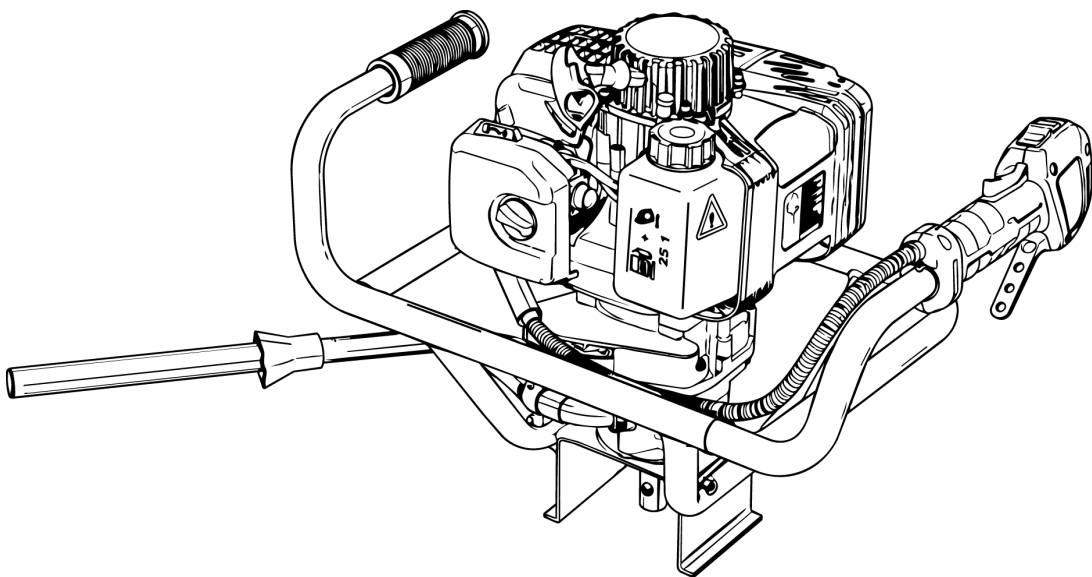




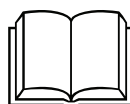
# LYNX<sup>®</sup>

## ELEKTRO MASCHINEN

### EAEm 5216 Earth Auger



CE



**IMPORTANT - WICHTIG - POMEMBNO - PAZWIVO**

Carefully read before use! Keep for looking up later!

Var Gebrauch sorgfältig lesen! Für späteres Nachschlagen aufbewahren!

Preberite navodila za uporabo, pred zagonom, in jih shranite za kasnejšo uporabo

Pazljivo prečitajte prije upotrebe! Spremite za kasnije korištenje!

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TRANSLATION OF THE ORIGINAL INSTRUCTIONS

1. INTRODUCTION

Thank you for choosing this Garland machine. We are sure that you will appreciate the quality of the machine and that the machine will help you to carry out its required functions for a long period of time. Remember that this machine comes with a large and expert after sales network to which you can take your machine for maintenance, repair or for purchase of spare parts and accessories.



**Attention! Read all the security warnings and the instruction manual. Non compliance could result in fire and/or a serious injury.** Before using the machine

read the manual carefully and especially that related to secure and correct start up.



Use this machine only for intended purposes, namely, making holes in the soil. Any other use could be dangerous and at your own risk.

Do not use this machine for other unintended purposes. For example: do not use this machine to make holes in rocks, cement or any other material that is not soil.



**Keep all the warning signs and the manual for future reference. If you sell the machine, remember to pass on the manual to the new owner.**

The expression switch to position “open” means offline and to position “close” means connected.

Remember user is the responsible of danger and accidents caused to other people or things. The manufacturer will not be liable for damages caused by an inadequate or incorrect use of the machine.

## 2. SAFETY RULES AND PRECAUTIONS

 To avoid incorrect manipulation of this machine, read the instruction manual before using the machine for the first time. All information included in this manual is relevant and important for your security as well as for the security of other people, animals and objects surrounding you. Should you have any doubts with respect to the information contained in this manual, please ask a specialist or visit your local dealer where you purchased the machine."

The next danger and precautions list include the most probably situations that can be happen while machine is being using. If you are in a non listed situation in this manual use your common sense to use the machine in the most safety way possible or, if you feel danger, don't use the machine.

### 2.1. USERS

This machine has been designed to be used by people over 18 and who have read and understood the instruction manual. This machine can not be used by persons (including children) with reduced physical, psychological or mental capabilities, or lack of experience or knowledge.

 Attention! Do not allow underage people to use the machine.

 Attention! Do not allow people who have not understood this manual clearly to use this machine.

Before using this machine, familiarise yourself with all the controls, security devices and how these are used. If you are not an expert user, we strongly recommend that you practice firstly with some simple chores preferably in the presence of an expert user.

If you are not a professional user, we strongly recommend that you start by performing some simple tasks and if possible, in front of a professional user.

The blade of this machine is sharp, operate it wrongly could be dangerous.

 Attention! Only lend this machine to people familiarised in the use of this type of machine. Always lend the machine with the instruction manual so that this new user reads it in detail and understands it. This machine is dangerous if used by untrained hands.

This machine is dangerous in hands of untrained users.

### 2.2. PERSONAL SECURITY

Be alert and vigilant when using this machine and use common sense.

Avoid inhaling exhaust fumes. This machine produces hazardous gases such as carbon monoxide than could cause dizziness, fainting or death.

Do not use this machine if tired or under the influence of drugs, alcohol or medicines. One moment of distraction could cause severe personal injuries.

Never operate the machine with defective guards, or without safety devices.

Do not modify the machine controls or regulations of speed motor.

Clear the work place of tools and keys prior to start up. If the machine comes into contact with a key or tool in the work place, this could be propelled causing personal damages.

Do not overstretch. Maintain your feet well placed on the floor and maintain a good equilibrium at all times. Always maintain proper foot support and run the machine only when standing on a fixed surface, safe and stable. Or unstable sliding surfaces may cause loss of balance or control of the machine.

Keep all parts of body away from the cutting elements when the machine is running. Before start up, make sure that the cutting element is not in contact with any object. One small lapse in attention can cause your clothes or any body part to be caught by the cutting device.

Grip the machine with your right hand on the rear handle and your left hand on the front handle. Hold this machine with hands reversed increases the risk of bodily injury and should not be done.

Be extremely careful when making holes in soil that has rocks, as these could be projected towards you or make you lose your balance.

If you are a novice user, we recommend you have a minimum practice on a flat surface

If the machine vibrates abnormally stop the engine, inspect the machine looking for the possible cause and repair. If you don't find the reason take your machine at your service.

Do not touch the exhaust of the machine with the engine running or just after it has been stopped. The exhaust of this machine reaches high temperatures during operation of the engine and kept some minutes after the stop thereof.

Do not leave the machine running unattended. If you must leave the machine unattended shut off the engine, wait until the cutting device stops and unplug the spark plug wire.

When transporting the machine, hold it from the handles, with the machine turned off and at a distance from your body.

An appropriate manipulation of the machine will reduce accidental contact with the cutting elements of the machine.

Do not attempt to remove cut material from the work area or the cutting device when it is in motion. Be sure the machine is off when you perform cleaning debris.

Do not handle the machine by the cutting device. The cutting device has sharp edges that can hurt yourself. Store the machine well away from children.

Never use the machine if the protections are defective or without all security devices in proper working order. Do not modify the machine controls or the engine speed.

#### 2.2.1.WORKING CLOTHES AND SECURITY EQUIPMENT

Dress adequately. Do not wear loose clothing or jewels. Maintain your hair, clothes and gloves well away from all moving parts.

When using this tool wear the next safety equipment:



- Security glasses or protective mask.



- Ear protection.

- Working gloves.



- Non slippery boots.

- Long trousers.

The use of additional working and security equipment will reduce the risk of personal injury.

The noise of the machine is uncomfortable. Always use ear protection. If you use this machine very often,

visit your doctor regularly to check up on your hearing capacity.

**⚠ Attention!** As you are working with ear protectors, you must pay more attention to visual warnings as you will hear less because of the ear protectors.

You must always carry:

- Tooling
- Signalling tape to limit work area.
- Mobile phone (for use in case of an emergency)

### 2.2.2. VIBRATIONS

The prolonged use of the machine, exposes the client to vibrations that in extreme cases and through many hours of use of the machine could cause the "white finger syndrome" also known as Raynaud phenomenon. This causes a reduction in the tact of the fingers and their capacity to regulate temperature generating a lack of sensibility. This sickness could in extreme cases cause problems with the nerve endings.

The exposure to the vibrations is the cause of the white finger syndrome. To minimise this effect as much as possible, follow the following recommendations:

- Always use gloves
- Always have your hands warm
- Ensure that the cutting device is always sharp.
- Take frequent breaks
- Always hold the machine tightly by the handles

If you detect any of the symptoms of the white finger syndrome, consult immediately with your doctor.

## **2.3. SECURITY IN THE WORKPLACE**

Do not work with the machine in areas with an explosive atmosphere or near inflammable liquids, gases or dust.

Do not start the machine in a closed area. The exhaust fumes and the vapours of the petrol all contain carbon monoxide and other dangerous chemical substances. In case of gas concentration due to insufficient ventilation, eliminate from the work area everything that impedes the correct flow of air and do not work in this area again until it is well ventilated and the gas concentration does not happen again.

The area included in a 15m radius around the machine must be considered risk zone and nobody should be there while the machine is working and, when necessary, a cord and warning signals must be used around the working area

Maintain children and passers-by well clear when working with the machine. Distractions can cause a lack of control.

When work is to be performed simultaneously by two or more persons, always check for the presence and location of others so as maintain a distance between each person sufficient to ensure safety.

## **2.4. SECURITY WHEN USING FUEL**



**IMPORTANT:** The fuel used is highly inflammable. If the fuel or the machine catch fire, fight the flames with a dry dust fire extinguisher.

Always avoid eye contact with the fuel and the oil. If petrol or oil were to come into contact with your eyes, clean these immediately with clean water. If your eyes are still irritated, visit the doctor immediately.



Do not refill the machine in a closed area. The petrol and oil vapours all contain dangerous chemical substances. In case of gas concentration due to insufficient ventilation, eliminate from the work area everything that impedes the correct flow of air and do not work in this area again until it is well ventilated and the gas concentration does not happen again.



Gasoline and oil are extremely flammable and explosive under certain conditions. Do not smoke while preparing or refueling. Do not approach any flame or hot element to the fuel. Do not smoke when handling fuel, when refilling or when working.

Do not refill fuel in areas where flames, sparks or hot sources are. Refill only in ventilated areas with engine off. Do not overfill the fuel to try to overfill the fuel tank. In case of fuel leakage, eliminate these before starting the machine, do not attempt to start the engine but move the machine away from the area of spillage and avoid creating any source of ignition until petrol vapours have dissipated.

Refill fuel before to start the machine. Do not unscrew the combustible tank cap while the engine is running or engine is hot.

Make sure the gas cap is properly closed while operating the machine. Be sure to properly close the gas cap after refueling.

Store fuel in a bottle or tank homologated and according to current regulations.

## **2.5. USE AND CARE OF THE MACHINE**

Use this machine for the purpose for which it was designed.

Any other use may be dangerous for the user to the machine and for people, animals and things you may have around.

Use this machine and its accessories according to the instructions provided and taking into account working conditions and work to be done.

The use of this machine for jobs different to those stipulated can cause danger. The manufacturer will not be responsible for damages provoked through an inadequate use of the machine.

Check that all security elements are installed and in good working condition.

Remember that it is the end user operating the machine who is responsible for any danger or damages caused to other people or things. The manufacturer will not in any case be held liable for damages caused by an incorrect use of this machine.

The sharp cutting tool is very dangerous. If instructions are not followed it will result in serious injury.

Keep all parts of your body away from the cutting tool during operation.

Do not force the machine over its capacity. Use the machine for the correct job. The use of the machine for its proper job, will ensure that you work better and more safely.

Keep the machine with a good maintenance. Ensure all moving parts are aligned and that no other parts are damaged or broken. If the machine is damaged, repair before use. Many breakages occur because machines are poorly maintained.

Maintain the cutting elements sharp and clean. Cutting elements that are clean and well sharpened, are easier to control and less likely to block.

Maintain the handles of these machines dry and clean. Oily or greasy handles are slippery and will cause loss of control of the machine.

Switch off the machine, unplug the spark plug and make sure the cutting tool is stopped before carrying out any adjustments to any part of the machine, refuelling, cleaning, transport or storage the machine. Such security measures reduce the risk of accidental start up.

If the machine starts vibrating in a strange way, stop it and examine it to find out the cause. If the motive is not clear, take the machine to your nearest service agent. Vibrations are always an indicator that the machine has a problem.

Stop the engine whenever you leave the machine.

Reduce the throttle setting during engine shut down and, if the engine is provided with a shut-off fuel valve, turn the fuel off when engine is stopped.

## **2.6. SERVICE**

Periodically take your machine for revision by a qualified after sales service and use only original spare parts.

This will guarantee that the machine is always in good working condition.

## **2.7. RESIDUAL RISK FACTORS**

Even when using the tool in the prescribed manner it is not possible to eliminate all residual risk factors.

The following hazards may arise in connection with the construction and the design of the tool:

- Risk of danger from projected debris towards your body.

 **WARNING!** This machine produces an electromagnetic field while in operation. This field may, in some circumstances, interfere with active or inactive medical devices or implants. To reduce the risk of death or serious injury, people with medical devices or implants should consult their physicians and the manufacturer of the device before using this machine.

### 3. WARNING SYMBOLS

Warning labels indicate required information for the use of the machine.



Warning and care.



Do not let people enter in the work area. This area will be of a diameter of 0,5 meters from the point in which you are working.



Use protective non skid boots with protective steel.



Use appropriate security gloves.



It is necessary to use eye and acoustic protection at any time.



It is necessary to read this manual carefully before using this machine.



**DANGER!** Do not bring feet or other body parts to the auger when the engine is running.



**ELECTRICAL HAZARD!** Make sure there are no electrical wires buried in the area to be drilled.



Caution! Hot Surface.



Sense of rotation.



Do not smoke or bring a flame to the combustible or the machine.

### 4. MACHINE SYMBOLS

In order to ensure safe operation and maintenance of the machine are the following symbols in the machine.



Fuel tank. Located in the combustible tank cap. Mix 2 stroke oil and gasoline.

Air positions:



Open = Normal operating position. Located in the top of the filter.



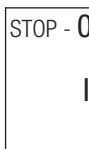
Abierto= Posición normal de funcionamiento. Situado en la tapa del filtro.



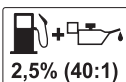
Position for starting the machine in cold. Located on the of air filter cover.



Position for starting the machine in cold. Located on the of air filter cover.



Positions start switch located on the right handle of the machine.  
"0" = Off (The machine don't work)  
"I" = On (The machine is ready to work)



Never use only fuel or fuel in a bad state. Mix unleaded fuel grade 95 and synthetic oil for 2 stroke engines to 2.5% (40:1).

**START** Starter handle.

## 5. MACHINE DESCRIPTION

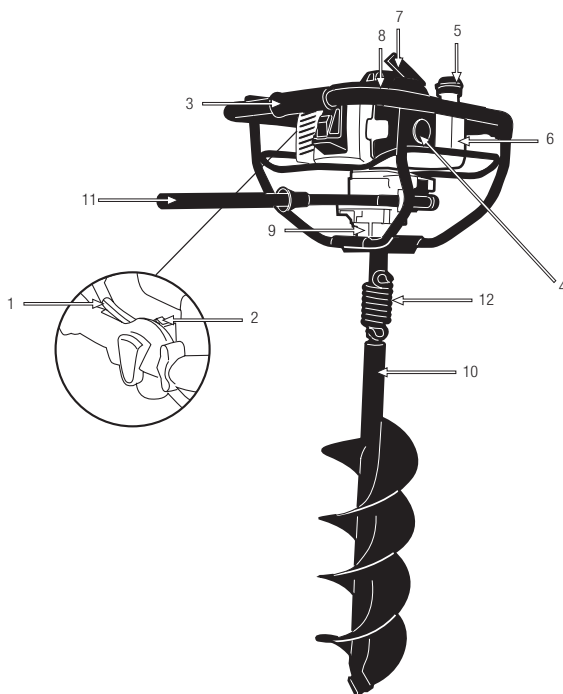
### 5.1. CONDITIONS OF USAGE

**⚠** Use this machine only for intended purposes, namely, making holes in the soil. Any other type of usage is dangerous and run at your own risk. Do not use the machine for other jobs. Do not use this machine for other unintended purposes. For example: do not use this machine to make holes in rocks, cement or any other material that is not soil.. The use of this machine for jobs for which it was not designed will cause dangerous situations. Use this machine outdoors, in dry atmospheres and in temperatures ranging from 5° C to 45° C.

Remember user is the responsible of danger and accidents caused to other people or things. The manufacturer will not be liable for damages caused by an inadequate or incorrect use of the machine.

### 5.2. Description of product

1. Throttle trigger
2. Switch starter
3. Handlebar
4. Air filter cover
5. Combustible tank cap
6. Petrol tank
7. Starter handle
8. Air clutch
9. Gear box
10. Drill 20 cm
11. Safety lever
12. Shock absorber impacts



The diagrams and pictograms herewith enclosed in this manual are a guide but not necessarily an exact copy of the actual machine.

5.3. TECHNICAL DATA

|                                                      |                      |                       |                        |
|------------------------------------------------------|----------------------|-----------------------|------------------------|
| Description                                          |                      |                       | Earth auger            |
| Brand                                                |                      |                       | LYNX Elektor Maschinen |
| Model                                                |                      |                       | EAEm 5216              |
| Engine                                               |                      |                       | 2 stroke               |
| Cylinder capacity (cm³)                              |                      |                       | 68                     |
| Maximum power (kW) (ISO 8893)                        |                      |                       | 1,9/8000               |
| Engine speed at idle speed (min⁻¹)                   |                      |                       | 2700-3000              |
| Maximum engine speed (min⁻¹)                         |                      |                       | 8800±300               |
| Petrol consumption at maximum power (ISO8893) (kg/h) |                      |                       | 1,56                   |
| Capacity of deposit (cm³)                            |                      |                       | 1,6                    |
| Cutting tool                                         | Double helical drill | Cutting diameter (cm) | 20                     |
|                                                      |                      | Length (cm)           | 80                     |
| Guaranteed sound power level (ISO 22868) LwA (dB(A)) |                      |                       | 115                    |
| Weight (kg)                                          |                      |                       | 11,2                   |

The technical characteristics can be changed without prior warning.

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## 6. START UP INSTRUCTIONS

### 6.1. LIST OF MATERIALS

This machine includes the following elements that you will find inside the box:

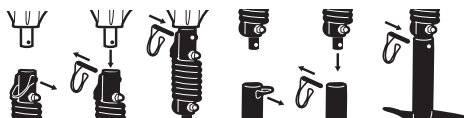
- Machine.
- Safety lever
- Shock absorber impacts
- Tools.
- Cutting accessories.
- Instruction manual.

Ensure that all elements listed above are included with the machine. Thanks to the quality control checks at the factory it is highly unlikely that any elements will be missing. If you were to find any element missing, do not use the machine until the defect has been repaired or the machine is complete.

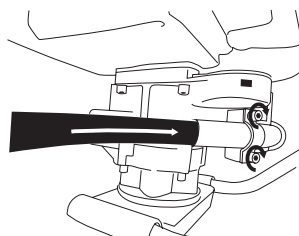
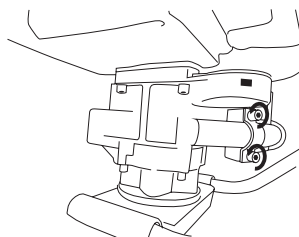
Using the machine with defective parts or without all the elements can cause severe personal damages.

### 6.2 MOUNTING THE DRILL

1. Lift the blocking bobby pin.
2. Remove the bobby pin.
3. Place the drill aligning the pin holes of the drill with the axis of the machine.
4. Insert the bobby pin.
5. Secure the blocking mechanism of the bobby pin.



### 6.3. MOUNTING THE SAFETY LEVER



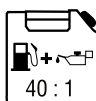
### 6.3. FUEL



**IMPORTANT:** The fuel used is highly inflammable. If the fuel or the machine catch fire, fight the flames with a dry dust fire extinguisher.



Do not smoke while preparing or refueling. Do not approach any flame or hot element to the fuel.



Use unleaded fuel of 95° and synthetic oil for 2 stroke engines. Motor Fuel: Mixture (Gasoline 40: Oil 1) 2.5%.

Mix gasoline and oil in a bottle homologated for this use. If you will mix more combustible just prepare the amount you will use the short term.

Do not use fuel that has been stored over two months. The fuel stored for long periods lose its characteristics making it harder to start the engine and giving poorer performance.

## **6.4. FILLING THE FUEL TANK:**

1. Choose an open area to perform this situation
2. Stay away from the area where you have made the preparation of the mixture.
3. Remove the combustible tank cap and fill with fuel.
4. Close tightly the fuel cap and remove all traces of fuel that have been spilled with a rag.

### **WARNINGS:**

- Always switch off the engine before refueling.
- Do not start the machine in a closed area. The exhaust fumes and the vapours of the petrol all contain carbon monoxide and other dangerous chemical substances. In case of gas concentration due to insufficient ventilation, eliminate from the work area everything that impedes the correct flow of air and do not work in this area again until it is well ventilated and the gas concentration does not happen again.
- Do not refill fuel in areas where flames, sparks or hot sources are. Refill only in ventilated areas with engine off. Do not overfill the fuel to try to overfill the fuel tank. In case of fuel leakage, eliminate these before starting the machine, do not attempt to start the engine but move the machine away from the area of spillage and avoid creating any source of ignition until petrol vapours have dissipated.
- Stay away at least 3 meters from the zone where you have refueled before started the machine.
- Refill fuel before to start the machine. Do not unscrew the combustible tank cap while the engine is running or engine is hot.
- Do not use fuel with ethanol or methanol because will damage the engine.

## **6.5. START UP**

### **6.5.1. CHECK POINTS BEFORE STARTING**

 Do not use this machine if it becomes damaged or wrongly regulated.

Use this machine for the purpose for which it was designed. Any other use may be dangerous for the user to the machine and for people, animals and things you may have around.

Verify that:

- The machine completely and look for loose parts (screws, nuts, etc.) and damages.
- There are not fuel leaks.
- Verify that the drill is not damaged.
- Check the air filter is clean. Clean the filter if necessary.

Press, repair or replace everything you need before using the machine.

Do not use attachments on this machine out of our recommendations because their use may cause serious injury to the user, the machine and the people, animals and things close to the machine.

Before starting the machine make sure that all moving parts of the machine are not in contact with any object.

 Place the machine on a flat, stable surface to start it.

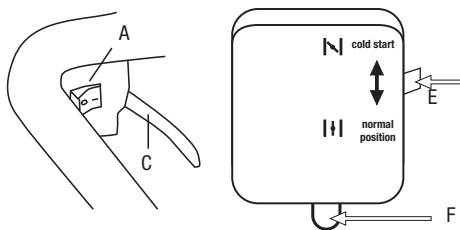
### **6.5.2. START UP IN COLD**

1. Move the air lever (E) to the cold start position. .
2. Place the switch (A) in the position "I" (start).
3. Press the primer several times (F) (7-10 times)

until petrol reaches the carburetor.

4. Pull the starter rope until you hear the engine start.
5. Move the air lever (E) to the normal **I+I** working position.
6. If the engine exploded but did not actually start running, pull the start rope again until it starts.

Allow the engine to warm up for approximately one minute before starting to work with the machine.



### 6.5.3. STARTING THE MACHINE FROM HOT

1. Move the switch (A) to the "I" position.
2. Move the lever (E) to the **I+I** position.
3. Pull the start rope until the machine starts.

If the machine does not start after pulling at the rope a few times, please refer to the cold start up section.

### 6.5.4. ENGINE STOPPAGE

1. Let go of the accelerator (C) and let the engine run at idle speed for a few seconds.
2. Stop the engine by displacing the switch from the (A) position to the "O" position (stoppage).

### 6.5.5. POINTS TO BE VERIFIED AFTER MACHINE STARTS

It is necessary to pay attention to possible loosening or overheating of parts of the machine. If you detect any anomalies stop immediately the machine and check it carefully.

In case of failure take the machine to the repair service. In any case you should continue working if you feel that the performance is not correct.

**⚠** Do not use the machine if it is damaged or incorrectly regulated.

### 6.5.5.1. CHECKING THE CLUTCH

After starting up and the engine is hot, the cutting tool must not be moved if the engine is idle. If the cutting tool turns with the engine running and without accelerating, it will be necessary to regulate the idling regime of the engine. To do this, turn the carburetor nut "T" until the engine stops.

If you are unable to regulate the idling regime to stop the cutting tool, because the engine stalls, please contact the customer service for help. The regulation of the screws (H) and (L) must only be carried out by an official technical servicer.

## 7. MACHINE USAGE

**⚠** Only use this machine for those jobs for which it has been designed. The use of this machine for other uses is dangerous and could cause damages to the user and/or the machine.



Do not start the machine in a closed area. The exhaust fumes, the vapours of the petrol and oil, all contain carbon monoxide and other dangerous chemical substances. In case of gas concentration due to insufficient ventilation, eliminate from the work area everything that impedes the correct flow of air and do not work in this area again until it is well ventilated and the gas concentration does not happen again.

Mow only at daylight or in good artificial light.  
Do not use this machine at night, with fog and with reduced visibility. Always make sure that you can clearly see all the working area.

Avoid operating the equipment in wet grass, where feasible. Take special care when using this machine in the rain or after rain because the ground is slippery and you can slip.

If you slip or fall stop accelerating and move the switch to "O" (Off).

Do not bring any cutting elements near when the machine is in use and the engine running.

Do not rely solely on the warning signs on the machine. Be always alert.

It is necessary to pay attention to possible loosening or overheating of parts of the machine.

If you detect any anomalies stop immediately the machine and check it carefully. In case of failure take the machine to the repair service.

In any case you should continue working if you feel that the performance is not correct.

Remember to always use the machine with clean hands and without petrol and oil.

Clean the work area and eliminate any obstacles that could cause accidents. Check the working area and remove any objects that could cause the cutting tool of the machine to get tangled on. Also remove any parts that the cutting tool could violently hit causing these to move in the direction of the user or other people and/or animals.

Do not allow any other person into the work area. All other people must be at least at a distance of 15 metres as it is a dangerous area.

Never leave this machine unattended.

It is imperative that the engine is turned off when carrying the machine from one working area to another.



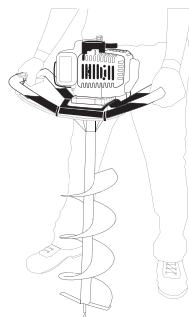
Never touch elements that can be hot during the start up or operating the machine, for example, the escape, sparks or high voltage cables.

Do not use accessories except those recommended by our company as otherwise the use of other non original accessories could cause severe damages to the end user, to passers-by and to the machine.

Always follow the safety rules stated in this manual.

## **7.1. FIXING THE MACHINE AND GUIDANCE**

Hold the machine with hands on the handles and with the right hand in such a position that you can action the controls (accelerator and security switch).



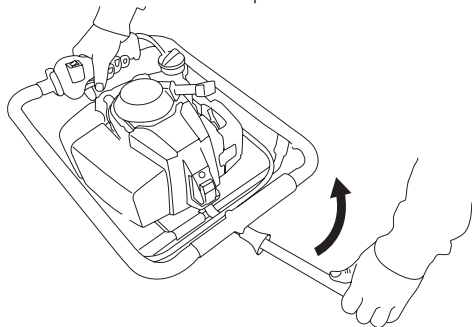
**⚠ Attention!** So as to reduce the risk of loss of control and possible damages (that could even be fatal) to the end user and/or those surrounding him, never use this machine single handedly.

**USE:**

**⚠ WARNING:** Wear eye and audible protection at all times.

Before starting the machine, place the correct drill for the diameter of the hole to be done.

Place the lever in the locked position



Once the drill has been placed, start the machine and put it in a vertical position, propping the point of the drill in the centre of the hole to be done.

Hold the machine strongly, slightly elevated and accelerate so that the drill begins to turn.

Accelerate the machine up to 70% so that the drill achieves the adequate speed.

Allow the machine to rest on the soil maintain the par speed of the engine.

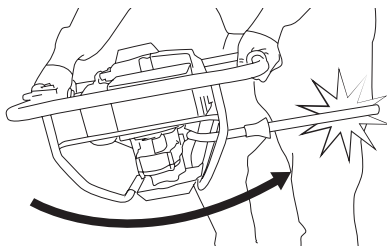
The drill will start to make the hole slowly aided by the weight of the machine. Do not push the machine downwards to try and finish the hole more quickly as you will force the working components of the machine and therefore you will cut its working life.

When the sufficient depth has been achieved, reduce the engine power and at the same time pull the machine slowly out of the hole.

When the drill has been fully removed from the soil, leave the engine idle and switch the machine off.

When the drill has stopped turning, leave the machine on the ground leaning on the drill and with the petrol deposit in a horizontal position.

If the drill is blocked and the engine starts to rotate, the unlocking of the transmission will hit the operator's leg unlocking the transmission avoiding possible injury to the user

**Tips:**

If the soil is soft you will be able to do the hole with any drill but if the soil is hard, we recommend you first do an initial hole with the drill with the smallest diameter, then carry on with the middle drill and finally with the drill with the biggest diameter.

## 8. MAINTENANCE AND SERVICE

Make periodic inspections of the machine to ensure that the machine is correct. For a thorough inspection take the machine to your dealer.

**⚠** It is necessary to stop the engine and to check that the cutting tool is stopped before cleaning or transporting the machine.



Before performing any maintenance or repair the machine make sure the engine is off and remove the spark plug cap. Perform all

maintenance of the machine when is set on a flat and clear surface.

Never try adjustments in the machine if it is running and / or attache to the user by the harness. Perform all maintenance of the machine when is set on a flat and clear surface.

Warning! Do not modify the machine or change the cutting elements. An inadequate use of these elements can cause serious personal damages and can even be fatal.

Use only suitable spares to get a proper performance for this machine. This replacement can be found on the official distributor of the machine. Using other sparks may causes risks, damage to the user or people around the machine.

Carburetor adjustment is complicated and should be done only by the service. Carburetor regulation is complicated and should only be carried out by a service agent.  
An incorrect regulation of the carburetor can cause damages to the engine and is sufficient motive to cancel the warranty.

The removal of security devices, an improper maintenance, the substitution of elements with non original elements can cause corporal damages.

**8.1. CARE AND MAINTENANCE AFTER USE**

Carry out the following operations when you have finished the work to ensure that the machine is kept in a perfect condition.

**8.1.1. GENERAL MAINTENANCE**

Keep clean the machine, especially the fuel tank area

and areas near the air filter.  
Maintain your machine clean and in good conditions.

Clean the covers with a humid towel. Never use petrol or other flammable products to clean the machine.

**8.2. PERIODIC MAINTENANCE**

Make periodic inspections of the machine to ensure that the machine is correct.

For a thorough inspection take the machine to your dealer.

Use only suitable spares to get a proper performance for this machine. This replacement can be found on the official distributor of the machine. Using other sparks may causes risks, damage to the user or people around the machine.

Carry out maintenance work based on the following table:

| Operation     | Each 2 petrol deposits | Each 10 petrol deposits | Once a year |
|---------------|------------------------|-------------------------|-------------|
| Air filter    | •                      |                         |             |
| Petrol filter |                        |                         | •           |
| Spark plug    |                        | •                       |             |
| Cylinder fins |                        | •                       |             |

**8.2.1. AIR FILTER**

The dirt in air filter will cause a reduction in machine performance.

Check and clean this element. If you notice damage or alterations replace it with a new filter.

To clean the filter:

1. Remove the protecting cover.
2. Remove the filter.
3. The dust accumulated on the outside of the filter can be removed using your hands or against a hard object.
4. Clean the filter with soapy water.
5. Rinse the filter with abundant water.
6. Allow the filter to dry.
7. Once dry, place two drops of oil (do not put too much oil as otherwise the machine will not start).
8. Reinstall the air filter.
9. Replace the protecting cover.

Note: The engine should never started without the air filter being in place.

### 8.2.2. FUEL FILTER

The fuel tank is equipped with a filter. It is at the end of the suction pipe and can be removed with the help of a hook of wire.

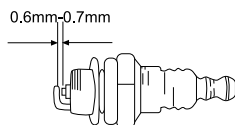
Check the fuel filter regularly. Do not allow dirty in the fuel tank to prevent the filter is dirty. A dirty filter will make it more difficult to start the engine and cause malfunctions or stop it.

Check fuel. If you see dirty replace.

If the inside of the fuel tank is dirty you can clean it with gasoline.

### 8.2.3. CHECK THE SPARK

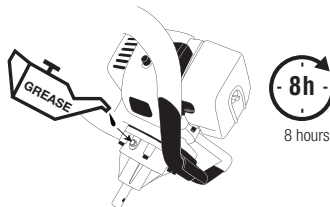
The most common problems when starting a machine are produced by a dirty spark plug or bad. Clean spark plug and check it regularly. Check the electrode gap is correct (0,6 - 0,7 mm).



### 8.2.4. VENTILATION OF AIR INTAKE TO ENGINE

Eliminate any dirt from the ventilation fins so that the engine is not damaged and to avoid a possible fire.

### 8.2.5 TO GREASE DE GEAR



9. TROUBLESHOOTING

Depending on the symptoms that you might observe, you can detect the probable cause and solve the problem:

If the machine does not start, check the engine compression and the spark from the spark plug.

Depending on the symptoms, we attach a table with probable causes and solutions:

| Cylinder compression normal | Spark plug works | Probable cause                                              | Corrective action                                         |
|-----------------------------|------------------|-------------------------------------------------------------|-----------------------------------------------------------|
| Yes                         | Yes              | No petrol in deposit                                        | Put petrol in deposit                                     |
|                             |                  | Petrol filter is dirty                                      | Clean the filter                                          |
|                             |                  | There is water in the petrol mix                            | Replace the petrol                                        |
|                             |                  | Petrol used is not adequate                                 | Change the petrol used                                    |
|                             |                  | The carburetor is dirty                                     | Take the machine to your nearest official service agent   |
| Yes                         | No               | Switch is in the Off position                               | Place the switch on the On or "I" position                |
|                             |                  | Spark plug is dirty                                         | Limpie la bujía                                           |
|                             |                  | The connecting pipe to the spark plug is not well connected | Connect the pipe correctly                                |
| Not enough compression      | Yes              | Spark plug is loose                                         | Tighten                                                   |
|                             |                  | Piston and segments are worn out                            | Take your machine to your nearest official service agent  |
|                             |                  | Cylinder deteriorated                                       | Take your machine to your nearest official service agent. |
| Engine does not turn        |                  | Engine burnt out                                            | Take your machine to your nearest service agent           |

If the engine does not work correctly (lacks power, no load speed not stable etc), we attach a series of symptoms, the probable cause and its solution:

| Symptom                                             | Probable cause                | Corrective action                                    |
|-----------------------------------------------------|-------------------------------|------------------------------------------------------|
| Machine vibrates                                    | Worn out segments             | Take the machine to official service agent           |
|                                                     | Worn out piston               | Take the machine to official service agent           |
|                                                     | Crankshaft looseness          | Take the machine to official service agent           |
|                                                     | Clutch looseness              | Take the machine to official service agent           |
| The engine heats up                                 | Too much uninterrupted use    | Pause every 10 minutes and allow the engine too cool |
|                                                     | Exhaust dirty                 | Take the machine to official service agent           |
|                                                     | Petrol is not adequate        | Substitute the petrol                                |
| The engine does not run smooth                      | Dirty carburetor              | Take the machine to official service agent           |
|                                                     | Air filter dirty              | Clean the filter                                     |
|                                                     | Petrol filter dirty           | Clean the filter                                     |
| The engine stops or does not hold the no load speed | Carburetor not well regulated | Take the machine to official service agent           |

Should you not be able to solve the problem, please take the machine to an official service agent.

To find out your nearest official after sales service agent please contact the shop where you bought the machine from.

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## 10. TRANSPORT

Never carry the machine while the engine is running. It is always necessary too to turn off the motor before transporting the machine between work locations.

Wait 5 minutes before switching off the motor to transport the machine.

If you are going to transport the machine in a vehicle, make sure you secure the machine safely to avoid the machine from sliding or falling over from side to side and use the blade guard installed

## 11. STORING

Wait 5 minutes after the turned off for it to cool before storing or transporting the machine. The exhaust pipe of the machine will remain hot after the motor shutdown. Do not ever store the machine closer to flammable material (dry grass, wood...) gas or fuel.

Store this machine out of the reach of childrens, where nobody is at risk, in a safe, clean, dry place where temperature is between 0°C and 45°C.

Before storing the machine follow the points on storing included in the maintenance chapter.

Always set the blade guard.

If you are going to store the machine in a closed place drain the fuel of the deposit because the steam could contact with a flame or a hot element and swollen. If the fuel tank has to be drained this should be done outdoors and following the recycling normative.

To reduce fire hazard, keep the engine, silencer and petrol tank area free of cutted material and grease.

## 12. RECYCLING OR DISPOSAL OF YOUR MACHINE

Protect the Environment. Recycle used oil by this machine and take it to a recycling or follow local recommendations. Do not empty into drains, soil, rivers, lakes or seas.

Dispose of your machine in an ecological manner. We should not get rid of the machine with our domestic rubbish. Its plastic and metal components can be reclassified and can be recycled.



Packing materials used for this machine are recyclable. Please do not dispose of these with your domestic litter. Dispose of these materials in sites officially placed for collection of these residues.

