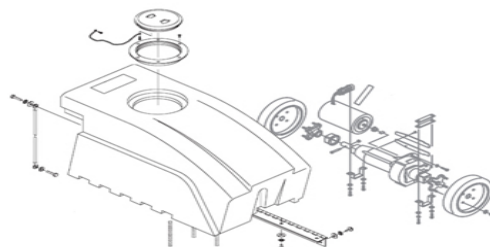
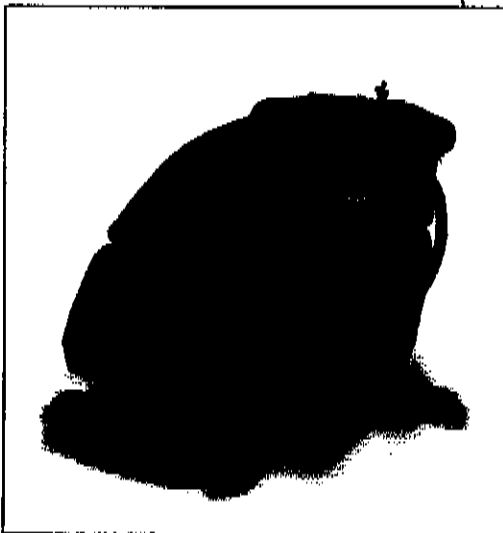


# Foreman™ 28 Operator's Manual

## Operator's Manual

Item #86011



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## 2. GENERAL INFORMATION



Read this manual carefully before starting any operations on this machine<sup>1</sup>.

### 2.1. Scope of the manual

This manual has been drawn up by the Manufacturer and is considered as an integral part of the machine.

It defines the purpose for which the machine has been manufactured and contains all information the operators<sup>2</sup> require.

Besides this manual, which contains the necessary information for the users, other publications have been issued, which contain the specific information for the technicians in charge of maintenance<sup>3</sup>.

The constant observance of the instructions guarantees the safety of man and machine, low running costs, quality results and a longer work life of the machine itself. The non-observance of the prescribed rules could injure men, damage the machine, spoil the washed floor and even the environment.

To find the single topics in a fast way, see the descriptive table of contents at the beginning of this manual.

The paragraphs that are not to be neglected are printed in bold letters and preceded by symbols illustrated and defined below.

### ! DANGER

Indicates that attention must be paid to avoid serious consequences that could cause the death of the personnel or possible damages to health.

### ⚠ WARNING

Indicates that attention must be paid to avoid serious consequences that could damage the machine, spoil the environment where the machine is used or cause economic losses.

### i INFORMATION

Particularly important instructions.

In following a policy of constant development and update of the product, the Manufacturer could implement modifications without any previous notice.

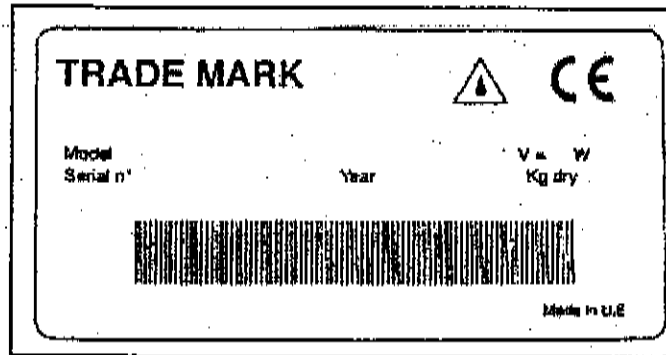
Even though the machine you own is greatly different from the one(s) illustrated in this manual, safety and information thereof are guaranteed anyway.

<sup>1</sup> The definition "machine" substitutes the commercial name to which this manual refers.

<sup>2</sup> People authorised to use the machine without carrying out maintenance operations that require precise technical knowledge.

<sup>3</sup> People having the experience, technical preparation and knowledge of the regulations and laws necessary to carry out the activity and capable to recognize and avoid possible dangers when handling, installing, using the machine and carrying out maintenance operations.

## 2.2. Identification of the machine



**Fig. 1**

The number plate (fig. 1), which is attached at the rear of the machine, shows the following information:

- model code;
- machine model;
- power supply voltage;
- total rated power;
- serial number (registration number);
- year of manufacture;
- dry weight;
- maximum full load weight;
- steepest slope that can be overcome;
- bar code with serial number;
- Manufacturer's identification.

## 2.3. Documentation annexed to the machine

- User's Manual;
- warranty certificate;
- adhesive slips for spare part orders;
- test sheet;
- CE Certificate of conformity.

### 3. TECHNICAL INFORMATION

#### 3.1 General description

The machine is a sweeping scrubber, which can be used in civil and industrial environments for sweeping, washing and drying flat, horizontal, smooth or moderately rough floors, with even surfaces and free from obstacles.

The scrubber distributes on the floor an adequately dosed solution of water and detergent, and brushes it to remove dirt. Choosing with care the right cleaning detergent and brushes (or abrasive discs) in the wide range of accessories available, the machine can adapt itself to all kinds of combinations of floors and dirt.

A liquid suction system, which is embedded in the machine, allows a perfect drying of the just-washed floor: actually thanks to a suction unit which sucks up the air from the recovery tank thus creating a vacuum, the squeegee scrapes the dirty water from the floor, collects it and sends it to the recovery tank.

The storage battery feeding and the high capacity of usable batteries allow the **maximum freedom of movement** and endurance at **any work conditions**.

In addition, thanks to the electronic control drive motor provided with forward and reverse gear, the floor can easily be cleaned in any direction.

#### 3.2. Legend

The main components of the machine are the following (fig. 2):

- the detergent solution tank (fig. 2, ref. 3): used to contain and carry the mixture of clean water and detergent;
- the recovery tank (fig. 2, ref. 2): used to collect dirty water sucked up from the floor during washing;
- control panel (fig. 2, ref. 1);
- head unit (fig. 2, ref. 5): the main element is represented by the brushes, which distribute the detergent solution on the floor, removing dirt;
- drive unit (fig. 2, ref. 7): the main element consists of the electronically controlled gearmotor which is operated via a lever below the machine handgrip and enables the machine to move forward and back;
- squeegee unit (or floor wiper, fig. 2, ref. 8): used to wipe and dry the floor, sucking up the water spread on the floor;
- battery unit (fig. 2, ref. 6): supplies energy for the machine feeding;
- bonnet (fig. 2, ref. 4).

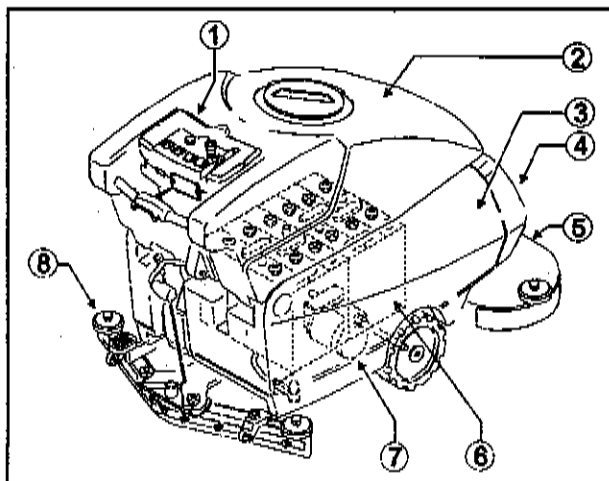
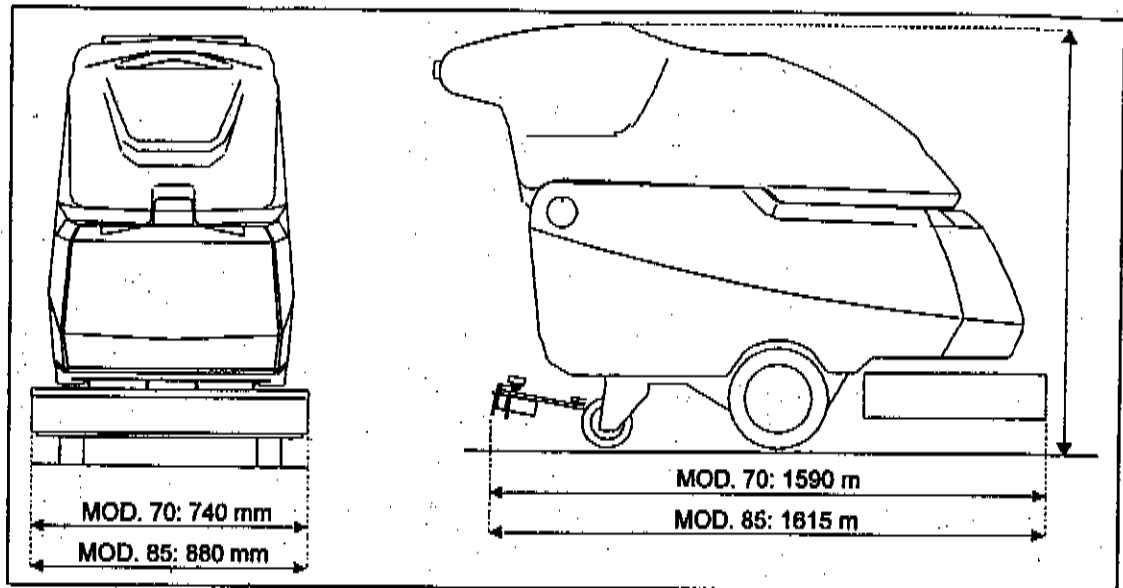


Fig. 2

### 3.3 Overall dimensions



### 3.4. Technical specifications

		70	85
Cleaned track width	mm	680	810
Squeegee width	mm	880	940
Hourly performance	m <sup>2</sup> /h	2600	3100
Number of brushes	n°	2	2
Brush diameter	mm	345	410
Max brush pressure	daN	75	80
Brush rotation speed	g/1°	200	200
Brush motor power	W	1000	1000
Drive control	/	Elettrica	Elettrica
Drive motor rated power	W	300	300
Maximum speed	Km/h	4	4
Three-stage suction motor power	W	550	550
Suction motor vacuum	Pa	17000	17000
Noise level	dB(a)	70	70
Solution tank capacity	L	90	90
Recovery tank capacity	L	100	100
Wheel diameter	mm	250	250
Net weight without batteries	Kg	170	175
Number of batteries	n°	4	4
Series battery voltage	V	24	24
Single battery capacity	Ah (5h)	220	220
	Ah (20h)	320	320
Single battery weight	Kg	46	46
Battery compartment size (length, width, height)	mm	630x	630x
		410x	410x
		380	380
Machine size (length, width, height)	mm	1590x	1615x
		740x	880x
		1075	1075
Dimensions of packing (length, width, height)	mm	1780x	1780x
		930x	930x
		1290	1290

**Table A** Data can be changed without notice.

### 3.5. Danger areas

**A -Tank unit:** in presence of certain detergents, danger of irritation for the eyes, skin, mucous diaphragms, respiratory apparatus and asphyxia. Danger caused by dirt recovered from the environment (germs and chemical substances). Danger of crushing between the recovery tank and solution tank, when the recovery tank is replaced on the solution tank.

**B -Control panel:** danger of shortcircuits.

**C -Lower part of washing head:** danger due to lowering of head and rotation of brushes.

**D -Top of washing head:** danger of crushing between the top of the brush head and the chassis.

**E -Rear wheels:** danger of crushing between wheel, chassis and tank.

**F -Electrical components box:** danger of short circuits.

**G -Battery compartment** (located within the solution tank): danger of short circuits between the battery poles and presence of hydrogen during battery charging.



### 3.6. Safety devices

	DEVICE (fig. 3)	ACTIVATION	FUNCTION
A	Emergency button	Made active when pressed.	Interrupts the power supply.
B	Safety in reverse	Safety device to prevent crushing in reverse. Cuts in when pressed.	Interrupts reverse movement of machine.
-	Service brake	Comes on automatically when the drive lever is released.	The machine gradually decelerates.
C	Parking and emergency brake	Press pedal C to engage. Must be operated only with the machine at a standstill or in case of emergency: if operated with the machine moving, it can cause damage.	Prevents the machine moving.

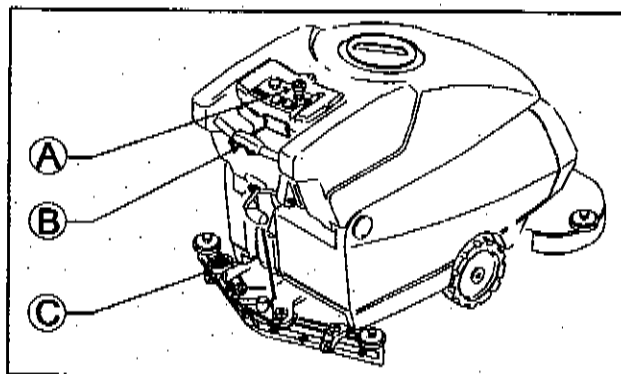


Fig. 3

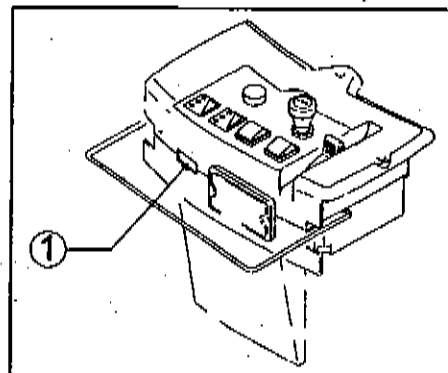


Fig. 4

### 3.7. Optional units

**Hour counter:** the hour counter accessory is fixed to the control panel (fig. 4, ref. 1). It displays the number of brush operating hours.

### 3.8. Accessories

- **Bristle brushes:** used for washing delicate floors and for polishing;
- **Pollpropilene brushes:** used for normal floor washing;
- **Tynex brushes:** used to remove accumulated stubborn dirt on resistant floors;
- **Drive discs:** allow the use of the following discs:
  - \* yellow discs: used for washing and polishing marble and similar surfaces;
  - \* green discs: used for washing of resistant floors;
  - \* black discs: used for thorough washing of resistant floors with stubborn dirt.

## 4. INFORMATION ON SAFETY

### 4.1. Safety standards



Read the User's manual carefully before proceeding with start-up, use, maintenance, routine maintenance or any other operations on the machine.

### WARNING

**Stick to all the instructions contained in this Manual (especially those regarding danger and warning) and observe the safety plates attached on the machine.**

**The Manufacturer declines all responsibility for injuries to persons or damage to things deriving from the non-observance of these instructions.**

The machine must be used by trained personnel only, who have shown their skill and have been expressly authorized to use it.

Persons under eighteen cannot use the machine.

This machine must not be used for any other purpose than that for which it has been expressly manufactured. Assess the type of building in which it will be used (e.g. pharmaceutical and chemical companies, hospitals, etc.) and scrupulously respect the regulations and conditions in force.

Do not use the machine in places that are not adequately lighted, in environments with danger of explosions, on public roads, in the presence of dirt harmful to health or improper environments.

The suitable temperature for the use of the machine ranges between +4°C and +35°C; when the machine is not used, the temperature range is between +0°C e +50°C.

The humidity range for the machine under any conditions varies between 30% and 95%.

Never use or suck up inflammable or explosive liquids (e.g. petrol, fuel oil, etc.), inflammable gases, dry dust, acids and solvents (e.g. solvents for paints, acetone, etc.) even if diluted. Never suck up any burning or white-hot objects.

Do not use the machine on slopes or ramps higher than 2%; in the event of light slopes do not use it transversally, handle it with extreme care and do not reverse. When driving along ramps or heavier slopes take great care to avoid overturning or uncontrolled acceleration. Overcome ramps and/or steps exclusively with the brush head and squeegee lifted.

**Never park the machine on slopes.**

The machine must never be left unmanned with the motors running; before abandoning the machine, switch the motors off, ensure that it cannot move accidentally, engage the parking brake and remove the key from the ignition.

When using the machine mind the presence of people particularly children in the environment where you are working.

Do not use the machine to carry persons/things or to tow things. Do not drag the machine.

Never lay things on the machine for any reason.

Do not obstruct the air vents and heat dispersion openings.

Do not remove, modify or elude the safety devices.

Various and unpleasant experiences have shown that people wear or carry various objects capable of causing serious accidents: before starting to work, remove trinkets, watches, neckties or other such things.

Always use individual safety protections: apron or protective suit/overalls, non-slip water-proof shoes, rubber gloves, protective goggles and caps, face mask to protect the respiratory system.

Do not put the hands in between moving organs.

Do not use detergents different from those provided for, and stick to the instructions indicated on the respective safety sheets. Keep detergents in a safe place, inaccessible to children, and in case they come in contact with the eyes, wash them immediately with plenty of water or, if swallowed, call for a doctor immediately.

Make sure that the plugs for the power supply of the models with cable or of the battery-chargers are properly grounded and protected by magnetothermal switches and differentials.

Make sure that the electric characteristics of the machine (voltage, frequency, absorbed power) indicated on the identification plate (fig. 1), are compliant with those of the power distribution plant. The machine with cable is equipped with three lead wires and a three-contact ground plug for the use of a proper grounding plug. The yellow and green wire of the cable is the earth wire: never connect this wire to other wires that are not the plug ground tap.

It is fundamental to observe the battery Manufacturer's instructions and stick to the Legislator's provisions. Keep batteries always dry and clean to avoid surface leakage currents. Keep batteries safe from impurities, for instance metal dust.

Do not lay tools on batteries: danger of short circuits and explosions.

Mind the use of battery acid: stick to the relative safety instructions.

When using the machine model with cable mind that you do not crush or tear the power supply cable. Check this cable periodically to control if it is damaged; if this is so, the machine cannot be used.

In presence of particularly high magnetic fields assess the possible effects on the control electronics.

Never wash the machine with jets of water.

The recycled fluids contain detergents, disinfectants, water, organic and inorganic stuff recycled during the work stages: they must be disposed of in compliance with the laws in force.

In case of breakdown and/or bad operation of the machine, switch it off immediately (unplugging it from the mains) and do not tamper with it. Contact a technical assistance centre of the Manufacturer's.

All maintenance operations must be performed in adequately lighted environments and only after having disconnected the machine from the power supply (in models with cable by unplugging the machine from the socket, while in models with battery by detaching the battery connector).

Have any electrical work and all maintenance and repair operations (particularly those not explicitly described in this manual) carried out by a specialised and trained technical staff only.

In case of replacement of the power supply cable, plug or terminals, perform the repair by properly fixing the electric connections and the cable blocking strap that is located in the control panel, to guarantee the resistance of the cable. Then reassemble the panel with care to ensure the protection of the machine user.

Only the use of original accessories and spare parts supplied by the Manufacturer is permitted, as only these offer the certainty that the machine will operate safely and without any inconveniences. Do not use parts removed from other machines or other kits as spares.

This machine has been designed and manufactured for a service endurance of ten years starting from the date of manufacture, which can be seen on the identification plate (see

fig. 1). After this time, whether the machine has been used or not, disposal must be considered according to the laws in force in the place of use:

- the machine must be disconnected from the mains, emptied of all liquids and cleaned;
- then it must be dismantled in homogeneous groups of materials (plastics according to the indications of the recycling symbol, metals, rubber, wrapping and packing). In case there are parts composed of different materials, refer to the competent bodies;
- each homogeneous group must be disposed of according to the laws governing the recycling of materials.

Alternatively, the machine can be sent to the Manufacturer for a thorough overhaul.

If the machine is not used anymore, it is recommended that batteries are removed and deposited at an authorized collecting centre.

Moreover, it is recommended that you make harmless those parts of the machine that could be dangerous especially to children, who could use the machine for their games.

## 5. HANDLING AND INSTALLATION

### 5.1. Lifting and carrying the packed machine

#### WARNING

**In all lifting operations make sure that the packed machine has been tightly anchored to the pallet, in order to avoid any overturning or accidental falls. Loading and/or unloading from the motor vehicles must be performed in an adequately lighted environment.**

The machine, which is packed on a wooden pallet by the Manufacturer, must be loaded by means of proper handling machines (refer to the EEC provision 89/392/CEE and following amendments), onto the carrier and, once it has arrived at the appointed destination, unloaded by similar means.

The brushes and the squeegees are packed in cardboard boxes without pallet.

The packed machine body must be lifted only with a fork lift truck. Handle with care to avoid bumps or overturnings.

### 5.2. Checking the machine on delivery

On delivery check with attention that the package and the machine are not damaged. In the event that the machine has suffered any damages, report so to the carrier; before accepting the goods, reserve by written the right to present a claim for the refund of the damages.

### 5.3. Unpacking

#### WARNING

**On unpacking the machine, the operator must be provided with the necessary accessories (e.g. gloves, protective goggles etc.) to limit possible hazards of accidents.**

Unpack the machine in the following way:

- cut and remove the plastic straps with scissors or nippers;
- remove the cardboard;
- remove the envelopes inside the battery compartment (within the solution tank) and check its contents:
  - envelope 1: - test sheet;  
- warranty coupon;  
- user's and maintenance manual;
  - envelope 2: - 3 battery bridge with clips;  
- 1 pair of tweezers for fuses;  
- 1 connector for the battery-charger;  
- 2 switch keys;

#### INFORMATION

**Keep one of the 2 keys safe so that it can be located in case the other one is lost; the other key is to be inserted in the lock on the mushroom switch.**

- depending on the model, remove the metal brackets or cut the plastic straps, which fix the machine chassis to the pallet;
- disengage the parking brake via the pedal ref. C fig. 3;

- let the machine slide down the pallet on an inclined plane, by pushing it into reverse;
- unwrap the brushes (fig. 5, ref. 1) and the squeegee (fig. 5, ref. 2) from their packing;
- clean the outside of the machine observing the safety rules;
- after unpacking the machine, you can install the batteries: see respective paragraphs.

If necessary, preserve the wrapping material as it could be used again to protect the machine in the event of a move or if the machine should be sent to a service centre for repair.

Otherwise, the material must be disposed of in compliance with the laws in force.

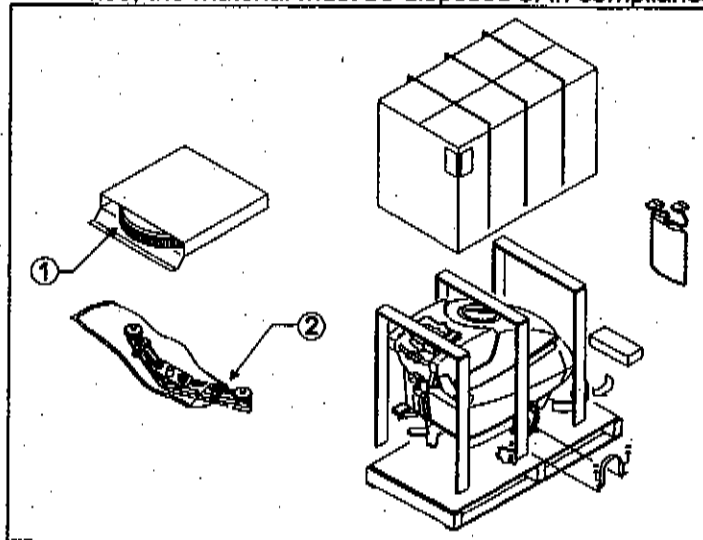


Fig. 5

#### 5.4. Feeding batteries

Two different batteries can be fitted on this machine:

- **Tubular leak-proof batteries:** these batteries require the periodical check of the electrolyte level. When it is necessary, top up with distilled water alone until the plates are covered; do not overfill (max. 5 mm. above the plates).
- **Gel batteries:** this kind of batteries requires no maintenance.

When using this type of battery the fuse FU7 (fig. 6, ref. 2) inside the machine control panel must be removed using the pliers. This operation serves to inform the electronic control of the type of battery used.

### WARNING

Do not fit the fuse FU7 if using gel batteries.

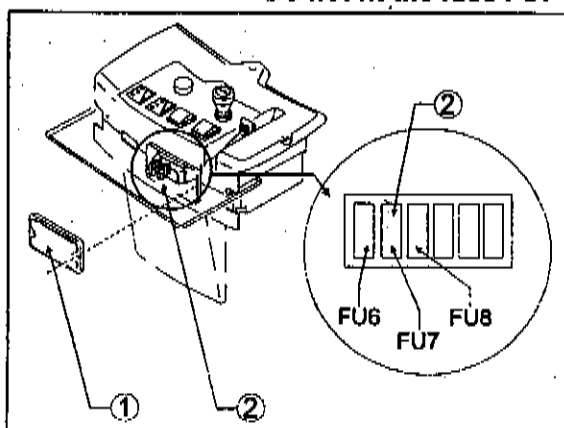


Fig. 6

The technical specifications must correspond to those indicated in the paragraph concerning the machine technical data: actually, the use of heavier storage batteries can cause serious problems to the machine controllability and overheat the drive motor, whereas storage batteries with a lower capacity require recharges more frequently. They must be kept charged, dry and clean, with their connections tight.

#### 5.4.1. Batteries: preparation

### ! DANGER

**On installing or performing any kind of maintenance on the batteries wear the necessary accessories (e.g. protective gloves, goggles, overalls, etc.) to limit the hazards of accidents, keep away from possible free flames, do not short-circuit the battery poles, cause sparks or smoke.**

The batteries are normally supplied filled with acid and ready-for-use.

If batteries without acid are to be used, before mounting them on the machine, it is necessary to make them active as follows:

- after taking off the battery plugs, fill up all elements with a solution of specific sulphuric acid, until the cells are thoroughly covered (fill each element at least twice);
- let them rest for about 4-5 hours, to give time to air bubbles to come up to the surface and the plates to absorb the electrolyte;
- check that the electrolyte level is still above the plates, otherwise top up with the solution of sulphuric acid;
- reclose the plugs;
- install the storage batteries on the machine (following the procedure described below).

It is now necessary to perform a first recharging before having the machine start; to do so stick to the instructions written in the respective paragraph.

#### 5.4.2. Batteries: Installation and connection

### ! DANGER

**Check that the emergency button on the control panel is at the position "0" (off). Mind you connect only the clips marked with the symbol "+" to the positive poles.**

**Do not check the battery charge by creating sparkles.**

**Stick scrupulously to the instructions described below, as any short circuits of the batteries may cause them to explode.**

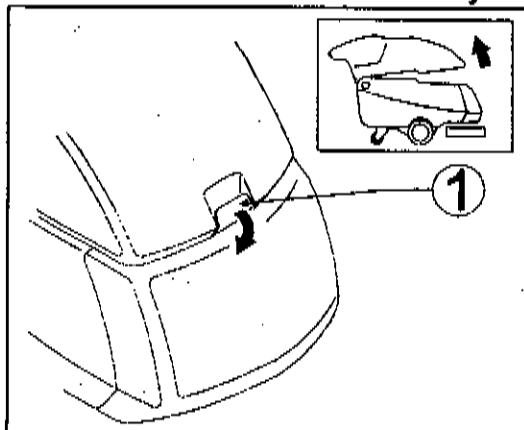


Fig. 7

- 1) Stop the machine and press the emergency button (fig. 8, ref. 2); engage the parking brake by means of the pedal (fig. 8, ref. 12);
- 2) make sure that the two tanks are empty (empty them, if necessary: see respective paragraph);
- 3) unhook the recovery tank (fig. 2, ref. 2) from the solution tank (fig. 2, ref. 3) acting on the blocking hook (fig. 7, ref. 1), placed on front of the machine;
- 4) lift the recovery tank, by making it turn backwards around about 90°: in this way you have access to the battery compartment (embedded in the solution tank) from the upper side;

### ⚠ WARNING

**Before opening the upper tank:**

**ensure that the recovery tank is empty (an acoustic warning device will sound if you try to open the recovery tank without emptying it first);**  
**ensure that the emergency button is pressed.**

- 5) insert the batteries in the compartment, orienting them as shown in the drawing printed on the solution tank in the compartment.

### ⚠ WARNING

**Install the storage batteries on the machine using suitable means according to their weight.**

**Positive and negative poles have different diameters.**

- 6) Referring to the arrangement of cables in the aforesaid drawing, connect the clips of the battery wiring and the bridge to the poles of the storage batteries. After orienting the cables as shown in the drawing, tighten the clips at the poles and cover them with vaseline;
- 7) Insert back the tank unit in its work position and hook it to the solution tank by means of the fixing hook (fig. 7, ref. 1);
- 8) use the machine in compliance with the instructions written below.

#### 5.5. The battery-charger

### ⚠ WARNING

**Never let the batteries run down excessively, as they could become damaged irreparably.**

### ⚠ WARNING

**Before recharging the batteries, ensure that you have pressed the emergency button.**

#### 5.5.1. Choosing the battery-charger

Check that the battery-charger is compatible with the batteries to be charged:

- **tubular lead batteries:** an automatic battery-charger 24V - 20A is suggested. Anyway, refer to the Manufacturer and read the relative manual to confirm your choice;
- **gel batteries:** use a battery-charger specifically intended for this type of storage batteries.



### 5.5.2. Preparing the battery-charger

If you wish to use a battery-charger not supplied with the machine, it is necessary to mount on it the connector delivered with the machine (see paragraph "Unpacking" of this manual).

To install the connector proceed as follows:

- remove about 13 mm of sheath from the black and red cables of the battery-charger;
- insert the cables in the connector pins and push strongly with suitable pliers;
- insert the cables in the connector respecting the polarity (red cable +, black cable -).

### 5.6. Lifting and handling the machine

#### WARNING

**All stages must be performed in an adequately lighted environment adopting all necessary safety measures.**

**Always wear individual protections for the user's safety.**

The loading of the machine onto a vehicle must be done as follows:

- empty the recovery tank and the solution tank;
- remove the squeegee and the brushes (or drive discs);
- remove the batteries;
- place the machine on the pallet, engage the parking brake and secure it with plastic straps or metal brackets;
- lift the pallet by means of a fork lift truck and load it on the vehicle;
- anchor the machine to the vehicle with ropes connected to the pallet and to the chassis of the machine.

## 6. PRACTICAL GUIDE FOR THE USER

### 6.1. Control devices - Description

With reference to fig. 8 the machine has the following controls and leds:

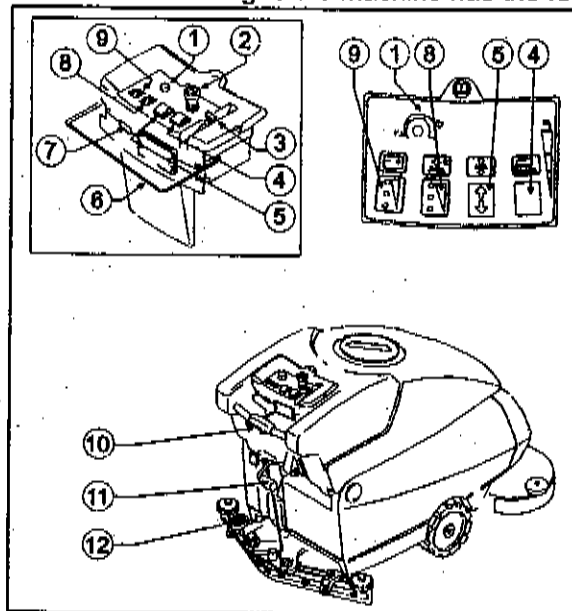


Fig. 8

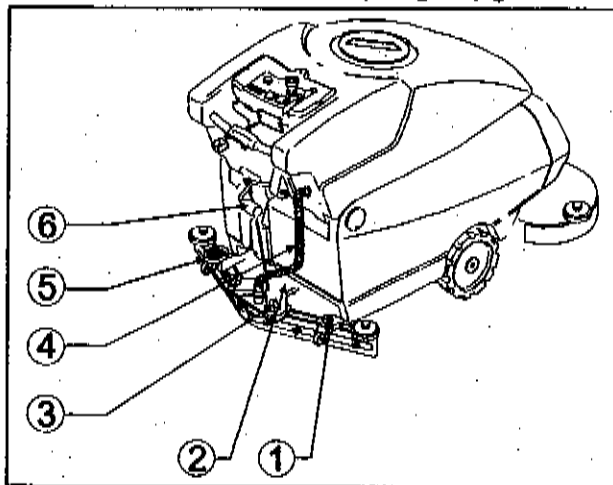
- **Battery charge level indicator (ref. 9):** signals both "Power on" and the battery charge level. Note: the following percentages are based on the usable capacity and not the total capacity of the batteries (therefore 100% flat = 80% of total battery capacity). Possible situations are:
  - a) **off:** the main switch is set to "0" (off) or the batteries are disconnected;
  - b) **permanent green light:** batteries charged from 100% to 50%;
  - c) **permanent yellow light:** batteries charged from 50% to 15%;
  - d) **permanent red light:** batteries charged from 10% to 0%; batteries flat and must be recharged;
  - e) **blinking red light:** batteries completely flat; batteries must be immediately recharged.
- **Main switch - emergency button with key (ref. 2):** enables or disables the power supply to all the machine functions. It acts as a safety device. To start the machine turn the proper key clockwise. To stop the machine press the button.
- **Brush up-down button (ref. 5):** when the arrow down is pressed, the head moves down to the working position, the brush motor comes on automatically and the solenoid valve is activated. Via this button, a variable pressure can be exerted on the head during the work phase (according to how long the button is kept pressed), thus adapting the cleaning power of the brushes to a wide range of different operating conditions.

When the arrow up is pressed, the head moves up to the rest position, the brush motors are switched off and the solenoid valve is de-activated.
- **Brush pressure Indicator (ref. 8):** Indicates the pressure exerted by the head (1 led on indicates minimum pressure; 2 leds on indicate medium pressure; 3 leds on indicate maximum pressure).
- **Brush release button (ref. 4):** permits release of the brushes; press the button for a couple of seconds: when the button is released, the brushes will be released.
- **Cock control lever (ref. 3):** allows to adjust continuously the flow of solution sent to the brushes. On turning it forward, the liquid outlet flow is increased.

- **Drive command lever** (ref. 6): placed under the handgrip, when it is slightly pressed upwards (the emergency button must be active), it starts the drive motor thus making the machine move forward. When the lever is pressed down, the drive motor moves the machine in reverse gear.
- **Squeegee lifting lever** (ref. 11): It allows to raise (when lifted) or lower (when pushed down) the squeegee. When it is pressed down, the suction motor is also switched on for drying the floor.
- **Hour meter** (ref. 7 - optional): displays the hours of work of the brush.
- **Parking brake pedal** (ref. 12): engages (when pressed and moved to the right) and disengages (when pressed and moved to the left) the parking brake.
- **Potentiometer** (ref. 1): permits adjustment of the machine forward and reverse speed; when the knob is turned clockwise the speed is increased.

## 6.2. Installing and adjusting the squeegee

The floor wiper, also called squeegee (fig. 2, ref. 8), is the first responsible for drying.



**Fig. 9**

To install the squeegee on the machine proceed as follows:

- 1) Stop the machine and press the emergency button (fig. 8, ref. 2); engage the parking brake by means of the pedal (fig. 9, ref. 5);
- 2) check that the squeegee supporting plate (fig. 9, ref. 2) is raised, otherwise lift it by acting on the proper lever (fig. 9, ref. 6);
- 3) firmly push down the sleeve of the suction tube (fig. 9, ref. 4) into the squeegee;
- 4) slacken the two knobs (fig. 9, ref. 3) placed in the centre of the squeegee;
- 5) insert the two threaded dowels in the slots of the support (fig. 9, ref. 2);
- 6) fix the squeegee by tightening the knobs (fig. 9, ref. 3).

The blades of the squeegee are used to scrub from the floor the film of water and detergent thus allowing a perfect drying. As long as time goes by the continuous scraping rounds off and splits the sharp edge in contact with the floor, thus reducing the drying efficacy and therefore requiring the replacement of the blades. Therefore, often check their state of wear and tear.

To obtain a perfect drying action it is necessary to adjust the squeegee in such a way that when it is in operation, the rear blade lip is bent about 45 degrees with respect to the floor at all points. It is possible to adjust the inclination of the blades by screwing down the nuts (fig. 9, ref. 1): by unscrewing the nuts the blade inclination is reduced, while by screwing the nuts the blade inclination is increased.

Moreover, check that the suction hole of the squeegee is not clogged, to let dirty water to be perfectly drained from the floor.

### 6.3. Moving the machine

To displace the machine do as follows:

- lift the squeegee;
- raise the head by pressing the brush up-down button (fig. 8, ref. 5) on the arrow up;
- disengage the parking brake via the pedal (fig. 8, ref. 12);
- Insert the key to release the emergency button (fig. 8, ref. 2);
- below the handgrip is a lever (fig. 8, ref. 6): by pulling the lever up (fig. 10, ref. 2) or pressing it down (fig. 10, ref. 1), according to whether you wish to move forward or back, the drive motor is switched on and the machine will begin to move;
- adjust the running speed via the potentiometer (fig. 8, ref. 1);
- once you have reached your destination, engage the parking brake via the pedal (fig. 8, ref. 12).

## WARNING

**Never leave the machine unmanned or parked with the parking brake disengaged or the key inserted in the emergency button. Do not engage the parking brake when the machine is moving.**

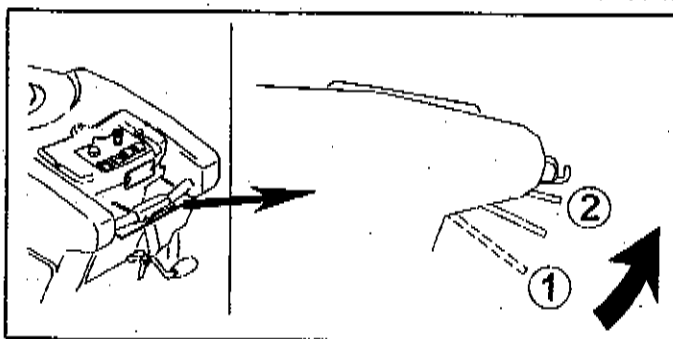


Fig. 10

### 6.4. Installing and replacing the brushes / drive discs

## WARNING

**Do not work if the brushes or drive discs are not perfectly installed.**

#### Removing:

- Raise the head by pressing the brush up-down button (fig. 8, ref. 5) on the arrow up;
- press the brush release button (fig. 8, ref. 4) for a couple of seconds: when the button is released, the brushes will be released.

#### Fitting:

- Position the brushes side by side at the front of the machine;
- move forward with the machine until the head is positioned above the brushes and they are centred;
- press the brush up-down button (fig. 8, ref. 5) on the arrow down and keep it pressed until the first led of the brush pressure indicator comes on (fig. 8, ref. 8); in this phase the brush motor may come on and then switch off for a few moments: this is a normal part of the brush engagement procedure.

## WARNING

**In particular conditions, the brushes may not engage correctly. In this case the head will vibrate. The brushes must be disassembled and refitted.**

If you wish to use the **ABRASIVE DISCS** instead of the brushes, they must firstly be fitted on the drive discs: rest the pad on the drive disc, placing it exactly in the centre, and fix it with the center lock ring nut. The drive discs must then be fitted on the machine following exactly the same procedure as for the brushes.

### **WARNING**

**Fully tighten the drive disc flange via the handle provided in order to prevent the flange dragging on the ground and damaging the floor.**

## **6.5. Detergents - Use**

### **WARNING**

**Always dilute detergents according to the supplier's instructions. Do not use sodium hypochlorite (bleaching solution) or other oxidizers, especially if in high concentrations, and do not use solvents or hydrocarbons. The temperatures for water and detergent must not exceed the maximum temperatures indicated in the technical data and must be free from sand and/or other impurities.**

The machine has been designed to be used with non-foaming and biodegradable detergents specific for sweeping scrubbers.

Contact the Manufacturer to have a complete and updated list of the available detergents and chemical products; you will receive all papers together with the Manual "Complete cleaning system".

Use only products suitable for floors and for removing dirt.

Follow the safety rules concerning the use of detergents indicated in the paragraph "Safety regulations".

## **6.6. Setting up the machine**

### **WARNING**

**Before starting to work wear an apron, cap, non-slip waterproof shoes, a mask to protect the respiratory system, gloves and any other form of protection indicated by the supplier of the detergent or necessary in the environment you are going to work in.**

Before starting to work, perform the following operations:

- check the level of battery charge (recharge, if necessary);
- disengage the parking brake via the pedal (fig. 8, ref. 12);
- make sure that the recovery tank (fig. 2, ref. 2) is empty; if this is not so, empty it;
- check that the cock control lever (fig. 8, ref. 3) is at the position "off";
- fill the solution tank (fig. 2, ref. 3) through the respective hole on the front with clean water and non-foaming detergent in a suitable concentration: leave a difference in level of at least 5 cm between the liquid surface and the tank opening;
- install brushes or drive discs suitable for the floor and the job to be done;
- lower the head by pressing the brush up-down button (fig. 8, ref. 5) on the arrow down;
- check that the squeegee (fig. 2, ref. 8) is fixed well and connected to the suction tube (fig. 9, ref. 4); make sure that the rear blade is not worn.

### **INFORMATION**

**If you use the machine for the first time, it is advisable that you train with it for a short time on a wide surface without any obstacles, to acquire the necessary familiarity.**

**Always empty the recovery tank before refilling the solution tank.**

For an effective cleaning and long life of the equipment, it is necessary to follow some simple rules:

- prepare the work area, keeping away the possible obstacles;
- begin to work starting from the farthest spot, in order to avoid trampling on the area just-cleaned;
- choose paths that are as much straight as possible;
- on wide floors divide the paths into rectangular and parallel areas.

At the end quickly mop the area, if necessary, to clean spots that are inaccessible to the scrubber.

### **6.7. Work**

After setting up the machine, proceed as follows:

- insert and operate the key to release the main switch (fig. 8, ref. 2) and enable all the machine functions: the battery charge level indicator will come on (fig. 8, ref. 9);
- move the cock lever (fig. 8, ref. 3) to the position of minimum flow of solution: the detergent solution begins to reach the brushes;
- press the brush up-down button (fig. 8, ref. 5) on the arrow down: the head will begin to move down and as soon as the brushes touch the floor the brush motors will come on. As the brushes rotate, the solution is distributed over the floor;
- lower the squeegee by means of the proper lever (fig. 8, ref. 11): the suction motor comes on;
- press the drive lever (fig. 8, ref. 6) placed under the handgrip: the drive motor is started and the machine starts moving forward;
- adjust the running speed via the potentiometer (fig. 8, ref. 1);
- if you wish to engage reverse gear during work with the squeegee lowered, you must first stop and raise the squeegee;
- check periodically that the detergent solution reaches the brushes and fill with solution if it runs out;
- check cleaning quality during work and adjust, as required, the flow of solution sent to the brushes (by rotating the cursor (fig. 8, ref. 3)) and the pressure exerted by the head-brushes on the floor (via the brush up-down button (fig. 8, ref. 5) until the test pressure indicator (fig. 8, ref. 8) indicates the required level).

## **i INFORMATION**

**In working conditions, if the emergency switch is accidentally pressed and the machine is switched off, when it is switched on again the brush button must be pressed to re-activate the brushes.**

## **⚠ WARNING**

**Never leave the machine stationary with the head lowered and the brushes in motion: the floor could be damaged.**

## **⚠ WARNING**

**Whenever you fill up the solution tank, always empty the recovery tank.  
Do not leave the machine stationary with the suction motor on and the solution cock turned on.**

- if the warning led (fig. 8, ref. 9) starts flashing, it means that the storage batteries are getting flat. Therefore, it is necessary to recharge them; if you keep on working, the batteries could become damaged irreparably;
- if the suction unit revs up but does not perform suction, it means that the floater has

cut in. In this case the recovery tank must be emptied (see specific paragraph).

## WARNING

If the drive lever (fig. 8, ref. 6) operation is intermittent for a prolonged time, it is possible that the motor becomes overheated with consequent damages to the same motor. For this reason limit the "lever shots" to the sole events when they are strictly necessary.

## WARNING

If for any reason the battery voltage drops considerably below the level envisaged, even temporarily, the drive lock may cut in. In this case the machine must be switched off and then on again.

### At the end of work:

- move the cock lever (fig. 8, ref. 3) to the position "CLOSED";
- release the drive lever (fig. 8, ref. 6) placed beneath the handle: the drive motor switches off and the machine stops;
- raise the head by pressing the brush up-down button (fig. 8, ref. 5) on the arrow up to stop the brushes (or drive discs) and raise them to prevent them becoming permanently distorted;
- let the suction motor run for at least 2 minutes to make sure that it is completely dry;
- by raising the lever (fig. 8, ref. 11), lift the squeegee from the ground to prevent continuous pressure causing distortion of the drying blades and to switch off the suction motor;
- press the main switch (fig. 8, ref. 2) to disable all the machine functions;
- engage the parking brake via the pedal (fig. 8, ref. 12);
- empty and clean the recovery tank.

### 6.7.1. Additional functions

The machine is provided with additional functions that can be activated by removing the fuses inside the control panel (fig. 11).

#### FU6 FUSE FUNCTION:

The brushes stop:

- a) when the drive is released (with delay);
- b) when the batteries are flat.

**FU7 FUSE FUNCTION:** gel battery activation

**FU8 FUSE FUNCTION:** water is delivered to the brushes only when the drive is activated.

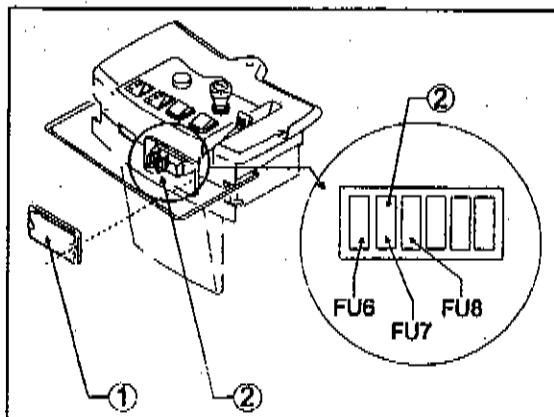


Fig. 11



In particular if working without fuse **FU6**:

a) if the drive is released after a few seconds the brushes will stop; pull the drive lever to reactivate the brushes;

b) when the batteries are flat and the red led blinks, the brushes will lock; in this case the head must be raised (an acoustic signal warns that the head will be damaged with the brushes lowered but at a standstill as drive and suction continue to operate) and the batteries recharged.

If working without fuse **FU8**: the water is delivered only if the drive is active in addition to the brush motors.

## **i INFORMATION**

**The machine is supplied with fuses FU6, FU7, FU8 inserted; if you wish to activate one or more of the above functions, the related fuse must be removed (the three functions are independent from one another).**

### **6.8. Some useful suggestions for the optimal use of the machine**

If the floor presents a particularly resistant type of dirt, it is possible to make the machine wash and dry it in separate stages.

#### **6.8.1. Pre-washing**

- Turn on the water cock;
- switch on the brush motor and lower the head;
- adjust the head pressure, which depends on the type of floor and dirt to be removed;
- start washing with the suction motor off and the squeegee lifted.

The flow of water must be dosed in proportion to the desired advance speed: the slower the machine goes, less water comes down.

Insist on washing the dirtiest spots: in this way the detergent has the time to perform its chemical action for the detachment and suspension of dirt, and the brushes to develop an effective mechanical action.

#### **6.8.2. Drying**

Lower the squeegee and with the suction unit operating pass again on the same area you have previously washed. In this way you obtain a result that is similar to a thorough washing and the following operations of ordinary maintenance will certainly take less time. To wash and dry at the same time, operate the brushes, water, squeegee and suction motor simultaneously.

## **⚠ WARNING**

**Never leave the machine unmanned with the suction unit running.**

### 6.9. Draining off dirty water

## ! DANGER

Use the individual protection devices suitable for the operation to be performed.  
Perform the draining operations with the machine disconnected from the power supply.

The drain hose of the recovery tank is located at the rear left side of the machine.  
To empty the above-mentioned tank:

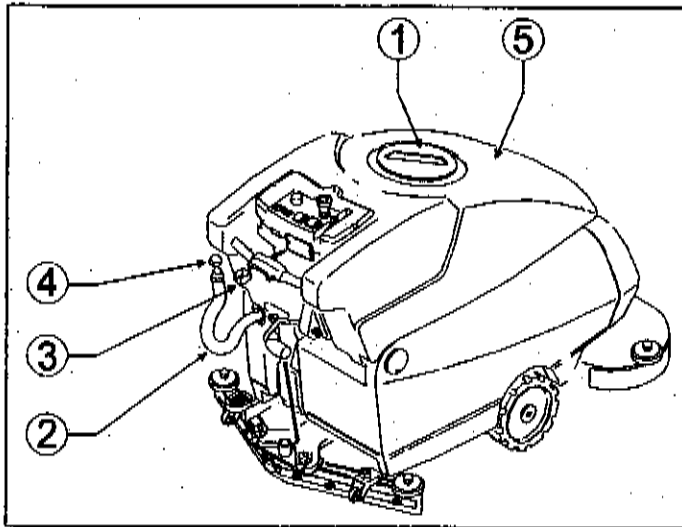


Fig. 12

- take the machine next to a drain;
- stop the machine and press the emergency button (fig. 8, ref. 2); engage the parking brake by means of the pedal (fig. 8, ref. 12);
- take off the tank cap (fig. 12, ref. 1) from the recovery tank (fig. 12, ref. 5);
- detach the drain hose (fig. 12, ref. 2) from its seat, holding it in correspondence with the fixing spring (fig. 12, ref. 3) and pull it horizontally;
- keeping the hose end as much high as possible, take off the drain cock (fig. 12, ref. 4) from the hose by unscrewing it;
- lower the hose end gradually, checking the intensity of the jet of water with reference to its height from the ground;
- check the amount of residual dirt in the recovery tank and wash it inside, if necessary. To facilitate the cleaning and total drain, it is better to unhook it from the solution tank and lift it;
- when the dirty water has been totally drained, lower the recovery tank (if it has been previously lifted) and hook it again to the solution tank;
- put back the cap (fig. 12, ref. 1) on the recovery tank, making sure that it is perfectly closed;
- close the drain hose (fig. 12, ref. 2) with the cock (fig. 12, ref. 4) screw-tightening it; check that it is perfectly closed and refit the hose in its housing.

## ! WARNING

While washing the recovery tank never remove the suction filter (fig. 15, ref. 2) from its seat and never direct the jet of water towards the filter itself.

Now it is possible to proceed with a new washing and drying action.

## 6.10 Draining off clean water

### ! DANGER

Use the individual protection devices suitable for the operation to be performed.  
Perform the draining off operations with the machine disconnected from the power supply.

To empty the tank:

- take the machine next to a drain;
- stop the machine and press the emergency button (fig. 8, ref. 2); engage the parking brake by means of the pedal (fig. 8, ref. 12);
- detach the drain hose (fig. 13, ref. 1) from its seat, holding it in correspondence with the fixing spring (fig. 13, ref. 2) and pull it horizontally;
- keeping the hose end as much high as possible, take off the drain cock (fig. 13, ref. 3) from the hose by unscrewing it;
- lower the hose end gradually, checking the intensity of the jet of water with reference to its height from the ground;
- when the contents have been totally drained from the solution tank, close the drain hose with the cock (fig. 13, ref. 3) screw-tightening it; check that it is perfectly closed and refit the hose in its housing.

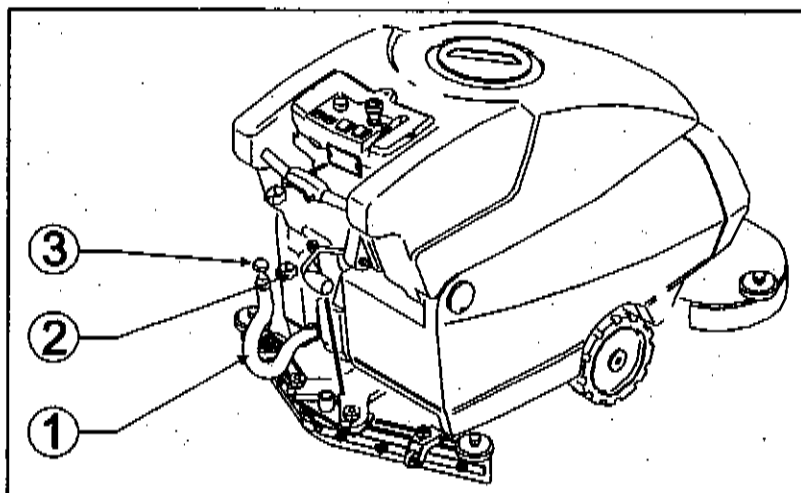


Fig. 13

### i INFORMATION

The water and detergent solution can also be used to wash the recovery tank.

## 7. PERIODS OF INACTIVITY

If the machine is to remain unused for a long time, the squeegee and brushes (or drive discs) must be dismounted, washed and kept in a dry place (preferably packed in a plastic envelope or sheet), sheltered from dust. Park the machine with the parking brake engaged.

Furthermore, make sure that the tanks are completely empty and perfectly clean.

Recharge the batteries completely before putting them in the storehouse. During long periods of inactivity recharge the batteries (once every two months at least) to preserve the storage batteries constantly at the maximum charge.

### WARNING

**If the batteries are not recharged periodically, they may become damaged irreparably.**

## 8. MAINTENANCE AND BATTERY RECHARGING

### DANGER

**Do not check the battery charge by producing sparks.**

**The batteries give off inflammable vapours: put out any fire or embers before checking and filling up the batteries.**

**Perform the operations described below in airy environments.**

To avoid permanent damages to the batteries, never let them get flat completely.

Remember that when the proper red led (fig. 8, ref. 9) flashes on the control panel, it is necessary to recharge the batteries.

### 8.1. Recharging procedures

#### **Lead batteries with liquid electrolyte:**

It is necessary to check the level of the electrolytic solution in order that it always covers the films of the elements, adding the necessary distilled water.

### WARNING

**During recharging do not let the temperature of the electrolyte exceed 45°C.**

To recharge proceed as follows:

- stop the machine and press the emergency button (fig. 8, ref. 2);
- engage the parking brake by means of the pedal (fig. 8, ref. 12);
- connect the battery-charger to the battery wiring connector (fig 14, ref. 1);
- recharge according to the instructions written in the manual to the battery-charger;
- switch off the battery charger before disconnecting the connectors;
- disconnect the battery charger connector from the battery wiring connector;
- at the end of the recharging time check the battery intensity with a densimeter: if one or more elements are flat and the remaining ones completely charged, the battery is damaged and must be replaced.

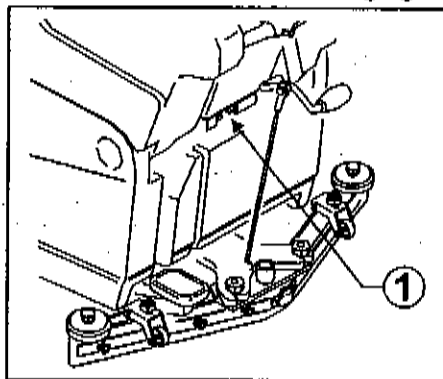
**Gel batteries:**

- connect the battery-charger connector to the battery wiring connector (fig 14, ref. 1);

## WARNING

**Use only a battery-charger that is specific for gel storage batteries.**

- recharge following the instructions written in the manual to the battery-charger;
- at the end of the recharging time disconnect the connectors.



**Fig. 14**

## **9. INSTRUCTIONS FOR MAINTENANCE**

### **! DANGER**

**All maintenance operations on the electric system and those not explicitly described in this manual must only be performed by trained technical staff in compliance with the safety regulations in force and recommendations stated in the maintenance manual.**

#### **9.1. Maintenance – General rules**

A regular maintenance performed according to the Manufacturer's instructions guarantees a better performance and endurance of the machine.

#### **9.2. Routine maintenance**

##### **9.2.1. Daily cleaning**

When cleaning the machine always observe the following instructions:

- avoid using water cleaners, which could let water go inside the electric or the motor compartments with a consequent damage or hazard of short circuits;
- do not use steam in order not to warp the plastic parts;
- do not use solvents or hydrocarbons, which could damage the hoods or the rubber parts.

### **i INFORMATION**

**Do not use water on the motors or electric parts.**

### 9.2.2. Suction air filter and floating rod: cleaning

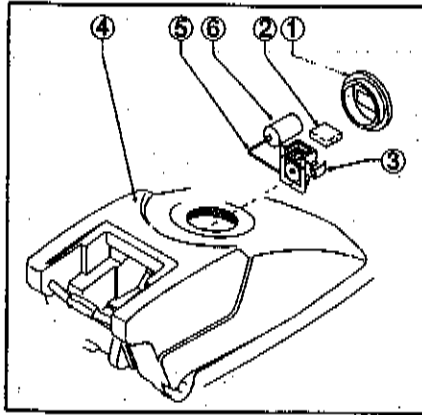


Fig. 15

- Stop the machine and press the emergency button (fig. 8, ref. 2); engage the parking brake by means of the pedal (fig. 8, ref. 12);
- unscrew and take off the tank cap (fig. 15, ref. 1) from the recovery tank (fig. 15, ref. 4);
- make sure that the recovery tank (fig. 15, ref. 4) is empty;
- take out the air filter (fig. 15, ref. 2) of the suction unit from the float support (fig. 15, ref. 3), which is located on the upper inner side of the recovery tank;
- clean the filter with current water or with the detergent used in the machine;
- put the filter back in the support only after having it dried well;
- make sure that the filter has been replaced in its seat correctly;
- check that the floating rod (fig. 15, ref. 5), which is also fixed to the support (fig. 15, ref. 3), moves freely and clean it, if necessary;
- screw again the cap on the recovery tank.

### 9.2.3. Squeegee blades: replacement

The blades of the squeegee are used to scrub from the floor the film of water and detergent thus allowing a perfect drying. As long as time goes by the continuous scraping rounds off and splits the sharp edge in contact with the floor, thus reducing the drying efficacy and therefore requiring the replacement of the blades. Therefore, often check their state of wear and tear.

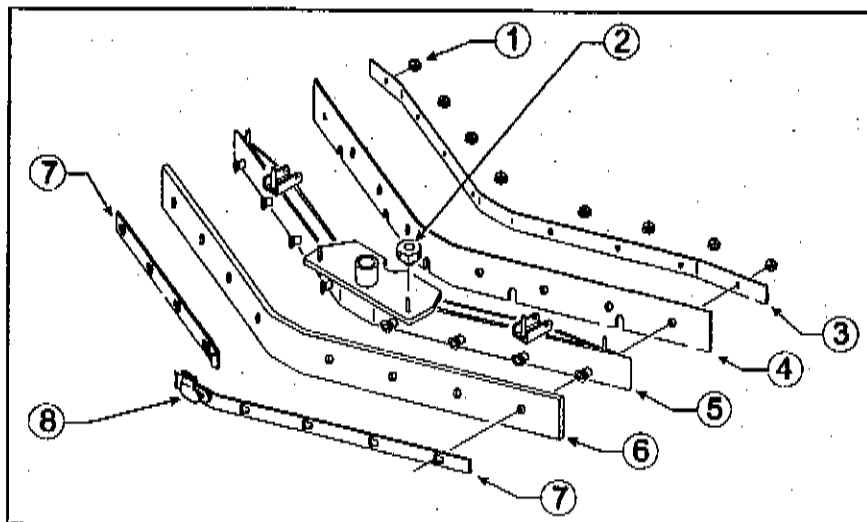


Fig. 16

### **Exchanging or replacing the blades:**

- stop the machine and press the emergency button (fig. 8, ref. 2); engage the parking brake by means of the pedal (fig. 8, ref. 12);
- lower the squeegee by using the proper lever (fig. 8, ref. 11);
- take off the squeegee (fig. 2, ref. 8) from its supporting plate (fig. 9, ref. 2) by unscrewing completely the two knobs (fig. 9, ref. 3);
- slide out the sleeve of the suction tube (fig. 9, ref. 4) from the squeegee.

#### **Front blade:**

- unscrew the knobs (fig. 16, ref. 1);
- remove the blade clamps (fig. 16, ref. 3);
- take out the blade (fig. 16, ref. 4);
- fit in the same blade inverting the edge in contact with the floor until all the four edges are worn, or else fit in a new blade;
- put the blade clamp (fig. 16, ref. 3) back;
- screw down all the knobs (fig. 16, ref. 1).

#### **Rear blade:**

- unhook the hook clamp (fig. 16, ref. 8);
- slide out the two blade clamps (fig. 16, ref. 7) by first pushing them outwards with respect to the squeegee unit (fig. 16, ref. 5) and then taking them out;
- remove the blade (fig. 16, ref. 6);
- fit in the same blade inverting the edge in contact with the floor until all the four edges are worn, or else fit in a new blade embedding it in the screws of the squeegee unit (fig. 16, ref. 5);
- put the two blade clamps (fig. 16, ref. 7) back, centering the largest part of the slots on the fixing screws of the squeegee unit (fig. 16, ref. 5) and then pushing the blade clamps towards the inside of the squeegee itself;
- hook the clamp (fig. 16, ref. 8) again.

Insert the squeegee back on its support following the instructions reported in §6.2.

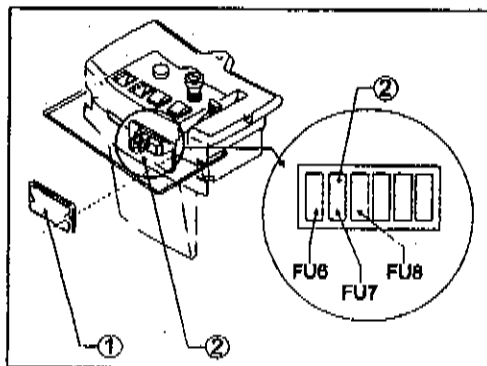
### **9.2.4. Fuses: replacement**

To replace the fuses in the control panel of the machine, proceed as follows:

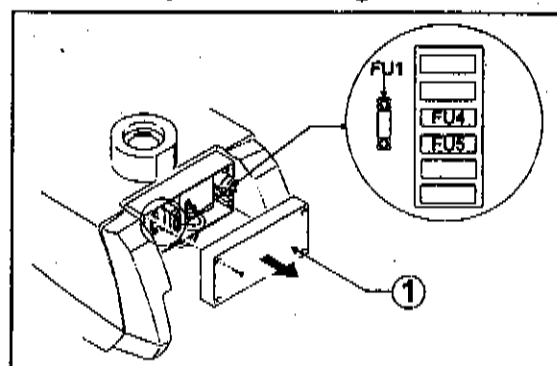
- stop the machine and press the emergency button (fig. 8, ref. 2); engage the parking brake by means of the pedal (fig. 8, ref. 12);
- remove the fuse cover (fig. 17, ref. 1);
- with the tweezers supplied with the machine take out the blown fuses and replace them with new ones of the same amperage;
- reclose the fuse cover.

## **WARNING**

**The fuse FU7 must NOT be fitted if the machine is provided with gel batteries.**



**Fig. 17**



**Fig. 18**

To replace the fuses inside the electrical box, proceed as follows:

- stop the machine and press the emergency button (fig. 8, ref. 2); engage the parking brake by means of the pedal (fig. 8, ref. 12);
- remove the bonnet (fig. 2, ref. 4);
- remove the cover of the electrical box (fig. 18, ref. 1);
- with the tweezers supplied with the machine take out the blown fuses and replace them with new ones of the same amperage;
- re-close the cover of the electrical box;
- refit the bonnet.

FUSE	DESCRIPTION	FUSE	DESCRIPTION
FU1	General fuse of power	FU6	Brush electronic control switch
FU4	Suction motor fuse	FU7	Switch for gel batteries
FU5	Control protection fuse	FU8	Solenoid valve control switch

**Fuse chart:** for a chart of the fuses see the Catalogue of Spare Parts.

## **WARNING**

**Never fit a fuse with a higher Amp value than the intended one.**

If a fuse keeps burning, it is necessary to identify and repair the damages present in the wiring, boards (if fitted) or motors: have the machine checked by trained technical staff.

### **9.3. Periodic maintenance**

#### **9.3.1. Daily maintenance**

Every day at the end of work perform the following operations:

- stop the machine and press the emergency button (fig. 8, ref. 2);
- engage the parking brake by means of the pedal (fig. 8, ref. 12);
- empty the recovery tank and clean it, if necessary;
- clean the squeegee blades, checking that they are not excessively worn; replace them, if necessary;
- make sure that the squeegee suction hole is not clogged, freeing it from any encrusted dirt;
- recharge the batteries according to the procedure described above.



### **9.3.2. Weekly maintenance**

- Clean the floating rod of the recovery tank and check that it works correctly;
- clean the suction air filter and check that it is not damaged (replace it, if necessary);
- clean the solution filter placed at the front opening of the solution tank (fig. 2, ref. 3) and check that it is not damaged (replace it, if necessary);
- clean the suction tube;
- clean the recovery tank and the solution tank;
- check the level of the electrolyte in the batteries and top up with distilled water, if necessary.

### **9.3.3 Six-monthly maintenance**

Have the electric system, calibrations checked by qualified staff.

## **10. HOW TO ORDER SPARE PARTS**

For a correct identification by our After-sales Service Office of the spare part(s) you need and, therefore, to help us serving you better, please fill in your orders with the following data:

- machine model;
- machine serial number on the identification plate (see fig. 1);
- chart of the list of spare parts in which the item and its reference number are found;
- code of the item to be found in the list of spare parts;
- amount ordered.

If you ask for a replacement under warranty terms, the order must be completed with a brief description of the fault.

# 11. TROUBLESHOOTING

## 11.1. How to overcome possible failures

Possible failures affecting the whole machine

FAILURES	CAUSES	REMEDIES
The machine does not work	• the emergency button is pressed or faulty	• insert the key, turn and release or replace the button
	• the batteries are flat	• recharge the batteries
	• the battery connector microswitch is out of calibration or faulty;	• calibrate or replace
	• the power fuse FU1 and/or the control fuse FU5 have blown	• check and remove the causes that made the fuse blow, then replace it
	• the battery charger connector is connected to the battery wiring connector	• disconnect the battery charger from the battery wiring connector
The brushes do not turn	• the machine has been switched off and then on again with the head lowered	• press the drive lever
	• the brush motor thermal protection has tripped; the motor has become overheated	• release the drive lever; raise the brushes by pressing the brush up-down button; leave the machine to cool for at least 45'
	• the power fuse FU1 and/or the control fuse FU5 have blown	• check and remove the causes that made the fuse blow, then replace it
	• the brush motor activation microswitch is out of calibration or faulty	• check and remove the causes that made the fuse blow, then replace it
	• you are working without fuse FU6 and the batteries are flat	• raise the head and recharge the batteries
	• you are working without fuse FU6 and the drive has been released	• pull the drive lever
	• you are working without fuse FU6 and the card permitting use of the brush function has failed	• temporarily insert fuse FU6 to bypass the card and continue working, then have the card replaced so that the brush function can be used again
	• the head is in the rest position	• lower the head by pressing the brush up-down button
	• check the components (brush motors, brush motor relay, connectors)	• have the faulty component replaced
The machine does not wash evenly	• the brushes or abrasive discs are worn	• replace them
	• the pressure exercised by the head on the floor is not right	• adjust the brush pressure on the floor acting on the proper button

<b>The brush keeps on turning also when the main switch and/or brush switch have been pressed</b>	<ul style="list-style-type: none"> <li>• the brush relay is faulty</li> </ul>	<ul style="list-style-type: none"> <li>• have it replaced</li> </ul>
<b>The solution does not come out</b>	<ul style="list-style-type: none"> <li>• the head is in the rest position and therefore the solenoid valve is not working</li> <li>• the cock control lever is at the position "CLOSED"</li> <li>• the tap filter is dirty</li> <li>• the solution tank is empty</li> </ul>	<ul style="list-style-type: none"> <li>• lower the head by pressing the brush up-down button</li> <li>• move the lever to the position "OPEN"</li> <li>• clean it</li> <li>• fill it up</li> </ul>
<b>The flow of solution keeps coming to the brush</b>	<ul style="list-style-type: none"> <li>• the solenoid valve is dirty</li> </ul>	<ul style="list-style-type: none"> <li>• have the solenoid valve cleaned</li> </ul>
<b>The suction motor does not work</b>	<ul style="list-style-type: none"> <li>• the squeegee microswitch is out of calibration or faulty</li> <li>• the power fuse FU1 and/or the control fuse FU5 and/or the suction motor fuse FU4 have blown</li> <li>• the suction motor is not fed or is faulty</li> </ul>	<ul style="list-style-type: none"> <li>• calibrate or replace</li> <li>• check and remove the causes that made the fuse blow, then replace it</li> <li>• check that the motor power supply connector is connected to the main wiring in the right way; in the second case have the motor replaced</li> </ul>
<b>The squeegee does not clean or suck well</b>	<ul style="list-style-type: none"> <li>• the edge of the rubber blades in contact with the floor is rounded off</li> <li>• there is an obstruction or damage in the squeegee or in the tube</li> <li>• the float has intervened (recovery tank full), or is blocked by dirt or broken</li> <li>• there is an obstruction in the suction tube</li> <li>• the suction tube is not connected to the squeegee or is damaged</li> <li>• the suction unit motor is not fed or is faulty</li> </ul>	<ul style="list-style-type: none"> <li>• replace the rubber blade</li> <li>• remove the obstruction and repair the damage</li> <li>• empty the recovery tank or make the necessary repairs to the float</li> <li>• free the tube from the obstruction</li> <li>• connect or repair the tube</li> <li>• check that the motor power supply connector is connected to the main wiring in the right way and that the protection fuse has not blown; in the second case replace the motor</li> </ul>

<b>The drive is not working</b>	• the power fuse FU1 and/or the control fuse FU5 have blown	• check and remove the causes that made the fuse blow, then replace it
	• the thermal protection of the drive motor has tripped: the motor has become overheated	• stop the machine and switch it off, letting it cool down for at least 45'
	• the potentiometer is faulty	• replace it
	• the anti-crushing microswitch is out of calibration or faulty (the machine does not work in reverse);	• calibrate or replace
	• the parking brake is engaged	• release the brake
	• check the components (drive motor, drive control unit, connectors)	• have the faulty component replaced

<b>The washing head does not go down</b>	• the fuse FU5 has blown	• check and remove the causes that made the fuse blow, then replace it
	• the head descent actuator is disconnected or broken	• have the connection restored or the actuator replaced

<b>The batteries do not ensure the normal work time</b>	• the poles and charging clips of the batteries are dirty and oxydized	• clean and grease the poles and clips, recharge the batteries
	• the electrolyte level is low	• add distilled water topping up all elements according to the instructions
	• the battery-charger does not work or is unsuitable	• see instructions relative to the battery-charger
	• there are considerable differences in density between the various elements of the battery	• replace the damaged battery
	• the machine is working with a too high pressure on the brush	• reduce pressure on the brush

<b>The storage battery gets flat too fast during use, although it has been charged in the correct way and when tested with a densimeter at the end of recharging, it turned out to be uniformly charged</b>	• the storage battery is new and does not give 100% of its expected capacity	• it is necessary to "run-in" the storage battery by 20-30 charges and discharges to obtain maximum performance
	• the machine is used at its maximum capacity for continuous periods and the autonomy is not sufficient	• use, if possible, storage batteries with larger capacity or replace the storage batteries with others already charged
	• the electrolyte has evaporated and does not cover the plates completely	• add distilled water, topping up all elements until the plates are covered and recharge the storage battery

The storage battery gets flat too fast during use, the recharging with an electronic battery-charger is too fast and at the end the storage battery gives the right voltage (about 2,14V for each empty element), but it turns out to be not uniformly charged when tested with densimeter

- the storage battery, already filled with acid by the Manufacturer, has been stored for a too long time before being recharged and used for the first time

- if the recharging with a normal storage-charger is not effective, it is necessary to carry out a double recharging consisting in:
  - a slow recharging of about 10 hours with a current equal to 1/10 of the rated capacity expressed in 5 hours (ex.: for a storage battery of 100Ah(5), the current should be 10A, realized by a manual battery-charger);
  - one-hour pause;
  - charging with a normal battery-charger

After recharging with an electronic battery-charger the storage-battery does not show the correct voltage (about 2,14V for each empty element) and only one or few elements turn out to be flat when tested with densimeter

- the storage battery has not been connected to the battery-charger

- connect the battery-charger to the storage battery connector

- the battery-charger and the power socket to which the storage battery is connected are not compatible

- check that the power supply characteristics indicated on the battery-charger plate are compliant with those of the mains

- the battery-charger has not been installed correctly

- taking into account the actual voltage available at the socket, check that the connections of the transformer primary circuit in the battery-charger are correct (at this purpose read the manual to the battery-charger)

- the battery-charger does not work

- check that there is voltage at the battery-charger, that the fuses are not interrupted and that there is current at the storage battery; in addition try to charge by means of another rectifier: if the battery-charger does not work, call the after-sales service staff communicating the serial number of the battery-charger

After recharging with an electronic battery-charger the storage-battery does not show the correct voltage (about 2,14V for each empty element) and only one or few elements turn out to be flat when tested with densimeter

- one or more elements are damaged

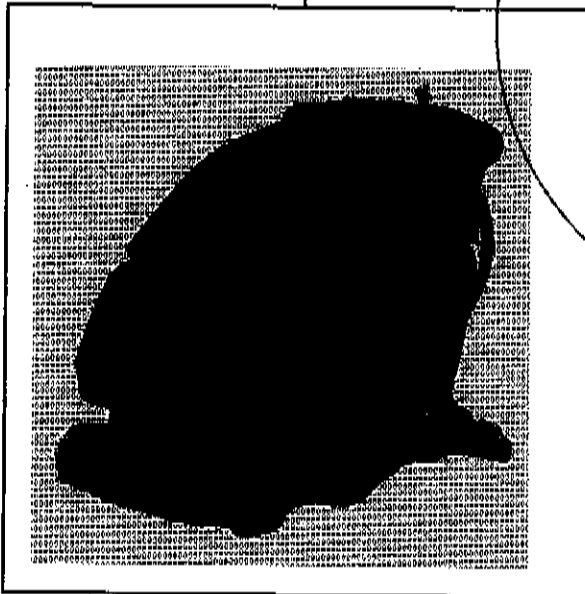
- replace, if possible, the damaged elements. For monoblock storage batteries at 6V or 12V, replace the whole storage battery

The electrolyte that is present in the storage battery has a cloudy colour	• the storage battery has completed the charge/discharge cycles indicated by the Manufacturer	• replace the storage battery
	• the storage battery has been recharged with a too high current	• replace the storage battery
	• the storage battery has been charged beyond the limit suggested by the Manufacturer	• replace the storage battery

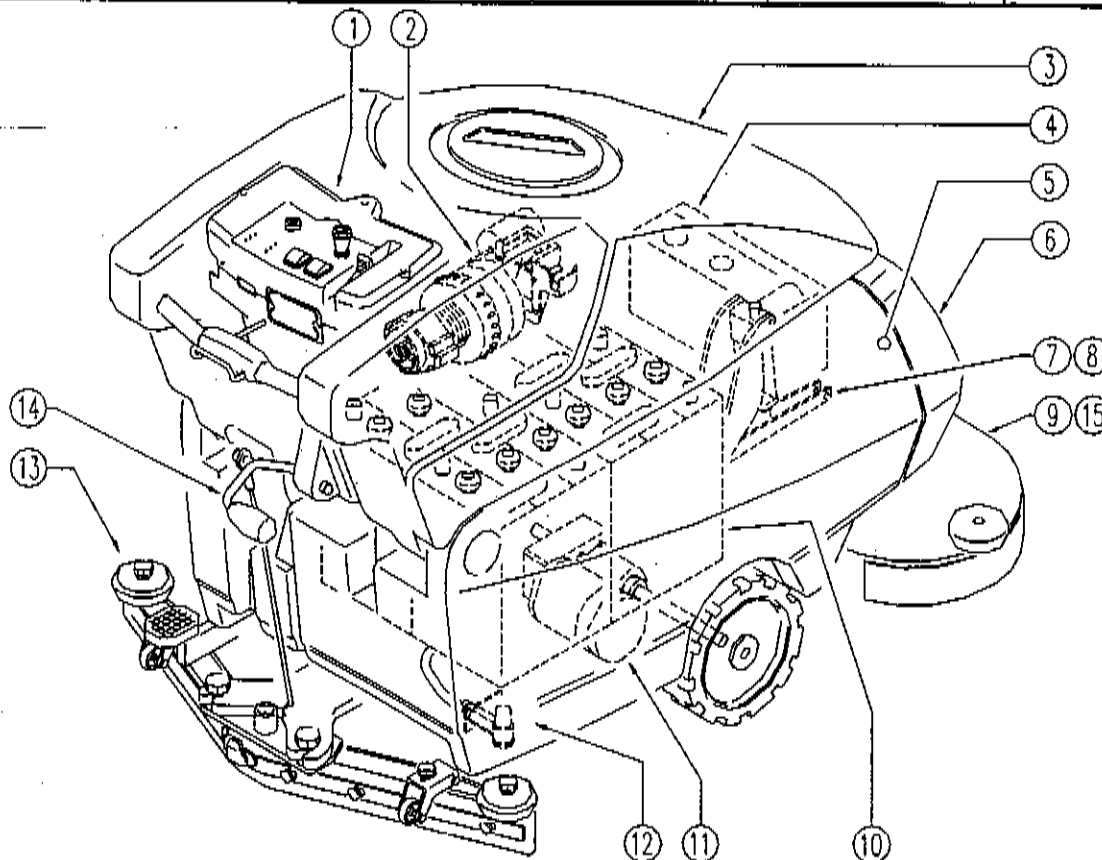
# FS28 Foreman™ 28" Auto Scrubber

## Parts Schematic

Item #86011



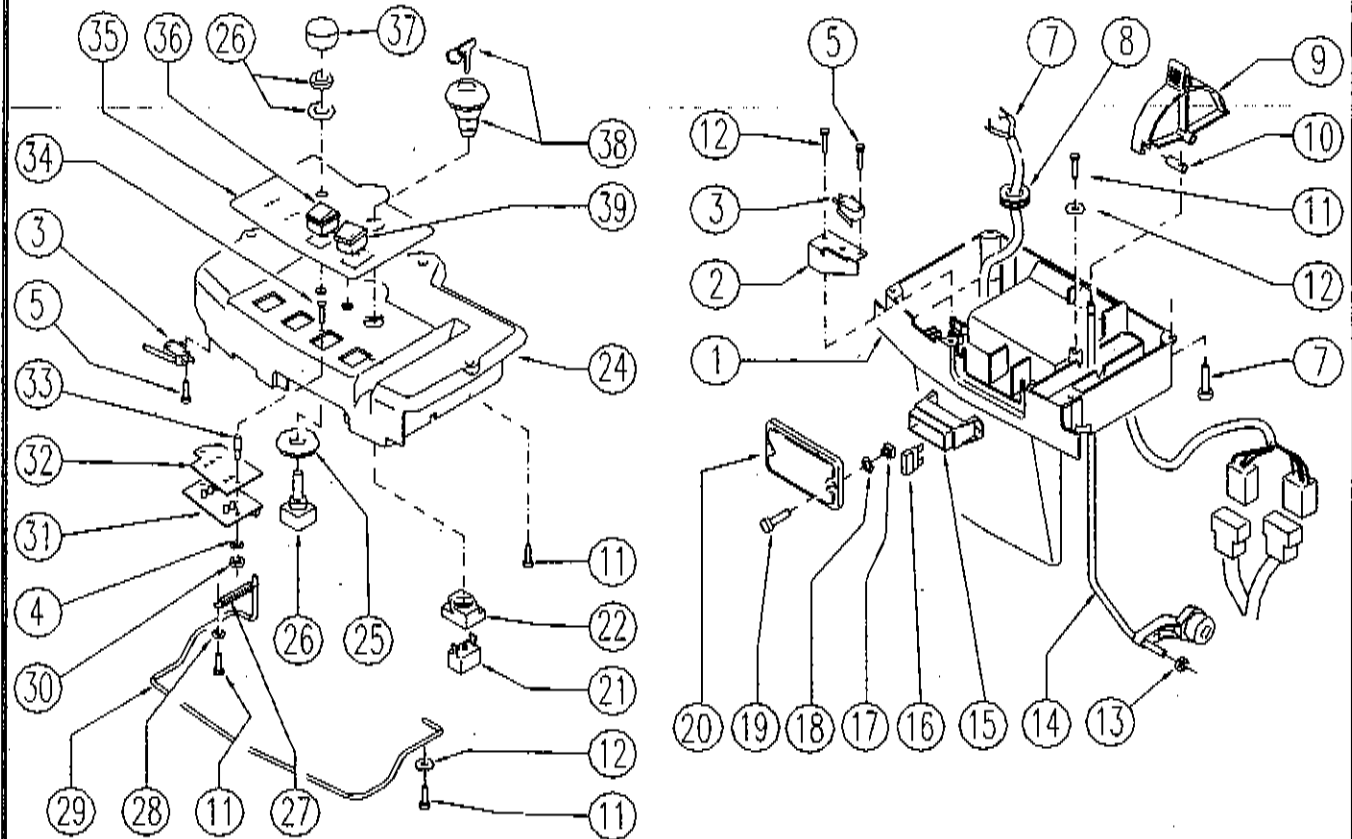
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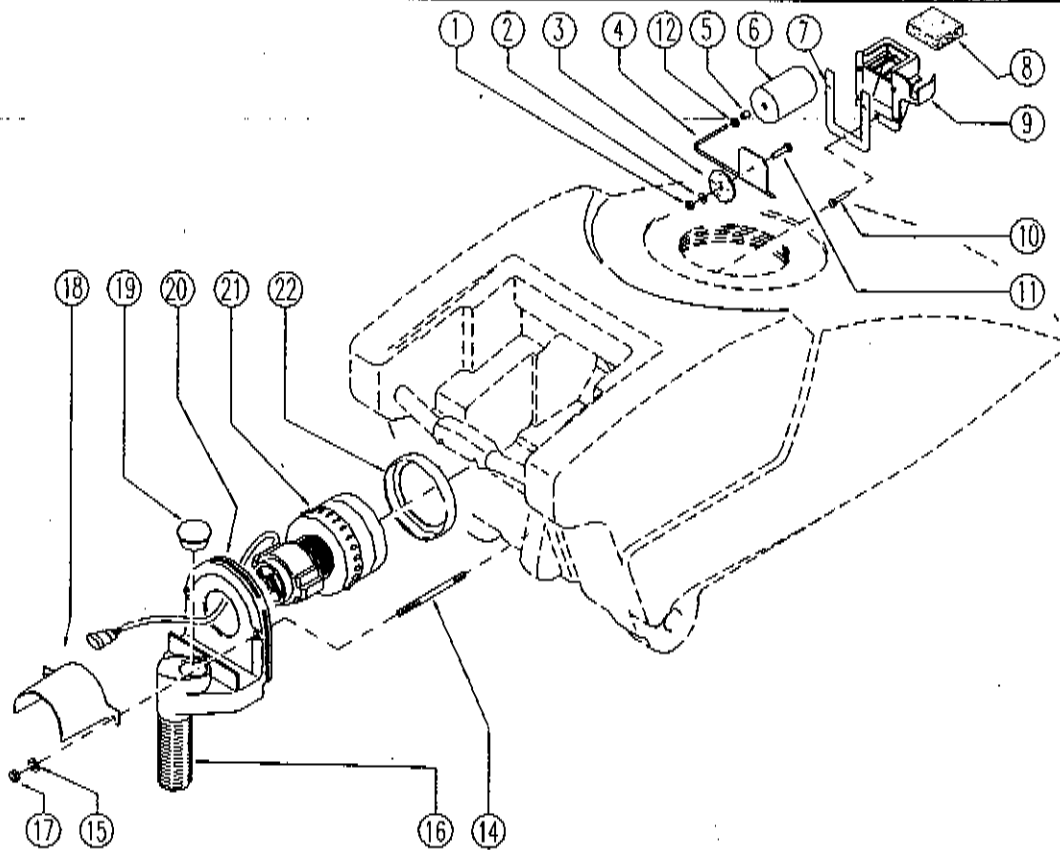
REF. CODE	DESCRIPTION	QT	BESCHREIBUNG	DESCRIPTION	DESCRIPCION	DESCRIZIONE
1 PL1420	CONTROL PANEL		INSTRUMENTENBREIT	TABLÉAU DE COMMANDE	PANEL DE MANDO	PANNELLO COMANDI
2 PL1421	ASPIRATOR		SÄUGER	ASPIRATEUR	ASPIRADOR	ASPIRATORE
3 PL1422	TANK		TANK	RÉSERVOIR	TANQUE	SERBATOI
4 PL1431	ELECTRIC UNIT		ELEKTRISCHE GRUPPE	GROUPE ELECTRIQUE	GRUPO ELÉCTRICO	COMPONENTI ELETTRICI
5 PL1423	TANK		TANK	RÉSERVOIR	TANQUE	SERBATOI
6 PL1439BC	EXTERNAL PARTS		EXTERNE TEILE	EXTERNAS PARTES	EXTERNAS PARTES	PARTI ESTERNE
7 PL1428	HEAD LIFT-1		KOPFHEBEVORRICHTUNG-1	SOLÈVEMENT TÊTE-1	LEVANTAMIENTO CABEZA-1	SOLLEVAMENTO TESTATA-1
8 PL1429	HEAD LIFT-2		KOPFHEBEVORRICHTUNG-2	SOLÈVEMENT TÊTE-2	LEVANTAMIENTO CABEZA-2	SOLLEVAMENTO TESTATA-2
9 PL1426	HEAD 85		KOPF 85	TÊTE 85	CABEZA 85	TESTATA 85
10 PL1432	BATTERY		BATTERIE	BATTERIE	BATERIA	BATTERIE E CABLAGGI
11 PL1424	DRIVE - BRAKE		ANTRIEB - BREMSE	TRACTION - FREIN	TRACCION - FRENO	TRAZIONE - FRENO
12 PL1427	HYDRAULIC UNIT		HYDRAULISCHE GRUPPE	GROUPE HYDRAULIQUE	GRUPO HIDRÁULICO	IDRÁULICO
13 PL1452	SQUEEGEE		SAUGFÜH	SUCÉUR	ESCURRIDUELOS	SQUEEGEE
14 PL1430	SQUEEGEE LIFT		SAUGFÜHHEBEVORRICHTUNG	SOLÈVEMENT SUCÉUR	LEVANTAMIENTO ESCURRIDUELOS	SOLLEVAMENTO SQUEEGEE
15 PL1435	BRUSHES		BÜRSTE	BROSSE	CEPILLO	SPAZZOLE
EPF02381BC-1	LABELS - DOCUMENTS		ETIKETT - DOKUMENTATION	ÉTIQUETTE - DOCUMENTATION	ETIQUETA - DOCUMENTACIÓN	ETICHETTE - DOCUMENTAZIONE
IPF02380-1	PACKING		VERPACKUNG	EMBALLAGE	EMBALAJE	IMBALLO
WD27195	WIRING DIAGRAM		SCHALTPLAN	SCHEMA ELECTRIQUE	ESQUEMA ELECTRICO	SCHEMA ELETTRICO
WD27195-1	ELEC. SCHEMATIC DIAGRAM		SCHALTPLAN	SCHEMA ELECTRIQUE	ESQUEMA ELECTRICO	SCHEMA ELET. FUNZIONALE



DESCRIPTION:	CONTROL PANEL	INSTRUMENTENBRETT	TABEAU DE COMMANDE	PANEL DE MANDO	PANNELLO COMANDI
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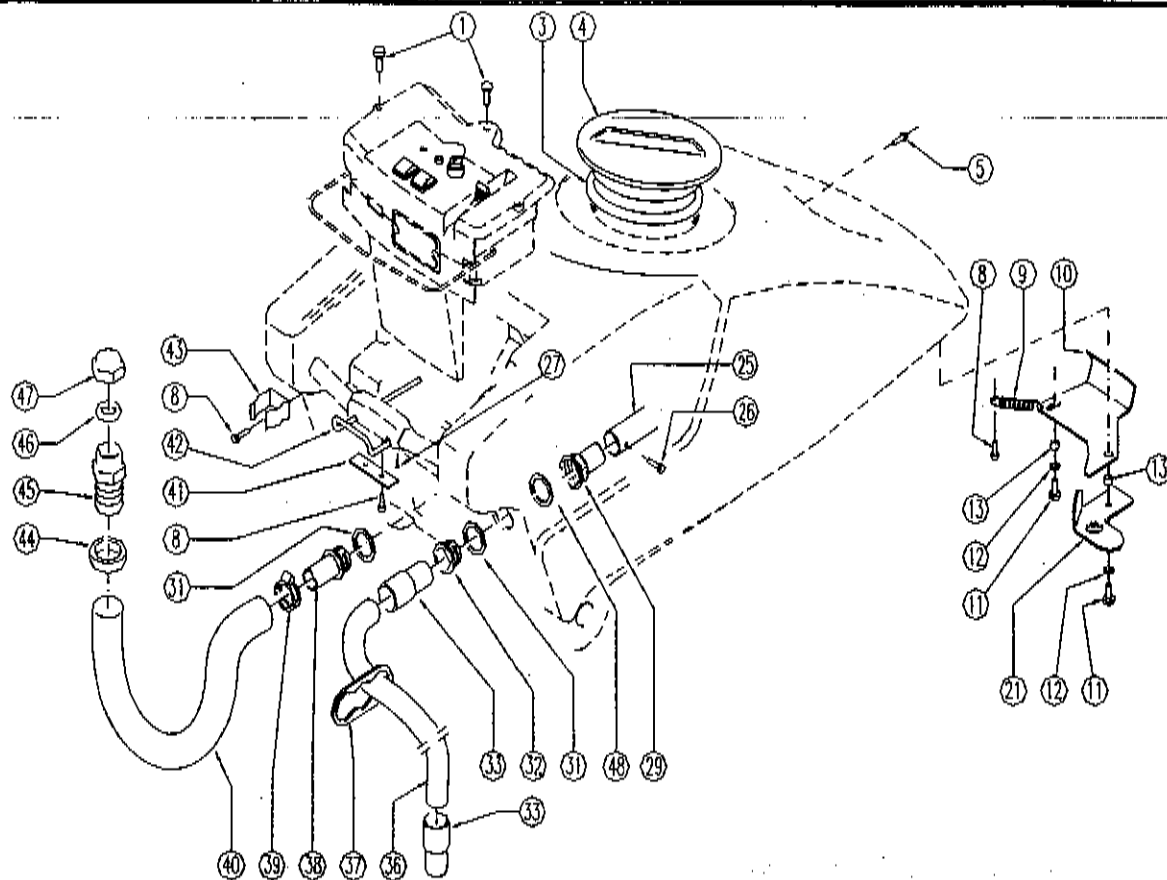


REF.	CODE	DESCRIPTION	QT	BESCHREIBUNG	DESCRIPTION	DESCRIPCION	DESCRIZIONE
GR23741		PREASSEMBLED CTRL PANEL	1	INSTRUMENTENBRETT GRUPPE	GRUPPE TABLEAU DE COMMANDE	CONJUNTO PANEL DE MANDO	PANN. COM. PREASSEMBLATO
1	SL17489-1L	CONTROL PANEL	1	INSTRUMENTENBRETT	TABEAU DE COMMANDE	PANEL DE MANDO	PANNELLO COMANDI
2	SL39083	SPRING	1	FEDER	RESSORT	RESSORTE	MOLLA
3	SL23718	MICROSWITCH	3	MIKROSCHALTER	MICRO-INTERRUPTEUR	MICROINTERRUPTOR	MICROINTERRUTTORE
4	SL06058	WASHER	2	UNTERLEGSCHIEBE	RONDELLE	ARANDOLA	RONDELLA
5	SL04214	SCREW	8	SCHRAUBE	VIS	TORNILLO	VITE
6	SL04187	SCREW	6	SCHRAUBE	VIS	TORNILLO	VITE
7	SL23741	WIRING	1	VERKABELUNG	CABLAGE	CABLEO	CABLAGGIO P. COMANDI
8	SL23895	FARLEAD	1	KABELDURCHFÜHRUNG	PASSE-CABLE	GLIACABOS	PASSACAVO
9	SL17490-1	LEVER	1	HEBEL	LEVIER	PALANCA	LEVA
10	SL06058	ARTICULATION	1	GELENK	JOINT	ARTICULACION	SNODO
11	SL04327	SCREW	4	SCHRAUBE	VIS	TORNILLO	VITE
12	SL06014	WASHER	2	UNTERLEGSCHIEBE	RONDELLE	ARANDOLA	RONDELLA
13	SL30114	ROD	1	STANGE	TIGE	VARILLA	ASTA
14	SL05068	NUT	1	MÜTTER	ECROU	TUERCA	DADO
15	SL23894-1	FUSE HOLDER	1	ABSCHNELSSTREIFENKASTEN	PORTE FUSIBLES	PORTAFUSIBLES	PORTA FUSIBILI
16	SL23144	FUSE	3	SICHERUNG	FUSIBLE	FUSIBLE	FUSIBILE BA
17	SL05077	NUT	2	MÜTTER	ECROU	TUERCA	DADO
18	SL03118	GASKET	4	DICHTUNG	JOINT	EMPAQUETADURA	GUARNIZIONE
19	SL04377	SCREW	2	SCHRAUBE	VIS	TORNILLO	VITE
20	SL17149-1	LID	1	DECKEL	COUVERCLE	TAPA	COPERCHIO
21	SL23656	CONNECTION	1	KONTAKT	CONTACT	CONEXION	CONTATTO
22	SL23655	BASE	1	UNTERLAGE	BASE	BASE	BASE
24	SL17488-1L	CONTROL PANEL	1	INSTRUMENTENBRETT	TABEAU DE COMMANDE	CUADRO DE MANDO	PANNELLO COMANDI
25	SL06011	WASHER	2	UNTERLEGSCHIEBE	RONDELLE	ARANDOLA	RONDELLA
26	SL23672	POTENTIOMETER	1	POTENTIOMETER	POTENTIOMETRE	POTENCIOMETRO	POTENZIOMETRO
27	SL13080	SPRING	1	FEDER	RESSORT	RESSORTE	MOLLA
28	SL06019	WASHER	1	UNTERLEGSCHIEBE	RONDELLE	ARANDOLA	RONDELLA
29	SL38059	LEVER	1	HEBEL	LEVIER	PALANCA	LEVA
30	SL05010	NUT	2	MÜTTER	ECROU	TUERCA	DADO
31	SL23738	BOARD	1	KARTE	FICHE	TARJETA	SCHEDA
32	SL03654	PLAQUE	1	PLATTCHEN	PLATINE	PLACA	PIASTRINA
33	SL07534	SPACER	2	DISTANZSTÜCK	ENTRETOISE	SEPARADOR	DISTANZIALE
34	SL04364	SCREW	2	SCHRAUBE	VIS	TORNILLO	VITE
35	SL25987	CONTROL PANEL STICKER	1	SCHALTPULTAUFKLEBER	ADHESIF PANNEAU	ETIQUETA ADHESIVA	ETICHETTA PANNELLO
36	SL23648	SWITCH	1	SCHALTER	INTERRUPTEUR	INTERRUPTOR	INTERRUTTORE
37	SL23621	HANDGRIP	1	KNOPF	POIGNEE	EMPUÑADURA / BOTÓN	MANOPOLA
38	SL23654	OPERATOR	1	BEDIENER, FAHRER	OPERATEUR	OPERADOR	OPERATORE
39	SL23708	PUSH-BUTTON	1	DRÜCKKNOPF	BOUCHON	PULSADOR	PULSANTE



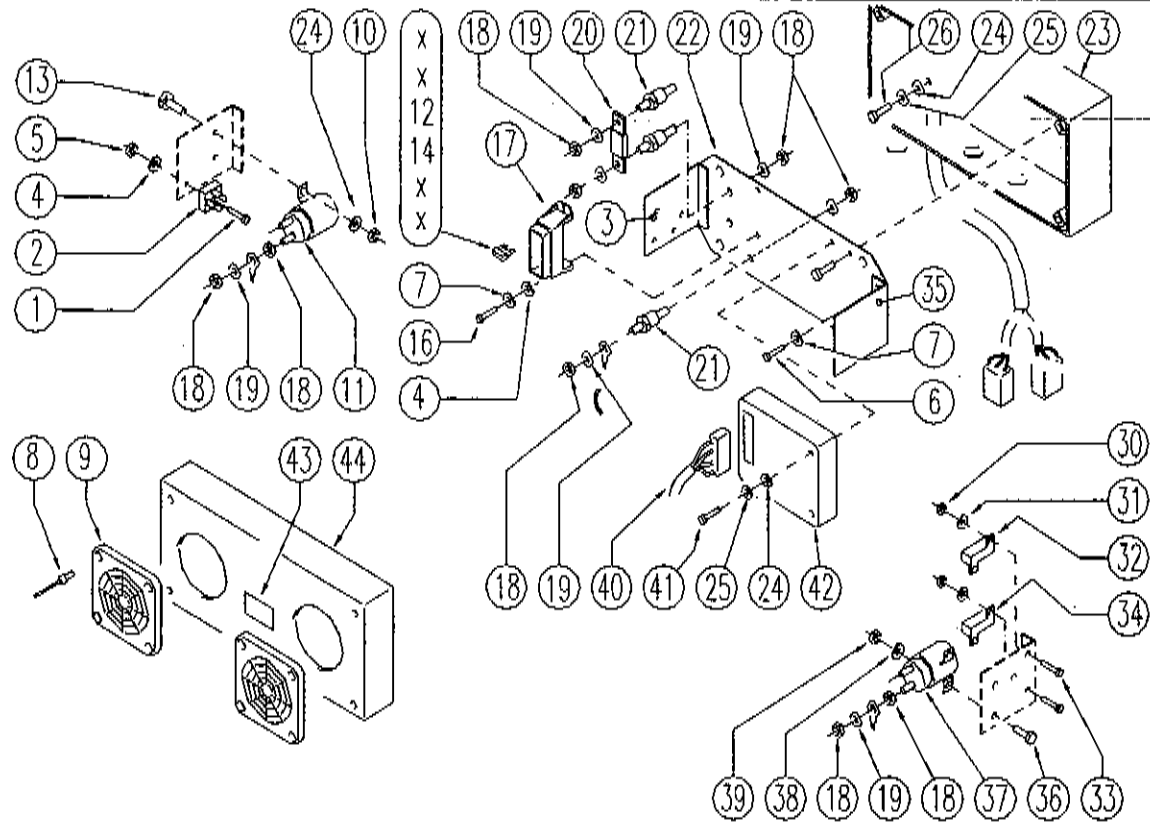
REF.	CODE	DESCRIPTION	QT	BESCHREIBUNG	DESCRIPTION	DESCRIPCION	DESCRIZIONE
1	SL05087	NUT	1	MUTTER	ECROU	TUERCA	DADO
2	SL06038	WASHER	1	UNTERLEGSCHIBE	RONDELLE	ARANDELA	RONDELLA
3	SL03346	GASKET	1	DICHTUNG	JOINT	EMPAQUETADURA	GUARNIZIONE
4	SL09827	ROD	1	STANGE	TIGE	VARELLA	ASTINA
5	SL04388	INSERT	1	EINSATZ	SEGMENT	ENCAJE	INSERTO
6	SL18363	FLOAT	1	SCHWIMMER	FLOTTEUR	FLOTADOR	GALLEGGIANTE
7	SL03429	GASKET	1	DICHTUNG	JOINT	EMPAQUETADURA	GUARNIZIONE
8	SL03345	FILTER	1	FILTER	FILTRE	FILTRO	FILTRO
9	SL17492-1	SUPPORT	1	HALTERUNG	SUPPORT	SOPORTE	SUPPORTO
10	SL04095	SCREW	3	SCHRAUBE	VIS	TORNILLO	VITE
11	SL04310	SCREW	1	SCHRAUBE	VIS	TORNILLO	VITE
12	SL05017	NUT	1	MUTTER	ECROU	TUERCA	DADO
14	SL04278	SCREW	2	SCHRAUBE	VIS	TORNILLO	BARRA FILETTATA
15	SL06022	WASHER	2	UNTERLEGSCHIBE	RONDELLE	ARANDELA	RONDELLA
16	SL18335	PIPE	1	ROHR	TUBE	TUBO	TUBO
17	SL05041	NUT	2	MUTTER	ECROU	TUERCA	DADO
18	SL03514	SUCTION CONVEYOR	1	SAUGFÖRDERER	CONVOYEUR ASPIRATION	TRANSPORTADOR SUCCION	CONVOGLIATORE
19	SL14240	CAP	1	STOFFEN, VERSCHLUSS	BOUCHON	TAPON	TAPPO
20	SL03297	CAP / SHELL	1	SCHUTZGEHAUSE	PROTECTEUR	GOBRO / PROTECCION	CLIFFIA
21	SL02303-J	EXHAUSTER / ASPIRATOR	1	SAUGER	ASPIRATEUR / SUCEUSE	ASPIRADOR	ASPIRATORE
22	BL05159	GASKET	1	DICHTUNG	JOINT	EMPAQUETADURA	GUARNIZIONE

DESCRIPTION:	TANK	TANK	RESERVOIR	TANQUE	SERBATOIO SUPERIORE
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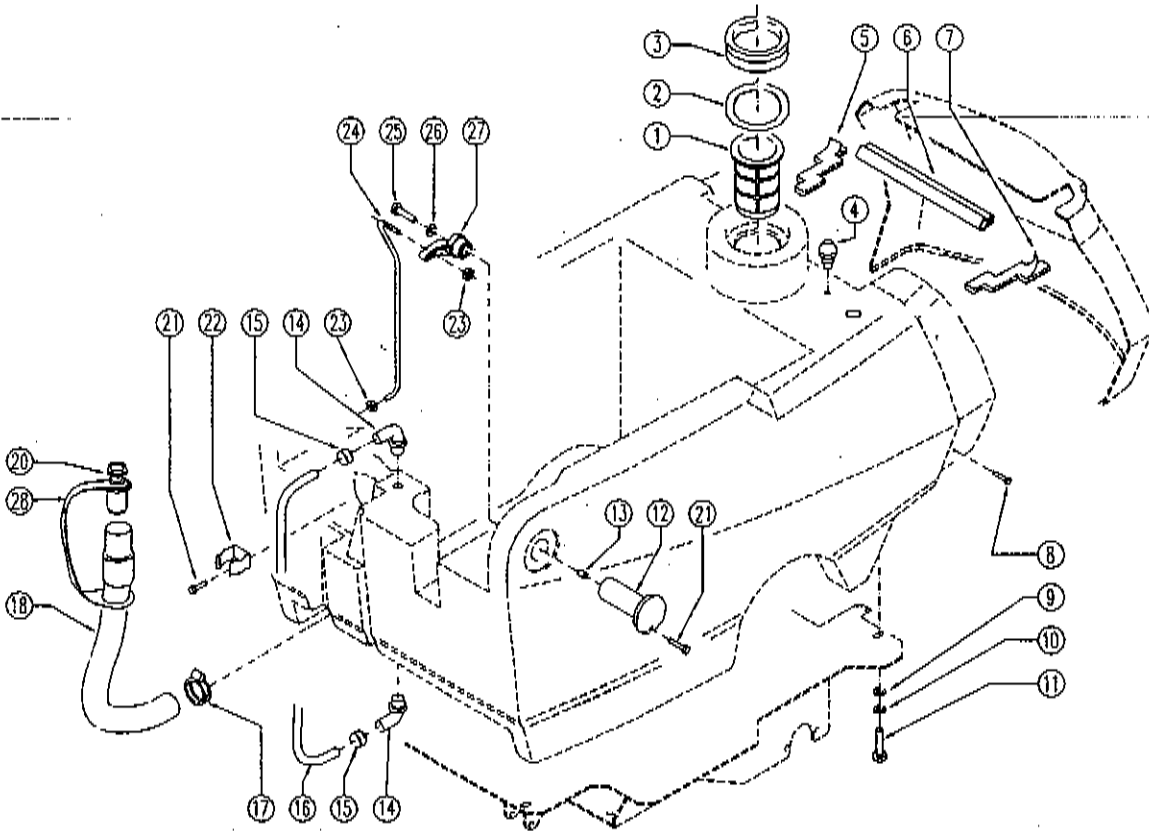
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1	SL04377	SCREW	3	SCHRAUBE	VIS	TORNILLO	VITE
3	SL03487	GASKET	1	DICHTUNG	JOINT	EMPAQUETADURA	GUARNIZIONE
4	SL17486	LID	1	DECKEL	DOUVERCLE	TAPA	COPERCHIO
6	SL04311	SCREW	2	SCHRAUBE	VIS	TORNILLO	VITE
8	SL04371	SCREW	5	SCHRAUBE	VIS	TORNILLO	VITE
9	SL13080	SPRING	1	FEDER	RESSORT	RESSORTE	MOLLA
10	SL38069	HOOKING / COUPLING	1	AUFHANGUNG	CROCHET	ENGANCHE / ACOPLAMIENTO	GANCIO COFANO
11	SL04289	SCREW	2	SCHRAUBE	VIS	TORNILLO	VITE
12	SL08041	WASHER	2	UNTERLEGSCHIEBE	RONDELLE	ARANDELA	RONDELLA
13	SL07160	BUSHING / BUSH	2	BUCHSE	DOUILLE	CASQUILLO / FORRO	BOCCOLA
21	SL39108	PLAQUE	1	PLÄTTCHEN	PLATINE	PLACA	PIASTRA
25	SL07547	PIPE	1	ROHR	TUYAU	TUBO	TUBO
26	SL04325	SCREW	1	SCHRAUBE	VIS	TORNILLO	VITE
27	SL04319	SCREW	1	SCHRAUBE	VIS	TORNILLO	VITE
28	SL18349	UNIONCONNECTOR	1	ANSCHLUSS	RACCORD	UNIONCONNECTOR	RACCORDO
31	SL03418	GASKET	2	DICHTUNG	JOINT	EMPAQUETADURA	GUARNIZIONE
32	SL18355	SUCTION OPENING	1	ÖFFNUNG	SUCEUR	ORIFICIO / ABERTURA	BOCCETTA
33	SL14003	SLEEVE	2	MUFFE	MANCHON	MANICOTTO	MANICOTTO
36	SL19021	HOSE	1	SCHLAUCH	TUYAU	TUBO	TUBO
37	SL03437	PLAQUE	1	PLÄTTCHEN	PLATINE	PLACA	PIASTRINA
38	SL18382	HOSE HOLDER	1	GUMMIHALTER	PORTE-TUYAU	PORTA TUBO	RACCORDO
39	SL14354	CLAMP	1	SCHLEIFE	BANDE	ABRAZADERA	FASCETTA
40	SL18089	HOSE	1	SCHLAUCH	TUYAU	TUBO FLEXIBLE	TUBO
41	SL38075	PLAQUE	1	PLÄTTCHEN	PLATINE	PLACA	PIASTRINA
42	GR38080	PUSH-BUTTON	1	DRUCKKNOPF / TASTE	BOUON-POUSOIR	PULSADOR	PULSANTE
43	SL13045	DUCT LOCK	1	SCHLAUCHHALTER	FIXE-TUYAU	BLOQUEO TUBO	FERMA-TUBO
44	SL07470	NUT	1	MUTTER	FRETTE	ANILLO	GHIERA
45	SL18377	UNION / CONNECTOR	1	ANSCHLUSS	RACCORD	UNION / CONECTOR	RACCORDO
46	SL03441	GASKET	1	DICHTUNG	JOINT	EMPAQUETADURA	GUARNIZIONE
47	MP18378	CAP	1	KAPPE	CALOTTA	CARQUETE	CALOTTA
48	SL03489	GASKET	1	DICHTUNG	JOINT	EMPAQUETADURA	GUARNIZIONE

DESCRIPTION: ELECTRICAL PARTS ELEKTRISCHE TEILE PARTS ELECTRIQUES PARTES ELECTRICAS PARTI ELETTRICHE



REF.	CODE	DESCRIPTION	QT	BESCHREIBUNG	DESCRIPTION	DESCRIPCION	DESCRIZIONE
1	SL04149	SCREW	1	SCHRAUBE	VIS	TORNILLO	VITE
2	SL23081	BRIDGE / JUMPER	1	BRÜCKE	PONT	PUNTE	PONTE
3	SL23082-1	BRACKET	1	BÜGEL	ETRIER	ESTRIBO	STAFFA PONTE DIODI
4	SL06019	WASHER	8	UNTERLEGSCHIBE	RONDELLE	ARANDELA	RONDELLA
5	SL06034	NUT	2	MUTTER	ECROU	TUERCA	DADO
6	SL04226	SCREW	4	SCHRAUBE	VIS	TORNILLO	VITE 4X10
7	SL06107	WASHER	4	UNTERLEGSCHIBE	RONDELLE	ARANDELA	RONDELLA GROWER 4
8	SL14039	RIVET	8	NIETE	RVET	REMACHE	RIVETTO
9	SL03678	GRATING	2	GITTER	GRILLE	REJILLA	GRIGLIA
10	SL05043	NUT	2	MUTTER	ECROU	TUERCA	DADO
11	SL23001	REMOTE CONTROL SWITCH	1	FERNSCHALTER	TELE-INTERRUPTEUR	TELEINTERRUPTOR	TELERUTTORE
12	SL23082	FUSE	1	SICHERUNG	FUSIBLE	FUSIBLE	FUSIBILE 40A
13	SL04081	SCREW	2	SCHRAUBE	VIS	TORNILLO	VITE
14	SL23050	FUSE	1	SICHERUNG	FUSIBLE	FUSIBLE	FUSIBILE 10A
15	SL04186	SCREW	2	SCHRAUBE	VIS	TORNILLO	VITE 4X12
16	SL23034	FUSE HOLDER	1	ABSCHWELSTREIFENKASTEN	PORTE FUSIBLES	PORTA FUSIBILI	PORTA FUSIBILI
17	SL05004	NUT	18	MUTTER	ECROU	TUERCA	DADO 8
18	SL06003	WASHER	14	UNTERLEGSCHIBE	RONDELLE	ARANDELA	RONDELLA GROWER D
19	SL23740	FUSE	1	SICHERUNG	FUSIBLE	FUSIBLE	FUSIBILE
20	SL23103	SUPPORT	3	HALTERUNG	SUPPORT	SOPORTE	SUPPORTO
21	SL23082	PLATE	1	PLATTE	PLAQUE	PIASTRA	PIASTRA
22	SL23718-2	BOX BASE	1	KASTEN, GEHÄUSE BASIS	BASE BOITE	BASE CAJA	BASE SCATOLA
23	SL06034	WASHER	6	UNTERLEGSCHIBE	RONDELLE	ARANDELA	RONDELLA
24	SL06034	WASHER	4	UNTERLEGSCHIBE	RONDELLE	ARANDELA	RONDELLA
25	SL04371	SCREW	4	SCHRAUBE	VIS	TORNILLO	VITE
26	SL04377	SCREW	4	SCHRAUBE	VIS	TORNILLO	VITE
27	SL05019	NUT	4	MUTTER	ECROU	TUERCA	DADO 3
28	SL06058	WASHER	4	UNTERLEGSCHIBE	RONDELLE	ARANDELA	RONDELLA 3
29	SL23057	RESISTANCE	1	WIDERSTAND	RESISTANCE	RESISTENCIA	RESISTENZA
30	SL04178	SCREW	4	SCHRAUBE	VIS	TORNILLO	VITE
31	SL23387	RESISTANCE	1	WIDERSTAND	RESISTANCE	RESISTENCIA	RESISTENZA 1 OHM 25W
32	SL23082-2	BRACKET	1	BÜGEL	ETRIER	ESTRIBO	STAFFA RESISTENZE
33	SL04092	SCREW	2	SCHRAUBE	VIS	TORNILLO	VITE
34	SL23735	REMOTE CONTROL SWITCH	1	FERNSCHALTER	TELE-INTERRUPTEUR	TELEINTERRUPTOR	TELERUTTORE
35	SL06004	WASHER	2	UNTERLEGSCHIBE	RONDELLE	ARANDELA	RONDELLA
36	SL06058	NUT	2	MUTTER	ECROU	TUERCA	DADO
37	SL23221	CONNECTOR	1	VERBINDER	CONNECTEUR	CONECTOR	CONNETTORE 6 VIE
38	SL04386	SCREW	2	SCHRAUBE	VIS	TORNILLO	VITE
39	SL23729	GEARCASE / BOARD	1	ZENTRALE / KARTE	FICHE DE CONTROLE	CENTRALITA / TARIETA	CENTRALINA
40	SL25187	LABEL	1	ETIKETT	ETIQUETTE	ETIQUETA	ADESIVO
41	SL23716-1L	BOX COVER	1	KASTEN, GEHÄUSE DECKEL	COUVERCLE BOITE	TAPA CAJA	COPERTERNO SCATOLA

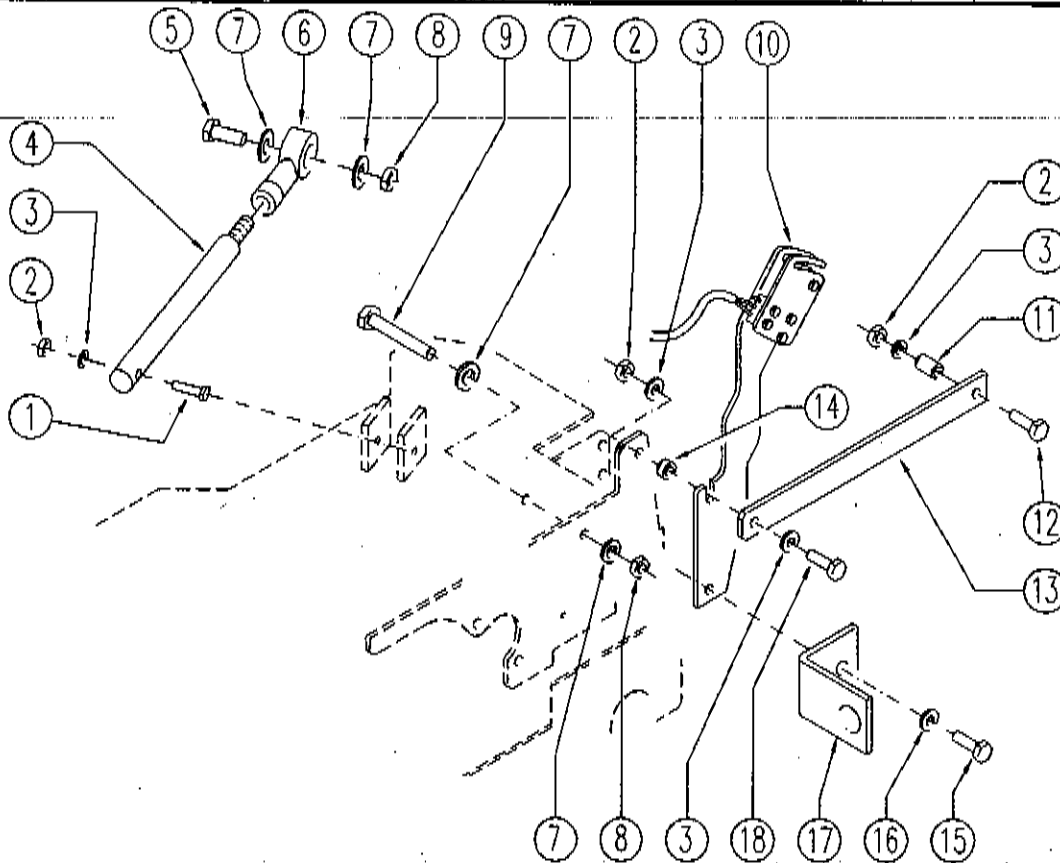
DESCRIPTION:	TANK	TANK	RESERVOIR	TANQUE	SERBATOIO INFERIORE
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REF	CODE	DESCRIPTION	QT	BESCHREIBUNG	DESCRIPTION	DESCRIPCION	DESCRIZIONE
1	SL03526	FILTER	1	FILTER	FILTRE	FILTRO	FILTRO
2	SL03578	GASKET	1	DICHTUNG	JOINT	EMPAQUETADURA	GUARNIZIONE
3	SL03596	GASKET	1	DICHTUNG	JOINT	EMPAQUETADURA	GUARNIZIONE
4	SL07829	PIN	1	ZAPFEN	PIVOT	PERNO / PIVOTE	PERNO
5	SL03660	GASKET	1	DICHTUNG	JOINT	EMPAQUETADURA	GUARNIZIONE
6	SL03661	GASKET	1	DICHTUNG	JOINT	EMPAQUETADURA	GUARNIZIONE
7	SL03679	GASKET	1	DICHTUNG	JOINT	EMPAQUETADURA	GUARNIZIONE
8	SL04396	SCREW	4	SCHRAUBE	VIS	TORNILLO	VITE
9	SL06090	WASHER	4	UNTERLEGSCHIEBE	RONDELLE	ARANDELA	RONDELLA
10	SL06106	WASHER	4	UNTERLEGSCHIEBE	RONDELLE	ARANDELA	RONDELLA
11	SL04040	SCREW	4	SCHRAUBE	VIS	TORNILLO	VITE
12	SL17483-1	PIN	2	ZAPFEN	PIVOT	PERNO / PIVOTE	PERNO
13	SL04171	INSERT	2	EINSATZ	SEGMENT	ENCAIE	INSERTO
14	SL18232	UNION / CONNECTOR	2	ANSCHLUSS	RACCORD	UNION / CONECTOR	RACCORDO
15	SL14109	CLAMP	2	SCHELLE	BANDE	ABRAZADERA	FASCETTA
16	SL19097	HOSE	1	SCHLAUCH	TUYAU	TUBO	TUBO
17	SL14063	CLAMP	1	SCHELLE	BANDE	ABRAZADERA	FASCETTA
18	SL19113-1	HOSE	1	SCHLAUCH	TUYAU	TUBO	TUBO
20	SL18386	CAP	1	STOPFEN VERSCHLUSS	BOUCHON	TAPON	TAPPO
21	SL04371	SCREW	4	SCHRAUBE	VIS	TORNILLO	VITE
22	SL13118	DUCT LOCK	1	SCHLAUCHHALTER	FIXE-TUYAU	BLOQUEO TUBO	FERMA-TUBO
23	SL06041	NUT	2	MUTTER	ECROU	TUERCA	DADO
24	SL39079	ROD	1	STANGE	TIGE	VARILLA	ASTA
25	SL04180	SCREW	1	SCHRAUBE	VIS	TORNILLO	VITE
26	SL06015	WASHER	1	UNTERLEGSCHIEBE	RONDELLE	ARANDELA	RONDELLA
27	SL17481-1	LEVER	1	HEBEL	LEVIER	PALANCA	LEVA
28	SL03577	CLAMP	1	SCHELLE	BANDE	ABRAZADERA	FASCETTA

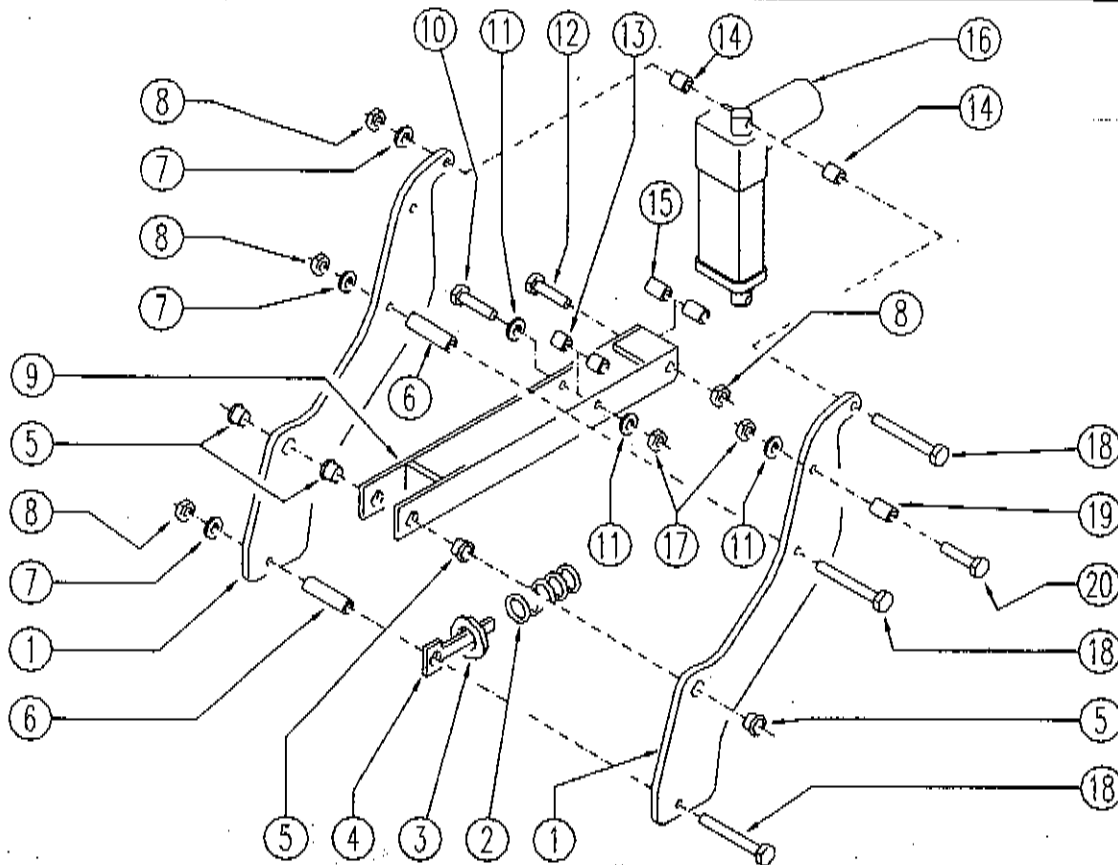


DESCRIPTION: HEAD LIFTING KOPFHEBEVORRICHTUNG SOULEVEMENT TETE LEVANTAMIENTO CABEZA SOLLEVAMENTO TESTATA



REF. CODE	DESCRIPTION	QT	BESCHREIBUNG	DESCRIPTION	DESCRIPCION	DESCRIZIONE
1 SL04164	SCREW	1	SCHRAUBE	VIS	TORNILLO	VITE
2 SL05030	NUT	3	MUTTER	ECROU	TUERCA	DADO
3 SL06041	WASHER	4	UNTERLEGSCHIBE	RONDELLE	ARANDELA	RONDELLA
4 SL38072	LEVER	1	HEBEL	LEVIER	PALANCA	LEVA
5 SL04304	SCREW	1	SCHRAUBE	VIS	TORNILLO	VITE
6 SL22004	ARTICULATION	1	GELINK	JOINT	ARTICULACION	SNODO
7 SL06006	WASHER	4	UNTERLEGSCHIBE	RONDELLE	ARANDELA	RONDELLA
8 SL05013	NUT	2	MUTTER	ECROU	TUERCA	DADO
9 SL04161	SCREW	1	SCHRAUBE	VIS	TORNILLO	VITE
10 GR53004	SUPPORT ASSEMBLY	1	HALTERUNGSGRUPPE	GROUPE SUPPORT	CONJUNTO SOPORTE	GRUPPO SUPPORTO
11 SL07112	SPACER	1	DISTANZSTÜCK	ENTRETOISE	SEPARADOR	DISTANZIALE
12 SL04127	SCREW	1	SCHRAUBE	VIS	TORNILLO	VITE
13 SL38073	LEVER	1	HEBEL	LEVIER	PALANCA	LEVA
14 SL07150	SPACER	1	DISTANZSTÜCK	ENTRETOISE	SEPARADOR	DISTANZIALE
15 SL04134	SCREW	1	SCHRAUBE	VIS	TORNILLO	VITE
16 SL06003	WASHER	1	UNTERLEGSCHIBE	RONDELLE	ARANDELA	ROSETTA
17 SL38112	SUPPORT	1	HALTERUNG	SUPPORT	SOPORTE	SUPPORTO
18 SL04076	SCREW	1	SCHRAUBE	VIS	TORNILLO	VITE

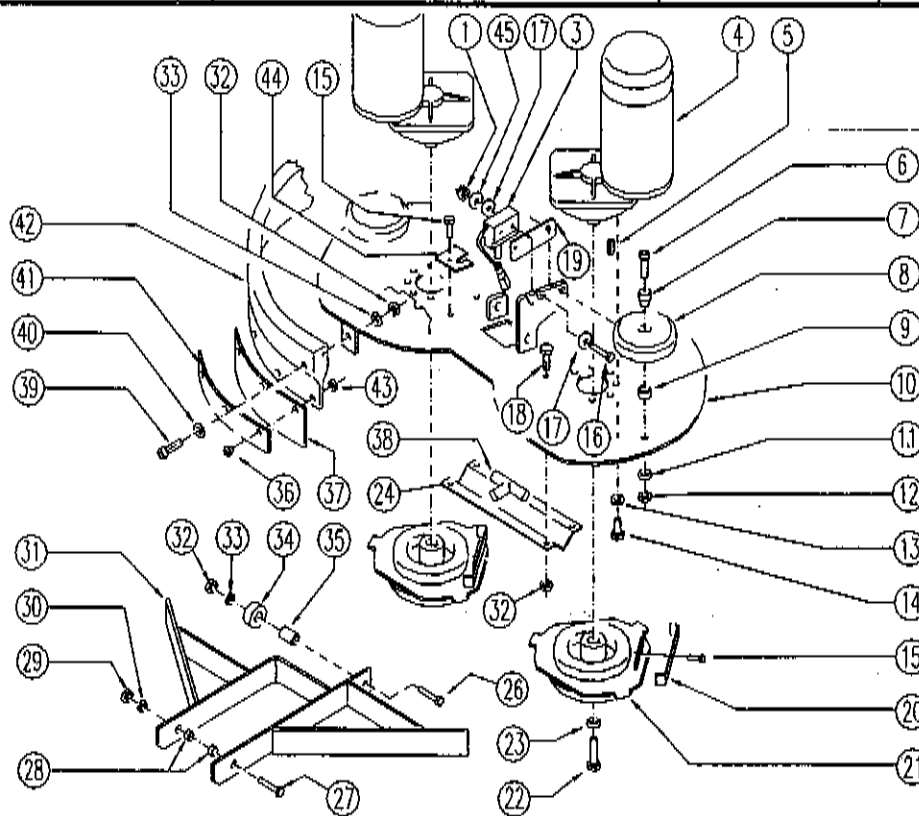
DESCRIPTION:	HEAD LIFTING	KOPFHEBEVORRICHTUNG	SOULEVEMENT TETE	LEVANTAMIENTO CABEZA	SOLLEVAMENTO TESTATA
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REF	CODE	DESCRIPTION	QT	BESCHREIBUNG	DESCRIPTION	DESCRIPCION	DESCRIZIONE
1	SL36006	LEVER	2	HEBEL	LEVER	PALANCA	LEVA
2	SL13132	SPRING	1	FEDER	RESSORT	RESSORT	MOLLA
3	SL06029	WASHER	1	UNTERLEGSCHIEBE	RONDELLE	ARANDELA	RONDELLA
4	SL30067	SPRING GUIDE	1	FEDERFÜHRUNG	GLISSIÈRE RESSORT	GUIDA DELLA MOLLA	GUIDA MOLLA
5	SL12072	BUSHING	4	BUCHSE	DOUILLE	CASQUILLO / FORRO	BOCCOLA
6	SL07526	SPACER	2	DISTANZSTÜCK	ENTRETOISE	SEPARADOR	DISTANZIALE
7	SL08041	WASHER	3	UNTERLEGSCHIEBE	RONDELLE	ARANDELA	RONDELLA
8	SL05030	NUT	4	MÜTTER	ECROU	TUERCA	DADO
9	SL36074	LEVER	1	HEBEL	LEVER	PALANCA	LEVA
10	SL04367	SCREW	1	SCHRAUBE	VIS	TORNILLO	VITE
11	SL06022	WASHER	3	UNTERLEGSCHIEBE	RONDELLE	ARANDELA	RONDELLA
12	SL04200	SCREW	1	SCHRAUBE	VIS	TORNILLO	VITE
13	SL07318	SPACER	2	DISTANZSTÜCK	ENTRETOISE	SEPARADOR	DISTANZIALE
14	SL07527	SPACER	2	DISTANZSTÜCK	ENTRETOISE	SEPARADOR	DISTANZIALE
15	SL07063	SPACER	2	DISTANZSTÜCK	ENTRETOISE	SEPARADOR	DISTANZIALE
16	SL02204	ACTUATOR	1	TRIEB	ACTIONNEUR	ACCIONADOR	ATTUATORE
17	SL05041	NUT	2	MÜTTER	ECROU	TUERCA	DADO
18	SL04201	SCREW	3	SCHRAUBE	VIS	TORNILLO	VITE
19	SL07185	SPACER	1	DISTANZSTÜCK	ENTRETOISE	SEPARADOR	DISTANZIALE
20	SL04133	SCREW	1	SCHRAUBE	VIS	TORNILLO	VITE

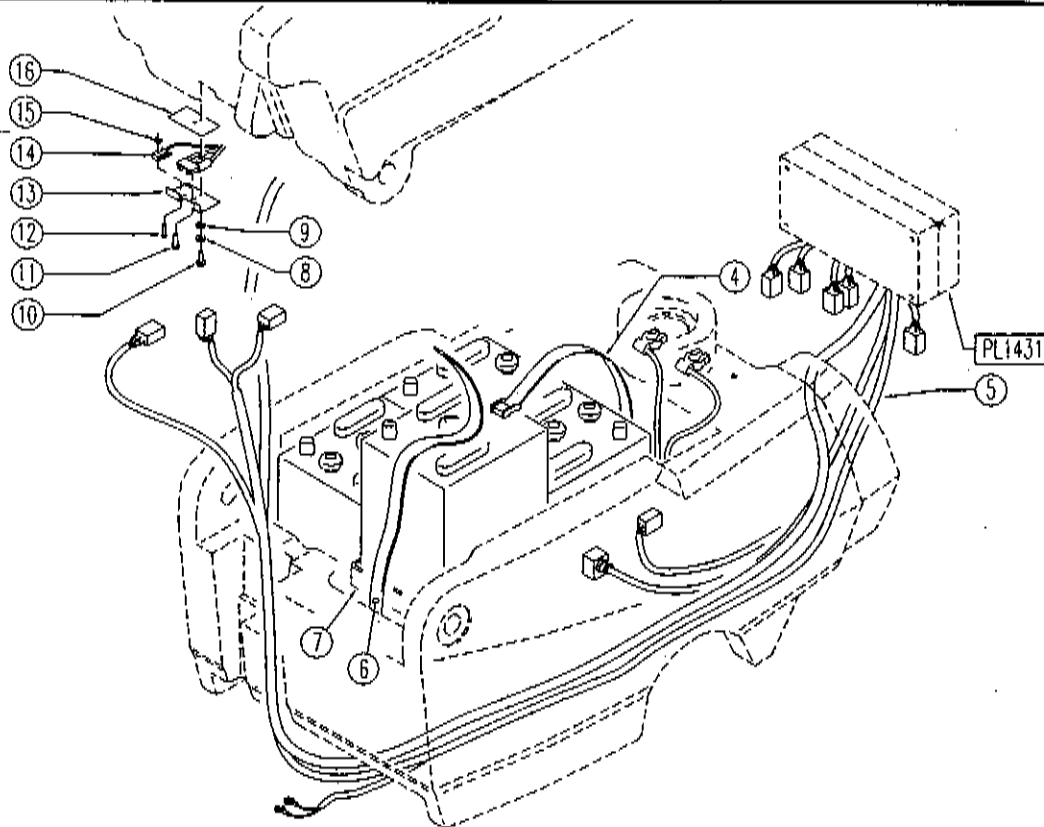


DESCRIPTION:	HEAD 85	KOPF 85	TÊTE 85	CABEZA 85	TESTATA 85
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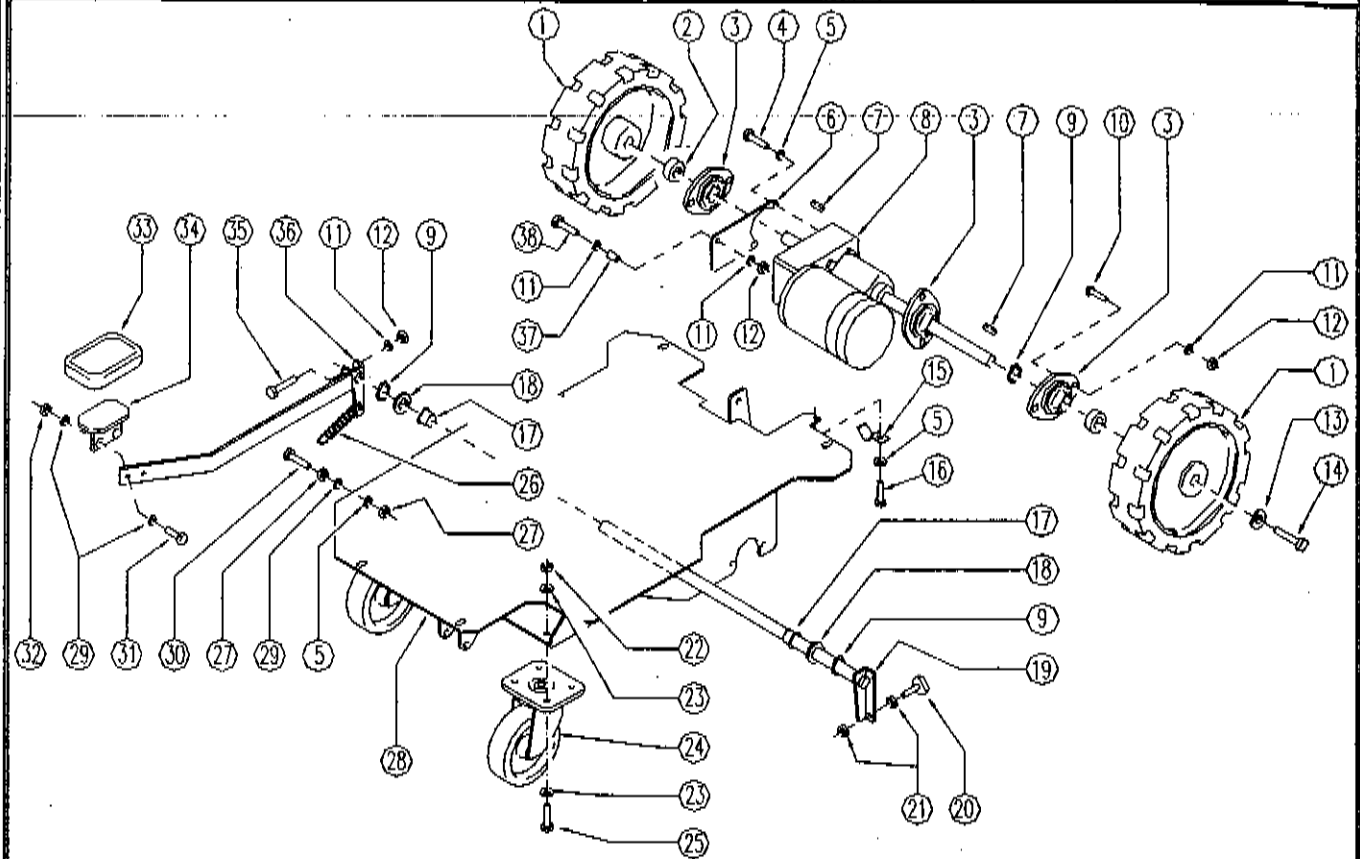
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1	BL05078	NUT	2	MUTTER	ECROU	TUERCA	DADO
3	DFE33048	MICROSWITCH	1	MICROSCHALTER	MICRO-INTERRUPTEUR	MICROINTERRUPTOR	MICROINTERRUTTORE
4	BL02251	GEARMOTOR	2	GETRIEBEMOTOR	MOTO-REDUCTEUR	MOTORREDUCTOR	MOTORREDUTTORE
5	BL11024	TANG / TONGUE	2	LAPPEN	LANGUETTE	LINGUETTA	LINGUETTA
6	BL04167	SCREW	2	SCHRAUBE	VIS	TORNILLO	VITE
7	BL07290	BUSHING	2	BÜCHSE	DOUILLE	BULLON	BOCCELLA
8	BL08040	WHEEL	2	RADCHEN	ROUE	RUEDE	RUOTINO
9	BL07297	SPACER	2	DISTANZSTÜCK	ENTRETÔISE	SÉPARADOR	DISTANZIALE
10	BL30061	HEAD	1	KOPF	TÊTE	CABEZA	TESTATA
11	BL09041	WASHER	3	UNTERLEGSCHIBE	RONDELLE	ARANDELA	RONDELLA
12	BL05039	NUT	8	MUTTER	ECROU	TUERCA	DADO
13	BL06060	WASHER	14	UNTERLEGSCHIBE	RONDELLE	ARANDELA	RONDELLA
14	BL04180	SCREW	14	SCHRAUBE	VIS	TORNILLO	VITE
15	BL04078	SCREW	3	SCHRAUBE	VIS	TORNILLO	VITE
16	BL04404	SCREW	2	SCHRAUBE	VIS	TORNILLO	VITE
17	BL06051	WASHER	4	UNTERLEGSCHIBE	RONDELLE	ARANDELA	RONDELLA
18	BL04278	SCREW	4	SCHRAUBE	VIS	TORNILLO	VITE
19	BL39200	PLAQUE	1	PLÄTTCHEN	PLATINE	PLACA	PIASTRINA
20	BL13136	SPRING	2	FEDER	RESSORT	RESORTE	MOLLA
21	BL07042	FLANGE	2	FLANSCH	BRIDE	GRIDA	PLARGA
22	BL04020	SCREW	2	SCHRAUBE	VIS	TORNILLO	VITE
23	BL06061	WASHER	2	UNTERLEGSCHIBE	RONDELLE	ARANDELA	RONDELLA
24	BL25113	DISTRIBUTOR	1	WASSERVERTEILER	DISTRIBUTEUR	DISTRIBUIDOR	DISTRIBUTORE
25	BL04051	SCREW	1	SCHRAUBE	VIS	TORNILLO	VITE
26	BL04389	SCREW	1	SCHRAUBE	VIS	TORNILLO	VITE
27	BL07138	SPACER	2	DISTANZSTÜCK	ENTRETÔISE	SÉPARADOR	DISTANZIALE
28	BL05013	NUT	1	MUTTER	ECROU	TUERCA	DADO
29	BL06005	WASHER	1	UNTERLEGSCHIBE	RONDELLE	ARANDELA	RONDELLA
30	BL29174	BRACKET	1	BÜGEL	ETRIER	ESTRIBO	STAFFA
31	BL05041	NUT	4	MUTTER	ECROU	TUERCA	DADO
32	BL09022	WASHER	8	UNTERLEGSCHIBE	RONDELLE	ARANDELA	RONDELLA
33	BL08056	SMALL WHEEL	1	RADCHEN	ROUE	RUEDELLA	RUOTINO
34	BL07528	SPACER	1	DISTANZSTÜCK	ENTRETÔISE	SÉPARADOR	DISTANZIALE
35	BL04395	SCREW	6	SCHRAUBE	VIS	TORNILLO	VITE
36	BL09562	FLAP	2	FLAP	FLAP	FLAP	FLAP
37	BL18243	UNION / CONNECTOR	1	ANSCHLUSS	RACCORD	UNION / CONNECTOR	RACCORDO (o RESCA)
38	BL04324	SCREW	3	SCHRAUBE	VIS	TORNILLO	VITE
39	BL06038	WASHER	3	UNTERLEGSCHIBE	RONDELLE	ARANDELA	RONDELLA
40	BL06570	FLAP PRESS	2	FLAPWEDERHALTER	PRESSE-FLAP	APRIETAFAP	PREMI FLAP
41	BL03550	GASKET	1	DICHTUNG	JOINT	EMPAQUETADURA	QUARNIZIONE
42	BL05028	NUT	6	MUTTER	ECROU	TUERCA	DADO
43	BL39136	PLAQUE	1	PLÄTTCHEN	PLATINE	PLACA	PIASTRINA
44	BL06107	WASHER	2	UNTERLEGSCHIBE	RONDELLE	ARANDELA	RONDELLA

DESCRIPTION: BATTERY AND WIRING BATTERIE UND VERKABELUNG BATTERIE ET CABLAGE BATERIA Y CABLEO BATTERIE E CABLAGGI



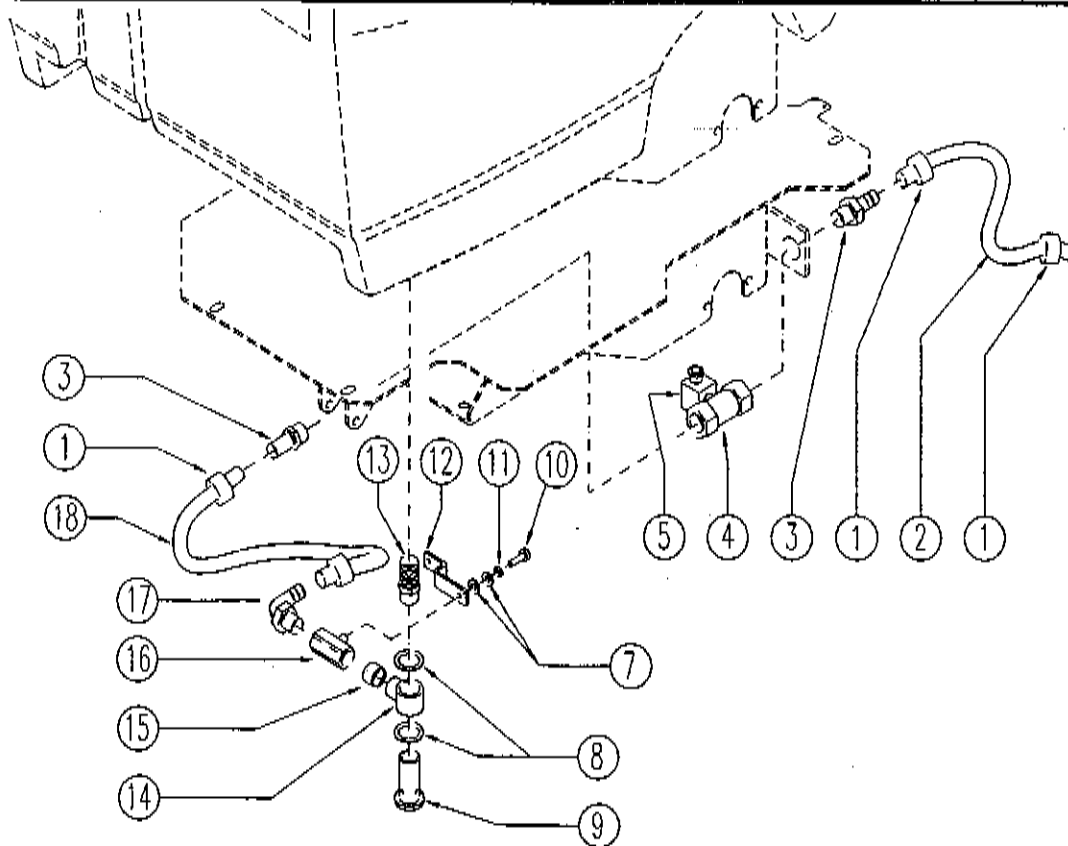
REF	CODE	DESCRIPTION	QTY	BESCHREIBUNG	DESCRIPTION	DESCRIPCION	DESCRIZIONE
4	SL14356	BELT	2	RIEMEN	COURROIE	CORREA	CINGHIA
5	GR23716	WIRING	1	VERKABELUNG	CABLAGE	CABLEO	CABLAGGIO
6	SL14357	BELT	2	RIEMEN	COURROIE	CORREA	CINGHIA
7	SL17607	BATTERY PLATE	4	BATTERIESTELLER	PLAQUE BATTERIE	PLACA BATERIA	PIATTO BATTERIE
8	SL16033	WASHER	2	UNTERLEGSCHEIBE	RONDELLE	ARANDELA	ROSETTA
9	SL06032	WASHER	2	UNTERLEGSCHEIBE	RONDELLE	ARANDELA	ROSETTA
10	SL04320	SCREW	2	SCHRAUBE	VIS	TORNILLO	VITE
11	SL04333	SCREW	1	SCHRAUBE	VIS	TORNILLO	VITE
12	SL04008	SCREW	2	SCHRAUBE	VIS	TORNILLO	VITE
13	SL30422	SUPPORT	1	HALTERUNG	SUPPORT	SOPORTE	SUPPORTO
14	SL230314	MICROSWITCH	1	MIKROSCHALTER	MICRO-INTERRUPTEUR	MICROINTERRUPTOR	MICROINTERRUTTORE
15	SL06031	NUT	2	MUTTER	ECROU	TUERCA	DADO
16	SL03572	GUARD	1	SCHUTZ	PROTECTION	PROTECCION	PROTEZIONE

DESCRIPTION:	FRAME AND DRIVE	RAHMEN UND ANTRIEB	CHASSIS ET TRACTION	CHASIS Y TRACCION	TELAIO E TRAZIONE
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REF.	CODE	DESCRIPTION	QT	BESCHREIBUNG	DESCRIPTION	DESCRIPCION	DESCRIZIONE
1	SL06054	WHEEL	2	RÄDCHEN	ROUE	RUEDA	RUOTA
2	SL12031-1	SPACER	2	DISTANZSTÜCK	ENTRETOISE	SEPARADOR	DISTANZIALE
3	SL12031	BEARING	3	LAGER	PALIER / ROULEMENT	COJINETE	CUSCINETTO
4	SL04135	SCREW	2	SCHRAUBE	VIS	TORNILLO	VITE
5	SL06053	WASHER	4	UNTERLEGSCHIBE	RONDELLE	ARANDELA	RONDELLA
6	SL39065	PLATE	1	PLATTE	PLAQUE	PLACA	PIASTRA
7	SL11105	TANG / TONGUE	2	LAPPEN	LANGUETTE	LINGUETTA	LINGUETTA
8	SL02250	MOTOR	1	MOTOR	MOTEUR	MOTOR	MOTORE
9	SL11084	RING	3	RING	ANNEAU / BAGUE	ANELLO	ANELLO
10	SL04355	SCREW	8	SCHRAUBE	VIS	TORNILLO	VITE
11	SL06041	WASHER	9	UNTERLEGSCHIBE	RONDELLE	ARANDELA	RONDELLA
12	SL05039	NUT	7	MÜTTER	ECROU	TUERCA	DADO
13	SL06060	WASHER	2	UNTERLEGSCHIBE	RONDELLE	ARANDELA	RONDELLA
14	SL04269	SCREW	2	SCHRAUBE	VIS	TORNILLO	VITE
15	SL14353	CLIP	1	KLAMMER	AGRAFE	GRAPA	GRAFFETTA
16	SL04180	SCREW	1	SCHRAUBE	VIS	TORNILLO	VITE
17	SL12036	BEARING	2	LAGER	PALIER / ROULEMENT	COJINETE	CUSCINETTO
18	SL06079	WASHER	2	UNTERLEGSCHIBE	RONDELLE	ARANDELA	RONDELLA
19	SL39075	BRAKE AXLE	1	BREMSEACHSE	ESBIEU FREIN	EJE FRENO	ASSE
20	SL20059	PLUG / STOPPER	2	PUFFER	TAMPON	TAPON / ALMOHADILLA	TAMPONE
21	SL05048	NUT	4	MÜTTER	ECROU	TUERCA	DADO
22	SL05032	NUT	8	MÜTTER	ECROU	TUERCA	DADO
23	SL06011	WASHER	16	UNTERLEGSCHIBE	RONDELLE	ARANDELA	RONDELLA
24	SL06007	SMALL WHEEL	2	RÄDCHEN	ROUE	RUEDECILLA	RUOTINO
25	SL04132	SCREW	8	SCHRAUBE	VIS	TORNILLO	VITE
26	SL13011	SPRING	1	FEDER	RESSORT	RESORTE	MOLLA
27	SL05017	NUT	2	MÜTTER	ECROU	TUERCA	DADO
28	SL39065	FRAME	1	RAHMEN	CADRE	CHASIS	TELAIO
29	SL06022	WASHER	5	UNTERLEGSCHIBE	RONDELLE	ARANDELA	RONDELLA
30	SL04144	SCREW	1	SCHRAUBE	VIS	TORNILLO	VITE
31	SL04002	SCREW	2	SCHRAUBE	VIS	TORNILLO	VITE
32	SL05074	NUT	2	MÜTTER	ECROU	TUERCA	DADO
33	SL20013	RUBBER SHIM	1	ZWISCHENLEGSCHIBE AUS GUMMI	CALE EN CAOUTCHOUC	RIOSTRA DE GOMA	GOMMA
34	SL09133	PEDAL	1	PEDAL	PEDALE	PEDAL	PEDALE
35	SL04164	SCREW	1	SCHRAUBE	VIS	TORNILLO	VITE
36	SL39077	LEVER	1	HEBEL	LEVIER	PALANCA	LEVA
37	SL07387	SPACER	1	DISTANZSTÜCK	ENTRETOISE	SEPARADOR	DISTANZIALE
38	SL04075	SCREW	1	SCHRAUBE	VIS	TORNILLO	VITE

DESCRIPTION:	HYDRAULIC UNIT	HYDRAULISCHE GRUPPE	GROUPE HYDRAULIQUE	GRUPO HIDRÁULICO	GRUPPO IDRAULICO
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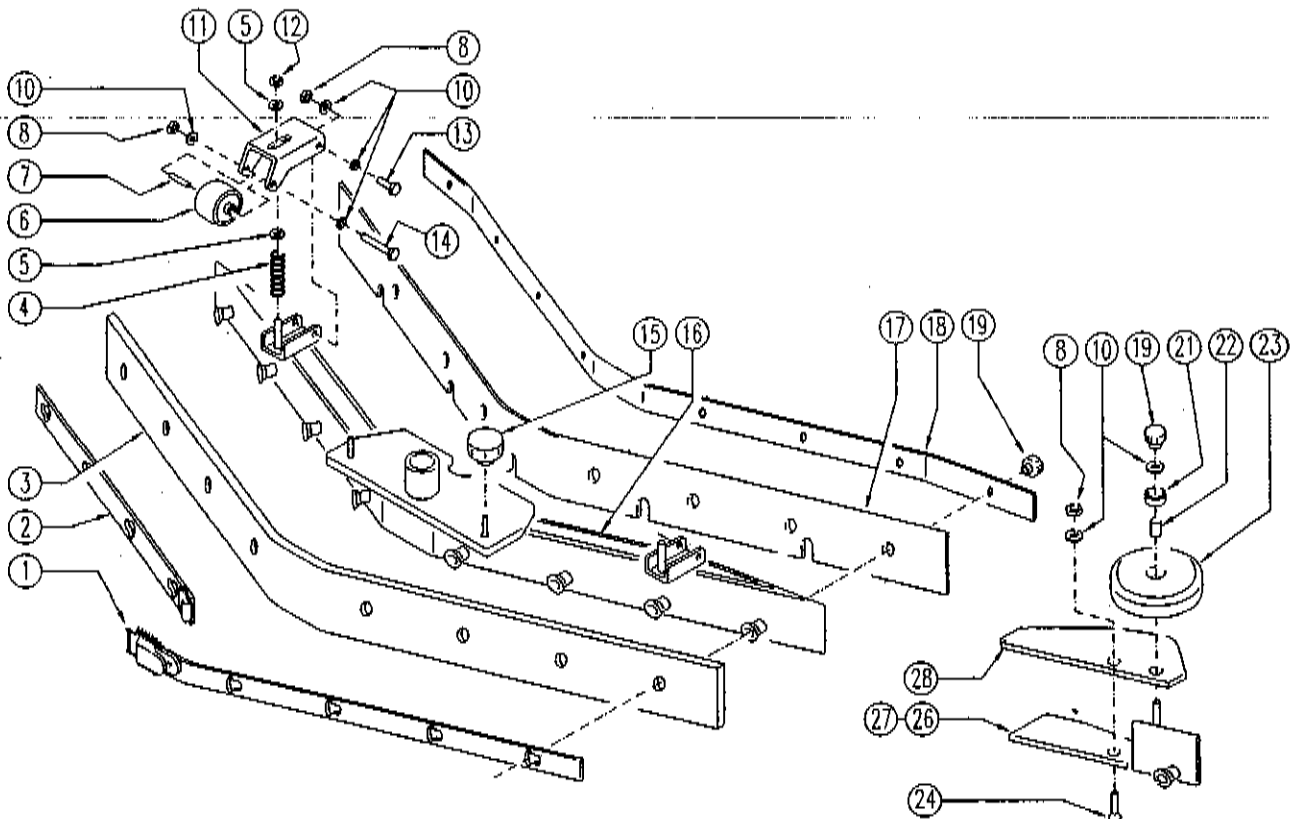


REF	CODE	DESCRIPTION	QT	BESCHREIBUNG	DESCRIPTION	DESCRIPCION	DESCRIZIONE
1	SL14036	CLAMP	4	SCHELE	BANDE	ABRAZADERA	FASCETTA
2	SL19334	HOSE	1	SCHLAUCH	TUYAU	TUBO FLEXIBLE	TUBO
3	SL18306	UNION / CONNECTOR	2	ANSCHLUSS	RACCORD	UNION / CONNECTOR	RACCORDO
4	SL18394	ELECTROVALVE	1	ELEKTROVENTIL	SOUPAPE ELECTRIQUE	ELECTROVALVULA	ELETTROVALVOLA
5	SL23212	CONNECTOR	1	VERBINDER	CONNECTEUR	CONNECTOR	CONNETTORE
7	SL06041	WASHER	2	UNTERLEGSCHIEBE	RONDELLE	ARANDELA	ROSETTA
8	SL03538	WASHER	2	UNTERLEGSCHIEBE	RONDELLE	ARANDELA	ROSETTA
9	SL18267-L	SCREW	1	SCHRAUBE	VIS	TORNILLO	VITE
10	SLD4341	SCREW	1	SCHRAUBE	VIS	TORNILLO	VITE
11	SL08631	WASHER	1	UNTERLEGSCHIEBE	RONDELLE	ARANDELA	ROSETTA
12	SL30193	LEVER	1	HEBEL	LEVIER	PALANCA	LEVA
13	SL18408	FILTER	1	FILTER	FILTRE	FILTRE	FILTRO
14	SL18256	UNION / CONNECTOR	1	ANSCHLUSS	RACCORD	UNION / CONNECTOR	RACCORDO
15	SL07209K	SPACER	1	DISTANZSTÜCK	ENTRETOISE	SEPARADOR	DISTANZIALE
16	SL18407	TAP	1	HAHN	ROBINET	GRIFO	SUBNETTO
17	SL18403	UNION / CONNECTOR	1	ANSCHLUSS	RACCORD	UNION / CONNECTOR	RACCORDO
18	SL19287	HOSE	1	SCHLAUCH	TUYAU	TUBO FLEXIBLE	TUBO

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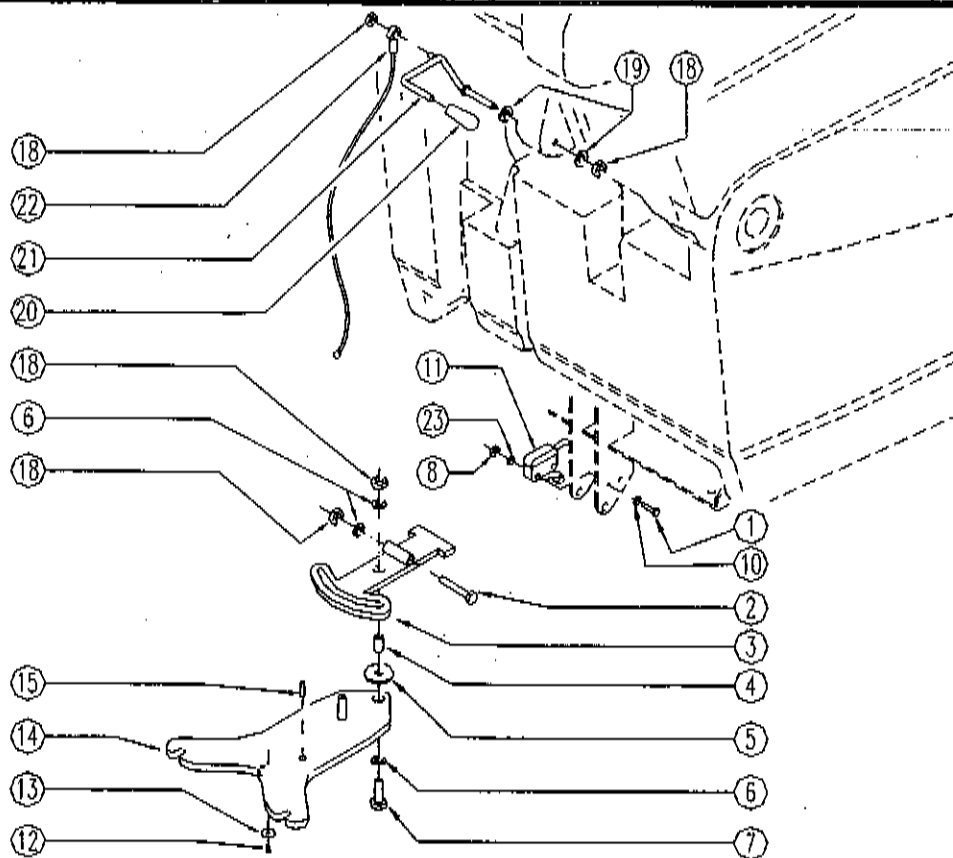
pl1452 ab SN from 01E600

DESCRIPTION:	SQUEEGEE	SQUEEGEE	SQUEEGEE	SQUEEGEE	SQUEEGEE
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REF	CODE	DESCRIPTION	QT	BESCHREIBUNG	DESCRIPTION	DESCRIPCION	DESCRIZIONE
	GR34427-45A	SQUEEGEE UNIT		SAUGGRUPPE	GROUPE SUCEUR	GRUPO ESCURRESUELOS	GRUPPO SQUEEGEE
1	SL38141	BLADE HOLDER	1	LIPPENHALTER	FIXE-LAME	DISPOSITIVO DE BLOQUEO HOJA	BLOCCA LAMA
2	SL38142	BLADE HOLDER	1	LIPPENHALTER	FIXE-LAME	DISPOSITIVO DE BLOQUEO HOJA	BLOCCA LAMA
3	SL03563	BLADE	1	GUMMILIPPE	LAME	HOJA	LAMA POSTERIORE
4	SL13103	SPRING	2	FEDER	RESSORT	RESSORTE	MOLLA
5	SL06041	WASHER	4	SCHIBE	RONDELLE	ARANDELA	RONDELLA
6	SL06058	WHEEL	2	RÄDCHEN	ROUE	RUEDA	RUOTINO REGOLAZIONE
7	SL07526	SPACER	2	DISTANZSTÜCK	ENTRETOISE	ESPESOR	DISTANZIALE
8	SL06074	NUT	8	MÜTTER	ECROU	TUERCA	DADO
10	SL06022	WASHER	16	SCHIBE	RONDELLE	ARANDELA	RONDELLA
11	SL38033	SUPPORT	2	HALTERUNG	SUPPORT	SOPORTE	SUPPORTO RUOTINO REG.
12	SL06039	NUT	2	MÜTTER	ECROU	TUERCA	DADO
13	SL04136	SCREW	4	SCHRAUBE	VIS	TORNILLO	VITE
14	SL04061	SCREW	2	SCHRAUBE	VIS	TORNILLO	VITE
15	SL20080	HANDLE	2	KNAUF	POIGNEE	PERILLA	POMOLO
16	SL38136	BODY	1	KÖRPER	CORPS	CUERPO	CORPO SQUEEGEE
17	SL03564	BLADE	1	GUMMILIPPE	LAME	HOJA	LAMA ANTERIORE
18	SL38144	BLADE HOLDER	1	LIPPENHALTER	FIXE-LAME	DISPOSITIVO DE BLOQUEO HOJA	BLOCCA LAMA
19	SL20058	HANDLE	10	KNAUF	POIGNEE	PERILLA	POMOLO
21	SL17026	BUSHING/BUSH	2	BUCHSE	DOUILLE	CASQUILLO/FORRO	BICCOLA
22	SL07085	SPACER	2	DISTANZSTÜCK	ENTRETOISE	ESPESOR	DISTANZIALE
23	SL06040	WHEEL	2	RÄDCHEN	ROUE	RUEDA	RUOTINO ANTITURTO
24	SL04036	SCREW	2	SCHRAUBE	VIS	TORNILLO	VITE
26	SL38140	LEFT EXTENSION	1	VERLÄNGERUNG	RALLONGE	EXTENSION IZQUIERDA	PROLUNGA SINISTRA
27	SL38139	RIGHT EXTENSION	1	VERLÄNGERUNG	RALLONGE	EXTENSION DERECHA	PROLUNGA DESTRA
28	SL38143	SUPPORT	2	HALTERUNG	SUPPORT	SOPORTE	SUPPORTO

DESCRIPTION:	SQUEEGEE SUPPORT	SAUGFÜßHALTERUNG	SUPPORT SUCEUR	SOPORTE ESCURRESUELOS	SUPPORTO SQUEEGEE
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REF	CODE	DESCRIPTION	QT	BESCHREIBUNG	DESCRIPTION	DESCRIPCION	DESCRIZIONE
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1	SL04197	SCREW	2	SCHRAUBE	VIS	TORNILLO	VITE
2	SL04226	SCREW	1	SCHRAUBE	VIS	TORNILLO	VITE
3	SL39071	ARM	1	ARM	BRAS	BRAZO	BRACCIO
4	SL07427	BUSHING / BUSH	1	BUCHSE	DOUILLE	CASQUILLO / FORRO	BICCOLA
5	SL00062	WASHER	1	UNTERLEGSCHIBE	RONDELLE	ARANDELA	RONDELLA
6	SL00041	WASHER	3	UNTERLEGSCHIBE	RONDELLE	ARANDELA	RONDELLA
7	SL04127	SCREW	1	SCHRAUBE	VIS	TORNILLO	VITE
8	SL05079	NUT	2	MUTTER	ECROU	TUERCA	DADO
9	SL05079	NUT	2	MUTTER	ECROU	TUERCA	DADO
10	SL05079	WASHER	2	UNTERLEGSCHIBE	RONDELLE	ARANDELA	RONDELLA
11	SL33200	MICROSWITCH	1	MIKROSCHALTER	MICRO-INTERRUPTEUR	MICROINTERRUTTORE	MICROINTERRUTTORE
12	SL04079	SCREW	1	SCHRAUBE	VIS	TORNILLO	VITE
13	SL00064	WASHER	1	UNTERLEGSCHIBE	RONDELLE	ARANDELA	RONDELLA
14	SL39069	BRACKET	1	BUCEL	ETRIER	ESTRIBO	STAFFA
15	SL11126	SCREW	1	SCHRAUBE	VIS	TORNILLO	VITE
16	SL05030	NUT	3	MUTTER	ECROU	TUERCA	DADO
17	SL00025	WASHER	2	UNTERLEGSCHIBE	RONDELLE	ARANDELA	RONDELLA
18	SL20007	KNOB (c. HANDWHEEL)	1	KNAUF	VOLANT A MAIN	BOTÓN ESFÉRICO (c. VOLANTE)	POMOLO
19	SL20036	LEVER	1	HEBEL	LEVIER	PALANCA	LEVA
20	SL14248	CABLE	1	KABEL	CABLE	CABLE	CABO
21	SL06107	WASHER	2	UNTERLEGSCHIBE	RONDELLE	ARANDELA	RONDELLA

pl1435 aa SN from 01B100

[illegible]

CODE:

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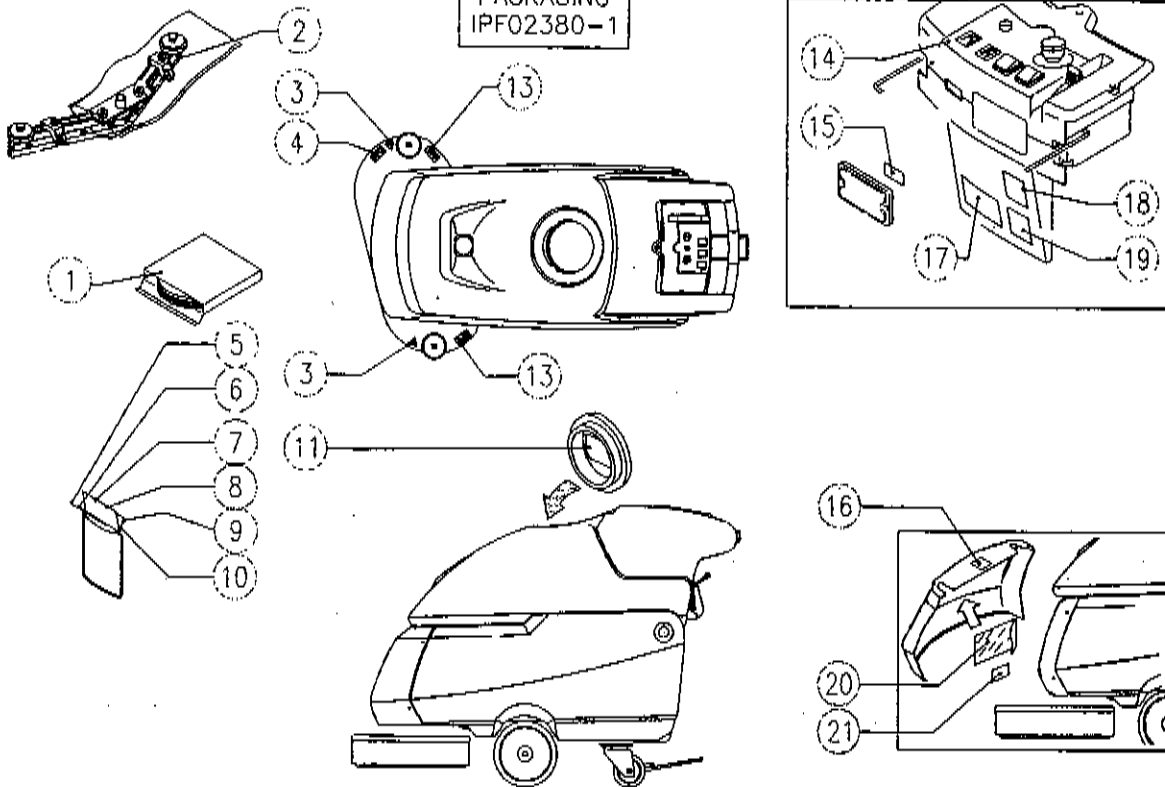
LABELS

ETIQUETTE

ETIQUETTES

ETIQUETAS

ETICHETTE

PACKAGING  
IPF02380-1

REF.	CODE	DESCRIPTION	QT	BESCHREIBUNG	DESCRIPTION	DESCRIPCION	DESCRIZIONE
1	AL03802	PAD DRIVER	2	TREIBSTELLERS	PLATEAUX PORTE DISQUE	PLATOS DE ARRASTAR	DISCO TRACONATORE
2	GR002745A	SQUEEGEE	1	SQUEEGEE	SQUEEGEE	SQUEEGEE	SQUEEGEE
3	SL25364	LABEL	2	ETIKETT	ETIQUETTE	ETIQUETA	ADESIVO
4	SL25368	LABEL	1	ETIKETT	ETIQUETTE	ETIQUETA	ADESIVO
5	SL25688BC-1	OPERATOR'S MANUAL	1	BEDIENUNGSANLEITUNG	MANUEL D'INSTRUCTIONS	MANUAL DE INSTRUCCIONES	MANUALE USO
6	SL25688BC-2	SPARE PARTS	1	ERSATZTEILE	PIECES DE RECHANGE	PIEZAS DE REPUESTO	MANUALI RICAMBI
7	SL25401-2	LABEL - DOCUMENT	1	ETIKETT - DOKUMENTATION	ETIQUETTE - DOCUMENTATION	ETIQUETA - DOCUMENTACION	ETICHETTA - DOCUMENTAZIONE
8	SL25401-3	LABEL - DOCUMENT	1	ETIKETT - DOKUMENTATION	ETIQUETTE - DOCUMENTATION	ETIQUETA - DOCUMENTACION	ETICHETTA - DOCUMENTAZIONE
9	SL25401-8	LABEL - DOCUMENT	1	ETIKETT - DOKUMENTATION	ETIQUETTE - DOCUMENTATION	ETIQUETA - DOCUMENTACION	ETICHETTA - DOCUMENTAZIONE
10	SL25303	DOCUMENT	1	DOKUMENTATION	DOCUMENTATION	DOCUMENTACION	DOCUMENTAZIONE
11	SL25058	LABEL	1	ETIKETT	ETIQUETTE	ETIQUETA	ADESIVO
13	SL25368	LABEL	2	ETIKETT	ETIQUETTE	ETIQUETA	ADESIVO
14	SL25687	LABEL	1	ETIKETT	ETIQUETTE	ETIQUETA	ADESIVO
15	SL25684	LABEL	1	ETIKETT	ETIQUETTE	ETIQUETA	ADESIVO
16	SL25167	LABEL	1	ETIKETT	ETIQUETTE	ETIQUETA	ADESIVO
17	SL25401-6	LABEL - DOCUMENT	1	ETIKETT - DOKUMENTATION	ETIQUETTE - DOCUMENTATION	ETIQUETA - DOCUMENTACION	ETICHETTA - DOCUMENTAZIONE
18	SL25177	LABEL	1	ETIKETT	ETIQUETTE	ETIQUETA	ADESIVO
19	SL25063	LABEL	1	ETIKETT	ETIQUETTE	ETIQUETA	ADESIVO
20	GR27196	ELEC. DIAGRAM ENVELOPE	1	SCHALTPLAN BEUTEL	ENVELOPPE SCHEMA ELECTRIQUE	SOBRE ESQUEMA ELECTRICO	BUSTA SCHEMI ELETTRICI
21	SL25995	LABEL	1	ETIKETT	ETIQUETTE	ETIQUETA	ADESIVO





CODE:

wd27195 ac SN from 02C80

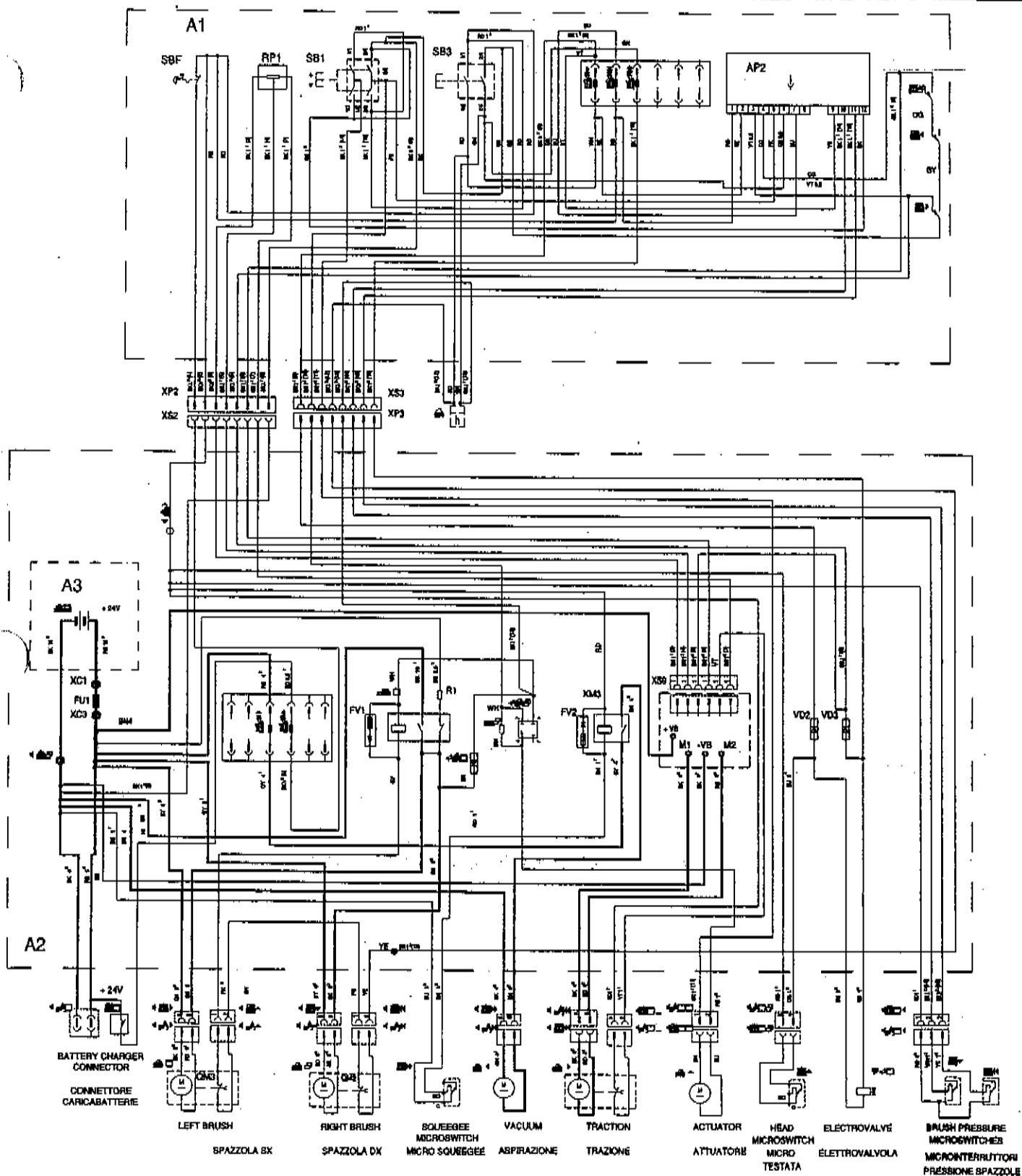
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SCHALTPLAN

SCHEMA ELECTRIQUE

ESQUEMA ELECTRICO

SCHEMA ELETTRICO



LEGEND WDL27195→

ZEICHENERKLÄRUNG WDL27195→

LEGENDE WDL27195→

LEYENDA WDL27195→

LEGENDA WDL27195→

CODE:

wd27195-1 ad SN from 02C80

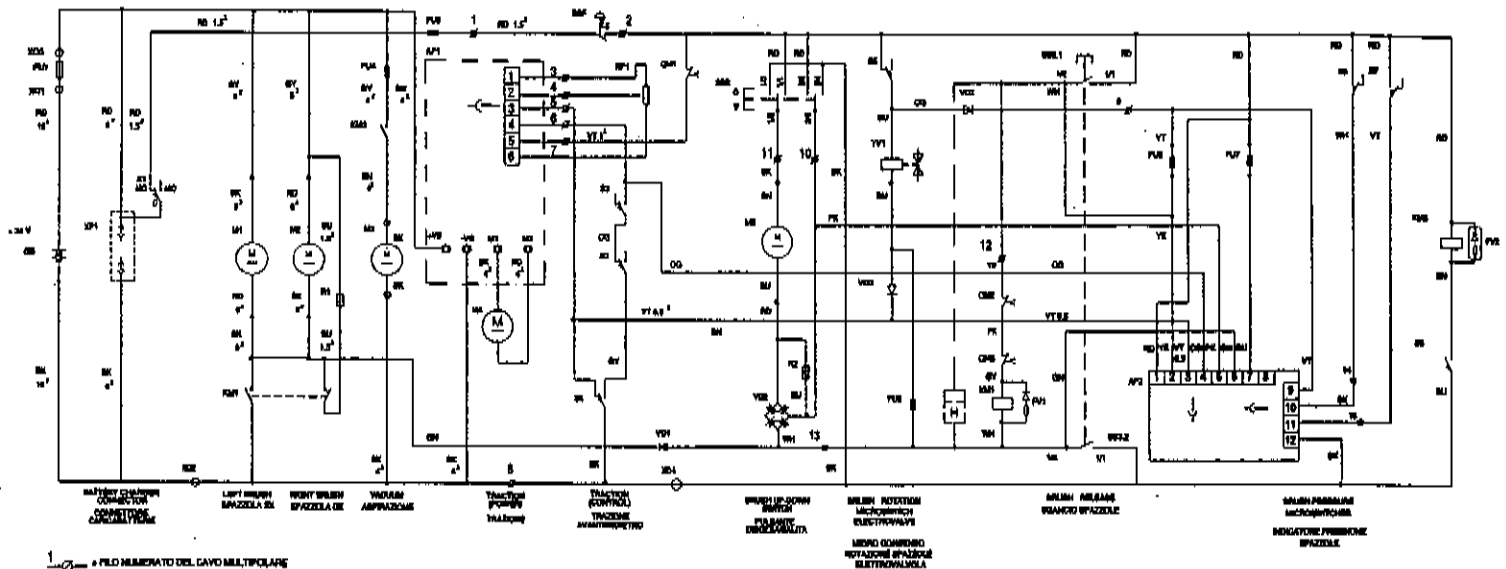
DESCRIPTION: ELEC. SCHEMATIC DIAGRAM

SCHALTPLAN

SCHEMA ELECTRIQUE

ESQUEMA ELECTRICO

SCHEMA ELETT. FUNZIONALE



REF	CODE	DESCRIPTION	QT	BESCHREIBUNG	DESCRIPTION	DESCRIPCION	DESCRIZIONE
AP1	SL23729	GEARCASE / BOARD		ZENTRALE / KARTE	FICHE DE CONTROLE	CENTRALITA / TARJETA	CENTRALINA TRAZIONE
AP2	SL23736	GEARCASE / BOARD		ZENTRALE / KARTE	FICHE DE CONTROLE	CENTRALITA / TARJETA	SCHEDA LED
FU1	SL23740	FUSE		SICHERUNG	FUSE	FUSIBLE	FUSIBILE GENERALE 125A
FU4	SL23148	FUSE		SICHERUNG	FUSE	FUSIBLE	FUSIBILE 30A
FU5	SL23650	FUSE		SICHERUNG	FUSE	FUSIBLE	FUSIBILE 10A
FV1	SL23758-1	DIODE		DIODE	DIODE	DIODO	DIODO (SOPPRESSORE)
FV2	SL23758-1	DIODE		DIODE	DIODE	DIODO	DIODO (SOPPRESSORE)
GB		BATTERY		BATTERIE	BATTERIE	BATERIA	BATTERIA
H	SL23984J	HOUR METER (OPTIONAL)		STUNDENZÄHLER (ZUBEHÖR)	COMPTE-HEURES (OPTION)	CUENTA HORAS (OPCIONAL)	CONTAORE (ACCESSORIO)
HL1	SL23031	INDICATOR		ANZEIGER	INDICATEUR	INDICADOR	INDICATORE
KM1	SL23735	REMOTE CONTROL SWITCH		FERNSCHALTER	TELE-INTERRUPTEUR	TELERRUPTOR	TELERUTTORE
KM3	SL23001	RELAY		RELAIS	RELAIS	RELE	RELE / RELAIS
M1	SL02251	MOTOR		MOTOR	MOTEUR	MOTOR	MOTORE SPAZZOLE SX
M2	SL02251	MOTOR		MOTOR	MOTEUR	MOTOR	MOTORE SPAZZOLE DX
M3	SL02303-J	MOTOR		MOTOR	MOTEUR	MOTOR	MOTORE ASPIRAZIONE
M4	SL02250	MOTOR		MOTOR	MOTEUR	MOTOR	MOTORE TRAZIONE
M5	SL02204	MOTOR		MOTOR	MOTEUR	MOTOR	MOTORE ATTUATORE
QM1		THERMAL PROTECTION		THERMOSCHUTZ	PROTECTION THERMIQUE	PROTECCION TERMICA	TERMICO MOTORE TRAZIONE
QM2		THERMAL PROTECTION		THERMOSCHUTZ	PROTECTION THERMIQUE	PROTECCION TERMICA	TERMICO MOTORE SPAZZOLE SX
QM3		THERMAL PROTECTION		THERMOSCHUTZ	PROTECTION THERMIQUE	PROTECCION TERMICA	TERMICO MOTORE SPAZZOLE DX
R1	SL23397	RESISTANCE		WIDERSTAND	RESISTANCE	RESISTENCIA	RESISTENZA 1 Ohm
R2	SL23957	RESISTANCE		WIDERSTAND	RESISTANCE	RESISTENCIA	RESISTENZA 10 Ohm
RP1	SL23872	POTENTIOMETER		POTENTIOMETER	POTENTIOMETRE	POTENCIOMETRO	POTENZIOMETRO
S1	SL23599-L	MICROSWITCH		MIKROSCHALTER	MICRO-INTERRUPTEUR	MICROINTERRUPTOR	MICRO CARICABATTERIE INSERITO
S2	SL23109	MICROSWITCH		MIKROSCHALTER	MICRO-INTERRUPTEUR	MICROINTERRUPTOR	MICROINTERRUTTORE MARCIA INDIETRO
S3	SL23109	MICROSWITCH		MIKROSCHALTER	MICRO-INTERRUPTEUR	MICROINTERRUPTOR	MICROINTERRUTTORE ANTISCHIACCIAMENTO
S4	SL23109	MICROSWITCH		MIKROSCHALTER	MICRO-INTERRUPTEUR	MICROINTERRUPTOR	MICROINTERRUTTORE MARCIA AVANTI
S5	SL23200	MICROSWITCH		MIKROSCHALTER	MICRO-INTERRUPTEUR	MICROINTERRUPTOR	MICROINTERRUTTORE AGGANCIO SPAZ
S6	SL23599	MICROSWITCH		MIKROSCHALTER	MICRO-INTERRUPTEUR	MICROINTERRUPTOR	MICROINTERRUTTORE PRESSIONE 1
S7	SL23599	MICROSWITCH		MIKROSCHALTER	MICRO-INTERRUPTEUR	MICROINTERRUPTOR	MICROINTERRUTTORE PRESSIONE 2
S8	SL23200	MICROSWITCH		MIKROSCHALTER	MICRO-INTERRUPTEUR	MICROINTERRUPTOR	MICROINTERRUTTORE ASPIRAZIONE
S82	SL23649	PUSH-BUTTON		DRUCKKNOPF	POUSSOIR	PULSADOR	PULSANTE SALITA/DISCESA TESTATA
S83	SL23708	PUSH-BUTTON		DRUCKKNOPF	POUSSOIR	PULSADOR	PULSANTE SGANCIO SPAZZOLE
S8F		PUSH-BUTTON		DRUCKKNOPF	POUSSOIR	PULSADOR	PULSANTE EMERGENZA
VD1	SL23289	DIODE		DIODE	DIODE	DIODO	DIODO

VD2	SL23081	BRIDGE / JUMPER		BRÜCKE	PONT	PUENTE	PONTE A DIODI
VD3	SL23288	DIODE		DIODE	DIODE	DIODO	DIODO
XC1	SL23103	INSULATOR		ISOLIERER	ISOLATEUR	AISLADOR	SUPPORTO ISOLATO
XC2	SL23103	INSULATOR		ISOLIERER	ISOLATEUR	AISLADOR	SUPPORTO ISOLATO
	3103	INSULATOR		ISOLIERER	ISOLATEUR	AISLADOR	SUPPORTO ISOLATO
	0010K	CONNECTOR		VERBINDER	CONNECTEUR	CONECTOR	CONNETTORE ROSSO 50A
XC4	SL23414	CLAMP		KLEMME	BORNE	BORNE / SUJETADOR	MORSETTO