User instructions

D546HXP

anova® HXP
HIGH EXTRA PRO

Millasur, SL.
Rúa Eduardo Pondal, nº 23 - Pol. Ind. Sigüeiro 15688 - Oroso -
A Coruña 981 696465 www.millasur.com

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ANOVA would like to congratulate you for having chosen one of our products and guarantees the assistance and cooperation that has always distinguished our brand over time.
This machine is designed to last many years and to be of great use if used in accordance with the instructions contained in the user manual. We therefore recommend that you read this instruction manual carefully and follow all our recommendations.

For more information or questions you can contact us through our web supports such as www.anovamaquinaria. com.

INFORMATION ABOUT THIS MANUAL

Please pay attention to the information provided in this manual and on the appliance for your safety and the safety of others.

- This manual contains instructions for use and maintenance.
- Take this manual with you when you go to work on the machine.
- The contents are correct at the time of printing. They reserve
- the rights to make alterations at any time without affecting our legal responsibilities.

- This manual is considered an integral part of the product and must remain with it in case of loan or resale. Ask your dealer
- for a new manual in case of loss or damage.

READ THIS MANUAL CAREFULLY BEFORE USING THE MACHINE

To ensure that your machine provides the best results, please read the usage and safety regulations carefully before using it.

OTHER WARNINGS:

Incorrect use could cause damage to the machine or other objects. Adaptation of the machine to new technical requirements could cause differences between the content of this manual and the product purchased.

Read and follow all instructions in this manual. Failure to follow these instructions could result in serious personal injury.

CONTENT

ABOUT THE MANUAL

Certain points in this manual contain important and significant information with different levels of relevance depending on their indicator of **NOTE** either **IMPORTANT**.

These points offer more information about what is indicated in the paragraph in which they are located, in order to avoid and prevent damage to the machine or the user.

ATTENTION: This indicator is the most important and failure to follow the information will increase the risk of serious injury or death to the operator.

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1.- KNOW THE MACHINE

1.1. Information and symbols

ATTENTION A brush cutter can be very dangerous if used incorrectly or carelessly, and can cause serious damage and injury to the user or others nearby. It is very important that you read and understand these instructions correctly.

Please read the instructions for use carefully and make sure you understand the contents before using the machine.

Always use:

- Protective helmet if there are risks of objects that may fall from elevated positions.

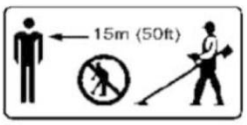
- Hearing and visual protection in accordance with current regulations.

- Approved protective gloves.

- Anti-slip and resistant protective boots.
Maximum speed of revolutions at shaft output, min-1

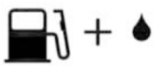
Machines equipped with cutting blades or discs can cause sudden, uncontrollable bouncing movements when they come into contact with strong or stable material. Cutting equipment can cause amputation of arms or legs in these cases. Always keep people and animals away from the machine at least 15 meters while it is working or operating. Pay attention to possible obstacles or material that hinders safe work with the machine.

Do not use saw blades.



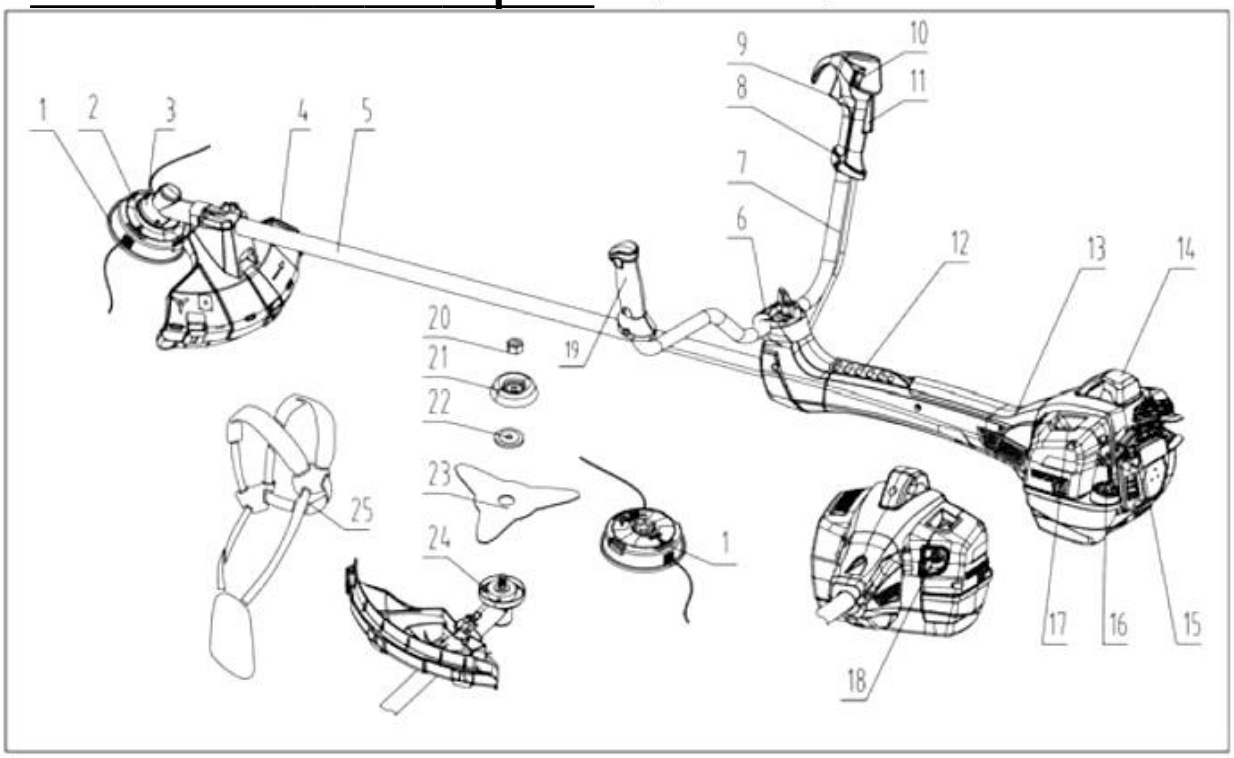
The user of the machine must take care, while working, that there are no people or animals that can come within 15 meters of the work area.

Guaranteed sound level A.



Fuel mixture tank.

1.2. Identification of the parties.



1. Cutter head
2. Upper head protection
3. Transmission elbow
4. Cut protection
5. Transmission bar
6. Handlebar clamp cover
7. Handlebar
8. Control knob
9. Throttle trigger
10. Kill switch
11. Throttle lock
12. Harness Attachment/Suspension control
13. Engine
14. Spark plug
15. Starter Handle
16. Fuel tank cap
17. Fuel primer
18. Ignition choke
19. Left handlebar
20. Tightening nut
21. Protection bowl
22. Clamping and locking washer
23. Cutting disc
24. Centering washer
25. Harness

2.- Security

2.1. Important

a. The machine is designed for the sole use of cutting grass or bushes.

b. The accessories to be used with this machine are the only ones recommended in the technical data chapter. The machine should not be used with non-approved cutting elements or other accessories not indicated.

c. Never use the machine if you are tired, sick, under the influence of alcohol or other substances, or other medications that may affect your vision, judgment, coordination or other basic abilities for your safety.

d. Equip clothing and personal protective equipment. Consult the section where the recommended equipment is specified.

e. Never use the machine if it has been modified or adapted for other uses for which it was not designed.

F. Do not use the machine if it is damaged or malfunctioning. Perform the appropriate checks, maintenance and services described in this manual. Some maintenance and repair measures must be carried out by qualified staff. See the maintenance section of this manual for more information.

g. All guards, covers and handlebars must be correctly positioned before starting to use the machine. Make sure the spark plug cover and ignition wire are undamaged to avoid damage from electrical shock.
h. The machine operator must ensure that there are no people or animals at least 15 meters away from the workplace.
i. Never allow children or people unfamiliar with it to handle or use the machine.
j. There may be local regulations that restrict the use of the machine depending on the age of the operator, consult the competent authorities.
k. Secure the machine well in transport to avoid fuel loss, damage or injury to any user.
l. Clean and maintain accordingly before storage, including cut guards.
m. Use appropriate cover on cutting elements during transport or storage to prevent damage.
n. Consult local regulations (Risk Prevention and Occupational Safety) and comply with the requirements indicated when handling this type of machines.
o. Inspect the machine daily before use to look for significant damage that could affect its operation.
p. Maintain a firm and balanced working position. Use the harness provided with the machine.
q. During long intervals of working with the machine, take frequent breaks to prevent possible damage due to vibration in the extremities, noise in the ears; and relax the working position.

ATTENTION: This machine produces an electromagnetic field with use. This field can interfere with active or passive medical implants. To reduce the risk of any fatal harm to the user, consultation with the appropriate medical specialist and the implant manufacturer regarding use is recommended.
The exhaust gases emitted by the machine contain carbon monoxide dangerous to health.

Starting and using the machine in a closed, unventilated area can cause carbon monoxide poisoning and death from asphyxiation.
Prolonged exposure to vibrations can cause damage and neurovascular disorders (Raynaud's syndrome or ghost hand), especially in people with blood circulation problems. Symptoms may appear in the hands, wrists, and fingers; and include loss of sensation, tremor, tingling, pain, discoloration or changes in the skin. These symptoms may be worse in conditions of high temperature and/or excessive tightness of clothing and anchors. If symptoms appear, the time of use of the machine must be reduced and you should consult your doctor.

2.2. Personal protection equipment

IMPORTANT: You must use approved protective clothing and equipment whenever you are using the machine. Protective equipment does not completely eliminate the risk of harm or injury, but it will reduce it if an accident occurs. Ask at the point of sale for appropriate material protection for use with the machine.

Use caution and remain alert for any possible signs of danger while using the machine. Always remove the acoustic protection after you have turned off the machine.

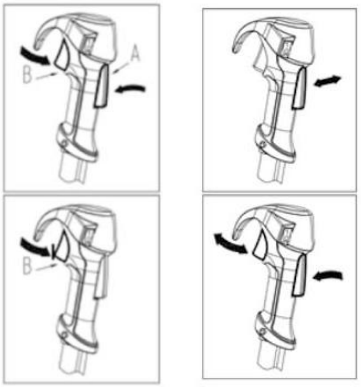
Helmet: Wear a protective helmet if there is a risk of falling objects. **Acoustic and visual protection**: Equip headphones that adequately reduce the level noise and always wear approved eye protection.

Gloves: They should be used
as required and always for handling cutting elements.
Footwear: equip sturdy boots with protective toe caps and non-slip soles. **Clothes**: Wear clothing made of appropriate resistant fabrics and avoid loose clothing that may get tangled in bushes or impede free movement with the machine. Always wear resistant and special pants for use with a brush cutter. Do not wear accessories such as jewelry, sandals and never use the machine barefoot. Tie your hair up and never leave it down.
First aid box- Always have an emergency wound kit nearby.

2.3. Machine protection equipment

ATTENTION: Never use the machine with damaged protective equipment. The machine's protective equipment must be carefully checked before each use. If any of its elements are damaged, it must be replaced immediately or repaired at the authorized service point.

2.3.1. Throttle lock



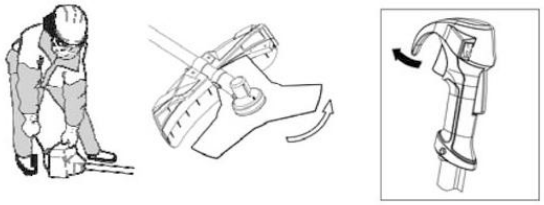
The throttle lock is designed to prevent the machine from starting accidentally. When you press the lock (A), it releases and releases the throttle trigger (B).

When you release the control, both lock and throttle triggers will return to their original position. This movement is controlled by two independent springs. This safety feature returns the engine speed to its idle level whenever the machine control is released.

Make sure the throttle control is set to idle level when the accelerator is released.
Press and verify that the throttle lock trigger returns to its original position each time you release it.

Check that the lock and throttle triggers move freely and that the return springs on both operate properly.

See the machine's starting instructions. Turn on the machine and



After a few moments of tempering, press the accelerator fully. Release the accelerator and check that the cutting instrument stops completely and remains static. If the cutting instrument continues to rotate at this point, the idle level must be checked and the carburetor adjusted accordingly.

2.3.2. Off switch

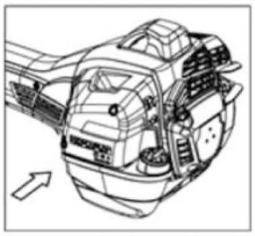
Press the switch to the “O” off position to turn off the engine. Turn on the machine and make sure the motor turns off when you turn on the switch.

2.3.3. Cutting guard

This protector serves the purpose of preventing certain debris from being thrown backwards towards the operator's position. It also protects the operator from possible contact with the cutting instrument. Check that this protector is not damaged or broken. Replace it if it has received a strong impact or is cracked or broken. Always use the protector recommended for the machine you are using.

ATTENTION: Never use a cutting element without the cutting guard properly installed. See the technical data chapter. Using an inappropriate, modified or damaged protector can cause very serious personal injury.

2.3.4. Anti-vibration system



Your machine is equipped with a special damping system that reduces and minimizes the effects of engine and transmission vibration.
If you use an inappropriate or poorly balanced cutting element, the effects of vibration will increase considerably.

The anti-vibration system reduces the vibrations transmitted by the motor and cutting unit to the operator's control handlebar. Regularly check the anti-vibration system and check for broken or worn shock absorbers.
Check that the anti-vibration system components are properly secured to the machine.

2.3.5. Quick harness release

The machine is equipped with a quick harness release system (mooring point on the anti-vibration system) for cases in which the machine may catch fire or another situation requires releasing the operator from the machine. Regularly check that the system is working properly before each use.

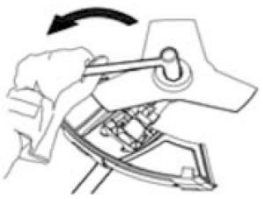
2.3.6. Exhaust

The exhaust is designed to reduce noise as much as possible and expel combustion gases away from the user. Never use a machine with a defective exhaust.

Regularly check that the exhaust is securely attached to the machine and has no damage.

ATTENTION: The interior of the exhaust contains elements that may be carcinogenic. Avoid contact with these elements in a damaged exhaust. Replace the exhaust if it shows any damage. Always keep in mind that the gases expelled are at a high temperature and may contain incandescent sparks that can cause fires. Never turn on the machine in closed areas and areas close to flammable materials such as fuel, etc.

2.3.7. Tightening nut



A tightening nut on the head is used to adjust certain cutting elements. This is tightened counterclockwise and against the direction of rotation of the head. To loosen it, you must do so in the direction of rotation of the cutting element (ATTENTION: the nut has a left-hand thread). Tighten the nut with the appropriate wrench provided with the machine.

The inner nylon of the tightening nut must offer adequate resistance so that the nut does not loosen on its own, but should allow for heading and threading by hand. The resistance level should be at least 1.5Nm. The tightening nut must be replaced after it has been put on about 20 times.

2.4. Cutting equipment

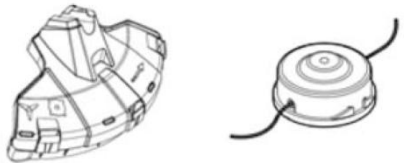
This section advises the user on how to choose the appropriate cutting equipment in order to:
- Reduce the risk of rebound
- Get maximum cutting performance
- Extend the life cycle of your cutting equipment

IMPORTANT: Only use cutting equipment with the protectors we recommend on the machine. Check the instructions for placing the cutting equipment to do it correctly.
Keep the blade cutting teeth properly sharp. Follow our recommendations. Use cutting blade protection for transport and storage.

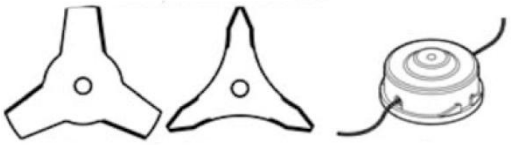
ATTENTION: Always turn off the machine before making any adjustments or changes to the cutting equipment. It can rotate even when the throttle has been fully released. Make sure the cutting element has stopped completely and disconnect the spark plug wire before working on it. Using an inappropriate cutting element or a poorly sharpened blade increases the risk of kickback movements in the machine.

2.4.1. Cutting element attachment

The steel discs/blades are indicated for use on grass or bushes.



A nylon head is used for trimming and mulching grass or grass.



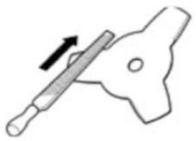
Only use cutting elements with appropriate protections for the machine. Never use other types of cutting elements such as pivoting chain heads or blades.

floating, as they can cause damage to the machine and serious injuries to the user.

Keep the cutting teeth of the blades properly sharpened. Follow the recommendations and use appropriate files. A poorly sharpened blade/disc increases the risk of accidents.

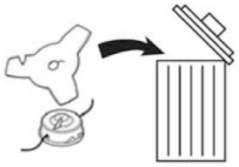
Check the cutting element regularly for damage or breakage. A damaged cutting element must be replaced.

2.4.2. Sharpening cutting blades



Sharpen the cutting discs/blades with a flat file. Sharpen all edges equally and at the same level to keep it balanced.

ATTENTION: Always remove any bent, cracked, broken or damaged disc/blade. Never attempt to straighten a bent disc for reuse. Only use original discs/blades according to the type required.



2.4.3. Nylon head

IMPORTANT: Always make sure that the cutting line is correct in size, balanced and properly tensioned with respect to the main reel, otherwise the machine will generate great vibration.

Use only recommended cutting line heads with the appropriate measurements.

Each thread head has been tested by the manufacturer to be used on different machines according to its power and characteristics. Check the head specifications, especially those of the semi-automatic type, and only use heads that fit the characteristics of the machine.

Smaller machines generally use smaller heads and vice versa. This is because the machine has to overcome with its power the tensioning resistance of the thread and the resistance of the material to be cut.

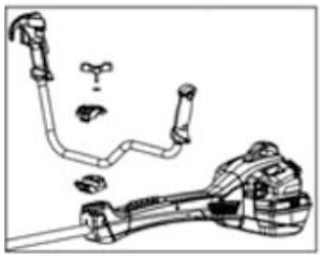
The length of the cutting line is very important. A longer thread requires greater machine power than a shorter thread of the same diameter.

Make sure the cutting guard for the cutting head is correct and undamaged. The guard itself is used to adjust and cut the cutting line to the correct size.

To increase the life of the nylon thread you can soak it in water for a couple of days. This will make the thread more resistant and will last longer at work.

3.- Operating instructions

3.1. Machine preparation



3.1.1 Handlebar assembly

Place the handlebar on the handlebar support base of the brush cutter bar. Then use the base cover and tightening screw to secure it properly.

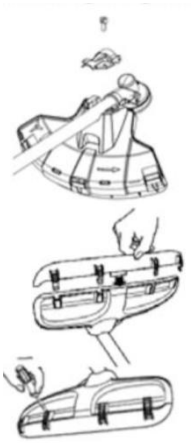
3.1.2. Attaching discs/blades and nylon heads

ATTENTION: When placing a cutting element in the transmission elbow, it is essential that the raised section of the centering washer fits perfectly in the central hole of the cutting element. If the cutting element is not adjusted correctly it can cause serious injuries and damage when it is first used.

Never use a cutting element without the recommended cutting guard. If an inappropriate or damaged protector is used, it can cause serious injuries. Wear gloves to avoid cuts when handling cutting elements or other components while making adjustments.

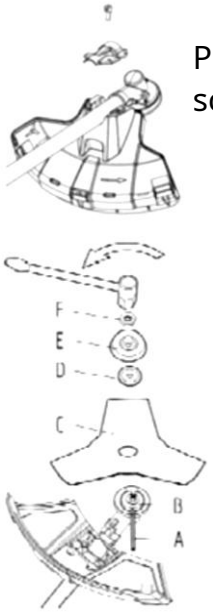
When using a cutting disc/blade, the machine must be equipped with the correct handlebar, cutting guard and harness.

3.1.3 Installing the cutting guard extension



The cutting guard extension must always be used with the nylon cutting head. It must be removed when a cutting disc/blade is used.
Place the protector on the transmission rod bracket and secure it with the screws.
Insert the shield extension guide into the slots on the shield and secure the tabs.
The shield extension can be easily removed with a screwdriver to release the tabs.

3.1.4. Installing the cutting guard for blades and disc/blade



Place the protector on the transmission rod bracket and secure it with the screws.

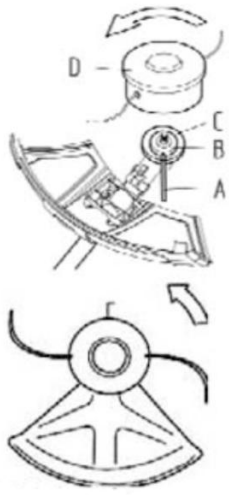
ATTENTION: Make sure the protector does not have the extension equipped.

Place the centering washer (B) on the transmission elbow output shaft.
Rotate the drive shaft until one of the holes in the top cover is aligned with one of the holes in the drive elbow. Insert the locking key (A) into the hole to lock the drive shaft/rod.

Place the disc/blade (C), clamping washer (D) and lower protection cup (E) on the output shaft of the transmission elbow.
Install the nut (F). The nut must be tightened to a pressure of 35-50Nm (3.5-5 kpm). Use the key provided with the machine. Keep the wrench as close to the cut guard as possible. To tighten the nut, turn the wrench in the opposite direction to the direction of rotation of the machine (left-hand thread).
Remove the locking key (A) after the disc/blade has been placed and properly tightened.

3.1.5. Attaching the cutting guard for nylon head and nylon head

Attach the appropriate cutting guard for each type of nylon head.



ATTENTION: Make sure the cut guard extension is equipped.

Place the protector on the transmission rod bracket and secure it with the screws.
Fit the centering washer (B) onto the transmission elbow output shaft.
Rotate the drive shaft until one of the holes in the top cover is aligned with one of the holes in the drive elbow.

Insert the locking key (A) into the hole to lock the drive shaft/rod.

Directly screw the nylon head (D) away from the direction of rotation of the machine.
Remove the locking key (A) after the head has been placed and properly tightened.
To remove the nylon head, do the operation in reverse order.

3.1.6. Harness adjustment

ATTENTION: When using the brush cutter you must always attach it securely to the harness. Otherwise you will be unable to control the machine safely and may cause serious injury to yourself or others. Never use a harness with a defective automatic release.

At the front there is an accessible quick release. Use it in cases where the machine starts to burn or in any other situation where you need to free yourself quickly from the machine and your harness.

A well-fitted and balanced harness makes the job easier and more comfortable. Adjust it to the best working position based on your size and type of work. Adjust the side straps so that the weight is evenly distributed across your back and both shoulders.

Adjust the shoulder strap until the cutting element is parallel to the ground in terms of height.

Let the cutting element rest gently on the ground. Adjust the harness attachment on the trimmer (suspension point) to balance the weight of the machine.

3.2. Fuel management

3.2.1. Fuel safety

Never start the machine:
- If fuel has been spilled on it. Wipe up spills and allow remaining fuel to evaporate.
- If you have been wet with fuel or your clothes contain flammable products. Change clothing and wash away any remaining fuel.
- If the machine has fuel leaks. Regularly check the fuel cap, tubes and other components of the fuel system for damage or leaks. Repair immediately before any use.

3.2.2. Transportation and storage

a. Transport and store the machine and its fuel so that there is no risk of leaks or fumes coming into contact with sparks or fire, for example, away from electrical machinery, electric motors, switches or other power systems.

b. When transporting or storing fuel, always do so in tanks approved for this purpose.

c. When storing the machine for long periods of time the fuel tank must be emptied. Consult your fuel dealer to learn how to properly handle excess fuel.

d. Carry out a deep cleaning of the machine and a technical inspection of the brushcutter before a long period of storage.

e. The cutting guard must always be installed when the machine is transported.

F. Properly secure the machine in transport.

g. In order to avoid spontaneous starts, the spark plug cap must be removed during long periods of storage if the machine is not under surveillance or preventive service has not been performed.

ATTENTION: Take special care when handling fuel. Always keep in mind the possibility of fire, explosion or inhalation of gases.

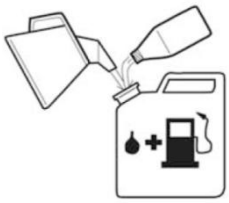
3.2.3. Fuel

The brush cutter is equipped with a 2-stroke combustion engine and must be fed with a mixture of gasoline fuel and lubrication oil for engines of this type.

It is very important to maintain the correct proportion in the fuel mixture and accurately measure the quantities in the mixture. When mixing small amounts of fuel, a small variation in the amounts of oil and gasoline can seriously affect the mixture and its quality.

ATTENTION: The fuel and the gases it gives off are highly flammable and can cause serious injuries by inhalation or contact with the skin. Be careful to avoid these situations when handling fuel and do so in ventilated areas.

3.2.4. Gasoline



Always use good quality gasoline with at least 90 octane (RON). If the machine has a catalytic converter, always use a rich mixture of unleaded gasoline and 2T oil. Leaded gasoline will destroy the catalyst.

Use low-emission gasoline if available from your dealer. The lowest recommended octane rating is 90 (RON). If you use gasoline Octanes lower than 90 can cause engine collapse and seizure. It is caused by the increase in temperature in the engine, which will cause serious damage.

If you work at high engine speeds and for longer periods of time, it is recommended to use a higher octane rating.

3.2.5. 2T mix oil

Use properly blended and formulated oil for two-stroke air-cooled engines.

Never use blend oil for water-cooled (TCW) engines. Never use 4-stroke engine oil.

A mixture that is too lean in oil or in excess in proportion will affect engine performance and reduce the life of the catalyst.

Mixing ratio: 1:40 (2.5%) for JASO FC or ISO EGD oils formulated for use in air-cooled two-stroke engines.

Liters of gasoline	2T oil in milliliters
	2.5% (1:40)
1	25
5	125
10	250
20	500

3.2.6. Preparation of the mixture

- Always mix fuel in an appropriate tank.

- Start filling with half of the gasoline you are going to use. Then add the corresponding amount of oil to the total gasoline. Mix this portion first in the tank. Finally add the rest of gasoline and mix the total again.

- Stir the fuel mixture vigorously before fill the machine tank.

- Do not make fuel mixtures for quantities greater than one month of use.
- If the machine is not going to be used for a while, the fuel tank must be emptied and cleaned.

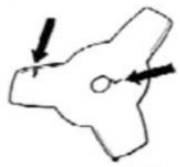
3.2.7. Supply fuel

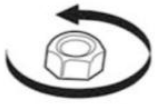
Take the following precautions in order to reduce the risk of fire:

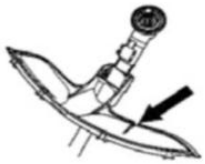
a. Do not smoke or place high temperature objects nearby.
b. Always turn off the machine before refilling the fuel tank.
c. Stop the engine and let it cool for a few minutes after a working time to refill.
d. When refueling the machine, loosen the tank cap slowly to gently release any excess internal pressure.
e. Carefully and securely tighten the cap once refilled.
F. Remove the machine from the refilling area and start the engine in a remote area.
g. Use a fuel tank with an automatic anti-spill valve.
h. Clean the area around the fuel cap. Dirt inside the fuel tank can affect the performance of the machine.
i. Make sure the fuel is well mixed by always stirring the mixture before any refill.

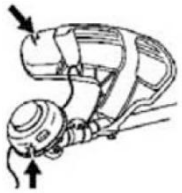
3.3. Use of the machine

3.3.1. Checking and starting









- Never use the machine without the cutting guard or with a damaged cutting guard.
- All covers must be correctly placed and in perfect condition before turning on the machine.
- Check the cutting disc/blade for breaks or defects. Have the cutting element properly sharpened and balanced. Discard any disc/ blade that is damaged, bent or poorly sharpened and replace it with a new one.
- Check the cutting element tightening washer to ensure that it is not broken or damaged. Replace if damaged.
- Check the cutting element tightening nut and that it is correctly tightened. Discard the tightening nut if it is damaged and replace it with a new one. The tightening force of the nut is about 35-50Nm.
- Check that the cutting guard is not damaged or broken. Replace the cutting guard if it has been exposed to strong impacts or is broken.
- Check that the nylon cutter head and cutting guard are not broken or damaged. Replace them if they are broken or damaged. Check the nylon line load for the job you are going to do and refill beforehand if necessary.

3.3.2. On and off

Before starting, the clutch cover and drive rod cover must be correctly positioned. Otherwise the clutch could become loose and cause serious damage.
Always remove the machine from the area where you have refueled before starting it.
Place the machine on a flat surface.
Make sure that the cutting element does not hit any object, person or animal.

Do not allow unauthorized persons in the work area, as there is a very significant risk of serious injury. The safety distance is 15 meters.

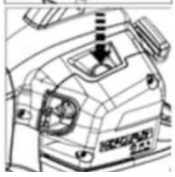
3.3.2.1. Cold start:

This type of start is required when the machine has more than 5 minutes off since the last job or after long periods of storage.

a) Power on: Press the power switch to the "I" position.

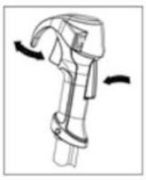
b) Choke: Place the choke lever in the closed position to enrich the fuel supply to the engine.

c) Fuel primer: Press the primer repeatedly until the fuel circulates in it. The primer does not need to be completely filled.



ATTENTION: The choke lever will return to its initial position after depressing the accelerator. If you move the choke lever to the initial position, the cutting element can start rotating immediately after ignition.

d) Secure the machine motor on the ground using your left leg (attention: do not use your foot!). Grasp the starter handle, gently pull the rope with your right hand until you feel some resistance (the moment when the starter pawls grip), and then pull quickly and forcefully on the rope. Never wrap the starter rope around your hand, use the puller only. Repeat the operation until explosion occurs and ignition.



e) Press the throttle gently and let the choke lever return to its initial position.

f) Repeat the operation of pulling the starter until the machine starts.

When the machine starts, accelerate gently for a few minutes so that the engine gains temperature before starting to work.

Do not pull the starter rope to its full extent and do not release the starter handle when the rope has been pulled. This may damage the machine.

Do not place any part of your body in the marked area. You may suffer burns or electric shock if the spark plug cover has been damaged. Always wear gloves. Do not use a machine with a damaged spark plug cover.

IMPORTANT: If the starter handle is operated repeatedly with the choke in the closed position, the engine may stall and become more difficult to start. If this occurs, repeat the hot start to remove excess fuel in the machine cylinder.

3.3.2.2. Hot start :

To start the machine after a short time since it has been turned off (no more than 5 min) follow the steps described above, ensuring that the choke has been pressed about 2-3 times.

3.3.2.3. Shutdown:

Turn off the machine by moving the control switch to the “O” position.

3.4. General work tips

IMPORTANT: This section describes basic work and safety techniques on brush cutters. If you encounter a situation where you are unsure how to deal with it while working, consult an expert. Contact your point of sale or specialized workshop.

Avoid using the machine in situations that exceed your control and safety capabilities. You must understand the difference between forestry (bush) clearing, grass cutting, and grass cutting before you start using the machine.

3.4.1. Basic safety rules:

- Look and observe around the work area:

To ensure that other people, animals or agents cannot affect the control of the machine.

To ensure that other people or animals cannot access the cutting area or come into contact with the cutting element or debris released from the cutting head.

Do not use the machine if you are not able to request help in the event of an accident.

- Inspect the work area. Remove loose objects such as stones, glass, wires, etc. which can be thrown when they come into contact with the cutting element or be wound on it.
- Do not use the machine in bad weather, such as thick fog, heavy rain, wind, severe cold, etc. Working in such situations will exhaust you faster and add risks to your safety such as frozen ground, reduced visibility, unpredictability in cutting, etc.
- Make sure you can move safely and your working position is stable. Check the work area for possible obstacles (roots, stones, branches, grooves, etc.) when making quick movements.

- Take special care when working on slopes.
- Always hold the machine with both hands. Place the machine on the right side of your body.
- Keep the cutting element lower than your waist.
- Turn off the machine before moving to another work area. Always equip the cut guard when transporting your machine.
- Never let go of the machine or abandon it with the engine running, unless it is a clear area.

ATTENTION: The operator or any other person should never move the cut material away while the engine is running or the cutting element is operating, as serious injury could result.
The transmission elbow can reach high temperatures during use.

the machine and must rest to cool. You could be seriously burned if you touch it. Monitor the waste emitted by the machine. Always wear appropriate eye protection. Rocks, trash, or other debris thrown by the machine can cause blindness or serious eye injury.

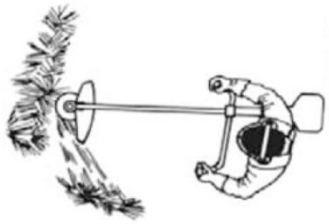
Never lean on the cutting guard.
Keep people outside of work at a distance while you work. Children, animals, observers or collaborators must be at least 15 meters away. Turn off the machine if anyone approaches and enters your work area. Never turn the machine backwards without first ensuring that no one is behind you within the safety area.

3.4.2. Basic work techniques

Always reduce the engine to idle after each operation. Long periods at full throttle without load can damage the engine.

ATTENTION: Branches or grass can get caught between the cutting guard and the cutting element. Always stop the machine before cleaning them. The brush cutter may bounce suddenly when it comes into contact with a fixed element and when you equip the cutting disc/blade. This rebound can have enough force to move the machine and its operator uncontrollably in any direction. Kickback usually occurs when the elements to be cut are difficult to see or there is a lot of weeds. Avoid cutting in the disc/blade area marked between the 12 and 3 o'clock positions (similar to a clock). Due to the speed of rotation of the cutting element, kickback may occur if you attempt to cut thick branches in this area of the blade.

3.4.3. Grass cutting with disc/blade



Grass discs/blades should not be used on wooden branches.
Can be used for tall or short grass.

Cutting grass must be carried out with a lateral and oscillating movement, where the movement from right to left is what must be used to make the cut, and the movement from left to right allows us to return to the starting point of the cut.

The cut must be made on the left side of the disc/blade (between the 8 and 12 o'clock positions).

If the blade is turned slightly to the left while cutting, the grass can be placed in a line, which will make it easier to collect rather than raking it. Try to work in a rhythmic way. Place your feet safely and firmly. Move forward after the return movement in the cut and regain a safe position before advancing with the cutting movement.

Allow the support cup on the cutter head to rub against the ground. It is designed to protect the cutting disc from hitting the ground while doing this type of work.

Reduce the risk of certain materials becoming entangled in the cutting element by following these instructions:
- Always work at full power, with the accelerator at full throttle when cutting.
- Avoid rubbing the cut material in the return movement.

3.4.4. Grass cutting with nylon head

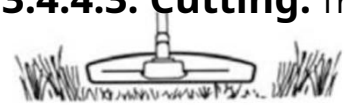
3.4.4.1. Grass Trimming: Place the cutting head right on the ground and with a slight

angle. The work must be done with the final tip of the nylon. Let the nylon work at its own pace. Do not put more line than necessary into the cutting area.
The nylon thread can easily clean grass and shoots against walls, walls, fences, trees and edges, although
It can also damage the skin of trees and fence posts. Reduce the risk of damaging trees and plants by reducing the length of the line to 10-12 cm and maintaining a low working speed.

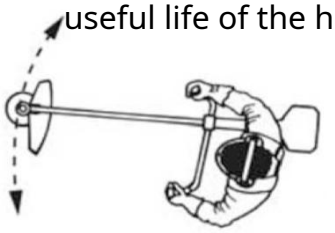
3.4.4.2. Grass clearing: This technique removes all unwanted vegetation in one certain area. Place the cutting head above the ground and move it in various directions. Let the end of the nylon hit the ground around trees, posts, walls, and so on. ATTENTION: this technique increases the consumption of nylon. The nylon will wear out sooner and faster, so it will need to be refilled more often if working against stones, bricks,

cement, metal fences, etc.; and it will have less consumption if it hits trees or wooden posts.
When trimming or cleaning with the nylon head, you can use the machine at a lower speed than full power, as this will make the nylon last longer and reduce wear on the cutting head.

3.4.4.3. Cutting: The nylon cutter head is ideal for cutting grass or grass where not



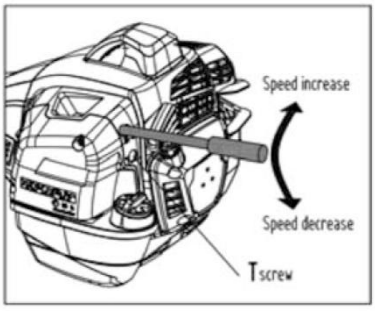
It can be accessed with a lawnmower. Keep the cutting line parallel to the ground while cutting. Avoid putting the cutting head completely close to the ground to avoid damaging the grass and the cutting head.
Do not let the cutting head hit the ground while working. This will prolong the useful life of the head and prevent wear.



3.4.4.4. Sweeping: The fan effect of the cutting line can be used for quick cleaning and sweeping. Place the line parallel to and above the area to be swept and move the machine in the direction you need.
Use the machine at full power for best results.

3.5. Maintenance

3.5.1. Carburetor



Idle speed adjustment (T)
Check that the air filter is clean. When the idle speed is correctly adjusted the cutting head should not rotate.

If idle adjustment is required, close (turn clockwise) the carburetor T screw with the engine running. Then open (turn counterclockwise) the same screw until the cutting element stops completely. This type of adjustment will be correct when the engine operates at a smooth speed in all positions and
There is a clear speed range until the cutting element begins to rotate.

ATTENTION: If the carburetor adjustment cannot be carried out, consult the appropriate technical service of your dealer. Do not use the machine until it is properly adjusted and repaired.

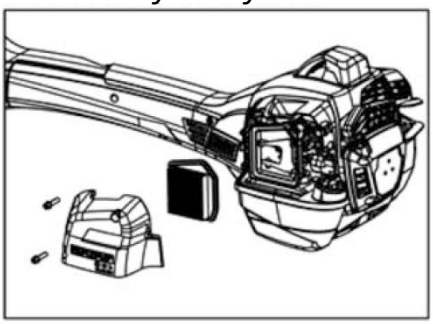
If it is necessary to adjust the L and/or H screw, consult your service center for advice.

3.5.2. Air filter

The air filter must be cleaned to remove dust and dirt in order to avoid:

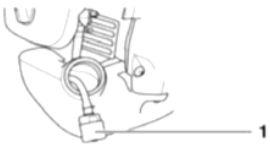
- incorrect operation of the carburetor.
- starting problems.
- loss of power in the engine.
- unnecessary wear on internal engine parts.
- excessive fuel consumption.

Clean the filter every 25 hours, or more frequently if conditions are excessively dusty.



Clean the air filter:
Remove the air filter cover and remove the filter. Wash it in warm soapy water. Let it dry properly before replacing it.
An air filter with many hours of use cannot be completely cleaned. It will have to be replaced with a new one from time to time. If the filter is damaged or broken it must be replaced.

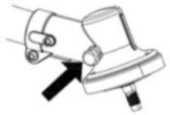
3.5.3. Fuel filter



If the machine experiences poor fuel delivery to the engine, check the fuel filter in the tank to see if it is clogged.

The fuel filter can be replaced from time to time to avoid blockages in the fuel supply.

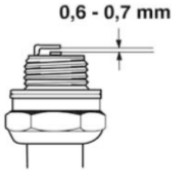
3.5.4. Transmission elbow



The transmission elbow is filled with just the right amount of grease from the factory. However, you should check before each use that the gear elbow is three-quarters full of grease.

The elbow lubrication grease should not be replaced unless that any major repairs have been made.

3.5.6. Spark plug



Spark plug performance is affected by the following factors:
- Incorrect carburetor adjustment.
- An incorrect fuel mixture (too much oil or wrong type of oil)
- A dirty air filter.

These factors cause deposits to build up on the spark plug electrodes, resulting in

which will reduce the performance and correct operation of the spark plug.

If the machine shows poor power, difficulty starting, or runs intermittently at idle: always check the spark plug before making any other adjustments. If the spark plug is dirty, clean it and check that the electrode has a gap of 0.6-0.7mm. The spark plug must be replaced after one month of use or sooner if necessary.

Recommended spark plug: Always use the recommended type of spark plug. If you use the wrong spark plug, the piston and cylinder may be damaged. Check that the spark plug is correctly seated in the cylinder.

3.6. Maintenance intervals

Intervals indicated for normal use. If the work interval is longer or the conditions are harsher, the maintenance intervals will be shorter		Before starting work	After each work day	After refueling	Weekly	Monthly	Annual	If there is a problem	If it is damaged	If required
Complete machine	Visual inspection	*		*						
	Clean		*							
Control handlebar	Check operation	*		*						
Air filter	Clean					*		*		*
	Replace								*	*
Fuel filter	Find out							*		
	Replace						*		*	*
Carburetor	Check idle	*		*						
	Reset									*
Spark plug	Adjust electrode spacing							*		
	Replace after 100 hours of use									
Cylinder gills	Clean					*				*
Accessible screws	Find out				*			*		
	Retighten									*
Anti-vibration	Check items	*						*		*
	Replace								*	
Safety stickers	Replace								*	
Exhaust	Clean							*		

3.7. Diagnosis and troubleshooting

What to do when...			
Source of the problem	Correction	Source of the problem	Correction
1. Engine won't start or won't stay on		**3. Engine runs intermittently and loses power**	
Incorrect ignition	Follow the instructions	Dirty spark plug or wrong distance of the electrodes	Check the spark plug (ch. 3.5.6)
Dirty spark plug or wrong distance of the electrodes	Check the spark plug (ch. 3.5.6)	Problems in carburetor	Contact your distributor
Air filter plugged	Clean or replace	**4. The engine produces too much smoke**	
Problems in carburetor	Contact your distributor	Incorrect mix of fuel (too much oil) or composition incorrect oil	Remove fuel and prepare a new mixture of fuel (ch. 3.2.6)
2. The engine starts but has no power		Problems in carburetor	Contact your distributor
Air filter plugged	Clean or replace	**5. The machine vibrates abnormally**	
Problems in carburetor	Contact your distributor	Damage to components or loose parts	Turn off the machine and disconnect the cable of spark plug. Inspect in search of damage. Check that there are no loose parts. Check that the cutting element is correctly tight. If you don't find anything strange, take the machine to your technical service.

4.- Technical characteristics

Technical data	**Unit**	**D546HXP**
Displacement	*DC*	46.5
Maximum power	*kW*	1.95
Weight (without fuel, harness, cutting equipment and protector)	*kg*	8.65
Maximum rotation speed	*min-1*	10,000 in grass / 10,500 in scrub
Shaft output speed	*min-1*	7750 in grass / 8150 in scrub
idle adjustment	*min-1*	3000 +/-400
Spark plug		CHAMPION RZ7C / NGK CMR7H / BOSCH USR7AC
Fuel mixture (gasoline: 2T oil)		40:1
Tank capacity	*ml*	1000
Operator noise level Measurement error/margin	*dB(A)*	98.2 3
Motor noise level Measurement error/margin	*dB(A)*	111.8 3
Guaranteed noise level	*dB(A)*	114
Vibration level - Right handlebar - Left handlebar Error/margin measurement	*m/s2*	 3.18 4.36 1.5

Cutting equipment recommended	Type	Cutting width (mm)	Blade thickness / nylon diameter (mm)	Diameter center hole disc/blade (mm)
Disc/blade	3 prongs, metal	255	1.6 or 3.0	25.4
Disc/blade	4 prongs, metal	255	1.4	25.4
Nylon head	Cutting wire, not metal	460	2.4	

5.- Certificates

DISTRIBUTION COMPANY

MILLASUR, SL
RUA EDUARDO PONDAL, Nº 23 PISIGÜEIRO
15688 OROSO - A CORUÑA
SPAIN

EC DECLARATION OF CONFORMITY

In compliance with the different CE directives, it is hereby confirmed that, due to its design and construction, and according to the CE mark printed by the manufacturer on it, the machine identified in this document complies with the relevant and fundamental health and safety requirements. of the aforementioned EC directives. This declaration validates the product to display the CE symbol.

In the event that the machine is modified and this modification is not approved by the manufacturer and communicated to the distributor, this declaration will lose its value and validity.

Machine name: **BRUSH CUTTER**

Model: **D546HXP**

Directive 2006/42/EC / Directive 2014/30/EU

Recognized and approved standard to which it complies:

seal
company

millasur
Rúa Eduardo Pondal, nº 23
Pol. Ind. Sigüeiro - 15688 Oroso – A Coruña
Tlf. 931 696465 / Fax. 981 690861

01/20/2017

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D546HXP