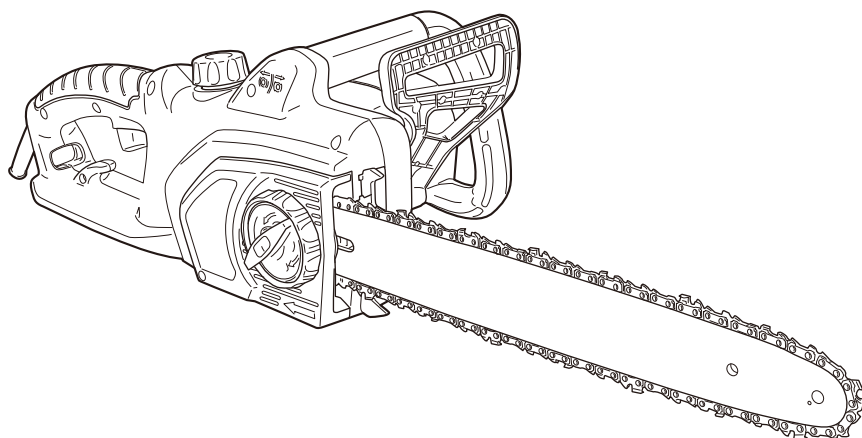
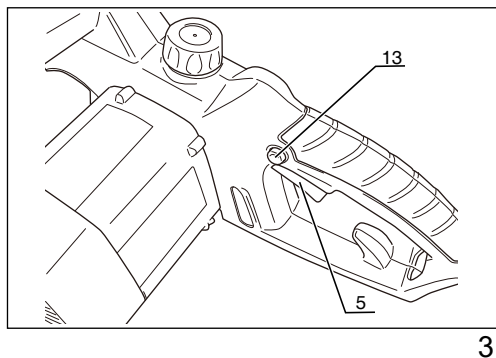
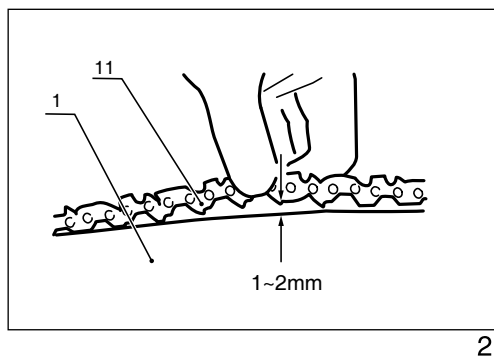
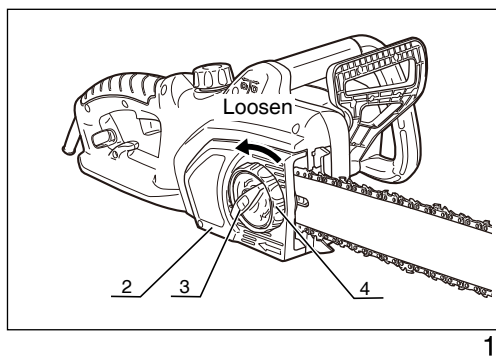
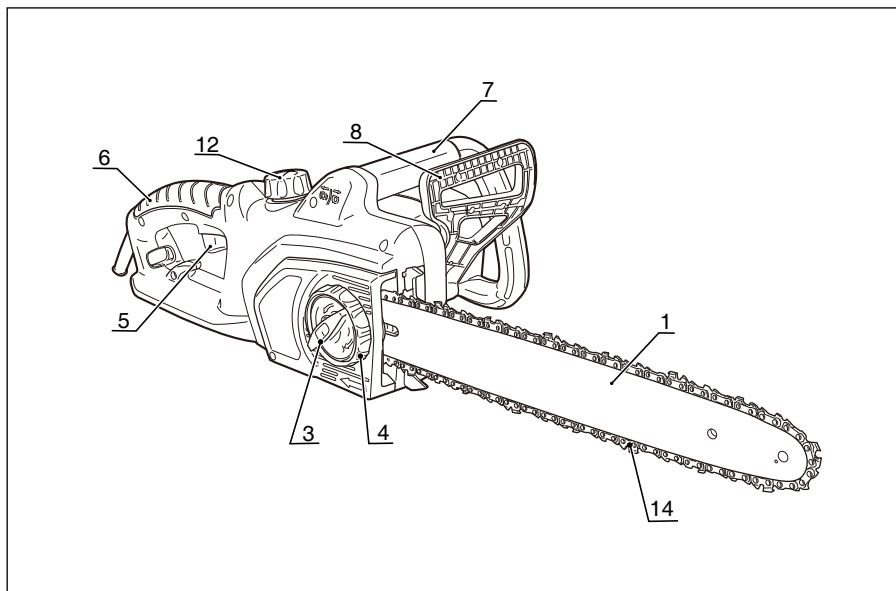
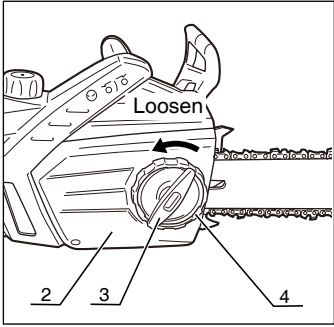


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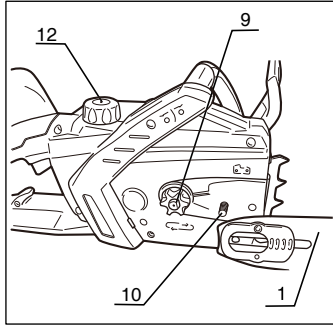
 OWNER'S OPERATING MANUAL



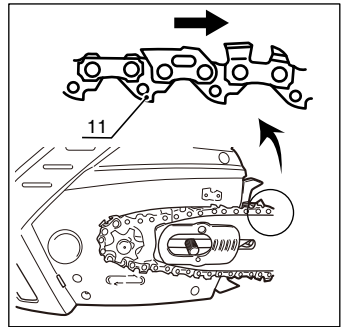




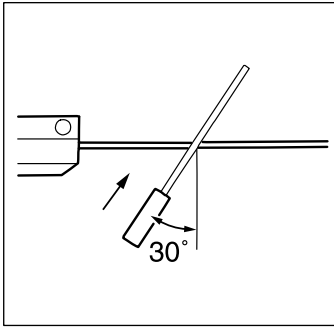
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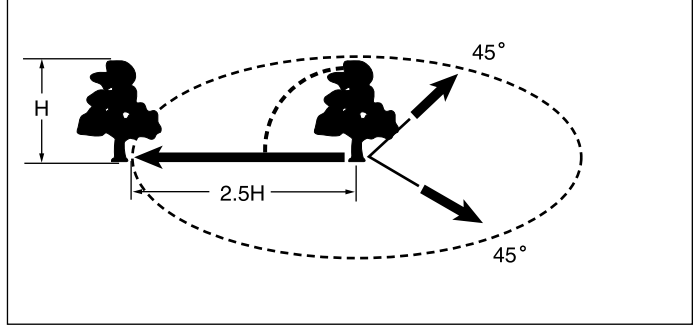
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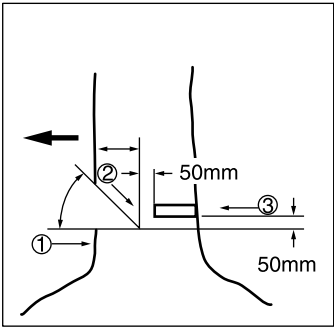
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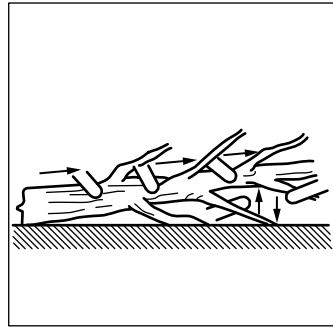
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B



C

## THANK YOU FOR BUYING OUR PRODUCT.

To ensure your safety and satisfaction, carefully read through this OWNER'S MANUAL before using the product.

### 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 corded or battery-operated (cordless) power tool.

#### 1) Work area safety

- a) **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- b) **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.
- c) **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

#### 2) Electrical safety

- a) **Power tool plugs must match the outlet.** Never modify the plug in any way. Do not use any adapter plugs with grounded power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
- b) **Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is grounded.
- c) **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- d) **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.
- e) **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.
- f) **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.

#### 3) Personal safety

- a) **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.
- b) **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.
- c) **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.
- d) **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.
- e) **Do not overreach.** Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- f) **Dress properly.** Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.

g) 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.

h) **Do not let familiarity gained from frequent use of tools. Do not become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.

#### 4) Power tool use and care

- a) **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.
- b) **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.
- c) **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.
- d) **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.
- e) **Maintain power tools.** Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
- f) **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- g) **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.
- h) **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.

#### 5) Service

- a) **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.

### Chain saw safety warnings:

- a) **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.
- b) **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.
- c) **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.
- d) **Do not operate a chain saw in a tree.** Operation of a chain saw while up in a tree may result in personal injury.

- e) **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.
- f) **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.
- g) **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.
- h) **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.
- i) **Follow instructions for lubricating, chain tensioning and changing accessories.** Improperly tensioned or lubricated chain may either break or increase the chance for kickback.
- j) **Keep handles dry, clean, and free from oil and grease.** Greasy, oily handles are slippery causing loss of control.
- k) **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.

#### **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:

- a) **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.
- b) **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.
- c) **Only use replacement bars and chains specified by the manufacturer.** Incorrect replacement bars and chains may cause chain breakage and/or kickback.
- d) **Follow the manufacturer's sharpening and maintenance instructions for the saw chain.** Decreasing the depth gauge height can lead to increased kickback.

#### **INSTRUCTIONS FOR SAFE HANDLING**

1. Make sure that the tool is only connected to the voltage marked on the name plate.
2. Never use the tool if its cover or any bolts are missing. If the cover or bolts have been removed, replace them prior to use. Maintain all parts in good working order.

3. Always secure tools when working in elevated positions.
4. Never touch the blade, drill bit, grinding wheel or other moving parts during use.
5. Never start a tool when its rotating component is in contact with the workpiece.
6. Never lay a tool down before its moving parts have come to a complete stop.
7. It is recommended for increased electrical safety to use a Residual Current Device (RCD) with a tripping current of not more than 30 mA. Always check your RCD every time you use it.
8. It is recommended that the first time user should have practical instruction in the use of the chainsaw and the protective equipment from an experienced operator and that the initial practice should be cutting logs on a saw horse or cradle.
9. **ACCESSORIES** : The use of accessories or attachments other than those recommended in these instructions might present a hazard.
10. **REPLACEMENT PARTS** : When servicing, use only identical replacement parts. Otherwise it may cause considerable danger for the user.

#### **(CHAIN SAW VOCABULARY)**

- **BORING** - The process of cutting with the chain saw at the nose (tip) of the guide bar, in order to make a hole.
- **BUCKING** - The process of cross cutting a felled tree or log into lengths.
- **CHAIN BRAKE** - A device used to stop the chain saw.
- **DRIVE SPROCKET (OR SPROCKET)** - The toothed part that drives the saw chain.
- **FELLING** - The process of cutting down a tree.
- **FELLING BACK CUT** - The final cut in a tree felling operation, made on the opposite side of the tree from the notching undercut.
- **FRONT HANDLE** - The support handle located at or towards the front end of the chain saw.
- **GUIDE BAR** - A solid railed structure that supports and guides the saw chain.
- **KICKBACK** - The backward and/or upward motion of the guide bar, occurring when the saw chain at the nose of the top area of the guide bar contacts any object such as another log or branch, or when the wood closes in and pinches the saw chain in the cut.
- **NORMAL CUTTING POSITION** - The positions assumed when performing the bucking and felling cuts.
- **NOTCHING UNDERCUT** - A notch cut in a tree to direct the tree's fall.
- **OILER CONTROL** - A system for oiling the guide bar and saw chain.
- **REAR HANDLE** - The support handle located at or towards the rear of the saw.
- **SAW CHAIN** - A loop of chain with cutting teeth that cut the wood, which is driven by the motor and is supported by the guide bar.
- **SPIKED BUMPER (SPIKE)** - The pointed tooth or teeth for use when filling or bucking to pivot the saw and maintain position while operating.
- **SWITCH** - A device which will complete or interrupt an electrical power circuit to the motor of the chain saw.
- **SWITCH LINKAGE** - The mechanism that transmits motion from a trigger to the switch.
- **SWITCH LOCKOUT** - A movable stop that prevents accidental operation of the switch until manually activated.



## DESCRIPTION

1. Guide bar
2. Sprocket cover
3. Tightening knob
4. Adjusting ring
5. Trigger
6. Rear handle
7. Front handle
8. Hand guard
9. Sprocket
10. Mounting pin
11. Drive link
12. Oil filler cap
13. Safety lock
14. Saw chain

## SPECIFICATIONS

Power input	2200W
Cutting length	400mm
Chain speed	13.5m/sec
Oil tank capacity	150ml
Net weight	5.1kg

## STANDARD ACCESSORIES

Guide bar, Saw chain, Chain cover

## APPLICATIONS

(Use only for the purposes listed below)

1. Cutting wood.

## SAW CHAIN TENSIONING (Fig. 1-2)

**ENSURE THAT THE CHAIN SAW IS UNPLUGGED, AND WEARING GLOVES, PROCEED AS FOLLOWS:**

The tension of the saw chain (14) will affect its performance and life. When used for the first time, the tension can easily be set. However, a new saw chain will stretch and should therefore be rechecked after a little use. When checking, be sure to disconnect the tool from the power supply first.

1. Loosen by turning the tightening knob (3) to the left. (1.5 to 2 turns)
2. Adjust the saw chain tension by turning the adjusting ring (4). The correct tension is at the point when you can pull the chain away from the guide bar until the drive link (11) of the chain just touches the guide bar(1).
3. After adjusting the tension, firmly tighten the tightening knob by hand.

## SWITCH (Fig. 3)

This tool is started and stopped by depressing and releasing the switch.

To prevent the motor being started accidentally, the trigger (5) can only be operated if the safety lock (13) is depressed first.

## OILING OF CHAIN

In order to minimize friction with the guide bar, the chain on your saw required lubrication while in operation.

The tank holds enough oil for 10-15 minutes of sawing at one time.

※Saw chain oil NOT included.

When filling the oil tank, avoid spilling oil over the saw and ensure that sawdust etc. does not enter the tank. The oil filler cap (12) is located adjacent to the front handle. The cap must be securely tightened to ensure that the oil pump functions correctly. Oil will be supplied automatically during operation.

## HANDGUARD

This tool is equipped with a handguard (8) to help protect your left hand in the event that it slips off the front handle.

## CHANGING THE SAW CHAIN (Fig. 4-6)

1. Ensure the saw is unplugged from the power supply before starting to change the saw chain.
2. Support the saw on its side with the sprocket cover (2) facing up.
3. Loosen the tightening knob (3), and remove the sprocket cover (2).
4. Remove the guide bar (1) and saw chain (14).
5. Mount the saw chain on the guide bar, with the cutters facing forward on the top of the bar.
6. Holding the saw chain snugly on the guide bar with one hand, position the loop end of the saw chain over the sprocket (9) and set the guide bar on the mounting pad.
7. Stand the saw upright and turn the adjusting ring (4) clockwise to move the guide bar outwards, then tighten the saw chain.
8. Adjust the saw chain tension (see the section of saw chain tension)
9. Attach the sprocket cover and firmly tighten the tightening knob by hand.

## CHAIN SHARPENING (Fig. 7)

You can sharpen the saw chain yourself by using the round chain file. The teeth on the chain are set alternately to the left and right. Make sure that you file the teeth at an angle of 30° as shown.

## OPERATING INSTRUCTIONS

**USE SAFETY EQUIPMENT. WEAR EYE PROTECTION WHILE USING THIS TOOL FOR EXTENDED PERIODS.**

**ENSURE THAT THE OIL IS FULL BEFORE USE.**

**ONCE THE CORRECT TENSION HAS BEEN OBTAINED, START THE MOTOR.**

### HOLDING THE CHAIN SAW

Always grip both handles with the thumb and fingers encircling the handles. Ensure that your left hand is holding the handle so that the thumb is underneath.

### USING THE CHAIN SAW

Always be sure of your footing and hold the chain saw firmly with both hands while the motor is running

### FELLING A TREE (The process of cutting down a tree.)

When bucking and felling operations are being performed by two or more persons, at the same time, the felling operation should be separated from the bucking operation by a distance of at least twice the height of the tree being felled. Trees should not be felled in a manner that would endanger any person, strike any utility line or cause any property damage. If the tree does make contact with any utility line, the utility company should be notified immediately. The chain saw operator should keep on the uphill side of the terrain as the tree is likely to roll or slide downhill after it is felled.

A retreat path should be planned and cleared as necessary before cuts are started. The retreat path should extend back and diagonally to the rear of the expected line of fall as illustrated in Figure A. Before felling is started, consider the natural lean of the tree, the location of larger branches, and the wind direction to judge which way the tree will fall.

Remove dirt, stones, loose bark, nails, staples, and wire from the tree where felling cuts are to be made.

**NOTCHING UNDERCUT** (A notch cut in a tree to direct the tree's fall.)

Make the notch 1/3 the diameter of the tree, perpendicular to the direction of fall as illustrated in Figure B. Make the lower horizontal notching cut first this will help to avoid pinching of either the saw chain or the guide bar when the second notch is being made.

**FELLING BACK CUT** (The final cut in a tree felling operation, made on the opposite side of the tree from the notching undercut.) Make the felling back cut at least 50mm (2 inches) higher than the horizontal notching cut as illustrated in Figure B. Keep the felling back cut parallel to the horizontal notching cut. Make the felling back cut so enough wood is left to act as a hinge. The hinge wood keeps the tree from twisting and falling in the wrong direction. Do not cut through the hinge. As the felling cut gets close to the hinge the tree should be to fall. If there is any chance that the tree may not fall in the desired direction or it may rock back and bind the saw chain, stop cutting before the felling back cut is complete and use wedges of wood, plastic or aluminum to open the cut and drop the tree along the desired line of fall. When the tree begins to fall remove the chain saw from the cut, stop the motor, put the chain saw down, then use the retreat path planned. Be alert for overhead limbs falling and watch your footing.

### **LIMBING A TREE**

Limbing is removing the branches from a fallen tree. When limbing, leave larger lower limbs to support the log off the ground. Remove the small limbs in one cut as illustrated in Figure C. Branches under tension should be cut from the bottom up to avoid binding the chain saw.

**BUCKING A LOG** (The process of cross cutting a felled tree or log into lengths.)

Bucking is cutting a log into lengths. It is important to make sure your footing is firm and your weight is evenly distributed on both feet.

When possible, the log should be raised and supported by the use of limbs, logs or chocks. Follow the simple directions for easy cutting.

When the log is supported along its entire length, it is cut from the top (overbuck).

When the log is supported on one end, cut 1/3 the diameter from the underside (underbuck). Then make the finished cut by overbucking to meet the first cut.

When the log is supported on both ends, cut 1/3 of that diameter from the top overbuck. Then make the finished cut by underbucking the lower 2/3 to meet the first cut.

When bucking on a slope always stand on the uphill side of the log. When "cutting through", to maintain complete control release the cutting pressure near the end of the cut without relaxing your grip on the chain saw handles.

Don't let the chain contact the ground. After completing the cut, wait for the saw chain to stop before you move the chain saw.

Always stop the motor before moving from tree to tree.

## **MAINTENANCE**

Always check the tool to make sure that it is in top condition after use.

It is recommended that you take this tool to an Authorised Service centre for a thorough cleaning and lubrication at least once a year.

**DO NOT MAKE ANY ADJUSTMENTS WHILE THE MOTOR IS RUNNING.**

**ALWAYS DISCONNECT THE POWER CORD FROM THE SOCKET BEFORE CHANGING REMOVABLE OR EXPENDABLE PARTS (BLADE, BIT, SANDING PAPER ETC.), AND BEFORE LUBRICATING OR WORKING ON THE UNIT.**

## **WARNING!**

To ensure safety and reliability, all repairs should be performed by AN AUTHORISED SERVICE CENTRE or other QUALIFIED SERVICE ORGANISATION.

**SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.**

### **Explanation of symbols:**



**Read instruction manual.**



**Do not expose to rain.**



**Remove plug from the mains immediately if the cable is damaged or cut**



**Wear eye protection at all times while operating the power tool.**



**Wear ear protection at all times while operating the power tool.**



**Points to danger, warnings or reasons for particular carefulness. May be used in connection with other symbols or pictographs.**



**This device may not be disposed of with general/household waste. Dispose of only at a designated collection point.**



**Guaranteed acoustic capacity level  
LWA 108 dB(A)**

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