MSG CHOPPER

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101609003 - GB

USE AND MAINTENANCE MANUAL
SPARE PARTS CATALOG

10160M00
preparato da UPT
approvato da DITE

IQNet

THE INTERNATIONAL CERTIFICATION NETWORK

CERTIFICATE

IQNet and its partner
CISQ/ICIM
hereby certify that the organization

BCS S.p.A.

Head Office and Operative Unit: **Viale Mazzini, 161 - I-20081 Abbiategrasso (MI)**
(BCS – FERRARI – PASQUALI Trade Marks)
Operative Units
Via Valbrina, 17/19 - I-42045 Luzzara (RE) - (BCS – FERRARI – PASQUALI Trade Marks)
Viale Europa, 59 - I-20090 Cusago (MI) - (Mosa Trade Mark)

for the following field of activities

Design, production and servicing of tractors, agricultural and green maintenance machines.
Design, production and servicing of engine driven welders and generating sets.

has implemented and maintains a

Quality Management System

which fulfills the requirements of the following standard

ISO 9001:2000

Issued on: **2006-03-06**
Validity date: **2009-03-05**
Registration Number: IT-3722

IQNet — *Fabio Roversi*, *President of IQNet*

CISQ — *Gianrenzo Prati*, *President of CISQ*

IQNet Partners*:
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CISQ is a member of IQNet
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IQNet, the association of the world's first class certification bodies, is the largest provider of management System Certification in the world. IQNet is composed of more than 30 bodies and counts over 150 subsidiaries all over the globe.

ICIM
www.icim.it

CERTIFICATO n. 0192/4
CERTIFICATE No.

SI CERTIFICA CHE IL SISTEMA DI GESTIONE PER LA QUALITA' DI
WE HEREBY CERTIFY THAT THE QUALITY MANAGEMENT SYSTEM OPERATED BY

BCS S.p.A.

UNITA' OPERATIVE
OPERATIVE UNITS

Sede e Unità Operativa
Viale Mazzini, 161 - 20081 Abbiategrasso (MI)
(marchi BCS – FERRARI – PASQUALI)
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Viale Europa, 59 - 20090 Cusago (MI)
(marchio MOSA)
Italia

E' CONFORME ALLA NORMA
IS IN COMPLIANCE WITH THE STANDARD

UNI EN ISO 9001:2000

PER LE SEGUENTI ATTIVITA'
FOR THE FOLLOWING ACTIVITIES

EA: 18

Progettazione, produzione ed assistenza di trattori, macchine per agricoltura e manutenzione del verde. Progettazione, produzione ed assistenza di motosaldatrici e gruppi elettrogeni.

Design, production and servicing of tractors, agricultural and green maintenance machines. Design, production and servicing of engine driven welders and generating sets.

Riferirsi al Manuale della Qualità per l'applicabilità dei requisiti della Norma ISO 9001:2000.
Refer to Quality Manual for details of application to ISO 9001:2000 requirements.

Il presente certificato è soggetto al rispetto del regolamento per la certificazione dei sistemi di gestione per la qualità della azienda.
The use and the validity of this certificate shall satisfy the requirements of the rules for the certification of company quality management systems.

Data emissione *First issue*	Emissione corrente *Current issue*	Data di scadenza *Expiring date*
30/05/1994	06/03/2006	05/03/2009

ICIM S.p.A. – PIAZZA A. DIAZ, 2 – 20123 MILANO

SINCERT — Membro degli Accordi di Mutuo Riconoscimento EA e IAF
Signatory of EA and IAF Mutual Recognition Agreements
SQ Q N° 004A
SGA N° 002D
PRD N° 004B
SCR N° 006F

CISQ è la Federazione Italiana di Organismi di Certificazione dei sistemi di gestione aziendale
CISQ is the Italian Federation of management system Certification Bodies

FEDERAZIONE CISQ
www.cisq.com

ICIM CISQ IQNet
ISO 9001:2000 - Cert. 0192/3

UNI EN ISO 9001 : 2000

MOSA has certified its quality system according to UNI EN ISO 9001:2000 to ensure a constant, high quality of its products. This certification covers the design, production and servicing of engine driven welders and generating sets.

The certifying institute, ICIM, which is a member of the International Certification Network IQNet, awarded the official approval to MOSA after an examination of its operations at the head office and plant in Cusago (MI), Italy.

This certification is not a point of arrival but a pledge on the part of the entire company to maintain a level of quality of both its products and services which will continue to satisfy the needs of its clients, as well as to improve the transparency and the communications regarding all the company's actives in accordance with the official procedures and in harmony with the MOSA Manual of Quality.

The advantages for MOSA clients are:

- Constant quality of products and services at the high level which the client expects;
- Continuous efforts to improve the products and their performance at competitive conditions;
- Competent support in the solution of problems;
- Information and training in the correct application and use of the products to assure the security of the operator and protect the environment;
- Regular inspections by ICIM to confirm that the requirements of the company's quality system and ISO 9001 are being respected.

All these advantages are guaranteed by the CERTIFICATE OF QUALITY SYSTEM No.0192 issued by ICIM S.p.A. - Milano (Italy) - www.icim.it

15/01/97 10160-GB

⚠ ATTENTION

This use and maintenance manual is an important part of the machines in question.
The assistance and maintenance personel must keep said manual at disposal, as well as that for the engine and alternator (if the machine is synchronous) and all other documentation about the machine.

We advise you to pay attention to the pages concerning the security (see page M1.1).

MOSA

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INFORMATION

Dear Customer,
We wish to thank you for having bought from MOSA a high quality set.

Our sections for Technical Service and Spare Parts will work at best to help you if it were necessary.

To this purpose we advise you, for all control and overhaul operations, to turn to the nearest authorized Service Centre, where you will obtain a prompt and specialized intervention.

☞ In case you do not profit on these Services and some parts are replaced, please ask and be sure that are used exclusively original MOSA parts; this to guarantee that the performances and the initial safety prescribed by the norms in force are re-established.

☞ ***The use of non original spare parts will cancel immediately any guarantee and Technical Service obligation from MOSA.***

NOTES ABOUT THE MANUAL

Before actioning the machine please read this manual attentively. Follow the instructions contained in it, in this way you will avoid inconveniences due to negligence, mistakes or incorrect maintenance. The manual is for qualified personnel, who knows the rules: about safety and health, installation and use of sets movable as well as fixed.

You must remember that, in case you have difficulties for use or installation or others, our Technical Service is always at your disposal for explanations or interventions.

The manual for Use Maintenance and Spare Parts is an integrant part of the product. It must be kept with care during all the life of the product.
In case the machine and/or the set should be yielded to another user, this manual must also given to him.
Do not damage it, do not take parts away, do not tear pages and keep it in places protected from dampness and heat.

You must take into account that some figures contained in it want only to identify the described parts and therefore might not correspond to the machine in your possession.

INFORMATION OF GENERAL TYPE

In the envelope given together with the machine and/or set you will find: the manual for Use Maintenance and Spare Parts, the manual for use of the engine and the tools (if included in the equipment), the guarantee (in the countries where it is prescribed by law).

Our products have been designed for the use of generation for welding, electric and hydraulic system; ANY OTHER DIFFERENT USE NOT INCLUDED IN THE ONE INDICATED, relieves MOSA from the risks which could happen or, anyway, from that which was agreed when selling the machine; MOSA excludes any responsibility for damages to the machine, to the things or to persons in this case.

Our products are made in conformity with the safety norms in force, for which it is advisable to use all these devices or information so that the use does not bring damage to persons or things.

While working it is advisable to keep to the personal safety norms in force in the countries to which the product is destined (clothing, work tools, etc.).

Do not modify for any motive parts of the machine (fastenings, holes, electric or mechanical devices, others..) if not duly authorized in writing by MOSA: the responsibility coming from any potential intervention will fall on the executioner as in fact he becomes maker of the machine.

☞ ***Notice: this manual does not engage MOSA, who keeps the faculty, apart the essential characteristics of the model here described and illustrated, to bring betterments and modifications to parts and accessories, without putting this manual uptodate immediately.***

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MOSA
Divisione della BCS S.p.A.
V.le Europa 59 - 20090 Cusago (Mi) - Italia

ISO 9001:2000 - Cert. 0192/3

DICHIARAZIONE DI CONFORMITA'

CE

Déclaration de Conformité – Declaration of Conformity – Konformitätserklärung
Conformiteitsverklaring – Declaración de Conformidad

MOSA dichiara sotto la propria responsabilità che la macchina:
MOSA déclare, sous sa propre responsabilité, que la machine:
MOSA declares, under its own responsibility, that the machine:
MOSA erklärt, daß die Aggregate:
MOSA verklaard, onder haar eigen verantwoordelijkheid, dat de machine:
MOSA declara bajo su responsabilidad que la máquina:

Modello/Modèle/Model/Modell/Model/Modelo: _____

Codice/ Code/ Code/ Kode/ Code/ Codigo: _____

è conforme con quanto previsto dalle **Direttive Comunitarie** e relative modifiche:
est en conformité avec ce qui est prévu par les **Directives Communautaires** et relatives modifications:
conforms with the **Community Directives** and related modifications:
mit den Vorschriften der Gemeinschaft und deren Ergänzungen übereinstimmt:
in overeenkomst is met de inhoud van gemeenschapsrichtlijnemen gerelateerde modificaties:
comple con los requisítos de la **Directiva Comunitaria** y sus anexos:

98/37/CE - 73/23/CE - 89/336/CE - 2000/14/CE

per la verifica sono state considerate le seguenti norme armonizzate, Norme nazionali e internazionali:
pour la vérification de la conformité ont été consultées les normes harmonisées suivantes, normes nationales et internationales:
to check the conformity, the following harmonized norms, national and international norms, have been consulted:
zur Prüfung hat man die folgenden übereinstimmenden nationalen und internationalen Normen herangezogen:
ter verificatie van de overeenkomst, zijn de volgende geharmoniseerde normen, nationaal en internationaal, geconsulteerd:
para su verification se han tenido en cuenta las Normas armonizadas, Normas nacionales e internacionales:

Norme armonizzate - normes harmonisées - harmonized norms - übereinstimmende Normen
geharmoniseerde normen - Normas armonizadas:
EN 292-1 EN 292-2
EN 60204-1
EN 50199 EN 60974-1 (Solo per modelli - Seulement pour les modèles - Only for models - nur für die Modelle - Alleen voor de modellen - Sólo para modelos: **TS**)
EN 50081-2 EN 50082-2

Altre norme - autres normes - other norms - andere Normen - andere normen - otras normas:
ISO 8528 (Solo per modelli - Seulement pour les modèles - Only for models - nur für die Modelle - Alleen voor de modellen - Sólo para modelos: **GE**)

Ing. Benso Marelli
Direttore Generale

Cusago, _____

MM 065.2.doc

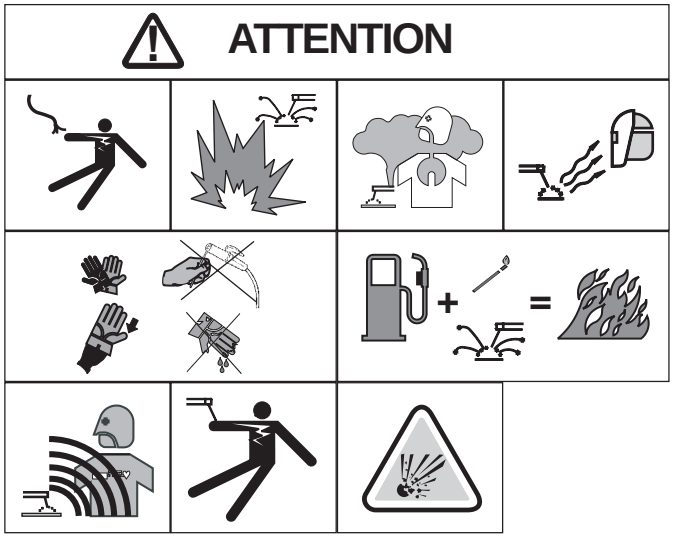
CE The CE mark (European Community) certifies that the product complies with the essential safety requirements provided by the applicable COMMUNITY DIRECTIVES. In the Conformity Declaration are reported the HARMONIZED NORMS and not, used for the checking.

INSTALLATION AND ADVICE BEFORE USE

The operator of the welder is responsible for the security of the people who work with the welder and for those in the vicinity.
The security measures must satisfy the rules and regulations for engine driven welders.
The information given below is in addition to the local security norms.

Estimate possible electromagnetic problems in the work area taking into account the following indications.

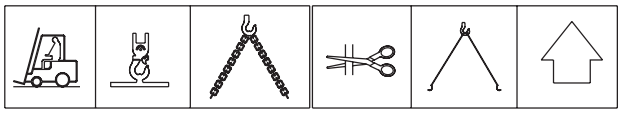
1. Telephonic wirings and/or of communication, check wirings and so on, in the immediate vicinity.
2. Radio and television receptors and transmettors.
3. Computer and other checking devices.
4. Critical devices for safety and/or for industrial checks.
5. Peapol who, for instance, use pace-maker, hearing-aid for deaf or something and else.
6. Devices used for rating and measuring.
7. The immunity of other devices in the operation area of the welder. Make sure that other used devices are compatible. If it is the case, provide other additional measures of protection.
8. The daily duration of the welding time.

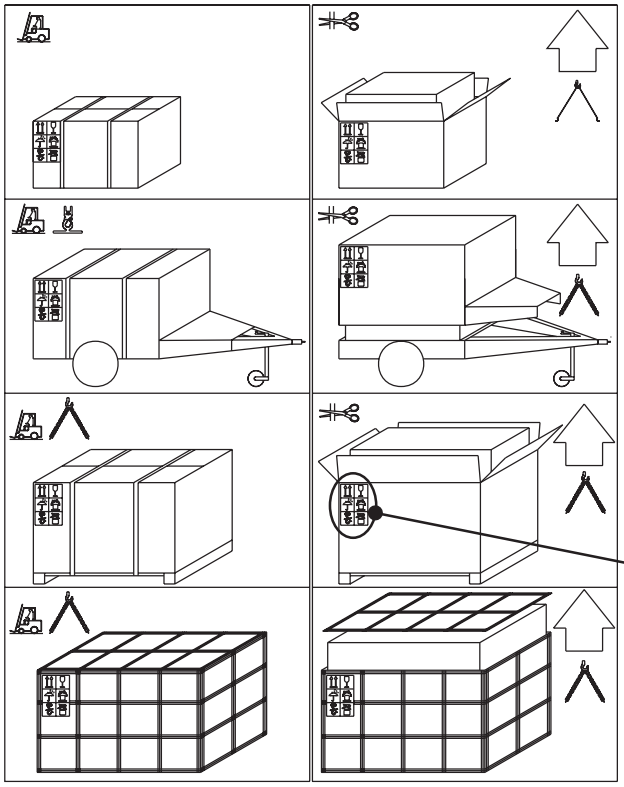


Make sure that the area is safe before starting any welding operation.

- Do not touch any bare wires, leads or contacts as they may be live and there is danger of electric shock which can cause death or serious burns. The electrode and welding cables, etc. are live when the unit is operating.
- Do not touch any electrical parts or the electrode while standing in water or with wet hands, feet or clothes.
- Insulate yourself from the work surface while welding. Use carpets or other insulating materials to avoid physical contact with the work surface and the floor.
- Always wear dry, insulating glovers, without holes, and body protection.
- Do not wind cables around the body.
- Use ear protections if the noise level is high.
- Keep flamable material away from the welding area.
- Do not weld on containers which contain flamable material.
- Do not weld near refuelling areas.
- Do not weld on easily flamable surfaces.
- Do not use the welder to defrost (thaw) pipes.
- Remove the electrode from the electrode holder, when not welding.
- Avoid inhaling fumes by providing a ventilation system or, if not possible, use an approved air breather.
- Do not work in closed areas where there is no fresh air flow.
- Protect face and eyes (protective mask with suitable dark lens and side screens), ears and body (non-flamable protective clothers).

NOTE



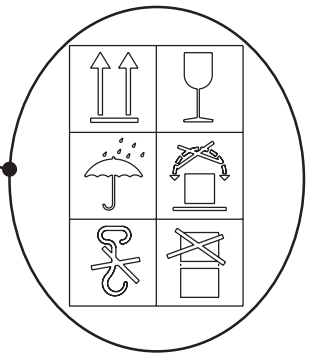


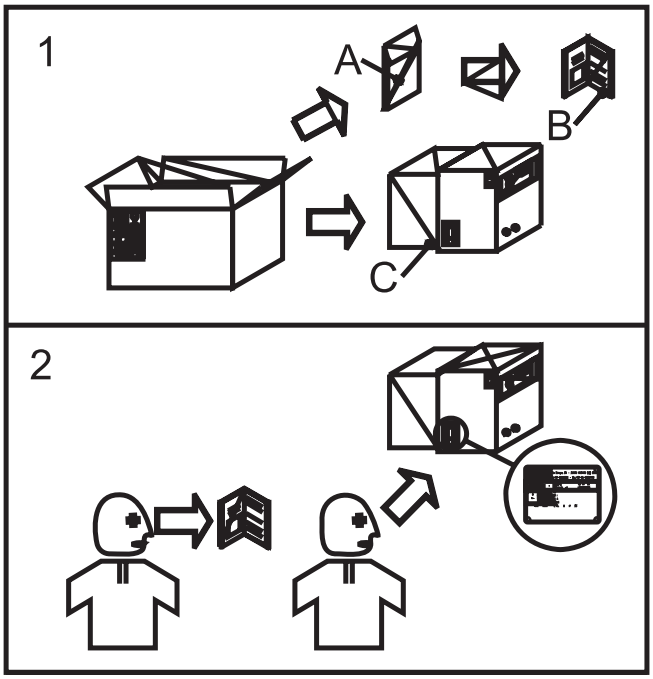
☞ Be sure that the lifting devices are: correctly mounted, adequate for the weight of the machine with it's packaging, and conforms to local rules and regulations.

When receiving the goods make sure that the product has not suffered damage during the transport, that there has not been rough handling or taking away of parts contained inside the packing or in the set.

In case you find damages, rough handling or absence of parts (envelopes, manuals, etc.), we advise you to inform immediately our Technical Service.

For eliminating the packing materials, the User must keep to the norms in force in his country.





1) Take the machine (C) out of the shipment packing. Take out of the envelope (A) the user's manual (B).
2) Read: the user's manual (B), the plates fixed on the machine, the data plate.

The TS 400 engine driven welder ia a unit which ensures the function as:
a) a current source for arc welding
b) a current source for the auxiliary power generation
It is meant for industrial and professional use, powered by an endothermic engine; it is composed of various main parts such as: engine, alternator, electric and electronic controls, the fairing or a protective structure.
The assembling is made on a steel structure, on which are provided elastic support which must damp the vibrations and also eliminate sounds which would produce noise.

Technical data	MSG CHOPPER
D.C. WELDING C.C.	
Welding current regulation	50 - 165A
Welding voltage	50 V
Service	165A - 35%, 140A - 60%
Ø electrode	2 - 4 mm
A.C. GENERATOR	
Single-phase generation	2 kVA / 230 V / 8.7 A
Service	100 %
Frequency	50 Hz
ALTERNATOR	High frequency, self-regulated, brushless
Insulating class	H
ENGINE	
Mark	MOSA
Type	2-Stroke
Displacement	125cm³
Cylinders	1
Output *	6.6 kW (9 HP)
Speed	6000 rpm
Fuel consumption	530 g/kWh
Cooling system	Air
Starter	Electric
Fuel	Mixture (gas/oil) (50:1)
GENERAL SPECIFICATIONS	
Capacità serbatoio	3 l
Running time (60%)	1.5 h
Protection	IP 23
Dimensions / max. (LxlxH in mm) *	570x300x410
Weight	28.5 Kg
Noise Level	101 LWA (76 dB(A) - 7 m)

* Dimensions and weight are inclusive of all parts without wheels and towbar CTM.

OUTPUT

Declared powers at the following ambient conditions: temperature 20*C, relative humidity 30% altitude 100 m above sea level. In an **approximative** way one reduces: of 1% every 100 m altitude and of 2.5% for every 5°C above 25°C.
For possible modifications or changes to be brought on the engines, with climate conditions different from those above mentioned, please call our Assistance Authorized Centers.

ACOUSTIC POWER LEVEL

The machine respects the noise limits, expressed in sound power, given in the a.m. directives.
These limits can be used to judge the sound level produced on site.
For example: the sound power level of 100 LWA.
The sound pressure (noise produced) at 7 meters distance is about 75dBA (the limit value less 25).
To calculate the sound level at other distances use this formula:

$$dBA_X = dBA_Y + 10 \log \frac{ry^2}{rx^2}$$

At 4 meters the noise level becomes:

$$75 \text{ dBA} + 10 \log \frac{7^2}{4^2} = 80 \text{ dBA}$$

The information here below are to be intended only as indicative since the above norm is much larger.
For further details please see the specific norms and/or the manufacturers of the product to be used in the welding process.

RUTILE ELECTRODES: E 6013

Easily removable fluid slag, suitable foe welding in all position.
Rutile electrodes weld in d.c. with both polarities (electrode holder at + or -) and in a.c..
Suitable for soft steels R-38/45 kg/mm^2. Also for soft steels of lower quality.

BASIC ELECTRODES: E 7015

Basic electrrodes wels onlu in d.c. with inverse polarity (+ on the electrode holder) ; there are also types for a.c.
Suitable for impure carbon steels. Weld in all position.

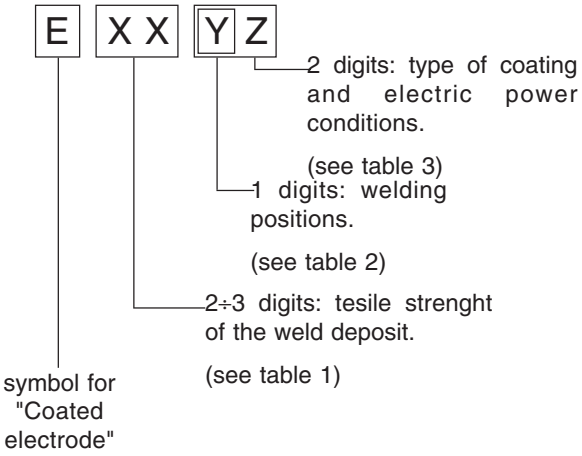
HIGH YIELD BASIC ELECTRODES: E 7018

The iron contained in the coating increases the quality of metal added. Good mechanical properties. Weld in all position.
Electrode holder at + (inverse polarity). Wld deposit of nice aspect, also vertical. Workable; high yield.
Suitable for steels with high contens of sulphur (impurities).

CELLULOSIC ELECTRODES: E 6010

Cellulosic electrodes weld only in d.c. with polarity + electrode holder - ground clamp.
Special for steels run on pipes with R max 55 kg/mm^2. Weld in all position. volatile slag.

ELECTRODES IDENTIFICATION ACCORDING TO A.W.S. STANDARDS



Number	Strenght	
	K.s.I.	Kg/mm^2
60	60.000	42
70	70.000	49
80	80.000	56
90	90.000	63
100	100.000	70
110	110.000	77
120	120.000	84

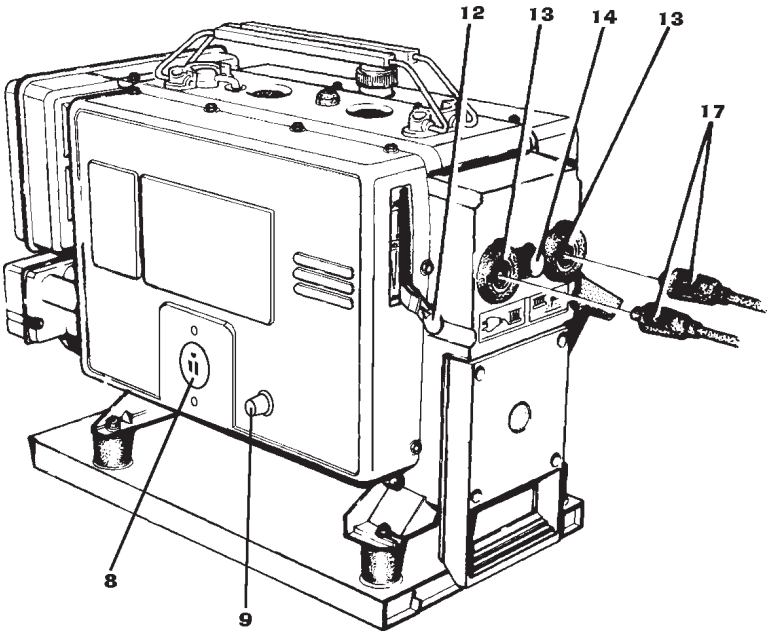
Table 1

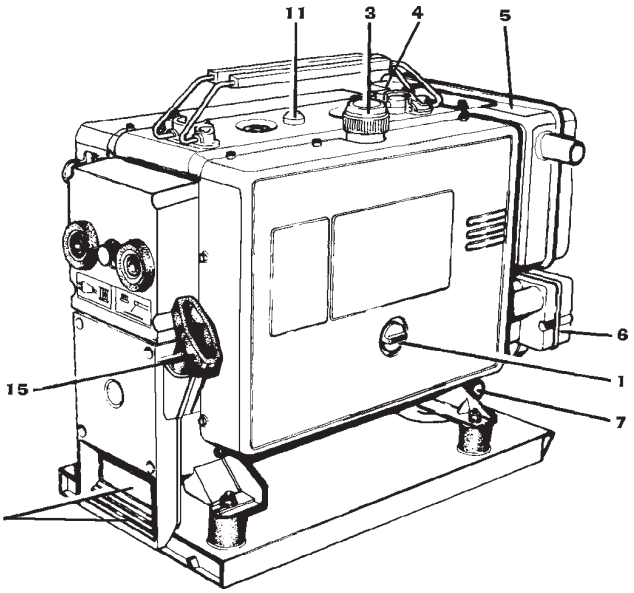
1	for all positions
2	for plane and verticl
3	for plane posotion only

Table 2

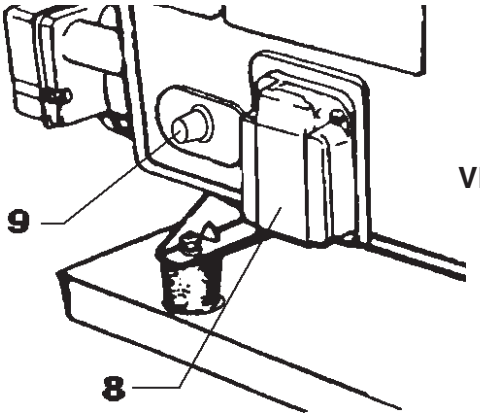
N°	Descrizione
10	Cellulose electrodes for d.c.
11	Cellulose electrodes for a.c.
12	Rutile electrode for d.c.
13	Rutile electrode for a.c.
14	High yield rutile electrodes
15	Basic electrodes for d.c.
16	Basic electrodes for c.a.
18	High yield basic electrodes for d.c. (inverse polarity)
20	Acid electrodes for flat or front position welding for d.c. (- pole) and for a.c.
24	High yield rutile electrodes for flat or front plane position welding for d.c. and a.c.
27	High yield acid electrodes for flat or front plane position welding for d.c. (- pole) and a.c..
28	High yield basic electrodes for flat or front plane position welding for d.c. (inverse polarity)
30	Extra high yield acid electrodes, extra high penetration if required, for flat position welding only for d.c. (- pole) and a.c.

Table 3





VERSIONE CEE



1 Fuel valve
2 Level fuel
3 Fuel tank cap
4 Spark plug
5 Muffler
6 Air filter
7 Choke lever
8 Auxiliary power receptacle
9 Fuse
10 Overload indicator
11 Engine stop button
12 Welding current adjusting lever
13 Welding output sockets
14 Weldingl/auxiliary commutator
15 Recoil starter handle
16 Unit cross bar footrest

PRECAUTION BEFORE USE

⚠ WARNING

GASOLINE can cause fire or explosion

- Stop engine when fueling.
- Do not smoke when fuelíng.
- Remove cap slowly to release pressure.
- Do not overfili tank.
- Wipe up spilied fuel and allow fumes to clear before starting engine.
- Keep sparks and fiame away from tank.
- Shut off fuel at tank when moving machine.

FUEL

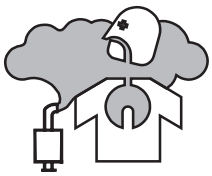
The engine requires a 50:1 Fuel-Oil mixture. Use a good quality two-cycle oil rated for air-cooled engines (chainsaws, lawnmowers, snowmobiles). Do NOT use two-cycle oil for marine engines.

The proper 50:1 mixture is obtained by using 2.5 ounces of two-stroke oil for every gallon of gasoline. This is equivalent to 20 ml every liter.

An incorrect fuel-oil mixture can damage the engine. It is advisable to premix fuel-oil in a special container according to the instructions for a 5O: 1 mixture as shown on commer-cially available cans of two-cycle air-cooled engine oil.

INSTALLATION

⚠ WARNING



ENGINE EXHAUST can kill

- Use in open, well ventilated area or vent exhaust outslde.

POSITION

Place the welder on a flat, level surface and assure an unrestricted flow of clean fresh air. Vent the exhaust outside.

EXHAUST SPARK ARRESTOR

Some federal, state or local laws may require that gasoline engines be equipped with exhaust spark arresters when they are operated in certain locations where un-arrested sparks may present a fire hazard. The standard mufflers included with these welders do not qualify as spark arresters. When required by local regulations, suitable spark arresters must be installed and properly maintained.

PRECAUTION TO USE

⚠ WARNING

ELECTRIC SHOCK can kill

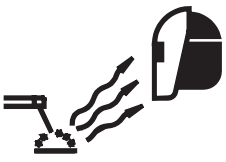
- Do not touch electrically live parts or electrode with skin or wet clothing.
- Insulate yourself from work and ground.
- Always wear dry insulating gloves.

FUMES AND GASES can be dangerous

- Keep your head out of fumes.
- Use ventilation or exhaust to remove fumes from breathing zone

WELDING SPARKS can cause fire or explosion

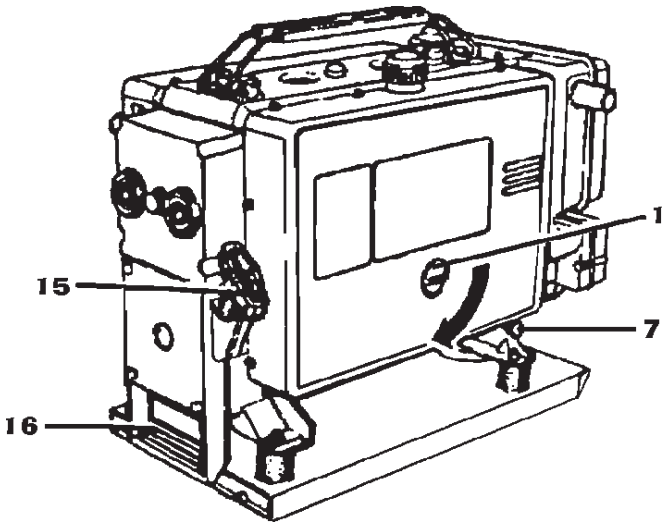
- Keep flammable material away.
- Do not weld on containers which have held flammable materials.

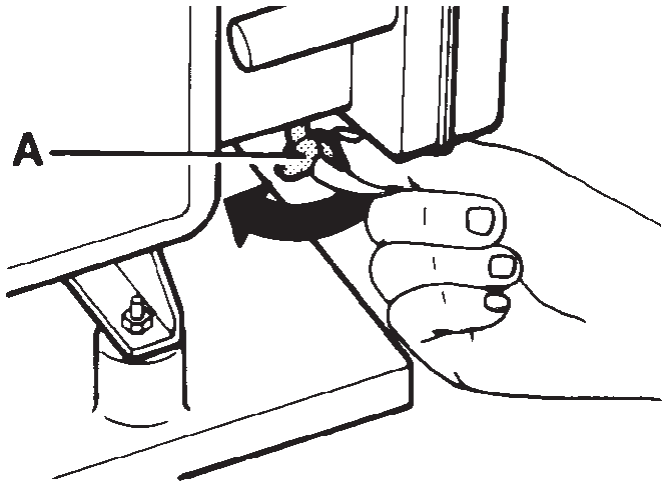


ARC RAYS can burn NOISE can damage hearing

- Wear eye, ear and body protection.

STARTING THE ENGINE



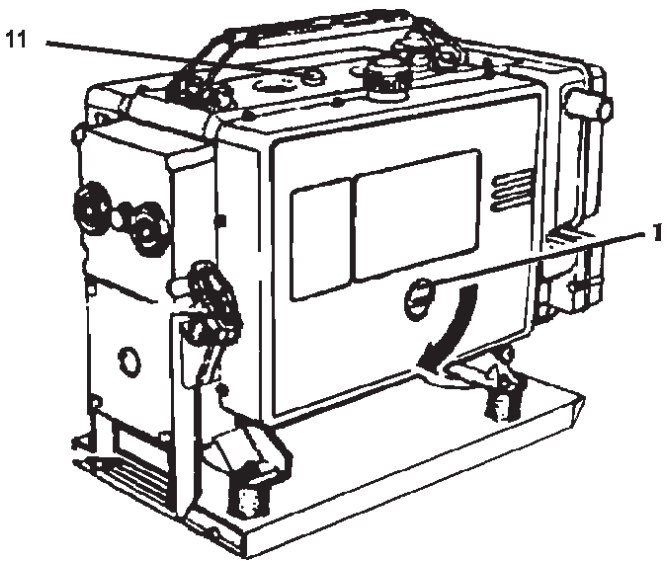


ENGINE COLD

- Open the fuel valve (1) and let the fuel fill the carburetor bowl.
- Move the choke lever (7) to position (A).
- Place one foot (16) firmly on the engine cross bar foot rest (15) and crank the engine with a firm steady pull on the rope.
- Immediately after the engine has started rotate the choke lever to the open position.

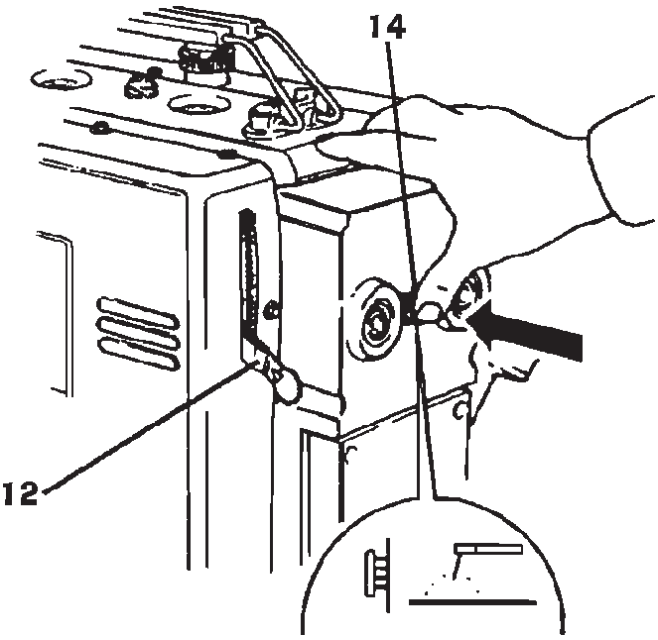
If the engine fails to start after several attempts, put the choke lever in the open position and crank the engine.
Allow the engine to warrn up gradually by letting it idle without load for a few minutes.

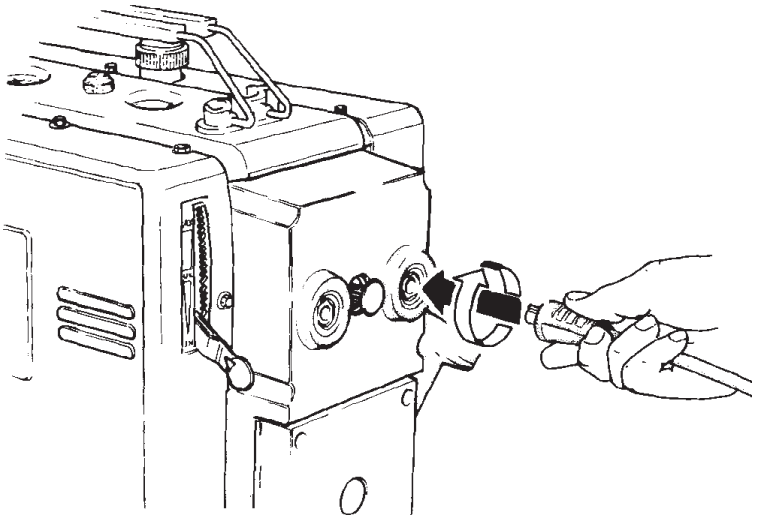
STOPPING THE ENGINE



- Remove the load and with the engine running at idle close the fuel valve (1).
- The engine will stop once the fuel remaining in the carburetor bowl is used up.
- This makes it easier to start the engine later.
- The engíne speed may become erratic as fuel is used up.

To stop the engine immediately press the stop button (11) and hold it until the engine comes to a stop.
Tum off the fuel valve before moving the welder.





With the engine off, push the welding/auxiliary knob (14) all the way in.
Insert the electrode cable plug into the (+) socket and the work cable plug to the (-) socket and tum them clockwise until they are tight.
The machine is ready for welding.

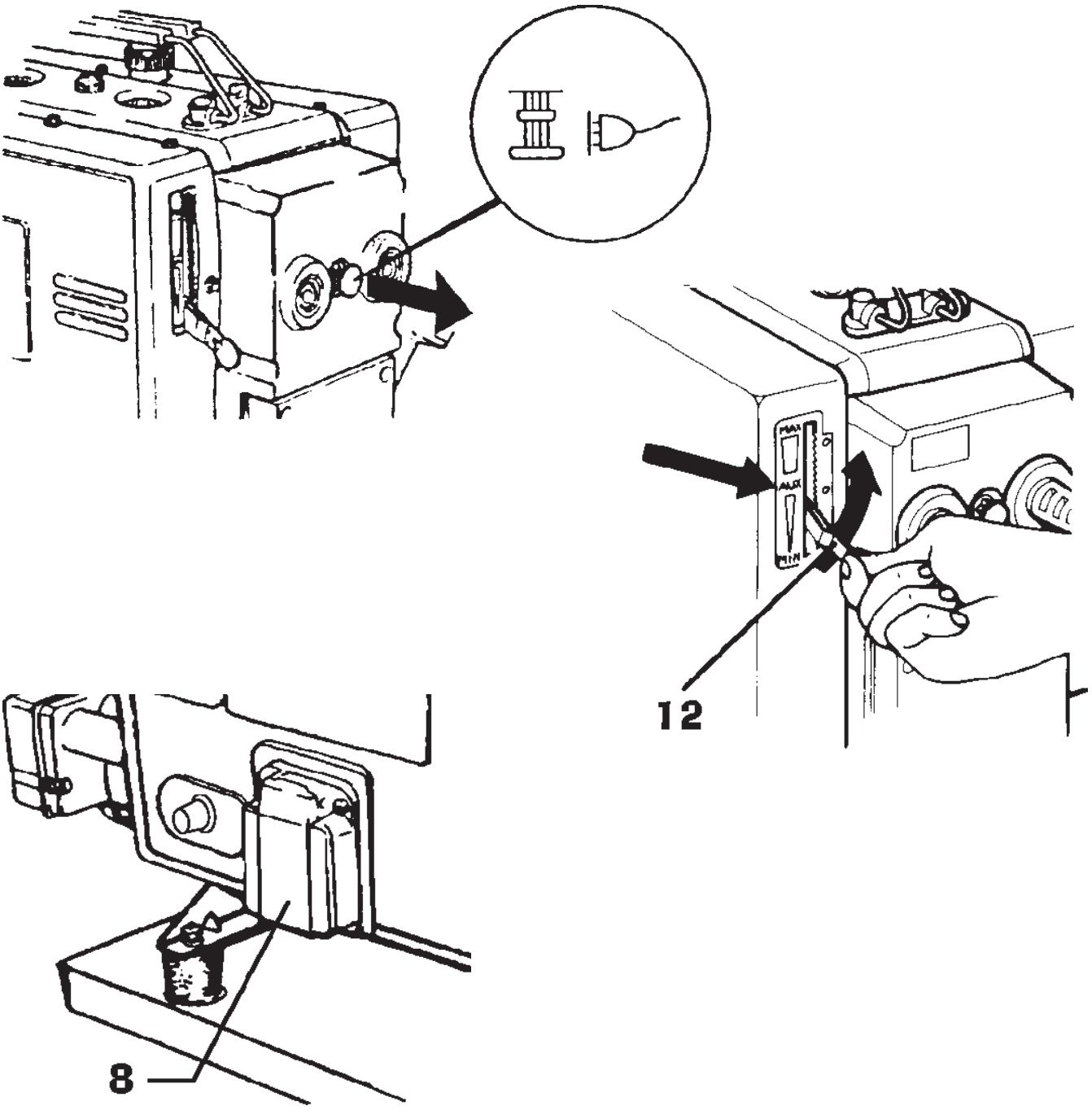
Cables should not exceed a length of 16 feet (5 m) and should be AWG3 (25 mmq) or larger.
The use of other cables (smaller section and larger) will reduce the output of the welder.

Start the engine and set the welding current adjusting lever (12) to the desired welding current and the machine is ready for welding.

The engine runs at idle until the electrode comes in contact with the workpiece.
Once contact has been made an electronic circuit automatically increases the engine speed to give the welding current selected with the welding current adjusting lever.
When the electrode is removed from the workpiece the engine retums to idle.

To strike the welding arc scratch the electrode against the workpiece as if striking a match.
Do not hammer the electrode against the workpiece.

The welding current adjusting lever (12) gives minimum current when it is at the bottom and maximum current when it is at the top.
The welding current can be adjusted while welding.



The welder is suitable as a power source giving 2.0 kVA and can be used with all types of electrical and electronic tools.

Start the engine; set the welding current adjusting lever (12) in the spot indicated by the sticker “AUX”, turn the welding/auxiliary switch (14) in auxiliary position (plug symbol); insert the proper plug in the auxiliary socket (8).
The machine is ready for generating A.C.

The engine runs at idle until the tool is turned on. Connect the tool with its plug into the auxiliary socket and insert the tool. When power (minumum 0.5 kVA) is drawn, the excitation card works on the electromagnet which forces the engine to idle, and automatically the engine speeds up to give up to 2.0 kVA of power.

In case of emergency, the auxiliary circuit can support loads of more than 2.0 kVA for short periods but if the limit is exceeded the overload protection is activated and the output is cut off. This is indicated by the lighted LED (10) located above the receptacle.
When the LED goes out, auxiliary power is again available at the receptacle.

Unload the tool before turning it off. When the tool is turned off the engine returns to idle.

⚠ ATTENZIONE

MOVING PARTS can injure

- Have qualified personnel do maintenance and troubleshooting work.
- If possible, turn the engine off before working inside the machine. If for any reason the machine must be operated while working inside, pay attention to hot surfaces which may be protected when the machine is open.
- Remove guards only when necessary to perform maintenance, and replace them when the maintenance requiring their removal is complete.

HOT surface can hurt you

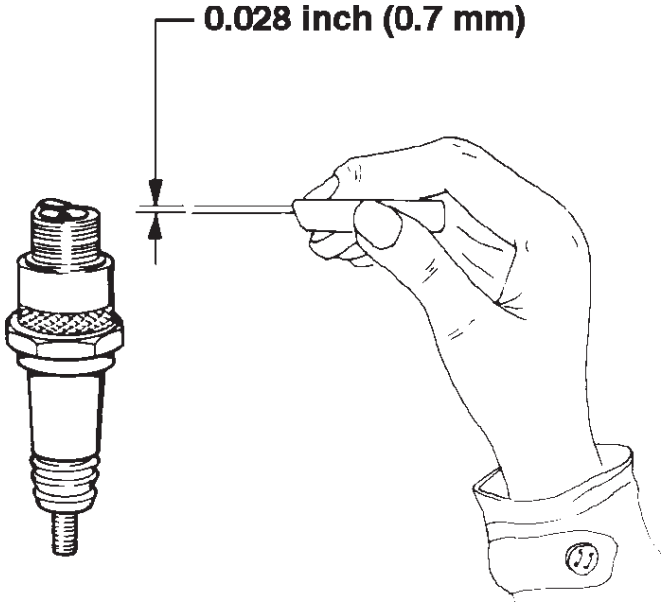
MSG and MS have been designed to reduce maintenance to a minimum.
Components are, however, subject to normal w ear and accumulation of deposits and periodic checks, cleaning and/or replacement and overhaul should be performed according to the following schedule:

Checks to be performed	EVERY			
	50	100	200	1000
Sparkplug	C	R		
Air filter	C	R		
Carbon deposits			C	
Cables			C	
Fuel filter		T		
Carburetor linkage		T		
Engine (including ignition, carburetor, etc.)				O

Legend:

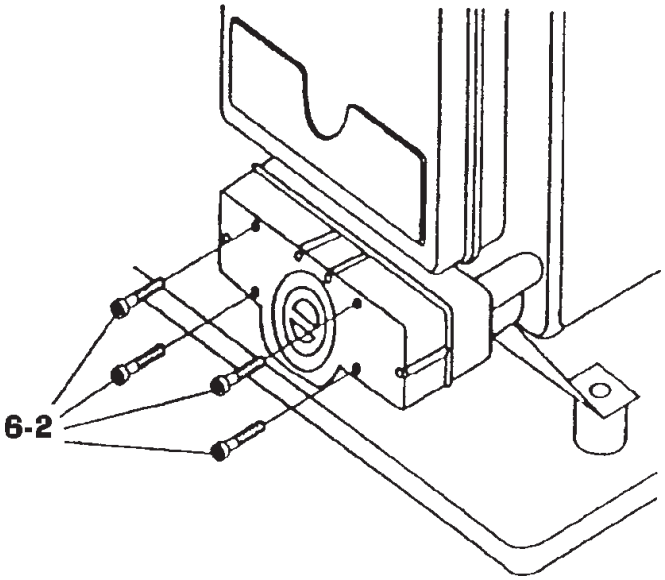
C = cleaning
T = test/check
S = replacement
O = check and general overhaul (as required)

☞ **N.B.:** All warning and decals should be checked once a year and replaced if missing or unreadable.



EVERY 50 WORKING HOURS

Clean the spark plug (4) (Champion L87YC or Bosch W200T35) and check electrode gap. Gap should be 0.7 mm.



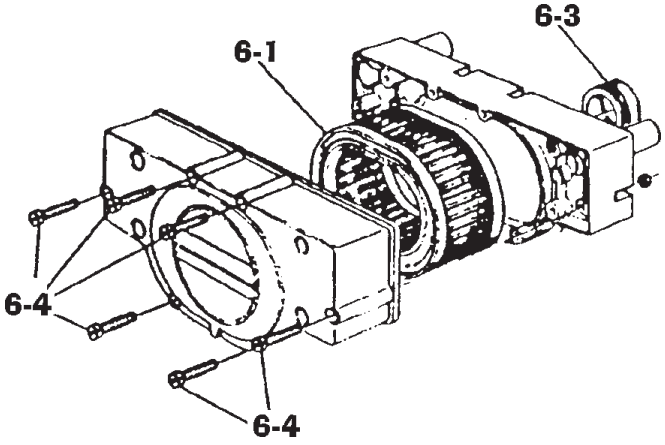
Clean the air filter element (6-1) using compressed air.

To remove the element, first remove the four hex socket head (4 mm) screws (6-2) shown in the figure.

Be careful not to lose the rubber gasket (6-3) between the housing and the carburetor.

Open the housing by removing the six slotted head screws (6-4).

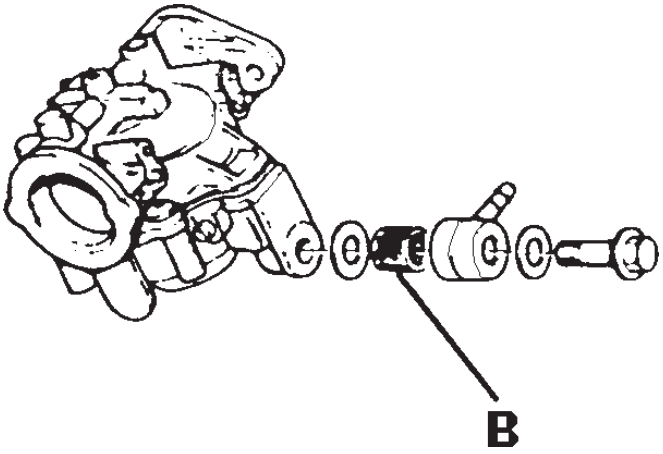
After cleaning the element, place it back into the housing, making sure that it seats properly against both sides of the housing.



Reassemble the housing with the six slotted screws (6-4) and their nuts.

Mount the housing back into the machine making sure that the flat side of the rubber gasket (6-3) is mounted toward the housing.

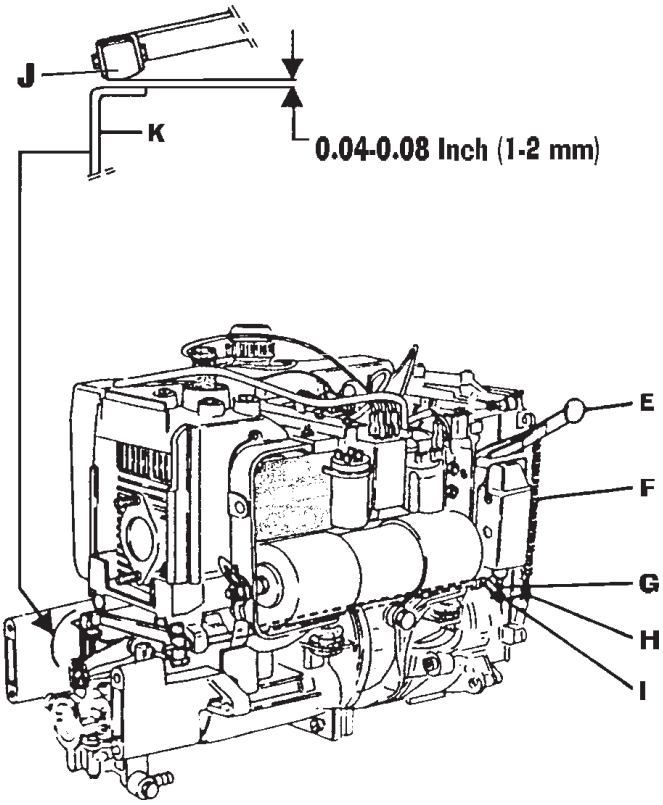
Reinstall the four hex screws (6-2).



EVERY 100 WORKING HOURS

Replace air filter element and spark plug (4) (Champion L87YC). Gap should be 0.028" (0.7 mm) (refer to 50 Working Hours instructions).

Clean the fuel filter (B).



To check and adjust the carburetor linkage, do as follows:

Stop the engine, remove the capacitor side cover. Make sure that the spring (F) is hooked.

Push the electromagnet contrast lever (H) upwards to annul completely the running of the electromagnet shaft (G).

Keep constantly the contrast lever (H) in this position and the carburetor throttle con-rod (K) completely down. Turn the adjusting screw (I) so as to shift the pad (J) and obtain the desired gap 0.04-0.08 inch (1 - 2 mm) between the con-rod (K) and the pad (J).

EVERY 200 HOURS

Check exhaust port and muffler for excessive carbon deposits.

If necessary remove deposits from cylinder head, exhaust port and muffler.

If cylinder head is removed it must be tightened to 8.8 fL-lbs.(12 Nm) torque when reassembling.

Check welding cables and replace if necessary.

EVERY 1000 HOURS

Take the welder to an authorized service center for a complete check and overhaul as required.

⚠ WARNING

MOVING PARTS can injure

- Have qualified personnel do maintenance and troubleshooting work.
- If possible, turn the engine off before working inside the machine.
- Remove guards only when necessary to perform maintenance, and replace them when the maintenance requiring their removal is complete.

FAILURES

1. ENGINE DOES NOT START OR IS HARD TO START

2. WELDER DOES NOT DELIVER MAXIMUM OUTPUT

3. ENGINE WELDS BUT STAYS ACCELERATED

4. ENGINE REMAINS AT IDLE AND DOES NOT WELD

S. ENGINE ACCELERATES BUT DOES NOT WELD

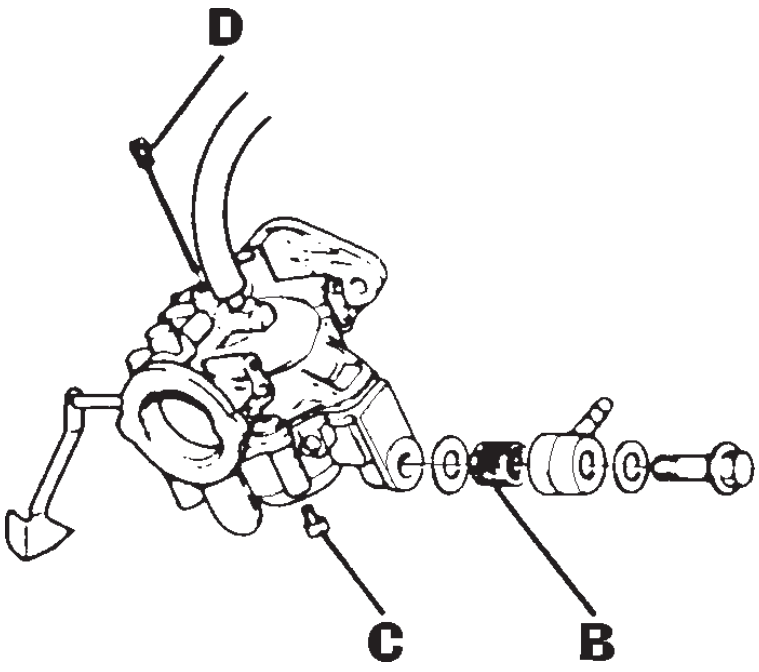
6. NO AUXILIARY POWER

7. LOW AUXILIARY POWER BUT ENGINE SPEEDS UP

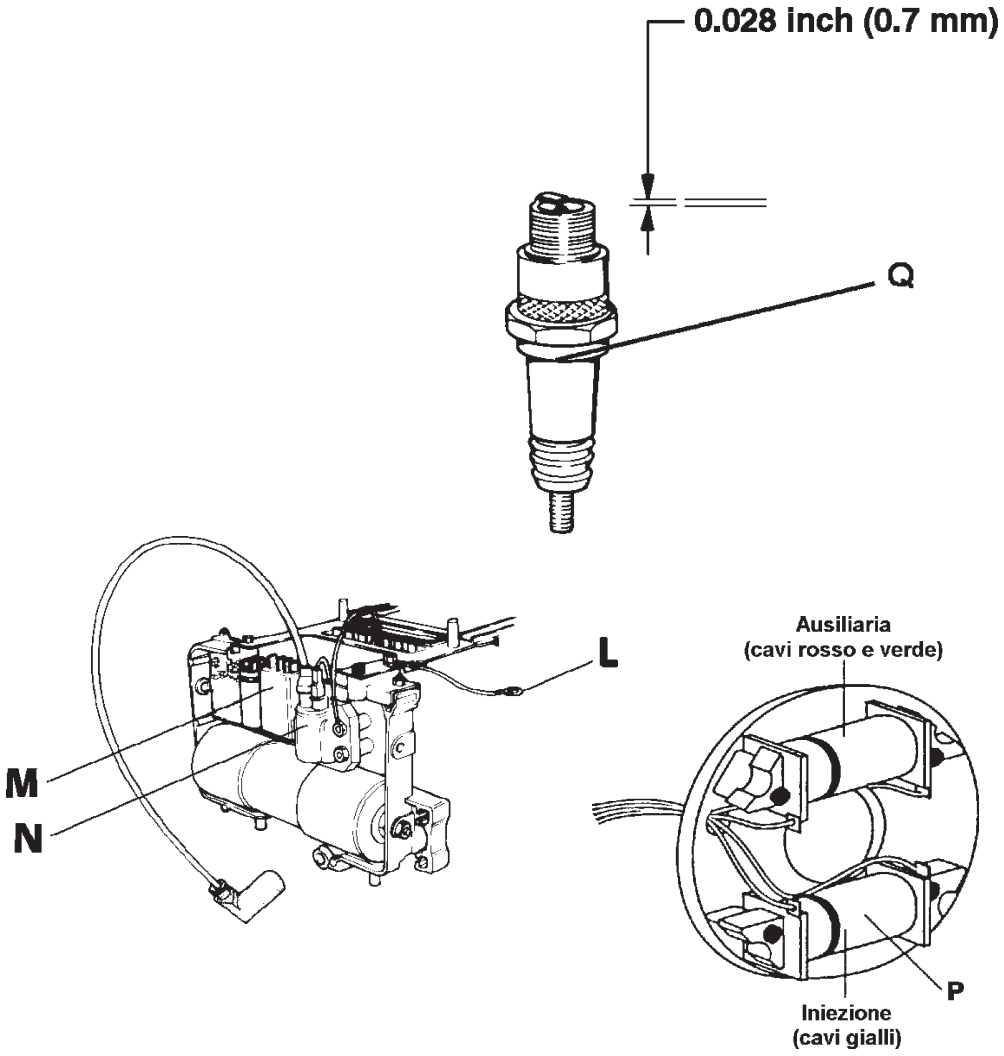
8. LOW AUXILIARY OUTPUT AND ENGINE DOESN'T SPEED UP

(ST) Special tools required

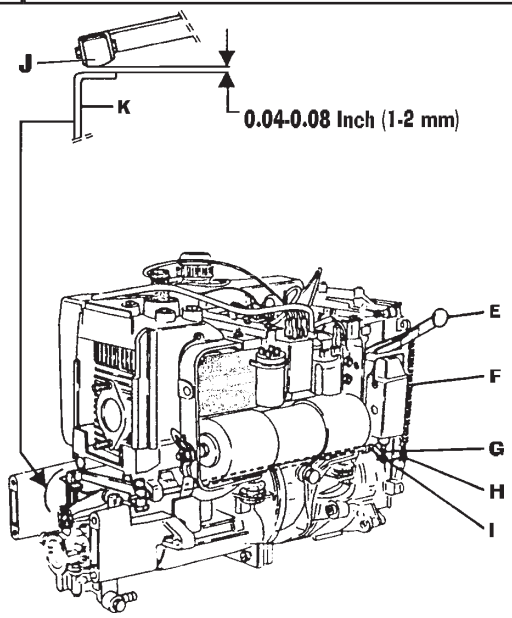
SYMPTOM	POSSIBLE CAUSES	REMEDY
1. ENGINE DOES NOT START OR IS HARD TO START	a) Lack of fuel	Fill the tank with the 5O:1 Fuel-Oil mixture as described in the Pre-Operating Maintenance section of the Operating Manual.
	b) Fuel valve partially closed	Turn the fuel valve knob (1) completely clockwise.
	c)Wrong choke lever position	Choke lever (7) in the wrong position. Cold engine-close choke (move lever toward the machine). Warm engine-close choke (move lever toward the machine) and open immediately upo n successful engine start.
	d)Fuel not reaching carburetor	Take apart fuel valve and clean inlet filter. Clean inlet filter (B) of carburetor.
	e) Carburetor jets clogged	Remove both main (C) and idle (D) jets and check for obstructions by looking through them. Blow them out with compressed air. ☞ Cautíon: Idle jet can be easily damaged.



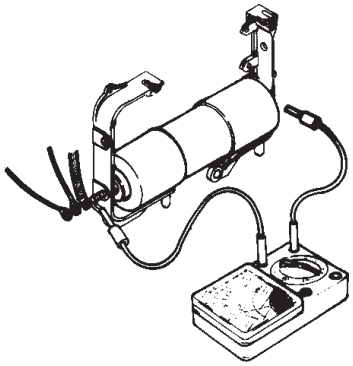
SYMPTOM	POSSIBLE CAUSES	REMEDY
	f) Engine flooded	Remove spark plug and dry with compressed air. Close fuel valve (1) and turn engine over to remove excess fuel. Replace spark plug.
	g) Spark plug or ignition system failure (ST)	Check connections between spark plug and high tension coil. Check connection of ground wires (L). Check spark plug (Q) for worn electrode, damaged porcelain coating or incorrect gap (correct gap is 0.7 mm). Replace electronic ignition module (M). Replace high voltage coil (N). Replace ignition coil on flywheel magneto (P).

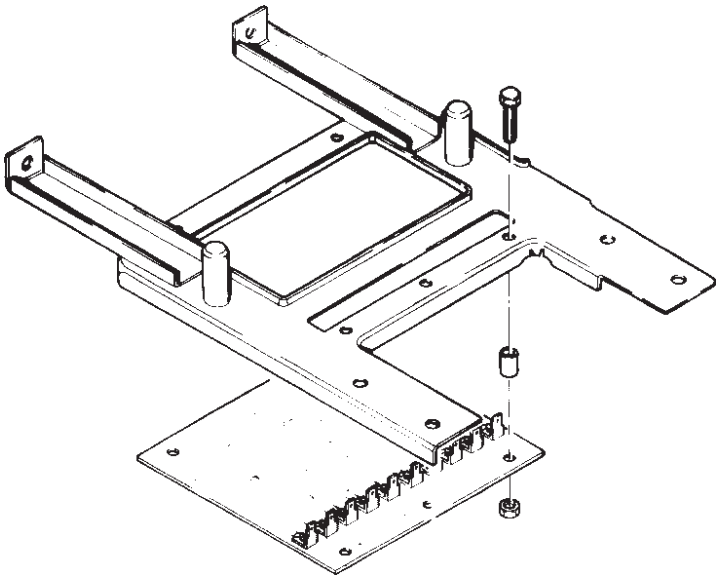


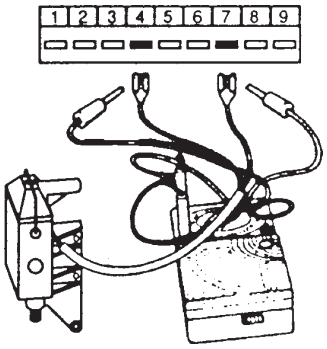
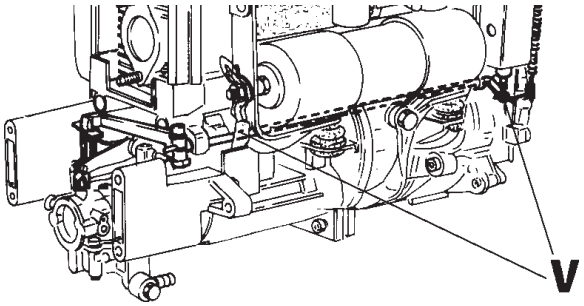
SYMPTOM	POSSIBLE CAUSES	REMEDY
2. WELDER DOES NOT DELIVER MAXIMUM OUTPUT	a) Regulating lever not on maximum	Move the lever all the way up
	b) Incorrect adjustment of carburator linkage	Adjust the carburetor throttle control lever as follows: - Stop engine - Remove right side cover (condenser side) - Check that the welding current adjusting spring (F) is attached. - Push the lever (H) upward against the electromagnet plunger (G) until they stop. - Keeping lever (H) in this position, push the throttle control lever (K) all the way down and tum the adjustment screw (I) until the gap between the lever (K) and the pad (J) is 1-2 mm.



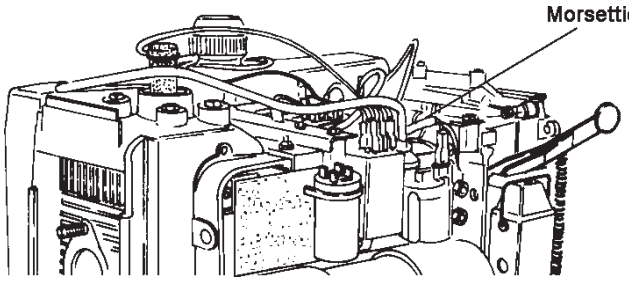
c) Faulty condenser	Short circuit the condenser to be sure that it is discharged. Disconnect all wires from condenser and using an ohmmeter check whether or not the condenser is short circuited. If so the condenser must be replaced. Reverse the leads and confirm that the ohmmeter dips briefly. If not replace the condenser.



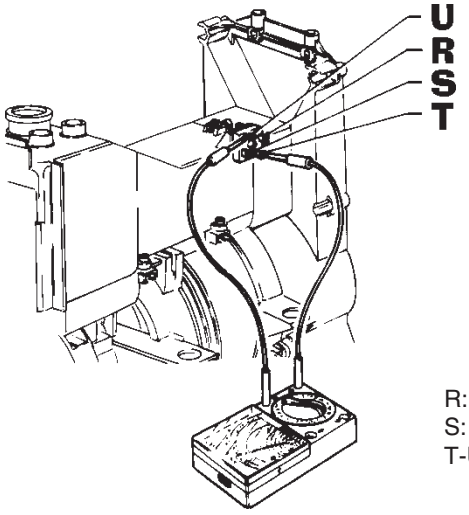
SYMPTOM	POSSIBLE CAUSES	REMEDY
	d)Faulty printed circuit board	If no other faults are found the printed circuit board is faulty. Replace as follows: - Disconnect all wires with connectors - Remove the electronic circuit from the mounting frame.
		
	e) Faulty welding diodes	Check the diodes by putting the welding/auxiliary knob in the welding position and with a multimeter set on “diode test”, check them between the welding outlets + and - there is 0.9 ÷ 1V in one sense and open circuit in the opposed sense. If the bridge is faulty, it is advised to turn to an authorized service center for the replacement. **ONLY FOR MS 200 S** Check the diodes with a multimeter set on “diode test”, check them between the welding outlets + and - there is 0.9 ÷ 1V in one sense and open circuit in the opposed sense.

SYMPTOM	POSSIBLE CAUSES	REMEDY
3. ENGINE WELDS BUT STAYS ACCELERATED	a)Faulty electromag-net	Check that the electromagnet plunger is not obstructed and can move freely in the vertical direction. Measure the resistance of the electromagnet coil after having disconnected it from the terminal strip (terminals 4 and 7, blue and brown wires). The resistance should be 30 ohms ± 10% at room temperature.
		
	b) Blocked carburetor linkage	Check Nylon bushings (V) and replace if necessary. Clean and lubricate linkage.
		
	c) Faulty leads, grounded wires	Check that all wires connected to the terrninal strip of the PCB are making good contact. WIRE COLORS ON TERMINAL STRIP 1 Black 4 Blue 7 Brown 2 Red 5 Yellow 8 Brown 3 Red 6 Yellow 9 Green

SYMPTOM	POSSIBLE CAUSES	REMEDY



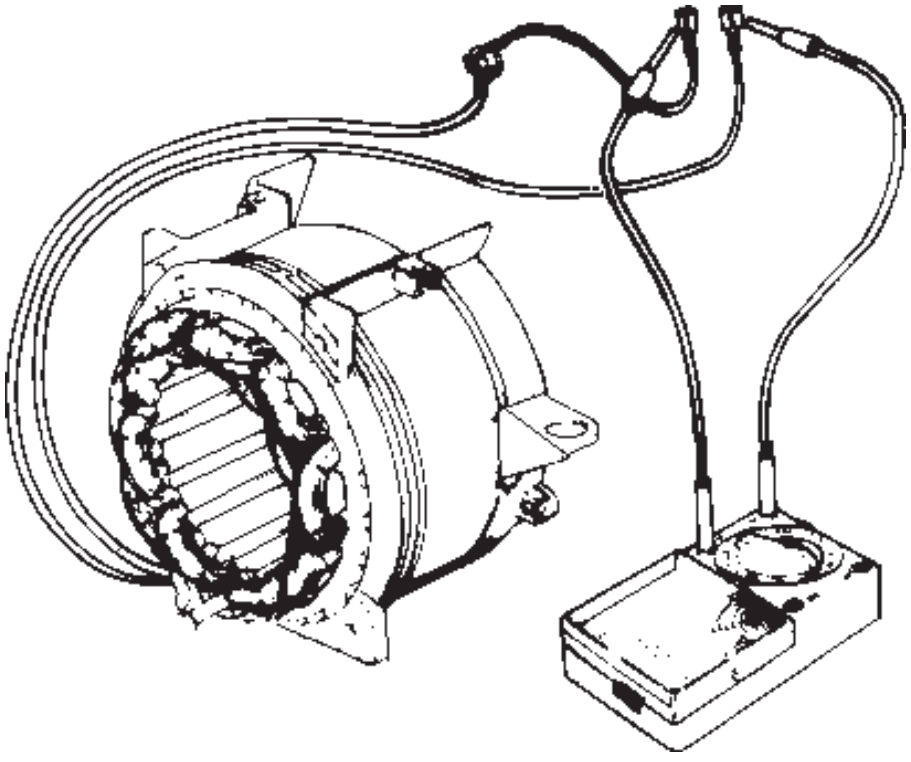
d) Faulty printed circuit board	See 2.d
e)Faulty alternator winding	See 4.c
f) Faulty diode bridge (auxiliary) **ONLY FOR** **MSG VERSION**	Remove condenser side cover and upper cover check with a multimeter the diode bridge (auxiliary), disconnecting the four wires. In case of short circuit, replace the diode bridge; connect the cables once more and test the machine.

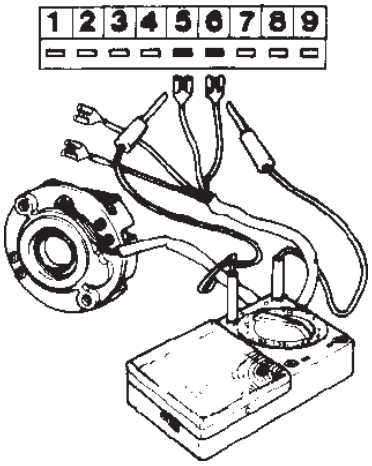


R: Positive terminal (+)
S: Negative terminal (-)
T-U: AC terminal (~)

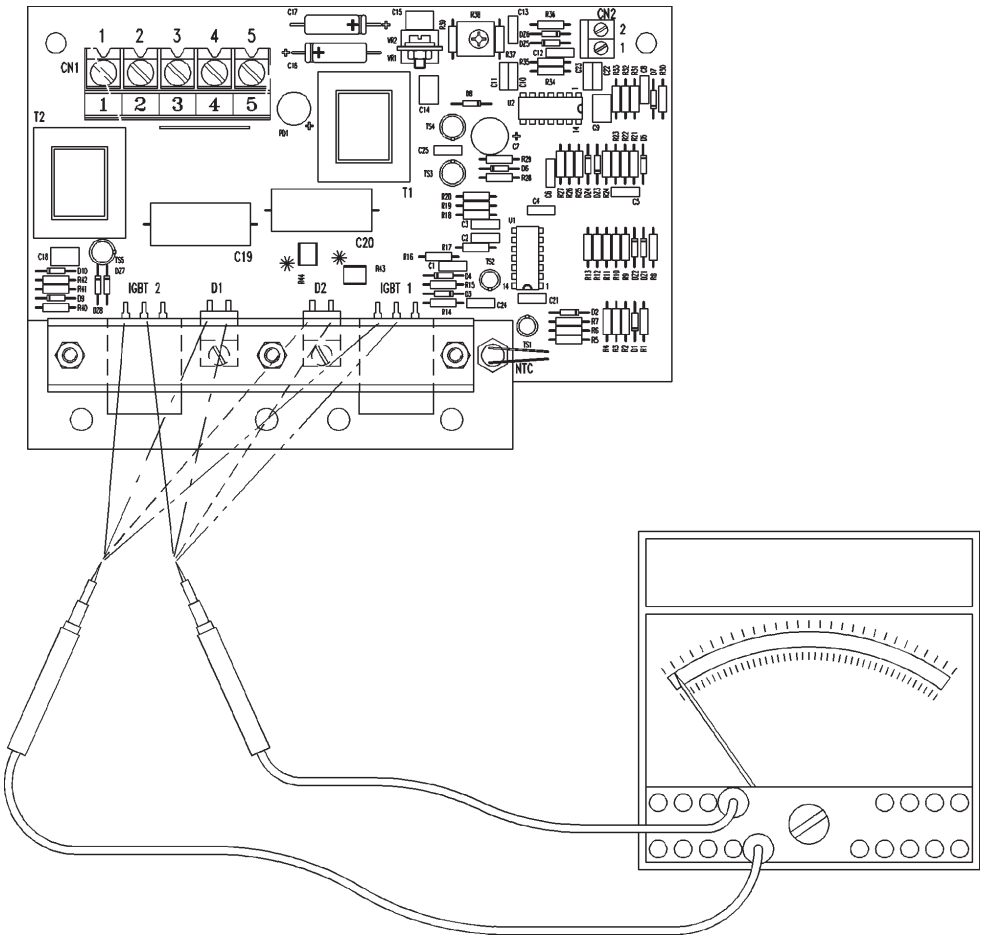
g)Improper idle carburation	See 1.a, 1.b, 1.d, 1.e
h) Air leakage into crankcase	Partial or complete overhaul. It is recommended that this work be perfomed by an authorized service center.

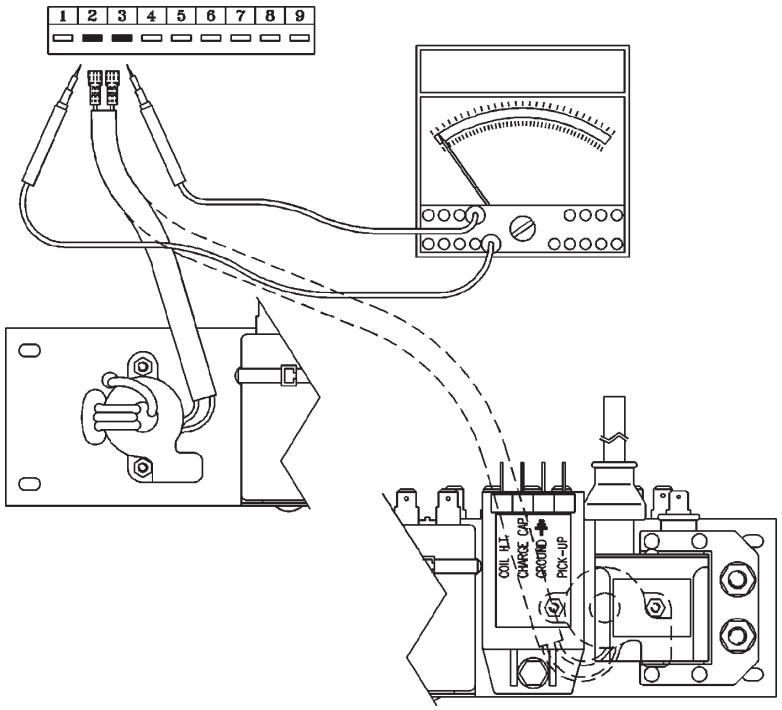
SYMPTOM	POSSIBLE CAUSES	REMEDY
4. ENGINE REMAINS AT IDLE AND DOES NOT WELD	a) Welding/auxiliary knob in wrong position **ONLY FOR** **MSG VERSION**	Push ìt in completely.
	b)Faulty printed circuit board	See 2.d
	c) Faulty alternator windings	Disconnect all wires of the altemator, and check that the three windings (for MSG auxiliary, for MS of scratch, excitation and welding) are insulated between one another and the three of them towards ground. Check the resistance value of the excitation wínding with a multimeter. The resistance must be 18 ohm ± 10% at room temperature. If this is not so the altemator must be replaced.

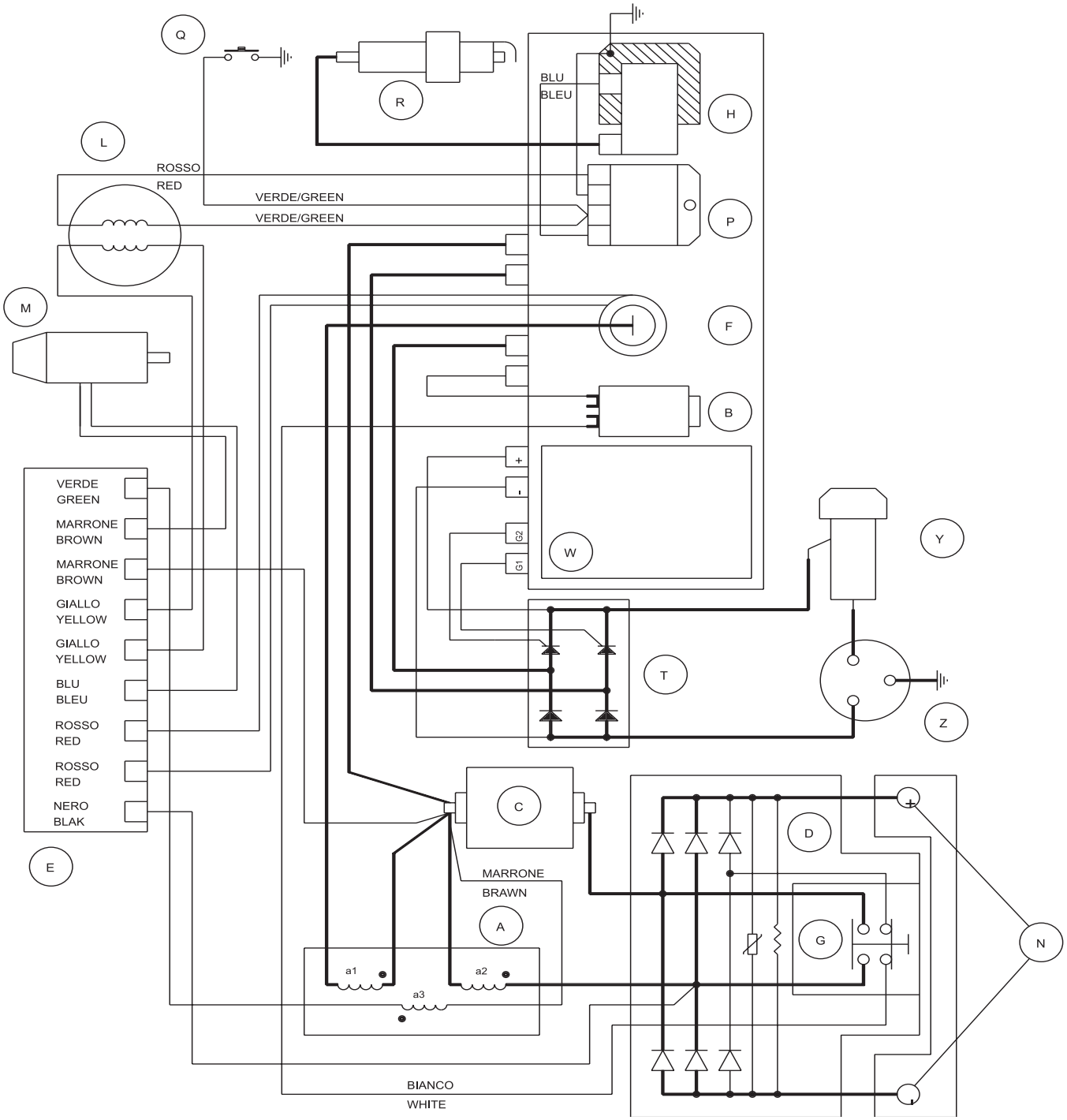


SYMPTOM	POSSIBLE CAUSES	REMEDY
5. ENGINE ACCELERATES BUT DOES NOT WELD	a) Faulty flywheel magnet winding (ST)	Check the resistance value of the fiywheel magnet winding after disconnecting wires from terminals 5 and 6 of the terrninal strip. The reading should be 2.6-2.8 ohms ± 10 % at room temperature. If not the coil must be replaced.
		
	b) Faulty alternator excitation winding	See 4.c
	c) Faulty condenser	See 2.c
	d) Faulty printed circuit board	See 2.d
	e) Faulty welding diodes	See 2.e
6. NO AUXILIARY POWER	a) Faulty fuse	Check fuse using an ohmmeter.
	b) Faulty wiring	Check cables and socket in the machine.
	c) Defective auxiliary condenser - 110V or 220/240V	Short circuit the condensers to be sure that they are discharged. Disconnect all wires from condensers and using an ohmmeter check that they are not short circuited. If they are, replace verify that the white valve near connectors is not protruding. If it is, the condenser is faulty.

SYMPTOM	POSSIBLE CAUSES	REMEDY
	d) Defective auxiliary diode bridge	See 3.f
	e) Faulty chopper P.C.B.	**MSG CHOPPER version** Replace the P.C.B.
	f) Faulty auxiliary P.C.B. 50/60 Hz	**MSG 201 S 50/60 Hz version** Check the diodes D1 and D2, and the IGBT1 and IGBT2 with an ohmmeter as shown below. If any of these components is short circuited replace the P.C.B.



SYMPTOM	*POSSIBLE CAUSES*	*REMEDY*
7.LOW AUXILIARY POWER BUT ENGINE SPEEDS UP	a) Welding/auxiliary switch in “welding” position	Check that the welding/aux switch is in aux position.
	b) Regulation lever too low	Set the lever at the auxiliary position shown on the label
	c) Faulty auxiliary and/or chopper P.C.B.	See 6.e
	d)Faulty auxiliary diode bridge	See 3.f
8.LOW AUXILIARY OUTPUT AND ENGINE DOESN’T SPEED UP	a) Faulty fuse	See 6.a
	b)Faulty excitation electronic circuit	See 2.d
	c) Faulty auxiliary current sensor	Check auxiliary current sensor. Resistance should be from 4.5 to 5.5 ohms.
		
	d)Faulty auxiliary and/or chopper P.C.B.	See 6.e



A	-	ALTERNATOR
a1	-	AUXILIARY WINDING
a2	-	WELDING WINDING
a3	-	EXCITATION WINDING
B	-	SCRATCH CONDENSER
C	-	WELDING CONDENSER
D	-	WELDING DIODE BRIDGE
E	-	EXCITATION CARD
F	-	AUXILIARY/CURRENT SENSOR
G	-	AUXILIARY/WELDING SWITCH
H	-	HIGH VOLTAGE IGNITION COIL
L	-	FLYWHEEL MAGNET
M	-	ACCELERATOR ELECTROMAGNET
N	-	WELDING SOCKETS
P	-	ELECTRONIC IGNITION
Q	-	ENGINE STOP BUTTON
R	-	SPARK PLUG
T	-	AUXILIARY DIODE BRIDGE
W	-	FILTERING CAPACITORS AUXILIARY INPUT
Y	-	FILTERING RC AUX. OUTPUT
Z	-	AUXILIARY SOCKET

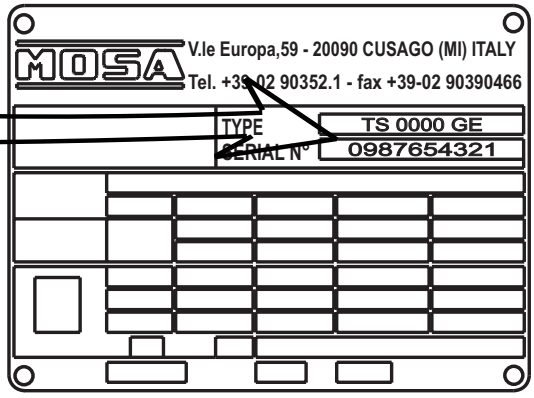
MOSA guarantees that any request for spare parts will be satisfied.

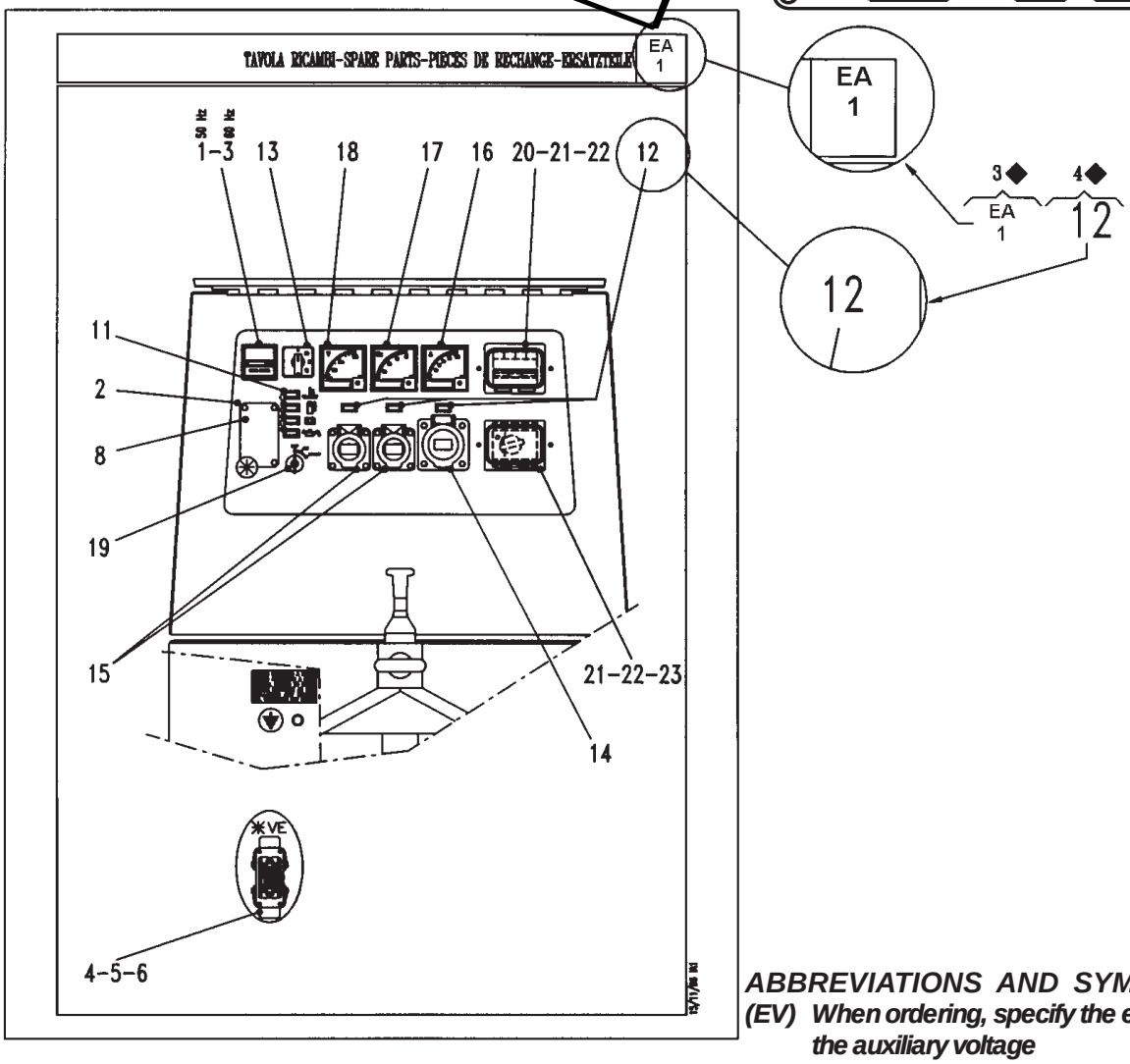
To keep the machine in full working order, when replacement of MOSA spare parts is required, always ask for genuine parts only.

☞ The requested data are to be found on the data plate located on the machine structure, quite visible and easy to consult. ✹

When ordering the spare parts, it is recommended to indicate:

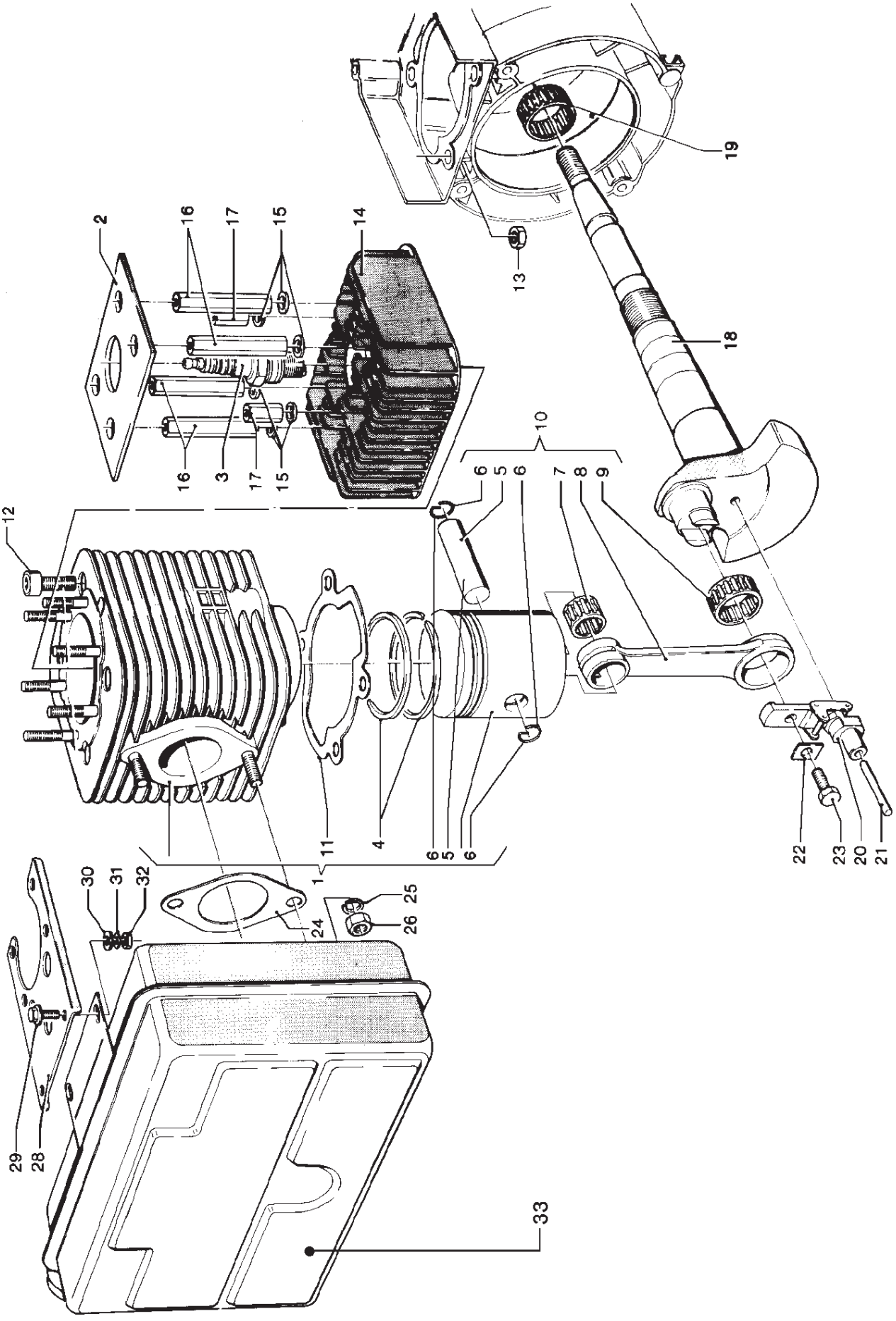
1) ✹ serial number
2) ✹ model of welder and/or generating set
3) ◆ n. table
4) ◆ n. position
5) quantity





ABBREVIATIONS AND SYMBOLS:

(EV) When ordering, specify the engine type and the auxiliary voltage
(ER) Engine with recoil starter only
(ES) Engine with electric starter only
(VE) E.A.S version only.
(QM) When ordering, specify the length in meters
(VS) Special version only
(SR) By request only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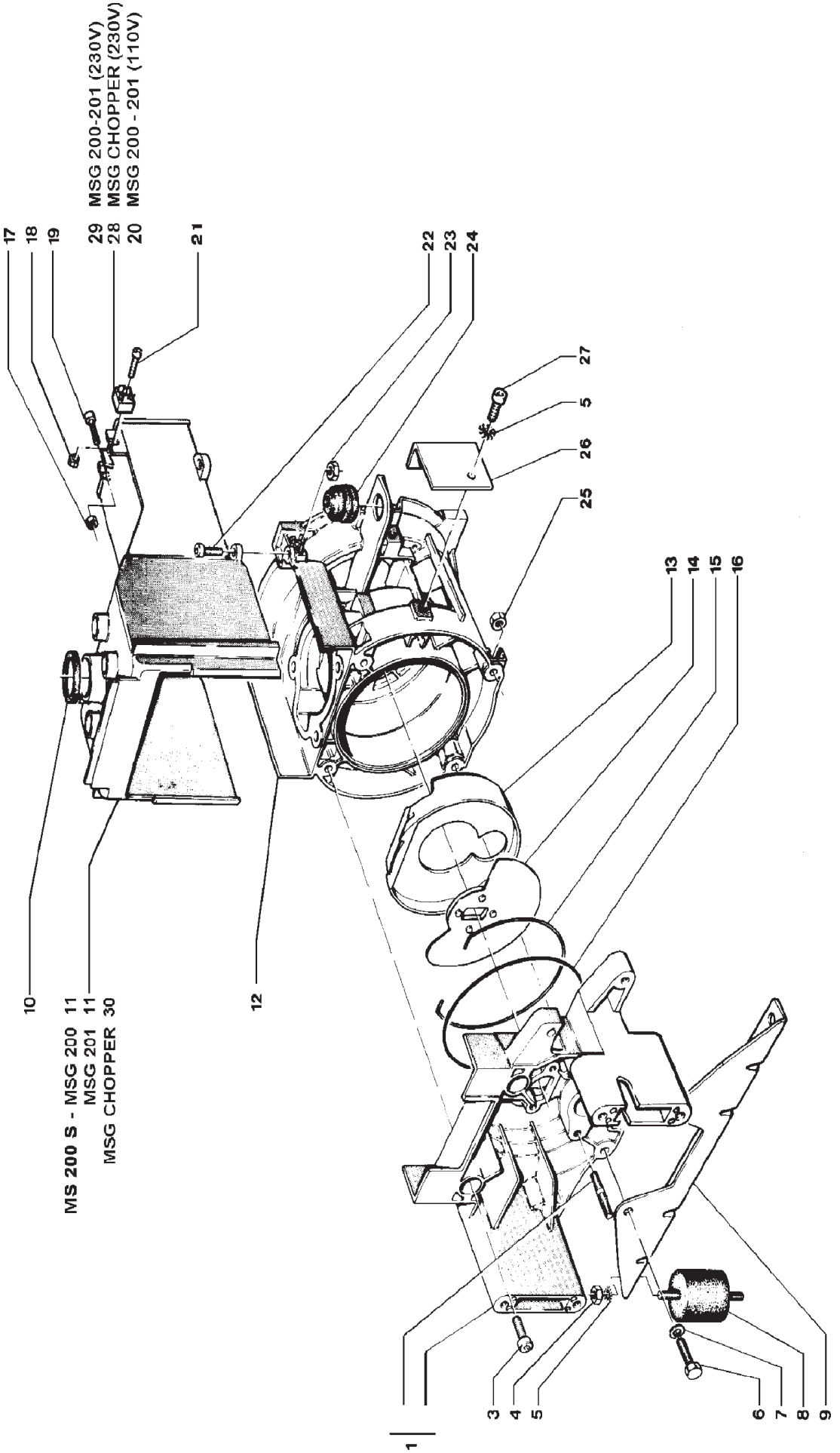
Pos.	Rev.	Cod.	Descr	
2		101043320	FELTRO	
3		101043250	CANDELA	
4		101041420	SPINOTTO	
5		101041440	ANELLO DI ARRESTO	
6		1010020	CUSCINETTO	
8		101041390	BIELLA	
9		1010010	CUSCINETTO	
10		101048200	GRUPPO BIELLA	
11		101041480	GUARNIZIONE	
12		6008070	VITE	
13		6022060	DADO	
14		101041490	TESTA MOTORE	
15		101041526	RONDELLA	
16	A	101041530	COLONNINA	Era 201308039
17		101041540	DISTANZIALE	
18		101091140	ALBERO MOTORE	
19		1010030	CUSCINETTO	
20		101041700	BRIDA DI TRASCINAMENTO	
21		101042520	PERNO	
22		101041620	PIASTRINA	
23		6001040	VITE	
24		101044660	GUARNIZIONE	
25		6040030	RONDELLA	
26		101091310	DADO	
28		101044850	STAFFA	
29		6005020	VITE	
30		6035030	RONDELLA	
31		6040010	RONDELLA	
32		6022030	DADO	
33		201302055	SILENZIATORE	MSG 201 S

Pos.	Rev.	Cod.	Descr	
2		101043320	INSULATION, FELT	
3		101043250	SPARK PLUG	
4		101041420	PIN,GUDGEON	
5		101041440	CIRCLIP	
6		1010020	BEARING	
8		101041390	CONNECTING ROD	
9		1010010	BEARING	
10		101048200	CONNECTING ROD ASSEMBLY	
11		101041480	GASKET	
12		6008070	SCREW	
13		6022060	NUT	
14		101041490	HEAD,ENGINE	
15		101041526	WASHER	
16	A	101041530	CONNECTING CYLINDER	Era 201308039
17		101041540	SPACER	
18		101091140	CRANKSHAFT	
19		1010030	BEARING	
20		101041700	CLAMP	
21		101042520	PIN	
22		101041620	PLATE	
23		6001040	SCREW	
24		101044660	GASKET	
25		6040030	WASHER	
26		101091310	NUT	
28		101044850	BRACKET	
29		6005020	SCREW	
30		6035030	WASHER	
31		6040010	WASHER	
32		6022030	NUT	
33		201302055	MUFFLER, EXHAUST	MSG 201 S


MSG 200-201 (230V)
MSG CHOPPER (230V)
MSG 200 - 201 (110V)
MS 200 S - MSG 200 11
MSG 201 11
MSG CHOPPER 30
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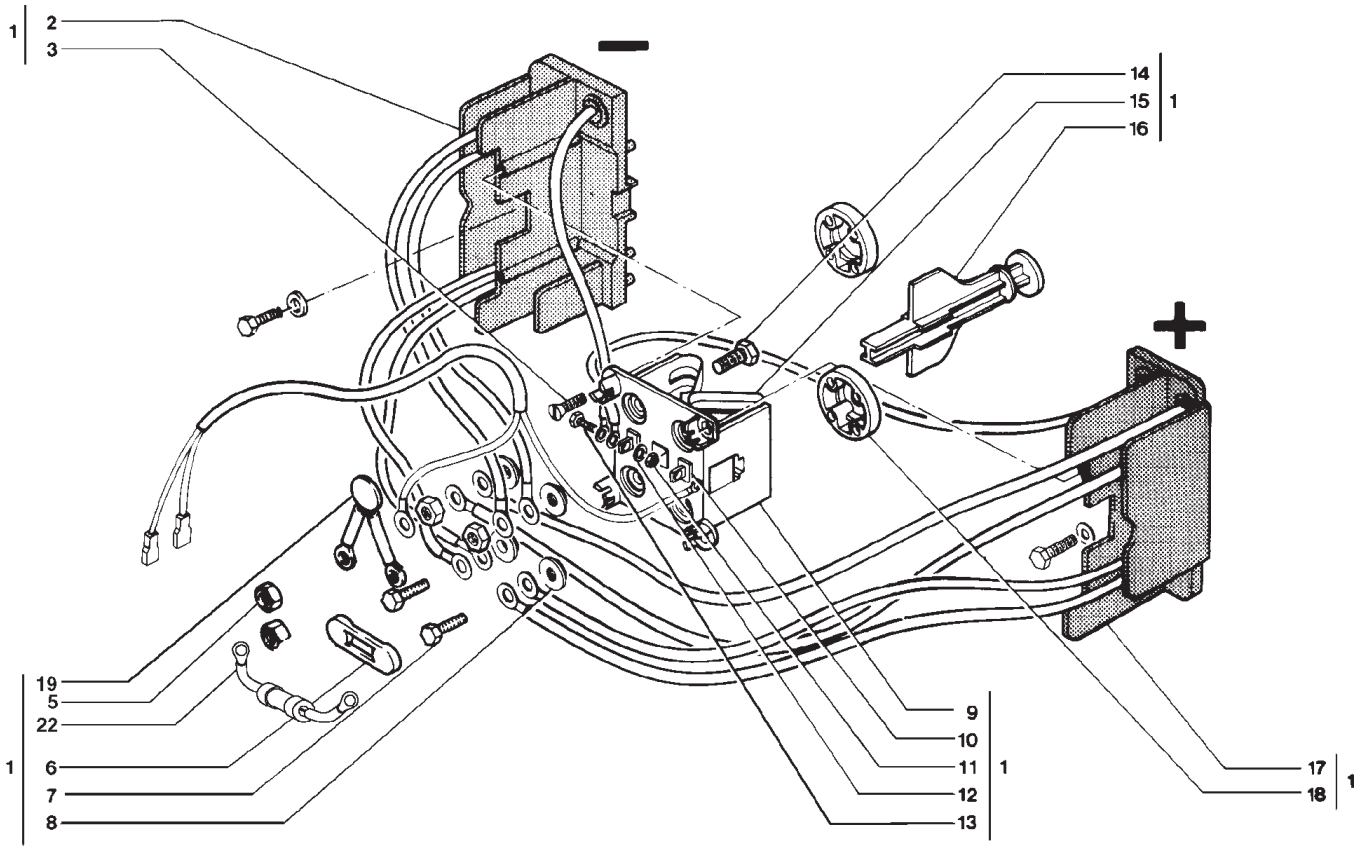
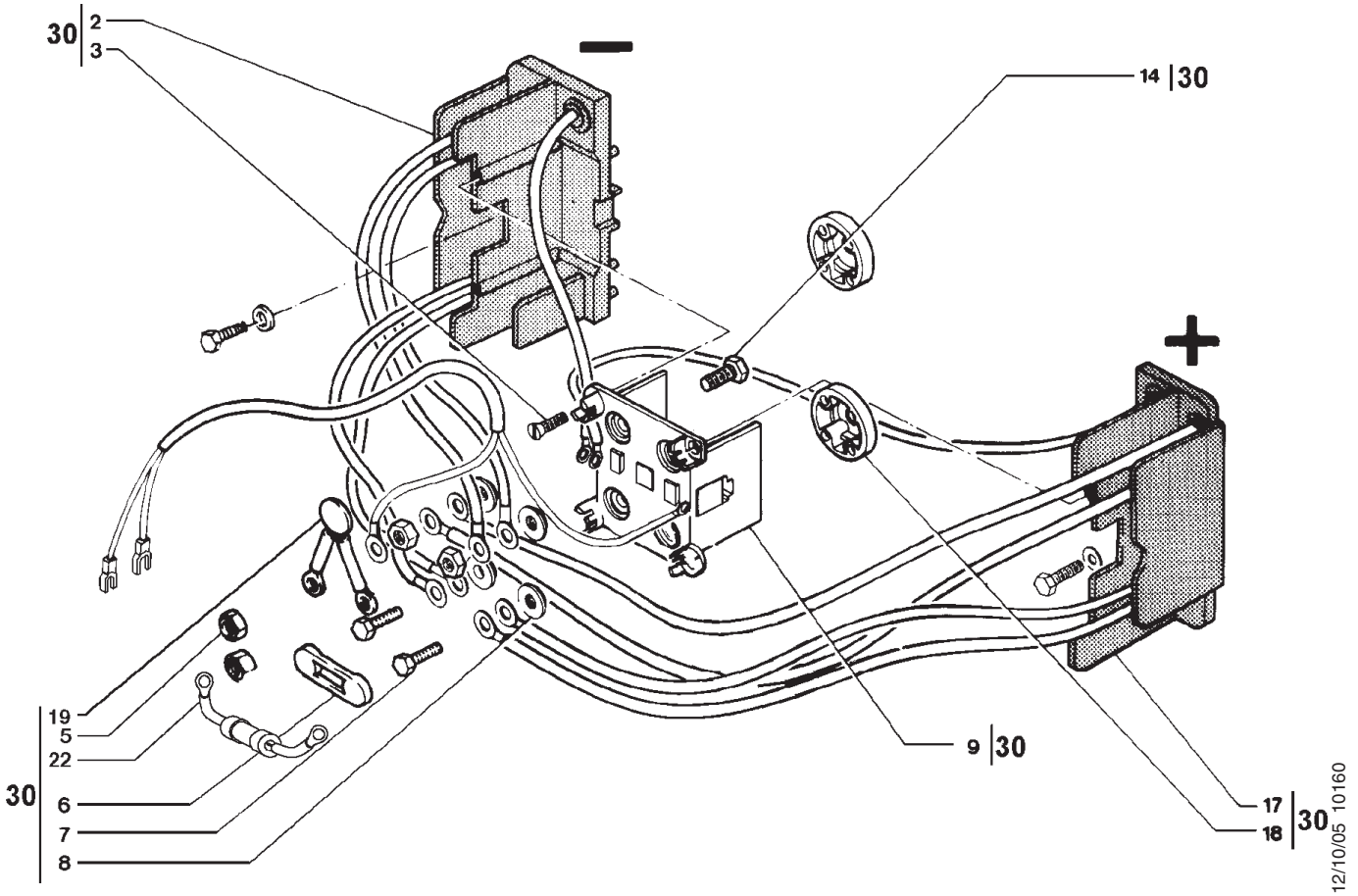
Pos.	Rev.	Cod.	Descr	
1		‘0000101092700	FLANGIA PORTA CARBURATORE	
3		6008040	VITE	
4		6022040	DADO	
5		6044040	RONDELLA	
6		6001170	VITE	
7		6040020	RONDELLA	
8		101091270	ANTIVIBRANTE	
9		101045540	STAFFA	
10		101043340	GUARNIZIONE	
11		101043330	CONDOTTO	MSG 200-MSG 201 S
12		101091300	GRUPPO CARTER MOTORE	
13		101042490	COMPENSATORE	
14		101042600	VALVOLA A DISCO	
15		101042510	ANELLO ELASTICO	
16		1018030	ANELLO OR	
17		6022040	DADO	
18		6022020	DADO	
19		6008040	VITE	
20	A	1270040	PONTE DIODI	MSG 200-201 S (110V) (Correz. del 09/09/03)
21		6008130	VITE	
22		6008040	VITE	
23		6022040	DADO	
24		101043810	SUPPORTO ELASTICO	
25		6022040	DADO	
26		201308044	SQUADRETTA	
27		6001040	VITE	
28		1270150	PONTE DIODI	MSG CHOPPER (230V)
29		1270070	PONTE DIODI 120A	MSG 200-201 S (230V)
30		101606010	CONVOGLIATORE ARIA	MSG CHOPPER

Pos.	Rev.	Cod.	Descr	
1		‘0000101092700	FLANGE,CARBURETTOR HOLDER	
3		6008040	SCREW	
4		6022040	NUT	
5		6044040	WASHER	
6		6001170	SCREW	
7		6040020	WASHER	
8		101091270	VIBRATION DAMPER	
9		101045540	BRACKET	
10		101043340	GASKET	
11		101043330	AIR DUCT	MSG 200-MSG 201 S
12		101091300	ENGINE, HOUSING/ASSY	
13		101042490	COMPENSATOR	
14		101042600	DISC VALVE	
15		101042510	CIRCLIP	
16		1018030	O RING	
17		6022040	NUT	
18		6022020	NUT	
19		6008040	SCREW	
20	A	1270040	DIODE BRIDGE 35A800V	MSG 200-201 S (110V) (Correz. del 09/09/03)
21		6008130	SCREW	
22		6008040	SCREW	
23		6022040	NUT	
24		101043810	SUPPORT, FLEXIBLE	
25		6022040	NUT	
26		201308044	BRACKET	
27		6001040	SCREW	
28		1270150	DIODE BRIDGE	MSG CHOPPER (230V)
29		1270070	DIODE BRIDGE 120A	MSG 200-201 S (230V)
30		101606010	AIR DUCT	MSG CHOPPER

MSG 200 - CHOPPER



MSG 201 S 50/60 Hz



12/10/05 10160

Pos.	Rev. Cod.	Descr	
1	‘0000201495105	GRUPPO PONTE DIODI	COMPLETO MSG 200 - 200 CHOPPER
2	101301030	DISSIPATORE DX CON DIODI	NEG.
3	6016140	VITE	
5	6025050	DADO	
6	101301180	CAPPUCCIO	
7	6002040	VITE	
8	101301220	BUSSOLA	
9	101301040	COPRICONTATTI	
10	101301016	CONTATTO ARGENTATO	
11	6028110	DADO	
12	6042030	RONDELLA	
13	6008250	VITE	
14	6002050	VITE	
16	101301230	CURSORE	
17	101301020	DISSIPATORE SX CON DIODI	POS.
18	101301160	RONDELLA UNIONE	
19	101301370	SOPPRESSORE	
22	101252350	RESISTENZA DI BALLAST COMPL.	
30	222305105	GR.PONTE DIODI	COMPLETO MSG 201 S

Pos.	Rev. Cod.	Descr	
1	‘0000201495105	DIODE BRIDGE	COMPLETE MSG 200 - 200 CHOPPER
2	101301030	HEAT SINK,RIGHT,WITH DIODES	NEG.
3	6016140	SCREW	
5	6025050	NUT	
6	101301180	CAP	
7	6002040	SCREW	
8	101301220	BUSHING	
9	101301040	COVER, CONTACTS	
10	101301016	CONTACT, SILVER-PLATED	
11	6028110	NUT	
12	6042030	WASHER	
13	6008250	SCREW	
14	6002050	SCREW	
16	101301230	SLIDE	
17	101301020	HEAT SINK,LEFT,WITH DIODES	POS.
18	101301160	WASHER	
19	101301370	SUPPRESSOR	
22	101252350	RESISTOR, BALLAST	
30	222305105	DIODE BRIDGE ASSY	COMPLETE MSG 201 S

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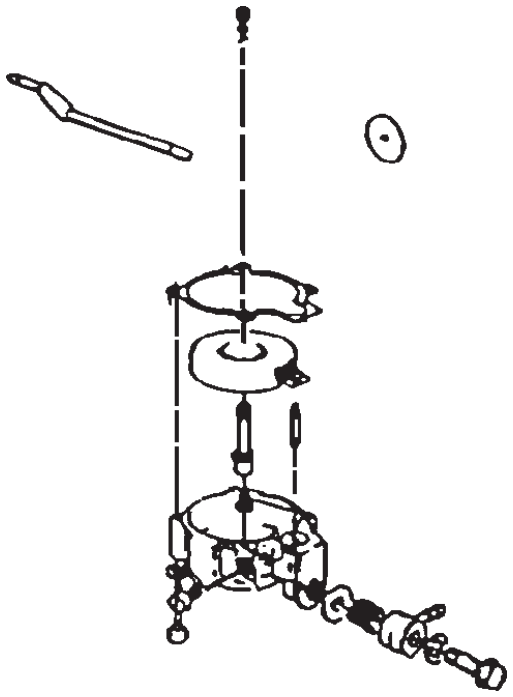
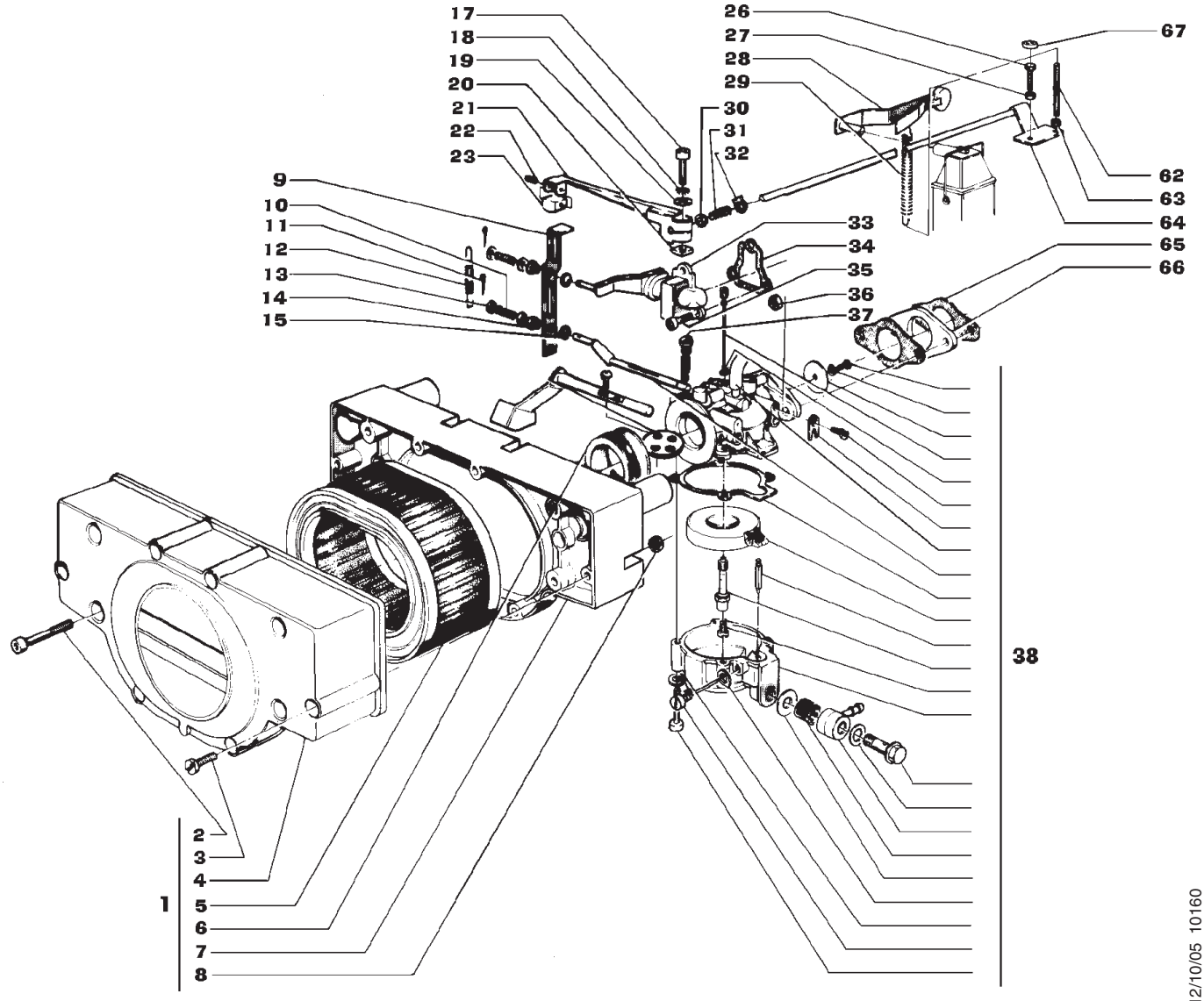
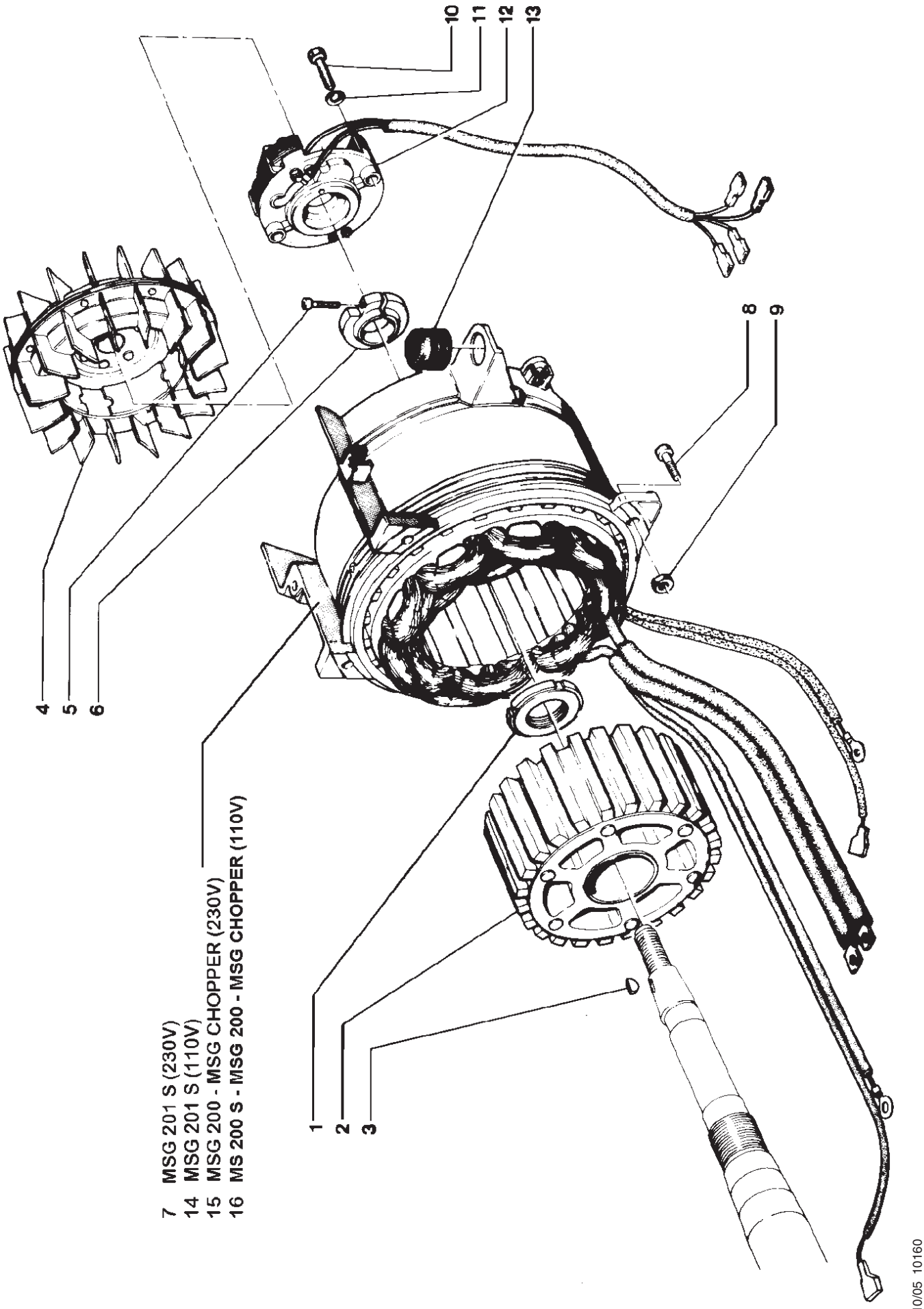


69 CARBURATOR SET



12/10/05 10160

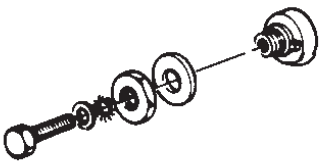
Pos.	Rev. Cod.	Descr	
1	‘0000101302400	GR. SCATOLA FILTRO ARIA / *AIR FILTER, ASSY*	
2	6008260	VITE / *SCREW*	
3	6016200	VITE / *SCREW*	
4	101302410	COPERCHIO FILTRO ARIA / *COVER, AIR FILTER*	
5	101302430	CARTUCCIA FILTRO ARIA / *CARTRIDGE, AIR FILTER*	
6	101044960	GUARNIZIONE / *GASKET*	
7	101302420	SCATOLA FILTRO ARIA / *BOX, AIR FILTER*	
8	6022030	DADO / *NUT*	
9	101042386	LEVETTA / *LEVER*	
10	101043530	MOLLA / *SPRING*	
11	6075010	COPIGLIA / *SPLIT PIN*	
12	101042410	MOLLA / *SPRING*	
13	101042390	RONDELLA / *WASHER*	
14	1026010	BOCCOLA / *BUSH*	
15	101042370	RONDELLA DI FRIZIONE / *WASHER*	
17	6008080	VITE / *SCREW*	
18	6040020	RONDELLA / *WASHER*	
19	6035060	RONDELLA / *WASHER*	
20	6032010	DADO / *NUT*	
21	101044626	LEVA / *LEVER*	
22	6078020	SPINA / *PIN*	
23	101044630	PATTINO / *SLIDING BLOCK*	
26	6001010	VITE / *SCREW*	
27	6022020	DADO / *NUT*	
28	101091930	LEVA / *LEVER*	
29	101044560	MOLLA / *SPRING*	
30	101252320	RONDELLA / *WASHER*	
31	101252330	MOLLA / *SPRING*	
32	101252310	RONDELLA / *WASHER*	
33	101041900	GR.LEVA REGOLATORE / *REGULATOR LEVEL*	
34	101041770	GUARNIZIONE / *GASKET*	
35	6008020	VITE / *SCREW*	
36	6022040	DADO / *NUT*	
38	101302450	CARBURATORE / *CARBURETTOR*	COMPLETO
62	101044596	PERNO FILETTATO / *PIN,THREADED*	
63	6022020	DADO / *NUT*	
64	101046000	ASTINA / *ROD*	
65	101041780	GUARNIZIONE / *GASKET*	
66	101041790	FLANGETTA / *FLANGE*	
67	101252300	CAPPUCCIO / *CAP*	
69	101313300	VEDI COD.101302450 /	



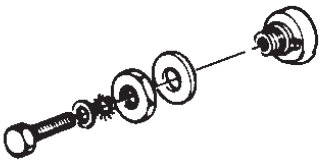
12/10/05 10160

Pos.	Rev.	Cod.	Descr	
1		6029010	GHIERA	
2		101091200	ROTORE	
3		6085010	LINGUETTA	
4		101301860	GRUPPO INDUTTORE-VENTOLA	
5		6008140	VITE	
6		101091176	MORSETTO	
7		201493026	STATORE	MSG 201 S
8		6008050	VITE	
9		6022040	DADO	
10		6001180	VITE	
11		6044010	RONDELLA	
12		101301820	GRUPPO BASETTA	
13		101043810	SUPPORTO ELASTICO	
14		201503026	STATORE 110V	MSG 201 S
15		101302000	STATORE	MSG 200-CHOPPER
16		101311900	STATORE 110V	MSG 200-CHOPPER

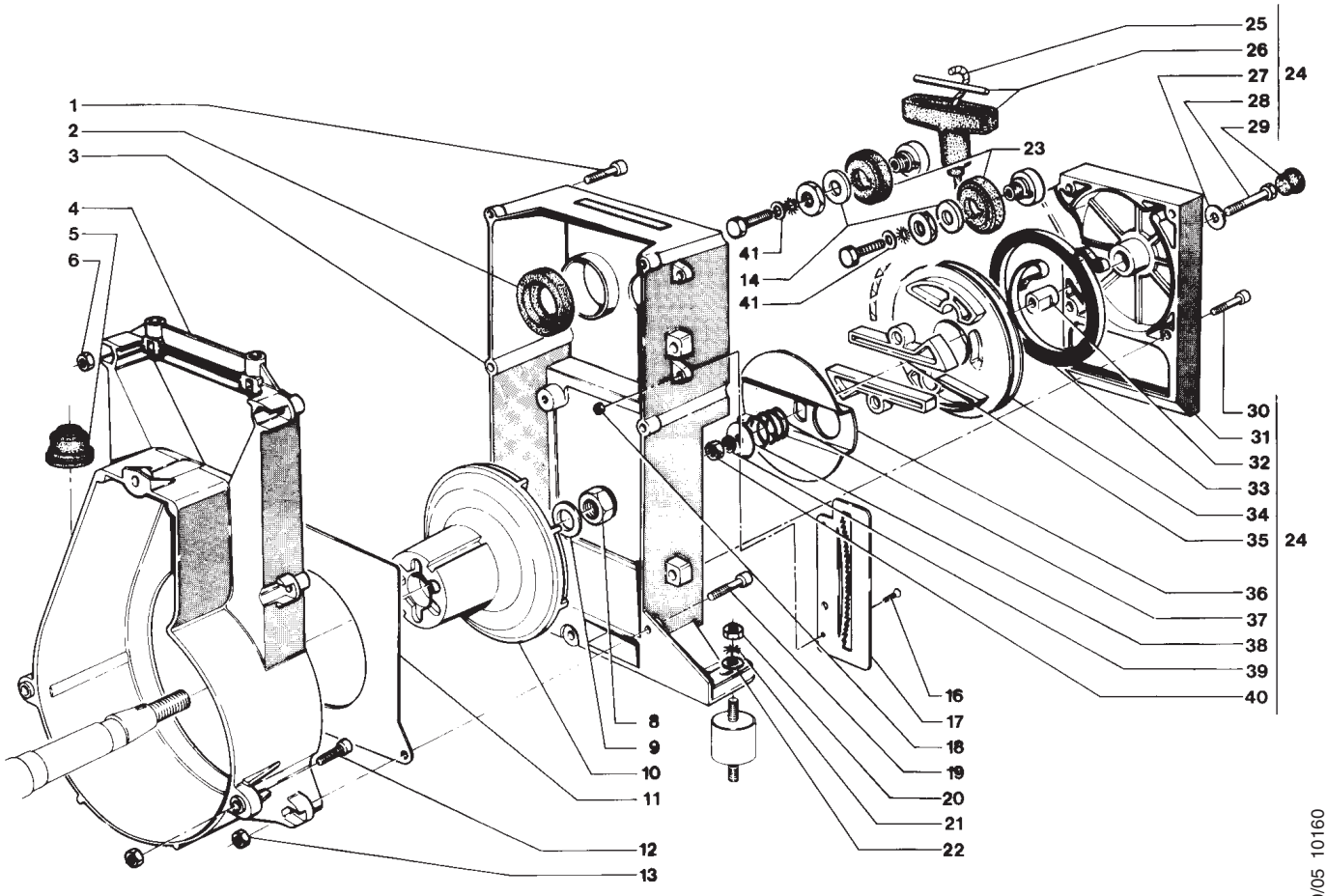
Pos.	Rev.	Cod.	Descr	
1		6029010	RING NUT	
2		101091200	ROTOR	
3		6085010	KEY,ARMATURE	
4		101301860	FAN-INDUCTOR,ASSY	
5		6008140	SCREW	
6		101091176	CLAMP	
7		201493026	STATOR	MSG 201 S
8		6008050	SCREW	
9		6022040	NUT	
10		6001180	SCREW	
11		6044010	WASHER	
12		101301820	MAGNETO, IGNITION, ASSY	
13		101043810	SUPPORT, FLEXIBLE	
14		201503026	STATOR 110 V	MSG 201 S
15		101302000	STATOR	MSG 200-CHOPPER
16		101311900	STATOR 110V	MSG 200-CHOPPER



7 Socket (black)



42 Socket (red)



12/10/05 10160

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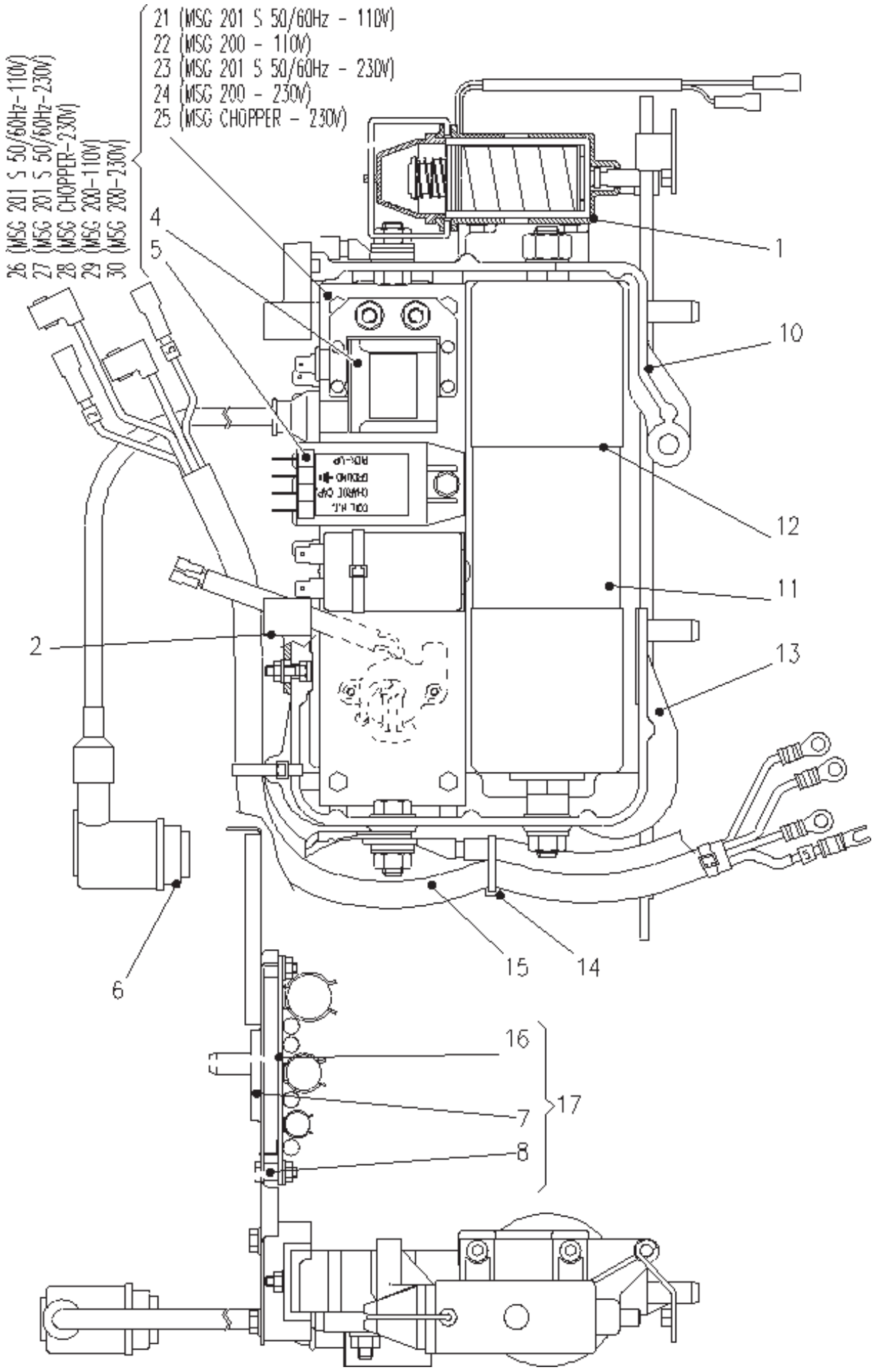
Pos.	Rev.	Cod.	Descr.	Note
1		6008050	VITE	
2		101131210	CAPPUCCIO	
3		101361120	COPERCHIO	
4		101042870	VOLUTA ALTERNATORE	
5		101043810	SUPPORTO ELASTICO	
6		6022040	DADO	
7		101130518	PRESA DINSE	NERA
8		6028090	DADO	
9		6035080	RONDELLA	
10		101131530	INNESTO	
11		101042880	LAMIERA	
12		6008040	VITE	
13		6022040	DADO	
16		6019010	VITE	
17		101301666	CREMAGLIERA	
18		6022010	DADO	
19		6008200	VITE	
20		6022040	DADO	
21		6044040	RONDELLA	
22		6035060	RONDELLA	
24		‘0000101131900	GRUPPO AVVIAMENTO	
25		101131490	FUNE DI AVVIAMENTO	
26		101092010	IMPUGNATURA	
27		101131466	RONDELLA	
28		6001080	VITE	
29		101131590	TAPPO	
30		6008170	VITE	
31		101131411	COPERCHIO	
32		101131436	DISTANZIALE	
33		101131470	MOLLA	
34		101131480	PULEGGIA	
35		101131510	SALTARELLO	
36		101131526	DISCO	
37		101131450	MOLLA	
38		101131466	RONDELLA	
39		6040020	RONDELLA	
40		6022040	DADO	
41		6038010	RONDELLA	
42		101300518	PRESA DINSE ROSSA	ROSSA

Pos.	Rev.	Cod.	Descr.	Note
1		6008050	SCREW	
2		101131210	CAP	
3		101361120	COVER	
4		101042870	HOUSING, ALTERNATOR	
5		101043810	SUPPORT, FLEXIBLE	
6		6022040	NUT	
7		101130518	SOCKET	NERA
8		6028090	NUT	
9		6035080	WASHER	
10		101131530	RATCHET, STARTER	
11		101042880	SHEET	
12		6008040	SCREW	
13		6022040	NUT	
16		6019010	SCREW	
17		101301666	PLATE, CURRENT ADJUSTER	
18		6022010	NUT	
19		6008200	SCREW	
20		6022040	NUT	
21		6044040	WASHER	
22		6035060	WASHER	
24		‘0000101131900	STARTER ASSY	
25		101131490	ROPE	
26		101092010	HANDGRIP	
27		101131466	WASHER	
28		6001080	SCREW	
29		101131590	PLUG	
30		6008170	SCREW	
31		101131411	COVER	
32		101131436	SPACER	
33		101131470	SPRING	
34		101131480	PULLEY	
35		101131510	PAWL	
36		101131526	DISK	
37		101131450	SPRING	
38		101131466	WASHER	
39		6040020	WASHER	
40		6022040	NUT	
41		6038010	WASHER	
42		101300518	SOCKET,RED	ROSSA


21 (MSG 201 S 50/60Hz - 110V)
22 (MSG 200 - 110V)
23 (MSG 201 S 50/60Hz - 230V)
24 (MSG 200 - 230V)
25 (MSG CHOPPER - 230V)
26 (MSG 201 S 50/60Hz-110V)
27 (MSG 201 S 50/60Hz-230V)
28 (MSG CHOPPER-230V)
29 (MSG 200-110V)
30 (MSG 200-230V)
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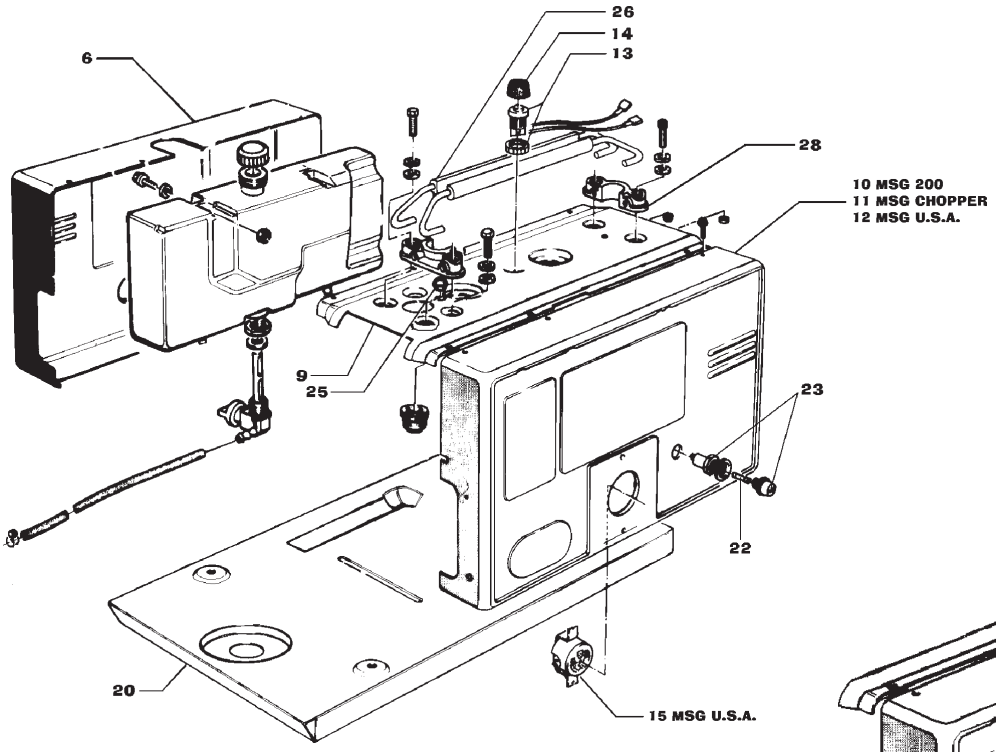
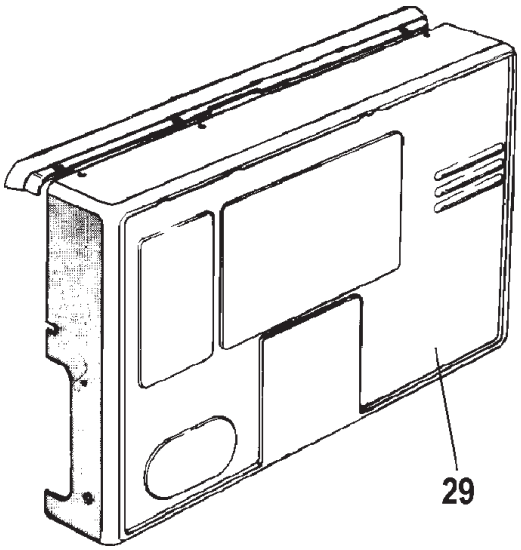
Pos.	Rev. Cod.	Descr.	Note
1	101045600	ELETTROMAGNETE	
2	101091340	BLOCCHETTO ISOLANTE	
4	101301880	BOBINA A.T.	
5	101301890	CENTRALINA ELETTRONICA	
6	101174930	CAPPUCCIO CANDELA	
7	101301080	TELAIO	
8	102302060	DISTANZIALE	
10	101091320	CONDUTTORE	
11	101044610	CONDENSATORE 80 MF	
12	101201970	CAPPUCCIO ISOLANTE	
13	101091330	CONDUTTORE	
14	1239010	FASCETTA	
15	201499592	GRUPPO CAVI	
16	201499835	SCHEDA ECCITAZIONE	
17	‘0000201499834	GR.TELAIO SCHEDA ECCITAZIONE	
21	LN201509670	SCHEDA ACCENSIONE (110V)	MSG 201 S
22	101310527	GRUPPO PIASTRA ELETTR.(110v)	MSG 200
23	LN201499670	SCHEDA ACCENSIONE (230V)	MSG 201 S
24	101301200	GRUPPO PIASTRA	MSG 200
25	101609660	SCHEDA ACCENSIONE (CHOPPER)	MSG CHOPPER
26	‘0000201509670	SCHEDA ACCENSIONE COMPL.(110V)	MSG 201 S
27	‘0000201499670	SCHEDA ACCENSIONE COMPL.(230V)	MSG 201 S
28	‘0000101609670	SCHEDA ACCENSIONE COMPL.	MSG CHOPPER
29	101310527	GRUPPO PIASTRA ELETTR.(110v)	MSG 200
30	101300527	GRUPPO PIASTRA ELETTR. (220v)	MSG 200

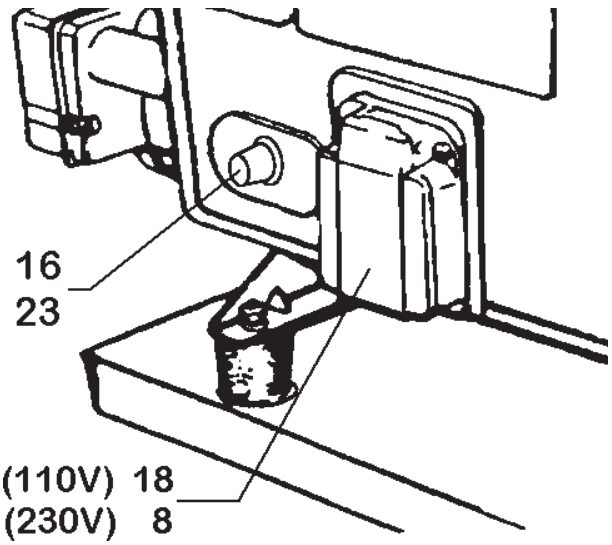
Pos.	Rev. Cod.	Descr.	Note
1	101045600	SOLENOID	
2	101091340	BLOCK, SPACING	
4	101301880	COIL, HIGH VOLTAGE	
5	101301890	IGNITION ELECTRONIC	
6	101174930	CAP, SPARK PLUG	
7	101301080	FRAME	
8	102302060	SPACER	
10	101091320	CONDUCTOR	
11	101044610	CONDENSER 80 MF	
12	101201970	CAP, INSULATING	
13	101091330	CONDUCTOR	
14	1239010	CLAMP	
15	201499592	CABLE SET	
16	201499835	EXCITATION CARD	
17	‘0000201499834	EXCITATION CARD FRAME	
21	LN201509670	IGNITION CARD (110V)	MSG 201 S
22	101310527	PCB,ELECTR.(110v VERSION)	MSG 200
23	LN201499670	IGNITION CARD (230V)	MSG 201 S
24	101301200	PLATE ASSY	MSG 200
25	101609660	STARTER PCB (CHOPPER)	MSG CHOPPER
26	‘0000201509670	PLATE ASSY (110V)	MSG 201 S
27	‘0000201499670	PLATE,ELECTR. (230v VERSION)	MSG 201 S
28	‘0000101609670	PCB STARTER	MSG CHOPPER
29	101310527	PCB,ELECTR.(110v VERSION)	MSG 200
30	101300527	PLATE,ELECTR. (220v VERSION)	MSG 200

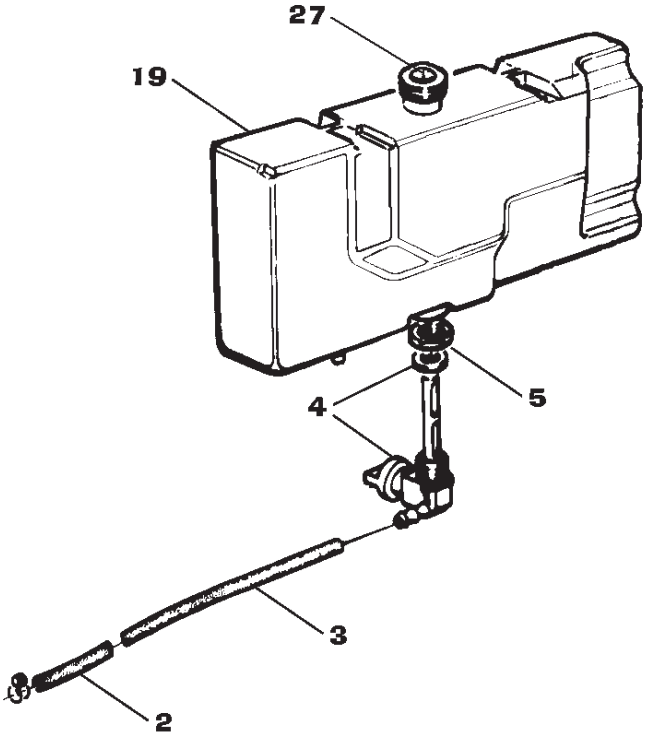


MS 200 S VERSION



EEC VERSION





1 Tank assy

12/10/05 10160

Pos.	Rev.	Cod.	Descr.	Note
1		101254050	SERBATOIO	
2		6086010	MOLLA	
3		101043970	TUBO BENZINA (L=MT.1)	QM
4		101302570	RUBINETTO	
5		6023030	DADO	
6		101301570	CARENATURA SINISTRA	
8		102302310	PRESA	
9		101091810	COPERCHIO	
10		101301540	CARENATURA DX	MSG 200
11		101601540	CARENATURA	MSG CHOPPER
12		101341110	CARENATURA	MSG 200 U.S.A.
13		101091830	PULSANTE DI STOP	
14		101091840	CAPPUCCIO	
15		101171120	PRESA HUBBEL	MSG 200 U.S.A.
16		1291180	FUSIBILE	MSG CHOPPER
18		101161140	PRESA 110V 16A (MONOFASE)	
19		101302550	SERBATOIO	
20		101047400	BASE	
22		1291090	FUSIBILE	MSG 200 U.S.A.
23		103011320	PORTA FUSIBILE	MSG 200-CHOPPER
25		1031010	PASSACAVO	
26		101301070	IMPUGNATURA	
27		101302560	TAPPO SERBATOIO	
28		101301210	SUPPORTO MANIGLIA	
29	A	222201540	CARENATURA LATO CONDENSATORE	

Pos.	Rev.	Cod.	Descr.	Note
1		101254050	FUEL TANK	
2		6086010	SPRING	
3		101043970	GAS PIPE (L=MT.1)	QM
4		101302570	TAP, FUEL	
5		6023030	NUT	
6		101301570	COVER, LEFT	
8		102302310	SOCKET	
9		101091810	COVER	
10		101301540	COVER, RIGHT	MSG 200
11		101601540	COVER	MSG CHOPPER
12		101341110	COVER CONDENSER SIDE	MSG 200 U.S.A.
13		101091830	BUTTON, STOP	
14		101091840	CAP	
15		101171120	SOCKET 115V 15A (SINGLE PHASE)	MSG 200 U.S.A.
16		1291180	FUSE	MSG CHOPPER
18		101161140	SOCKET 110V 16A (SINGLE-PHASE)	
19		101302550	FUEL TANK	
20		101047400	BASE	
22		1291090	FUSE	MSG 200 U.S.A.
23		103011320	HOLDER, FUSE	MSG 200-CHOPPER
25		1031010	GROMMET	
26		101301070	HANDGRIP	
27		101302560	CAP, FUEL TANK	
28		101301210	SUPPORT, HANDLE	
29	A	222201540	COVER CONDENSER SIDE	

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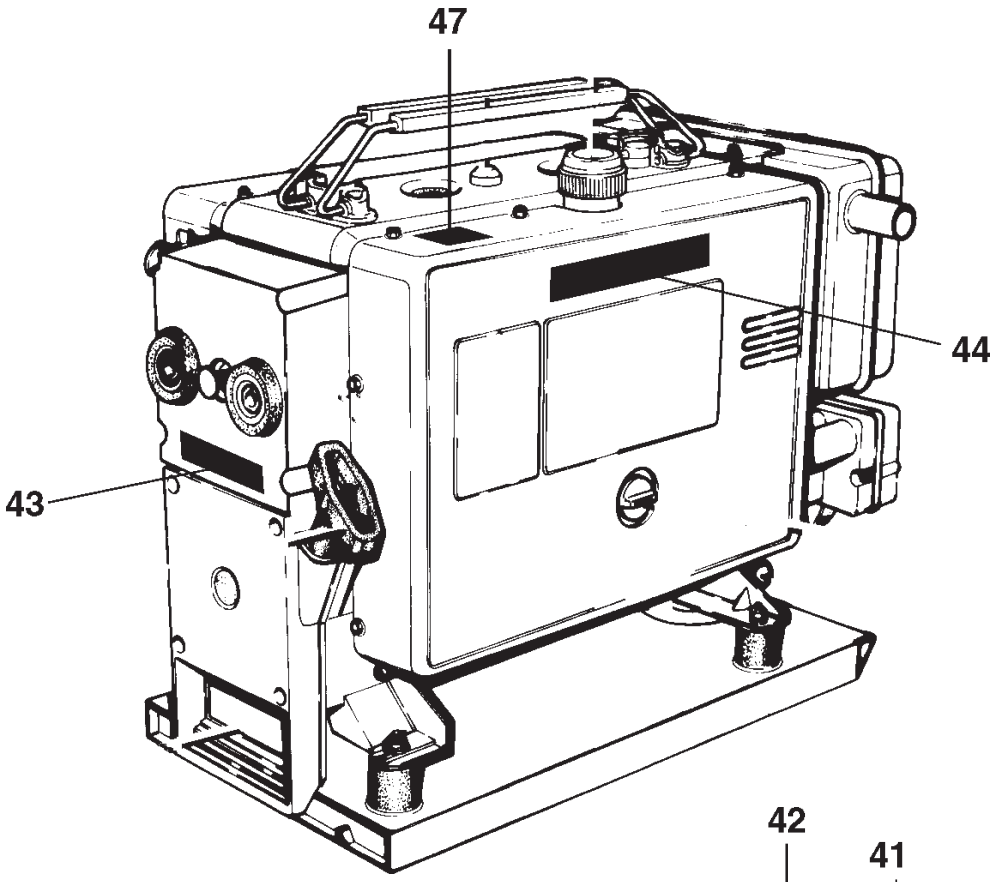
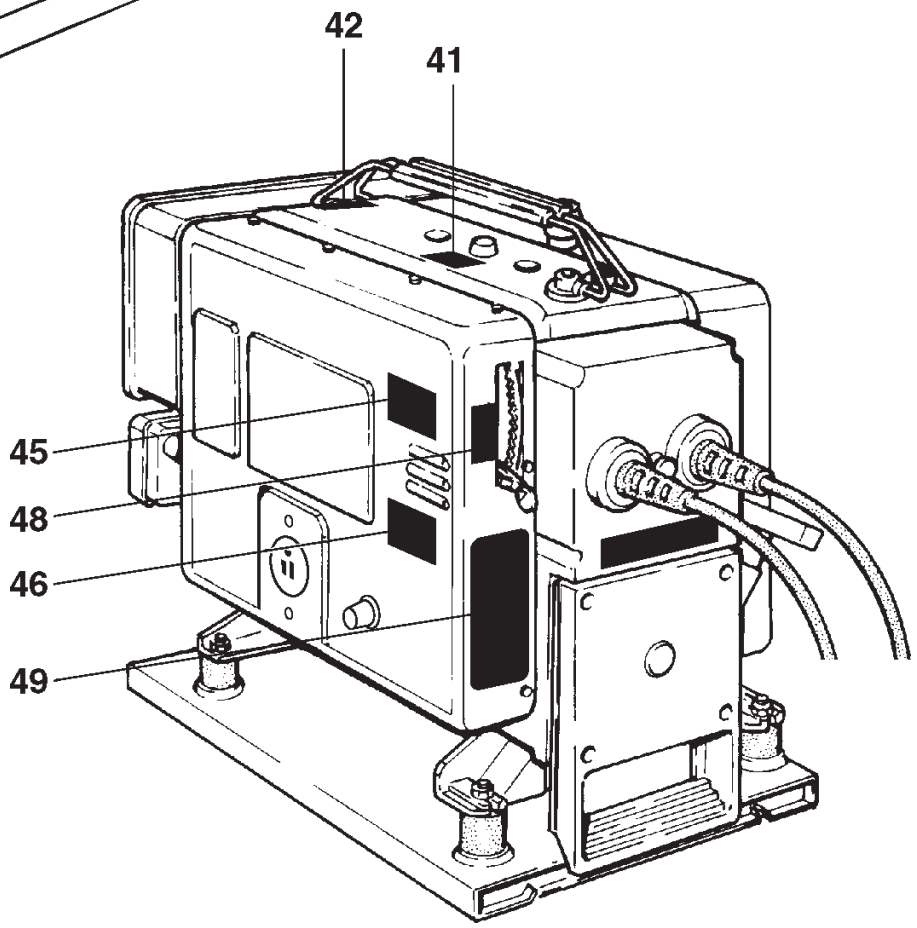
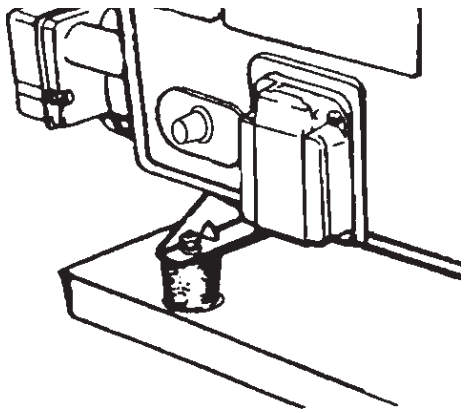


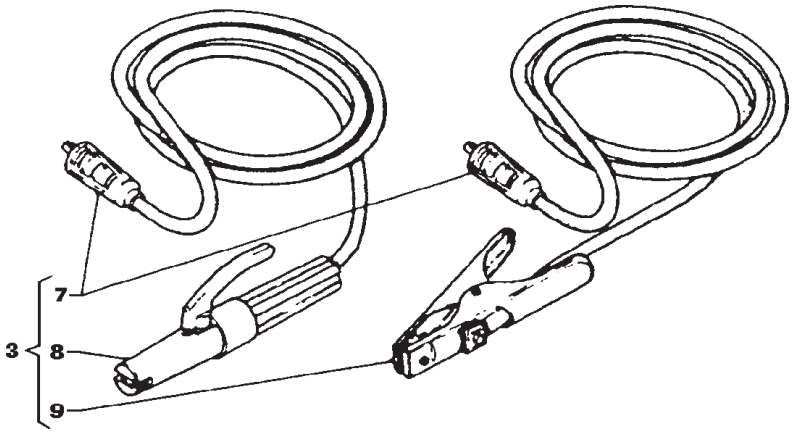


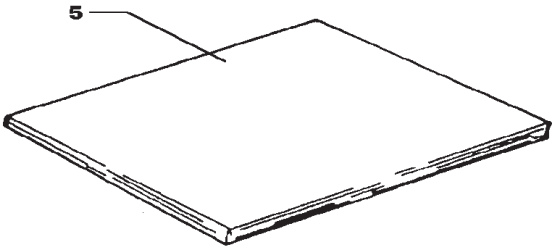


Pos.	Rev.	Cod.	Descr
41		101093040	TARGHETTA “STOP”
42		101093060	TARGHETTA X SILENZIATORE
43		101253110	TARGHETTA X COPERCHIO POST.
44		101253070	TARGH. LATO SERBAT.”WARNING”
45		101253050	TARGH. SUP.LATO COND.”WARNING”
46		101253060	TARGH.INF.LATO COND.”WARNING”
47		101253040	TARGHETTA X SERBATOIO”CAUTION”
48		201500224	TARGHETTA SET AUX
49		101253090	TARGHETTA “AUX POWER CAUTION”
50		101341660	TARGA ADESIVA TO LOCK PLUGS ..
51		101341670	TARGA ADESIVA TWIST TO RELEASE

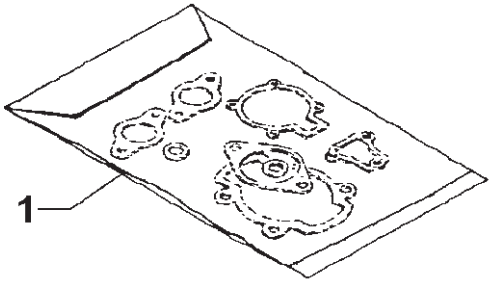
Pos.	Rev.	Cod.	Descr
41		101093040	STOP DECAL
42		101093060	HOT EXHAUST WARNING LABEL
43		101253110	WELDING/AUXILIARY KNOB DECAL
44		101253070	ENGINE FUEL WARNING LABEL
45		101253050	STICKER “WARNING” (TOP HALF)
46		101253060	WARNING LABEL BOTTOM HALF
47		101253040	STICKER “CAUTION” X FUEL TANK
48		201500224	SET AUX LABEL
49		101253090	LABEL, “AUX POWER CAUTION”
50		101341660	STICKER “TO LOCK PLUGS”
51		101341670	STICKER “TWIST TO RELEASE”

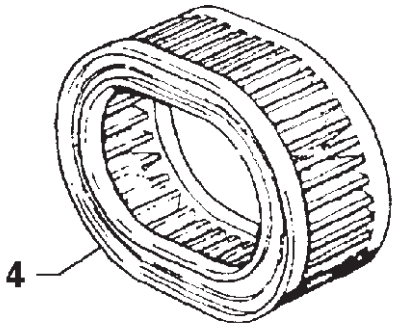
STANDARD

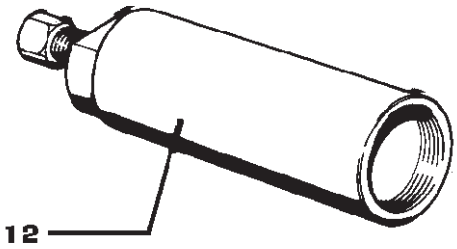


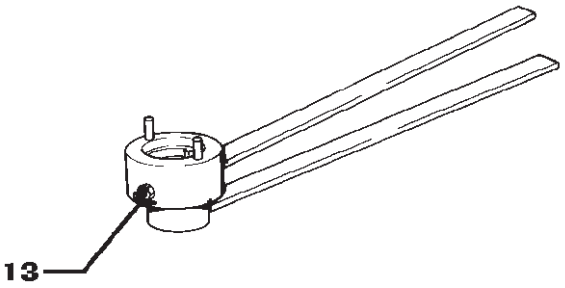


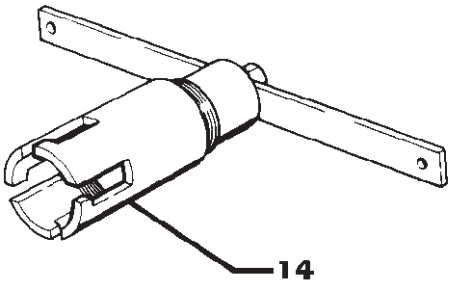
OPTIONAL

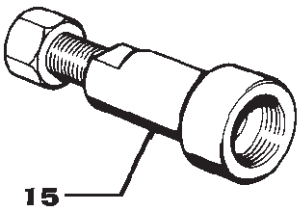


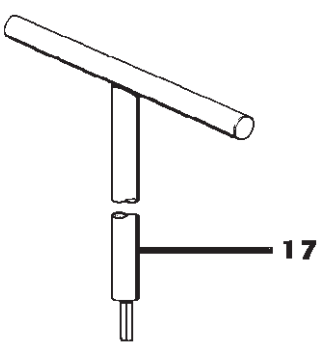


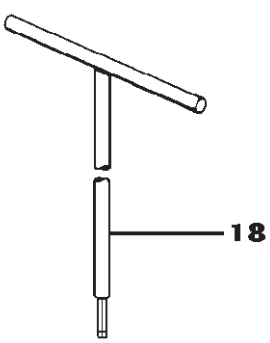


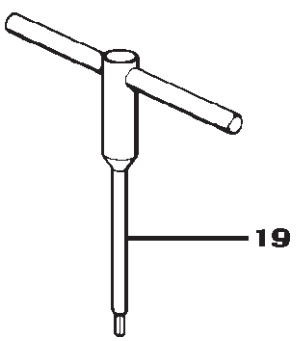












Pos.	Rev.	Cod.	Descr.	Note
1		101040537	SERIE GUARNIZIONI	
3		101132100	GRUPPO CAVI DI SALDATURA K 180	
4		101302430	CARTUCCIA FILTRO ARIA	
5		....9.003	MANUALE USO E MANUTENZIONE	
7		101131550	SPINOTTO DINSE	
8		101045210	PINZA	
9		101045220	MORSETTO	
12		‘000373038	ESTRATTORE PER ROTORE	
13		‘000373039	CHIAVE PER GHIERA ROTORE	
14		‘000373037	ESTRATTORE PER CORPO ALTERNAT.	
15		‘000373036	ESTRATTORE VOLANO MAGNETE	
16	A	‘000070008	CHIAVE BLOCC. MOZZO AVVIATORE	Non più fornibile
17		6887/F	CHIAVE X VITE ESAG.INCASS.6MM.	
18		6887/E	CHIAVE X VITE ESAG.INCASS.5MM.	
19		6887/A	CHIAVE X VITE ESAG.INCASS.4MM.	

Pos.	Rev.	Cod.	Descr.	Note
1		101040537	SET,GASKETS	
3		101132100	WELDING CABLE SET K 180	
4		101302430	CARTRIDGE, AIR FILTER	
5		....9.003	MANUAL USE AND MEINTENANCE	
7		101131550	PLUG	
8		101045210	ELECTRODE HOLDER	
9		101045220	EARTH CLAMP	
12		‘000373038	PULLER, ROTOR	
13		‘000373039	WRENCH, ROTOR RING	
14		‘000373037	PULLER, ALTERNATOR BODY	
15		‘000373036	PULLER, FLYWHEEL, MAGNETO	
16	A	‘000070008	WRENCH ALLEN STARTER BLOCKING	Non più fornibile
17		6887/F	WRENCH,ALLEN,HEX.SCREW,6MM.	
18		6887/E	WRENCH,ALLEN,HEX.SCREW,5MM.	
19		6887/A	WRENCH,ALLEN,HEX.SCREW,4MM.	

MOSA (I) (GB) (F)

REQUEST FOR ORDER SPARE PARTS

R 1.1

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Dear Customer,
You can send us the request for order of MOSA original spare parts, filling in this form, with the new spare parts tables as well as with the old ones, by FAX or mail.

Request from:..... date:..... signature:.....

Please send use us following sapre parts for the machine below:
MOSA SPARE PARTS:

model type:.....

serial nr: | | | | | | | | | | |

NEW TABLES		
table nr.	position	q.ty

OLD TABLES	
code	q.ty

ENGINE SPARE PARTS:

engine model: ..... engine serial nr.:.....

code and/or position	description and/or table	q.ty

SYNCHRONOUS ALTERNATOR SPARE PARTS:

alternator model:..... alternator serial nr.:.....

code and/or position	description and/or table	q.ty