

# Clarke®



## ELECTRIC CHAINSAW

MODEL NO: CECS405D

PART NO: 3402078

## OPERATION & MAINTENANCE INSTRUCTIONS

UK  
CA | CE



ORIGINAL INSTRUCTIONS

DL0124

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# INTRODUCTION

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Thank you for purchasing this Electric Chainsaw.

Please read this manual thoroughly, before attempting to operate, and carefully follow all instructions given.

It is vitally important that ALL precautions are taken, as specified, which will not only provide protection for yourself and that of others around you, but will also ensure that the chainsaw will give you long and satisfactory service.

## GUARANTEE

This CLARKE chainsaw is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt as proof of purchase.

This guarantee is invalid if the chainsaw is found to have been abused or tampered with in any way, or not used for the purpose for which it was intended.

Faulty goods should be returned to their place of purchase, no chainsaw can be returned to us without prior permission. This guarantee does not affect your statutory rights.

## ENVIRONMENTAL RECYCLING POLICY



Through purchase of this chainsaw, the customer is taking on the obligation to deal with the WEEE in accordance with the WEEE regulations in relation to the treatment, recycling & recovery and environmentally sound disposal of the WEEE.

In effect, this means that this chainsaw must not be disposed of with general household waste. It must be disposed of according to the laws governing Waste Electrical and Electronic Equipment (WEEE) at a recognised disposal facility.

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# SAFETY PRECAUTIONS

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**WARNING: READ ALL INSTRUCTIONS. FAILURE TO FOLLOW ALL INSTRUCTIONS LISTED BELOW MAY RESULT IN ELECTRIC SHOCK, FIRE AND/OR SERIOUS INJURY. THE TERM “POWER TOOL” IN ALL WARNINGS LISTED BELOW REFERS TO YOUR ELECTRIC CHAINSAW.**

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## WORK AREA

1. **Keep work area clean and well lit.** *Cluttered and 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. **Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges or refrigerators.** *There is an increased risk of electric shock if your body is earthed or grounded.*
2. **DO NOT expose power tools to rain or wet conditions.** *Water entering a power tool will increase the risk of electric shock.*
3. **Use outdoor extension leads.** *If working outdoors, always use an approved cable extension suitable for the power rating of this tool (see specifications), the conductor size should also be at least the same size as that on the machine, or larger. When using a cable reel, always unwind the cable completely. We strongly recommend that this machine is connected to the mains supply via a Residual Current Device (RCD).*

## 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 personal injury.*
2. **Use safety equipment. Always wear eye protection.** *Safety equipment such as dust mask, non-skid safety shoes, or hearing protection used for appropriate conditions will reduce personal injuries.*
3. **Avoid accidental starting. Ensure the switch is in the off position before connecting to the power supply.**

4. **DO NOT overreach. Keep proper footing and balance at all times.** *This enables better control of the power tool in unexpected situations.*
5. **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.*

## **POWER TOOL USE AND CARE**

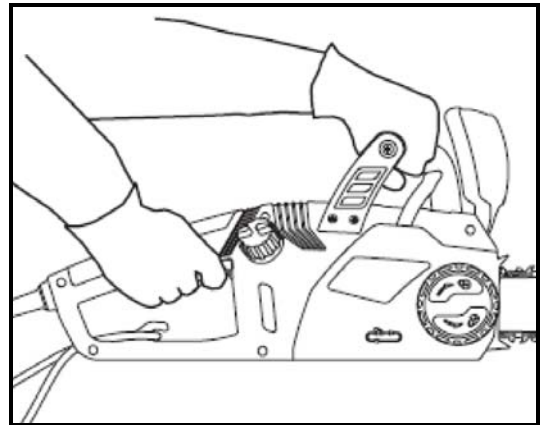
1. **DO NOT force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate which it was designed.
2. **DO NOT use the power tool if the switch does not turn it on and off.** *Any power tool that cannot be controlled with the switch is dangerous and must be repaired.*
3. **Disconnect the power 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 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. 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.*
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 and accessories in accordance with these instructions and in the manner intended for the particular type of power tool, taking into account the working conditions and the work to be performed.** *Use of the power tool for operations different from intended could result in a hazardous situation.*

## **SERVICING**

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. Contact CLARKE service department for more detail.*

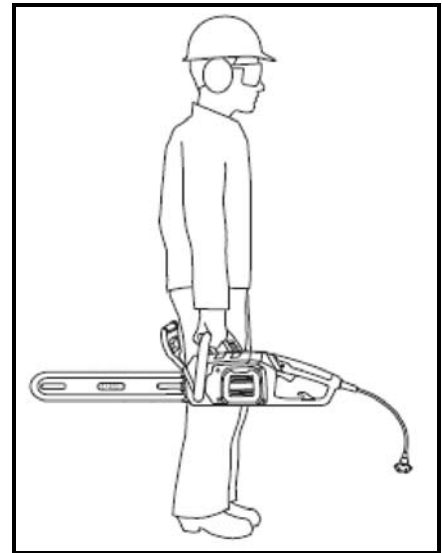
# CHAINSAW SAFETY WARNINGS

1. **Keep all parts of the body away from the saw chain when the chainsaw is operating. Before you start the chainsaw, make sure the saw chain is not contacting anything.** *A moment of inattention while operating chainsaws may cause entanglement of your clothing or body with the saw chain.*
2. **It is recommended that the first time user should have practical instruction in the use of the chainsaw and recommended protective equipment from an experienced operator.** *The initial practice should be cutting logs on a saw horse or cradle.*
3. **Keep handles dry, clean, and free from oil and grease.** *Greasy, oily handles are slippery causing loss of control.*
4. **Always hold the chainsaw with your right hand on the rear handle and your left hand on the front handle, as shown.** *Holding the chainsaw with a reversed hand configuration increases the risk of injury and should never be done.*
5. **Hold the chainsaw by insulated gripping surfaces only, because the saw chain may contact hidden wiring or its own cable.** *Saw chains contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.*
6. **Wear safety glasses and hearing protection. Further protective equipment for head, hands, legs and feet must also be worn.** *Adequate protective clothing will reduce personal injury by flying debris or accidental contact with the saw chain.*
7. **DO NOT operate a chainsaw in a tree.** *Operation of a chainsaw while up in a tree may result in personal injury.*
8. **Always keep proper footing and operate the chainsaw 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 chainsaw.*
9. **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 chainsaw out of control.*
10. **Use extreme caution when cutting brush and saplings.** *The material may catch the saw chain and be whipped toward you or pull you off balance.*



11. **Carry the chainsaw by the front handle with the chainsaw switched off and away from your body. When transporting or storing the chainsaw always fit the guide bar cover. Proper handling of the chainsaw will reduce the likelihood of accidental contact with the moving saw chain.**

12. **Follow instructions for lubricating, chain tensioning and changing accessories. Improperly tensioned or lubricated chain may either break or increase the chance for kickback.**



13. **Cut wood only. DO NOT use the chainsaw for purposes not intended. For example: DO NOT use the chainsaw for cutting plastic, masonry or non-wood building materials. Use of the chainsaw for operations different than intended could result in a hazardous situation.**

14. **Prolonged use of power tools has been reported to cause vascular, muscular, and/or neurological disorders (such as vibration white finger or Raynaud's syndrome), particularly when operating the tool in cold weather.** If you experience numbness or loss of feeling in your extremities, stop using the tool until symptoms fade. To reduce the incidence of vibration induced trauma, follow these instructions:

- Wear gloves and keep hands and body warm.
- Maintain a firm grip on the chainsaw, but **DO NOT** use prolonged, excessive pressure. Let the chainsaw do the work.
- Assure that the cutting system is maintained properly.
- Take frequent breaks.

15. **Keep the power cord behind you, and know the position of the cord at all times.** Keeping the cord behind you and knowing the position of the cord will help minimise tripping hazards and prevent severing the cord with the chainsaw.

16. **If the cord is cut or damaged, immediately stop using the chainsaw and disconnect the cord from the mains.** A damaged or cut cord increases the risk of electrical shock.

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## CAUSES AND PREVENTION OF KICKBACK

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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.

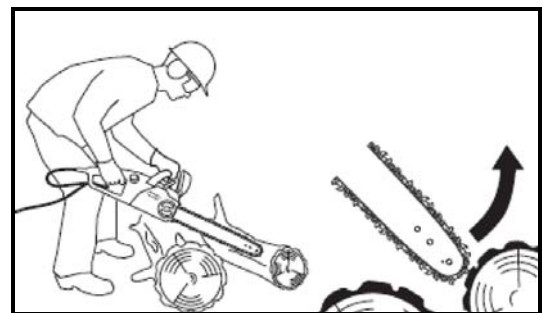
Either of these reactions may cause you to lose control of the saw which could result in serious personal injury. **DO NOT** rely exclusively upon the safety devices built into your saw. As a chainsaw user, you should take several steps to keep your cutting jobs free from accident or injury.

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:

1. **Maintain a firm grip, with thumbs and fingers encircling the chainsaw 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 chainsaw.*
2. **DO NOT overreach and DO NOT cut above shoulder height.** *This helps prevent unintended tip contact and enables better control of the chainsaw in unexpected situations.*
3. **Only use replacement bars and chains specified by the manufacturer.** *Incorrect replacement bars and chains may cause chain breakage and/or kickback.*

### KICKBACK SAFETY DEVICES ON THIS SAW









1. **Chain Brake.** This chainsaw comes equipped with a chain brake, which stops both the motor and the motion of the chain when kickback occurs. The chain brake can be activated by the forward motion of the front hand-guard as the saw rotates backward during kickback; it can also be activated by the inertial forces generated from a kickback event.



2. **Chain.** This chainsaw comes equipped with a saw chain that meets the reduced kickback performance requirements of ISO 9518.
3. **Bar.** This saw comes equipped with a reduced kickback guide bar that has a small radius nose. Smaller radius noses have less potential for kickback.

# WARNING SYMBOLS

The following symbols are displayed on the chainsaw in order to remind you of the safety precautions you should take during operation.

	<p><b>Warning!</b> - When using this chainsaw, basic safety precautions, including those in this user guide, should be observed to reduce the risk of fire, electric shock and personal injury.</p>
	<p><b>Warning!</b> - Read this user guide thoroughly before use and keep in a safe place for future reference.</p>
	<p><b>Warning!</b> - Wear safety goggles, ear protectors and safety helmet when using this chainsaw.</p>
	<p><b>Warning!</b> - <b>DO NOT</b> expose this chainsaw to rain, or use in damp or wet locations.</p>
	<p><b>Warning!</b> - Disconnect from the mains supply immediately if the cable is damaged or cut.</p>
	<p><b>Warning!</b> - Never cut with the tip of the blade as this may result in kickback and cause personal injury.</p>
	<p><b>Warning!</b> - Always wear gloves approved for chainsaw use.</p>
	<p><b>Warning!</b> - Always hold the chainsaw with both hands during use.</p>



# ELECTRICAL CONNECTIONS



**WARNING: READ THESE ELECTRICAL SAFETY INSTRUCTIONS THOROUGHLY BEFORE CONNECTING THE CHAINSAW TO THE MAINS SUPPLY.**

Before switching the chainsaw on, make sure that the voltage of your electricity supply is the same as that indicated on the rating plate. This chainsaw is designed to operate on 230V AC 50Hz. Connecting it to any other power source may cause damage.

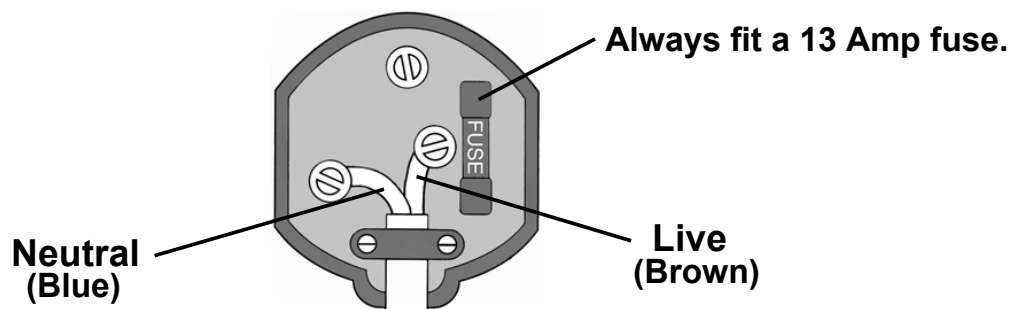
This chainsaw is fitted with a non-rewireable plug. If it is necessary to change the fuse in the plug, the fuse cover must be refitted. If the fuse cover becomes lost or damaged, the plug must not be used until a suitable replacement is obtained.

If the plug has to be changed because it is not suitable for your socket, or due to damage, it should be cut off and a replacement fitted, following the wiring instructions shown below. The old plug must be disposed of safely, as insertion into a mains socket could cause an electrical hazard.

If the colours of the wires in the power cable of this chainsaw do not correspond with the markings on the terminals of your plug, proceed as follows.

- The **Blue** wire must be connected to the terminal which is marked **N** or coloured **Black**.
- The **Brown** wire must be connected to the terminal which is marked **L** or coloured **Red**.

**Plug must be BS1363/A approved.**



**Ensure that the outer sheath of the cable is firmly held by the clamp**

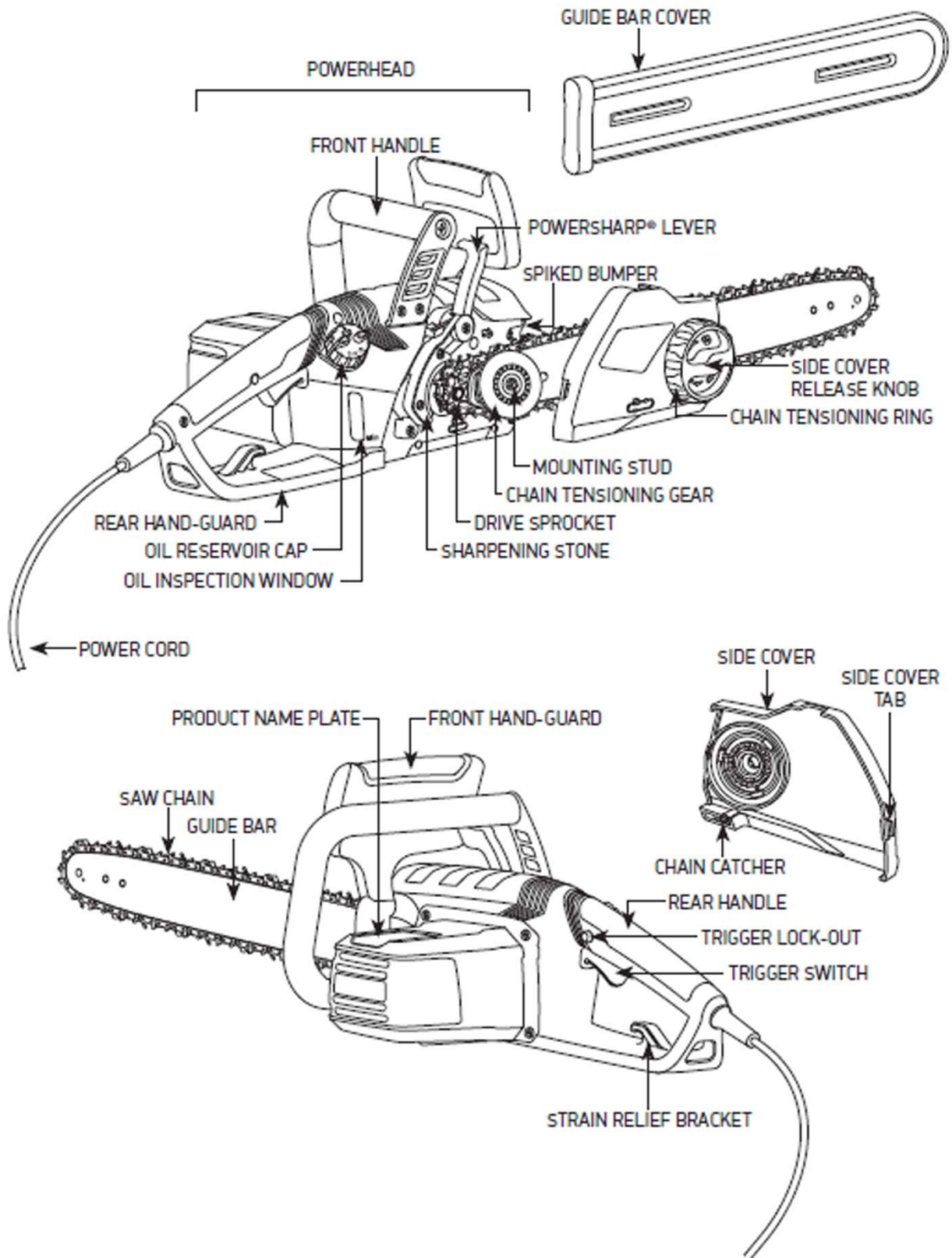
**We strongly recommend that this machine is connected to the mains supply via a Residual Current Device (RCD)**

If in any doubt, consult a qualified electrician. **DO NOT** attempt any repairs yourself.



**This symbol indicates that this is a Class II chainsaw, and does not require an earth connection.**

# OVERVIEW



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## CHAINSAW NAMES & TERMS

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- **Alignment Flange:** The protrusion on the bar pad that fits into the bar slot.
- **Automatic Oiler:** The system that automatically lubricates the guide bar and saw chain.
- **Bar Pad:** The mounting pad on the powerhead that helps ensure proper alignment of the guide bar.
- **Bar Slot:** The cut out portion of the guide bar that fits on to the alignment flange and mounting stud.
- **Bystander Safety Zone:** A 6m (20ft) circle around the operator that must remain free from bystanders, children and pets.
- **Chain Brake:** A device for stopping or locking the saw chain, activated manually or non-manually when kickback occurs.
- **Chain Catcher:** A device for retaining the saw chain if it breaks or derails.
- **Chain Gauge:** The thickness of the saw chain drive link, where it fits into the bar groove, indicated by the part number stamped on the drive links.
- **Chain Pitch:** The distance between any three consecutive rivets on the saw chain divided by two, indicated by the part number stamped on the drive links.
- **Chainsaw Powerhead:** A chainsaw without the saw chain or guide bar.
- **Chain Tensioning Gear:** A gear mounted on the guide bar that adjusts saw chain tension when rotated.
- **Chain Tensioning Ring:** The ring around the side cover release knob, that when turned, adjusts the saw chain tension.
- **Drive Link:** The fin shaped link of the saw chain that fits into the groove on the guide bar.
- **Drive Sprocket:** The toothed part that drives the saw chain.
- **Effective Cutting Length:** The approximate distance from the the root of the spiked bumper to the outside edge of the cutting link with the tensioner set to the middle position.
- **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 toward the front of the chainsaw intended to be gripped by the left hand.

- **Front Handle Guard:** A structural barrier between the front handle of a chainsaw and the guide bar, which also serves as an activating mechanism for the chain brake.
- **Guide Bar:** A railed structure that supports and guides the saw chain. Sometimes simply called the 'bar'.
- **Guide Bar Cover:** The plastic cover that protects the guide bar and saw chain when the chainsaw is not in use.
- **Kickback:** The rapid backward and/or upward motion of the guide bar, occurring when the saw chain near the top area of the nose of the guide bar contacts any object (such as a log or branch), or when the wood closes in and pinches the saw chain in the cut.
- **Low Kickback Chain:** A chain that complies with the low kickback performance requirements of BS 11681.
- **Motor Housing:** The plastic cover of the chainsaw powerhead.
- **Mounting Stud:** The threaded protrusion on the alignment flange that extends through the bar slot.
- **Notching Undercut:** A notch cut in a tree to direct the tree's fall.
- **Rear Handle:** The support handle located at or toward the rear of the saw intended to be gripped by the right hand.
- **Rear Hand Guard:** A structural barrier at the bottom right side of the rear handle to protect the operator in case of rupture or derailing of the saw chain.
- **Reduced Kickback Guide Bar:** A guide bar with a maximum nose radius as specified in BS 11681 and which has been demonstrated to reduce kickback significantly.
- **Saw Chain:** A loop of chain having cutting teeth, that cuts the wood, that is driven by the powerhead and is supported by the guide bar. Sometimes simply called the 'chain'.
- **Side Cover:** The plastic cover on the powerhead that covers the drive sprocket and chain tensioning gear which is removed and installed with the side cover release knob.
- **Side Cover Tab:** The protrusion on the side cover that fits into a slot in the powerhead. Use it to properly align the side cover during installation.
- **Spiked Bumper:** A device fitted to the front of the saw acting as a pivot point when in contact with a tree or log to make cutting easier. Also known as 'bucking spikes'.
- **Strain Relief Bracket:** The hook on the rear handle to which the extension cord is looped to protect the cord and prevent unplugging during operation.

- **Trigger Lock Out:** A movable stop that prevents the unintentional operation of the trigger switch until manually actuated.
- **Trigger Switch:** A device that turns the chainsaw on and off.
- **Wear Parts:** Parts such as the saw chain and guide bar that can wear during use and can be replaced by the user.

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## PREPARING FOR USE

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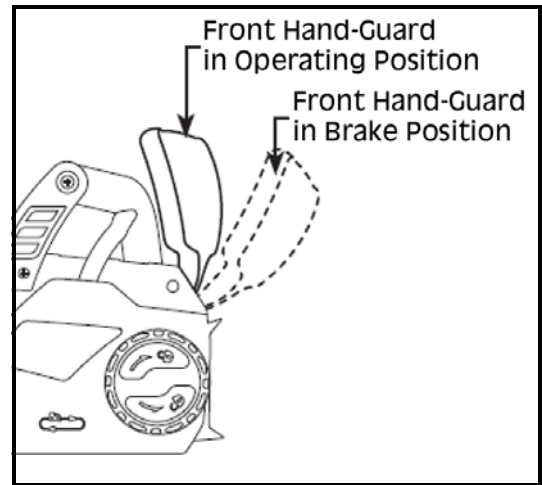
**WARNING: FOR YOUR SAFETY AND THE SAFETY OF OTHERS MAKE SURE THAT YOU HAVE READ AND UNDERSTOOD ALL THE SAFETY WARNINGS BEFORE CONTINUING WITH THIS SECTION.**

**WARNING: ENSURE THAT THE CHAINSAW IS DISCONNECTED FROM THE MAINS SUPPLY AND ALWAYS WEAR GLOVES DURING ALL CHECKS AND ADJUSTMENTS IN THIS SECTION**

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### CHECKING THE FRONT HAND-GUARD POSITION

After unpacking the chainsaw, check the position of the front hand-guard. The chainsaw will not run with the chain brake engaged. Pull the front hand-guard back forwards the front handle before operation, as shown.



### FILLING THE BAR AND CHAIN OIL RESERVOIR

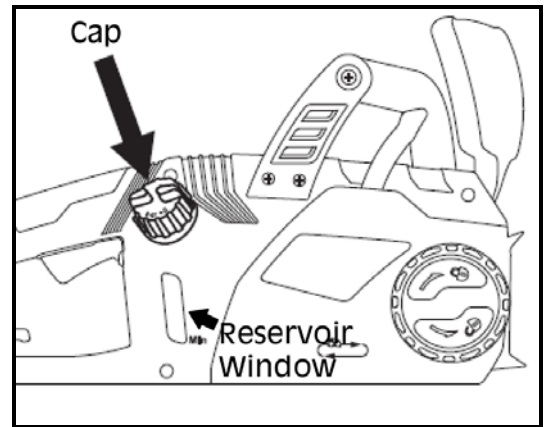


**WARNING: BAR AND CHAIN OIL PREVENTS PREMATURE WEAR. NEVER OPERATE THE CHAINSAW IF OIL IS NOT VISIBLE IN THE RESERVOIR INSPECTION WINDOW. CHECK OIL LEVEL FREQUENTLY AND FILL AS NEEDED**

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Bar and chain oil is required to properly lubricate the guide bar and saw chain. The chainsaw is equipped with an automatic oiler that deposits oil on the bar and chain when running, keeping them properly lubricated. Always use chainsaw oil for best results, as it is specially designed to provide low friction and faster cuts. **NEVER** use oil or other lubricants that have not been specifically designed for use on the bar and chain. This can lead to a clogged oil system which may cause premature wear of the bar and chain.

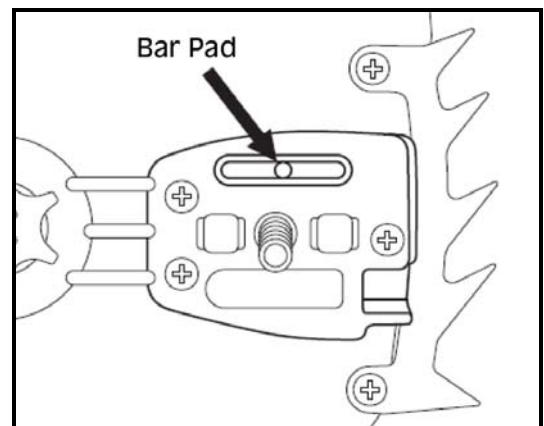
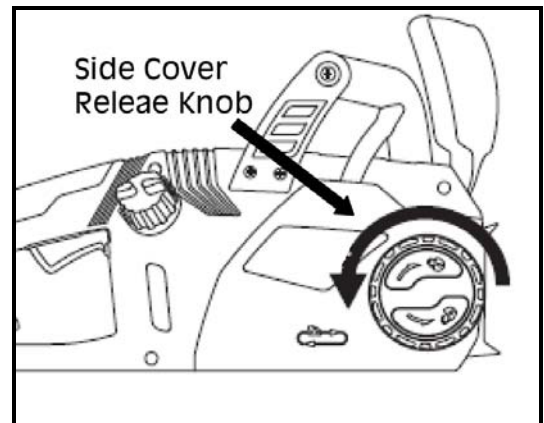
1. Place the chainsaw on a firm, flat surface so that the oil cap is on top, as shown.
2. Clean any debris from the cap area.
3. Remove the cap.
4. Carefully pour the bar and chain oil into the reservoir.
5. Replace the cap and make sure oil is visible in the reservoir window.



## PRIMING THE OILER

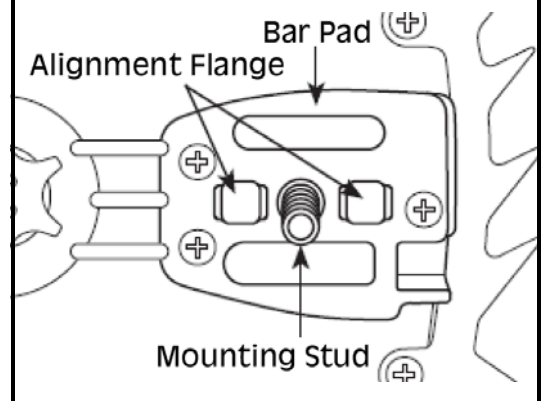
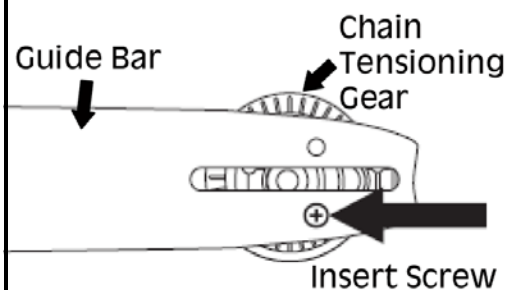
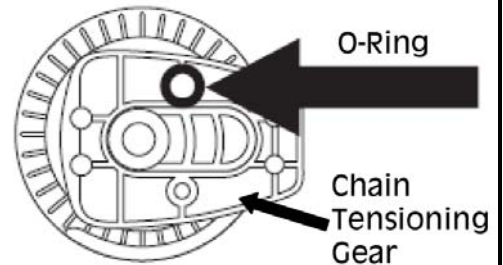
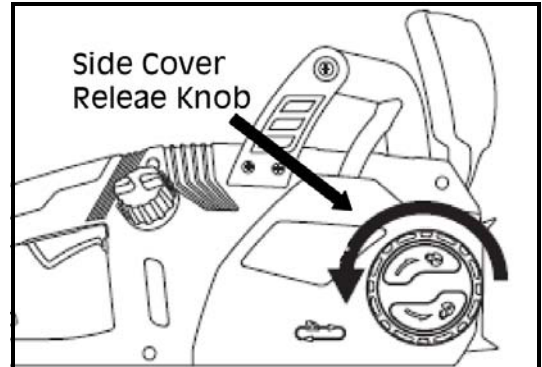
If this is the first time filling the bar and chain oil reservoir, or if the chainsaw has been stored for a long period of time without use, prime the oiler, as follows:

1. Unplug the chainsaw.
2. Loosen the side cover release knob slightly, but **DO NOT** remove the side cover.
3. Loosen the chain tensioning ring that is on the outside of the side cover release knob (turn it anti-clockwise) as far as it will go.
4. Loosen the side cover release knob and remove the side cover.
5. Remove the guide bar and saw chain.
6. Install the side cover, then lightly tighten the side cover release knob.
7. Plug in the chainsaw.
8. Run the chainsaw for about two minutes.
9. Unplug the chainsaw, remove the side cover and check for oil on the bar pad, as shown.
10. If no oil is present on the bar pad, replace the side cover and run for another 30 seconds.
11. When oil begins to seep from the hole, unplug the chainsaw and replace the bar and chain as described in the next section 'Assembling the Guide Bar and Saw Chain'.



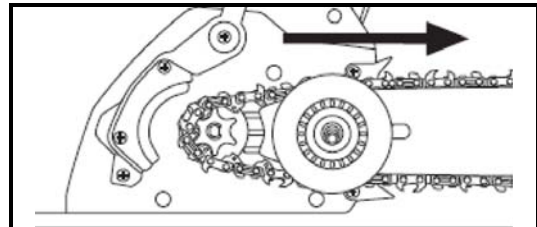
## ASSEMBLING THE GUIDE BAR AND SAW CHAIN

1. Unplug the chainsaw.
2. Loosen the side cover release knob by turning it counter clockwise, as shown, then remove the side cover.
3. There is a rubber O-ring that is important to the function of the saw, as shown. The rubber O-ring must be in place around the pin on the tensioner before the tensioner is screwed onto the bar.
4. Insert the screw from the back side of the chain tensioning gear and attach the chain tensioning gear onto the guide bar, as shown.
5. Place the chain tensioning gear on the side of the guide bar facing you such that the rectangular piece does not protrude past the edges of the guide bar and insert the screw.
6. Place the guide bar on the bar pad by sliding the bar slot over the alignment flange, as shown, with the mounting stud inserted through the hole in the chain tensioning gear.

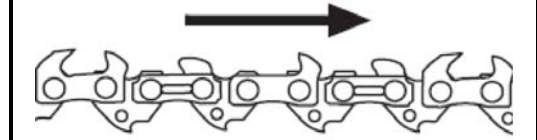




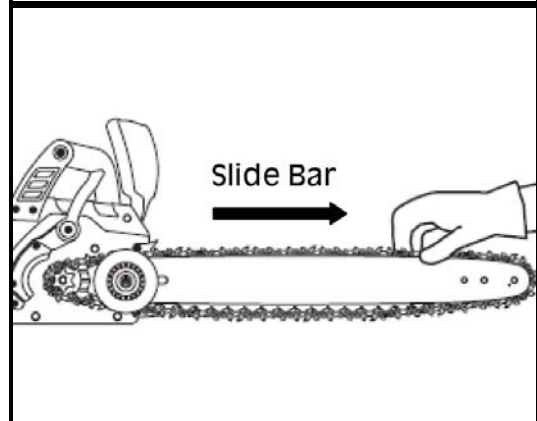
7. Loop the new saw chain onto the drive sprocket so that the cutting edge of the teeth along the top of the bar face away from the powerhead, as shown.



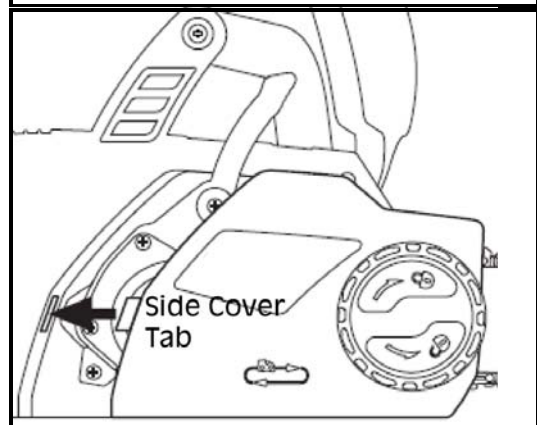
8. Feed the chain into the groove of the bar and slide the bar away from the motor to remove slack from the chain, as shown.



9. Install the side cover, making sure the chain catcher and side cover tab are seated in their proper locations, as shown, then lightly tighten the side cover release knob.



10. Tension the chain as described in the following section 'Tensioning the Saw Chain'.



## TENSIONING THE SAW CHAIN

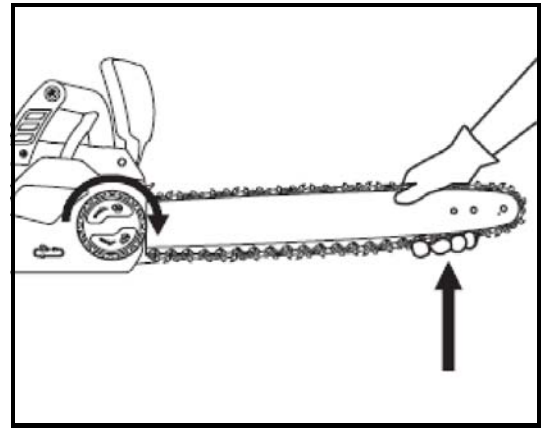


**WARNING: IF THE CHAIN IS STILL LOOSE WHEN THE SAW IS AT MAXIMUM TENSION, REPLACE THE CHAIN.**

**CAUTION: ONLY TENSION THE SAW CHAIN WHEN THE CHAIN IS COOL. A HOT CHAIN MAY CONTRACT AND DAMAGE THE GUIDE BAR OR CHAIN AS IT COOLS.**

1. Unplug the chainsaw before tensioning.
2. Loosen the side cover release knob slightly, but **DO NOT** remove the side cover.

3. Hold up the nose of the guide bar, as shown, and turn the chain tensioning ring clockwise.

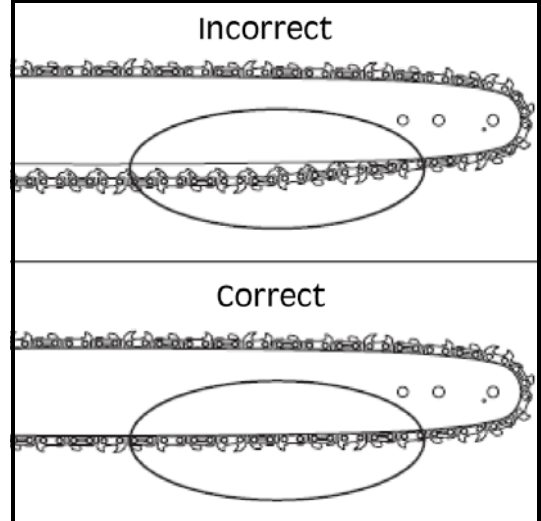


4. Tighten the chain tensioning ring until the lowest cutters underneath the bar solidly contact the bar, as shown.

5. Tighten the side cover release knob.

6. Lightly pull on the chain. The tension is correct when the chain snaps back after being pulled 3mm away from the guide bar.

7. After a short period of use, allow the chain to cool, unplug the chainsaw and check the tension again. Watch tension carefully for the first half hour of use and periodically throughout the life of the chain, readjusting as required when the chain and bar are cool to the touch. **NEVER** tension the chain when it is hot.



**NOTE:** The chain will stretch as a result of normal use, however, insufficient oil, aggressive use, or failure to perform recommended maintenance can lead to premature stretching.

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# USING THE CHAINSAW

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**WARNING: DO NOT START THE CHAINSAW UNTIL IT IS FULLY ASSEMBLED AND ADJUSTED AND YOU HAVE READ ALL RELEVANT WARNINGS / SAFETY INSTRUCTIONS.**

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**For 'first time' users of this type of product, we recommend that introductory training is undertaken from an experienced person before use.**

## PERSONAL PROTECTIVE EQUIPMENT

The following Personal Protective Equipment (PPE) available from you local CLARKE dealer has been designed for use with chainsaws.

- A safety helmet with mesh visor.
- Ear defenders.
- Specialist chainsaw gloves.
- Trousers or chaps suitable for chainsaw use (they contain a clogging material which stops the chain if cut).
- Safety boots with toe and shin protection.
- Close fitting hi-visibility jacket.



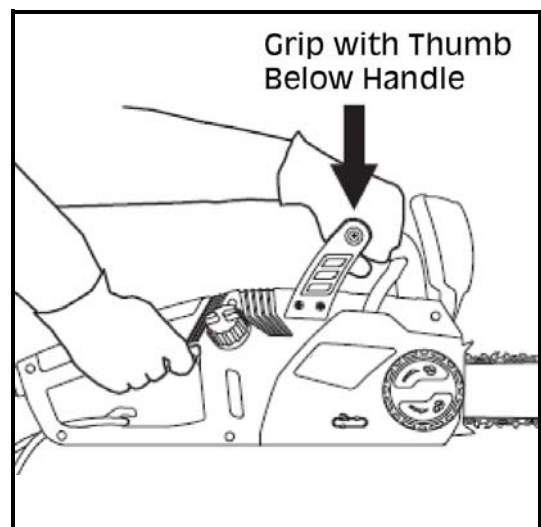
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**CAUTION: NO PPE WILL OFFER 100% PROTECTION AGAINST CHAINSAW CUTS ESPECIALLY IF THE CHAINSAW IS USED IN A DANGEROUS MANNER.**

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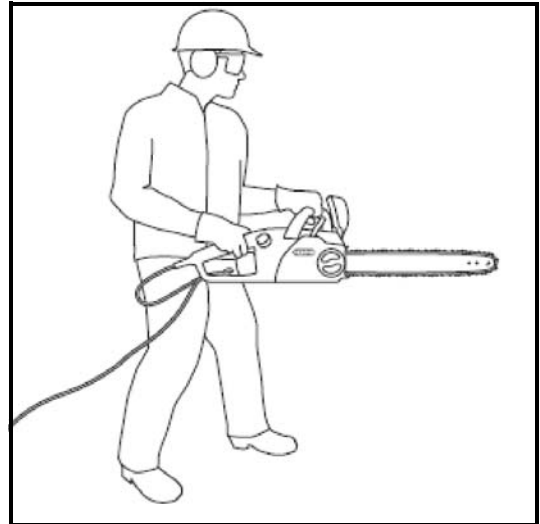
## GRIP

Always grip the tool with both hands. Grasp the front handle with the left hand and the rear handle with the right, as shown. Wrap the fingers over the top of the handle with the thumb below the handle.



## FOOTING

Stand with both feet on solid ground with weight evenly spread between them, as shown.

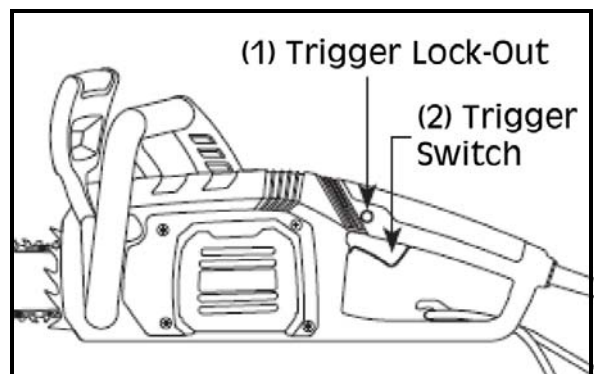


## STARTING THE CHAINSAW



**WARNING: TO REDUCE THE RISK OF INJURY, NEVER DEFEAT THE INTERLOCK BY TAPING, WIRING OR TYING DOWN THE TRIGGER LOCKOUT.**

1. Make sure the chain brake is not engaged.
2. Grasp the front and rear handles firmly.
3. Press and hold the trigger lockout with the thumb (1).
4. To start the saw, squeeze the trigger switch (2), as shown.
5. There is no need to continue to press the trigger lockout. It will remain disengaged until the trigger is released.



## STOPPING THE CHAINSAW

Release the trigger switch to stop the chainsaw.

## TESTING THE CHAIN BRAKE

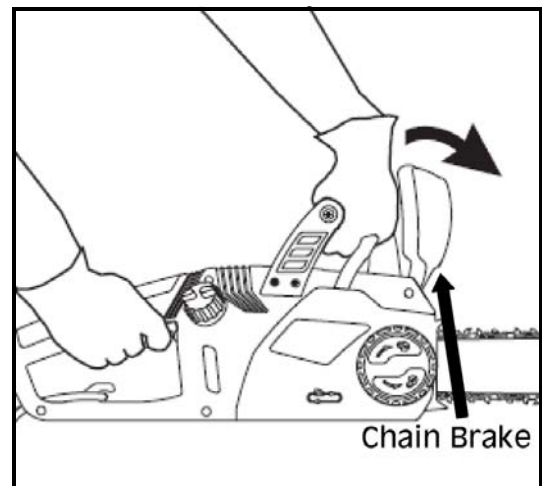


CAUTION: THE CHAIN BRAKE HAS BEEN DESIGNED TO REDUCE THE POSSIBILITY OF INJURY IF KICKBACK OCCURS. HOWEVER, IT CANNOT BE RELIED UPON TO PROTECT YOU AGAINST INJURY IF THE CHAINSAW IS USED CARELESSLY. TAKE GREAT CARE WHEN CUTTING, AND ALWAYS TEST THE CHAIN BRAKE BEFORE USING THE CHAINSAW.

To check brake operation:

1. Place the saw on a firm flat surface with no obstructions to the chain.
2. Start the saw briefly.
3. Keep the left hand on the front handle and roll the left wrist to move the front hand guard forward to manually activate the chain brake, as shown.
4. Release the trigger switch.

**NOTE:** A properly functioning chain brake stops the motor and saw chain immediately. If the motor and saw chain do not stop immediately, have the chain brake checked at an approved service location before using the chainsaw.



5. Return the front hand guard to operating position.

## POWER CORD USE AND CARE

### SELECTING AN EXTENSION CORD

Select an extension cord that is:

1. Specifically labelled for outdoor use.
2. Of a wire size heavy enough to carry the current the full length of the cable according to the table below.

Select the gauge of extension cord based on the desired length and the electrical specifications found on the product label or in the specification section of this manual.

Cord Length (M)	Min. Diameter Wire Size
0 - 15	1.6277mm
16 - 30	2.0525mm

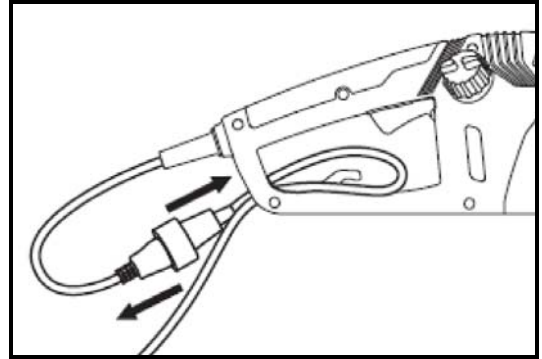
Make sure the insulation is free of cracks and that the plugs are undamaged.

## USING THE STRAIN RELIEF BRACKET

It is important to use the strain relief bracket for two reasons:

1. It saves wear on both the power cord and the extension cord and their plugs.
2. It prevents the chainsaw from becoming unplugged from the extension cord accidentally.

To use the strain relief bracket, bend the extension cord into a U shape and put it through the hole in the rear handle. Slide the loop of cord over the hook and tug lightly until snug, as shown.



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# CUTTING, PRUNING, FELLING, LIMBING AND BUCKING

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**WARNING: TO REDUCE THE RISK OF INJURY, WEAR PROPER BOOTS, GLOVES, HEAD, EAR AND EYE PROTECTION.**



**WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK, MAKE SURE THE CORD INSULATION IS INTACT AND THAT THE CORD IS IN A DRY LOCATION WHERE THERE IS NO DANGER OF IT BEING CUT OR TRIPPED OVER.**

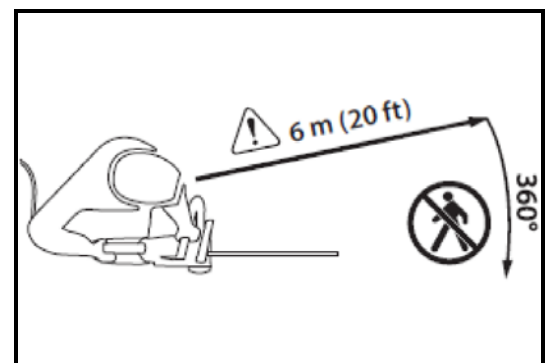


**WARNING: TO REDUCE THE RISK OF INJURY, ALWAYS BE SURE OF FOOTING AND HOLD THE CHAINSAW FIRMLY WITH BOTH HANDS WHILE THE MOTOR IS RUNNING.**



**WARNING: TO REDUCE THE RISK OF INJURY, PLAN AHEAD AND PLAN MULTIPLE ESCAPE PATHS BEFORE BEGINNING WORK.**

CAUTION: ESTABLISH A BYSTANDER SAFETY ZONE OF 6M (20FT) PRIOR TO OPERATION OF THIS EQUIPMENT. BYSTANDER SAFETY ZONE IS A MINIMUM 6M (20FT) CIRCLE AROUND THE OPERATOR THAT MUST REMAIN FREE FROM BYSTANDERS, CHILDREN AND PETS. FELLING OPERATIONS REQUIRE A LARGER SAFETY ZONE ACCORDING TO THE SIZE OF THE TREE, SEE 'FELLING A TREE' SECTION.



***IMPORTANT: Practice cutting logs on a sawhorse or cradle until you become comfortable operating the saw.***

To get the best performance and to operate the saw safely, follow these instructions:

1. Observe all applicable national and local rules and regulations for cutting.
2. Take frequent breaks to reduce the risk of injury.
3. Before beginning to cut, make sure the saw chain is properly tensioned and the chain is sharp.

Saw chains are made to cut wood only. **DO NOT** use the chainsaw to cut any other materials, and **DO NOT** allow the chain to come into contact with dirt, stones, nails, staples or wire. These materials are extremely abrasive and will wear away protective plating from the chain in a very short time.

Sharpen or replace the saw chain if any of these conditions occur:

1. The pressure required to make cuts increases noticeably.
2. Wood chips coming off of the chain are very fine or dust like.

**DO NOT** work with a dull chain as it will increase the effort required to cut, cause jagged cuts, increase wear on the chainsaw and increase the risk of kickback. **NEVER** force a dull chain to cut.

1. Assume the proper cutting grip and stance in front of the wood with the saw turned off. Press the trigger switch. Let the chain reach full speed before beginning the cut.
2. Begin cutting by lightly pressing the guide bar against the wood. Use only light pressure and let the saw do the work.
3. Maintain a steady speed throughout the cut releasing pressure just before the end of the cut.
4. Know the location of the cord at all times to avoid trip hazards and avoid cutting the cord.
5. Know the location of the tip of the bar at all times and avoid contact with other objects.
6. If the saw stops suddenly when cutting, remove the saw from the cut, then resume cutting using lighter pressure on the work piece.

## PRUNING



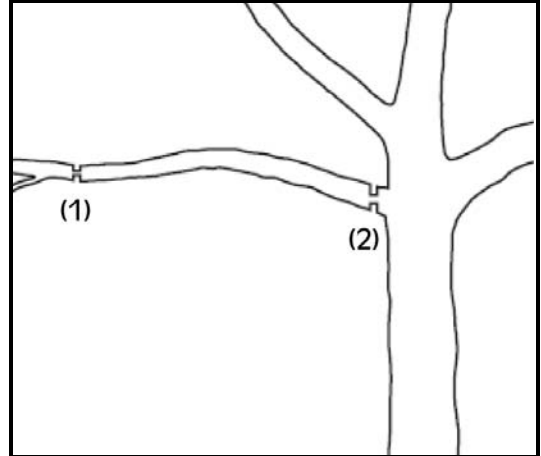
**WARNING: FALLING LIMBS MAY BOUNCE OR SPRING BACK AFTER THEY HIT THE GROUND SO IT IS ESSENTIAL TO KEEP THE GROUND CLEAR TO PROVIDE MULTIPLE RETREAT PATHS. CLEAR THE WORK AREA AND WEAR HEAD PROTECTION.**

Pruning is removing dead or overgrown branches to maintain plant health.

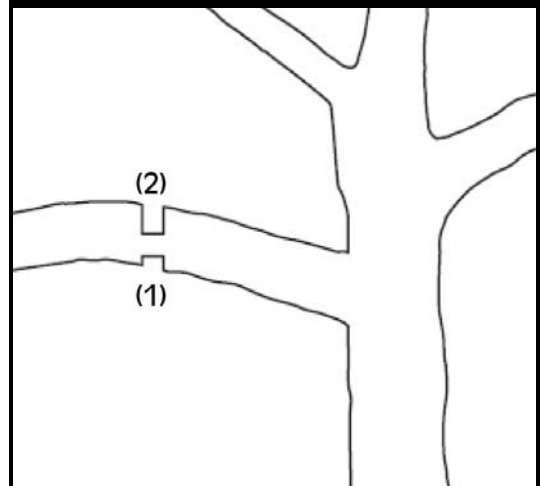
1. Plan retreat paths before beginning to cut, and make sure there are no obstructions. Always know how to get out of the way of falling branches.
2. Make sure bystanders or helpers are a safe distance from falling branches. Bystanders or helpers should not stand directly in front of or behind the operator.
3. Maintain solid footing and hold the chainsaw firmly with both hands. **DO NOT** overreach. **NEVER** climb a tree or ladder to reach high limbs.
4. Secure any branches that might be hazardous.



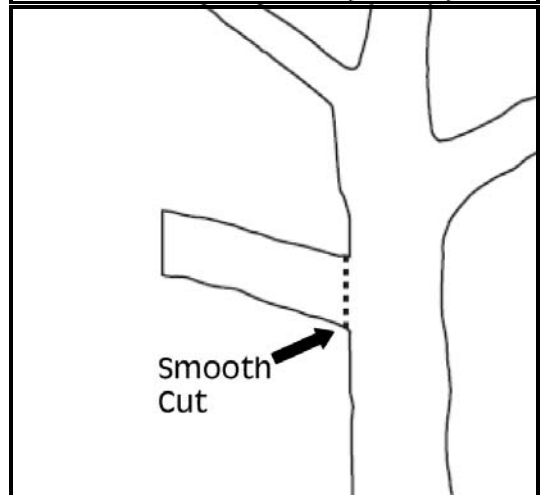
5. Use proper auxiliary equipment.
6. Prune lower limbs before pruning higher ones.
7. Allow the saw chain to achieve full speed before cutting.
8. Apply light pressure to the branch.
9. For long limbs, cut the end of the limb first (1) to relieve pressure from the limb, then prune closer to the trunk (2), as shown.



10. Thick limbs (greater than 10cm (4 inch) in diameter) can splinter or pinch the chain when making a single cut from the top. To avoid pinching or splintering, first make one shallow relief cut on the bottom surface of the limb (1), then cut the limb all the way through from the top of the limb (2) to match the bottom cut, as shown.



11. After most of the limb has been removed, make one smooth cut near the trunk, as shown.



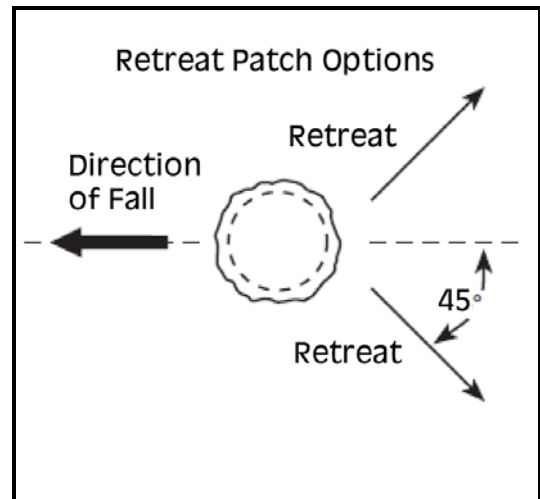
## FELLING A TREE



**WARNING: A TREE IS LIKELY TO ROLL OR SLIDE DOWNHILL AFTER IT IS FELLED. PLAN AND CLEAR A RETREAT PATH BEFORE CUTS ARE STARTED. THE RETREAT PATH SHOULD EXTEND BACK AND DIAGONALLY TO THE REAR OF THE EXPECTED LINE OF FALL.**

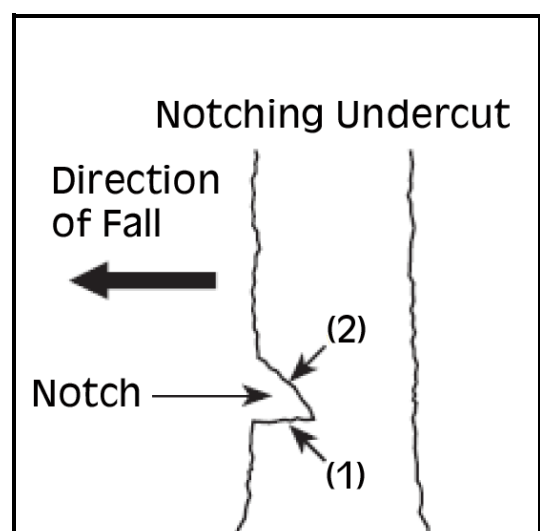
Felling is cutting down a tree. Before felling is started, consider the natural lean of the tree, the location of larger branches and the wind direction to judge which way the tree will fall and plan your retreat route.

1. Remove dirt, stones, loose bark, nails, staples and wire from the tree where felling cuts are to be made.
2. When bucking and felling operations are being performed by two or more persons at the same time, separate the felling operation from the bucking operation by a distance of at least twice the height of the tree being felled.
3. 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 contacts any utility line, immediately leave the area and notify the utility company.
4. Use the metal spikes on the front of the saw to support the saw on the wood. Set metal spiked bumper into the wood and use as a leverage point to increase stability when cutting large diameter wood.



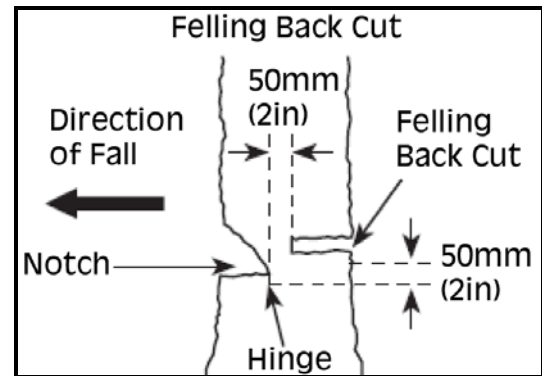
### NOTCHING UNDERCUT

1. First, make a notch 1/3 the diameter of the tree in the direction you want the tree to fall. Make the lower horizontal notching undercut first (1). This will help to avoid pinching of either the saw chain or the guide bar when the second cut (2) is being made, as shown.



## FELLING BACK CUT

1. Second, make the felling back cut at least 50mm (2 inch) higher than the horizontal notching undercut, as shown. Keep the felling back cut parallel to the horizontal notching undercut.
2. 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.
3. As the felling cut gets close to the hinge, the tree should begin to fall under its own weight.
4. 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 aluminium to open the cut and drop the tree along the desired line of fall.
5. When the tree begins to fall, remove the chainsaw from the cut, stop the motor, put the chainsaw down, then use the retreat path planned.
6. Be alert for overhead limbs falling and watch footing.



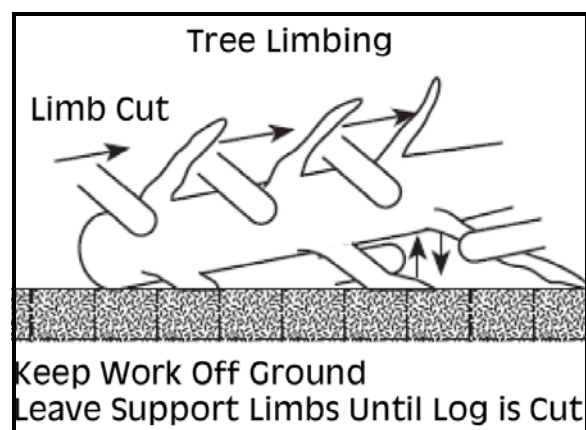
## LIMBING A TREE



**WARNING: LIMBS UNDER TENSION CAN SPRING BACK AND CONTACT THE OPERATOR OR THROW THE CHAINSAW OUT OF CONTROL RESULTING IN PERSONAL INJURY. ALWAYS BE ALERT FOR WOOD UNDER TENSION WHICH MAY STRIKE THE OPERATOR OR CHAINSAW WHEN CUT.**

Limbing is removing the branches from a fallen tree.

1. When limbing, leave large lower limbs to support the log off the ground.
2. Remove the small limbs in one cut.
3. Branches under tension should be cut from the bottom up to avoid binding the chainsaw, as shown.



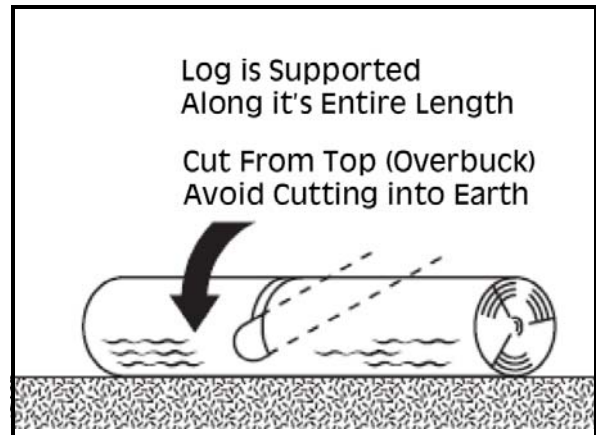
## BUCKING A LOG



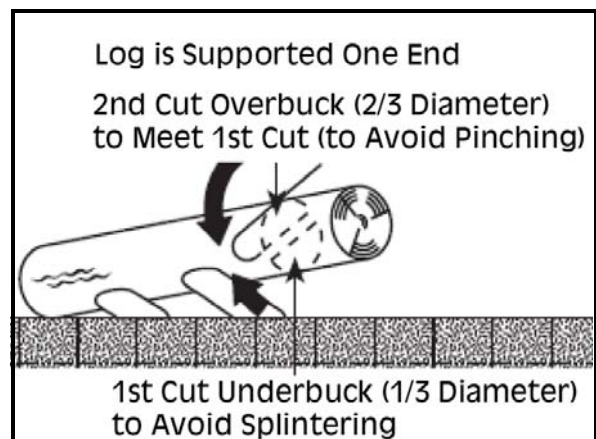
**WARNING: BUCKING LOGS UNDER TENSION INCREASES THE CHANCE OF KICKBACK. USE ONE OF THE METHODS BELOW TO SUPPORT THE LOG WHEN BUCKING.**

Bucking is cutting a log into lengths. It is important to make sure footing is firm and weight is evenly distributed on both feet. When possible, the log should be raised and supported by the use of limbs, logs or chocks.

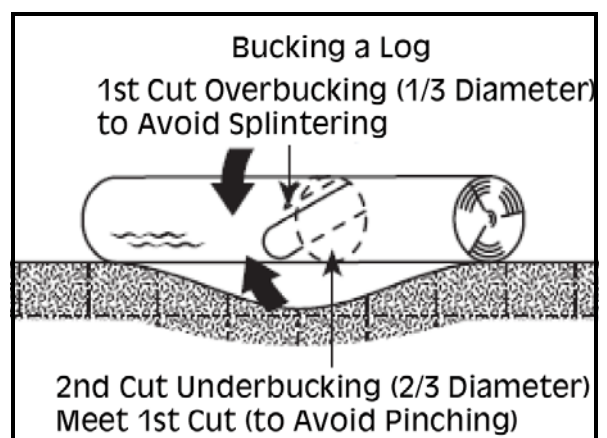
1. When the log is supported along its entire length, cut from the top (overbuck), as shown.



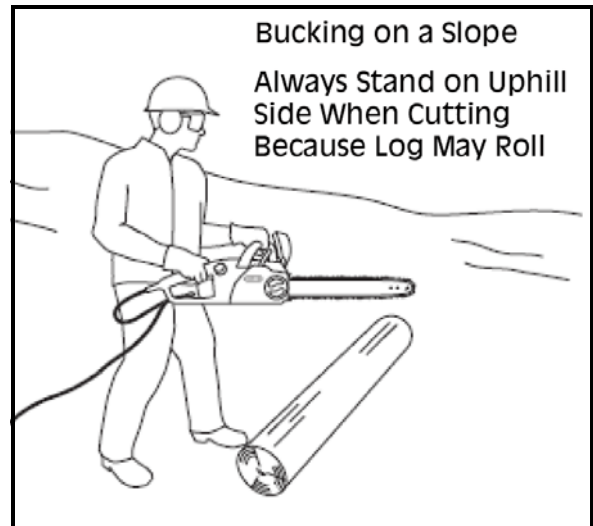
2. When the log is supported on one end, cut 1/3 the diameter from the underside (underbuck), then make the finished cut by overbucking to meet the first cut, as shown.



3. 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, as shown.



4. When bucking on a slope, always stand on the uphill side of the log, as shown.
5. To maintain complete control when cutting through, release the cutting pressure near the end of the cut without relaxing the grip on the chainsaw handles.
6. Don't let the chain contact the ground.
7. After completing the cut, wait for the saw chain to stop before you move the chainsaw.
8. Always stop the motor before moving from tree to tree.



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## MAINTENANCE AND CLEANING

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**WARNING: FAILURE TO IDENTIFY AND REPLACE DAMAGED OR WORN PARTS CAN CAUSE SERIOUS PERSONAL INJURY. INSPECT THE CHAINSAW REGULARLY. REGULAR INSPECTION IS THE FIRST STEP TO PROPER MAINTENANCE. FOLLOW THE GUIDELINES BELOW TO MAXIMISE SAFETY AND SATISFACTION. HAVE ANY DAMAGED OR EXCESSIVELY WORN PARTS REPLACE IMMEDIATELY.**

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**WARNING: ALWAYS SWITCH THE CHAINSAW OFF, DISCONNECT FROM THE POWER SUPPLY AND LET THE CHAINSAW COOL DOWN BEFORE PERFORMING INSPECTION, MAINTENANCE AND CLEANING WORK!**

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## INSPECTION

Before each use and if the chainsaw has been dropped, inspect these parts:

- Cord: Ensure the plug is in good condition and not bent or corroded, and that the insulation is intact. If the cord is damaged, **DO NOT USE**. Contact CLARKE parts/service department.
- Handles: Front and rear handles should not have cracks or other damage. They should be clean and dry.
- Front Hand Guard: The front hand guard should be free of damage and able to move easily back and forth. When moved, the front hand guard should activate the chain brake.

- Guide Bar: The bar should be straight and free of chips, cracks or excessive wear.
- Saw Chain: The chain should be properly tensioned and sharp and all components free of cracks, chips, broken teeth or excessive wear. See 'Tensioning the Saw Chain' (pages 17-18) section.
- Side Cover: The side cover should be free of cracks or other damage. It should fit tightly to the saw body with no warping. Make sure the chain catcher is free of cracks.
- Chain Brake: Test the chain brake to make sure it is functioning properly. See 'Testing the chain brake' section on page 21.
- Oil Level: Make sure the oil reservoir is full before use.
- Motor Housing: Check for cracks in the cover and debris in the air intake vents.

Periodically inspect these parts:

- Drive Sprocket: Look for deep grooves, broken teeth or burrs.
- Chain Tensioning Gear: Inspect the gear for cracks, chips, loose screws, warping or other damage.
- Bar Mounting Area Underneath Side Cover: Make sure the bar mounting stud is not bent, stripped or cross threaded and that the bar pad and alignment flange are free of debris and intact.

## SHARPENING THE CHAIN



**WARNING: SHARPENING THE CHAIN CAN PRODUCE LOW ENERGY SPARKS. THE CHAIN SHOULD NOT BE SHARPENED IN THE PRESENCE OF EXPOSED, EXTREMELY FLAMMABLE MATERIALS SUCH AS PETROL AND ACETYLENE.**

There are numerous types of chain sharpening devices on the market. The following precautions should be adhered to.

1. A sharpener is designed specially for sharpening chainsaw chains. **DO NOT** use it for any other purpose.
2. **DO NOT** sharpen damaged chainsaw chains.
3. **DO NOT** operate the sharpener without the relevant protective covers in place.
4. **ALWAYS** adhere to the sharpeners user instructions and safety precautions.

## CLEANING

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**WARNING: WHEN CLEANING THE CHAINSAW POWERHEAD, DO NOT IMMERSE IN WATER OR OTHER LIQUIDS.**

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1. Always wear gloves when cleaning the chainsaw.
2. Unplug the chainsaw.
3. Remove wood chips and other debris from the motor housing and the vents.
4. Always clean out wood chips, saw dust and dirt from the bar groove when replacing the chain.
5. Make sure the cord and plug are dry before connecting to an outlet.

## TENSIONING THE SAW CHAIN

***IMPORTANT: Only tension the saw chain when the chain is cool. A hot chain may contract and damage the guide bar or chain as it cools.***

If the chain does not touch the underside of the bar when the chainsaw is off and cool, it should be tensioned.

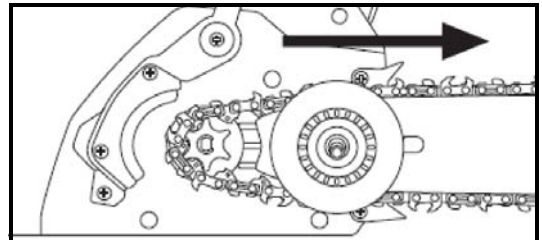
Tension the chain as described in 'Tensioning the Saw Chain' section on pages 17-18.

## REPLACING A WORN SAW CHAIN

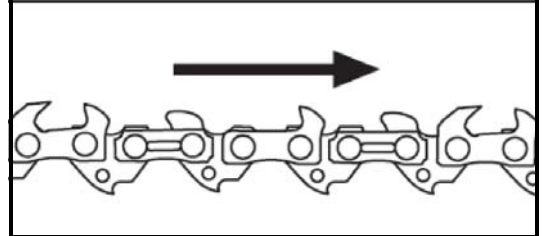
When the saw chain becomes cracked or has broken teeth, or is stretched to the point that it cannot be kept at proper tension or simply cannot be sharpened, it must be replaced.

1. Always wear gloves when handling the saw chain.
2. Unplug the chainsaw.
3. Loosen the side cover release knob slightly, but **DO NOT** remove the side cover.
4. Loosen the chain tensioning ring (turn it anti-clockwise) as far as it will go.
5. Loosen the side cover release knob and remove the side cover.
6. Remove the saw chain.

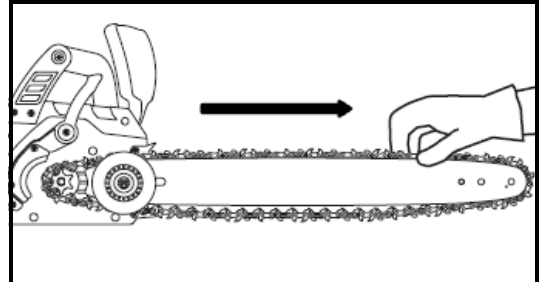
7. Loop the new saw chain onto the drive sprocket so that the cutting edges of the teeth along the top of the bar face away from the powerhead, as shown.



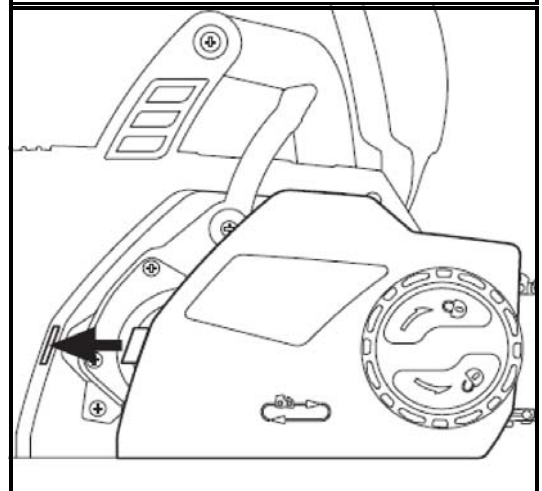
8. Feed the chain into the groove of the bar and slide the bar away from the motor to remove slack from the chain, as shown.



9. Install the slide cover, making sure the chain catcher and side cover tab are seated in their proper locations, as shown, then lightly tighten the side cover release knob.



10. Tension the chain as described in 'Tensioning the Saw Chain' section on pages 17-18.



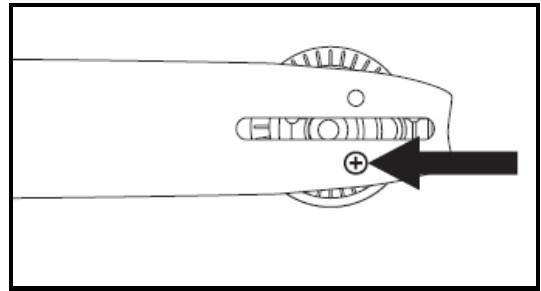
## MAINTAINING THE GUIDE BAR

To even bar wear and maximise bar life, flip the bar occasionally.

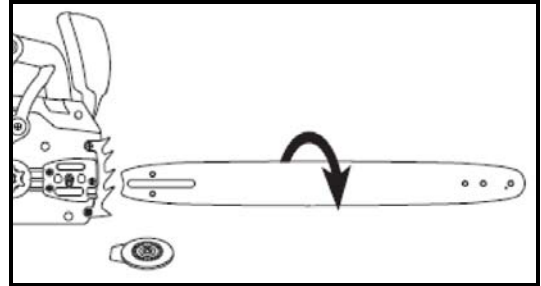
1. Always wear gloves when handling the saw chain and bar.
2. Unplug the chainsaw.
3. Loosen the side cover release knob slightly, but **DO NOT** remove the side cover.
4. Loosen the chain tensioning ring (turn it anti-clockwise) as far as it will go.
5. Loosen the side cover release knob and remove the side cover.
6. Remove the bar and chain and inspect for damage and wear.



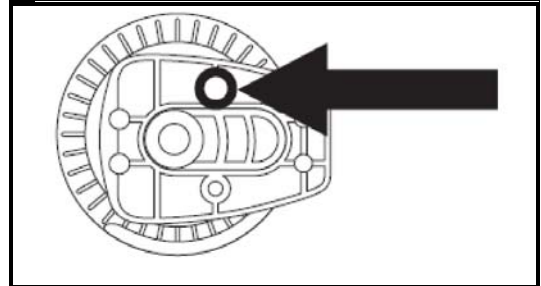
7. Remove the screw from the back side of the chain tensioning gear and remove the chain tensioning gear from the guide bar, as shown.



8. Flip the bar, as shown.

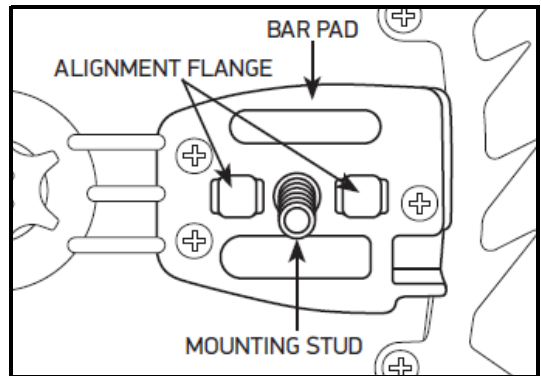


9. There is a rubber washer that is important to the function of the saw. The rubber washer must be in place around the pin on the tensioner before the tensioner is screwed onto the bar, as shown.



10. Place the chain tensioning gear on the side of the guide bar facing you such that the rectangular piece does not protrude past the edges of the guide bar and replace the screw.

11. Place the guide bar on the bar pad by sliding the bar slot over the alignment flange, as shown.



12. Replace the saw chain as described in 'Replacing a Worn Saw Chain' section on pages 31-32.

13. Tension the chain as described in 'Tensioning the Saw Chain' section on pages 17-18.

## REPLACING A WORN GUIDE BAR



**WARNING: THE EDGES OF A WORN GUIDE BAR, PARTICULARLY THE EDGES OF THE GROOVE WHERE THE CHAIN TOUCHES THE BAR, CAN BE EXTREMELY SHARP. ALWAYS USE APPROPRIATE HAND PROTECTION.**

When the guide bar becomes cracked or has excessive wear around the edges, particularly in the groove where the saw chain touches the bar, it must be replaced. Also, if the nose sprocket at the end of the bar is worn, has teeth missing or does not turn smoothly, the bar must be replaced.

1. Always wear gloves when handling the saw chain and bar.

2. Unplug the chainsaw.
3. Loosen the side cover release knob slightly, but **DO NOT** remove the side cover.
4. Loosen the chain tensioning ring (turn it anti-clockwise) as far as it will go.
5. Loosen the side cover release knob and remove the side cover.
6. Remove the bar and chain.
7. Remove the screw from the back side of the chain tensioning gear and remove the chain tensioning gear from the guide bar as described in 'Maintaining the Guide Bar' section on pages 32-33.
8. Place the chain tensioning gear on the new guide bar and replace the screw.
9. Replace the guide bar as described in 'Maintaining the Guide Bar' section on pages 32-33.
10. Replace the saw chain as described in 'Replacing a Worn Saw Chain' section on pages 31-32.
11. Tension the chain as described in 'Tensioning the Saw Chain' section on pages 17-18.

## **REPLACING A WORN CHAIN TENSIONING GEAR**

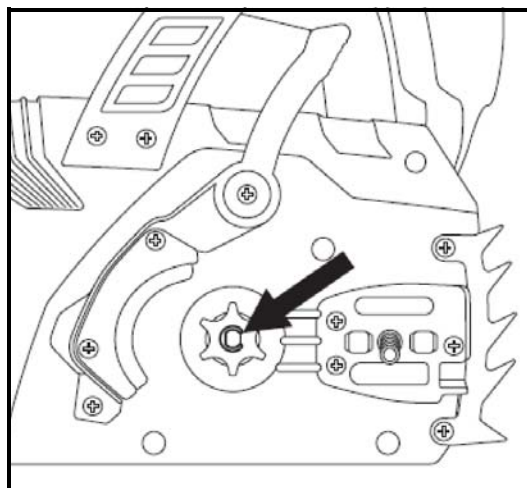
1. Always wear gloves when handling the saw chain and bar.
2. Unplug the chainsaw.
3. Loosen the side cover release knob slightly, but **DO NOT** remove the side cover.
4. Loosen the chain tensioning ring (turn it anti-clockwise) as far as it will go.
5. Loosen the side cover release knob and remove the side cover.
6. Remove the bar and chain.
7. Remove the screw from the back side of the chain tensioning gear and remove the chain tensioning gear from the guide bar as described in 'Maintaining the Guide Bar' section on pages 32-33.
8. Place the new chain tensioning gear on the side of the guide bar facing you, and replace the screw.
9. Place the guide bar on the bar pad by sliding the bar slot over the alignment flange as described in 'Maintaining the Guide Bar' section on pages 32-33.
10. Replace the saw chain as described in 'Replacing a Worn Saw Chain' section on pages 31-32.

11. Tension the chain as described in 'Tensioning the Saw Chain' section on pages 17-18.

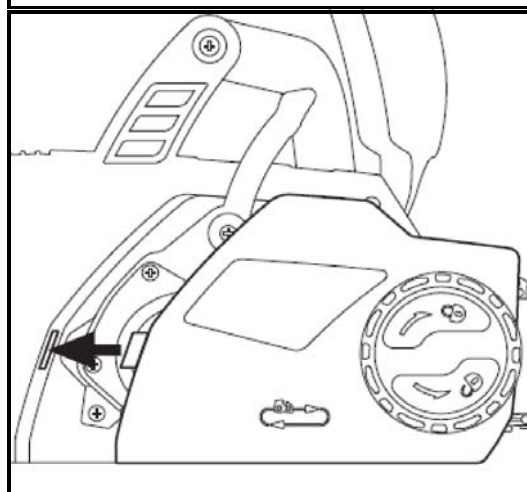
## REPLACING THE DRIVE SPROCKET

Replace the drive sprocket after every two saw chain replacements or when the sprocket is damaged.

1. Always wear gloves when handling the saw chain and bar.
2. Unplug the chainsaw.
3. Loosen the side cover release knob slightly, but **DO NOT** remove the side cover.
4. Loosen the chain tensioning ring (turn it anti-clockwise) as far as it will go.
5. Loosen the side cover release knob and remove the side cover.
6. Remove the bar and chain.
7. Use a small flat screwdriver to pry open and remove the e-clip, then remove the drive sprocket and spring, as shown.



8. Insert the new spring and drive sprocket, and install the new e-clip, as shown.
9. Replace the saw chain as described in 'Replacing a Worn Saw Chain' section on pages 31-32.
10. Tension the chain as described in 'Tensioning the Saw Chain' section on pages 17-18.



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## **STORAGE & TRANSPORTATION**

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### **STORAGE**

- Switch the chainsaw off and disconnect it from the power supply.
- Clean the chainsaw as described on page 31.
- Store the chainsaw and its accessories in a dry, frost-free, well-ventilated place.
- Always store the chainsaw in a place that is inaccessible to children. The ideal storage temperature is between 10°C and 30°C.
- We recommend using the original package for storage or covering the chainsaw with a suitable cloth or enclosure to protect it against dust.

### **TRANSPORTATION**

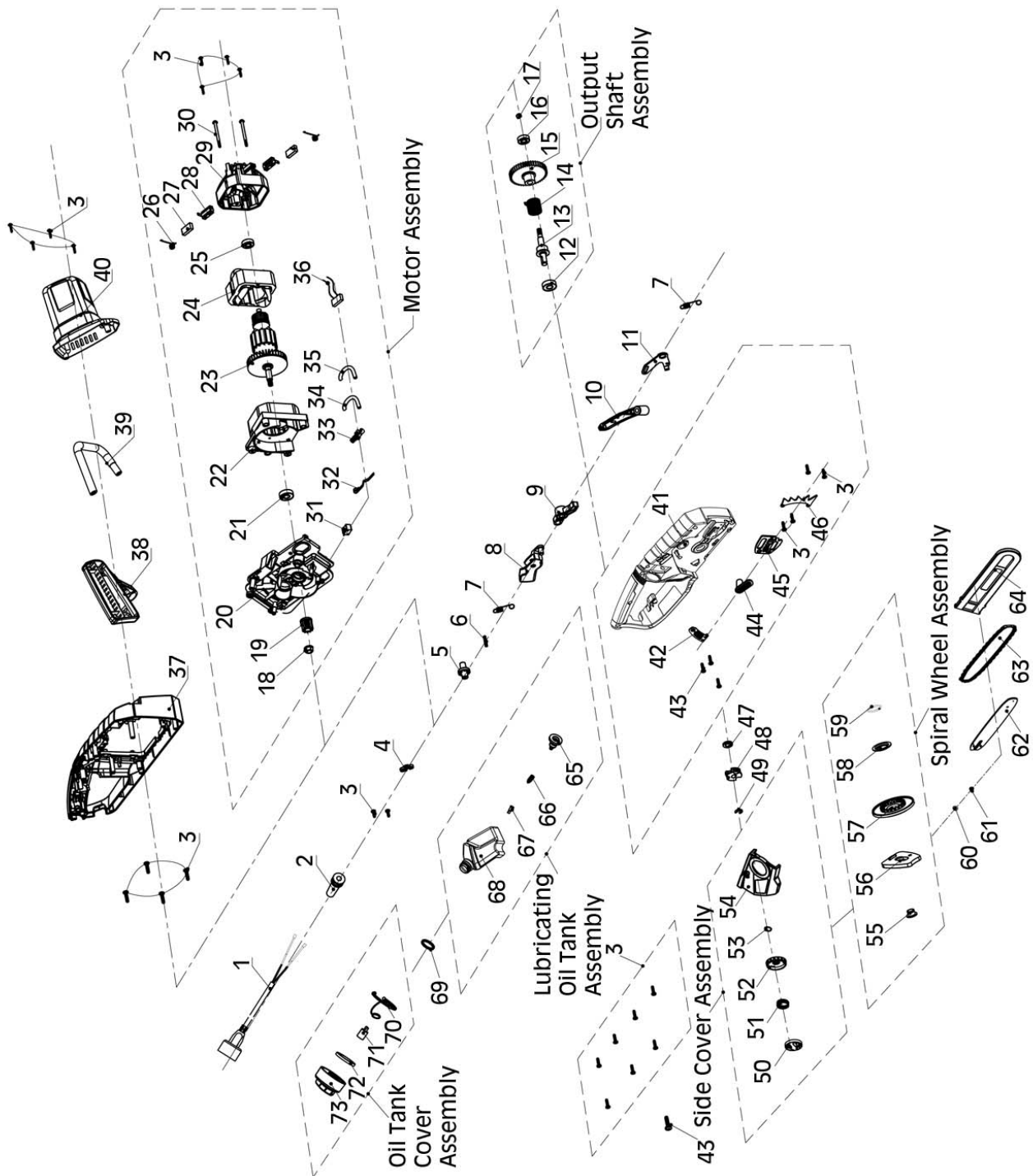
- Switch the chainsaw off and disconnect it from the power supply.
- Attach the blade cover.
- Always carry the chainsaw by its handles.
- Protect the chainsaw from any heavy impact or strong vibrations which may occur during transportation in vehicles.
- Secure the chainsaw to prevent it from slipping or falling over.

# TROUBLESHOOTING

Problem	Possible Cause	Recommended Actions
Motor stops while cutting	Chain pinched in cut	Undercut limb to relieve pressure on limb. See 'Cutting' section on page 23-29
	Cord is damaged or severed	If extension cord is damaged, <b>DO NOT</b> use and replace it. If chainsaw cord is damaged, <b>DO NOT</b> use and contact an approved service location
	Chain brake is engaged	Set the front hand guard to the operating position as described in 'Checking the Front Hand Guard Position' on page 14
Motor does not run or runs intermittently	Saw is not plugged in	Plug in the saw
	Cord is damaged or severed	If extension cord is damaged, <b>DO NOT</b> use and replace it. If chainsaw cord is damaged, <b>DO NOT</b> use and contact an approved service location
	Outlet fuse is tripped	Unplug extension cord, Reset the fuse and plug the extension cord back in
	Bad electrical outlet	Plug extension cord into a different outlet
	Chain brake engaged	Set the front hand guard to the operating position as described in 'Checking the Front Hand Guard Position' on page 14
	Trigger lockout not pressed	Press the trigger lockout before squeezing the trigger, see page 20
	Debris is side cover	Unplug the chainsaw, then remove side cover and clean out debris
Motor does not stop when chain brake is engaged	Debris preventing full movement of front hand guard	Clean debris from the external chain brake mechanism
	Possible chain brake malfunction	<b>DO NOT USE.</b> Warning, operating a chainsaw without a functioning chain brake could lead to serious personal injury. Contact an approved service location before using.

Motor runs, but saw chain does not rotate	Chain not engaging drive sprocket	Reinstall the chain, making sure the drive links on the chain are fully seated on the drive sprocket. See 'Replacing a worn saw chain' section on page 31-32
	Guide bar nose sprocket is not turning	Replace the guide bar. see 'Replacing a worn guide bar' section on pages 33-34
Chainsaw does not cut properly	Insufficient chain tension	Tension the chain. See 'Tensioning the saw chain' section on page 17-18
	Dull chain	See 'Sharpening with Chain' section on page 30
	Chain installed backwards	Install the chain with the teeth facing the correct direction. See 'Replacing a worn saw chain' section on page 31-32
	Worn chain	Replace the chain. See 'See 'Replacing a worn saw chain' section on page 31-32
	Dry or excessively stretched chain	Check the oil level. Refill oil reservoir if necessary. See 'Filling the bar and chain oil reservoir' section on page 14-15
	Chain not in bar groove	Reseat chain onto groove. See 'Replacing a worn saw chain' section on page 31-32
Chain loosening or coming off of guide bar	Side cover not installed correctly	Properly install side cover ensuring the tab at rear of the side cover is tucked into the saw body
Bar and chain excessively hot and/or smoking	Chain is under lubricated	Check the oil level. Refill oil reservoir if necessary. See 'Filling the bar and chain oil reservoir' section on page 14-15

# EXPLODED DIAGRAM



## PARTS LIST

1	Power Cable Assembly	32	Brake Spring
2	Cable Sheath	33	Pump Unit
3	Screw ST4x16	34	Oil Pipe
4	Cable Clamp	35	Oil Pipe
5	Button	36	Left Housing
6	Button Spring	37	Preventer Plate
7	Retracting Spring	38	Front Handle
8	Button	39	Motor Rear Cover
9	Intermediate Connecting Rod	40	Right Housing
10	Link Switch	41	Front Handle Support Plate
11	Brake Block	42	Trigger
12	Deep Groove Ball Bearing	43	Screw ST5 x 25
13	Output Shaft	44	Seal Ring
14	Brake Torsion Spring	45	Thermal Insulation Gasket
15	Output Shaft Gear	46	Buffer Board
16	608Z Bearing	47	Axle Sleeve
17	Screw M8	48	Sprocket
18	Hexagon Nut M8 x 8	49	E Ring
19	Pinion	50	Compression Knob
20	Mounting Plate	51	Press Knob Spring
21	6000Z Bearing	52	Adjusting Knob
22	Wind Deflector	53	Circlip for Shaft
23	Rotor Assembly	54	Side Cover
24	Stator Assembly	55	Adapter Sleeve
25	608 Bearing	56	Knockout Plate
26	Torsional Spring	57	Circling Round
27	Carbon Brush	58	Pressing Plate
28	Brush Holder	59	Rand
29	Motor Back Support	60	Sealing Ring
30	Screw ST4 x 65	61	Screw 35
31	Microswitch	62	Bar



63	Chain	69	Rubber Blanket
64	Blade Cover	70	Oil Tank Cover Anti-Loss Hook
65	Tank Outlet Sealing Ring	71	Valve
66	Conical Compression Spring	72	Sealing Ring for Oil Tank
67	Valve	73	Oil Tank Cap
68	Lubricating Oil Tank		

The following accessories are available from you local CLARKE dealer:

## **CHAINSAW OIL**

- 1 Litre Chainsaw Oil (Part Number: 3050865)
- 1 Litre Biodegradable Chainsaw Blade Oil (Part Number: 3050866)

## **OTHER CLARKE CHAINSAW & FORESTRY PRODUCTS**

- ECSS2 Electric Chainsaw Sharpener (Part Number: 3402077)
- CCLH1 Chainsaw Log Horse (Part Number: 3402085)
- V6 Vertical Electric Log Buster (Part Number: 3402150)
- H4 4 Tonne Horizontal Electric Log Buster (Part Number: 3402152)

## **SPARE/REPLACEMENT PARTS**

Contact the CLARKE parts department on 0208 988 7400 or [parts@clarkeinternational.com](mailto:parts@clarkeinternational.com) for suitable replacement parts.

- Guide Bar
- Replacement Chain
- Drive Sprocket
- Chain Tensioning Gear

## **REPAIR**

Except for the replacement parts mentioned above, this chainsaw does not contain any parts that can be repaired by the consumer. Contact the CLARKE parts/service department on 0208 988 7400, [parts@clarkeinternational.com](mailto:parts@clarkeinternational.com) or [service@clarkeinternational.com](mailto:service@clarkeinternational.com) to have it checked and repaired.

## SPECIFICATIONS

Rated voltage	230V @ 50Hz
Motor power rating	2000W
Ampage	4A
RPM @ 230V	8200rpm
IP Rating	IPX0
Insulation Class	Class II
Oil Capacity	150ml
Oil Type	Clarke Chainsaw Oil.
Dimensions (D x W x H)	245mm x 850mm x 280mm
Weight	6.4kg
Bar Length	455mm
Effective Cutting Length	405mm
Chain Type	3/8" Pitch, 1.27mm Thick, 56-57 Links
No Load Chain Speed	15m/s
Chain stopping time (Kickback & Handle Release)	< 0.13 seconds
<b>Noise &amp; Vibration Data</b>	
Sound Pressure Level	103.09dB LwA
Sound Power Level	106.09dB LwA
Guaranteed Sound Power Level	110dB LwA
Uncertainty Factor	3dB
Vibration Level	Front Handle - 2.6m/s <sup>2</sup> Rear Handle - 2.233m/s <sup>2</sup>
Uncertainty Factor	1.5m/s <sup>2</sup>

# DECLARATION OF CONFORMITY



## DECLARATION OF CONFORMITY

This is an important document and should be retained.

We hereby declare that this product(s) complies with the following legislation: The following standards have been applied to the product(s):

Noise Emission in the Environment by Equipment for use Outdoors Regulations 2001

The Electromagnetic Compatibility Regulations 2016

The Supply of Machinery (Safety) Regulations 2008

The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012

EN IEC 61000-3-2:2019+A1:2021, EN 62841-1:2015+A11:2022, EN IEC 61000-3-11:2019,

IEC 62321-4:2013+AMD1:2017, EN IEC 55014-1:2021, EN ISO 22868:2011, EN 62841-4-1,

EN IEC 55014-2:2021, IEC 62321-7-1:2015, IEC 62321-7-2:2017, IEC 62321-3-1:2013,

EN 62841-4-1:2020, IEC 62321-1:2013, IEC 62321-2:2021, IEC 62321-5:2013,

IEC 62321-6:2015, IEC 62321-8:2017, EN ISO 3744:1995, ISO 17075:2017

The technical documentation required to demonstrate that the product(s) meet(s) the requirement(s) of the aforementioned legislation has been compiled and is available for inspection by the relevant enforcement authorities.

The UKCA mark was first applied in: 2024

**Manufacturer:** Clarke International Ltd, Hemnall Street, Epping, Essex, CM16 4LG, United Kingdom

**Notified Body:** N/A

**Product Description:** Chainsaw

**Assessment Procedure:** Annex V of above noise legislation

**Model Number(s):** CECS405D

**Measured LWA:** 103.09 dB

**Serial/Batch Number:** Refer to product/packageing label

**Guaranteed LWA:** 110 dB

**Document Holder:** Alan Pond

**Signed:**

J.A Clarke  
Director

CECS405D UKCA Clarke DOC 040824

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## DECLARATION OF CONFORMITY

This is an important document and should be retained.

We hereby declare that this product(s) complies with the following legislation: The following standards have been applied to the product(s):

2000/14/EC Outdoor Noise Directive

2014/30/EU Electromagnetic Compatibility Directive

2006/42/EC Machinery Directive

2011/65/EU Restriction of Hazardous Substances (RoHS) Directive

EN IEC 61000-3-2:2019+A1:2021, EN 62841-1:2015+A11:2022, EN IEC 61000-3-11:2019,

IEC 62321-4:2013+AMD1:2017, EN IEC 55014-1:2021, EN ISO 22868:2011, EN 62841-4-1,

EN IEC 55014-2:2021, IEC 62321-7-1:2015, IEC 62321-7-2:2017, IEC 62321-3-1:2013,

EN 62841-4-1:2020, IEC 62321-1:2013, IEC 62321-2:2021, IEC 62321-5:2013,

IEC 62321-6:2015, IEC 62321-8:2017, EN ISO 3744:1995, ISO 17075:2017

The technical documentation required to demonstrate that the product(s) meet(s) the requirement(s) of the aforementioned legislation has been compiled and is available for inspection by the relevant enforcement authorities.

The CE mark was first applied in: 2024

**Manufacturer:** Clarke International Ltd, Fitzwilliam Hall, Fitzwilliam Place, Dublin 2, Republic of Ireland

**Notified Body:** N/A

**Product Description:** Chainsaw

**Assessment Procedure:** Annex V of above noise legislation

**Model Number(s):** CECS405D

**Measured LWA:** 103.09 dB

**Serial/Batch Number:** Refer to product/packageing label

**Guaranteed LWA:** 110 dB

**Document Holder:** Alan Pond

**Signed:**

J.A Clarke  
Director

CECS405D CE Clarke DOC 040824

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# A SELECTION FROM THE VAST RANGE OF

# Clarke®

## QUALITY PRODUCTS



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From DIY to industrial, Plus air tools, spray guns and accessories.

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Hot and cold, electric and engine driven - we have what you need

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Drills, grinders and saws for DIY and professional use.

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Cranes, body repair kits, transmission jacks for all types of workshop use.

### WATER PUMPS

Submersible, electric and engine driven for DIY, agriculture and industry.

### POWERTOOLS

Angle grinders, cordless drill sets, saws and sanders.

### STARTERS/CHARGERS

All sizes for car and commercial use.

## PARTS & SERVICE: 0208 988 7400

**Parts Enquiries**  
[Parts@clarkeinternational.com](mailto:Parts@clarkeinternational.com)

**Servicing & Technical Enquiries**  
[Service@clarkeinternational.com](mailto:Service@clarkeinternational.com)

SALES: UK 01992 565333 or Export 00 44 (0)1992 565335

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