

Green Machine®

OWNER'S MANUAL

MODEL 20 UT26202

SERIAL NO.

IMPORTANT NOTE: USE THE ABOVE BOX TO FILL IN YOUR MODEL'S SERIAL NUMBER FOR YOUR RECORDS.

ASSEMBLY AND OPERATING INSTRUCTIONS

GREEN MACHINE® - LIMITED WARRANTY

The manufacturer warrants to the original retail purchaser that this Product is free from defects in material and workmanship and agrees to repair or replace, at Manufacturer's discretion, any defective product free of charge within these time periods from the date of purchase:

- **One year, if the Product is used for personal, family, or household use;**
- **One year, if the Product is used for commercial or any other use.**

This warranty is not transferable and does not cover damage resulting from defects other than in material or workmanship, or damage caused by unreasonable use, including the failure to provide reasonable and necessary maintenance. Also, the warranty obligations do not apply to conditions resulting from misuse, alteration or accident. In addition, this warranty does not cover general check-ups on electrical equipment, tune-ups on gasoline engines, or replacement of non-defective parts (such as electrical brushes, cables, plugs, spark plug, filters, starter ropes, etc.) that may wear and need to be replaced with reasonable use within the warranty period or which may require replacement in connection with normal maintenance. This warranty applies only to products sold within the United States of America, the District of Columbia, Canada, Mexico, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, the Canal Zone, or American Samoa.

SAVE YOUR SALES SLIP

Proof of purchase in the form of your dated sales receipt, cash register slip, etc. showing the serial number and the model of your Product will be required before our dealers can perform warranty service on the Product. You must at your own expense, arrange to deliver or ship the Product for warranty repairs and arrange for pickup or return of the Product after repairs have been made.

This warranty does not apply to any trade accessory, engine, or electric motor which is separately warranted by another manufacturer and not manufactured by the manufacturer.

THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER EXPRESS WARRANTIES. ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY OR OTHERWISE, APPLICABLE TO THIS PRODUCT, SHALL BE LIMITED IN DURATION TO THE DURATION OF THIS LIMITED WARRANTY. THE MANUFACTURER SHALL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. ALSO, SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

HOW TO OBTAIN WARRANTY SERVICE

Warranty service can be obtained from a Green Machine® dealer authorized to make warranty repairs. If you need warranty service, check first with the dealer from whom you purchased the Product. **FOR WARRANTY SERVICE INFORMATION OUTSIDE THE USA AND CANADA, PLEASE CONTACT YOUR LOCAL GREEN MACHINE® DEALER.**

The manufacturer will not make any reimbursements for warranty service, except to Green Machine® dealers authorized to make warranty repairs. You must present your sales receipt when making any claim for warranty service.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

This warranty is given by Homelite, Inc. Post Office Box 7047, Charlotte, North Carolina 28241.

Green Machine®

by John Deere

P.O. Box 7047
14401 Carowinds Blvd.
Charlotte, N.C. 28241

P/N 19692

SYMBOL DEFINITION:



Indicates Warning, Danger, and Caution.



The SAFE-T-TIP® Device on your bar nose prevents kickback.



DANGER! Beware of Kickback.



Do not use one-handed.



Read all Safety, Operating and Maintenance Instructions.



Wear eye and hearing protection when operating this equipment.



Avoid bar nose contact.



Hold saw properly with both hands.



Warning: READ THE OWNER'S MANUAL BEFORE USING YOUR CHAIN SAW. FOLLOW ALL INSTRUCTIONS FOR SAFE OPERATION.

PRECAUTIONS AGAINST KICKBACK

Kickback is a dangerous reaction that can lead to serious injury. Do not rely only on the safety devices provided with your saw. As a chain saw user, you must take special safety precautions to help keep your cutting jobs free from accident or injury.



KICKBACK WARNING



KICKBACK occurs when the moving chain contacts an object at the upper portion of the tip of the guide bar or when the wood closes in and pinches the saw chain in the cut. Contact at the upper portion of the tip of the guide bar can cause the chain to dig into the object and stop the chain for an instant. The result is a lightening fast, reverse reaction which kicks the guide bar up and back toward the operator. If the saw chain is pinched along the top of the guide bar, the guide bar can be driven rapidly back toward the operator. Either of these reactions can cause loss of saw control which can result in serious injury.

- With a basic understanding of kickback, you can reduce or eliminate the element of surprise. Sudden surprise contributes to accidents.
- Keep a good firm grip on the saw with both hands when the engine is running. Place your right hand on the rear handle and the left hand on the front handle with your thumbs and fingers encircling the chain saw handles. A firm grip together with a stiff left arm will help you reduce kickback and maintain control of the saw.
- Make sure that the area in which you are cutting is free from obstructions. Do not let the nose of the guide bar contact a log, branch, fence, or any other obstruction that could be hit while you are operating the saw.
- Keep SAFE-T-TIP® Anti-Kickback device properly mounted on the guide bar to prevent kickback.
- Always cut with the engine running at full speed. Fully squeeze the throttle trigger and maintain a steady cutting speed.
- Do not overreach or cut above chest height.
- Follow the sharpening and maintenance instructions for the saw chain.
- Use only the replacement guide bars and low kickback chains specified for your saw.
- Do not adapt your powerhead to a bow guide or use it to power any attachments or devices not listed for your saw.

▲ WARNING ▲

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

CALIFORNIA PROPOSITION 65

Attention

Your Chain Saw has been fully factory tested. It is normal to find some slight oil residue on the saw.

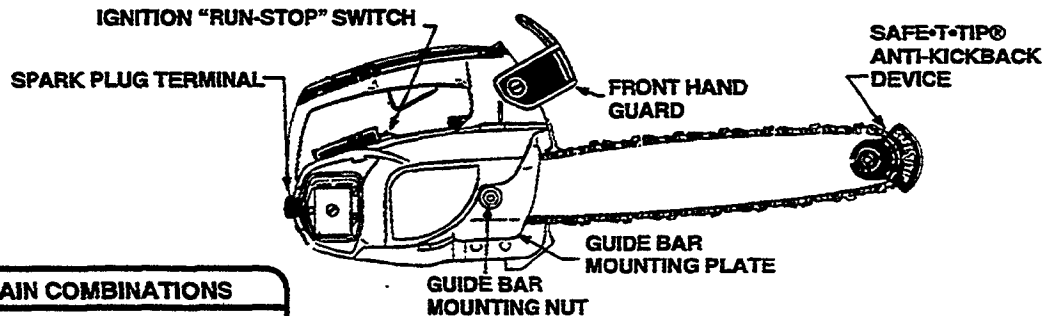
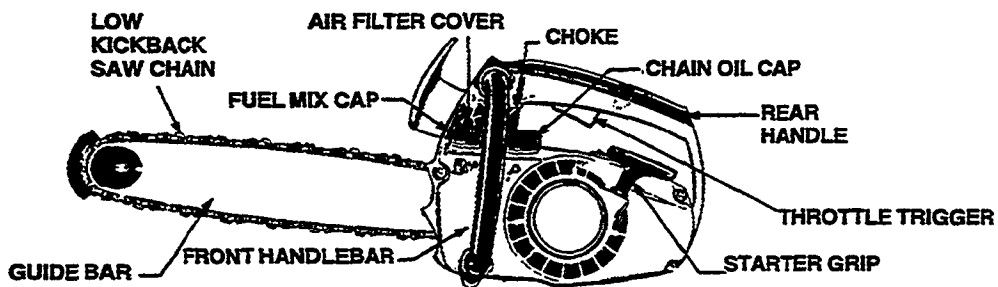
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TO MAINTAIN EASY STARTING AND CUTTING PERFORMANCE

Before storing your chain saw for more than 30 days, drain all fuel from tank into a container approved for gasoline. Run engine until it stops. This will remove all fuel-oil mix which could become stale and leave varnish and gum in the fuel system.



RECOMMENDED BAR AND CHAIN COMBINATIONS

LENGTH OF BAR AND STYLE OF TIP	GUIDE BAR NO.	CHAIN PART NO.	CHAIN TYPE NO.
12" Power Tip	DG-07823	HI-N7248-AQ	35-MD50-48
14" Power Tip	DG-07824	HI-N7253-AQ	35-MD50-53
16" Power Tip	DG-07825	HI-N7259-AQ	35-MD50-59

THIS CHAIN SAW IS FOR OCCASIONAL USE ONLY.

STATE AND LOCAL REQUIREMENTS

Your saw is equipped with a temperature limiting muffler and spark arresting screen which meets the requirements of California Codes 4442 and 4443. All U.S. forest land and the states of California, Maine, Washington, and Oregon require many internal combustion engines to be equipped with a spark arrestor screen by law. Other states are enacting similar laws.

If you operate a chain saw in a state or locale where such regulations exist, you are legally responsible for maintaining the operating condition of these parts. Failure to do so is a violation of a law. Spark arrestor maintenance is on page 11.

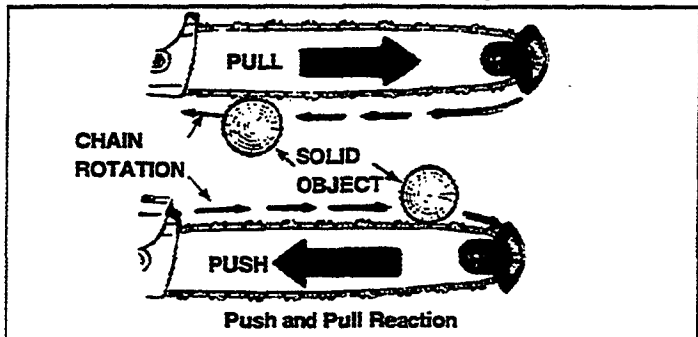
Note: Exposure to vibrations through prolonged use of gasoline powered hand tools could cause blood vessel or nerve damage in the fingers, hands, and wrists of people prone to circulation disorders or abnormal swellings. Prolonged use in cold weather has been linked to blood vessel damage in otherwise healthy people. If symptoms occur such as numbness, pain, loss of strength, change in skin color or texture, or loss of feeling in the fingers, hands, or wrists, discontinue the use of this tool and seek medical attention.

Homelite has chain saws with anti-vibration systems designed to reduce engine vibration which are recommended for those using gasoline powered hand tools on a regular basis.

SAFETY INSTRUCTIONS

PUSH AND PULL

The reaction force is always opposite to the direction the chain is moving when wood contact is made. Thus, the operator must be ready to control the PULL when cutting on the bottom edge of the bar, and PUSH when cutting along the top edge.



- Use safety footwear, snug-fitting clothing, and eye, hearing, and head protection.
- Wear non-slip, heavy-duty gloves to improve your grip. Do not wear scarfs, jewelry, neckties or other loose fitting clothing, which could be drawn into the engine or catch on the chain or underbrush.
- Always hold the chain saw with both hands when the engine is running. Use a firm grip with thumbs and fingers encircling the chain saw handles.
- Never operate a chain saw when you are fatigued.
- Keep all parts of your body away from the saw chain when the engine is running.
- Always carry the chain saw with the engine stopped, the guide bar and saw chain to the rear, and the muffler away from your body. When transporting your chain saw, use the appropriate guide bar scabbard.
- Always use caution when handling fuel. Move the chain saw at least 10 feet (3m) from the fueling point before starting the engine.
- Do not operate a chain saw with one hand! Serious injury to the operator, helpers, bystanders, or any combination of these persons may result from one-handed operation. A chain saw is intended for two-handed use.

- Never let anyone use your chain saw who has not received adequate instructions in its proper use. This applies to rentals as well as privately owned saws. Keep the handles dry, clean, and free of oil or fuel mixture.
- Before you start the engine, make sure the saw chain is not contacting any object.
- Shut off the engine before setting down the saw. Do not leave the engine running unattended.
- Operate the chain saw only in well ventilated areas.

MAINTENANCE

- Never operate a chain saw that is damaged, improperly adjusted, or is not completely and securely assembled. Be sure that the saw chain stops moving when the throttle control trigger is released.
- **⚠ All chain saw service, other than items in the Owner's Manual maintenance instructions, should be performed by competent chain saw service personnel. (If improper tools are used to remove the flywheel or clutch, or if an improper tool is used to hold the flywheel in order to remove the clutch, structural damage to the flywheel could occur which could subsequently cause the flywheel to burst and serious injury could result).**

IN CUTTING/WORK AREA

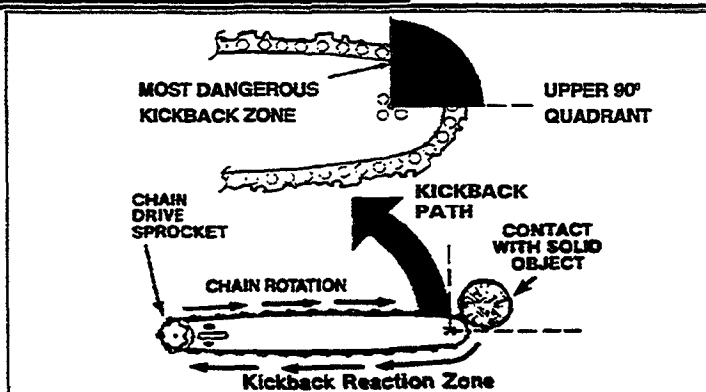
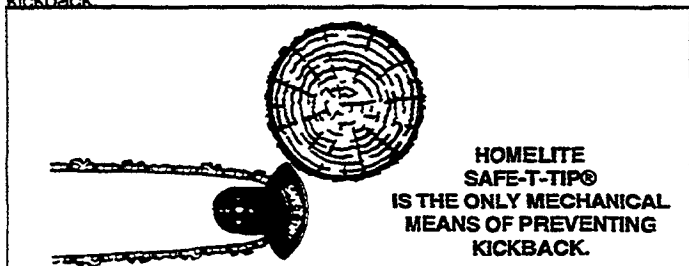
- Do not operate a chain saw in a tree.
- Keep bystanders and animals out of the work area. Do not allow other persons to be nearby during starting or cutting with the chain saw.
- Never start cutting until you have a clear work area, secure footing, and a planned retreat path from the falling tree.
- Use extreme caution when cutting small size brush and saplings, because slender material may catch the saw chain and be whipped toward you or pull you off balance.
- When cutting a limb that is under tension, be alert for springback so that you will not be struck when the tension in the wood fibers is released.

UNDERSTANDING YOUR CHAIN SAW SAFETY DEVICES

SAFE-T-TIP® ANTI-KICKBACK DEVICE

The SAFE-T-TIP® prevents kickback from happening, because it covers the tip of the bar where kickback is generated. Inexperienced persons should never attempt any kind of cutting where the SAFE-T-TIP® would have to be removed from the bar tip.

Those users, such as professional loggers, who may need to draw the tip through the cut, make boring cuts, or cut logs bigger than the bar length should replace the SAFE-T-TIP® as soon as those cuts are complete. When cutting with it removed, the user must rely on careful use of the proper techniques as shown in the manual to avoid kickback.



FRONT HAND GUARD

Your saw has a factory-installed front hand guard to prevent contact with the chain if your hand slips off the front handle. On some models it can be pivoted out of the way for fueling. Do not remove the front hand guard. Maintain the guard in good condition and do not use the guard as a hand grip. Replace it if damaged or broken.

UNDERSTANDING YOUR CHAIN SAW SAFETY DEVICES

THE OWNER'S MANUAL

Your owner's manual is for your protection. **READ IT.** Keep it handy for reference. Know what you are doing before you begin assembly of the unit. Proper preparation and upkeep go hand-in-hand with satisfactory performance of the saw and safety.

LOW KICKBACK SAW CHAIN

The rakers (depth gauges) ahead of each cutter can minimize the force of a kickback reaction by preventing the cutters from digging in too deeply at the kickback zone. Only use replacement chain that is equivalent to original chain or has been certified as low kickback chain per ANSI B175.1.

Low kickback saw chain is chain that has met the kickback performance requirements of ANSI B175.1 - 1991 (American National Standard for Power Tools - Gasoline-Powered Chain Saws-Safety Requirements) when tested on the representative sample of chain saws below 3.8 c.i.d. specified in ANSI B175.1 - 1991.

GUIDE BARS

Generally, guide bars with small radius tips have somewhat lower kickback potentials, but at some sacrifice of both cutting efficiency and durability.

Green Machine gasoline saws meet the kickback-reduction requirements of ANSI B175.1 without requiring small radius tip bars.

When making a replacement be sure to order one of the Green Machine bars listed for your saw in this owner's instruction. The proper size SAFE-T-TIP Device comes installed on the bar. Use only guide bars that have a provision for mounting the SAFE-T-TIP.

CHAIN BRAKE

A chain brake is supplied on some models. A chain brake does not prevent kickback but can only possibly stop the chain rotation after chain brake activation.

At its best, a chain brake offers only partial protection against injury from kickback. In some situations, it may be impossible for the brake mechanism to stop the chain before the saw blade reaches the operator. This is especially true in situations where the operator is positioned in close proximity to the saw blade.

Many factors like breakage or wear, dirt, sawdust, chain oil, or other changes in the chain saw's environment can reduce the chain brake's ability to stop the chain. The best chance you can give the brake to react effectively is to keep it clean. Even with daily cleaning of the mechanism, the dependability of a chain brake to perform under field conditions cannot be certified. Keep the SAFE-T-TIP on your saw's guide bar, and use proper cutting techniques.

GUIDE BAR AND CHAIN ASSEMBLY



DANGER

Never start your engine unless guide bar, chain and clutch drum are installed. Without all these parts in place, the clutch can fly off or explode.

1. Always put the switch to "O" stop before you do any work on the saw.
2. Turn the saw on it's side. Remove the mounting nut, flatwasher, and the guide bar plate.
3. Wear gloves when handling the chain as it is sharp.
4. Lay out the saw chain in a loop and straighten any kinks. The cutters should face in the direction of chain rotation (see illustration). If they face backwards, turn the loop over.

INSTALLING THE SAFE-T-TIP®

CAUTION

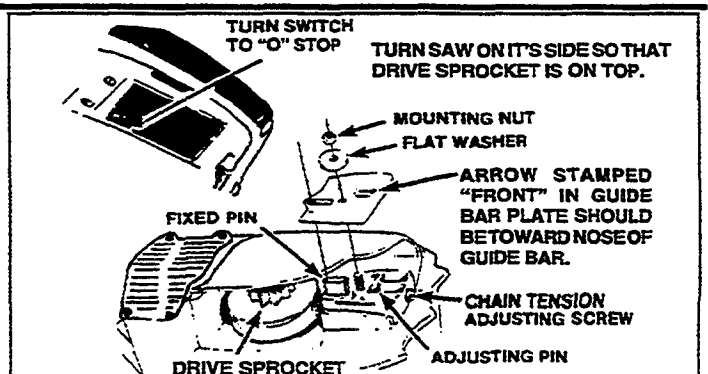
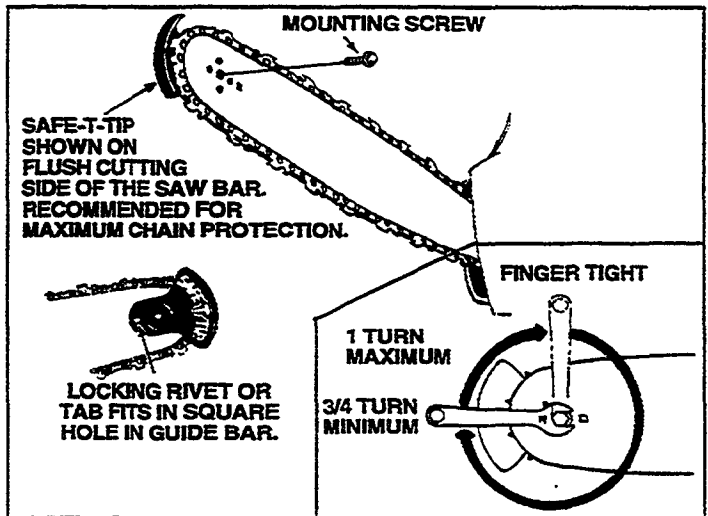
Check that the switch is in the "O" stop position before you do any work on the saw.

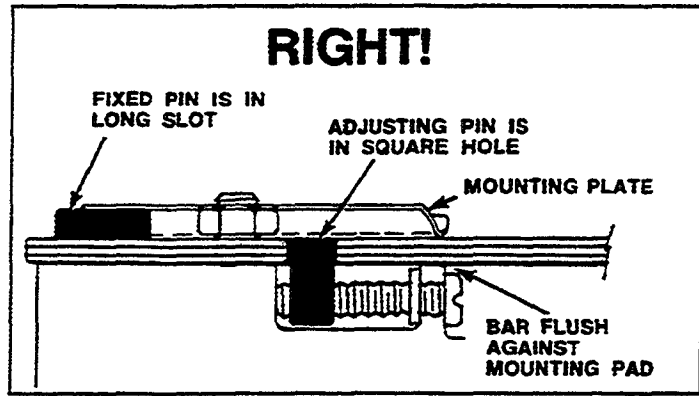
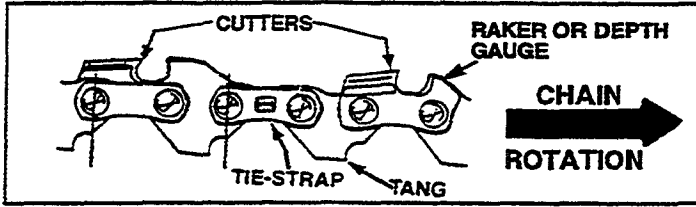
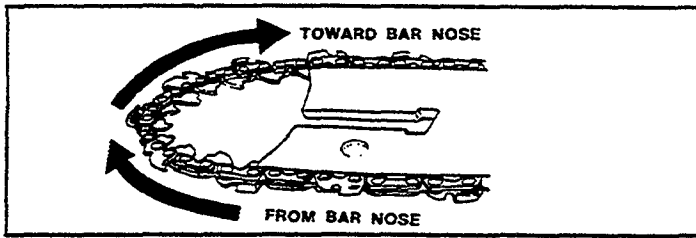
IMPORTANT NOTICE

Although the guide bar comes with a SAFE-T-TIP already installed, you need to check the tightness of the mounting screw before each day of operation.

Tighten the mounting screw of the device as instructed below. These are specially hardened screws. If the screw cannot be installed tightly, replace both the screw and the SAFE-T-TIP before further operation. Do not replace with ordinary screws.

1. In addition to preventing chain contact with solid objects at the nose of the bar, the SAFE-T-TIP also helps keep the chain away from abrasive surfaces such as the ground. Keep it on the right hand side of the bar, where it will be between the chain and the ground during flush-with-ground cutting.
2. The mounting screw requires a 5/16" wrench (or adjustable wrench) to achieve the recommended tightness of 35 to 45 inch-pounds (4-5Nm). A tightness within this range can be achieved by the following method.
 - a) Mount the SAFE-T-TIP on the bar nose. (See illustration for details.) Tighten the screw with your finger.
 - b) From the finger-tight position, tighten the screw 3/4 to one turn more with a wrench.



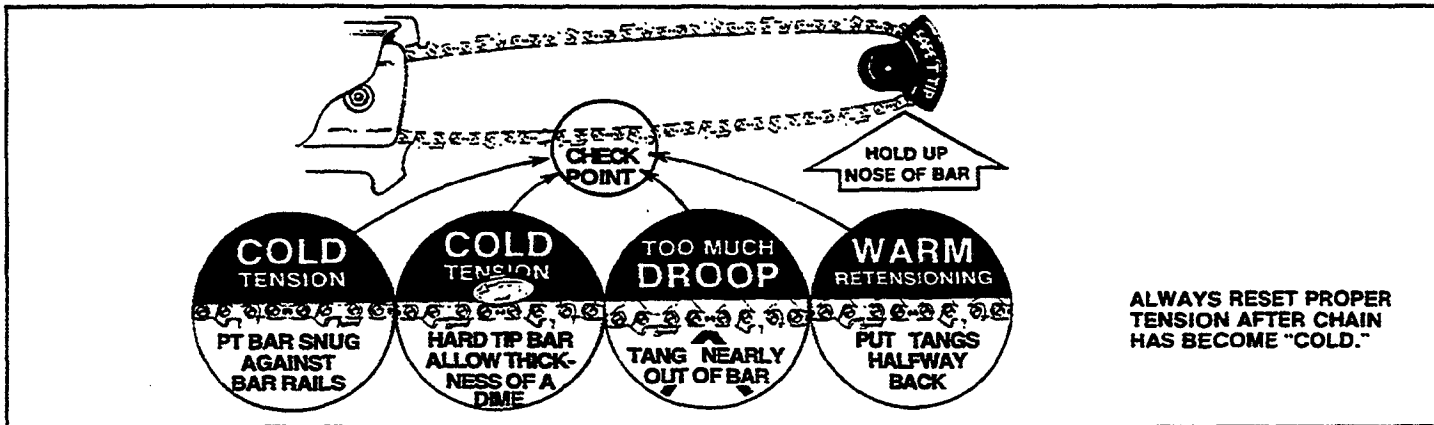


5. Feed the chain tangs into the bar groove. Pull the chain so there is a loop at the back of the bar. Hold chain in place on the bar and hook the loop over and onto the sprocket. **Fit the bar flush against the mounting pad so the fixed pin, mounting stud and adjusting pin are all in the long slot of the bar.**

6. Put the guide bar mounting plate, flat washer, and nut back on the stud.

7. Check that the bar and pins are still in place. Tighten the nut with a wrench until bar is snug, but not tight against the mount. (Bar must be free to move for tension adjustment).
8. Turn the saw upright. Reduce the chain slack by turning the adjusting screw clockwise to move guide bar away from drive sprocket. Turn adjusting screw until the chain tangs enter the groove in guide bar. Pull chain around bar by hand to ensure that chain is properly seated in groove. You are now ready to tension the chain.

CHAIN TENSION



1. Mounting nut should only be finger-tight. Turn the adjuster screw clockwise to remove slack in the chain. Tighten until the chain tie-straps come up close to the bottom bar rails.
2. With your gloved hand "snap" the chain several times by pulling up and letting go of the chain to remove some of the stiffness.

NOTE

From now on during the tensioning, hold up the nose of the bar until the mounting nut has been tightened. This is to take up play between the bar slot and the mounting bolt.

Steps 3 through 5 are for tensioning a cold bar and chain.

3. The proper tension is dependent on the type of bar nose.
 - a) Sprocket nose (PT series) bar: Increase tension until there is no clearance (zero droop) between the chain and bar. Pull chain along bar as you increase the tension. If you feel any binding, that is too tight.
 - b) Hard track (HT series) bar: Increase tension until the amount of clearance or "droop" between the bar rails and the chain tie-straps is no more than the thickness of a dime.
4. While holding up the bar nose, tighten the mounting nut to lock the bar at proper tension.

5. Pull chain around bar by hand to check that assembly is correct. Recheck for proper tension.
6. When using new chain, check the tension frequently for the first few tanks of fuel. New chain stretches rapidly. When the chain tangs hang more than halfway out of bar groove, shut the saw off and retension the chain.

Steps 7 and 8 are for retensioning a warm chain.

7. During operation, the chain will expand as it warms up. Once worn in, however, it will return almost to the original setting when it cools. Shut down immediately whenever the chain droops to where the tangs are hanging almost out of the bar rails.
8. Warm chain should have the tension adjusted where the tangs are drawn halfway into the bar groove. Hot chain cannot be tensioned accurately and should be allowed to cool.

CAUTION

Chain tensioned while warm, may be too tight upon cooling. Check the "cold tension" before next use.

FUELING

This product is powered by a 2-cycle engine that requires pre-mixing of gasoline and 2-cycle oil.

RECOMMENDED FUEL: THIS ENGINE IS CERTIFIED TO OPERATE ON UNLEADED GASOLINE INTENDED FOR AUTOMOTIVE USE. Mix GREEN MACHINE® 32:1 or GREEN MACHINE® Premium Exact Mix* oil with gasoline according to the instructions on the package. If GREEN MACHINE oil is not available, use a high quality 2-cycle engine oil mixed at 4 oz. per gallon.

DO NOT USE AUTOMOTIVE OIL OR 2-CYCLE OUTBOARD OIL.

Thoroughly mix the gasoline and 2-cycle oil before pouring the fuel mix into the engine's fuel tank.

⚠ WARNING

The fuel tank may be under pressure. Remove the cap slowly to avoid spurting of fuel.

CHAIN OIL SYSTEM

1. Use Green Machine Bar and Chain Oil. It is designed for chains and chain oilers and is formulated to perform over a wide temperature range with no dilution required. If not available, use any new SAE-30 weight engine oil.

NOTE: Used, dirty or otherwise contaminated oils should not be used.

⚠ CAUTION

Select bare ground for fueling. **DO NOT SMOKE** or allow any flame or sparks near fuel. Move at least 10 feet (3m) from the fueling spot before starting the engine.

1. Untwist the fuel cap from the fuel tank. Make sure fuel cap remains clean and will not become a source of fuel contamination.
2. Carefully pour fuel into the fuel tank. To avoid spillage.
3. Screw the fuel cap on tightly. Wipe up any fuel spillage immediately.

*Green Machine EXACT-MIX™ fuel mix will stay fresh up to 30 days. DO NOT mix quantities larger than usable in a 30 day period.

2. Fill the oil tank every time engine is fueled. Insure cap is kept tight.
3. Check oil level frequently, particularly during warm/hot temperature operation.

STARTING AND STOPPING

NOTE

Be aware that some fluid, particularly chain oil, will seep from the saw during transport or storage. Do not place saw on surfaces that you wish to keep unsoiled.

Steps 1 through 10 are for Starting a Cold Engine.

1. Push switch to the "I" run position.
2. Push choke lever to full position. Full choke (see illustration) is needed for a cold engine.
3. Place the chain saw on level ground and ensure that the chain is not contacting any foreign objects.
4. Squeeze the trigger while holding saw down.
5. Keep body to left of chain line (never straddle the saw or chain, or lean over past the chain line), with knee steadying the saw.
6. Slowly pull the starter grip out for a short distance until you feel the starter engage, then briskly pull straight up. (Do not pull to the end of the rope, because this can damage the starter.) To reduce rope fray, hold onto grip during rewinding.
7. Pull starter until engine tries to run. In extremely cold weather considerable additional cranking may be required.
8. Move choke lever to half choke position. While squeezing the trigger, pull starter until engine runs.

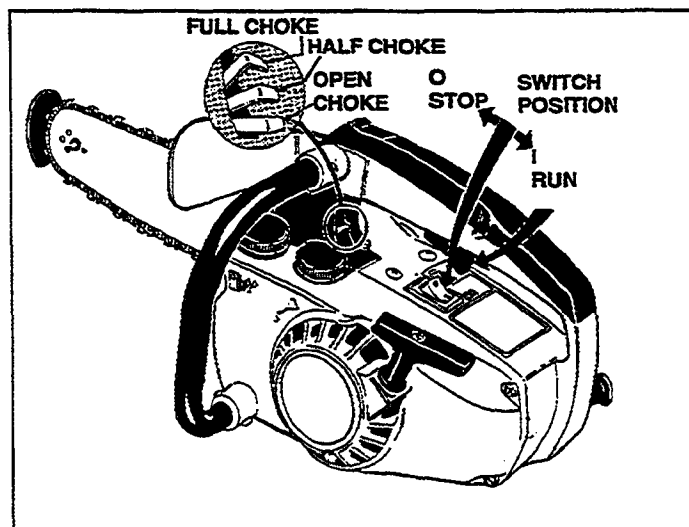
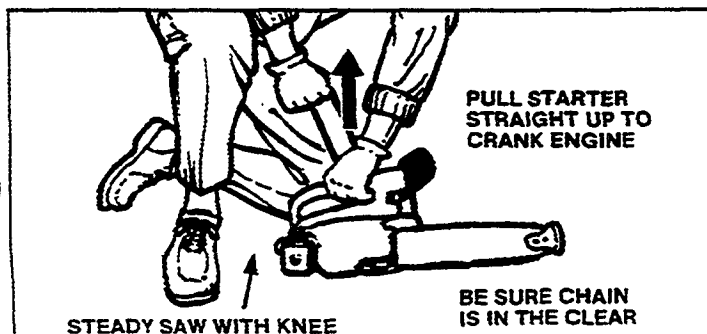
9. Move choke lever to run position. Squeeze the trigger and then release.
10. Now you are ready to pick up the saw. Use the proper grip and hold onto both handles.
11. Flip the switch to "O" stop position when you wish to stop the engine.

Special Starting Situations

12. **Restarting a recently run engine:** The engine may still be warm enough to start at idle without choking. If not, hold throttle open and go to half-choke. Use full choke if necessary.

⚠ IMPORTANT

When you are finished using the saw, relieve tank pressures by loosening the CHAIN OIL and FUEL MIX caps. Then retighten the caps. Allow engine to cool before storing.



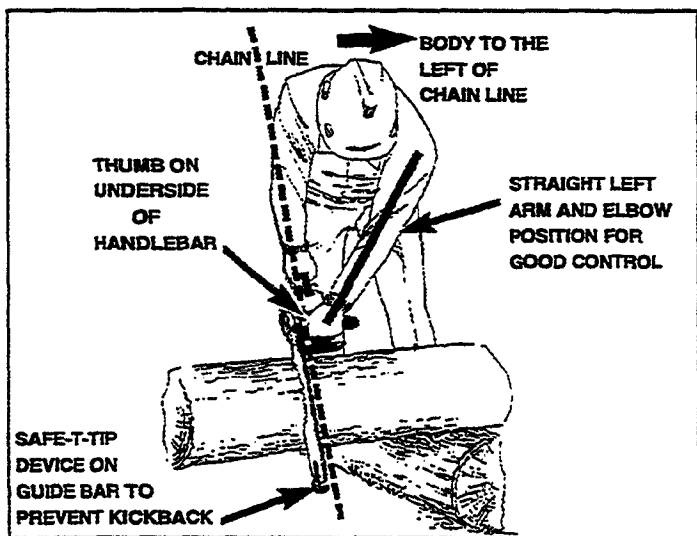
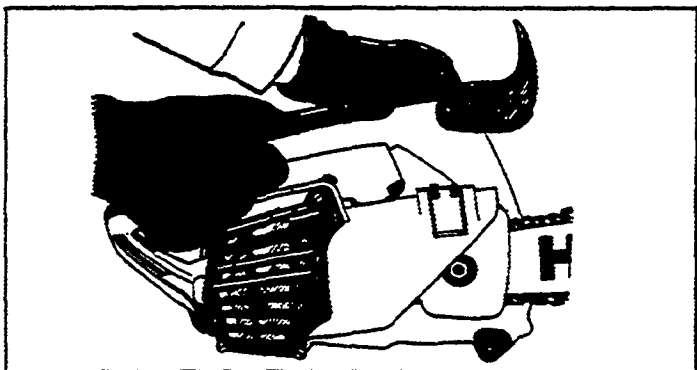
PREPARATION FOR CUTTING

PROPER GRIP ON HANDLES

1. Wear non-slip gloves for maximum grip and protection.
2. Maintain a proper grip on the saw whenever the engine is running. The fingers should encircle the handlebar and the thumb is wrapped under the handlebar. This grip is least likely to be broken (by a kickback or other sudden reaction of the saw). Any grip in which the thumb and fingers are on the same side of the handle, is dangerous because a slight kick of the saw can cause loss of control.



3. Hold the saw firmly with both hands. Always keep your **LEFT HAND** on the front handlebar and your **RIGHT HAND** on the rear (throttle) handle, so that your body is to the left of the chain line (see illustration). Never use a cross-handed grip, or any stance which would place your body or arm across the chain line.



PROPER CUTTING STANCE

- Weight should be balanced on both feet - feet on solid ground.
- Keep arm with elbow locked in a "straight arm" position to withstand any kickback force.
- Your body should always be to the left of the chain line.
- Maintain your grip as described above.

BASIC CUTTING PROCEDURE

Practice cutting a few small logs using the following technique to get the "feel" of using your saw before you begin a major sawing operation.

1. Take the proper stance in front of the wood with the saw idling.
2. Accelerate the engine to full throttle just before entering the cut by squeezing the throttle trigger.
3. Begin cutting with the saw against the log.
4. Keep the engine at full throttle the entire time you are cutting.
5. Allow the chain to cut for you; exert only light downward pressure. If you force the cut, damage to the bar, chain, or engine can result.
6. Release the throttle trigger as soon as the cut is completed, allowing the engine to idle. If you run the saw a full throttle without a cutting load, unnecessary wear can occur to the chain, bar, and engine.
7. Do not put pressure on the saw at the end of the cut.

WORK AREA PRECAUTIONS

- Cut only wood or materials made from wood; no sheet metal, no plastics, no masonry, no non-wood building materials.
- Never allow children to operate your saw. Allow no person to use this chain saw who has not read this Owner's Manual or received adequate instructions for the safe and proper use of this chain saw.
- Keep everyone - helpers, bystanders, children, and animals a safe distance from the cutting area. During felling operations, the safe distance should be at least twice the height of the largest trees in the felling area. During bucking operations, keep a minimum distance of 15 feet (4.5 meters) between workers.
- Always cut with both feet on solid ground to prevent being pulled off balance.
- Do not cut above chest height, as a saw held higher is difficult to control against kickback forces.
- Do not fell trees near electrical wires. Leave this operation for professionals.



UNUSUAL HAZARDOUS CONDITIONS

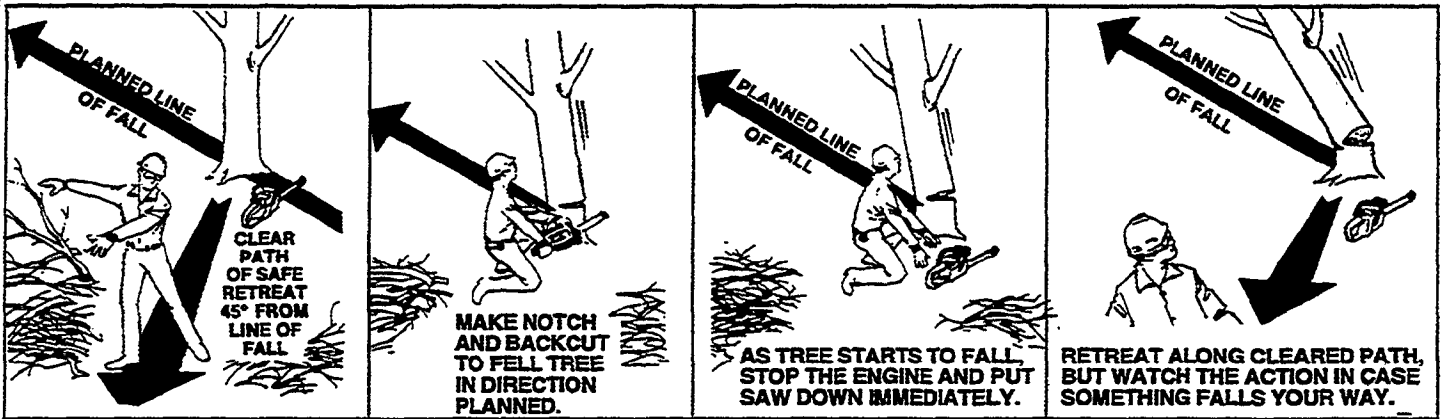
- Do not fell trees during periods of high wind or heavy precipitation. Wait to do your cutting until the hazard has ended.
- Do not cut down trees having an extreme lean or large trees that have rotten limbs, loose bark, or hollow trunks. Have these trees pushed or dragged down with power equipment. Then you can cut them up.
- Cut only when visibility and light are adequate for you to see clearly.



CAUTION

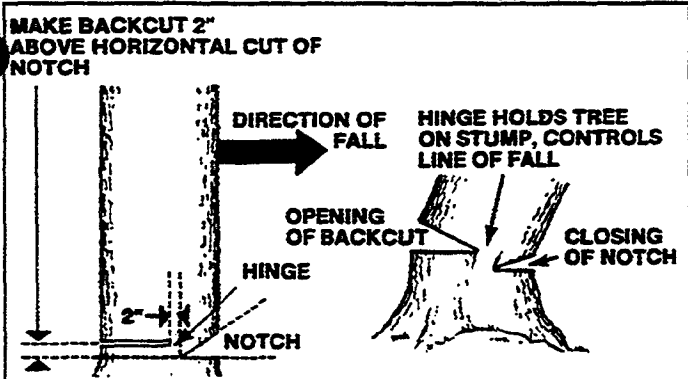
If the tree starts to fall in the wrong direction, or if the saw gets caught or hung up during the fall, leave the saw and save yourself!

TREE FELLING



1. Pick your escape route (or routes in case the intended route is blocked). Clear the immediate area around the tree, and make sure there are no obstructions in your planned path of retreat.
2. Consider the force and direction of the wind, the lean and balance of the tree, and the location of large limbs. These things influence the direction in which the tree will fall. Do not try to fell a tree along a line different from its natural line of fall.
3. Cut a notch about 1/3 the diameter of the trunk in the side of the tree. Make the cuts of the notch so they intersect at a right angle to the line of fall. This notch should be cleaned out to leave a straight line. To keep the weight of the wood off the saw, always make the lower cut of the notch before the upper cut.

4. The backcut is always made level and horizontal, and at a minimum of 2 inches (5 cm) above the horizontal cut of the notch.
5. Never cut through to the notch. Always leave a band of wood cut between the notch and back cut. This is called "hinge" or "hingewood." It controls the fall of the tree and prevents slipping or twisting or shoot-back of the tree off the stump.
6. On large diameter trees, stop the back cut before it is deep enough for the tree to either fall or settle back on the stump. Then insert soft wooden or plastic wedges into the cut so they do not touch the chain. The wedges can be driven in, little by little, to help jack the tree over.



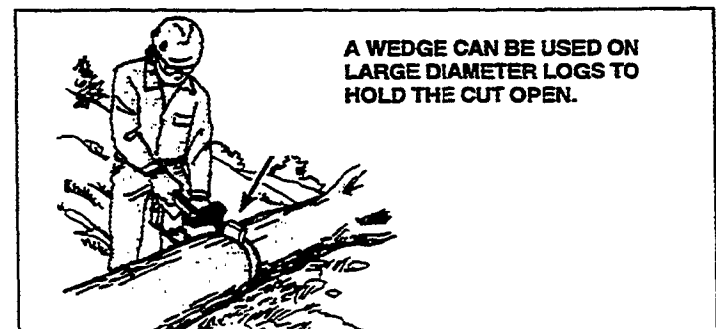
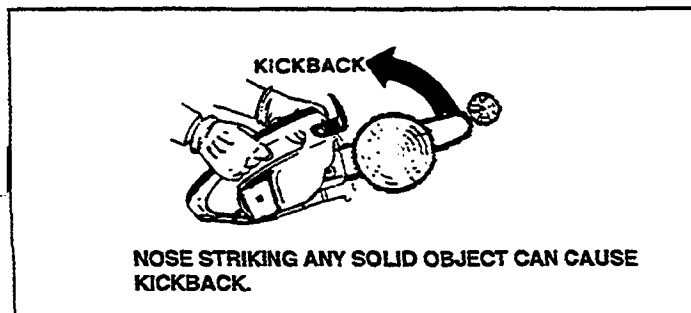
NOTE

Insert your felling wedges into the back cut. Remove the guide bar from the cut before tree is ready to fall and then drive the wedge in to fell the tree.

BUCKING

Bucking is the term used for cutting a fallen tree to the desired log length.

1. Cut only one log at a time.
2. Support small logs on a saw horse or another log while bucking.
3. Keep a clear cutting area. Make sure that no objects can contact the guide bar nose and chain during cutting.

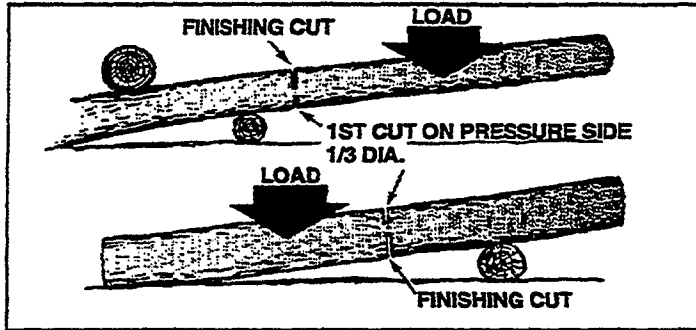


A WEDGE CAN BE USED ON LARGE DIAMETER LOGS TO HOLD THE CUT OPEN.

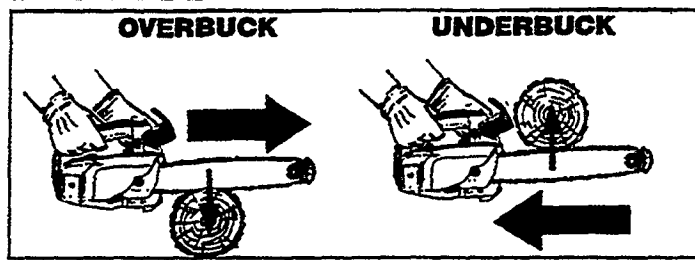
During bucking operations always stand on the uphill side so that the cut-off section of the log can not roll over you.

BUCKING

Make the first cut through the log and finish through the log and finish log is being cut, it will tend to bend. The saw can become pinched or hung in the log if you make the first cut deeper than 1/3 of the diameter of the log.



Give special attention to logs under stress to prevent the bar and chain from pinching. Make the first cut on the pressure side to relieve the stress on the log.

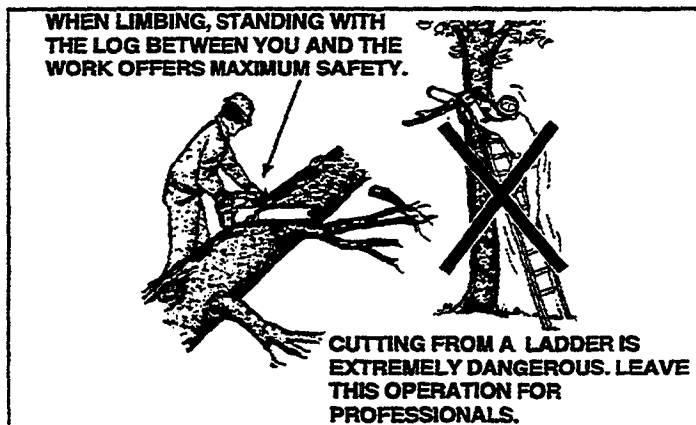


TYPES OF CUTTING USED

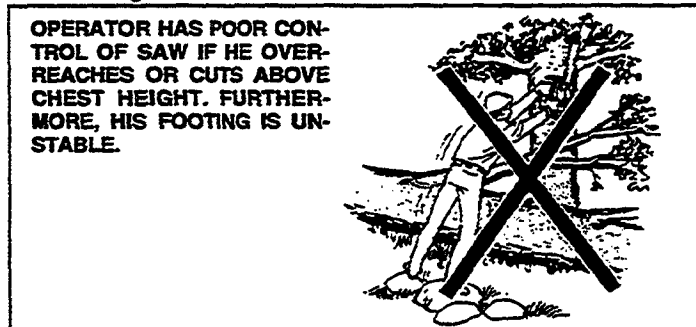
- **Overbucking** - begin on the top side of the log with the bottom of the saw against the log; exert light pressure downward.
- **Underbucking** - begin on the under side of the log with the top of the saw against the log; exert light pressure upward. During underbucking, the saw will tend to push back at you. Be prepared for this reaction and hold the saw firmly to maintain control.

LIMBING AND PRUNING

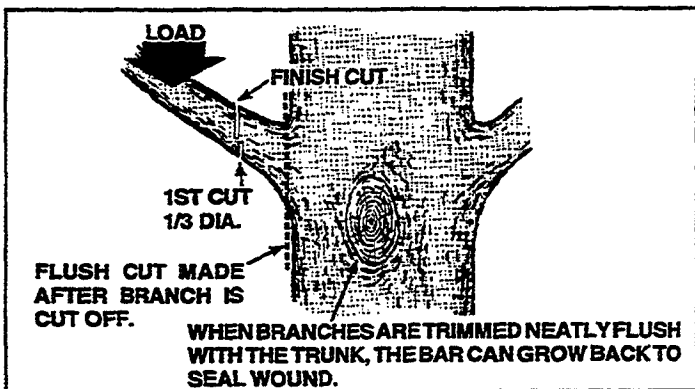
- Work slowly, keeping both hands on the saw with a firm grip. Maintain secure footing and balance.
- Keep the tree between you and the chain while limbing. Cut from the side of the tree opposite the branch you are cutting.



- Do not cut above chest height as a saw held higher is difficult to control against kickback.

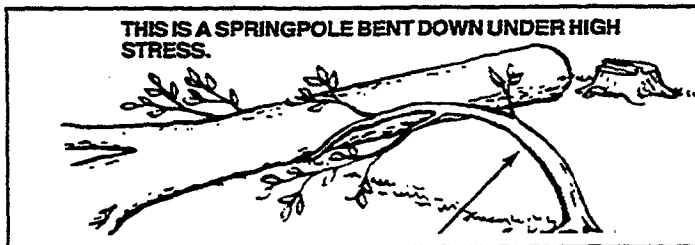


- When pruning trees it is important not to make the flush cut next to the main limb or trunk until you have cut off the limb further out to reduce the weight. This prevents stripping the bark from the tree bark.



SPRINGPOLES

A springpole is any log or branch or sapling which is bent under tension by other wood so that it springs back if the wood holding it is cut or removed. Watch out for springpoles. They are potentially dangerous.

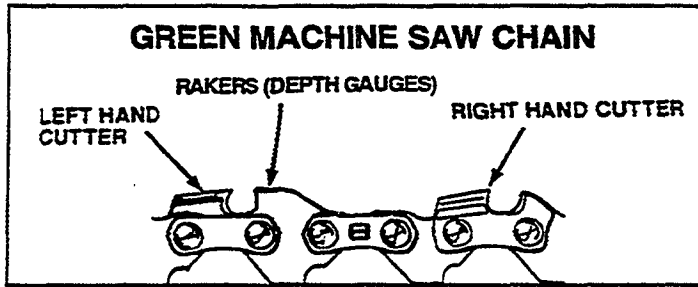


WARNING

Never climb into a tree to limb or prune. Do not stand on ladders, platforms, a log or in any position which can cause you to lose your balance or control of the saw.

BAR AND CHAIN MAINTENANCE

Use only Dual Raker low-kickback chain on this saw. This fast-cutting chain will provide kickback reduction when properly maintained.



For smooth and fast cutting, Dual Raker chain needs to be maintained properly. The chain requires sharpening when the wood chips are powdery, the chain must be forced through the wood during cutting, or the chain cuts to one side. During maintenance of your chain, consider the following:

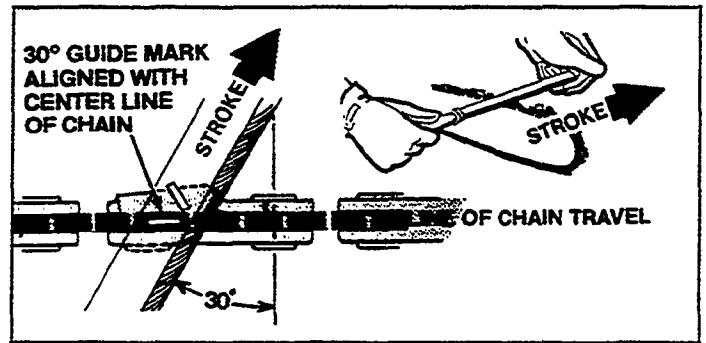
1. Improper filing angle resulting in a forward-hooked cutter increases the potential for a high kickback.
2. Raker (depth gauge) setting: Too low increases the potential for kickback; not low enough decreases cutting ability.
3. If cutter teeth have hit hard objects such as nails and stones, or have been abraded by mud or sand on the wood, have servicing dealer sharpen chain.

NOTE: Replace the drive sprocket when installing replacement chain or chain damage will occur.

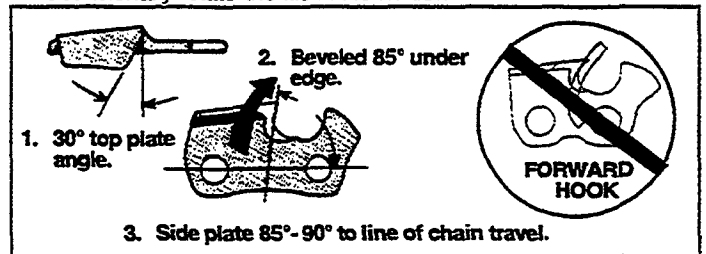
HOW TO FILE THE CUTTERS

Be careful to file all cutters to the specified angles and to the same length, as fast cutting can be obtained only when all cutters are uniform.

1. Clamp the middle of the guide bar in a vice. Be careful that you do not pinch the guide bar rails or the chain will not move freely in the groove.
2. Tighten the chain tension enough that the chain doesn't wobble. Do all of your filing at the mid-point of the bar. Wear gloves for protection.
3. The top plate filing angle should be 30° .



4. Keep the file level with the top plate of the tooth. Do not let the file dip or rock.
5. Using light but firm pressure, stroke towards the front corner of the tooth. Lift file away from the steel on each return stroke.
6. Put a few firm strokes on every tooth. File all left hand cutters on one side. Then move to the other side and file the right hand cutters. Occasionally rotate the file in the holder.



WARNING

Improper chain sharpening increases the potential of kickback.

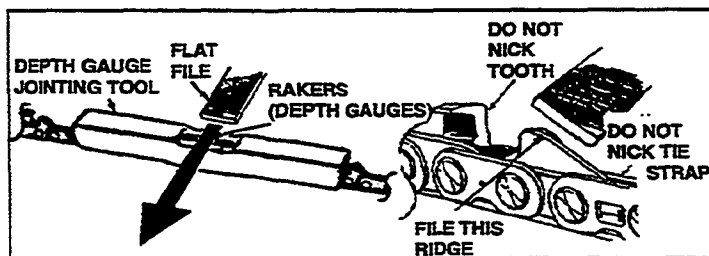


WARNING

Failure to replace or repair damaged chain can cause serious injury.

RAKER CLEARANCE

1. The rakers should be maintained at a clearance between .020" (0.5 mm) and .018" (0.46 mm). Depth gauge tool #D-92630-C can be used for checking the raker clearances.
2. Every time the chain is filed, check a couple of rakers. Fit the tool over the chain so that a set of rakers projects up into the filing slot. Put two strokes across the filing face of the tool with a 6" flat file. If you remove any metal from the rakers, they are too high, and all sets of rakers on the chain should then be filed to .020".



3. After the rakers have been filed, they should be contoured to their original shape.

GUIDE BAR

Every week of use, reverse the guide bar on the saw to distribute the wear for maximum bar life. The bar should be cleaned every day of use and checked for wear and damage.

Feathering or burring of the bar rails is a normal process of bar wear. Such faults should be smoothed with a file or stone as soon as they occur. Also check that the bar rails are parallel (of equal height). If not, file or grind them parallel.

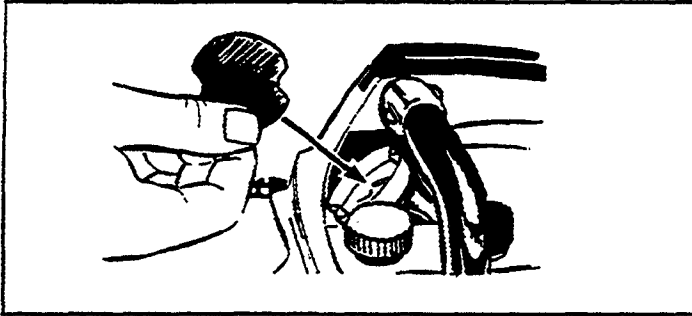
A bar with any of the following faults should be replaced.

- a) Wear inside the bar rails which permits the chain to flop over sideways.
- b) Bent guide bar.
- c) Cracked or broken rails.
- d) Spread rails.

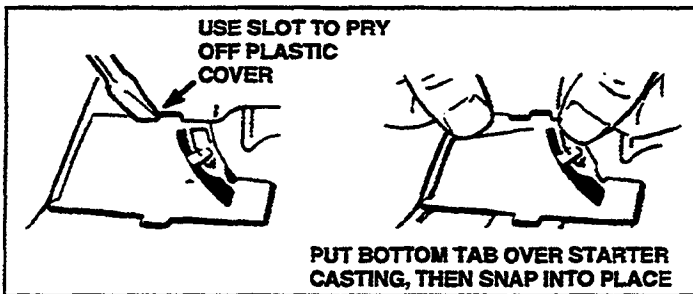
REGULAR MAINTENANCE

AIR FILTER MAINTENANCE

For proper performance and long life, keep air filter clean.



TO INSPECT AND CLEAN OR REPLACE THE AIR FILTER



1. Refer to the illustrations. Make sure the choke lever is in the RUN position. Use the slot at the top of the black plastic filter cover to pry out top edge of the cover.
2. Feed plastic cover over choke lever in a rolling motion toward you.
3. Remove the filter, clean it in warm soapy water. Rinse and let dry completely.
4. Reinstall air filter and tuck into place.

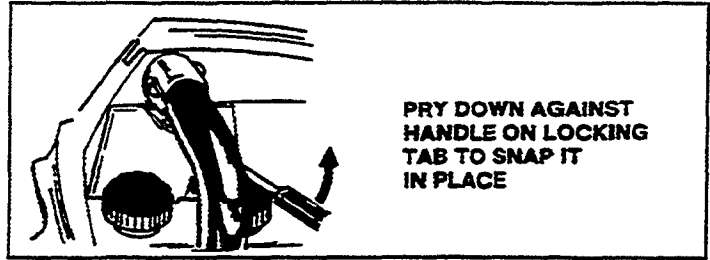
Before operating, reinstall plastic cover as follows:

1. Make sure the choke lever is in the RUN position.
2. Feed over choke lever being careful not to pinch the oil lines.
3. Using a screwdriver, pry cover tab down by levering against the handlebar and push cover inward to secure.



DANGER

Repairs to the clutch and flywheel should be performed only by trained service personnel. If improper tools are used to remove the flywheel or clutch, or if an improper tool is used to hold the flywheel in order to remove the clutch, structural damage to the flywheel could occur which could subsequently cause the flywheel to burst and could result in serious injury.



WARNING

Never run the engine without the air filter.

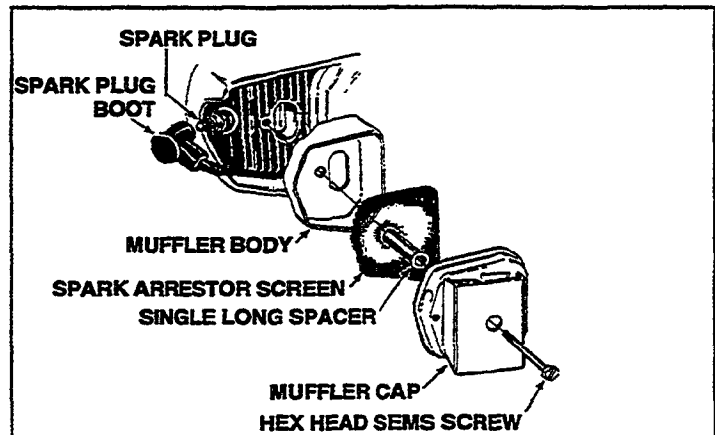
SPARK PLUG

This engine uses a Champion DJ-7Y with .025" (0,63 mm) electrode gap. Use an exact replacement and replace annually.

FUEL CAP

A leaking fuel cap is a fire hazard and must be replaced immediately.

SPARK ARRESTOR



1. Always keep the muffler and spark arrestor on your saw in good condition. A faulty spark arrestor screen can create a fire hazard.
2. For inspection, remove the muffler assembly. Unscrew the hex head screw and lift the muffler assembly off the engine. The spark arrestor screen is located between the muffler cap and the muffler body.
3. Replace the spark arrestor screen after every 25 hours of operation or if it is cracked or otherwise deteriorated.

**CALIFORNIA EMISSION CONTROL WARRANTY
YOUR RIGHTS AND OBLIGATIONS**

The California Air Resources Board and Green Machine are pleased to explain the emission control system warranty on your lawn and garden equipment engine certified to 1995-1998 California emission standards. In California, new lawn and garden equipment engines must be designed, built, and equipped to meet the State's stringent anti-smog standards. Green Machine must warrant the emission control system on your engine for the period of time listed below provided that there has been no abuse, neglect, or improper maintenance of your engine. Your emission control system includes the carburetor, spark plug, and ignition module.

Where a warrantable condition exists, Homelite will repair your engine at no cost to you including diagnosis, parts, and labor.

GREEN MACHINE WARRANTY COVERAGE:

The 1995 and later lawn and garden equipment engines are warranted for two years. If any emission related part on your engine is defective, the part will be repaired or replaced by Homelite.

OWNER'S WARRANTY RESPONSIBILITIES:

As the lawn and garden equipment engine owner, you are responsible for the performance of the required maintenance listed in your owner's manual. Any Green Machine approved replacement part may be used in the performance of any warranty maintenance or repair. Green Machine recommends that you retain all receipts covering maintenance on your lawn and garden equipment engine, but Homelite cannot deny warranty solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.

As the lawn and garden equipment engine owner, you should be aware, however, that Green Machine may deny you warranty coverage if your lawn and garden equipment engine or a part has failed due to abuse, neglect, improper maintenance, or unapproved modifications.

You are responsible for presenting your lawn and garden equipment engine to a Green Machine Authorized Servicing Dealer as soon as a problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.

If you have any questions regarding your warranty rights and responsibilities, you should contact Green Machine's Customer Representative at 1-704-588-3200.

LENGTH OF WARRANTY:

The warranty period begins on the date the equipment is delivered to the initial retail purchaser. Green Machine warrants to the initial purchaser and each subsequent purchaser that the engine is free from defects in materials and workmanship which cause the failure of a warranted part for a period of two years from the time the initial warranty period begins.

WHAT IS COVERED:

Repair or replacement of any warranted part will be performed at no charge to the owner at any Green Machine Authorized Servicing Dealer. The dealer nearest you may be located by calling 1-800-242-4672.

Any warranted part which is not scheduled for replacement as required maintenance, or which is scheduled only for regular inspection is warranted for the warranty period. Any warranted part which is scheduled for replacement as required maintenance is warranted for the period of time up to the first scheduled replacement point.

The owner will not be charged for diagnostic labor which leads to the determination that a warranted part is defective provided the diagnostic work is performed at a Homelite Authorized Servicing Dealer.

Homelite is liable for damages to other engine components caused by the failure of a warranted part still under warranty.

WHAT IS NOT COVERED:

Failures caused by abuse, neglect, or improper maintenance are not covered by this warranty. Use of stale fuel, improper oil mix, or fuel left in the engine for longer than three months are considered abuse and neglect.

Homelite is not responsible for covering warranty failures that are caused by the use of add-on or modified parts.

HOW TO FILE A CLAIM:

Take your engine to a Green Machine Authorized Servicing Dealer. If you are unable to obtain the required warranty service, call 1-704-588-3200 for instructions.

This warranty is in addition to the Limited Warranty provided with the equipment.

This Limited Warranty is in lieu of all other express warranties. Any implied warranty of fitness for a particular purpose, merchantability or otherwise, applicable to this product, shall be limited in duration to the duration of this Limited Warranty. Homelite shall not be liable for any special, incidental or consequential damages.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

**EMISSIONS MAINTENANCE SCHEDULE AND
WARRANTED PARTS LIST**

EMISSION PARTS	EVERY 5 HOURS CLEAN	EVERY 25 HOURS OR YEARLY	
		REPLACE	CLEAN
AIR FILTER ASSY INCLUDES: FILTER	X	X	
SPARK SCREEN			X
CARBURETOR ASSY INCLUDES: HEAT DAM GASKETS			
FUEL TANK ASSY INCLUDES: FUEL LINES FUEL CAP FUEL FILTER			
IGNITION ASSY INCLUDES: SPARK PLUG SWITCH LEAD		X	

ALL EMISSIONS - RELATED PARTS ARE WARRANTED FOR TWO YEARS OR FOR THE PERIOD OF TIME PRIOR TO THE PARTS FIRST SCHEDULED REPLACEMENT WHICH EVER COMES FIRST.

TROUBLESHOOTING

IF THESE SOLUTIONS DO NOT SOLVE THE PROBLEM CONTACT YOUR AUTHORIZED SERVICING DEALER.

Problem - Possible Cause

Solution:

Engine will not start:

(Make sure RUN/STOP switch is in RUN "I" position.)

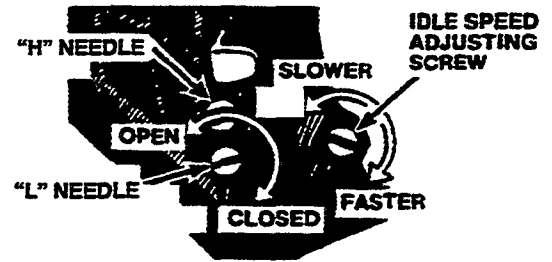
1. NO SPARK.
2. NO FUEL.
3. FLOODED ENGINE.

1. Check Spark. Remove spark plug from cylinder. Reattach the spark plug wire and lay spark plug on top of muffler or cylinder. Pull the starter rope and watch for spark at spark plug tip. If there is no spark, repeat test with a new spark plug.
2. Confirm that the fuel tank is filled with fuel. A cold engine requires a number of pulls with full choke just to pump fuel to the carburetor. Flooding of unit can result from continued choking after missing engine partial start. Check spark plug to see if it is saturated with fuel - flooded.
3. Remove spark plug, turn saw so spark hole is aimed at the ground. Move choke lever to run and pull starter cord 10 to 15 times. This will clear excess fuel from engine. Clean and reinstall spark plug. Pull starter three times with choke lever at run. If engine does not start, move choke lever to choke and repeat normal starting procedure. If engine still fails to start, repeat procedure with a new spark plug.

Engine starts but will not accelerate:

CARBURETOR REQUIRES ADJUSTMENT.

Turn "L" needle counterclockwise 1/16 turn.



Engine starts but will only run at high speed at half-choke:

CARBURETOR REQUIRES ADJUSTMENT.

Turn "H" needle counterclockwise 1/16 turn.

Engine does not reach full speed and emits excessive smoke:

1. CHECK OIL FUEL MIXTURE.
2. AIR FILTER DIRTY.
3. CARBURETOR REQUIRES ADJUSTMENT.
4. SPARK ARRESTOR SCREEN DIRTY.

1. Use fresh fuel and the correct 2-cycle oil mix.
2. Clean per instruction in maintenance section.
3. Turn "H" needle clockwise 1/16 turn.
4. Replace per instructions in maintenance section.

Engine starts, runs, and accelerates but will not idle.

CARBURETOR REQUIRES ADJUSTMENT.

Turn idle speed screw clockwise to increase idle speed. (If chain continues to turn at idle, screw counterclockwise to decrease speed). Wear protective equipment and observe all safety instructions.

Bar and Chain Running Hot and Smoking:

1. CHAIN OIL TANK EMPTY.
2. CHAIN DULL
3. CHECK CHAIN TENSION.
4. CHECK OIL HOLE IN GUIDE BAR.
5. CHECK FOR OILER FUNCTION.

1. Check oil level frequently, particularly during warm/hot temperature operation.
2. File cutters per instructions in Bar and Chain Maintenance Section.
3. Tension chain per instructions in Chain Tension section.
4. Clean guide bar groove to insure oil passage is open
5. **Never run saw without bar and chain attached.** ⚠️
Saw will oil fastest while cutting. To properly test, cut wood for 30 to 60 seconds, then stop saw and check for an oil film on the chain and guide bar rails. If no oil, make sure oil cap is tight. Repeat Test. If still no oil, contact a servicing dealer.

