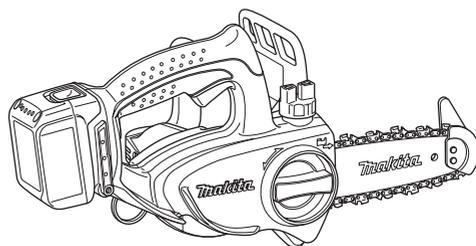


INSTRUCTION MANUAL



Cordless Chain Saw

DUC122



Read before use.

SPECIFICATIONS

Model		DUC122
Standard guide bar	Guidebar length	115 mm
	Cutting length	11.5 cm
	Type	Carving bar
Standard saw chain	Type	25 AP
	Pitch	6.35 mm (1/4")
	Gauge	1.3 mm (0.05")
	No. of drive links	42
Sprocket	Number of teeth	9
	Pitch	6.35 mm (1/4")
Overall length		422 mm
Net weight	*1	1.7 kg
	*2	2.4 - 2.7 kg
Chain speed per minute (min ⁻¹)		5.0 m/s (300 m/min)
Chain oil tank volume		80 cm ³
Rated voltage		D.C. 18 V

WARNING: Use appropriate combination of the guide bar and saw chain. Otherwise personal injury may result.

- Due to our continuing program of research and development, the specifications herein are subject to change without notice.
- Specifications may differ from country to country.

*1: Weight, without the saw chain, guide bar, guide bar cover, oil and battery cartridge(s).

*2: The lightest and heaviest combination of weight, according to EPTA-Procedure 01/2014. The weight may differ depending on the attachment(s), including the battery cartridge(s).

Applicable battery cartridge and charger

Battery cartridge	BL1815N / BL1820B / BL1830B / BL1840B / BL1850B / BL1860B
Charger	DC18RC / DC18RD / DC18RE / DC18SD / DC18SE / DC18SF / DC18SH

- Some of the battery cartridges and chargers listed above may not be available depending on your region of residence.

⚠ WARNING: Only use the battery cartridges and chargers listed above. Use of any other battery cartridges and chargers may cause injury and/or fire.

Symbols

The followings show the symbols which may be used for the equipment. Be sure that you understand their meaning before use.

	Read instruction manual.
	Wear safety glasses.
	Wear ear protection.
	Wear a helmet, goggles and ear protection.

	Use appropriate protection for foot-leg and hand-arm.
	Do not expose to moisture.
	Maximum permissible cut length
	Always use two hands when operating the chain saw.
	Beware of chain saw kickback and avoid contact with bar tip.
	Direction of chain travel
	Saw chain oil adjustment



Only for EU countries

Due to the presence of hazardous components in the equipment, waste electrical and electronic equipment, accumulators and batteries may have a negative impact on the environment and human health. Do not dispose of electrical and electronic appliances or batteries with household waste!

In accordance with the European Directive on waste electrical and electronic equipment and on accumulators and batteries and waste accumulators and batteries, as well as their adaptation to national law, waste electrical equipment, batteries and accumulators should be stored separately and delivered to a separate collection point for municipal waste, operating in accordance with the regulations on environmental protection.

This is indicated by the symbol of the crossed-out wheeled bin placed on the equipment.



Guaranteed sound power level according to EU Outdoor Noise Directive.



Sound power level according to Australia NSW Noise Control Regulation.

Intended use

The tool is intended for cutting branches / pruning trees. It is not suitable for tree felling.

SAFETY WARNINGS

General power tool safety warnings

⚠ WARNING: Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow all instructions listed below 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

1. **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
2. **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 you to lose control.

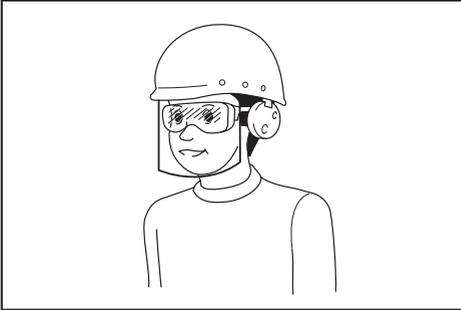
Electrical safety

1. **Power tool plugs must match the outlet. Never 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.
2. **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.
3. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
4. **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.
5. **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.
6. **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.
7. **Power tools can produce electromagnetic fields (EMF) that are not harmful to the user.** However, users of pacemakers and other similar medical devices should contact the maker of their device and/or doctor for advice before operating this power tool.

Personal safety

1. **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.
2. **Use personal protective equipment. Always wear eye protection.** Protective equipment such as a dust mask, non-skid safety shoes, hard hat or hearing protection used for appropriate conditions will reduce personal injuries.
3. **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.
4. **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.
5. **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
6. **Dress properly. Do not wear loose clothing or jewellery. Keep your hair and clothing away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
7. **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.

8. **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.
9. **Always wear protective goggles to protect your eyes from injury when using power tools.** The goggles must comply with ANSI Z87.1 in the USA, EN 166 in Europe, or AS/NZS 1336 in Australia/New Zealand. In Australia/New Zealand, it is legally required to wear a face shield to protect your face, too.
8. **Keep handles and grasping surfaces dry, clean and free from oil and grease.** Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.
9. **When using the tool, do not wear cloth work gloves which may be entangled.** The entanglement of cloth work gloves in the moving parts may result in personal injury.



It is an employer's responsibility to enforce the use of appropriate safety protective equipments by the tool operators and by other persons in the immediate working area.

Power tool use and care

1. **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.
2. **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.
3. **Disconnect the plug from the power source and/or remove the battery pack, if detachable, 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.
4. **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.
5. **Maintain power tools and accessories. 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.
6. **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
7. **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

1. **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.
2. **Use power tools only with specifically designed battery packs.** Use of any other battery packs may create a risk of injury and fire.
3. **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.
4. **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.
5. **Do not use a battery pack or tool that is damaged or modified.** Damaged or modified batteries may exhibit unpredictable behaviour resulting in fire, explosion or risk of injury.
6. **Do not expose a battery pack or tool to fire or excessive temperature.** Exposure to fire or temperature above 130 °C may cause explosion.
7. **Follow all charging instructions and do not charge the battery pack or tool outside the temperature range specified in the instructions.** Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.

Service

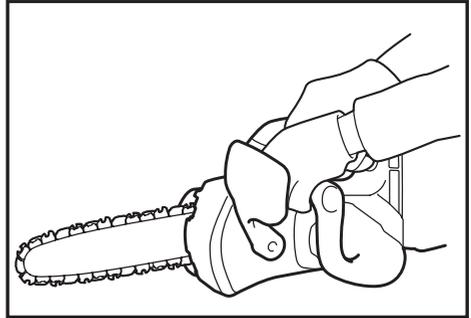
1. **Have your power tool serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.
2. **Never service damaged battery packs.** Service of battery packs should only be performed by the manufacturer or authorized service providers.
3. **Follow instruction for lubricating and changing accessories.**

Cordless Chain saw safety warnings

1. **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.
2. **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.

3. **Hold the chain saw 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 chain saw "live" and could give the operator an electric shock.
4. **Wear eye protection. Further protective equipment for hearing, head, hands, legs and feet is recommended.** Adequate protective equipment will reduce personal injury from flying debris or accidental contact with the saw chain.
5. **Do not operate a chain saw in a tree, on a ladder, from a rooftop, or any unstable support.** Operation of a chain saw in this manner could result in serious personal injury.
6. **Always keep proper footing and operate the chain saw only when standing on fixed, secure and level surface.** Slippery or unstable surfaces may cause a loss of balance or control of the chain saw.
7. **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.
8. **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.
9. **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.
10. **Follow instructions for lubricating, chain tensioning and changing the bar and chain.** Improperly tensioned or lubricated chain may either break or increase the chance for kickback.
11. **Cut wood only. Do not use chain saw for purposes not intended. For example: do not use chain saw for cutting metal, plastic, masonry or non-wood building materials.** Use of the chain saw for operations different than intended could result in a hazardous situation.
12. **This chain saw is not intended for tree felling.** Use of the chain saw for operations different than intended could result in serious injury to the operator or bystanders.
13. **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 chain saw 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.



- **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 guide bars and saw chains specified by the manufacturer.** Incorrect replacement guide bars and saw 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.
14. **Follow all instructions when clearing jammed material, storing or servicing the chain saw. Make sure the switch is off and the battery pack is removed.** Unexpected actuation of the chain saw while clearing jammed material or servicing may result in serious personal injury.

ADDITIONAL SAFETY RULES

1. **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 bar and the sprocket cover are fitted correctly;
 - The chain has been sharpened and tensioned in accordance with the regulations.
2. **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 be thrown out forward resulting in personal injury and damage to objects around the operator.
3. **Avoid dangerous environment. Don't use the tool in damp or wet locations or expose it to rain. Water entering the tool will increase the risk of electric shock.**
4. **Do not dispose of the battery(ies) in a fire. The cell may explode. Check with local codes for possible special disposal instructions.**

5. **Do not open or mutilate the battery(ies).** Released electrolyte is corrosive and may cause damage to the eyes or skin. It may be toxic if swallowed.
6. **Do not charge battery in rain, or in wet locations.**

Protective equipment

1. **In order to avoid head, eye, hand or foot injuries as well as to protect your hearing the following protective equipment must be used during operation of the chain saw:**
 - The kind of clothing should be appropriate, i. e. it should be tight-fitting but not be a hindrance. Do not wear jewelry or clothing which could become entangled with bushes or shrubs. If you have long hair, always wear a hairnet!
 - It is necessary to wear a protective helmet whenever working with the chain saw. The **protective helmet** is to be checked in regular intervals for damage and is to be replaced after 5 years at the latest. Use only approved protective helmets.
 - The **face shield** of the protective helmet (or the goggles) protects against sawdust and wood chips. During operation of the chain saw always wear a goggle or a face shield to prevent eye injuries.
 - Wear adequate **noise protection equipment** (ear muffs, ear plugs, etc.)
 - The **protective jacket** consists of 22 layers of nylon and protects the operator against cuts.
 - The **protective brace and bib overall** is made of a nylon fabric with 22 layers and protects against cuts. We strongly recommend its use.
 - **Protective gloves** made of thick leather are part of the prescribed equipment and must always be worn during operation of the chain saw.
 - During operation of the chain saw **safety shoes** or **safety boots** fitted with anti skid sole, steel toe caps and protection for the leg must always to be worn. Safety shoes equipped with a protective layer provide protection against cuts and ensure a secure footing.

Vibration

1. Individuals with poor circulation who are exposed to excessive vibration may experience injury to blood vessels or the nervous system. Vibration may cause the following symptoms to occur in the fingers, hands or wrists: "Falling asleep" (numbness), tingling, pain, stabbing sensation, alteration of skin colour or of the skin. **If any of these symptoms occur, see a physician!** To reduce the risk of "white finger disease", keep your hands warm during operation and well maintain the equipment and accessories.

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.

Important safety instructions for battery cartridge

1. **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 or tamper with the battery cartridge.** It may result in a fire, excessive heat, or explosion.
3. **If operating time has become excessively shorter, stop operating immediately.** It may result in a risk of overheating, possible burns and even an explosion.
4. **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.
5. **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.

6. **Do not store and use the tool and battery cartridge in locations where the temperature may reach or exceed 50 °C (122 °F).**
7. **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. **Do not nail, cut, crush, throw, drop the battery cartridge, or hit against a hard object to the battery cartridge.** Such conduct may result in a fire, excessive heat, or explosion.
9. **Do not use a damaged battery.**
10. **The contained lithium-ion batteries are subject to the Dangerous Goods Legislation requirements.**

For commercial transports e.g. by third parties, forwarding agents, special requirement on packaging and labeling must be observed.

For preparation of the item being shipped, consulting an expert for hazardous material is required. Please also observe possibly more detailed national regulations.

Tape or mask off open contacts and pack up the battery in such a manner that it cannot move around in the packaging.

11. **When disposing the battery cartridge, remove it from the tool and dispose of it in a safe place. Follow your local regulations relating to disposal of battery.**
12. **Use the batteries only with the products specified by Makita.** Installing the batteries to non-compliant products may result in a fire, excessive heat, explosion, or leak of electrolyte.
13. **If the tool is not used for a long period of time, the battery must be removed from the tool.**
14. **During and after use, the battery cartridge may take on heat which can cause burns or low temperature burns. Pay attention to the handling of hot battery cartridges.**
15. **Do not touch the terminal of the tool immediately after use as it may get hot enough to cause burns.**
16. **Do not allow chips, dust, or soil stuck into the terminals, holes, and grooves of the battery cartridge.** It may result in poor performance or breakdown of the tool or battery cartridge.
17. **Unless the tool supports the use near high-voltage electrical power lines, do not use the battery cartridge near high-voltage electrical power lines.** It may result in a malfunction or breakdown of the tool or battery cartridge.
18. **Keep the battery away from children.**

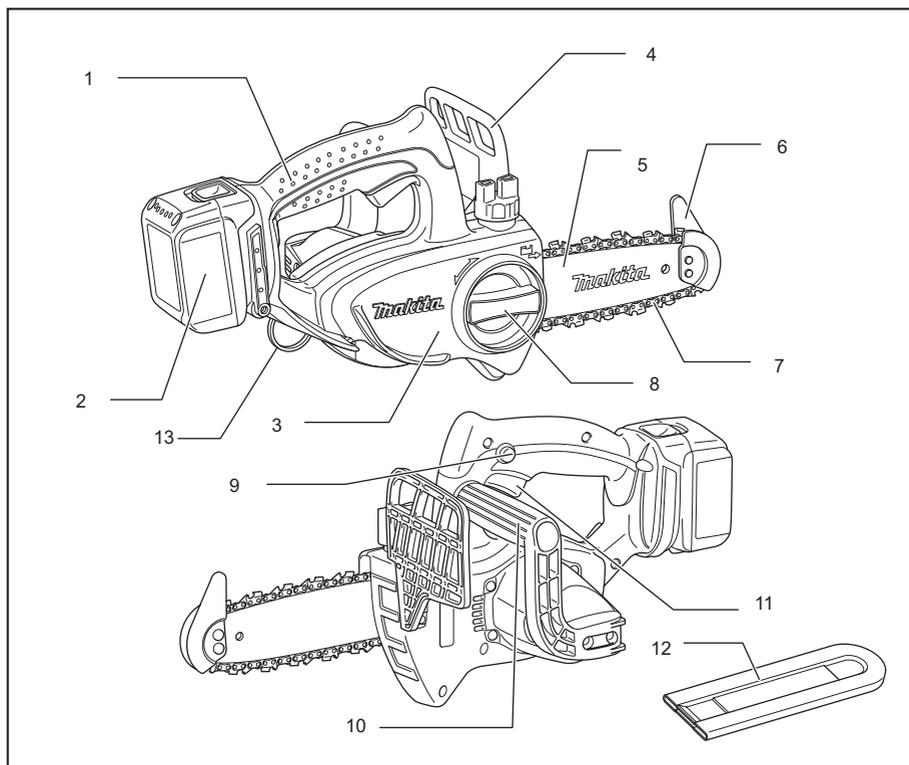
SAVE THESE INSTRUCTIONS.

⚠ CAUTION: Only use genuine Makita batteries. Use of non-genuine Makita batteries, or batteries that have been altered, may result in the battery bursting causing fires, personal injury and damage. It will also void the Makita warranty for the Makita tool and charger.

Tips for maintaining maximum battery life

1. **Charge the battery cartridge before completely discharged. Always stop tool operation and charge the battery cartridge when you notice less tool power.**
2. **Never recharge a fully charged battery cartridge. Overcharging shortens the battery service life.**
3. **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.**
4. **When not using the battery cartridge, remove it from the tool or the charger.**
5. **Charge the battery cartridge if you do not use it for a long period (more than six months).**

PARTS DESCRIPTION



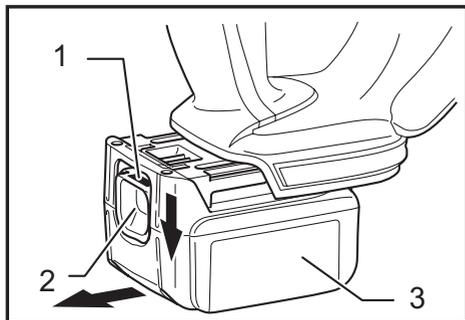
1	Top handle	8	knob
2	Battery cartridge	9	Lock off button
3	Sprocket cover	10	Front handle
4	Front hand guard	11	Switch trigger
5	Guide bar	12	Chain cover
6	Tip guard	13	Carabiner or rope attachment point
7	Saw chain		

FUNCTIONAL DESCRIPTION

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 indicator 2. Button 3. Battery cartridge

CAUTION:

- Always switch off the tool before installing or removing of the battery cartridge.
- Hold the tool and the battery cartridge firmly when installing or removing battery cartridge.** Failure to hold the tool and the battery cartridge firmly may cause them to slip off your hands and result in damage to the tool and battery cartridge and a personal injury.

To remove the battery cartridge, slide it from the tool while sliding the button on the front of the cartridge. To install the battery cartridge, align the tongue on the battery cartridge with the groove in the housing and slip it into place. Insert it all the way until it locks in place with a little click. If you can see the red indicator on the upper side of the button, it is not locked completely.

CAUTION:

- Always install the battery cartridge fully until the red indicator cannot be seen. If not, it may accidentally fall out of the tool, causing injury to you or someone around you.
- Do not install the battery cartridge forcibly. If the cartridge does not slide in easily, it is not being inserted correctly.

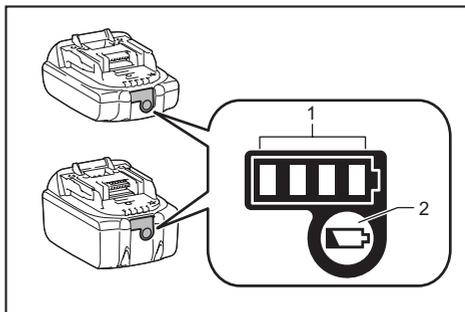
Battery protection system (Lithium-ion battery with star marking)

The tool will automatically stop during operation if the tool and/or battery are placed under one of the following conditions:

- Overloaded:**
The tool is operated in a manner that causes it to draw an abnormally high current. In this situation, release the trigger switch on the tool and stop the application that caused the tool to become overloaded. Then pull the trigger switch again to restart. If the tool does not start, the battery is overheated. In this situation, let the battery cool before pulling the trigger switch again.
- Low battery voltage:**
The remaining battery capacity is too low and the tool will not operate. In this situation, remove and recharge the battery.

Indicating the remaining battery capacity

Only for battery cartridges with the indicator



► 1. Indicator lamps 2. Check button

Press the check button on the battery cartridge to indicate the remaining battery capacity. The indicator lamps light up for a few seconds.

Indicator lamps			Remaining capacity
Lighted	Off	Blinking	
■ ■ ■ ■			75% to 100%
■ ■ ■ □			50% to 75%
■ ■ □ □			25% to 50%
■ □ □ □			0% to 25%
▣ □ □ □			Charge the battery.
■ ■ □ □			The battery may have malfunctioned.
□ □ ■ ■			

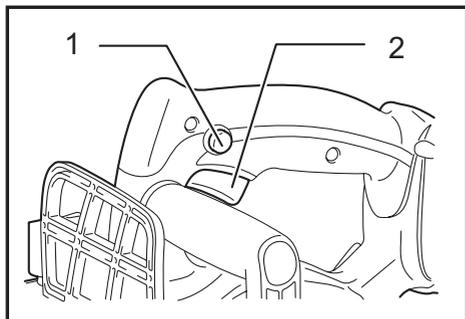
NOTE: Depending on the conditions of use and the ambient temperature, the indication may differ slightly from the actual capacity.

NOTE: The first (far left) indicator lamp will blink when the battery protection system works.

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.



► 1. Lock-off button 2. 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.

ASSEMBLY

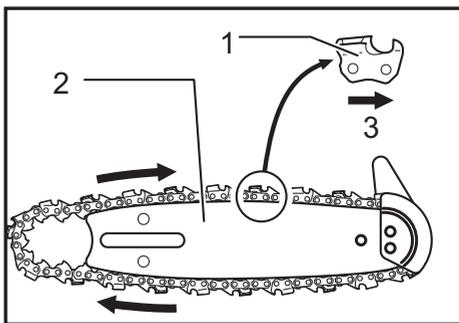
⚠ CAUTION:

- 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

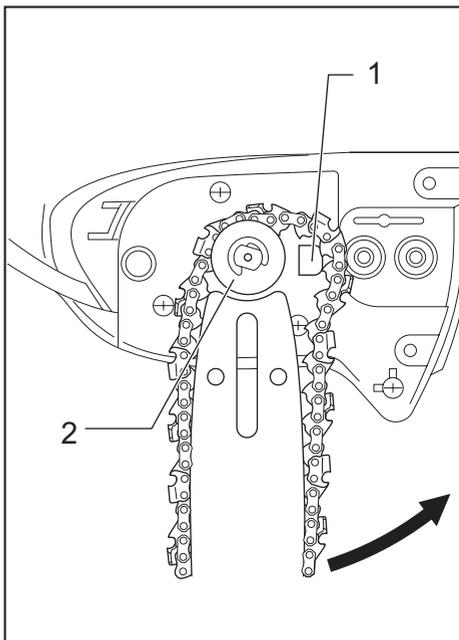
⚠ CAUTION:

- 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.
- Use only saw chain and guide bar with bar tip designed for this chain saw (see the Extract from the spare parts list).
- In order to prevent kickback, do not remove the bar tip or replace the guide bar with one without a bar tip.



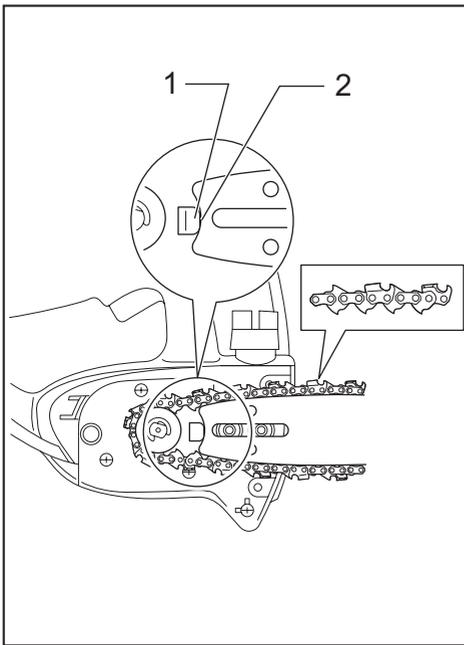
► 1. Cutter 2. Guide bar 3. Arrow

Fit in one end of the saw chain on the top of guide bar. At this time, fit the saw chain as shown in the figure because it rotates in the direction of arrow.



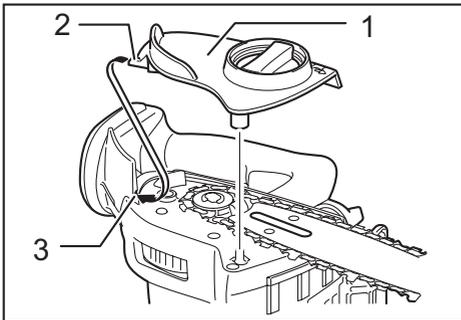
► 1. Spring 2. Sprocket

Place the saw chain so that the spring is positioned inside it and fit in the other end of saw chain around the sprocket as shown in the figure.



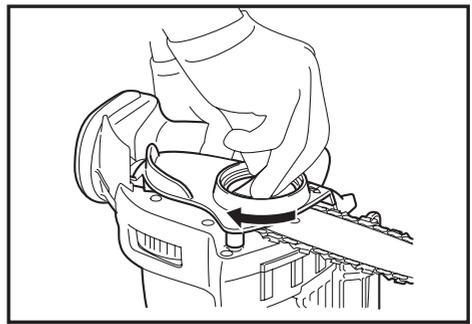
► 1. Spring 2. Guide bar

While turning the guide bar counterclockwise, install it so that the end of guide bar contacts the spring.

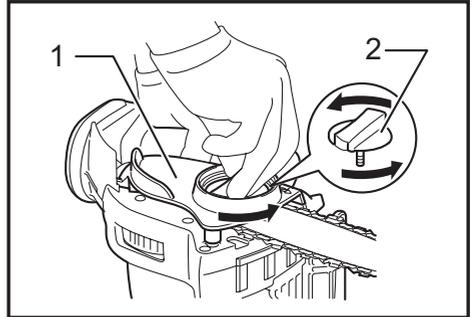


► 1. Sprocket cover 2. Hook 3. Hole

Insert the hook of sprocket cover into the hole in the tool and then place the sprocket cover on the tool.



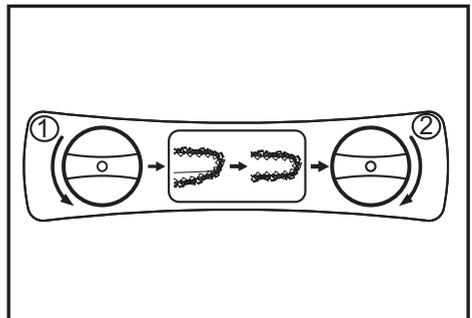
Turn the knob clockwise to tighten the screw firmly.



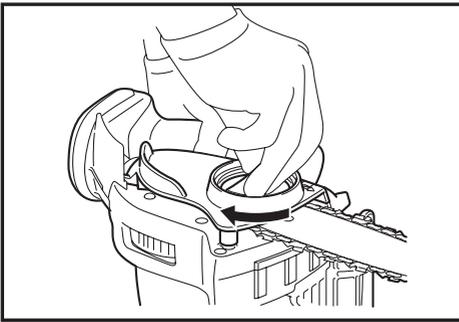
► 1. Sprocket cover 2. Knob

Loosen the screw by turning counterclockwise the knob until the sprocket cover comes off. Remove the sprocket cover. Remove saw chain and guide bar from the tool.

Adjusting saw chain tension



Just a slight loosening of the screw allows the saw chain tension to be adjusted. After adjusting, retighten the screw firmly.

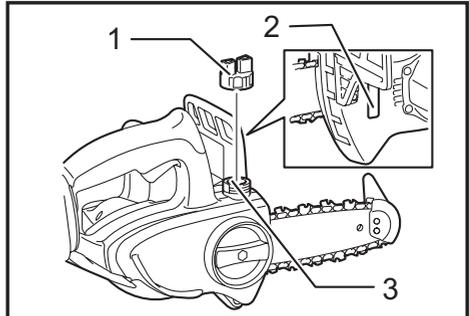


⚠ CAUTION:

- For a while after a new saw chain is installed, it tends to become loosened. From time to time check the saw chain tension before use.
- Low tension of saw chain may cause coming out of place.
- 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 inspection window 3. Oil tank opening

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.

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

⚠ CAUTION:

- Do not operate the chain saw when the tank is empty. Replenish the oil in due time before the tank is empty.
- 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.

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

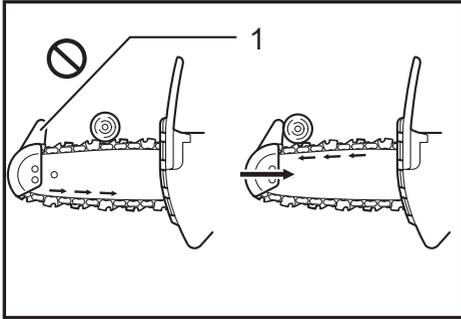
Bring the tip guide/lower guide into contact with the branch to be cut before switching on. Cutting without bringing the tip guide/lower guide into contact with the branch may cause the guide bar to wobble, resulting in injury to operator.

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

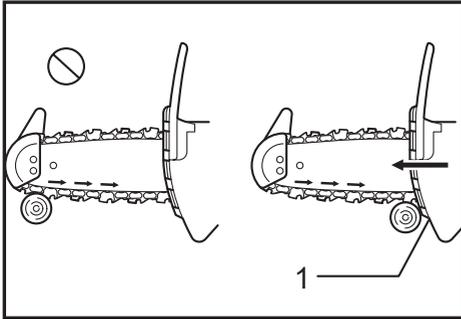
WORKING WITH THE CHAIN SAW

CAUTION: The first time user should, as a minimum practice, do cutting logs on a saw-horse or cradle.

Pruning trees



► 1. Tip guide



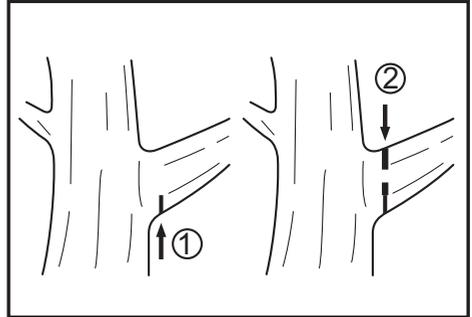
► 1. Lower guide

CAUTION:

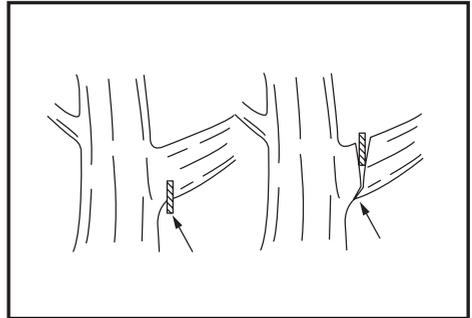
- Keep all parts of the body away from the saw chain when the motor is operating.
- Hold the chain saw firmly with both hands when the motor is running.
- Do not overreach. Keep proper footing and balance at all times.

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

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

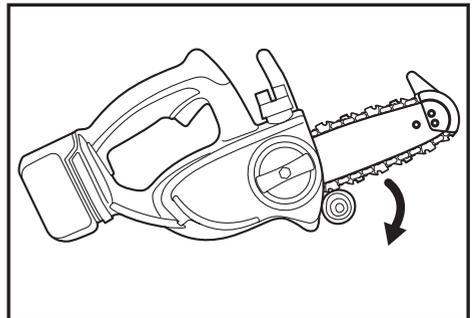


If you try to cut off thick branches from the bottom, the branch may close in and pinch the saw chain in the cut. If you try to cut off thick branches from the top without a shallow undercut, the branch may splinter.

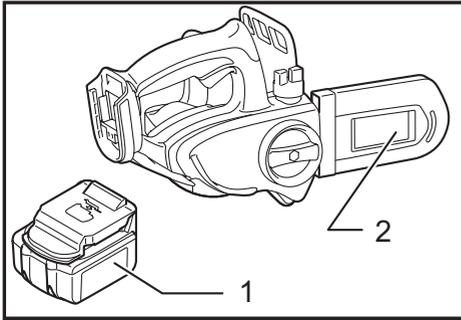


If you cannot cut the timber right through with a single stroke:

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.



Carrying tool



- 1. Battery cartridge 2. Scabbard (chain cover)

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

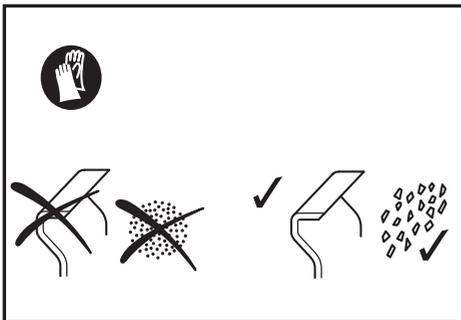
⚠ CAUTION:

- 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:

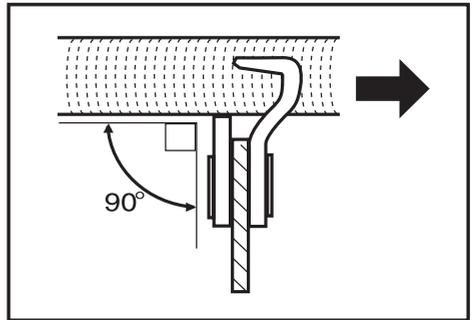
- Mealy sawdust is produced when damp wood is cut;
- The chain penetrates the wood with difficulty, even when heavy pressure is applied;
- The cutting edge is obviously damaged;
- The saw pulls to the left or right in the wood. The reason for this behaviour is uneven sharpening of the saw chain, or damage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

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

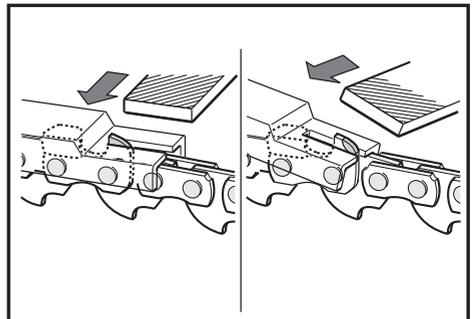
Two or three strokes with a file are usually sufficient for routine resharpening. When the saw chain has been resharpened several times, have it sharpened in a MAKITA specialist repair shop.

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.

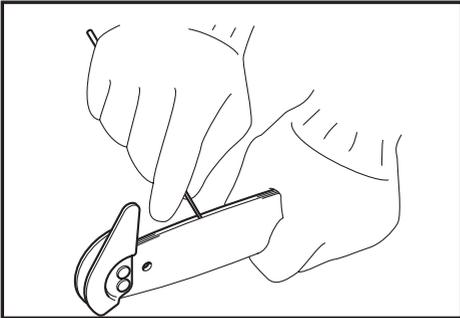


- The file should only engage the material on the forward stroke. Lift the file off the material on the return stroke.
 - Sharpen the shortest cutter first. The length of this cutter is then the gauge dimension for all other cutters on the saw chain.
 - Guide the file as shown in the figure.
 - The file can be guided more easily if a file holder (accessory) is employed. The file holder has markings for the correct sharpening angle of 30° (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.
- Wash away dust and particles from saw chain after adjusting the height of depth gauge.

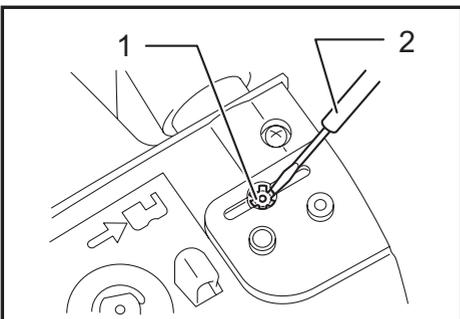
Cleaning guide bar



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.

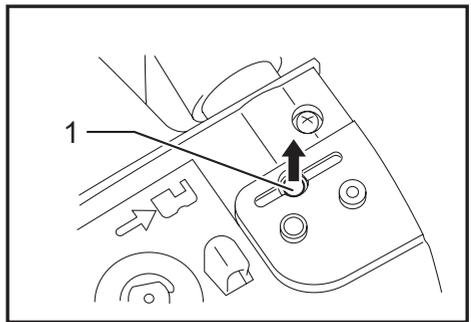
Cleaning the oil filter at the oil discharge hole

Small dust or particles may be built up in the oil filter at the oil discharge hole during operation. Small dust or particles built up in the oil filter 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 filter 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 chain".)



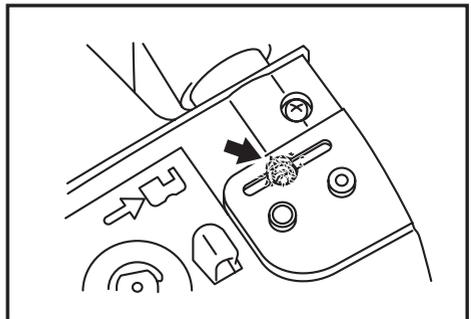
► 1. Push nut 2. Slotted bit screwdriver

Remove the push nut using a slotted bit screwdriver with a slender shaft or the like.

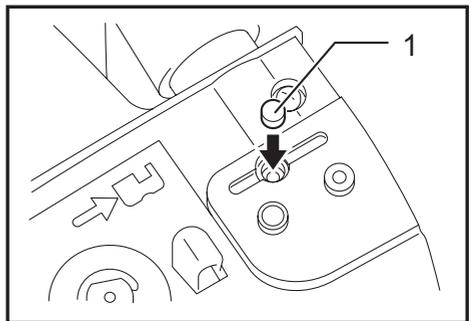


► 1. Filter

Take the filter out of the chain saw and remove small dust or particles from it. When the filter is too dirty, replace it with a new one. Insert the battery cartridge into the tool.

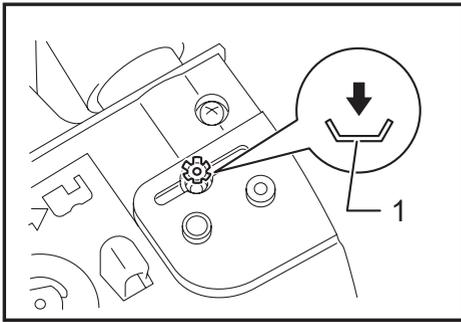


Pull the switch trigger to flow built-up dust or particles off the oil discharge hole by discharging chain oil. Remove the battery cartridge from the tool.



► 1. Filter

Insert the cleaned oil filter into the oil discharge hole. When the filter is too dirty, replace it with a new one.

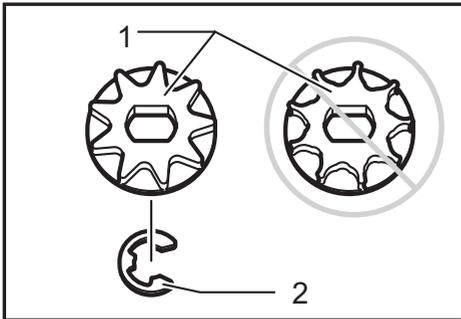


► 1. Push nut

Insert the push nut with its correct side facing up as shown in the figure into the oil discharge hole to secure the filter. When the filter cannot be secured with a disfigured push nut, replace the push nut with a new one. Reinstall the sprocket cover and saw chain on the tool.

Replacing the sprocket

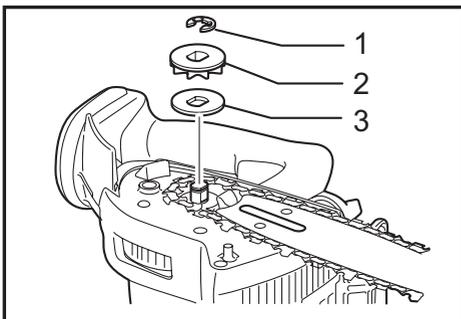
Before fitting a new saw chain, check the condition of the sprocket.



► 1. Sprocket 2. Locking ring

CAUTION:

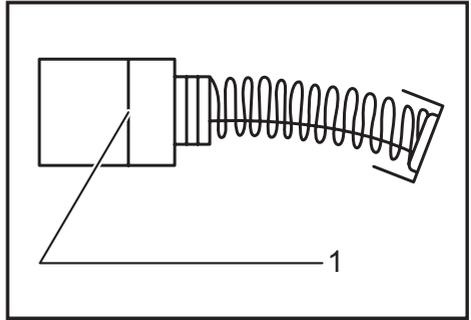
- A worn sprocket will damage a new saw chain. Have the sprocket replaced in this case. The sprocket need to be installed so that it always faces as shown in the figure.



► 1. Locking ring 2. Sprocket 3. Washer

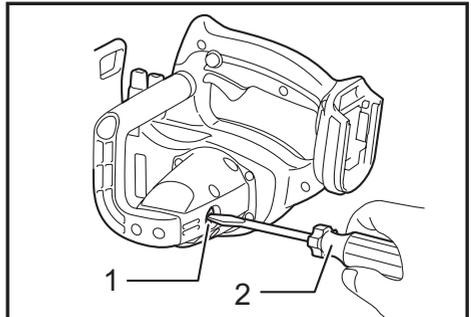
Always fit a new locking ring when replacing the sprocket.

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. 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.



► 1. Brush holder cap 2. Screwdriver

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 with the tank cap facing upward.

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.

Instructions for periodic maintenance

To ensure long life, prevent damage and ensure the full functioning of the safety features the following maintenance must be performed regularly.

Warranty claims can be recognized only if this work is performed regularly and properly. Failure to perform the prescribed maintenance work can lead to accidents!

The user of the chain saw must not perform maintenance work which is not described in the instruction manual. All such work must be carried out by authorized service centre.

Operating time Item		Before operation	Everyday	Every week	Every 3 month	Annually	Before storage
Chain saw	Inspection.	<input type="radio"/>					
	Cleaning.		<input type="radio"/>				
	Check at authorized service center.					<input type="radio"/>	<input type="radio"/>
Saw chain	Inspection.	<input type="radio"/>					
	Sharpening if necessary.						<input type="radio"/>
Guide bar	Inspection.	<input type="radio"/>	<input type="radio"/>				
	Remove from the chain saw.						<input type="radio"/>
Chain lubrication	Check the oil feed rate.	<input type="radio"/>					
Switch trigger	Inspection.	<input type="radio"/>					
Lock-off button	Inspection.	<input type="radio"/>					
Oil tank cap	Check tightness.	<input type="radio"/>					
Chain catcher	Inspection.			<input type="radio"/>			
Screws and nuts	Inspection.			<input type="radio"/>			

TROUBLE SHOOTING

Before asking for repairs, conduct your own inspection first. If you find a problem that is not explained in the manual, do not attempt to dismantle the tool. Instead, ask Makita Authorized Service Centers, always using Makita replacement parts for repairs.

Malfunction status	Cause	Action
Chain saw does not start.	Battery cartridge is not installed.	Install the charged battery cartridge.
	Battery problem (under voltage).	Recharge the battery cartridge. If recharging is not effective, replace battery cartridge.
Motor stops running after a little use.	Battery's charge level is low.	Recharge the battery cartridge. If recharging is not effective, replace battery cartridge.
No oil on the chain.	Oil tank is empty.	Fill the oil tank.
	Oil guide groove is dirty.	Clean the groove.
	Malfunction of oil pump.	Ask your local authorized service center for repair.
It does not reach maximum RPM.	Battery cartridge is installed improperly.	Install the battery cartridge as described in this manual.
	Battery's charge level is low.	Recharge the battery cartridge. If recharging is not effective, replace battery cartridge.
	The drive system does not work correctly.	Ask your local authorized service center for repair.
Chain does not stop: Stop the machine immediately!	Malfunction of switch.	Ask your local authorized service center for repair.
Abnormal vibration: Stop the machine immediately!	Loose guide bar or saw chain.	Adjust the guide bar and saw chain tension.
	Tool malfunction.	Ask your local authorized service center for repair.

OPTIONAL ACCESSORIES

CAUTION:

- 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
- Chain cover
- Guide bar complete
- File

NOTE:

- Some items in the list may be included in the tool package as standard accessories. They may differ from country to country.

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