

AGRI

Way



AGRIWAY

Hydraulic Augers

MODEL T

Thank you for buying one of our products. We have used the greatest care to let you receive it in perfect condition. However, please do not hesitate to contact our customer assistance department if you have any problems or questions concerning the goods.

In this handbook the user will find all necessary information for a correct use of the equipment. We ask you to follow the instructions carefully and to keep the handbook with care in a proper and accessible place.

The content of this handbook may be modified without notice, in order to change and improve what has already been included..

We want to make clear that in order to simplify things, in some of the pictures the equipment is shown in a configuration different from the proper one.

1. Conformity Declaration

CE CONFORMITY DECLARATION MODEL

AGRIWAY SRL located in via dell'Industria n°9-9°-9b 60030 Monte Roberto
(AN) ITALY -declares on its own responsibility that

Name: AUGER
Model: T
Year of
construction:2012

CONFORMS WITH THE LEGISLATIVE REGULATIONS
FOLLOWING THE PROVISIONS OF **DIRECTIVE 98/37/CE**

It declares moreover that it is not allowed to bring the hydraulic auger into operation until the machine to which it will be connected is declared in conformity with the provisions of the Directive 98/37 CE, that means until the equipment to which this declaration refers and the final machine are an only unit.

SIGNATORY IDENTIFICATION

NAME: Michele Bifani / Managing director

Place and date:

2. Symbols

Here below you will find a key to some of the symbols used in this handbook (only to the main ones).



DANGER: this draws attention to problems or situations that can be dangerous for personal safety, including accidents or risk of death.

IMPORTANT: this draws attention to problems or situations which concern the efficiency of the machine, but which are not dangerous as regards personal safety.

On the machine you will find the following directions:



Danger:
IT IS FORBIDDEN TO CROSS OR TO STOP
WITHIN OPERATING RANGE OF THE
MACHINE.

Danger:

IT IS FORBIDDEN TO
FIX, ADJUST, OIL OR
CLEAN THE MACHINERY WHILE OPERATING.



Danger:
DO NOT REMOVE
SAFETY DEVICES AND
PROTECTION.

Read the handbook carefully before using the machine.

3. Precautions for general use

The operator is personally responsible for equipment security and operation .

Read carefully this handbook before switching on, using, maintaining or operating the machine.

This handbook aims at informing the operator, through pictures and text, about the main regulations to follow when using and maintaining the equipment.

To operate the machine safely you must:

- Check that the machine has not been damaged during transport; if so contact the manufacturer or the area sales representative immediately.
- Allow the machine only to be used by authorized, professionally skilled, adult staff.
- Keep non authorized personnel at a safe distance when the machine is operating.
- Clean the machines regularly, eliminating any foreign materials that could damage the functioning or harm the operator.
- Make sure before using the machine that all the safety devices are properly in place and in good condition. In case the protections are damaged, replace them immediately
- Make sure that all pipes and joints are connected properly.
- Work on machine maintenance only after reading the user's handbook and removing the ignition key from the machine.
- Any repairs must be only carried out by qualified staff using original spare parts; otherwise the user can be seriously harmed.
- Any check on pipes and joints must be carried out with proper safety protections (glasses, gloves and protective clothing to avoid skin contact)
- Do not leave the machine unattended in the working area.
- Do not wear clothing that can get entangled in moving gears like unsuitable clothes, scarves, gowns etc. We recommend the use of clothing in conformity with the normative of work safety, such as helmets, slide-safe shoes, anti-drumming headphones, safety glasses, protective gloves. Ask the employer about the normative of work safety in force and the safety devices in use.



4. Technical features

4.1. Machine description

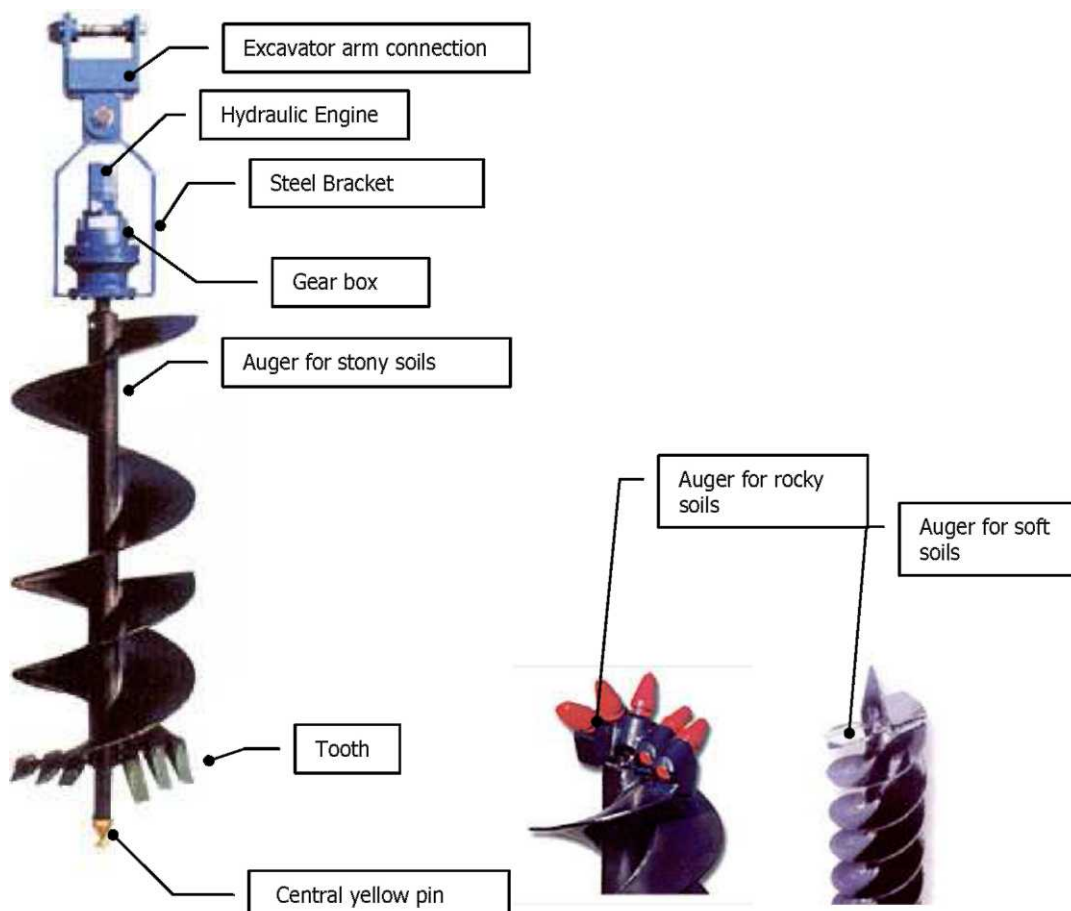
Hydraulic augers series T have been designed and constructed to bore the soil vertically. Their use is possible only if they are connected to the arm of an excavator. In this way the auger will be supplied by the hydraulic circuit of the machine itself.

The head of the augers can be customised with different kind of augers, for soft or hard soils, and with augers which differ in diameter and length.

4.2. Technical Information

Head	Weight	Oil Flow Rate min-max lts/minute	Shaft Dimensions (mm)	Kind of Engine	Max Work Pressure	Connection Pipes Min diameter
T1		12-40	Hex 50	ORBITAL	250	1/2 GAS R2
T2		20-50	Hex 50	ORBITAL	250	1/2 GAS R2

4.3. Machine main parts



4.4. Environmental conditions

The equipment must not be used at temperatures lower than -10°

The equipment must be used in places which conform with the hygiene and safety on work regulations in force.

- *Do not approach the machine with fire or similar.*
- *Do not use the machine in places which are at risk of explosions or fires.*

4.5. Improper uses

The use of the machine to bore kind of soils different from the ones recommended by the builder is not permitted.



- ***It is strictly forbidden to use the auger on vertical faces, cave ceilings or for underground works.***

5. Delivery

The auger is delivered on a pallet, completely assembled and properly fastened in a stable position. All the goods are checked carefully before being delivered to the customer.

When receiving the machine, please check that it is completely intact. Otherwise contact immediately our retailer.

Unload the machine with a fork-lift truck or transpallet of adequate load capacity, and put it down on a horizontal and stable surface.



The movement of the loads must be carried out in conformity with the regulations about safety on work in force.

*Do not
is used.*



waste the packing around, but keep to the regulations in force in the country where the machine

6.1. Preliminary Check

Before connecting the auger to the excavator arm, check the following:

1. Check that the weight capacity of the excavator is adequate to the auger you want to install, considering that it is possible to connect more than one auger (with different diameters and lengths) to the same machine head;
2. Check on the auger the state of the connection double pivot and of all the other parts concerning the connection to the excavator arm (see par. 4.3);
3. Remove any detritus from the screw and from other parts of the auger;
4. Check that the hydraulic system and the capacity of the excavator are adequate to the kind of head you want to install (see technical features par. 4.2);
5. Check the state of hydraulic pipes, joints and fast connections of the excavator (state and capacity);
6. Check whether the machine has got a simple or dual acting system.

In case the machine has got a simple acting system, contact a AGRIFWAY technician before connecting the auger.

IMPORTANT: Check that the soil you want to bore is compatible with the auger in use.

6.2. Auger-excavator arm connection

In case of head with a non- piston engine, do as follows:

- 1-approach the end of the excavator arm to the excavator arm connection on the auger (see par. 4.3)
- 2-remove the pin from the excavator arm connection
- 3-connect the connection on the auger to the excavator arm, inserting the special pin
- 4-connect all the hydraulic pipes



This procedure must be carried out by qualified staff

In case of head with **piston engine**, besides these 4 stages you must check the connection of the draining pipe. It must connect directly the piston engine to the tank of the machine and **the maximum pressure inside the piston engine must not exceed 2 bars.**



The auger must be only connected to machines which are equipped with the 'uomo presente (present operator)' device, to activate the controls

6.3. Switching on

The switching on must be carried out by an only operator. Make sure that no people are in the range of the machine.

The auger can be put in motion (rotary movement) only through the controls of the machine connected to it. Switch the engine of the machine on and wait for some minutes, with the engine and the hydraulic system on, for the oil to reach the right temperature and for air bubbles to be ejected from the hydraulic system. The auger can spin in both directions, but this is possible only if the machine has got a dual acting power-supply circuit. In case of simple acting circuit the auger can spin in one direction only.

6.4. Use

As the auger is connected to the excavator arm, its movements are transmitted by the arm itself, and it is always perfectly vertical, as it is equipped with a double pivot which ensures verticality of the borings. Set the auger where you want to bore the soil and then lower the excavator arm until the auger starts working on the soil. Guide the movement of the auger through the excavator arm, without pressing too much on it.

The auger can only work vertically and bore the soil downwards. Any other use is forbidden. When working pay particular attention to any oil leakages from the auger connections. Make sure that no obstacles nor hitches are on the working surface.

IMPORTANT: After any boring, stop the auger movement. Never let the auger spin when moving the machine.

6.5. Normal and emergency switching off

To stop the auger (in both normal and emergency condition) you must use the controls of the machine, to stop the oil from flowing to the head. Doing this, the auger will be immediately stopped.

You can find more detailed information about this stage in the excavator handbook.

8. Maintenance



1. Before any kind of maintenance, check or cleaning, the auger must be disconnected from the machine.
2. Before maintenance the auger must be cleaned with care.
3. Proper personal safety devices must be used during all the maintenance stages.



The auger does not need a particular maintenance; however it is good to follow the instructions in the table below.

For the first three points remember to refer to the User's and Maintenance Handbook of the gear box, here attached.

<i>Frequency</i>	<i>Operation</i>	<i>Procedure</i>	<i>In charge</i>
1. After the first 150 hours of work	Change of the oil in the gear box	Change the oil when the gear box is warm and wash the internal parts with special products before pouring in the new oil	Qualified staff
2. Every 500 hours of work or at least once a year	Change of the oil in the gear box		Qualified staff
3. Once a month	Check the level of the oil Visual level on the head	Add oil, if necessary	Qualified staff
4. At the end of the work	Clean the auger with care, removing all the incrustations accumulated during the activity		Operator
	Check the fast connections and the pipes condition		Qualified staff

Do not mix oils different in viscosity and brand. Do not mix mineral oils with synthetic oils.

Make sure that the whole hydraulic system is clean. This will prevent possible damages to the head.

8.1. Auger teeth replacement for mixed soils

Follow the instructions below, with the auger disconnected from the excavator arm, in horizontal position and properly fastened to prevent it from rolling.

1. Remove the pin (20)* and the rubber (19)* of the tooth you want to replace;
2. Remove the damaged tooth and insert the new one;
3. Insert rubber and pin to fix the tooth.

* see table enclosed with this Handbook, par. 11.2.

8.2. Auger replacement

Follow the instructions below, with the auger disconnected from the excavator arm, in horizontal position and properly fastened to prevent it from rolling.

1. Unscrew the nut (17)* of the auger and remove screw (28)* and washers (16)*;
2. Remove the auger, taking it off the hexagonal shaft of the gear box;
3. Insert the new auger and fix it with screw (28)*, washers (16)* and nut (17)*

* see table enclosed with this Handbook par. 11.2



Any load movement must be carried out in conformity with the safety on work regulations in force.

8.3. Lubricating oil

When checking the level and replacing the oil, refer to the relative handbook here enclosed. Here below you can find a table of the lubricants suggested:

LUBRICANT	-20 °C + 5 °C	+ 5 °C + 30 °C	+30 °C + 50 °C	+30 °C + 65 °C
ESSO	Spartan EP 100	Spartan EP 100	Spartan EP 320	Compressor oil LG150
AGIP	Blasia	100 blasia	150 blasia 320	Blasia S 220
ARAL	Degol BG 100	Degol BG 150	Degol BG 320	Degol BS 220
BPMACH	GRXP100	GRXP150	GRXP320	SGRXP220
CASTROL	Alpha SP 100	Alpha SP 150	Alpha SP 320	Alpha SN 6
ELF	Reductelf SP 100	Reductelf SP 150	Reductelf SP 320	Oritis 125 MS-SynthP30
CHEVRON	Non lead.gear	Non lead.gear 150		Non leaded gear 320
GULF		EP lubr. HD 150	EP lubr.HD 320	
I. P.	Mellana 100	Mellana 150	Mellana 320	Telesia oil 150
MOBIL		Mobilgear 629	Mobilgear 632	Glycoyle 22/30 SHC 630
SHELL	Omala oil 100	Omala oil 150	Omala oil 320	Tivela oil SA
TOTAL	Carter EP 100N	Carter EP 150	Carter EP 320 N	
KLUBER	Lamora 100	Lamora 150	Lamora 320	
ISO 3448	VG 100	VG 150	VG 320	VG 150-200

8.4. Storage instructions

If not used for a long time, the machine must be stored in a place at a proper temperature (not extreme) and must be protected from atmospheric conditions and possible collisions.

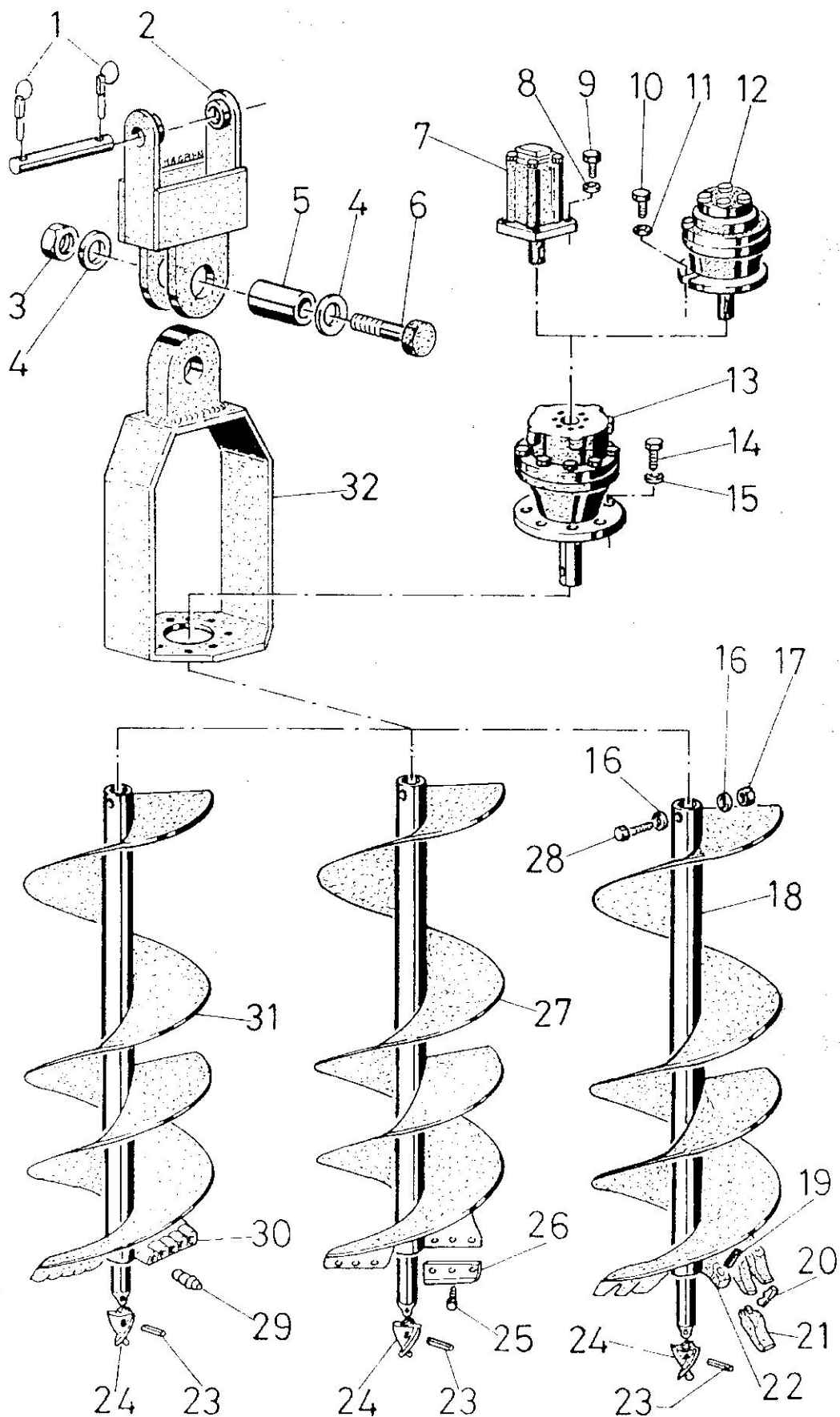
8.5. Problems and solutions

This paragraph aims at supplying the user with solutions to the most frequent problems (malfunctions) that may occur. Do not carry out maintenance or repairs that can affect the machine safety.

*The solutions marked with the letter **A** require the intervention of Our Technical Assistance. The solutions marked with the letter **P** require the intervention of Qualified Staff. The solutions marked with the letter **U** can be carried out by the user.*

PROBLEM	POSSIBLE CAUSE	SOLUTION	
The auger does not spin	It is not fed	See use and maintenance handbook of the main machine	P
	It does not drain	Disconnect the draining pipe and check whether the auger, with the loose pipe put directly into an empty and clean container, works. If so, the cause must be in the system. For that, consult the use and maintenance handbook of the main machine.	P
The auger spins in one direction only	The feeding hydraulic system is not a dual acting one	Check in the use and maintenance handbook of the main machine	P
The auger spins too fast/slowly	The oil flow capacity of the machine is not adequate to the head	Change head model	A
		Change excavator model	P
The auger works with reduced power	The pressure regulated by the pump valve of the excavator is too low	Consult the use and maintenance handbook of the machine	P
Oil leaks from the auger vent	Oil level too high	Lower oil level	P
	Possible wear on the hydraulic engine	Contact the assistance centres	A
Oil leaks from the auger head	Obstruction of the vent plug	Unscrew and clean the plug with care	P
	Damaged or worn seals	Replace the seals	P
Excessive noise	Internal fault	Contact the assistance centres	A

11.2. Auger spare parts table

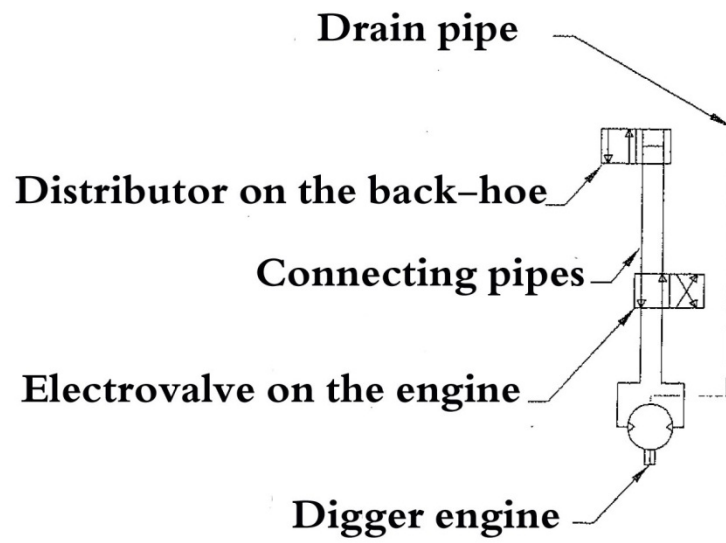


TRIVELLA IDRAULICA HYDRA - LISTA RICAMBI TAV. 01

HYDRA HYDRAULIC AUGER - SPARE PARTS TAB.01

CODICE <i>CODE</i>	DESCRIZIONE	<i>PARTS</i>
1	COPPIGLIA	<i>PIN</i>
2	ATTACCO FORCELLA	<i>EXCAVATOR ARM CONNECTION</i>
3	DADO M30	<i>NUT M30</i>
4	RONDELLA 30	<i>WASHER 30</i>
5	BOCCOLA	<i>AXLE BOX</i>
6	VITE M30	<i>SCREW M30</i>
7	MOTORE IDRAULICO	<i>HYDRAULIC ENGINE</i>
8	RONDELLA	<i>WASHER</i>
9	VITE	<i>SCREW</i>
10	VITE	<i>SCREW</i>
11	RONDELLA	<i>WASHER</i>
12	MOTORE A PISTONI	<i>PISTON ENGINE</i>
13	RIDUTTORE	<i>GEAR BOX</i>
14	VITE	<i>SCREW</i>
15	RONDELLA	<i>WASHER</i>
16	RONDELLA	<i>WASHER</i>
17	DADO	<i>NUT</i>
18	PUNTA PER TERRENI MISTI	<i>AUGER FOR STONY SOILS</i>
19	GOMMINO	<i>RUBBER</i>
20	SPINA	<i>PIN</i>
21	DENTE	<i>TOOTH</i>
22	SUPPORTO DENTE	<i>TOOTH BRACKET</i>
23	SPINA ELASTICA	<i>PIN</i>
24	PUNTA CENTRALE GIALLA (60/100MM)	<i>YELLOW PIN (60/100 MM)</i>
25	VITE	<i>SCREW</i>
26	COLTELLO	<i>CUTTER</i>
26 A	SUPPORTO COLTELLO	<i>CUTTER BRACKET</i>
27	PUNTA PER TERRENI SOFFICI	<i>AUGER FOR SOFT SOILS.</i>
28	VITE	<i>SCREW</i>
29	PICCO	<i>ROCKY SOILS TOOTH</i>
30	SUPPORTO PICCO	<i>AXLE BOX FOR ROCKY TOOTH</i>
31	PUNTA PER TERRENI ROCCIOSI	<i>AUGER FOR ROCKY SOILS</i>

SINGLE EFFET SYSTEM



DOUBLE ACTING SYSTEM

