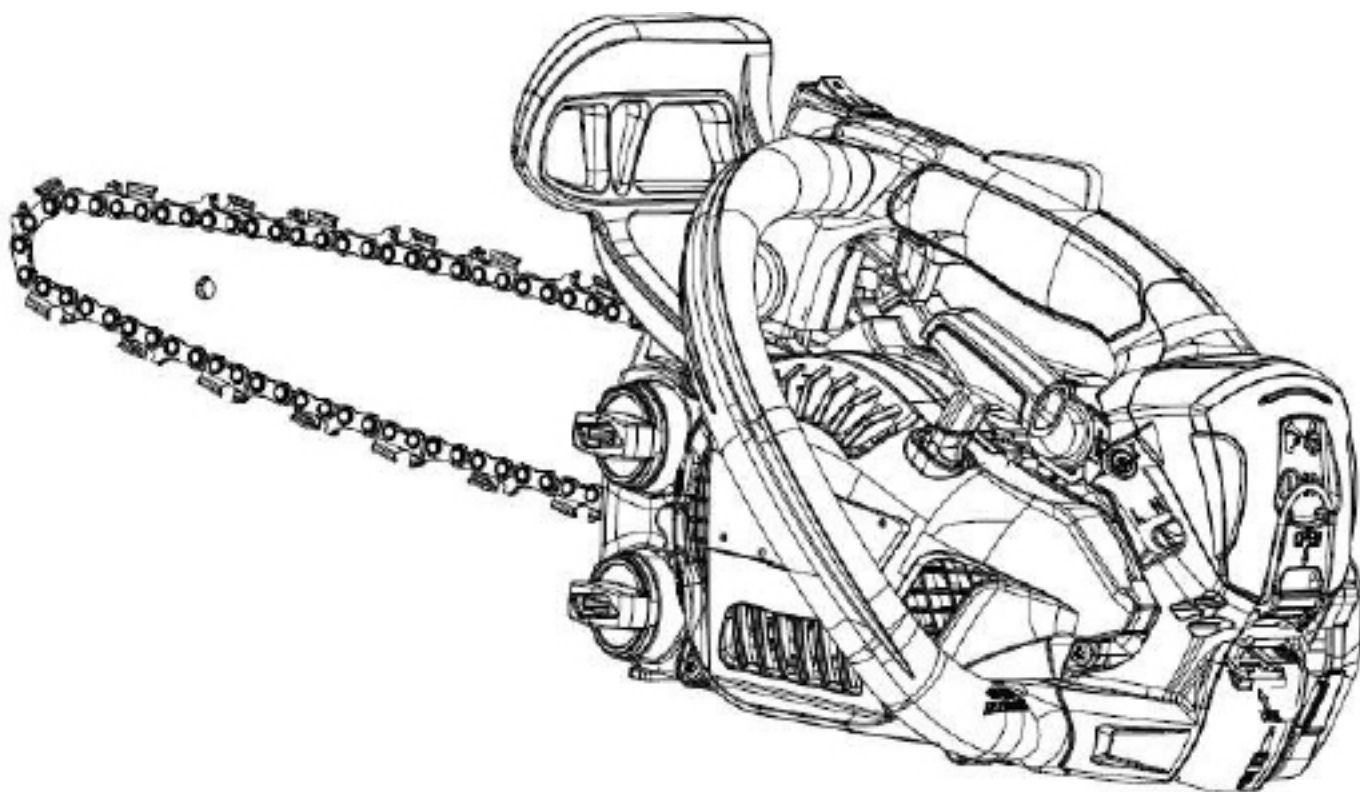




BLUEBIRD INDUSTRIES

Chainsaw Instructions for use CSP 270 T / CSP 270 TC



WARNING

- Before using our products, carefully read this manual to understand the correct use of the device. Keep this manual handy.
- This chainsaw is a special type specifically designed for pruning. It must only be used by a trained operator.

FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN PERSONAL INJURY.

-translation of the original instructions-

CONTENTS



SAFETY FIRST

The instructions contained in the warnings within this manual, marked with a symbol, concern critical points that must be considered to avoid possible serious personal injury. For this reason, please read all instructions carefully and follow them strictly.



WARNINGS IN THE MANUAL



WARNING

This mark indicates instructions that must be followed to prevent accidents that could cause serious physical injury or death.



IMPORTANT

This symbol indicates instructions that must be followed, or it may lead to mechanical failures, malfunctions, or damage.



NOTE

This mark indicates helpful tips or guidance for using the product.

1. Position of components.....	1
2. Symbols on the machine.....	2
3. For safe operation.....	4
4. Installation of the guide bar and saw chain.....	6
5. Fuel and chain oil.....	8
6. Operation.....	9
7. Sawing.....	12
8. Working with pruning chainsaws using rope and harness.....	14
9. Maintenance.....	17
10. Maintenance of the saw chain and guide bar	19
11. Storage	20
12. Disposal and environmental protection.....	20
13. Warranty	20
14. Troubleshooting guide.....	21
15. Specifications	22

CONTENTS



Warning! Read these notes before starting to work with the saw and keep them.

Read the instructions carefully. Familiarize yourself with the control elements so that you can use the device safely. Always keep these instructions for use together with the chainsaw.

Warning! Risk of hearing damage.

Under normal operating conditions, this device may expose the operator to a noise level equal to or greater than 80 dB(A).

Caution: Noise protection! Please observe local regulations when using the device.

Intended/unintended use:

The chainsaw is suitable for logs, squared timber, and for cutting branches, depending on the available cutting length. Only wooden materials can be worked.

During use, adequate personal protective equipment (PPE) is required according to the instructions for use. This product is intended for trained operators for pruning and dismantling tree canopies. The user/operator is responsible for any damage or injury resulting from improper application, not the manufacturer. Suitable saw chains and guide bar combinations may be used as indicated in the instructions exclusively when operating the machine. Part of the intended use also includes attention to safety references, as well as the instructions for use. Machine operators must be trained and become familiar with this product, and consider all possible hazards. In addition, the applicable rules for accident prevention must be observed in every detail. Other general rules in the fields of occupational medicine and safety must also be taken into consideration. Modifications made to the machine completely void manufacturer support, and any resulting damage will void the warranty. This device is designed for use in the home garden.

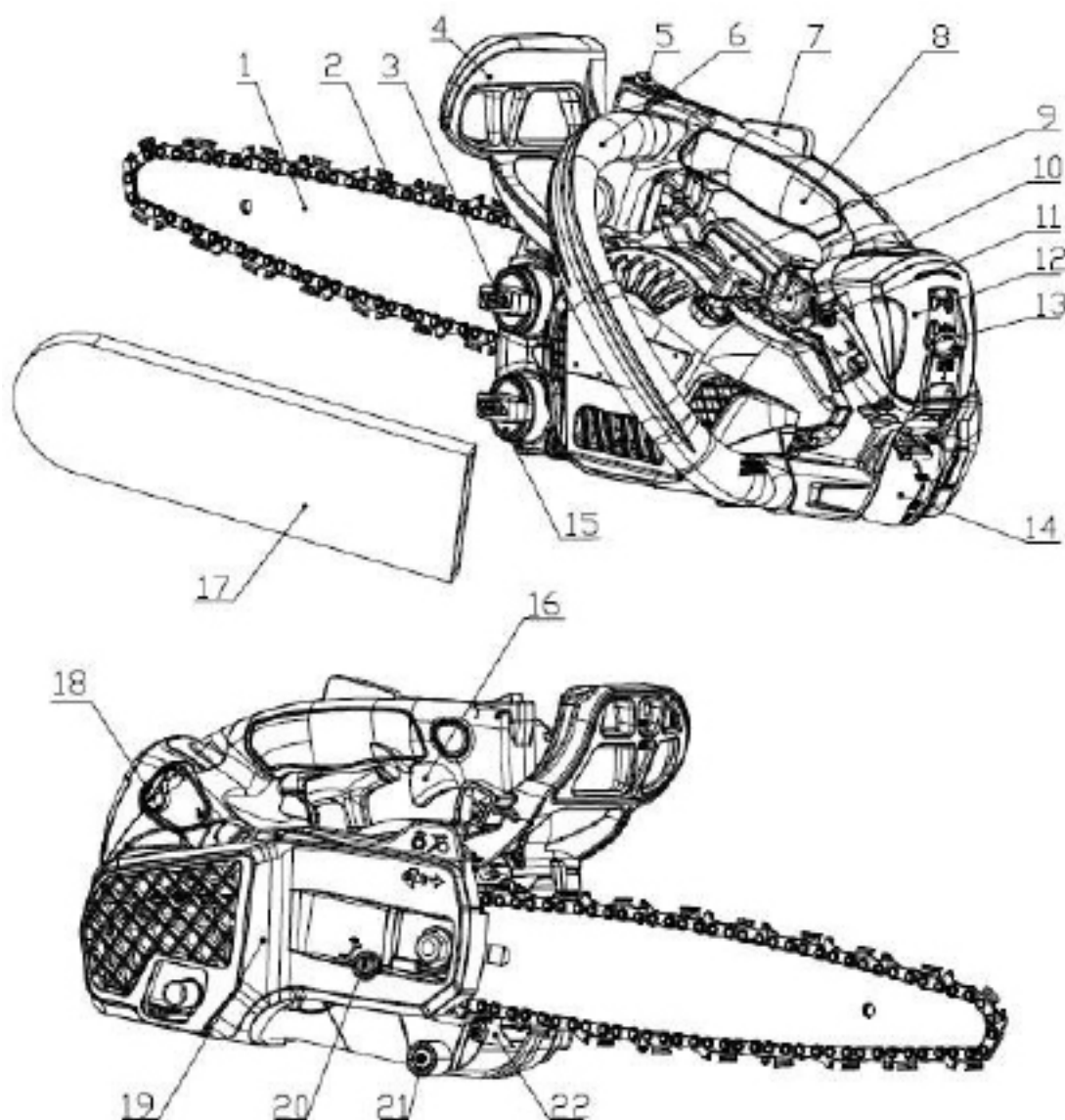
Notice on residual risks

Even when the tool is used correctly, there is always a certain residual risk that cannot be excluded. Depending on the type and material of the tool, the following potential hazards may occur:

- Contact with the unprotected cutting chain (cuts)
 - Sudden and unexpected movement of the cutting blade (cuts)
 - Ear damage if the prescribed ear protection is not used
 - Inhalation of poisonous particles, exhaust gases from the combustion engine
 - Contact of gasoline with the skin
 - Noise. A certain degree of machine noise is unavoidable. Noisy work along the route must be authorized and limited to specific periods. Observe rest periods, and it may be necessary to minimize working hours. For personal protection and for those working nearby, appropriate hearing protection must be worn;
 - Vibrations. Warning: The actual vibration emission value during use of the machine may differ from that specified in the manufacturer's manual. This may be caused by the following factors, which should be considered before or during each use:
 - If the machine is used correctly
 - The method of cutting the material and how it is properly processed.
 - The use and condition of the machine is in accordance with regulations
 - Condition of the cutting tool's sharpness
 - The handle grip is reassembled onto the optional vibration handles and attached to the machine body.
- If you notice an unpleasant sensation or discoloration of the skin on your hands during or after using the machine. Take an appropriate work break. Without adequate work breaks, hand-arm vibration syndrome may occur.

1. Position of the components

- | | |
|-----------------------|---------------------------|
| 1. Guide bar | 12. Air filter cover |
| 2. Saw chain | 13. Locking buckle |
| 3. Fuel tank cap | 14. Spark plug cover |
| 4. Front handle guard | 15. Oil tank cap |
| 5. Engine switch | 16. Trigger |
| 6. Front handle | 17. Guide bar cover |
| 7. Trigger lock | 18. Starter knob |
| 8. Rear handle | 19. Clutch cover |
| 9. Starter handle | 20. Chain tensioner screw |
| 10. Carburetor pump | 21. Chain catcher |
| 11. Idle screw | 22. Spike bumper |



2. Symbols on the machine



(1) Read, understand, and observe all warnings.



(2) Caution! Risk of kickback. Beware of chainsaw kickback and avoid contact with the tip of the bar.



(3) Do not operate the chainsaw with one hand.



(4) Always use the chainsaw with both hands.



(5) It is necessary to wear adequate protection for ears, eyes, and head.



(6) Read the operator's instruction manual before using this machine.



(7) Always wear safety and anti-vibration (AV) gloves when using the device. Always wear safety and non-slip boots when using the device. Always wear protective clothing for legs and forearms.



This chainsaw is only for operators trained in pruning. For safe operation and maintenance, the symbols are embossed on the machine. Based on these instructions, please be careful not to make mistakes.



(a). The "MIXED FUEL" refueling port
Position: near the fuel tank cap



(b). The chain oil refueling port
Position: near the oil cap



(c). Operate the engine switch by turning the switch knob toward the "O" mark; the engine stops immediately.
Position: in front of the upper side of the rear handle



(d). Operate the choke knob: pull out the choke knob, close the choke, press the choke knob, open the choke.
Position: Air filter cover and right rear side of the rear handle

2. Symbols on the machine



(e). The screw below the “H” mark is the high-speed mixture adjustment screw.
The screw below the “L” mark is the low-speed mixture adjustment screw.
The screw above the “T” mark is the idle speed adjustment screw.
Position: left rear handle



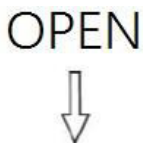
(f). Indicates the directions in which the chain brake is released (white arrow) and engaged (black arrow).
Position: Front part of the chain cover



(g). Shows the mounting direction of the saw chain.
Position: Front part of the chain cover



(h). The door at the oil bubble position.
Position: left rear handle



(i). The door to open the air filter cover
Position: Near the air filter cover



(j). The door to be cleaned every ten hours
Position: Center of the air filter cover



(k). The door for the spark plug position
Position: Near the air filter cover



(l). Guaranteed sound power level for this device



(m). Carburetor anti-freeze mechanism
Anti-freeze mode

Normal operating mode

3. For safe operation

1. Before using our products, carefully read this manual to understand the correct use of the device.
2. Never operate a chainsaw when you are tired, ill, or upset, or under the influence of medication that may cause drowsiness, or if you are under the influence of alcohol or drugs.
3. Use the chainsaw only in well-ventilated areas. Never start or operate the engine inside a room or enclosed building. Exhaust fumes contain dangerous carbon monoxide.
4. Never cut in strong wind, bad weather, poor visibility, or in very high or low temperatures. Always check the tree to ensure there are no dead branches that could fall during felling.
5. Wear safety and non-slip footwear, close-fitting clothing, and protective equipment for eyes, ears, and head. Use anti-vibration (AV) gloves.

A condition called Raynaud's phenomenon, which affects the fingers of some individuals, is believed to occur with exposure to vibration and cold, causing loss of color and numbness in the fingers. The following precautions are strongly recommended because the minimum exposure that could trigger the disorder is unknown.

Keep your body warm, especially your head, neck, feet, ankles, hands, and wrists. Maintain good blood circulation by performing vigorous arm exercises during frequent work breaks and by avoiding smoking. Keep the saw chain sharp and the saw, including the AV system, well maintained. A dull chain will increase cutting time, and the pressure of a dull chain through wood will increase the vibrations transmitted to the hands. A saw with loose components or with damaged or worn AV buffers will also tend to have higher vibration levels. Limit operating hours.

All of the above precautions do not guarantee that you will not suffer from white finger disease or carpal tunnel syndrome. Therefore, continuous and regular users should carefully monitor the condition of their fingers. If any of the above symptoms appear, consult a physician immediately.
6. Always be careful when handling fuel. Clean up all spills and then move the chainsaw at least three (3) meters from the fueling point before starting the engine.
7. Eliminate all sources of sparks or flames (e.g., smoking, open flames, or work that may produce sparks) in areas where fuel is mixed, poured, or stored. Do not smoke while handling fuel or operating the chainsaw.
8. Do not allow other people to be near the chainsaw when starting the engine or cutting wood. Keep bystanders and animals out of the work area. Children, pets, and passersby must be at least 10 m away when starting or operating the chainsaw.
9. Never start cutting until you have a clear work area, a safe work area, and a planned escape route from the falling tree.
10. Always hold the chainsaw firmly with both hands when the engine is running. Use a firm grip with your thumb and fingers encircling the chainsaw handles.
11. Keep all parts of your body away from the chainsaw chain when the engine is running. Before starting the engine, make sure the chainsaw chain is not touching anything.
12. Always carry the chainsaw with the engine off, the guide bar and chain facing to the rear, and the muffler away from your body.
13. Always check the chainsaw before each use to ensure there are no worn, loose, or replaced parts. Never use a chainsaw that is damaged, improperly adjusted, or not fully and securely assembled. Make sure the chainsaw chain stops moving when the trigger is released.
14. All chainsaw maintenance work, except for those listed in the user manual, must be performed by qualified personnel. (e.g., if improper tools are used to remove the flywheel, or if an improper tool is used to hold the flywheel while removing the clutch, structural damage to the flywheel may occur, which could subsequently cause it to disintegrate).
15. Always turn off the engine before putting it out of service.
16. Use extreme caution when cutting brush and small saplings, as thin material can catch the saw chain and be thrown toward you or pull you off balance.
17. When cutting a branch that is under tension, be alert for kickback so you are not struck when the tension in the wood fibers is released.
18. Keep the handles dry, clean, and free of oil or fuel mixture.
19. Protect yourself from kickback. Kickback is the upward movement of the guide bar that occurs when the saw chain at the tip of the guide bar comes into contact with an object. Kickback can lead to a dangerous loss of control of the chainsaw.
20. When transporting the chainsaw, make sure the guide bar cover is in the correct position.

3. For safe operation

Place the machine securely and tighten the oil and fuel tank caps during transport to prevent fuel leaks, damage, or injury.

SAFETY PRECAUTIONS AGAINST KICKBACK FOR CHAINSAW USERS

WARNING



Kickback can occur when the nose or tip of the guide bar touches an object, or when the wood closes and pinches the saw chain in the cut. Contact with the tip can, in some cases, cause a lightning-fast kickback, throwing the guide bar upward and backward toward the operator. Pinching the saw chain along the top of the guide bar can quickly push the guide bar backward toward the operator. Both of these reactions can cause loss of control of the saw, with the risk of serious personal injury.

- Do not rely solely on the safety devices built into your saw. As chainsaw users, you must take various measures to keep cutting operations free from accidents or injuries.

(1) With a basic understanding of kickback, you can reduce or eliminate the element of surprise. Sudden surprise contributes to accidents.



(2) Maintain a good grip on the chainsaw with both hands, just as with a conventional chainsaw. Right hand on the rear handle and left hand on the front handle, when the engine is running. Use a firm grip with your thumb and fingers encircling the chainsaw handles. A firm grip will help reduce kickback and maintain control of the chainsaw. Do not leave the chainsaw unattended.



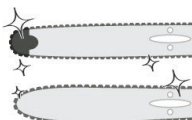
(3) Make sure the cutting area is free of obstacles. Do not allow the tip of the guide bar to touch a log, branch, or any other obstruction that could be struck while using the chainsaw.



(4) Cut at high engine speeds.

(5) Do not exceed the limit and do not cut above shoulder height.

(6) Follow the sharpening and maintenance instructions for the chainsaw chain provided by the manufacturer.



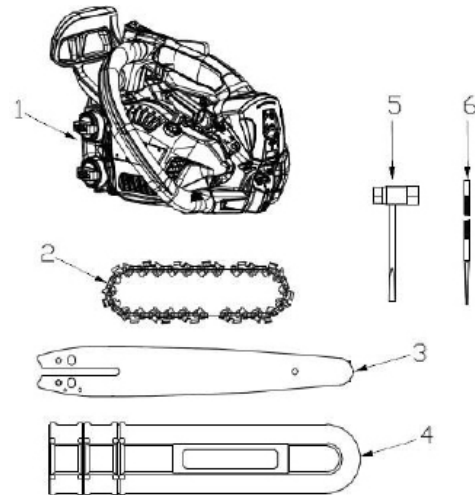
(7) Use only replacement bars and chains specified by the manufacturer or equivalent.

4. Installation of the guide bar and chain

The standard product package contains the following components.

- (1) Power unit
- (2) Saw chain
- (3) Guide bar
- (4) Guide bar cover
- (5) Cap wrench
- (6) File

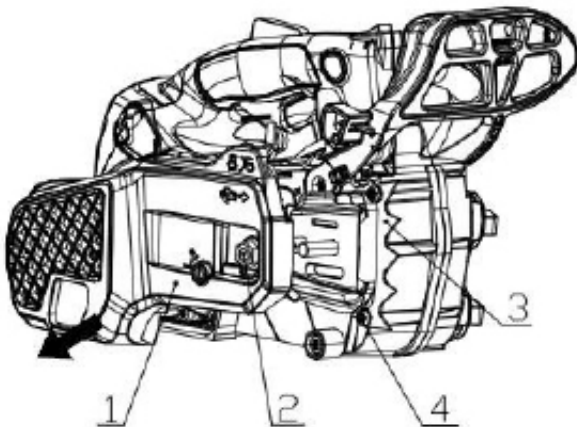
Open the box and install the guide bar and saw chain onto the power unit as follows.



WARNING

The saw chain has very sharp edges. Use protective gloves for safety.

1. Pull the guard toward the front handle to check that the chain brake is not engaged.
2. Loosen one nut and remove the chain cover. Attach the spike bumper with two screws to the front of the chainsaw (Figure 1).

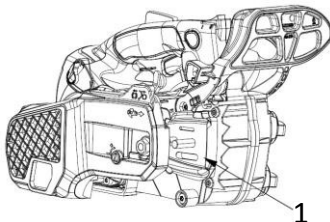


1. Clutch cover
2. Nut
3. Spike bumper
4. Self-tapping screw

IMPORTANT

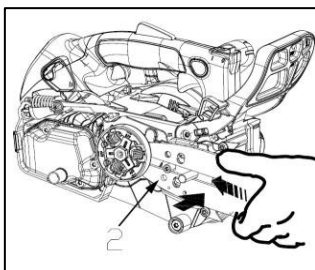
The spike bumper belongs to the chainsaw. It must be screwed onto the chainsaw before initial use.

3. Remove the spacer from the chainsaw.



1. Spacer

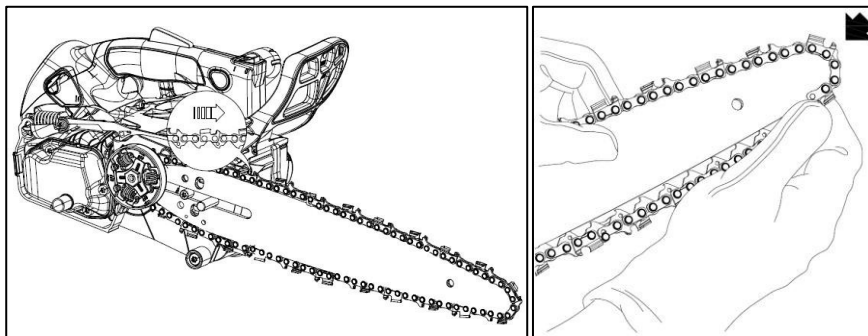
4. Mount the guide bar on the power unit, then push the guide bar toward the clutch.



2. Bar guides

4. Installation of the guide bar and chain

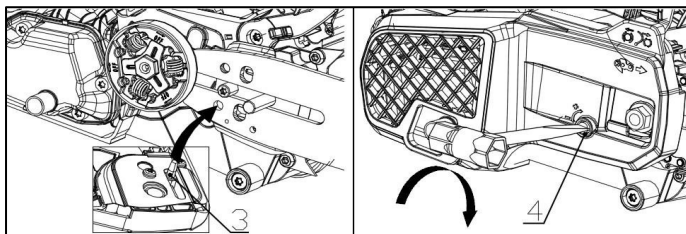
5. Engage the chain on the sprocket while fitting the saw chain around the guide bar.



NOTE

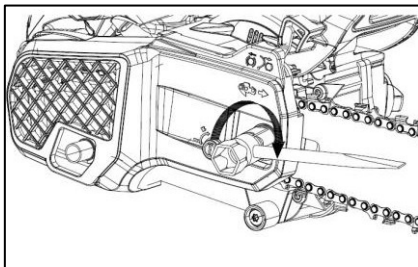
Be careful of the correct direction of the saw chain.

6. Adjust the position of the chain tensioner pin, then insert the chain tensioner pin into the lower hole of the guide bar. Mount the clutch cover onto the power unit and secure the mounting nut tightly. While holding the tip of the bar, adjust the chain tension by turning the tensioner screw until the tie straps just touch the underside of the guide bar.



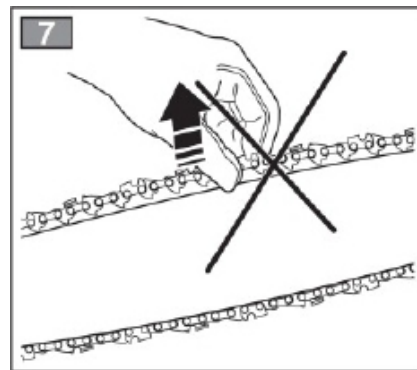
- 3. Tensioner pin
- 4. Tensioner screw

7. Firmly tighten the nut with the tip of the bar held up (12 ~ 15 Nm). Then check that the chain rotates smoothly and that the tension is correct while moving it by hand. If necessary, readjust with the chain cover loosened.



Turn the tensioner screw clockwise to tighten the chain and turn the tensioner screw counter-clockwise to loosen it.

8. Check the tension of the saw chain. Lift the chain link located halfway along the cutting length by hand with a force of about 10N. If the chain link comes out of the entire guide bar groove, the chain must be tightened again.

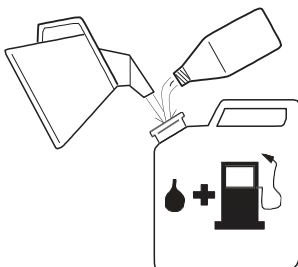


IMPORTANT

It is very important to maintain the correct chain tension. Rapid wear of the guide bar or the chain coming off easily can be caused by incorrect tension. Especially when using a new chain, operate it properly, as it should expand during initial use.

5. Fuel and oil

- Fuel



The engines are lubricated with oil specially formulated for use in air-cooled 2-stroke gasoline engines. If the oil is not available, use a quality antioxidant-added oil, specially formulated for use with air-cooled 2-stroke engines.

RECOMMENDED MIXING RATIO

GASOLINE 50: OIL 1

(JASO FC grade or ISO EGC formulated for air-cooled two-stroke engines)

O

GASOLINE 25: OIL 1

(JASO FB class or ISO EGB)

These engines are certified to run on unleaded gasoline.

Gasoline, liter	Two-stroke oil, milliliter	
	2% (1:50)	4% (1:25)
1	20	40
5	100	200
10	200	400
20	400	800



WARNING

Fuel is highly flammable. Do not smoke or bring flames or sparks near the fuel.



IMPORTANT

1. FUEL WITHOUT OIL (RAW GASOLINE) – Will cause severe damage to internal engine parts very quickly.

2. OIL FOR 4-CYCLE ENGINE USE or WATER-COOLED 2-CYCLE ENGINE USE – May cause spark plug fouling, exhaust port blockage, or piston ring sticking.

• HOW TO MIX FUEL

1. Measure the amounts of gasoline and oil to be mixed.
2. Put part of the gasoline in a clean, approved fuel container.
3. Pour in all the oil and shake well.
4. Pour in the rest of the gasoline and shake again for at least one minute.
5. Clearly label the outside of the container to avoid mixing with gasoline or other containers.

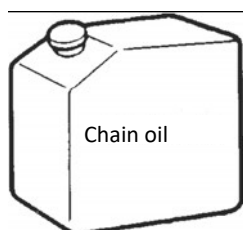
• CHAIN OIL

Use special chainsaw oil year-round.

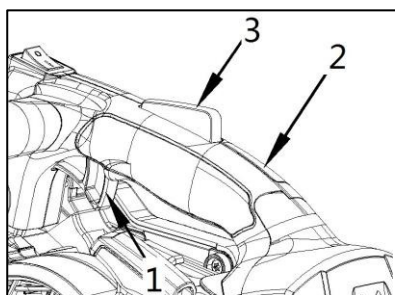
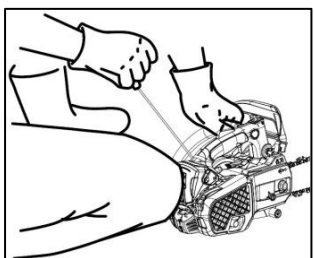
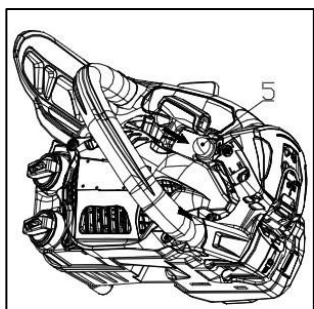
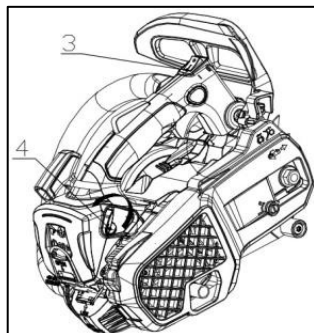
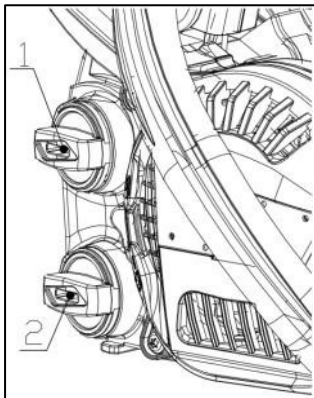


NOTE

Do not use waste or recycled oil that may cause damage to the oil pump.



6. Operation



• ENGINE STARTING

1. Loosen and remove the fuel cap and oil cap.
 2. Fill the fuel tank and oil tank up to 80% of full capacity.
 3. Securely tighten the fuel tank cap and oil tank cap, and clean up any fuel spills around the unit.
 4. Set the switch to the "I" position.
 5. Pull out the choke knob. The choke closes and the throttle lever moves to the starting position.
 6. Continuously press the primer pump until fuel enters the pump.
- (1) Fuel tank cap (2) Oil tank cap (3) Engine switch
(4) Choke knob (5) Primer pump



NOTE

When restarting immediately after stopping the engine. Set the choke to the ON position.

Once the choke knob has been pulled, it will not return to the run position even if the trigger is pressed or the knob is pressed with your finger. When you want to return the choke knob to the operating position, press the trigger instead.

7. Push the front handle guard downward toward the front to activate the chain brake.

8. While holding the chainsaw firmly on the ground, pull the starter rope vigorously.

9. When the engine fires, press the throttle trigger to allow the choke to return to the run position, and pull the starter handle again to start the engine.

10. Pull up the front handle guard to release the brake. Then, let the engine warm up with the trigger slightly pulled.

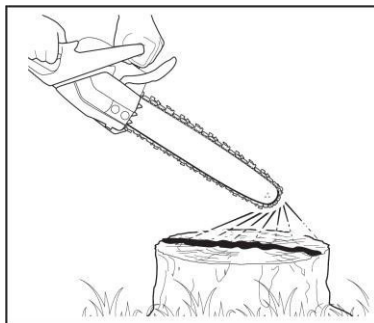
- (1) Trigger (2) Rear handle
(3) Engine trigger lock lever



WARNING

Before starting the engine, make sure the chainsaw chain is not touching anything. Always ensure the chain brake is engaged before each start.

6. Operation



- **OIL SUPPLY CHECK**

After starting the engine, run the chain at medium speed and check if the chain oil is being dispersed as shown in the figure.



IMPORTANT

The oil tank should be nearly empty when the fuel runs out. Be sure to refill the oil tank every time you refuel the chainsaw.

- **CLUTCH OPERATION CHECK**

Before each use, confirm that there is no chain movement when the chainsaw is idling.



WARNING

During operation, the machine must always be held firmly with both hands, with the left hand on the front handle and the right hand on the rear handle, even if the operator is left-handed.

- **CARBURETOR ADJUSTMENT**

The carburetor of the unit has been factory adjusted, but may require fine adjustment due to changing operating conditions.

Before adjusting the carburetor, make sure that clean air/fuel filters are installed and that fresh, properly mixed fuel is used.

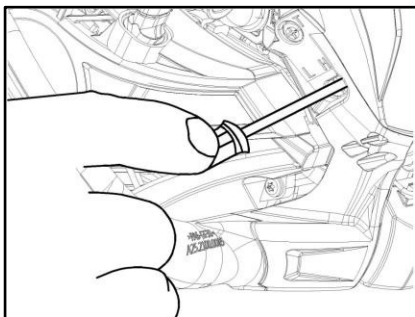
During adjustment, proceed as follows:



IMPORTANT

Be sure to adjust the carburetor with the guide bar and chain attached.

1. The H and L needles are limited to the number of turns indicated below.



(1) Idle adjustment screw.

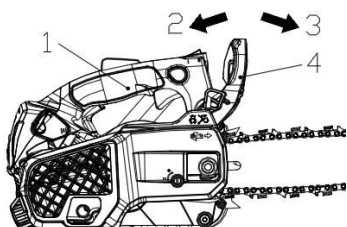
(2) L needle

(3) H needle

- **CHAIN BRAKE**

The chain brake is a device that instantly stops the chain if the chainsaw kicks back due to recoil.

Normally, the brake is activated automatically by inertial force. It can also be activated manually by pushing the brake lever (front handle guard) downward toward the front.

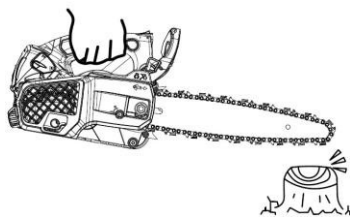


When the brake is engaged, a white cone appears at the base of the brake lever.

(1) Rear handle (2) Release (3) Brake (4) Front handle guard

To release the brake, pull the front handle guard upward toward the rear handle until you hear a "click" sound.

6. Operation



WARNING

When the brake is engaged, release the throttle lever to slow the engine speed. Continuous operation with the brake engaged generates heat from the clutch and may cause problems.

Be sure to check the brake operation during daily inspection.

How to confirm:

- 1) Turn off the engine.
- 2) Holding the chainsaw in a horizontal position, release your hand from the front handle, strike the tip of the guide bar against a stump or piece of wood, and confirm the operation of the brake. The operating level varies according to the size of the bar. If the brake is not effective, have our dealer inspect and repair it.

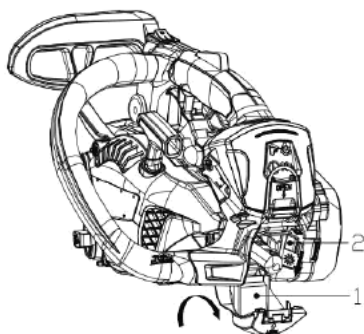
CARBURETOR ANTI-FREEZE MECHANISM

Operating chain saws at temperatures between 0°C and 5°C during periods of high humidity can cause ice to form inside the carburetor, which in turn can cause a reduction in engine output power or engine failure. As a result, this product has been designed with a vent door on the right side of the cylinder cover surface to allow warm air into the engine and thus prevent ice formation.

Under normal circumstances, the product should be used in the normal operating mode, that is, the mode set at the time of shipment.

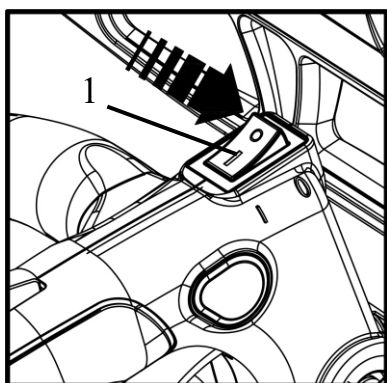
However, when there is a possibility of ice formation, the device should be set to operate in anti-freeze mode before use.

Continuing to use the product in anti-freeze mode even when temperatures have risen and returned to normal may result in the engine not starting properly or not running at its normal speed, so you should always make sure to return the unit to normal operating mode if there is no risk of ice formation.



HOW TO SWITCH BETWEEN OPERATING MODES

- (1) Spark plug cap
 - (2) Anti-freeze block
1. Turn the engine switch to turn off the engine.
 2. Open the spark plug cover, where the anti-freeze block can be seen.
 3. Use your hand to move the anti-freeze block downward so that the "snow" mark is exposed.
 4. Close the spark plug cover.



• Engine shutdown

1. Release the throttle trigger to allow the engine to idle for a few minutes.
2. Set the switch to the "O" (STOP) position.

(1) Engine switch

7. Sawing

WARNING



Before starting work, read the "For Safe Operation" section. It is recommended to first practice by sawing logs that are easy to handle. This also helps to get used to using the device.

Always observe all safety regulations that may restrict the use of the equipment.

Always follow safety regulations. The chainsaw must be used only for cutting wood.

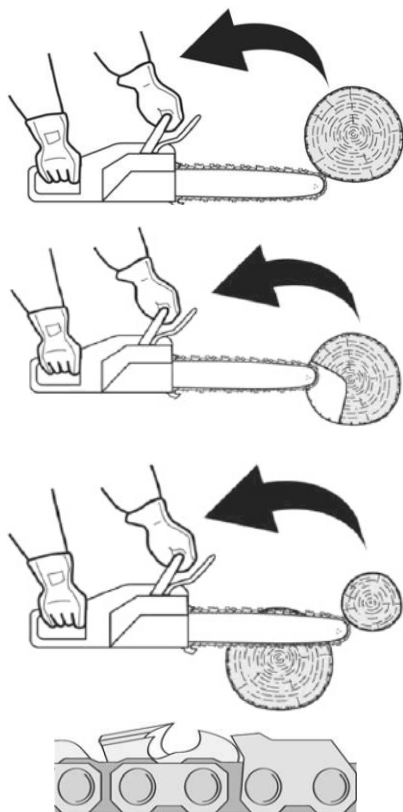
It is forbidden to cut other types of material. Vibrations and kickback vary depending on the material and if safety requirements are not met. Do not use the chainsaw as a lever to lift, move, or split objects.

Do not secure it to fixed stands. It is prohibited to attach tools or applications to the power take-off that are not specified by the manufacturer.

It is not necessary to force the chainsaw during cutting. Apply only light pressure while operating the engine at full throttle.

It is recommended to carry out a daily inspection before use and after a fall or other impacts to identify significant damage or defects.

Running the engine with the chain locked in a cut can damage the clutch system. When the saw chain is stuck in the cut, do not try to pull it out by force, but use a wedge or lever to open the cut.



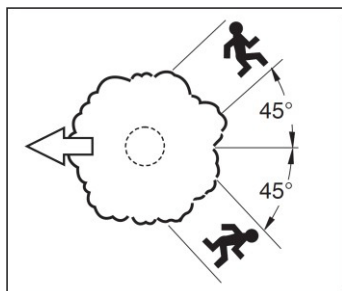
- **Protect yourself from kickback.**

This saw is also equipped with a chain brake that, if functioning properly, stops the chain in the event of kickback. You must check the chain brake before each use by running the chainsaw at full throttle for 1 or 2 seconds and pushing the front hand guard forward. The chain should stop immediately with the engine at full throttle. If the chain is slow to stop or does not stop, replace the brake band and clutch drum before use.

It is extremely important that the chain brake is checked for proper operation before each use and that the chain is sharpened to maintain the anti-kickback safety level of this saw. Removing safety devices, inadequate maintenance, or incorrect replacement of the bar or chain can increase the risk of serious personal injury due to kickback.

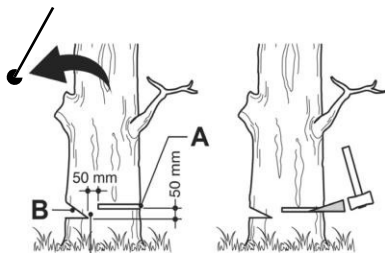
- **Felling a Tree**

1. Decide the felling direction by considering the wind, the tree's lean, the position of heavy branches, ease of work after felling, and other factors.
2. While clearing the area around the tree, arrange a good foothold and an escape route.
3. Make a notch cut one third of the way into the tree on the felling side.
4. Make the felling cut from the opposite side of the notch and at a slightly higher level than the bottom of the notch.



7. Sawing

Felling Direction



! WARNING

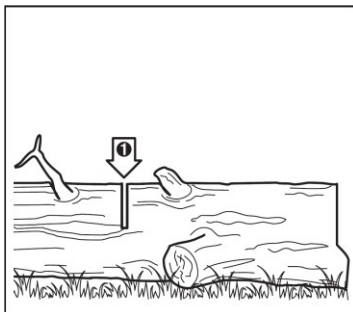
When carrying a tree, make sure to warn nearby workers of the danger.

(A) Felling Cut
(B) Notch Cut

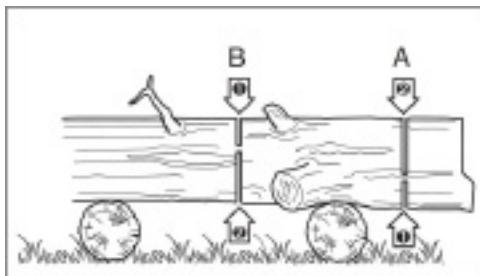
• CUTTING AND TRANSPORTING WOOD AND LIMBING

! WARNING

1. Always make sure you have a foothold and the stability of the tree.
 2. Be careful of a cut log rolling.
 3. Read the instructions in "For Safe Operation" to avoid saw kickback.
- Before starting work, check the direction of the bending force inside the log to be cut. Always finish the cut from the side opposite to the bending direction to prevent the guide bar from getting stuck in the split.



Limbing a Felled Tree



• Cutting a Non-Rolling Log

Cut halfway through, then roll the log and cut from the opposite side.

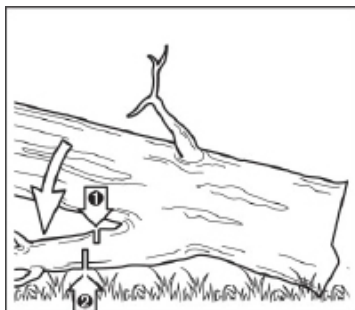
• Cutting a rotating log

In area A in the photo at the top right, saw upward from below for one third, then finish sawing from top to bottom. In area B, saw downward from the top for one third, then finish sawing from bottom to top.

First, check which way the branch is bent. Then make a shallow cut on the compressed side to prevent the branch from tearing. Cut from the tension side.

! WARNING

Be careful of the back side of a cut branch.



Pruning

! WARNING

Cut from below, finish from top to bottom.

1. Do not use an unstable support or a ladder.
2. Do not exceed the limits.
3. Do not cut above shoulder height.
4. Always use both hands to hold the saw.

! WARNING

The spike bumper must always be used when operating the chainsaw on the tree trunk. Push the spike bumper into the tree trunk using the rear handle. Push the front handle in the direction of the cutting line. If necessary, the spike bumper should remain in position for further guidance of the chainsaw. Using a spike bumper when cutting thick trees and branches can ensure your safety and reduce workload and vibration levels.

7. Sawing

If there is a barrier between the material to be cut and the chainsaw, turn off the device. Wait until it comes to a complete stop. Wear the safety glove and remove the barrier. If the chain needs to be removed, follow the instructions in the installation section of the manual. After cleaning and reinstallation, a functional test must be performed. If vibrations or mechanical noises are detected, stop use and contact your dealer.

8. Work with pruning chainsaws using rope and harness

1. Overview

This chapter outlines work practices aimed at reducing the risk of injury from chainsaws used in tree maintenance when working at height from a rope and harness. Although it may serve as a basis for guidance and training literature, it should not be considered a substitute for formal training. The guidance provided in this annex is only an example of best work practices. National laws and regulations must always be observed.

They outline:

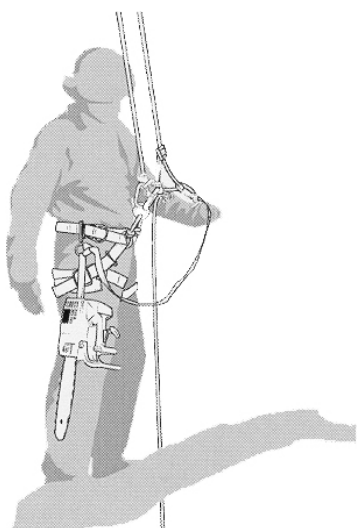
- general requirements that must be met before using a chainsaw for work at height from a rope and harness,
- preparations for using a chainsaw for tree service from a rope and harness
- use of a chainsaw for pruning and dismantling trees, including safe work positioning for two-handed use, starting the chainsaw, cutting with the chainsaw, restrictions on one-handed use, and freeing a trapped saw.

8. Work with pruning chainsaws using rope and harness

2. General Requirements

Chainsaw operators pruning trees at height from a rope and harness should never work alone. They must be assisted by a ground operator trained in appropriate emergency procedures.

Chainsaw operators for this work must be trained in climbing and safe positioning techniques and be properly equipped with harnesses, ropes, lanyards, carabiners, and other equipment to maintain safe and secure working positions for both themselves and the saw.



3. Preparation for Using the Saw in the Tree

The chainsaw must be checked, fueled, started, and warmed up by the ground operator and then turned off before being sent to the operator in the tree.

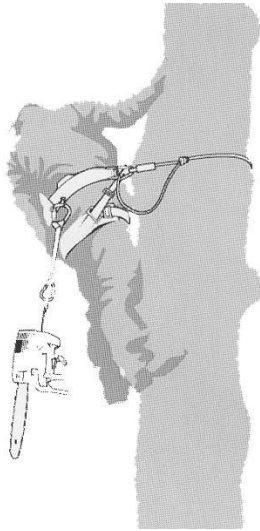
The chainsaw must be equipped with a suitable mount for attachment to the operator's harness (see Figure B.1):

- a) Attach the lanyard around the attachment point on the back of the chainsaw;
- b) Provide suitable carabiners to allow indirect attachment (i.e., via the lanyard) and direct attachment (i.e., at the attachment point on the saw) of the saw to the operator's harness;
- c) Ensure that the saw is securely attached when it is sent up to the operator;
- d) Ensure that the saw is attached to the harness before it is disconnected from the means of ascent.

Figure B.1 - Example of chainsaw attachment for tree service to the operator's harness

The ability to attach the saw directly to the harness reduces the risk of equipment damage when moving around the tree. Always switch off the chainsaw when it is attached directly to the harness.

8. Work with pruning chainsaws using rope and harness



The saw must only be attached at the recommended attachment points on the harness. These may be at the central point (front or back) or on the sides. If possible, attach the saw to the central rear midpoint to keep it away from climbing lines and to support its weight at the center of the operator's spine. See Figure B.2.

When moving the saw from one attachment point to another, the operator must ensure it is secured in the new position before releasing it from the previous attachment point.

Figure B.2 - Example of chainsaw attachment for tree pruning at the center of the rear midpoint on the harness

4. Using the Chainsaw in the Tree

An analysis of incidents involving these saws during tree pruning operations shows that the main cause is improper one-handed use of the saw. In the vast majority of incidents, operators do not adopt a safe working position that allows them to hold both handles of the saw. This leads to an increased risk of injury due to:

- Not having a firm grip on the saw in case of kickback,
- Lack of control of the saw, making it more likely to come into contact with climbing lines and the operator's body (especially the left hand and arm)
- Loss of control due to an unsafe working position and resulting contact with the saw (unexpected movement during saw operation).

Ensure work positioning for two-handed use

To allow the saw to be held with both hands, as a general rule operators should aim for a safe working position in which they operate the saw at:

- Hip level, when cutting horizontal sections
- Solar plexus level, when cutting vertical sections.

If the operator works near vertical axes with low lateral forces on the working position, a good support may be sufficient to maintain a safe working position. However, when the operator moves away from the axis, measures must be taken to remove or counteract the increased lateral forces, for example by redirecting the main line through an additional anchor point or by using an adjustable lanyard directly from the harness to an additional anchor point (see Figure B.3).

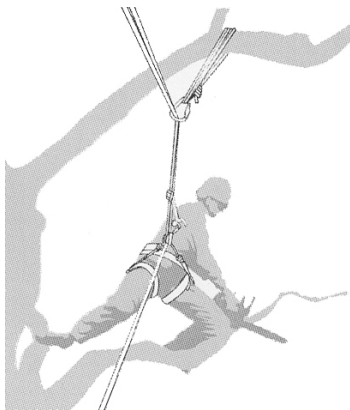


Figure B.3 - Example of redirecting the main line through an additional anchor point

To achieve good footing in the working position, a temporary foot stirrup made from an endless sling may be used (see Figure B.4).

8. Work with pruning chainsaws using rope and harness

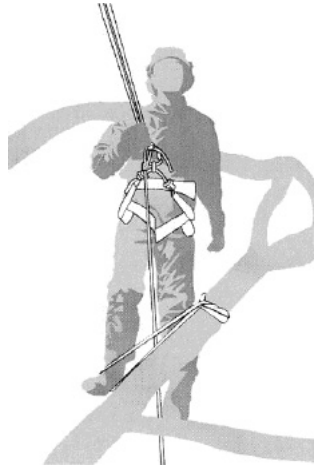


Figure B.4 - Example of a temporary foot stirrup created from an endless harness

Starting the saw in the tree

When starting the saw in the tree, the operator should

- a) engage the chain brake before starting,
- b) hold the saw to the left or right side of the body at the start,
 - 1) On the left side, hold the saw with your left hand on the front handle and push the saw away from your body while holding the starter cord in your right hand.
 - 2) On the right side, hold the saw with your right hand on one of the two handles and push the saw away from your body while holding the recoil starter cord in your left hand.

The chain brake must always be engaged before lowering a running chainsaw on the lanyard. Operators should always check that the chainsaw has sufficient fuel before making critical cuts.

One-handed chainsaw operation

Operators should not use pruning chainsaws one-handed when the working position is unstable, or preferably use a handsaw when cutting small-diameter wood at the tips of branches.

Chainsaws for tree work should only be used with one hand when:

- operators cannot achieve a working position that allows two-handed use
- they must support their working position with only one hand
- the saw is used at full extension, at a right angle and out of line with the operator's body (see Figure B.5).



Figure B.5 - Example of using a chainsaw with one hand only

Operators should never

- cutting with the kickback zone on the tip of the chainsaw guide bar,
- “hold and cut” parts
- trying to grab falling parts.

8. Work with pruning chainsaws using rope and harness

Freeing a trapped saw

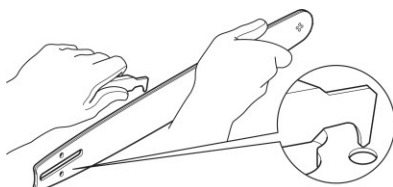
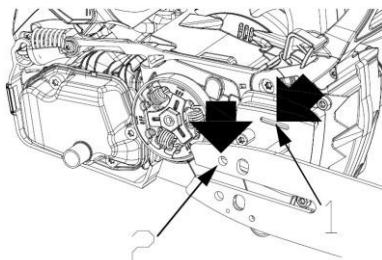
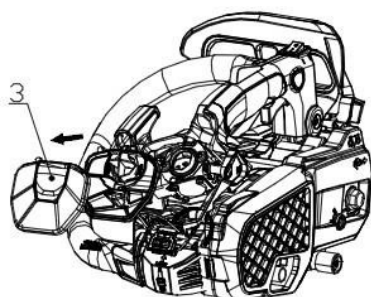
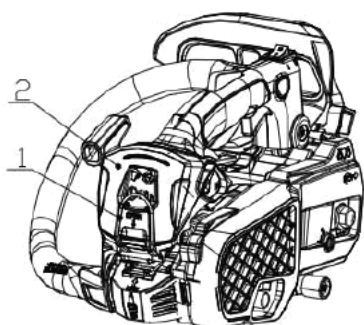
If the saw becomes trapped during cutting, operators must:

- turn off the saw and secure it firmly inside the tree (i.e., towards the trunk side) of the cut or to a separate tool line,
- remove the saw from the cutting tooth by lifting the branch, if necessary,
- if necessary, use a handsaw or a second chainsaw to free the stuck saw by cutting at a minimum distance of 30 cm from the stuck saw.

Whether using a handsaw or a chainsaw to free a trapped saw, release cuts must always be made outboard (toward the tip of the branch), to prevent the saw from becoming trapped with the section and further complicating the situation.

9. Maintenance

Freeing a trapped saw



! WARNING

Before cleaning, inspecting, or repairing the unit, make sure the engine is stopped and cool. Disconnect the spark plug to prevent accidental starting.

Follow the instructions for regular maintenance, pre-operation procedures, and daily maintenance routines. Inadequate maintenance can cause serious damage to the equipment.

Maintenance after each use

1. Air filter

Dust on the cleaner filter can be removed by washing in a solution of household detergent and warm water. To clean dirt from the mesh, remove the cleaner cover and apply gasoline. When using compressed air, blow from the inside.

- (1) air filter buckle
- (2) air filter cover
- (3) cleaner cover

2. Oil sprayer

Remove the guide bar and check that the oil outlet is not clogged.

- (1) Oil outlet
- (2) Oil inlet

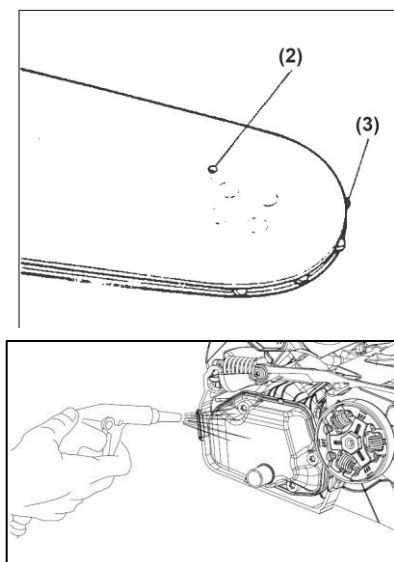
3. Guide bar

When the guide bar is removed, clear sawdust from the bar groove and oil inlet.

Grease the nose sprocket from the feed port at the tip of the bar.

- (2) Grease port
- (3) Sprocket

9. Maintenance



4. Others

Check for fuel leaks, loose fastenings, and damage to main parts, especially at the handle joints and guide bar mounting. If defects are found, ensure they are repaired before returning to service.

• Periodic maintenance points

1. Cylinder fins

Clogging of dust between the cylinder fins will cause the engine to overheat. Periodically check the fins after removing the clutch cover, then use compressed air to clean the cylinder fins.

2. Fuel Filter

(a) Using a wire hook, pull the filter out from the filler opening.

(b) Disassemble the filter and wash it with gasoline, or replace it with a new one if necessary.



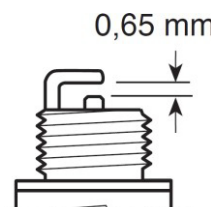
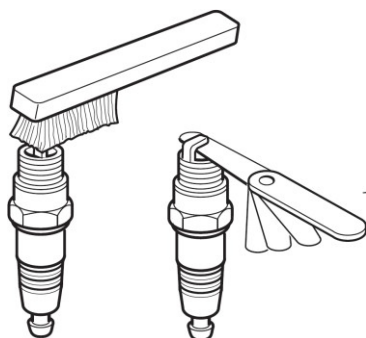
IMPORTANT

- After removing the filter, use a hook to hold the end of the suction tube.
- When installing the filter, be careful not to leave filter fibers or dust inside the suction tube.

3. Spark Plug

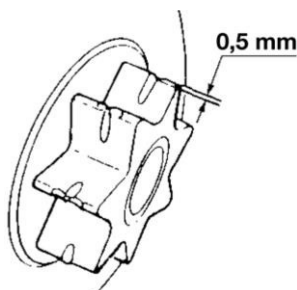
Clean the electrodes with a wire brush and reset the gap to 0.65 mm if necessary.

Spark plug type: TORCH CMR6A/ CHAMPION RY4C



4. Sprocket

Check that there are no cracks and that there is no excessive wear that interferes with chain transmission. If the wear is significant, replace it with a new one. Never install a new chain on a worn sprocket or a worn chain on a new sprocket.



5. Front and Rear Shock Absorbers

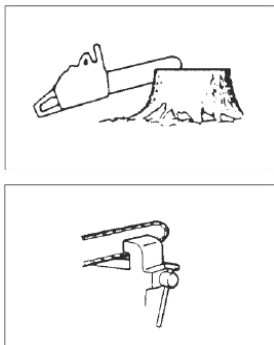
Replace if the bonded part is exposed or if a crack is observed in the rubber part. Replace if the inside metal of the rear shock absorber has been struck by the stop bolt and the metal play has increased.



WARNING

Use only the replacement parts specified in this manual. Using any other replacement part may cause serious injury.

10. Maintenance of the Saw Chain and Guide Bar



• Saw chain



WARNING

For smooth and safe operation, it is very important to keep the blades always sharp.

The blades should be sharpened when:

- The sawdust becomes powder.
- Extra force is needed to saw.
- The cutting path is not straight.
- Vibrations increase.
- Fuel consumption increases.

The blades should be sharpened when:



WARNING

Be sure to wear safety gloves.

4. Sprocket

- Make sure the saw chain is held tightly.
- Make sure the engine is stopped.
- Use a round file of the appropriate size for the chain.

File size: 4.0 mm for all models.

Place the file on the blade and push forward. Keep the file position as illustrated.

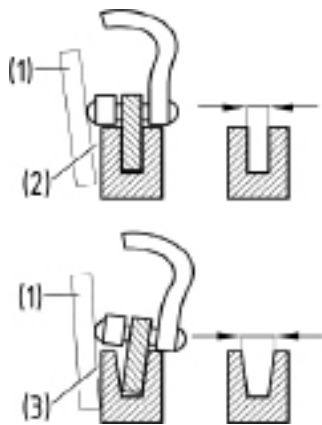
After each blade has been set, check the depth gauge and file to the correct level as illustrated.



WARNING

Make sure each blade has the same length and edge angles as illustrated.

Chain type	File Diameter	Top plate angle	Bottom angle	Head tilt angle (55°)	Standard depth gauge
		Vise rotation angle 	Vise tilt angle 	Side angle 	
91P	5/32" (3.96 mm)	30°	0°	80°	0.025" (0.63 mm)
E1-25AP	5/32" (3.96 mm)	30°	10°	85°	0.025" (0.63 mm)
T23P	5/32" (3.96 mm)	30°	10°	85°	0.025" (0.63 mm)
Depth gauge				File	



Guide bar

- Reverse the bar occasionally to avoid wear
- The bar rail should always be square. Check the bar guide for wear.

Place a ruler against the bar and the outside of a blade. If a gap is observed between them, the guide is normal. Otherwise, the bar guide is worn. Such a bar must be repaired or replaced.

(1) Ruler (2) Play (3) No play

WARNING

The table contains a list of all possible combinations between bar and chain, indicating those that can be used on each machine, marked with the symbol “*”.

Pitch	Guide bar		Chainsaw model	
Inches	Length Inches/cm	Groove width Inches/mm	CSP 270 T	CSP 270 TC
3/8" (3.96 mm)	12"/29mm	0.050"/1,3mm	*	
3/8" (3.96 mm)	10"/24mm	0.050"/1,3mm	*	
1/4" (3.96 mm)	10"/24mm	0.043"/1,1mm		*
1/4" (3.96 mm)	12"/29mm	0.050"/1,3mm		*
1/4" (3.96 mm)	12"/29mm	0.043"/1,1mm		*

For replacement, use only the bars and chains listed above. The use of unapproved combinations may cause serious personal injury and damage to the machine.

11. Storage

1. Empty the fuel tank and run the engine.
2. Empty the oil tank.
3. Clean the entire device.
4. Store the device in a dry place and out of the reach of children.

12. Disposal and Environmental Protection

Never pour chain lubricant residues or 2-stroke fuel mixture into the drain, sewer, or ground, but dispose of them properly and in an environmentally friendly way, e.g., at a designated collection point or landfill.

If your device becomes unusable in the future or is no longer needed, do not dispose of it with household waste, but dispose of it in an environmentally responsible manner. Thoroughly empty the oil/lubricant and fuel tanks and dispose of the residues at a designated collection point or landfill. Please also dispose of the device itself at an appropriate collection/recycling point. In this way, plastic and metal parts can be separated and recycled. Information on the disposal of materials and devices is available from your local authorities.

13. Warranty

For this petrol tool, the company provides the end user, regardless of the dealer's obligations arising from the purchase contract, with the following warranties:

The warranty period is 24 months from the delivery of the device, which must be proven by the original purchase document. For commercial use and rental use, the warranty period is reduced to 12 months. This warranty does not cover parts subject to wear and defects caused by the use of uninstalled accessories, repair of parts that are not original manufacturer parts, use of force, impacts and breakages, or intentional engine overload. Warranty replacement covers only defective parts, not complete devices. Warranty repairs must be carried out exclusively by authorized service partners or the company's customer service. If unauthorized personnel intervene, the warranty becomes void.

All shipping or delivery costs, as well as any other subsequent expenses, shall be borne by the customer.

14. Troubleshooting Guide

PROBLEM	CAUSE	REMEDY
1) Failure to Start	- Check that the fuel does not contain water or poor mixture. - Check if the engine is flooded. - Check the spark plug ignition.	- Replace with suitable fuel. - Remove and dry the spark plug. - Then pull the starter again without starting. - Replace with suitable fuel.
2) Lack of power/poor acceleration/rough idle	- Check that the fuel does not contain water or poor mixture. - Check if the air filter and fuel filter are clogged.	- Replace with suitable fuel. - Clean.
3) Oil Does Not Flow	- Check if the carburetor has an improper adjustment. - Check that the oil is not below quality standards - Check the oil flow and clogging of the ports.	- Adjust the speed dials - Replace. - Clean.

If the unit appears to require further assistance, please consult an authorized service center in your area.

15. Specifications

Model	Unit	CSP 270 T	CSP 270 TC
Displacement:	cm ³	25	
Maximum engine power:	Kw	0,9	
Fuel:		Mixture (unleaded gasoline 50: two-stroke oil 1)	
Fuel tank capacity:	cm ³	Engine oil SAE#10W-30	
Chain oil		140	
Oil tank capacity:	cm ³	Diaphragm type	
Carburetor		480	
Maximum fuel consumption Engine power:	g/kw·h	3000±300	
Idle speed range:	/min	13000	
Maximum speed with cutting attachment:	/min		
Maximum chain speed:	m\√s	24,765	22
Ignition system:		C.D.I. with timing advance function	
Spark plug:		TORCH CMR6A/CHAMPION RY4C	
Oil supply system:		Mechanical piston pump	
Sprocket teeth x pitch:	mm	6T×0.375 inches (9.525 mm)	8T×0.25 inches (6.35 mm)
Dimensions (L x W x H)	mm	240×210×195	
Dry weight (without guide bar and chain, empty tanks):	kg	2,45	
Operating sound pressure level (EN ISO 22868):	dB(A)	98,2	
Uncertainty of the declared value (2006/42EC):	dB(A)	3	
Sound power level (EN ISO 22868):	dB(A)	109,6	
Uncertainty of the declared value (2006/42EC):	dB(A)	3	
Guaranteed sound power level	dB(A)	112	
Vibration value (EN ISO 22867):	m\√s ²	Front 6.5; Rear: 7.5	
Uncertainty of the declared value (2006/42EC):	m\√s ²	1,5	
Cutting head:			
Guide bar		Sprocket nose	Sculptor bar
Size		30 cm/25 cm	
Usable cutting length	cm	29(12'')/24(10'')	29/28.5(12'')/23(10'')
Type		Oregon 91P	E1-25AP T23P
Pitch		9,525 mm 3/8'' (3.96 mm)	6,35 mm 1/4'' (3.96 mm)
Gauge	mm	91P/ E1-25AP: 1.27(0.050'') T23P: 1.09 (0.043'')	

Specifications are subject to change without notice.

EC DECLARATION OF CONFORMITY - HERSTELLERERKLÄRUNG - DECLARATION 'CE' DE CONFORMITE - DECLARACION DE CONFORMIDAD - DICHIARAZIONE DI CONFORMITA' EUROPEA - GELIJKVORMIGHEIDSVERKLARING - EC DEKLARATION I OVERENSSTEMMELSE - DECLARAÇÃO CE DE CONFORMIDADE - EY ILMOITUS - FORSAKRAN OM OVERENSSTAMMELSE - BEKREFTENDE EU ERKLÆRING - ΔΗΛΩΣΗ ΕΚ ΣΥΜΜΟΡΦΩΣΗΣ - EUROPEJSKA DEKLARACJA ZGODNOSCI

1) MANUFACTURER – HERSTELLER – FABRICANT – FABRICANTE – COSTRUTTORE – CONSTRUCTEUR – PRODUCENT – FABRICANTE – VALMISTAJA – TILLVERKARE – FABRIKANT – Κατασκευαστής – PRODUCENT:

Blue Bird Industries Fabbrica Motori s.r.l.
Via Due Camini 19, 36010 Zanè (VI), Italia

2) DESCRIPTION OF THE MACHINERY – BESCHREIBUNG DER MASCHINE – DESCRIPTION DE LA MACHINE – DESCRIPCION DE LA MAQUINARIA – DESCRIZIONE DELLA MACCHINA – BESCHRIJVING VAN DE MACHINE – BESKRIVELSE AF MASKINEN – DESCRIÇÃO DA MAQUINA – KONEEN NIMITYS – MATERIELSLAG – BESKRIVELSE AV MASKINERIE – ΠΕΡΙΓΡΑΦΗ ΤΩΝ ΜΗΧΑΝΩΝ – OPIS MASZYN: **MOTOSEGA – CHAINSAW**

a) MAKE – FABRIKAT – MARQUE – MARCA – MARCA – MERK – MÆRKE – MARCA – MERKKI – FABRIKAT – FABRIKANT – MAPKA – MARKA: **BLUE BIRD**

b) TYPE / TYP / TYPE / TIPO / TIPO / TYPE / TYPE / TIPO / MALLI / TYPBE / TYPE / TYÖOAJ / TYP: **CSP 270 T**
CSP 270 TC

2000/14/EC (2005/88/EC) – Livelli di potenza sonora come da allegato VI – Sound Power Levels performed per annex VI	
TIPO	Livelli di Potenza Sonora Misurata / Livelli di Potenza Sonora Garantita LWA Sound Power Levels Measured / Sound Power Level Guaranteed LWA (dB)
CSP 270 T CSP 270 TC	103/113

c) Il prodotto è conforme alle direttive - The product complies with the directives - Das Produkt entspricht den Richtlinien - Le produit est conforme aux directives - El producto cumple con las directivas :

- 2006/42/EC – 2014/30/EU – 2000/14/EC (2005/88/EC) – 2011/65/EU

d) Il controllo CE del campione di costruzione secondo la direttiva 2006/42/CE, Art 12.3(b) è stato eseguito presso:

The EC type examination test was carried out pursuant to Directive 2006/42/EC, Art 12.3(b) at:
Die EG-Baumusterprüfung nach Richtlinie 2006/42/EG, Art. 12.3(b) wurde durchgeführt bei:
L'examen CE de type conformément à la directive 2006/42/CE Art. 12.3(b) a été effectué par l'office de contrôle:
La prueba de examen CE de tipo se llevó a cabo de conformidad con la Directiva 2006/42 / CE, Art.12.3 (b) en:
• Intertek Deutschland GmbH Stangenstraße 1, 70771 Leinfelden-Echterdingen - Certificate No. 20SHW1502-02

e) REFERENCE TO STANDARDS/HARMONIZED STANDARDS - VERWEIS AUF NORMEN/HARMONISIERTE NORMEN - REFERENCE AUX NORMES/NORMES HARMONISEES - REFERENCIA A ESTANDARES/ESTANDARES ARMONIZADOS - RIFERIMENTO ALLE NORME/NORME ARMONIZZATE - REFERENTIE NAAR STANDAARDEN/GEHARMONISEERDE STANDAARDEN - REFERENCE TIL STANDARDER/HARMONISEREDE STANDARDER - REFERENCIA AS NORMAS/NORMAS HARMONIZADAS - VITTAUS STANDARDEIHIN/YHTEISIIN STANDARDEIHIN - REFERERANDE TILL STANDARDER/HARMONISERADE STANDARDER - HENVISNING TIL STANDARD/FELLES STANDARD - ΑΝΑΦΟΡΑ ΣΕ ΠΡΟΤΥΠΑ/ΕΝΑΡΜΟΝΙΣΜΕΝΑ ΠΡΟΤΥΠΑ - ODNIESIENIE DO NORM/NORM ZHARMONIZOWANYCH:

EN ISO 11681-2:2011+A1:2017

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Via Due Camini, 19
36010 ZANÉ ITALIA

Tel. 0445 314138

Fax 0445 314225

www.bluebirdind.com