INSTRUCTION MANUAL



Cordless Chain Saw

BUC250 BUC250C



010915

ENGLISH (Original instructions)

SPECIFICATIONS

Model		BUC250	BUC250C
Chain speed per minute (min ⁻¹)		8.3 m/s (500 m/min)	
Length of guide bar		250 mm	
Saw chain	Туре	91VG	25AP
	Pitch	3/8"	1/4"
	No. of drive links	40	60
Number of teeth		6	9
Overall length		576 mm	589 mm
Net weight		4.5 kg	
Rated voltage		D.C. 36 V	

- · Due to our continuing programme of research and development, the specifications herein are subject to change without notice.
- Specifications and battery cartridge may differ from country to country.
- · Weight, with battery cartridge, according to EPTA-Procedure 01/2003

END005-3

ENE031-1

Symbols

The following show the symbols used for the equipment. Be sure that you understand their meaning before use.



Read instruction manual.





Wear eye protection.



Wear ear protection.



Wear a helmet, goggles and ear protection.



Use appropriate protection for foot-leg and hand-arm.



Do not expose to rain.



Hold the saw with both hands while working! One-handed use is extremely hazardous!



This saw is to be used by properly trained operators only.

Do not dispose of electric equipment or

battery pack together with household



Only for EU countries

waste material! In observance of European Directive 2002/96/EC on waste electric and electronic equipment, 2006/66/EC on batteries and accumulators and waste batteries and accumulators and their implementation in accordance with national laws, electric equipment and battery pack that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.

Intended use

The tool is intended for cutting lumbers and logs.

GEA006-2

General Power Tool Safety Warnings

⚠ WARNING Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

Work area safety

- Keep work area clean and well lit. Cluttered or dark areas invite accidents
- Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
- 3. Keep children and bystanders away while operating a power tool. Distractions can cause vou to lose control.

Electrical safety

- Power tool plugs must match the outlet. Never 4 modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
- 5. Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of

- electric shock if your body is earthed or grounded.
- Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
- When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.
- If operating a power tool in a damp location is unavoidable, use a ground fault circuit interrupter (GFCI) protected supply. Use of an GFCI reduces the risk of electric shock.

Personal safety

- 10. Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
- Use personal protective equipment. Always wear eye protection. Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- 12. Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool. Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
- Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- 14. Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- 15. Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing, and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.
- 16. If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust-related hazards.

Power tool use and care

- 17. Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
- Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- 19. Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.
- 20. Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.
- 21. Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
- Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- 23. Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.

Battery tool use and care

- Recharge only with the charger specified by the manufacturer. A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
- Use power tools only with specifically designated battery packs. Use of any other battery packs may create a risk of injury and fire.
- 26. When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another. Shorting the battery terminals together may cause burns or a fire.
- 27. Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.

Service

- 28. Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.
- Follow instruction for lubricating and changing accessories.
- Keep handles dry, clean and free from oil and grease.

GEB071-4

Cordless Chain saw safety warnings:

- Keep all parts of the body away from the saw chain when the chain saw is operating. Before you start the chain saw, make sure the saw chain is not contacting anything. A moment of inattention while operating chain saws may cause entanglement of your clothing or body with the saw chain.
- Always hold the chain saw with your right hand on the rear handle and your left hand on the front handle. Holding the chain saw with a reversed hand configuration increases the risk of personal injury and should never be done.
- Hold the power tool by insulated gripping surfaces only, because the saw chain may contact hidden wiring. Saw chains contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- 4. Wear safety glasses and hearing protection. Further protective equipment for head, hands, legs and feet is recommended. Adequate protective clothing will reduce personal injury by flying debris or accidental contact with the saw chain.
- Before starting work, check that the chain saw is in proper working order and that its condition complies with the safety regulations. Check in particular that:
 - The chain brake is working properly;
 - The run-down brake is working properly;
 - The bar and the sprocket cover are fitted correctly:
 - The chain has been sharpened and tensioned in accordance with the regulations:
- Do not operate a chain saw in a tree. Operation
 of a chain saw while up in a tree may result in
 personal injury.
- Always keep proper footing and operate the chain saw only when standing on fixed, secure and level surface. Slippery or unstable surfaces such as ladders may cause a loss of balance or control of the chain saw.

- When cutting a limb that is under tension be alert for spring back. When the tension in the wood fibres is released the spring loaded limb may strike the operator and/or throw the chain saw out of control
- Use extreme caution when cutting brush and saplings. The slender material may catch the saw chain and be whipped toward you or pull you off balance.
- 10. Carry the chain saw by the front handle with the chain saw switched off and away from your body. When transporting or storing the chain saw always fit the guide bar cover. Proper handling of the chain saw will reduce the likelihood of accidental contact with the moving saw chain.
- Follow instructions for lubricating, chain tensioning and changing accessories.
 Improperly tensioned or lubricated chain may either break or increase the chance for kickback.
- Keep handles dry, clean, and free from oil and grease. Greasy, oily handles are slippery causing loss of control.
- 13. Cut wood only. Do not use chain saw for purposes not intended. For example: do not use chain saw for cutting plastic, masonry or non-wood building materials. Use of the chain saw for operations different than intended could result in a hazardous situation.
- 14. Causes and operator prevention of kickback:

Kickback may occur when the nose or tip of the guide bar touches an object, or when the wood closes in and pinches the saw chain in the cut.

Tip contact in some cases may cause a sudden reverse reaction, kicking the guide bar up and back towards the operator.

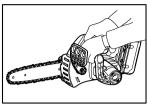
Pinching the saw chain along the top of the guide bar may push the guide bar rapidly back towards the operator.

Either of these reactions may cause you to lose control of the saw which could result in serious personal injury. Do not rely exclusively upon the safety devices built into your saw. As a chain saw user, you should take several steps to keep your cutting jobs free from accident or injury.

Kickback is the result of tool misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below:

Maintain a firm grip, with thumbs and fingers encircling the chain saw handles, with both hands on the saw and position your body and arm to allow you to resist kickback forces. Kickback forces can be controlled by the operator, if proper precautions are taken. Do

not let go of the chain saw.



- 010916
- Do not overreach and do not cut above shoulder height. This helps prevent unintended tip contact and enables better control of the chain saw in unexpected situations.
- Only use replacement bars and chains specified by the manufacturer. Incorrect replacement bars and chains may cause chain breakage and/or kickback.
- Follow the manufacturer's sharpening and maintenance instructions for the saw chain. Decreasing the depth gauge height can lead to increased kickback.
- 15. Do not start the chain saw with the chain cover being installed on it. Starting the chain saw with the chain cover being installed on it may cause the chain cover to thrown out forward resulting in personal injury and damage to objects around the operator.

SAVE THESE INSTRUCTIONS.

∴WARNING:

DO NOT let comfort or familiarity with product (gained from repeated use) replace strict adherence to safety rules for the subject product. MISUSE or failure to follow the safety rules stated in this instruction manual may cause serious personal injury.

ENC007-4

IMPORTANT SAFETY INSTRUCTIONS

FOR BATTERY CARTRIDGE

- Before using battery cartridge, read all instructions and cautionary markings on (1) battery charger, (2) battery, and (3) product using battery.
- 2. Do not disassemble battery cartridge.
- If operating time has become excessively shorter, stop operating immediately. It may result in a risk of overheating, possible burns and even an explosion.

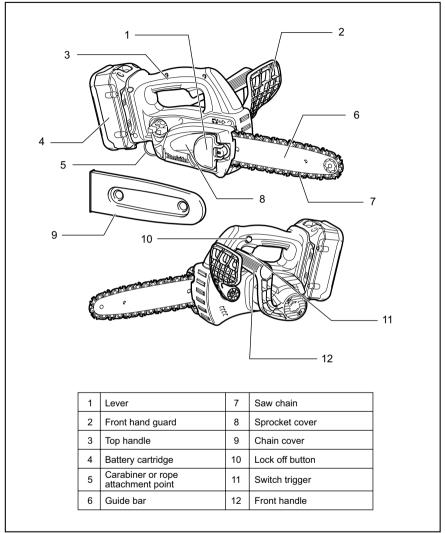
- If electrolyte gets into your eyes, rinse them out with clear water and seek medical attention right away. It may result in loss of your eyesight.
- Do not short the battery cartridge:
 - (1) Do not touch the terminals with any conductive material.
 - (2) Avoid storing battery cartridge in a container with other metal objects such as nails, coins, etc.
 - (3) Do not expose battery cartridge to water or rain.
 - A battery short can cause a large current flow, overheating, possible burns and even a breakdown.
- Do not store the tool and battery cartridge in locations where the temperature may reach or exceed 50° C (122° F).
- Do not incinerate the battery cartridge even if it is severely damaged or is completely worn out. The battery cartridge can explode in a fire.
- 8. Be careful not to drop or strike battery.
- 9. Do not use dropped or struck battery.

SAVE THESE INSTRUCTIONS.

Tips for maintaining maximum battery life

- Charge the battery cartridge before completely discharged.
 - Always stop tool operation and charge the battery cartridge when you notice less tool power.
- Never recharge a fully charged battery cartridge.
 - Overcharging shortens the battery service life.
- Charge the battery cartridge with room temperature at 10° C - 40° C (50° F - 104° F). Let a hot battery cartridge cool down before charging it.

PARTS DESCRIPTION

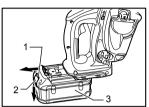


FUNCTIONAL DESCRIPTION

\triangle CAUTION:

 Always be sure that the tool is switched off and the battery cartridge is removed before adjusting or checking function on the tool.

Installing or removing battery cartridge



- 1. Red part
- 2. Button
- 3. Battery cartridge

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- Always switch off the tool before installation or removal of the battery cartridge.
- To remove the battery cartridge, withdraw it from the tool while sliding the button on the front of the cartridge.
- To insert the battery cartridge, align the tongue on the battery cartridge with the groove in the housing and slip it into place. Always insert it all the way until it locks in place with a little click. If you can see the red part on the upper side of the button, it is not locked completely. Insert it fully until the red part cannot be seen. If not, it may accidentally fall out of the tool, causing injury to you or someone around you.
- Do not use force when inserting the battery cartridge. If the cartridge does not slide in easily, it is not being inserted correctly.

Battery protection system

The battery cartridge is equipped with the protection system, which automatically cuts off the output power for its long service life.

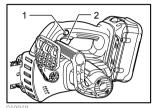
The tool may stop during operation when the tool and/or battery are placed under the following situation. This is caused by the activation of protection system and does not show the tool trouble.

- When the tool is overloaded:
 - At this time, release the switch trigger and remove causes of overload and then pull the switch trigger again to restart. When the tool does not work even after pulling the switch trigger, the battery power auto-stop is still at work. Charge the battery cartridge before
- When the remaining battery capacity becomes low: Recharge the battery cartridge.

Switch action

∆CAUTION:

 Before inserting the battery cartridge into the tool, always check to see that the switch trigger actuates properly and returns to the "OFF" position when released.



Lock-off button
 Switch trigger

To prevent the switch trigger from being accidentally pulled, a lock-off button is provided.

To start the tool, depress the lock-off button and pull the switch trigger. Release the switch trigger to stop.

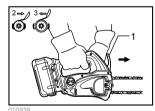
Checking the chain brake

NOTE:

 If the chain saw fails to start, the chain brake must be released. Pull the front hand guard backwards firmly until you feel it engage.

Hold the chain saw with both hands when switching it on. Hold the top handle with your right hand, the front handle with your left. The bar and the chain must not be in contact with any object.

First press the lock-off button, then the switch trigger. The saw chain starts immediately.



- Front hand guard
- 2. Lock
- 3. Unlock

Press the front hand guard forwards using the back of your hand. The saw chain must come to an immediate standstill.

∆CAUTION:

 Should the saw chain not stop immediately when this test is performed, the saw may not be used under any circumstances. Consult a MAKITA specialist repair shop.

Checking the run-down brake

Switch on the chain saw.

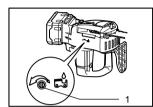
Release the switch trigger completely. The saw chain

must come to a standstill within one second.

∆CAUTION:

 Should the saw chain not come to a stop within one second when this test is performed, the saw must not be used. Consult a MAKITA specialist repair shop.

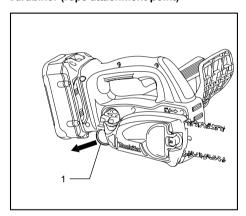
Adjusting the chain lubrication



1. Adjusting screw

You can adjust the oil pump feed rate with the adjusting screw. The amount of oil can be adjusted using the universal wrench.

Carabiner (rope attachment point)



Carabiner (rope attachment point)

Carabiner (Rope attachment point) is for use of tool hanging. Before using carabiner, pull it out and tie it with a rope.

ASSEMBLY

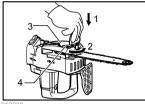
∆CAUTION:

 Always be sure that the tool is switched off and the battery cartridge is removed before carrying out any work on the tool.

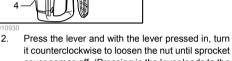
Installing or removing saw chain

∆CAUTION:

- Always be sure that the tool is switched off and the battery cartridge is removed before installing or removing the saw chain.
- Always wear gloves when installing or removing the saw chain.
- To remove the saw chain, move the lever in the upright position.

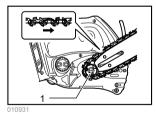


- 1. Press in
- 2 Loosen
- 3. Sprocket cover
- 4. Adjusting dial



- cover comes off. (Pressing in the lever leads to the fitting of lever into the nut.)

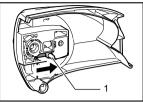
 3. Turn the adjusting dial counterclockwise to release
- the saw chain tension.
- 4. Remove the sprocket cover.
- Remove the saw chain and guide bar from the chain saw.
- To install the saw chain, fit in one end of the saw chain on the top of the guide bar and the other end of it around the sprocket.



1. Sprocket

At this time, fit the saw chain as shown in the figure because it rotates in the direction of arrow.

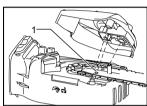
- 7. Rest the guide bar in place on the chain saw
- 8. Turn the adjusting dial counterclockwise to slide the adjusting pin in the direction of arrow.



1. Adjusting pin

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Place the sprocket cover on the chain saw so that the adjusting pin is positioned in a small hole in the guide bar.



1. Small hole

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 Press in the lever and with the lever depressed turn it fully clockwise to tighten the nut. Then make it about a quarter turn counterclockwise to loosen the nut lightly.

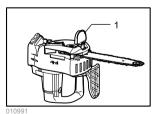


Press in
 Tighten

3. Loosen

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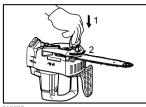
Adjusting saw chain tension



Lever

The saw chain may become loose after many hours of use. From time to time check the saw chain tension before use.

Move the lever in the upright position.



1. Press in 2. Loosen

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Press in the lever. With the lever depressed, make a quarter turn on it counterclockwise to loosen the nut lightly. (Pressing in the lever leads to the fitting of lever into the nut.)



1. Low

- 2. High
- 3. Adjusting dial
- 4. Guide bar
- 5. Saw chain

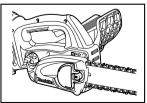
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Turn the adjusting dial to adjust saw chain tension. Grasp the saw chain in the middle of the guide bar and lift up. The gap between the guide bar and the tie strap of the saw chain should be approx. 2 - 4 mm. If the gap is not approx. 2 - 4 mm, slightly turn the adjusting dial which secures the guide bar. At this time, adjust with the tip of guide bar slightly pointing up.



Press in
 Tighten

With the lever depressed, turn it fully clockwise to tighten the nut firmly.



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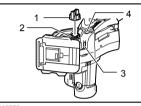
Return the lever to its original position.

ACAUTION:

- Excessively high tension of saw chain may cause breakage of saw chain, wear of the guide bar and breakage of the adjusting dial.
- Installing or removing saw chain should be carried out in a clean place free from sawdust and the like.

OPERATION

Lubrication



- 1. Oil tank cap
- 2. Oil tank opening
- Oil inspection window (for refilling the tank with oil)
- Oil inspection window

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Saw chain is automatically lubricated when the tool is in operation.

Check the amount of remaining oil in the oil tank through the oil inspection window.

To refill the tank, remove the cap from the oil tank opening. The oil tank capacity is 80 ml.

After refilling the tank, always screw the provided oil tank cap on the chain saw.

∆CAUTION:

- When filling the chain saw with chain oil for the first time, or refilling the tank after it has been completely emptied, add oil up to the bottom edge of the filler neck. The oil delivery may otherwise be impaired.
- As a saw chain oil, use oil exclusively for Makita chain saws or oil available in market.
- Never use oil including dust and particles or volatile oil.
- When pruning trees, use botanical oil. Mineral oil may harm trees.
- Never force the chain saw when pruning trees.
- Before cutting out, make sure that the provided oil tank cap is screwed in place.



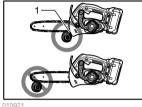
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Hold the chain saw away from the tree. Start it and wait until lubrication on saw chain is adequate.

Bring the lower guide into contact with the branch to be cut before switching on. Cutting without bringing the lower guide into contact with the branch may cause the guide bar to wobble, resulting in injury to operator.

Saw the wood to be cut by just moving it down.

WORKING WITH THE CHAIN SAW Pruning trees

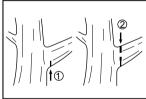


1. Lower guide

ACAUTION:

- Keep all parts of the body away from the saw chain when the motor is operating.
- Hold the chain saw firmly with both hands when the motor is running.
- Do not overreach. Keep proper footing and balance at all times.

Bring the lower guide into contact with the branch to be cut before switching on. Cutting without bringing the lower guide into contact with the branch may cause the guide bar to wobble, resulting in injury to operator.



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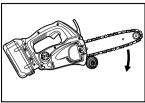
When cutting thick branches, first make a shallow undercut and then make the finish cut from the top.



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If you try to cut off thick branches from the bottom, the branch may close in and pinch the saw chain in the cut.

If you try to cut off thick branches from the top without a shallow undercut, the branch may splinter.

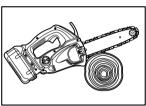


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If you cannot cut the timber right through with a single stroke:

Apply light pressure to the handle and continue sawing and draw the chain saw back a little; then apply the spike a little lower and finish the cut by raising the handle.

Bucking



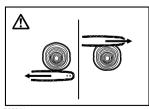
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For bucking cuts, rest the serrated rail shown in the figure on the wood to be cut.

With the saw chain running, saw into the wood, using the top handle to raise the saw and the front one to guide it. Use the serrated rail as a pivot.

Continue the cut by applying slight pressure to the front handle, easing the saw back slightly. Move the serrated rail further down the timber and raise the front handle again.

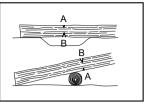
When making several cuts, switch the chain saw off between cuts.



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∆CAUTION:

If the upper edge of the bar is used for cutting, the chain saw may be deflected in your direction if the chain becomes trapped. For this reason, cut with the lower edge, so that the saw will be deflected away from your body.



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Cut wood under tension on the pressure side (A)first. Then make the final cut on the tension side (B). This prevents the bar from becoming trapped.

Limbina

∆CAUTION:

Limbing may only be performed by trained persons.
 A hazard is presented by the risk of kick-back.

When limbing, support the chain saw on the trunk if possible. Do not cut with the tip of the bar, as this presents a risk of kickback.

Pay particular attention to branches under tension. Do not cut unsupported branches from below.

Do not stand on the felled trunk when limbing.

Burrowing and parallel-to-grain cuts

∆CAUTION:

 Burrowing and parallel-to-grain cuts may only be carried out by persons with special training. The possibility of kickback presents a risk of injury.



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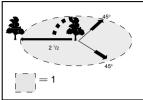
Perform parallel-to-grain cuts at as shallow an angle as possible. Carry out the cut as carefully as possible, as the serrated rail cannot be used.

Fellina

△CAUTION:

 Felling work may only be performed by trained persons. The work is hazardous.

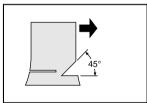
Observe local regulations if you wish to fell a tree.



1. Felling area

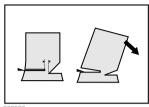
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- Before starting felling work, ensure that:
 - Only persons involved in the felling operation are in the vicinity;
 - (2) Any person involved has an unhindered path of retreat through a range of approximately 45 ° either side of the felling axis. Consider the additional risk of tripping over electrical cables:
 - (3) The base of the trunk is free of foreign objects, roots and ranches;
 - (4) No persons or objects are present over a distance of 2 1/2 tree lengths in the direction in which the tree will fall.
- Consider the following with respect to each tree:
 - Direction of lean;
 - Loose or dry branches;
 - Height of the tree;
 - Natural overhang;
 - · Whether or not the tree is rotten.
- Consider the wind speed and direction. Do not carry out felling work if the wind is gusting strongly.
- Trimming of root swellings: Begin with the largest swellings. Make the vertical cut first, then the horizontal cut.



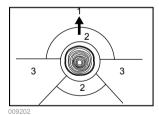
006918

- Cut a scarf: The scarf determines the direction in which the tree will fall, and guides it. It is made on the side towards which the tree is to fall. Cut the scarf as close to the ground as possible. First make the horizontal cut to a depth of 1/5 -1/3 of the trunk diameter. Do not make the scarf too large. Then make the diagonal cut.
- Cut any corrections to the scarf across its entire width



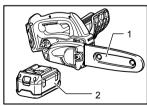
006923

- Make the back cut a little higher than the base cut
 of the scarf. The back cut must be exactly
 horizontal. Leave approximately 1/10 of the trunk
 diameter between the back cut and the scarf.
 The wood fibers in the uncut trunk portion act as a
 - The wood fibers in the uncut trunk portion act as a hinge. Do not cut right through the fibers under any circumstances, as the tree will otherwise fall unchecked. Insert wedges into the back cut in time.
- Only plastic or aluminum wedges may be used to keep the back cut open. The use of iron wedges is prohibited.
- Stand to the side of the falling tree. Keep an area clear to the rear of the falling tree up to an angle of 45° either side of the tree axis (refer to the "felling area" figure). Pay attention to falling branches.
- An escape path should be planned and cleared as necessary before cuts are started. The escape path should extend back and diagonally to the rear of the expected line of fall as illustrated in figure.



- 1. Felling direction
- 2. Danger zone
- 3. Escape route

Carrying tool



- Scabbard (chain cover)
- 2. Battery cartridge

010923

Always remove the battery cartridge from the tool and overlap the guide bar with the scabbard before carrying the tool. Also cover the battery cartridge with the battery cover.

MAINTENANCE

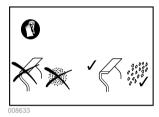
\triangle CAUTION:

- Always be sure that the tool is switched off and the battery cartridge is removed before attempting to perform inspection or maintenance.
- Always wear gloves when performing any inspection or maintenance.
- Never use gasoline, benzine, thinner, alcohol or the like. Discoloration, deformation or cracks may result.

Sharpening the saw chain

∆CAUTION:

Always remove the battery cartridge and wear safety gloves when performing work on the saw chain.



Sharpen the saw chain when:

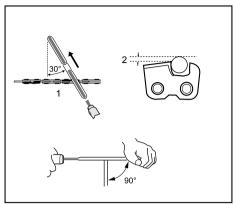
- Mealy sawdust is produced when damp wood is
- The chain penetrates the wood with difficulty, even when heavy pressure is applied;
- The cutting edge is obviously damaged;
- The saw pulls to the left or right in the wood. The reason for this behaviour is uneven sharpening of the saw chain, or damage to one side only.

Sharpen the saw chain frequently, but remove only a little material each time.

Two or three strokes with a file are usually sufficient for routine resharpening. When the saw chain has been resharpened several times, have it sharpened in a MAKITA specialist repair shop.

File and file guiding

Use a special round file (optional accessory) for saw chains, with a diameter of 4 mm, to sharpen the chain. Normal round files are not suitable.



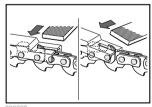
1. File forward stroke

2. 1/5 of the file diameter

- The file should only engage the material on the forward stroke. Lift the file off the material on the return stroke
- Sharpen the shortest cutter first. The length of this cutter is then the gauge dimension for all other cutters on the saw chain.
- Guide the file as shown in the figure.
- The file can be guided more easily if a file holder (accessory) is employed. The file holder has markings for the correct sharpening angle of 30 $^{\circ}$ (align the markings parallel to the saw chain) and limits the depth of penetration (to 4/5 of the file diameter).

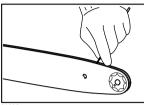
Guide the file as shown in the figure.

After sharpening the chain, check the height of the depth gauge using the chain gauge tool (optional accessory).



- Remove any projecting material, however small, with a special flat file (optional accessory).
- Round off the front of the depth gauge again.
- Wash away dust and particles from saw chain after adjusting the height of depth gauge.

Cleaning guide bar



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Chips and sawdust will build up in the guide bar groove, clogging it and impairing oil flow. Always clean out the chips and sawdust when sharpening or replacing the saw chain.

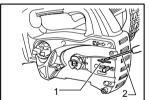
Cleaning the oil discharge hole

Small dust or particles may be built up in the oil discharge hole during operation.

Small dust or particles built up in the oil discharge hole may impair the oil discharge flow and cause an insufficient lubrication on the whole saw chain.

When a poor chain oil delivery occurs at the top of guide bar, clean the oil discharge hole as follows.

Remove the battery cartridge from the tool. Remove the sprocket cover and saw chain from the tool. (Refer to the section titled " Installing or removing saw

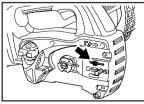


- Small dust or particles
- Slotted bit screwdriver

010925

chain ".)

Remove the small dust or particles using a slotted bit screwdriver with a slender shaft or the like. Insert the battery cartridge into the tool.



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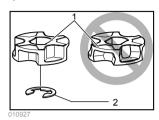
Pull the switch trigger to flow built-up dust or particles off the oil discharge hole by discharging chain oil.

Remove the battery cartridge from the tool.

Reinstall the sprocket cover and saw chain on the tool.

Replacing the sprocket

Before fitting a new saw chain, check the condition of the sprocket.



Sprocket
 Locking ring

∆CAUTION:

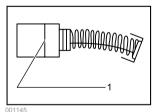
 A worn sprocket will damage a new saw chain.
 Have the sprocket replaced in this case. The sprocket need to be installed so that it always faces as shown in the figure.



Locking ring
 Sprocket

Always fit a new locking ring when replacing the sprocket.

Replacing carbon brushes



1. Limit mark

Remove and check the carbon brushes regularly. Replace when they wear down to the limit mark. Keep the carbon brushes clean and free to slip in the holders. Both carbon brushes should be replaced at the same time. Use only identical carbon brushes.



- 1. Brush holder cap
- 2. Screwdriver

Use a screwdriver to remove the brush holder caps. Take out the worn carbon brushes, insert the new ones and secure the brush holder caps.

Storing tool

Clean the tool before storing. Remove any chips and sawdust from the tool after removing the sprocket cover. After cleaning the tool, run it under no load to lubricate the saw chain and guide bar.

Cover the guide bar with the scabbard.

Remove oil from the oil tank to empty it and place the chain saw.

To maintain product SAFETY and RELIABILITY, repairs, any other maintenance or adjustment should be performed by Makita Authorized Service Centers, always using Makita replacement parts.

ACCESSORIES

ACAUTION:

 These accessories or attachments are recommended for use with your Makita tool specified in this manual. The use of any other accessories or attachments might present a risk of injury to persons. Only use accessory or attachment for its stated purpose.

If you need any assistance for more details regarding these accessories, ask your local Makita Service Center.

- Various type of Makita genuine batteries and chargers
 - Saw chain
 - Scabbard
- · Guide bar complete
- File
- Battery adaptor (Prohibited use during the working on the tree)
- Arm cord hook (to be used together with the battery adapter)
- Tool bag

Makita Corporation