REMINGTON®

ENGLISH

ELECTRIC CHAIN SAW

OWNER'S MANUAL



TYPE: EL9

LD3516AWB	*CLD3516AWB*
LD4016AW	*CLD4016AW*
LD4018AW	*CLD4018AW*
LD4018AWC	*CLD4018AWC*

IMPORTANT: Read and understand this manual before assembling or operating this chain saw. Improper use of saw can cause severe injury. Keep this manual for future reference.

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IMPORTANT SAFETY INFORMATION

⚠ WARNING: When using an electric chain saw, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and injury to persons, including the following:

READ ALL INSTRUCTIONS.

Make sure you read and understand all instructions in *Important Safety Information* on pages 3 through 5. Improper use of this chain saw can cause severe injury or death from fire, electrical shock, body contact with moving chain or falling wood.

BEFORE OPERATING SAW

1. Read and understand this owner's manual before operating chain saw.
2. Watch what you are doing. Use common sense. Do not operate saw when you are tired.
3. Use chain saw for cutting wood only. Do not use chain saw for purpose not intended. Do not use for cutting plastic, masonry, etc.
4. Only well-instructed adults should operate chain saw. Never allow children to operate chain saw.
5. Use only electrical voltage noted on model plate of chain saw.
6. Use only extension cords marked for outdoor use. See page 10 for extension cord requirements.
7. Do not operate chain saw
   - while under the influence of alcohol, medication, or drugs
   - in rain or in damp or wet areas
   - where highly flammable liquids or gases are present
   - if saw is damaged, adjusted wrong, or not fully and securely assembled
   - if trigger does not turn saw on and off. Chain must stop moving when you release trigger. Have faulty switch replaced by authorized service center (see *Technical Service*, page 19).
   - while in a hurry
   - while in tree or on a ladder unless trained to do so
8. Wear snug-fitting clothes when operating chain saw. Do not wear loose clothing or jewelry. They can get caught in moving saw chain.
9. Wear the following safety gear when operating chain saw.
   - heavy-duty gloves (wear rubber gloves when working outdoors)
   - steel-toed safety footwear with non-skid soles
   - eye protection such as safety glasses, goggles, or face screen
   - safety hard hat
   - ear mufflers or ear plugs
   - hair covering to contain long hair
   - face or dust mask (if working in dusty areas)
10. Before cutting, always provide the following:
    - clear work area
    - secure footing
    - planned retreat path from falling tree
11. Inspect tree before cutting down. Make sure there are no dead limbs or branches that may fall on you.
12. To reduce the risk of electric shock, this saw has a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet of your extension cord, reverse the plug. If it still does not fit, a polarized extension cord will be necessary. Do not change the plug in any way.

WHILE OPERATING SAW

1. Stay alert. Use common sense while operating chain saw.
2. Keep work area clean. Cluttered areas invite injuries.
3. Be aware of extension cord while operating chain saw. Be careful not to trip over cord. Keep cord away from chain and operator at all times.
4. Keep children, animals, and bystanders away from chain saw and extension cord. Only chain saw user should be in work area.
5. Do not cut down a tree unless you are trained or have expert help.
6. If two or more persons perform bucking and felling operations at the same time, provide plenty of distance between operations. Provide distance of at least twice the height of tree being felled.
7. Secure wood you are cutting by using clamps or chocks.
8. Grip chain saw firmly with both hands. Never operate chain saw with one hand. Never use hand guard as handle.
9. Keep finger off trigger until ready to make cut.
10. Before starting chain saw, make sure chain is not touching anything.
11. To guard against electrical shock, avoid body contact with grounded objects such as pipes, fences, and metal posts.
12. Keep all parts of body away from chain when saw is running.
13. Do not force chain saw while cutting. Apply light pressure. It will do the job better and safer at the rate for which it was intended.
14. Cut small brush and saplings with extreme care. Slender material may catch in chain and be whipped toward you. This could also pull you off balance.

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IMPORTANT SAFETY INFORMATION

15. When cutting limb or tree trunk that is under tension, use extreme caution. Be alert for wood springing back. When wood tension is released, limb could spring back and strike operator causing severe injury or death.
16. Carry chain saw from one place to another
    - with saw stopped and unplugged
    - by holding front handle (never use hand guard as handle)
    - with finger off trigger
    - with guide bar and chain to rear

⚠ WARNING: This product contains chemicals known to the State of California to cause cancer or birth defects, or other reproductive harm.

⚠ WARNING: Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known (to the state of California) to cause cancer, birth defects, or other reproductive harm. Some examples of these chemicals are:

- **lead from lead-based paints**
- **crystalline silica from bricks and cement and other masonry products**
- **arsenic and chromium from chemically-treated lumber**

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

KICKBACK

⚠ WARNING: 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 lightning fast 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 injury to user.

Kickback Safety Devices On This Saw

This saw has a low-kickback chain and reduced kickback guide bar. Both items reduce the chance of kickback. Kickback can still occur with this saw.

Do not remove front hand guard. Do not replace front hand guard with substitute.

The following steps will reduce the risk of kickback.

- Use both hands to grip saw while saw is running. Use firm grip. Thumbs and fingers must wrap around saw handles.
- Keep all safety items in place on saw. Make sure they work properly.
- Do not overreach or cut above shoulder height.
- Keep solid footing and balance at all times.
- Stand slightly to left side of saw. This keeps your body from being in direct line with chain.
- Do not let guide bar nose touch anything when chain is moving (see Figure 1).

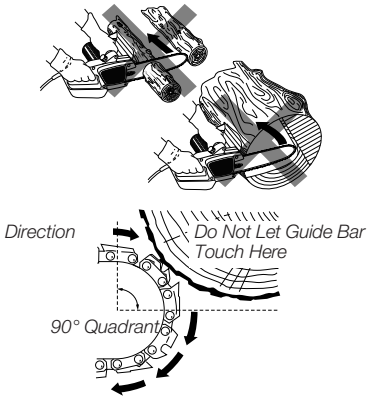


Figure 1 - Kickback Hazard Example: Do Not Let Nose of Guide Bar Touch Object While Chain is Moving

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PRODUCT IDENTIFICATION

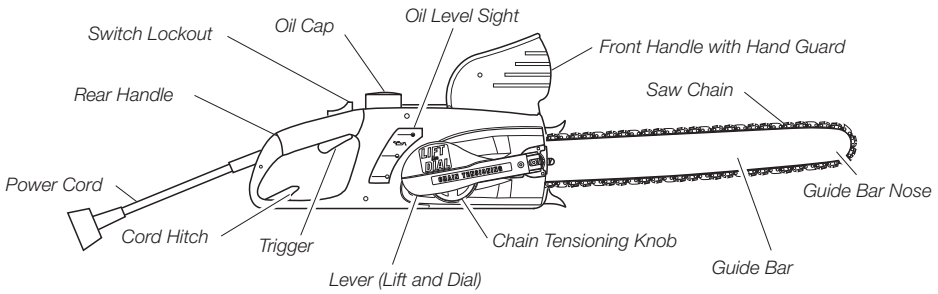


Figure 2 - Chain Saw Model

CHAIN SAW NAMES AND TERMS

Bucking Process of cutting a felled tree or log into lengths.

Chock Block or wedge used to secure wood from moving.

Felling Process of cutting down a tree.

Felling Cut Final cut when felling a tree. Make this cut on opposite side of tree from notching cut.

Front Handle Located at front of saw body.

Front Hand Guard Shield between front handle and guide bar. Protects left hand while using saw.

Guide Bar Metal bar that extends from saw body. The guide bar supports and guides chain.

Guide Bar Nose Tip or end of guide bar.

Kickback Quick backward and upward motion of guide bar. Kickback may occur when tip of guide bar touches an object while chain is moving. The guide bar will kick up and back towards operator.

Limbing Process of cutting limb(s) from a felled tree.

Low-Kickback Chain Chain that reduces chance of kickback as required by ANSI B175.1.

Normal Cutting Position Stance used while making bucking and felling cuts.

Notching Cut Notch cut in tree that directs fall of tree.

Oiler Control System for oiling guide bar and chain.

Power Head Chain saw without chain and guide bar. Also known as saw body.

Pushback (Kickback, Pinch) Rapid pushback of chain saw. Pushback may occur if chain along top of guide bar is pinched, caught, or contacts a foreign object.

Rear Handle Handle located at rear of saw body.

Reduced Kickback Guide Bar Guide bar that reduces chance of kickback.

Replacement Chain Chain that complies with ANSI B175.1 when used with a specific saw. It may not meet ANSI requirements when used with other saws.

Saw Chain (Chain) Loop of chain having cutting teeth for cutting wood. The motor drives chain. The guide bar supports chain.

Spiked Bumper (Spike) Pointed teeth at front of saw body beside guide bar. Keep spiked bumper in contact with wood when felling or bucking. It helps maintain position of saw while cutting.

Sprocket Toothed wheel that drives chain.

Switch Device that completes or interrupts electrical circuit to motor of saw.

Switch Linkage This device connects switch to trigger. It moves switch when you squeeze trigger.

Switch Lockout Device that reduces accidental starting of saw.

Trigger Device that turns saw on and off. Squeezing trigger turns saw on. Releasing trigger turns saw off.

Trimming (Pruning) Process of cutting limb(s) from a living tree.

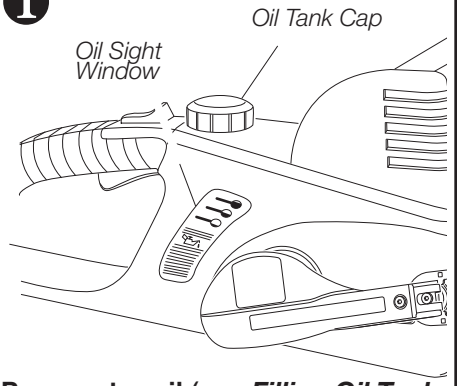
Undercut An upward cut from underside of log or limb. This is done while in normal cutting position and cutting with top of guide bar.

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QUICK START GUIDE

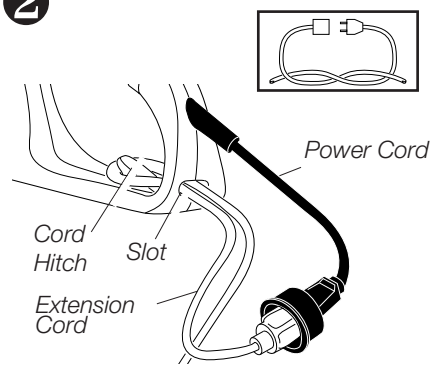
If you are familiar with chain saws and their proper usage, use this ***Quick Start Guide*** *to quickly begin using your new Remington brand chain saw.*

❶



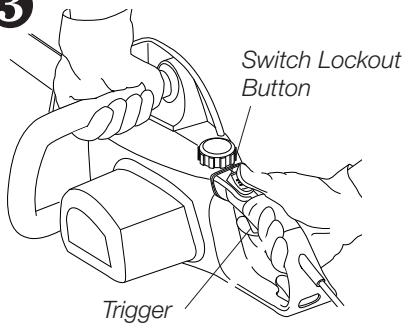
Pour motor oil (see *Filling Oil Tank*, page 9, for correct oil type) in oil tank (do not use standard bar and chain oil). DO NOT leave oil in tank when not in use.

❷



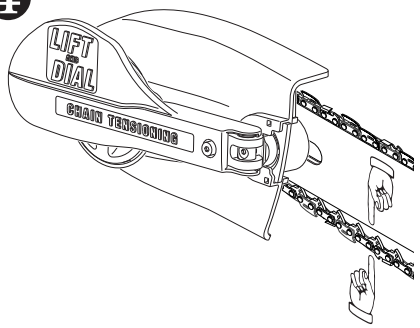
Connect extension cord to power cord and power supply. Use built-in cord hitch or knot method (inset) to secure together. See *Extension Cords*, page 9, for correct size.

❸



Use both hands to grip chain saw. Push lockout button forward with right thumb and squeeze trigger. Make sure saw is running at full speed before starting a cut.

❹



When chain becomes loose due to stretching, tension properly. See *Saw Chain Tension Adjustment*, page 8, for correct tensioning of saw chain.



For complete information concerning your saw and its proper usage, read and understand this owner's manual thoroughly.

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SAW CHAIN TENSION ADJUSTMENT

⚠ WARNING: Unplug chain saw from power source before adjusting saw chain tension.

⚠ WARNING: Cutting edges on chain are sharp. Use protective gloves when handling chain.

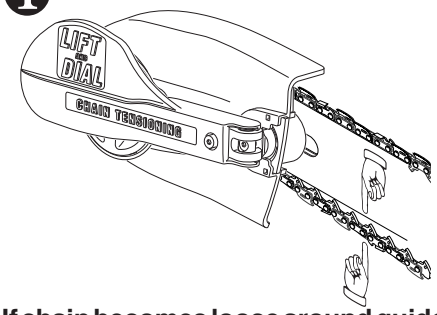
⚠ WARNING: Maintain proper chain tension always. A loose chain will increase the risk of kickback. A loose chain may jump out of guide bar groove. This may injure operator and damage chain. A loose chain will cause chain, guide bar, and sprocket to wear rapidly.

IMPORTANT!

Failure to follow these instructions when tensioning saw chain will damage saw and void the warranty.

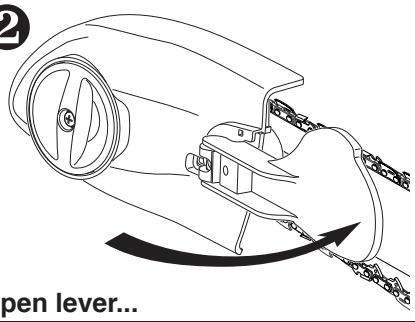
New saw chains will stretch. Check chain tension frequently when first used and tighten when chain becomes loose around guide bar.

❶



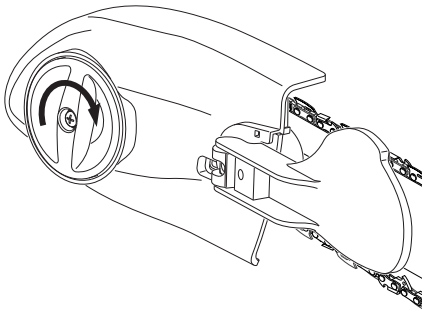
If chain becomes loose around guide bar, allow chain to cool then...

❷



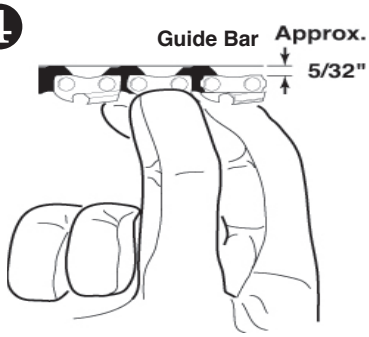
Open lever...

❸



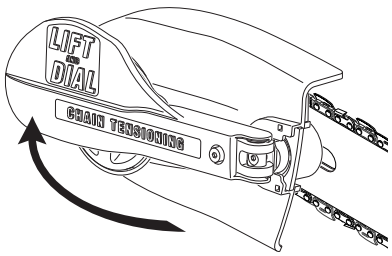
Turn chain tensioning knob clockwise to tension saw chain...

❹



Pull chain to check tension. Guide links should not come out of guide bar groove...

❺



Close lever.

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SAW CHAIN TENSION ADJUSTMENT

OPERATING CHAIN SAW

⚠ WARNING: Read and understand this owner's manual before operating this saw. Make certain you read and understand all Important Safety Information, pages 3 through 5. Improper use of this chain saw can cause severe injury or death from fire, electrical shock, or body contact with moving chain or falling wood.

FILLING OIL TANK

1. Remove oil cap.
2. Fill oil tank with SAE #30 motor oil. ***Note:*** For temperatures below 30°F, use SAE #10 oil. For temperatures above 75°F, use SAE #40 oil.
3. Replace oil cap at once. Tighten oil cap firmly for good seal. This will avoid oil seepage from tank.
4. Wipe off excess oil.

Note: It is normal for oil to seep when saw is not in use. Empty oil tank after each use to prevent seepage.

IMPORTANT: **DO NOT USE BAR AND CHAIN OIL**

OILING CHAIN

Automatic Oil System

This chain saw is equipped with an automatic oiling system. It will provide adequate lubrication to the guide bar and saw chain. Check oil level every 15 minutes of cutting time. Oil level can be seen in oil sight window (see Figure 3).

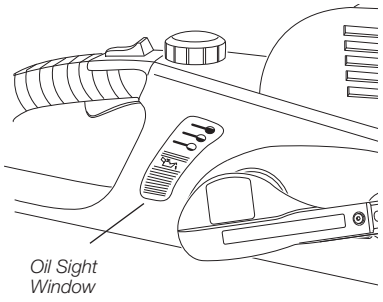


Figure 3 - Oil Sight Window Location

EXTENSION CORDS

Use proper extension cords with this saw. Use only extension cords marked for outdoor use. The cord must be marked with suffix W or W-A following the cord type designation. ***Example:*** SJTW-A or SJTW.

Use proper sized cord with this saw. Cord must be heavy enough to carry current needed. An undersized cord will cause voltage drop at saw. Saw will lose power and overheat. Follow cord size requirements listed below.

Cord Length	AWG Cord Size
25 feet	16 AWG
50 feet	16 AWG
100 feet	14 AWG
150 feet	12 AWG

Extension Cord Size Requirements

Keep cord away from cutting area. Make sure cord does not catch on branches or logs during cutting. Inspect cords often. Replace damaged cords.

This chain saw is designed with an extension cord hitch that prevents the extension cord from being pulled loose during use. To use, form a loop with the end of the extension cord, insert loop into slot in rear of handle, and place loop over cord hitch (see Figure 4). Gently pull loop against cord hitch until slack is removed. Plug extension cord into chain saw cord.

Note: An optional method of retaining the extension cord is shown in Figure 5. Use this method with larger-gauge cords that may not fit into the extension cord retainer.

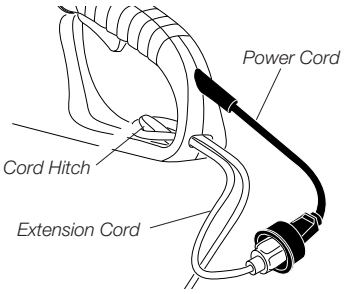


Figure 4 - Looping Extension Cord over Cord Hitch

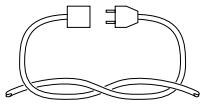


Figure 5 - Tying Extension Cord and Power Cord in Knot

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OPERATING CHAIN SAW

CUTTING WITH THE CHAIN SAW

1. Connect saw to extension cord. Connect extension cord to power supply.
2. Make sure section of log to be cut is not laying on ground. This will keep chain from touching ground as it cuts through log. Touching ground with moving chain will dull chain.
3. Use both hands to grip saw. Always use left hand to grip front handle and right hand to grip rear handle. Use firm grip. Thumbs and fingers must wrap around saw handles (see Figure 6).
4. Make sure your footing is firm. Keep feet apart. Divide your weight evenly on both feet.
5. When ready to make a cut, push the lockout button completely forward with the right thumb and squeeze the trigger (see Figure 6). This will turn saw on. Releasing trigger will turn saw off. Make sure saw is running at full speed before starting a cut.
6. When starting a cut, place moving chain against wood. Hold saw firmly in place to avoid possible bouncing or skating (sideways movement) of saw.
7. Guide saw using light pressure. Do not force saw. The motor will overload and can burn out. It will do the job better and safer at the rate for which it was intended.
8. Remove saw from a cut with saw running at full speed. Stop saw by releasing trigger. Make sure chain has stopped before setting saw down.
9. Practice until you can maintain a steady, even cutting rate.

IMPORTANT: Some chain saws are provided with a thermal protection device that will cut off power to the unit when it reaches a set temperature. If this occurs, allow the unit to cool off for 30 minutes prior to restarting.

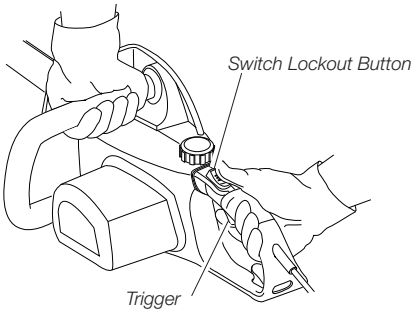


Figure 6 - Lockout Button and Trigger Location

FELLING A TREE
(Cutting Down a Tree)

⚠ WARNING:
- **Avoid kickback. Kickback can result in severe injury or death. See *Kickback,* pages 4 and 5, to avoid risk of kickback.**
- **Do not fell a tree without ample skill or expert help.**
- **Keep children, animals, and bystanders away from area when felling a tree.**
- **If two or more persons perform bucking and felling operations at the same time, provide ample distance between operations. Provide distance of at least twice the height of tree being felled.**

⚠ WARNING: When felling a tree, be aware of your surroundings. Do not endanger any person, strike utility lines, or cause property damage. If tree strikes utility lines, contact utility company at once.

Felling is the process of cutting down a tree. Make sure your footing is firm. Keep feet apart. Divide your weight evenly on both feet. Follow directions below to fell a tree.

Before Felling a Tree

1. Before felling, inspect tree. Make sure there are no dead limbs or branches that may fall on you. Study natural lean of tree, location of larger branches, and wind direction. This will help you judge which way tree will fall.
2. Clear work area around tree.
3. Plan and clear a retreat path before felling. Make retreat path opposite to planned direction of fall of tree and at 45° angle (see Figure 7).

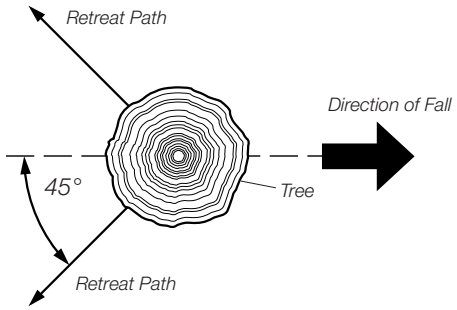


Figure 7 - Retreat Path From Tree

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4. Remove dirt, stones, loose bark, nails, staples, and wire from tree where you will make felling cuts.
5. Stay on uphill side when felling tree. Tree could roll or slide downhill after falling.

Felling Procedure

A) Felling Notch

A properly placed felling notch will determine direction tree will fall. Place felling notch on side of tree in direction you want tree to fall (see Figure 8). Follow directions below to create a felling notch.

1. Make lower notch cut as close to ground as possible. Hold saw so guide bar is horizontal. Cut 1/3 the diameter of tree trunk (see Figure 8). ***Note:*** Always make this horizontal lower notch cut first. If you make this cut second, tree can pinch chain or guide bar.
2. Start upper notch cut the same distance above first cut as first cut is deep.
   Example: If lower notch cut is eight inches deep, start upper notch cut eight inches above it. Cut downward at 45° angle. The upper notch cut should meet end of lower notch cut (see Figure 8).
3. Remove tree trunk wedge created by notching cuts.

B) Felling Cut

1. Make felling cut two inches higher than lower notch cut and on opposite side of tree (see Figure 8). Keep felling cut parallel to lower notch cut.
2. Cut towards notch.

⚠ WARNING: Do not cut all the way through tree. Leave about two inches of tree diameter uncut directly behind felling notch (see Figure 8). This uncut portion acts as a hinge. The hinge helps keep tree from twisting and falling in wrong direction.

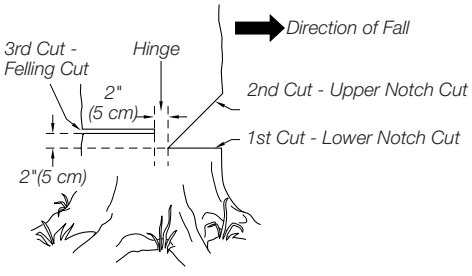


Figure 8 - Felling A Tree

3. As felling cut nears hinge, tree should begin to fall. ***Note:*** If needed, drive wedges into felling cut to control direction of fall. If tree settles back and pinches chain, drive wedges into felling cut to remove saw. Only use wedges made of wood, plastic, or aluminum. Never use wedge made of steel. This could cause kickback and damage to chain.
4. When tree begins to fall, quickly
   - remove saw from felling cut
   - release trigger to turn saw off
   - put saw down
   - exit area using retreat path

⚠ WARNING: Be alert for falling overhead limbs. Watch your footing while exiting area.

LIMBING A TREE

⚠ WARNING: Avoid kickback. Kickback can result in severe injury or death. See *Kickback,* pages 4 and 5, to avoid risk of kickback.

⚠ WARNING: When cutting limb that is under tension, use extreme caution. Be alert for wood springing back. When wood tension is released, limb could spring back and strike operator causing severe injury or death.

Limbing is removing branches from a fallen tree. Make sure your footing is firm. Keep feet apart. Divide your weight evenly on both feet. Do not remove larger limbs under tree that support log off ground. Remove each limb with one cut (see Figure 9). Clear cut limbs from work area often. This will help maintain a safe work area.

Make sure you start your cut where limb will not pinch saw during cutting. To avoid pinching, start cut on freely hanging limbs from above limb. Start cut on limbs under tension from under limb. If pinch occurs, turn saw off, lift limb, and remove saw.

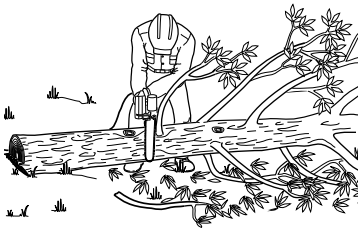


Figure 9 - Limbing A Tree

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OPERATING CHAIN SAW

BUCKING A LOG

⚠ WARNING: Avoid kickback. Kickback can result in severe injury or death. See *Kickback,* pages 4 and 5, to avoid risk of kickback.

⚠ WARNING:
- **If on slope, make sure log will not roll down hill. Secure log by using wooden stakes. Drive wooden stakes into ground on downhill side of log. Stand on uphill side of log while cutting. Log may roll after cutting.**
- **Never try cutting through two logs at same time. This could increase the risk of kickback.**
- **While cutting log, never hold log with your hand, leg, or foot.**
- **While cutting log, never allow another person to hold log.**
- **Turn off and unplug saw before moving from one place to another.**

Bucking a log is cutting a log into sections. Make sure your footing is firm. Keep feet apart. Divide your weight evenly on both feet. When possible, raise log or section off ground. Do this by using limbs, logs, chocks, etc.

When cutting through log, maintain control by reducing cutting pressure near end of cut. Do not relax your grip on chain saw handles. Do not let moving chain touch ground. Ground will dull moving chain. After cutting through log, release trigger to turn saw off before moving saw.

Follow directions below to buck a log.

Entire Length Of Log On Ground

Cut log from top (see Figure 10).

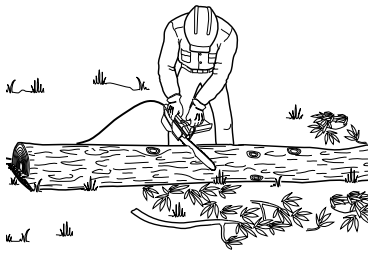


Figure 10 - Bucking Log With Entire Length On Ground

Log Supported On One End

1. Make first cut on underside of log (see Figure 11). Use top of guide bar to make this cut. Cut 1/3 through diameter of log. This cut will keep section from splintering when cut.
2. Make second cut directly above first cut. Cut down to meet first cut. This cut will keep log from pinching guide bar and chain.

Log Supported On Both Ends

1. Make first cut from above log (see Figure 12). Cut 1/3 through diameter of log. This cut will keep section from splintering when cut.
2. Make second cut on underside of log, directly under first cut. Use top of guide bar to make this cut. Cut up to meet first cut. This will keep log from pinching guide bar and chain.

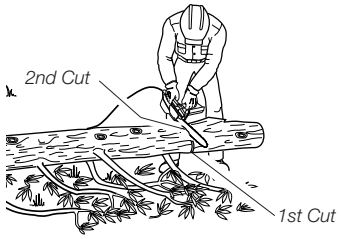


Figure 11 - Bucking Log When Log Is Supported On One End

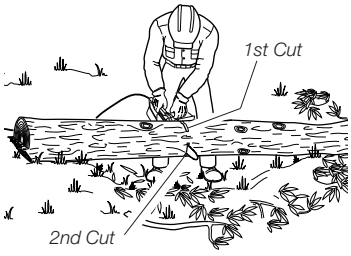


Figure 12 - Bucking Log When Log Is Supported On Both Ends

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OPERATING CHAIN SAW

TRIMMING A TREE (Pruning)

⚠ WARNING: Avoid kickback. Kickback can result in severe injury or death. See *Kickback,* pages 4 and 5, to avoid risk of kickback.

⚠ WARNING: Do not operate chain saw while
- **in a tree**
- **on a ladder or any other unstable surface**
- **in any awkward position**

You may lose control of saw causing severe injury.

⚠ WARNING: Do not cut limbs higher than your shoulders.

⚠ CAUTION: Seek professional help if facing conditions beyond your ability.

Trimming a tree is the process of cutting limbs from a living tree. Make sure your footing is firm. Keep feet apart. Divide your weight evenly on both feet. Follow directions below to trim a tree.

1. Make first cut six inches from tree trunk on underside of limb. Use top of guide bar to make this cut. Cut 1/3 through diameter of limb (see Figure 13).
2. Move two to four inches farther out on limb. Make second cut from above limb. Continue cut until you cut limb off.
3. Make third cut as close to tree trunk as possible on underside of limb stub. Use top of guide bar to make this cut. Cut 1/3 through diameter of stub.
4. Make fourth cut directly above third cut. Cut down to meet third cut. This will remove limb stub.

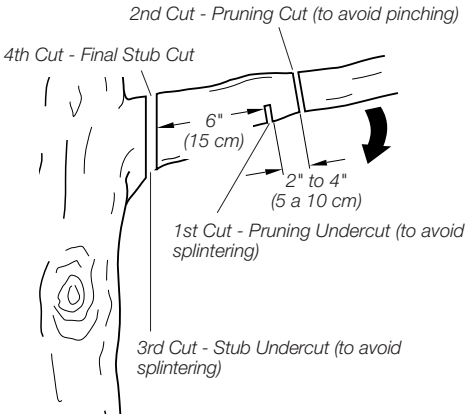


Figure 13 - Cutting A Limb

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CLEANING AND MAINTENANCE

NOTICE: Below are instructions for servicing your chain saw. Any servicing not mentioned below should be done by an authorized service center.

⚠ WARNING: Unplug chain saw from power source before servicing. Severe injury or death could occur from electrical shock or body contact with moving chain.

⚠ WARNING: Cutting edges on chain are sharp. Use protective gloves when handling chain.

CLEARING SPROCKET COVER OF DEBRIS

While operating the chain saw, wood chips, small twigs, and other debris can occasionally build up inside the sprocket cover. To properly maintain the saw and keep it in good working order, periodic removal of this debris may be required. To properly clear debris from the sprocket cover:

1. Unplug chain saw.
2. Grasp and pull open chain tensioning lever (see Figure 14).

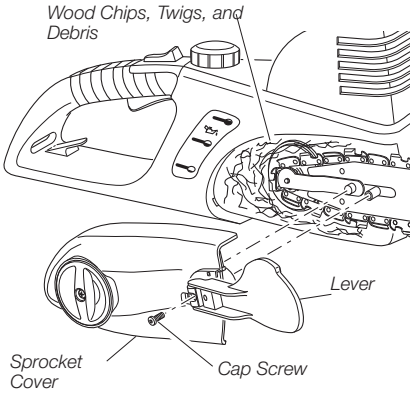


Figure 14 - Removing and Clearing Sprocket Cover of Debris

3. Turn tensioning knob 1/2 turn counterclockwise to release tension on guide bar and chain.
4. Using a 5/32" allen wrench, loosen and remove cap screw attaching lever and sprocket cover to saw body (see Figure 14). ***Note:*** Do not remove low head cap screw holding lever to cam (see Figure 15).
5. Remove lever and sprocket cover.
6. After sprocket cover is removed, clear all chips, twigs, and debris.

⚠ WARNING: Use caution when clearing debris that is around chain. Cutting edges on chain are sharp. Use protective gloves when working around or handling chain.

7. Once debris has been removed, re-assemble the sprocket cover to the chain saw. See *Sprocket Cover Assembly,* page 15, for installation instructions.

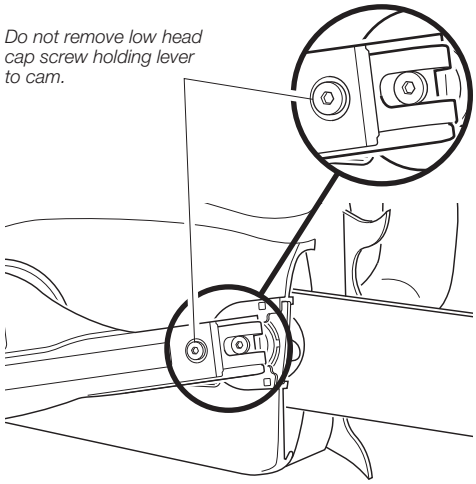


Figure 15 - Lever and Cam Screw Assembly Location

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CLEANING AND MAINTENANCE

SPROCKET COVER ASSEMBLY

Before assembling sprocket cover to saw body, turn tensioning knob counterclockwise until it stops turning. The adjustment block will be all the way to the left of the adjustment block window.

1. Insert tab on sprocket cover into slot on saw body (see Figure 16).
2. Rotate front of sprocket cover toward guide bar until adjustment block touches guide bar (see Figure 17).
3. Slide guide bar back and forth until adjustment block drops into adjusting hole on guide bar. ***Note:*** It might be helpful to verify this assembly by looking through the opening in the bottom of the sprocket cover.
4. Place lever, in open position, onto sprocket cover (see Figure 18).
5. Insert low head cap screw through lever and sprocket cover.
   IMPORTANT: The low head cap screw must be inserted into the countersunk hole in the pivot pin in the lever (see Figure 18). The lever will not function properly if low head cap screw is not installed correctly.
6. Using a 5/32" allen wrench, tighten cap screw securely.
7. Adjust saw chain tension. Follow steps under *Saw Chain Tension Adjustment,* page 8.

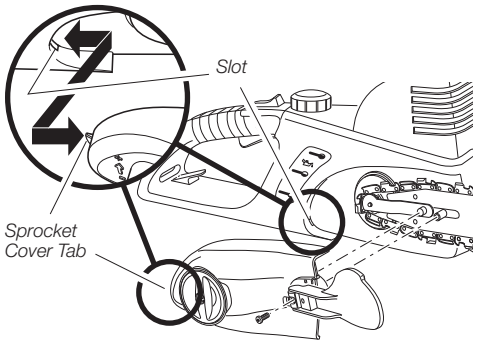


Figure 16 - Insert Sprocket Cover Tab into Slot

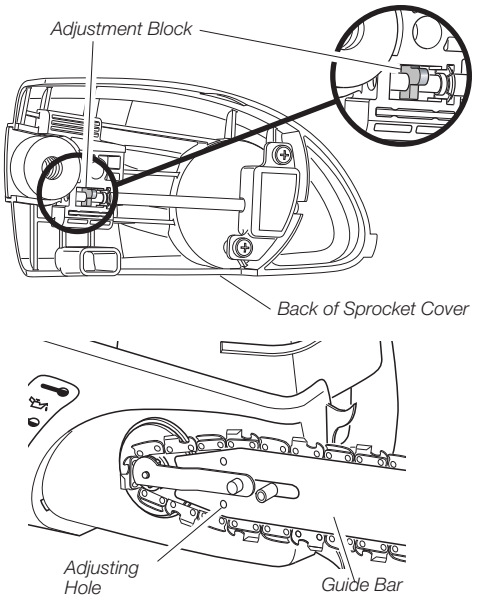


Figure 17 - Adjustment Block and Adjusting Hole Location

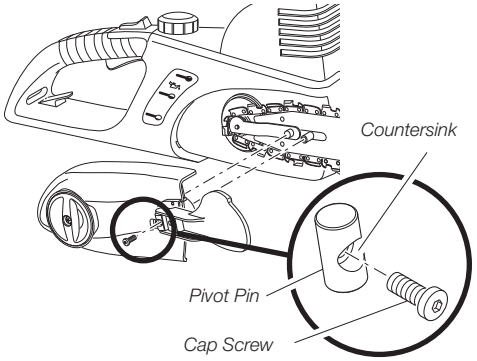


Figure 18 - Inserting Low Head Cap Screw into Pivot Pin

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CLEANING AND MAINTENANCE

CLEANING SAW BODY

⚠ WARNING: When cleaning saw body,
- **do not submerge saw in any liquids**
- **do not use products that contain ammonia, chlorine, or abrasives**
- **do not use chlorinated cleaning solvents, carbon tetrachloride, kerosene, or gasoline**

Keep saw body clean. Use a soft cloth dampened with a mild soap and water mixture. Wipe saw body to clean.

CARE OF GUIDE BAR

Uneven bar wear causes most guide bar problems. Incorrect sharpening of chain cutter and depth gauge settings often cause this. When bar wears unevenly, it widens guide bar groove (see Figure 19). This causes chain clatter and rivet popping. Saw will not cut straight. Replace guide bar if this occurs.

Inspect guide bar before sharpening chain. A worn or damaged guide bar is unsafe. A worn or damaged guide bar will damage chain. It will also make cutting harder.

⚠ WARNING: Cutting edges on chain are sharp. Use protective gloves when handling chain.

IMPORTANT: Do not clamp chain saw in vise during assembly.

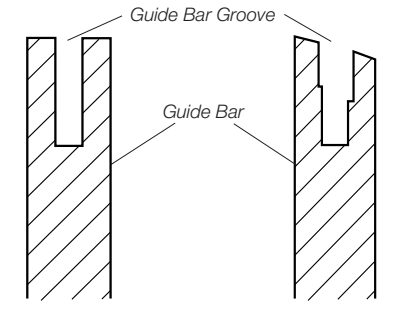


Figure 19 - Guide Bar Cross Section Showing Uneven Bar Wear

Normal Guide Bar Maintenance

1. Remove sprocket cover (see *Clearing Sprocket Cover of Debris,* page 14).
2. Remove saw chain.
3. Remove E-ring and sprocket support (see Figure 20).
4. Remove guide bar.
5. Remove sawdust from guide bar groove periodically. Use putty knife or wire (see Figure 21).
6. Clean oil slots after each day of use.
7. Remove burrs from sides of guide bar. Use flat file to make side edges square.

Replace guide bar when
- bar is bent or cracked
- inside groove of bar is badly worn

Note: When replacing guide bar, see *Replacement Parts and Accessories,* page 19, for proper bar.

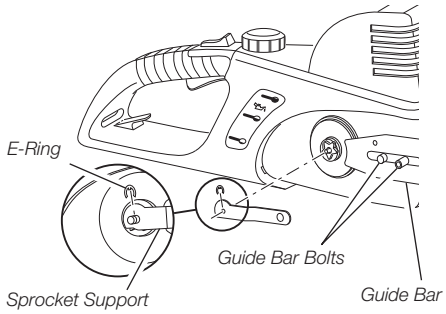


Figure 20 - Removing E-Ring and Sprocket Support

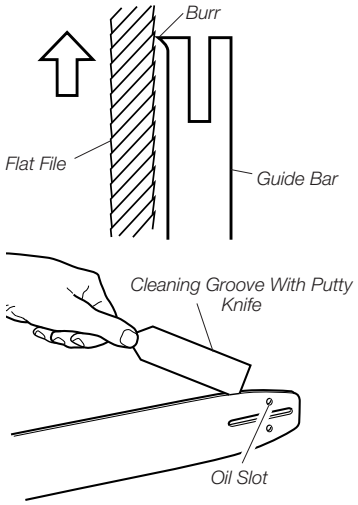


Figure 21 - Guide Bar Maintenance

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CLEANING AND MAINTENANCE

Install Guide Bar

1. Place guide bar onto guide bar bolts (see Figure 20, page 16).
2. Place sprocket support over guide bar and secure in place with E-ring (see Figure 20, page 16).
3. Place saw chain around sprocket, along top groove of guide bar, and around guide bar nose (see Figure 22). ***Note:*** Make sure cutting edges of saw chain are facing in right direction. Position chain so cutting edges on top of guide bar face guide bar nose (see Figure 22 and indicator on side cover of saw).

⚠ CAUTION: Do not place chain on saw backwards. If chain is backwards, saw will vibrate badly and will not cut.

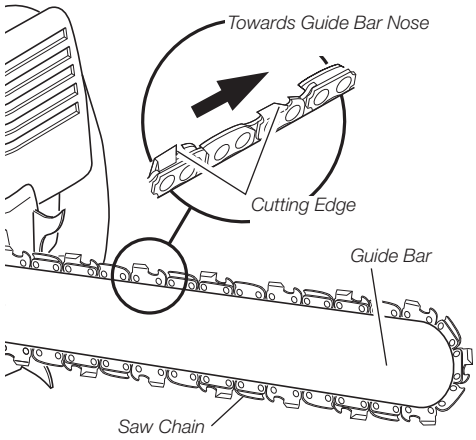


Figure 22 - Correct Chain Direction

SHARPENING SAW CHAIN

⚠ WARNING: Unplug chain saw from power source before servicing. Severe injury or death could occur from electrical shock or body contact with moving chain.

⚠ WARNING: Cutting edges on chain are sharp. Use protective gloves when handling chain.

Keep chain sharp. Your saw will cut faster and more safely. A dull chain will cause undue sprocket, guide bar, chain, and motor wear. If you must force chain into wood and cutting creates only sawdust with few large chips, chain is dull.

Items Needed to Sharpen Chain

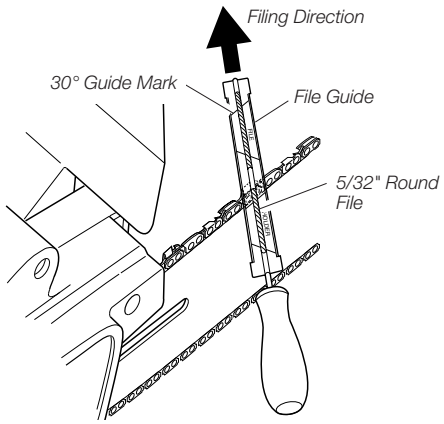
Purchase these items from your local dealer, hardware store, or chain saw supplies outlet.

- 5/32" round file
- Depth gauge tool
- File guide
- Vise
- Medium sized flat file

Sharpening Cutters

Use file guide for 30° filing.

1. Adjust chain for proper tension (see *Saw Chain Tension Adjustment,* pages 8 and 9).
2. Clamp guide bar in vise to hold saw steady. ***Note:*** Do not clamp chain.
3. Press 5/32" round file (attached to file guide) into groove between top plate and depth gauge on chain. File guide should rest on both top plate and depth gauge (see Figure 23). ***Note:*** File at midpoint of guide bar.
4. Hold file guide level. Make sure 30° mark on file guide is parallel to center of guide bar (see Figure 23). This will insure that you file cutters at 30° angle.



Note: *This illustration shows file guide placement and filing direction for sharpening cutters on left side of chain.*

Figure 23 - File and File Guide Placement On Chain

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CLEANING AND MAINTENANCE

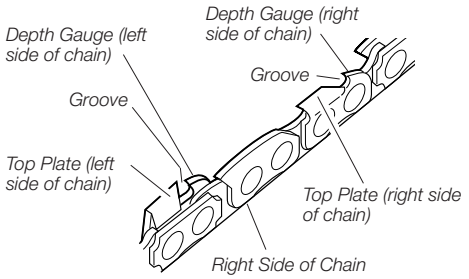


Figure 24 - Chain Part Locations

5. File from inside towards outside of cutter until sharp. Only file in this one direction (see Figure 23). ***Note:*** Two or three strokes with file should sharpen cutter.
6. After each cutter is sharpened, move chain forward to sharpen next cutter. File all cutters on one side of chain.
7. Move to other side of chain and repeat process.

Filing Cutter Depth Gauges

The cutter depth gauge clearance is reduced as cutters are sharpened. After every second or third sharpening, reset cutter depth gauges.

1. Place depth gauge tool (.025") firmly across top of two cutters. Make sure depth gauge enters slot in depth gauge tool (see Figure 25).
2. Use medium flat file. File depth gauge level with depth gauge tool.
3. Remove depth gauge tool. With flat file, round off front corner of cutter depth gauge (see Figure 26).

After several hand filings, have authorized service center or sharpening service machine sharpen chain. This will insure even filing.

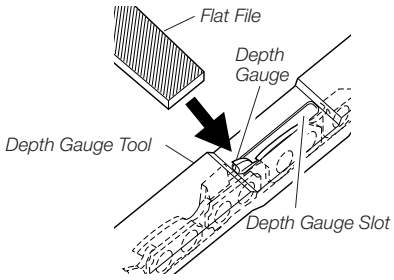


Figure 25 - Depth Gauge Tool On Chain

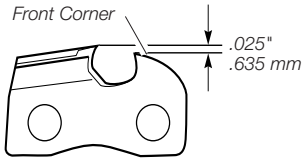


Figure 26 - Round Off Front Corner Of Depth Gauge

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REPLACING SAW CHAIN

Replace chain when cutters are too worn to sharpen or when chain breaks. Also, the drive sprocket maintains proper driving of chain. Replace drive sprocket if worn or damaged. Only use replacement parts noted in this manual. ***Note:*** For proper chain and drive sprocket, see *Replacement Parts and Accessories*, pages 68 and 69.

To replace saw chain:

1. Remove sprocket cover (see *Clearing Sprocket Cover of Debris*, page 14).
2. Remove saw chain.
3. Place new saw chain around guide bar and sprocket (see *Install Guide Bar*, page 17, for proper chain orientation).
4. Place sprocket cover on saw (see *Sprocket Cover Assembly*, page 15).
5. Tension saw chain (see *Saw Chain Tension Adjustment*, page 8).

REPLACEMENT CHAINS

Replacement saw chains may be available at your local hardware or home improvement store.

The following list gives the specifications for replacement chains.

All chains will be .050 gauge, 3/8 pitch.

16" chains have 58 drive links

18" chains have 62 drive links

You may also order the replacement saw chains from the "Online Outlet" at www.desatech.com using the part number listed in the illustrated parts list on pages 68-69 of this manual.

For parts contact: www.PartsFor.com

TROUBLESHOOTING

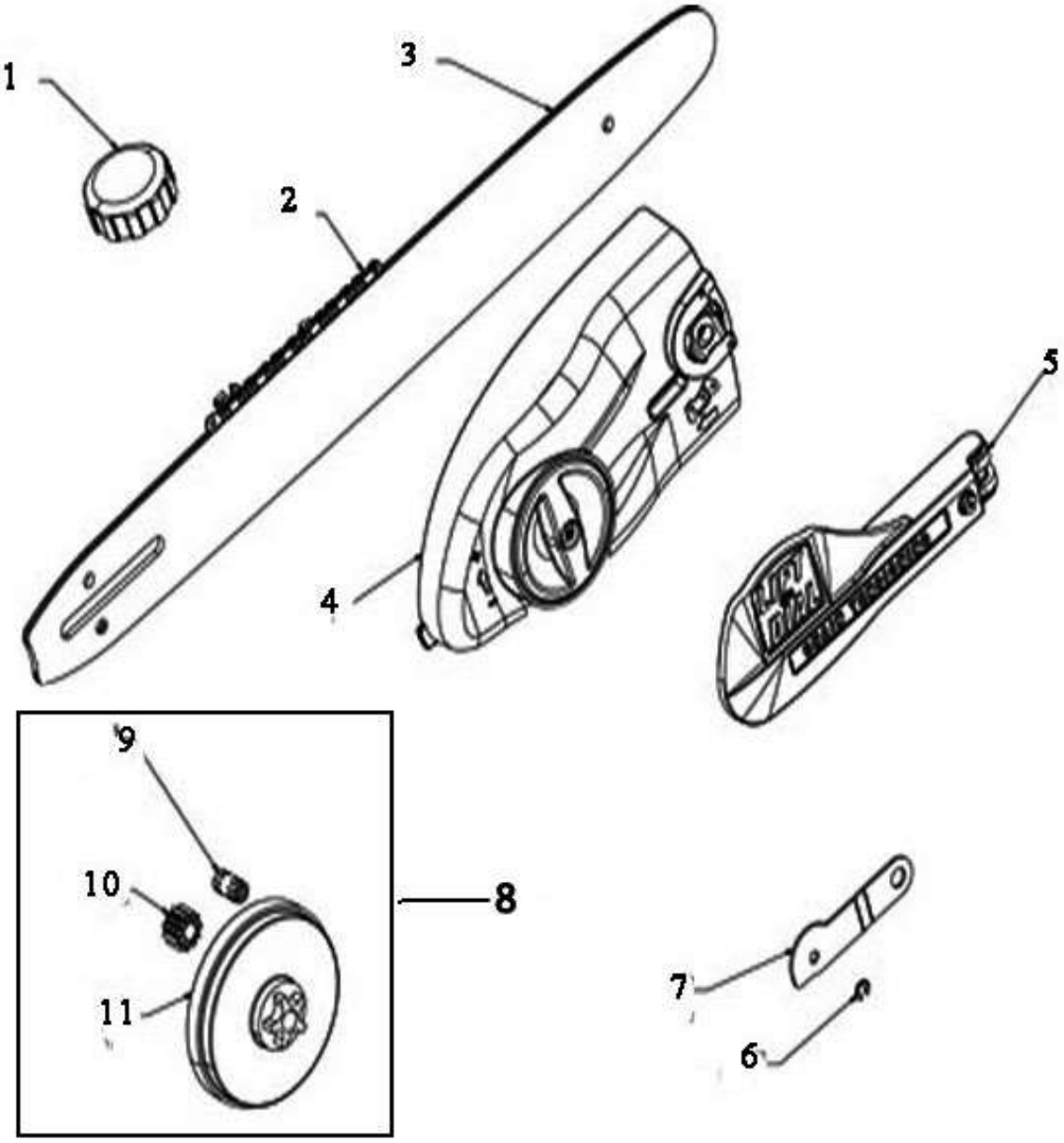
Note: For additional help, visit DESA Power Tools technical service web site at **www.desatech.com.**

⚠ WARNING: Unplug chain saw from power source before servicing. Severe injury or death could occur from electrical shock or body contact with moving chain.

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OBSERVED FAULT	POSSIBLE CAUSE	REMEDY
Saw runs, but does not cut	Chain assembled backwards on guide bar	See *Install Guide Bar,* page 17
Saw does not cut unless heavily forced. Cutting produces only sawdust with few large chips	Chain is dull	See *Sharpening Saw Chain,* pages 17 and 18
Saw runs slow. Saw stalls easily	Low power supply voltage	Extension cord wire size too small. See *Extension Cords,* page 9
Motor of saw does not run when you squeeze trigger	1. Switch lockout not pushed forward in to release trigger 2. Extension cord connections loose 3. Open line fuse or circuit breaker 4. Worn out motor brushes 5. Open wiring circuit on saw 6. Termal protector tripped	1. Push switch lockout forward before squeezing trigger 2. Check cord connections 3. Check line fuse or circuit breaker 4. See authorized service center 5. See authorized service center 6. Allow unit to cool for 30 minutes prior to restarting.
Motor of saw runs, but chain does not move	Gear train failure	Remove and inspect chain drive sproket gear.
Chain does not get oil	**All Models** 1. Clogged oil slot in guide bar 2. Oil is too thick **Models with Automatic Oiler** 1. Vent in oil cap clogged 2. Filter in oil reservoir clogged 3. Pump damaged, do not use saw	 1. Remove guide bar and clean oil slot 2. Use correct weight of oil. See *Filling Oil Tank,* page 9 1. Remove cap and clean vent hole 2. Remove filter in oil reservoir and clean 3. See authorized service center
Chain comes off guide bar	1. Chain is loose 2. Guide bar and chain not assembled correctly	1. Tighten chain. See *Saw Chain Tension Adjustment,* page 8 2. See *Install Guide Bar,* page 17
Saw smokes	Saw damaged. Do not use saw	See authorized service center
Saw leaks oil	Oil cap is not secure	Tighten oil cap. ***Note:*** **Empty oil tank when not in use**

For parts contact: www.PartsFor.com



Click on the picture above for part numbers or to purchase parts

Key #	Model Number	Description
1	LD4016AWB	Chainsaw Oil Cap
2	LD4016AWB	Chainsaw Chain
3	LD4016AWB	Chainsaw Guide Bar
4	LD4016AWB	Chainsaw Sprocket Cover
5	LD4016AWB	Chainsaw Lift and Dial Lever
6	LD4016AWB	Chainsaw E-Ring Retainer
7	LD4016AWB	Chainsaw Sprocket Support
8	LD4016AWB	Chainsaw Sprocket Gear Kit
9	LD4016AWB	Chainsaw Roller Bearing
10	LD4016AWB	Chainsaw Drive Gear (Metal 1/2”H)
11	LD4016AWB	Chainsaw Sprocket Gear (3 1/2” Diameter)

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