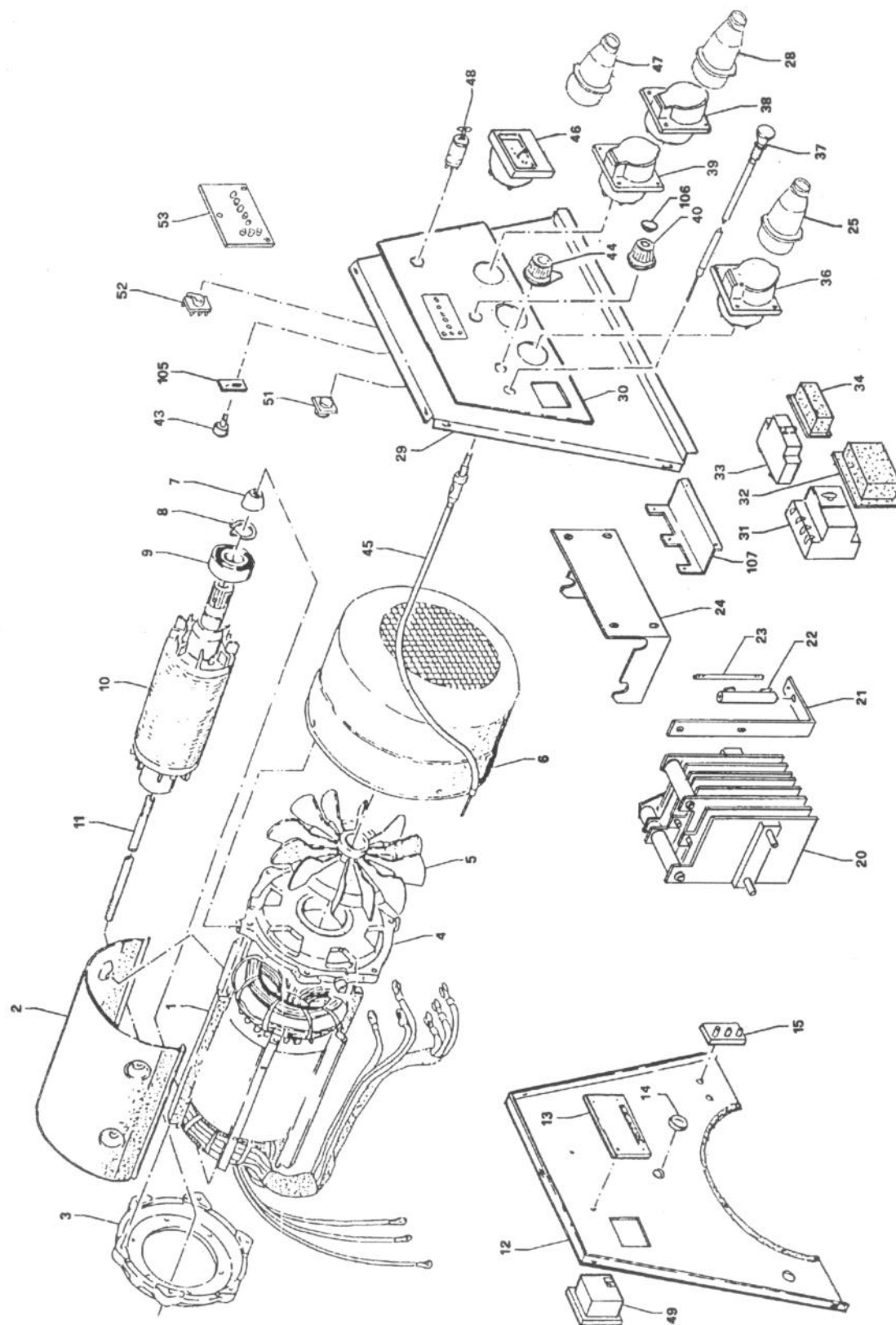
5.1 STOPPING OF SET

- ♦ Disconnect any load from the generator and welding machine .
- ♦ Turn the engine speed control to its lowest setting .
- ♦ Wait approx. 1 minute , pull stop knob **C** .

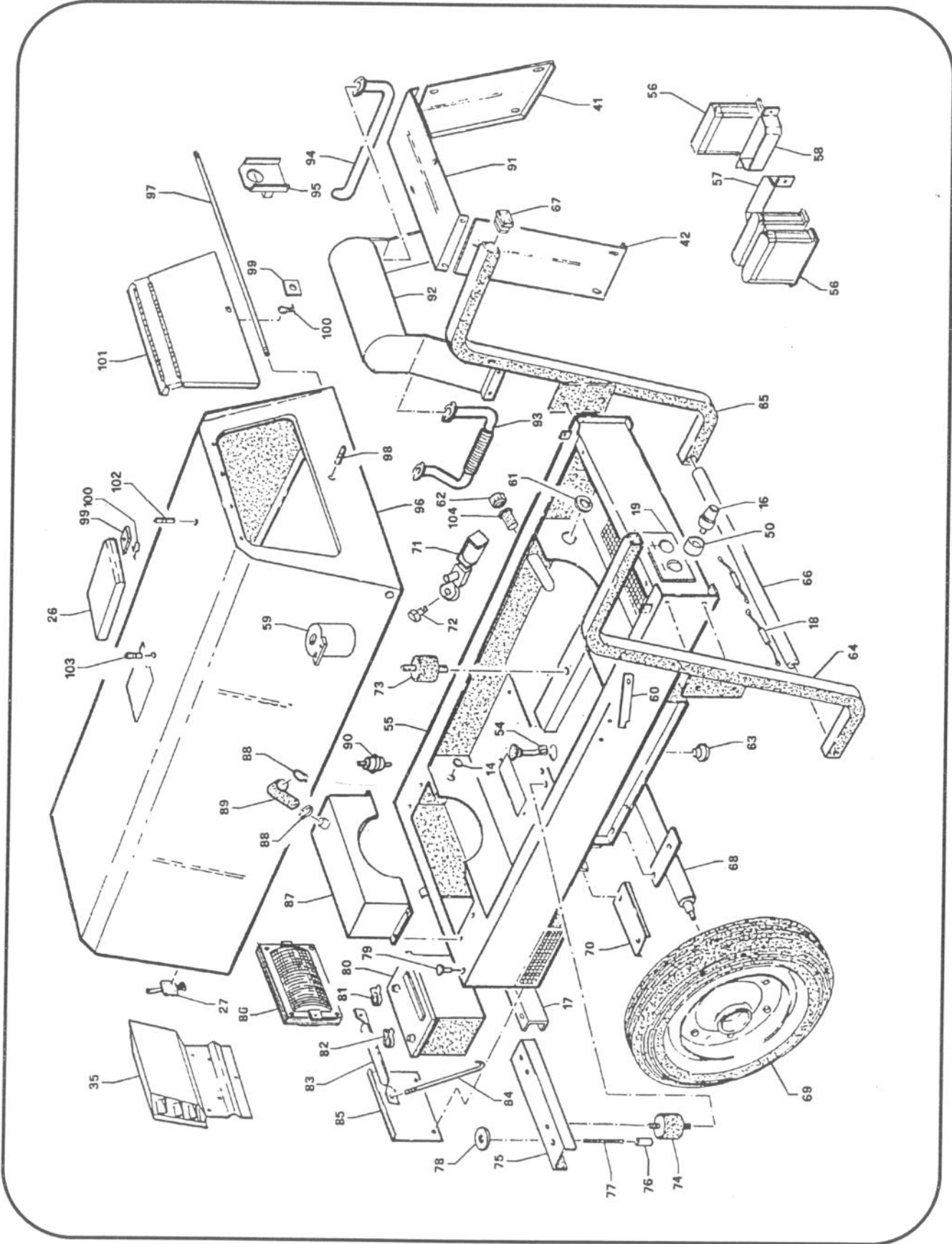
DAS : AUTOMATIC STOP FOR ENGINE'S PROTECTION

The above protective device goes into action after starting key has been inserted .
This device stops the machine by means of is *low oil pressure, lech of fuel, broken belt ect.*

MPM 8/300 I-EL



MPM 8/300 I-EL





SPARE PART LIST MPM 8/300 I-EL

Item no.	Ordering no.	Denomination
1	16.946	Stator
2	947	Stator cover
3	10.201	Engine connection flange
4	902	Flange with bearing seat
5	10.175	Fan
6	11.705	Fan cover
7	16.518	Nut
8	O905	Seeger ring
9	903	Bearing 100/45/25 2RS
10	10.205	Shaft with rotor
11	13.273	Tie rod
12	11.865	Panel
13	12.658	Electronic panel
14	11.312	16 Ø rubber wire holder
15	614	3 poles terminal board
16	886	Plug for welding outlet
17	17.057	Chassis adapter
18	16.879	0,1µF 630V capacitor
19	17.390	Plate for welding outlet
20	17.457	Heatsink
21	17.458	Shunt
22	12.776	100 Ohm - 75 W resistor
23	17.524	Tie rod
24	17.459	Plate
25	O827	Plug EEC 415V 16A for socket
26	12.495	Inspection door
27	10.530	Frame locking hook
28	O826	Plug EEC 240V 32A for socket
29	15.610	Front end cover
30	16.060	Front plate



SPARE PART LIST MPM 8/300 I-EL

Item no.	Ordering no.	Denomination
31	839	25 A earth leakage circuit breaker
32	13.933	Protection
33	0749	32 A circuit breaker
34	13.191	Protection
35	11.719	Rear intake cover
36	913	415 V 16 A three phase socket
37	11.750	Stop knob
38	914	240 V 32 A single phase socket
39	998	110 V 32 A single phase socket
40	15.937	Potentiometer knob
41	16.063	Right hand cover
42	16.064	Left hand cover
43	909	Potentiometer 1K
44	612	Throttle knob
45	11.749	Throttle unit
46	322	300V F.S. voltmeter
47	0828	Plug EEC 110V 32A for socket
48	10.006	Cranking key K11
49	912	Hourmeter
50	836	Welding outlet
51	0984	Socket for remote control
52	910	Switch assembly
53	16.505	DAS : automatic stop for engine's protection
54	15.613	Fuel level gauge
55	13.494	Frame
56	16.940	3x60 μ F capacitor
57	16.934	Plate
58	16.896	Plate
59	16.563	Fuel prefilter
60	16.557	Plate for canopy



SPARE PART LIST MPM 8/300 I-EL

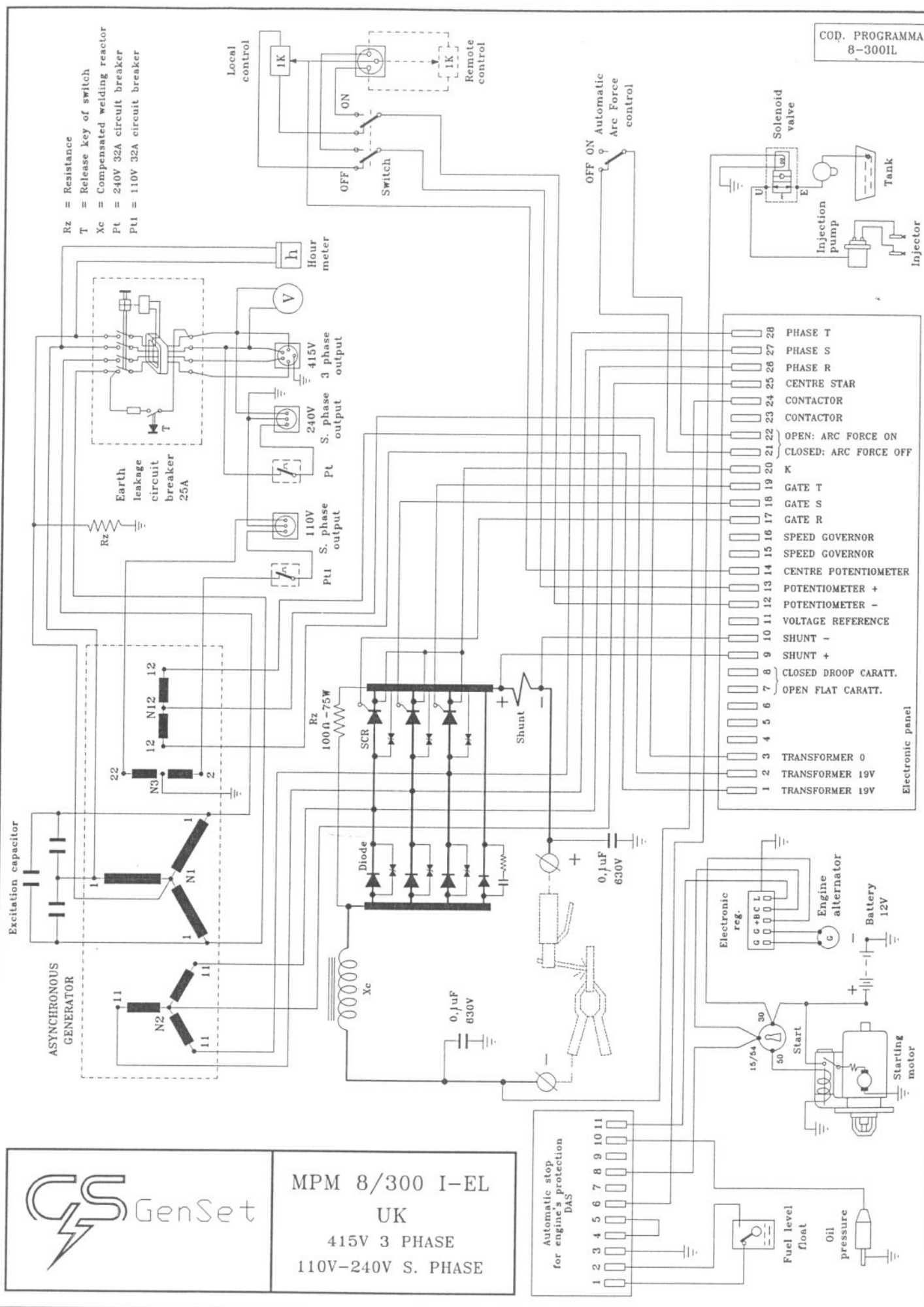
Item no.	Ordering no.	Denomination
61	10.174	30 Ø rubber wire holder
62	16.271	Fuel filter cap
63	O923	Fuel drain cap
64	11.715	Left handle
65	11.716	Right handle
66	11.717	Tie rod
67	695	Cap
68	11.724	Axle
69	13.552	Wheel
70	11.720	Cover
71	12.573	Solenoid valve
72	12.966	Screw
73	13.493	50x30 shock absorber
74	409	40x40 shock absorber
75	11.752	Engine support bracket
76	12.243	Spacer
77	11.723	Tie rod
78	O332	Washer
79	14.300	Rubber puffer
80	425	43 Ah - 12 V battery
81	15.023	Positive battery charging clip
82	15.024	Negative battery charging clip
83	11.726	Battery clamp
84	11.727	Tie rod
85	11.728	Battery cover
86	12.786	Reactor
87	11.753	Intake air box
88	O825	Hose clamp
89	10.296	Intake air pipe
90	16.468	Fuel prefilter



SPARE PART LIST MPM 8/300 I-EL

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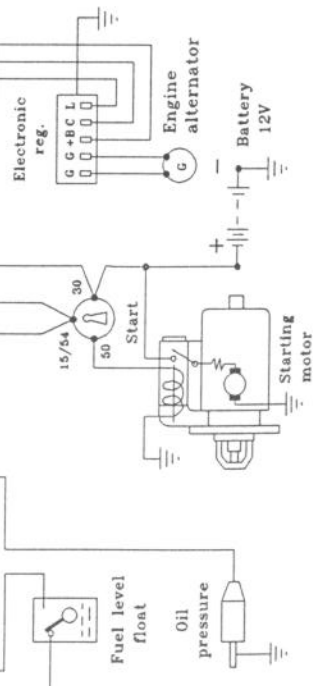
Rz = Resistance
T = Release key of switch
Xc = Compensated welding reactor
Pt = 240V 32A circuit breaker
Pt1 = 110V 32A circuit breaker



MPM 8/300 I-EL
UK
415V 3 PHASE
110V-240V S. PHASE

Automatic stop
for engine's protection
DAS

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11





CLAUSOLE DI GARANZIA

La GEN SET S.p.a. garantisce i suoi prodotti, purché non modificati, per un periodo di 12 (dodici) mesi dalla data di consegna al cliente utilizzatore.

Entro i suddetti termini, nei paesi ove esista una organizzazione assistenziale, la **GEN SET S.p.a.** si impegna a sostituire o riparare i pezzi avariati per accertato difetto d'origine di materiale, lavorazione e/o montaggio a mezzo delle proprie **OFFICINE AUTORIZZATE**.

La scelta se operare la riparazione o la sostituzione dei pezzi avariati è ad insindacabile giudizio della **FABBRICA** o delle **OFFICINE AUTORIZZATE**.

La garanzia nel resto del mondo consiste esclusivamente nella fornitura gratuita, franco stabilimento di Villanova d'Ardenghi dei pezzi rivelatisi non più utilizzabili per accertato difetto d'origine del materiale.

La garanzia si applica, previo esame dei materiali avariati da parte della fabbrica.

Le spese di viaggio e trasferta del personale che effettua le riparazioni in garanzia sono a carico dell'utilizzatore, come pure le spese di imballo a trasporto sia dei pezzi difettosi che di quelli sostituiti.

In nessuno dei casi previsti il compratore può pretendere la risoluzione del contratto od un risarcimento danni derivati dall'uso o dall'impossibilità di uso delle apparecchiature sia totale che parziale.

LA PRESENTE GARANZIA NON SI APPLICA ALLE BATTERIE D'AVVIAMENTO ED AI MOTORI DIESEL E BENZINA MONTATI SULLE APPARECCHIATURE GEN SET PER I QUALI INTERVIENE DIRETTAMENTE IL FABBRICANTE.

GUARANTEE CLAUSES

GEN SET guarantees its products, provided they have not been modified, for a period of 12 months from the date of handing over to the End User. Within these terms, in all the countries where a service organisation is in place **GEN SET** commits itself to replace or repair the defective parts resulting from faulty material, workmanship and/or assembly through its authorized service stations.

The choice whether to replace or repair the defective parts is exclusively reserved to GEN SET and/or its authorized service stations.

The guarantee in the rest of the world is limited to the supply ex-works free or charge of those parts which will result unsuitable for reuse due to original defects.

The guarantee will apply after a check of the defective parts from the factory.

The travel, board and lodging expenses of the personnel who will perform the repairs are at the charge of the End User as are the packing and transportation costs both for the defective and the replaced parts.

In no case the client can claim the cancellation of the contract or a damage compensation due to the use or the impossibility to use the equipment both totally or partially.

THE PRESENT GUARANTEE DOES NOT APPLY TO STARTING BATTERIES, DIESEL AND GASOLINE ENGINES MOUNTED ON GEN SET MACHINES FOR WHICH THE RESPECTIVE MANUFACTURES WILL INTERVENE DIRECTLY.



La garanzia viene a cessare di diritto :

- ♦ quando il cliente non ha ottemperato agli obblighi contrattuali di pagamento.
- ♦ quando sono stati manomessi i sigilli posti dalla fabbrica.
- ♦ quando smontaggi, riparazioni o modifiche sono state effettuate da personale non appartenente alla rete di assistenza GEN SET.
- ♦ quando l'apparecchiatura è stata utilizzata in modo incauto o negligente.

La presente garanzia non si applica per i deterioramenti conseguenti a normale usura.

NORME PER ESERCITARE IL DIRITTO DI GARANZIA

Ogni apparecchiatura GEN SET viene fornita corredata da un certificato di garanzia. Compilare il certificato in ogni sua parte e farlo convalidare con timbro e firma dal rivenditore.

Ritagliare e spedire a:

GEN SET S.p.a. - Servizio Assistenza
Via Stazione 5
27030 Villanova d'Ardenghi (Pavia)

Il certificato di garanzia deve essere conservato integro e con cura ed esibito ad ogni richiesta di intervento.

The guarantee will automatically expire:

- ♦ if the customer has not fulfilled the contractual payment obligations.
- ♦ when the factory seals have been broken.
- ♦ when dismantling, repair or modifications have been executed by unauthorized personnel not being part of the GEN SET service organization.
- ♦ when the equipment has been subject to negligent or improper use.

The present guarantee does not apply to wear and tear parts.

COMING INTO FORCE OF THE GUARANTEE RIGHTS

Each GEN SET machine is delivered with a guarantee certificate, which must be filled out in each part and be validated by the stamp and signature of the dealer.

Cut out and send to:

The guarantee certificate must be kept and shown before any request of intervention.