

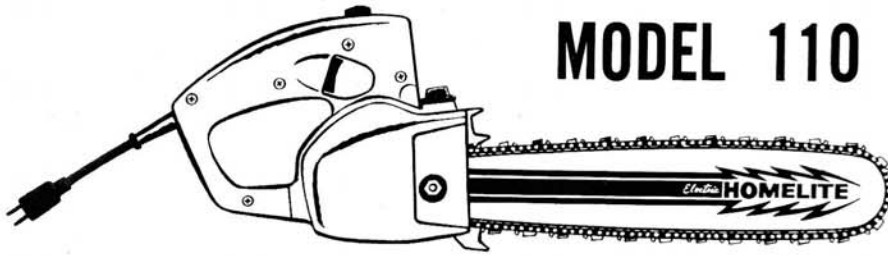
OWNERS MANUAL



HOMELITE *Electric*

Model 110
DOUBLE INSULATED
Electric
CHAIN SAW

HOMELITE®



MODEL 110 Double-Insulated *Electric* CHAIN SAW

SPECIFICATIONS

Motor Universal, alternating current only 25 to 60 Hz.
Ampere Rating at 120 Volts 12
Motor Cord 6" - 2-wire (no ground wire)
No Load Chain Speed 2500 ft./min.

Cutting Capacity 12" standard
Chain and Sprocket Pitch 1/4"
Chain Gauge 0.050"
Drive Links in 12" Loop 69

ELECTRIC CHAIN SAW SAFETY RULES

Be sure that all persons have read all the safety instructions and understand the operating instructions in this manual for safe operation on this chain saw. Do not allow anyone, who has not read these instructions, use the saw.

- Always disconnect the saw from the power source before any maintenance or adjustment work is done to the saw. Never touch the saw chain or attempt to adjust the chain tension, or clean the saw while it is connected to a power outlet.
- Know where the power cord is at all times. Do not become tangled in, or cut the cord.
- Replace a worn or damaged power cord to prevent shorting. Never carry the tool by the cord.
- Never operate an electric saw in a damp or wet location.
- Any tool or appliance used for tightening, adjusting, or servicing must be removed before the saw is connected to a power source.
- The saw has a trigger switch safety latch button which must be depressed before the trigger switch will operate. BUT, form the habit of NEVER placing your finger on the switch of a plugged-in electric saw unless you are holding the saw firmly with both hands in readiness to operate.
- Keep the saw out of the reach of children. It should be kept in a dry, safe location, away from dampness, lawn and garden chemicals, and ice-melting salts.
- Keep all persons a safe distance from the work area.
- Wear trim-fitting clothing that will not catch on the saw chain or underbrush. Do not wear loose clothing or jewelry. Wear safety hard hats in the woods and on all tree-felling operations. The wearing of sturdy non-slip shoes will improve your footing. Non-slip gloves will improve your grip on the saw.
- Work in a clean, uncluttered area. Always remove underbrush and small saplings which could interfere with operating. Never start cutting until you have a clear place to work, a secure place to stand, and a safe exit from the work area. Beware of falling limbs.
- Hold the saw just enough away from your body to be sure it is in the clear. Change position as necessary to perform the work safely, but always maintain good footing to keep your balance. Don't cut so high up or far away from your body that you are forced to overextend yourself.
- Always hold the saw firmly with both hands. Use grip (shown in Figure 5) with the thumb on the underside of the handlebar, opposing the fingers. Should the saw kick back out of a cut or deflect off some object, this grip offers the best control and greatest protection.
- Use caution when cutting limbs supporting a fallen tree. Beware of "spring pole" situations, that is where a sapling is bent down and stressed by other fallen trees and may spring up suddenly when a log or branch is cut away.
- When bucking up a log, always stand on the high side of the log so the cut-off piece will roll down hill—away from you.
- Shut off the motor as soon as possible after completing a cut, but wait for the chain to stop turning before you shift position or move the saw.
- When transporting or carrying the saw, sheath the chain with rags or a scabbard. When walking short distances with the saw, keep the bar and chain toward the rear.
- Use extreme caution when cutting small size brush and saplings, because slender, material may grab the chain and either whip it toward you or pull you off balance.
- Never overload the chain and motor. Apply moderate feed pressure during cutting. Always stop to sharpen and/or set the depth gauges of the chain when it is not cutting well. If there is anything wrong with the saw, get it fixed before resuming work.
- During operation, cut one log at a time—never let the nose of the bar touch the ground, another log or branch, or any obstruction.

PRELIMINARY INSTRUCTIONS

Your HOMELITE 110 Electric Chain Saw is precision built and manufactured to satisfy the highest standards. For maximum performance, long tool life, and your safety, follow the instructions in this book carefully. Our warranty is printed on the rear cover of this manual.

VOLTAGE WARNING

Before connecting the tool to a power source (receptacle, outlet, etc.) be sure the voltage supplied is the same as that specified on the nameplate of the tool. A power source with voltage greater than that specified for the tool can result in **SERIOUS INJURY** to the user as well as damage to the tool. Using a power source with voltage less than the nameplate rating is harmful to the motor. If in doubt about the voltage, **DO NOT PLUG IN THE TOOL.**

PORTABLE POWER PLANT: If the saw is to be connected to a portable power plant, the alternator or generator used should be rated at no less than 3 KW at 115-120 volts and should supply alternating current up to 60 Hz. (cycles per second.)

DOUBLE INSULATION: Your new HOMELITE 110 Chain Saw is equipped with a two-wire cord and two-prong plug which can be used in standard 115 volt a.c. outlets.

No grounding of the tool is necessary. The motor is insulated with a dielectric material which protects the operator in case of failure of the standard functional insulation within the electrical system. The double insulated housing possesses great impact resistance and durability.

EXTENSION CORD: When using an extension cord, be sure it is heavy enough to carry the current your tool will draw. An undersized cord will cause a drop in line voltage, resulting in loss of power and overheating. The following table shows the correct size to use depending on cord length and nameplate amperage rating. If in doubt, use the next heavier gauge.

NOTE: The smaller the gauge number, the heavier the cord.

Length of Cord in Feet	25	50	100	150	200	250	300	400	500
Gauge of Cord	16	16	14	12	10	10	8	8	6

PREPARING THE SAW

CHAIN LUBRICATION

1. Unpack the new saw chain and drop it right into a jar of SAE-20 or SAE-30 motor oil. This will help the oil penetrate the rivet holes where it is needed the most, and should be immersed initially for as long as 24 hours. For longest life, the chain should be removed from the saw after each day's use, cleaned, sharpened, and stored in oil until the next use.
2. Remove the nut, washer, and clutch cover (See Figure 1).
3. Unscrew (counterclockwise) the oil filler cap.
4. Fill oil reservoir to about 1/2" below the bottom thread of the oil filler hole with HOMELITE BAR and CHAIN OIL, or with the weight of SAE-30 motor oil given in the "Chain Lubricant Chart". HOMELITE BAR and CHAIN OIL can be used the year 'round just as it comes from the container. Regular SAE motor oils should be chosen by weight according to seasonal temperatures, or an SAE-30 weight oil diluted with kerosene in cold weather to a free-flowing consistency.

RECOMMENDED CLEANING AGENTS

The motor housing can be cleaned and degreased with the agents listed below:

- Kerosene
- Ethyl alcohol
- Household detergents free of ammonia and chlorine.

NON-RECOMMENDED CLEANING AGENTS

The finish of the motor housing can be attacked by certain cleaning agents listed below:

- Gasoline
- Dry cleaning fluids
- Carbon tetrachloride
- Chlorinated cleaning solvents
- Ammonia and household detergents containing ammonia.

KEEP THE COOLING AIR SCREEN (AT END OF MOTOR HOUSING) CLEAN FOR PROPER COOLING OF MOTOR.

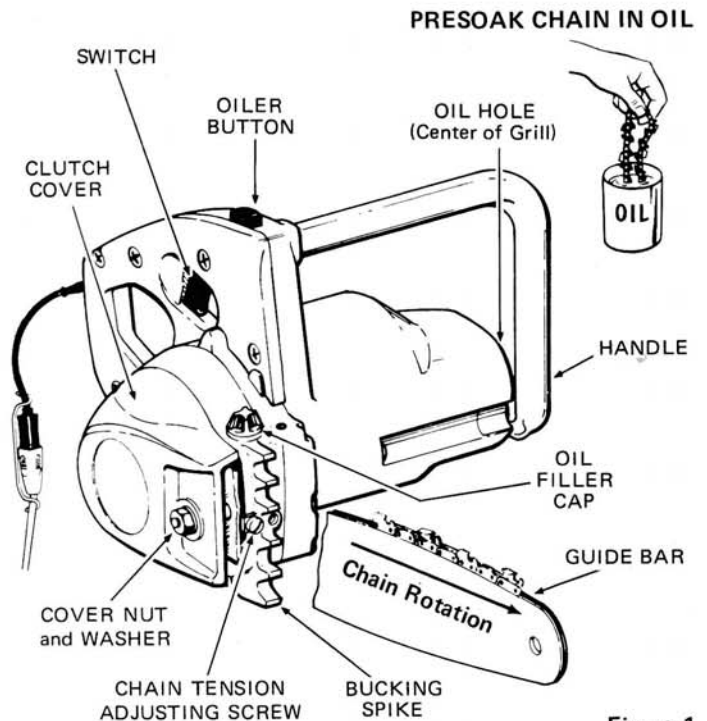
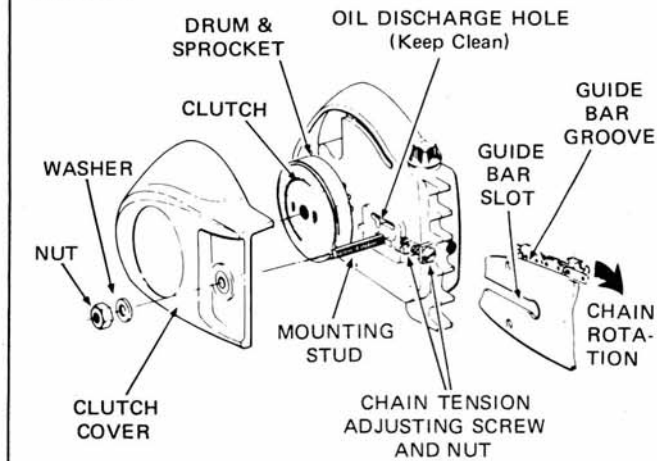


Figure 1.

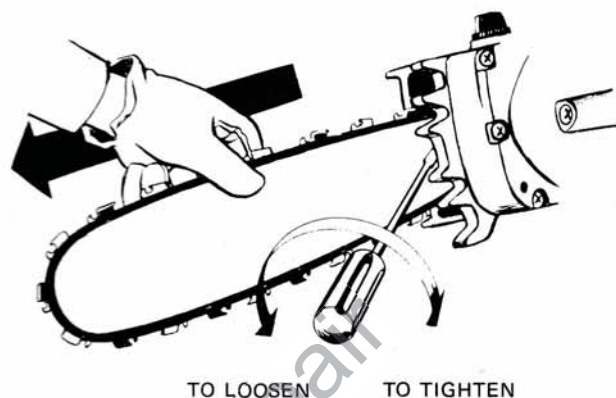
Slide chain over clutch drum and onto sprocket. Slide bar into place and feed chain drive links into bar groove.

Figure 2.



PULL CHAIN AROUND BAR BY HAND

Figure 3.



5. Install oil filler cap snugly.
6. **TEST OILER OPERATION:** Depress and release oiler button repeatedly until pump primes and oil squirts from the discharge hole in the oil slot (See Figure 2). If the pump does not prime after six to ten strokes, turn saw so oil slot is in horizontal position and fill the oil slot with oil and try the pump again. Make sure the pump works before you assemble the bar and chain on the saw.

MOUNTING BAR AND CHAIN ON SAW

1. After clutch cover has been removed, turn the adjusting screw (Figure 2) **counterclockwise** until the tension adjusting nut is at the sprocket end of the slot in which it travels. Then slide the bar in place on the mounting stud and move it as close to the sprocket as possible.
2. Lay out the chain loop so the sharp edges of the cutters face in the direction of chain rotation, which is from sprocket to bar nose along top rails of bar. Loop the chain over the clutch drum and onto the sprocket, then feed the drive tangs into the guide bar groove, working from sprocket to nose and on around the bar. Slide the bar away from the sprocket to take up most of the chain slack.
3. Be sure the adjusting nut is seated properly in the bar slot, and chain tangs are all in place in the bar groove. Then install the clutch cover and **SLIGHTLY TIGHTEN THE COVER NUT.**

CHAIN TENSION ADJUSTMENT

NOTE: Lifting and holding the guide bar nose up during chain tensioning (and until the cover nut has again been tightened) takes up any play between the bar slot and the mount in a direction to prevent bar from shifting position under normal pressure of cutting. Shifting the bar would change the chain tension.

1. Lift up the guide bar nose. Hold it up and turn the chain tension adjustment screw clockwise to take up most of the chain slack.
2. **USING GLOVES OR A RAG TO PROTECT YOURSELF FROM THE SHARP CHAIN,** pull the chain along the top of the bar a few times from the sprocket towards the nose.
3. Now grasp the chain, pull it away from the bar and let it snap back into the bar groove. This is to remove any kinks in the new loop of chain. **While still holding up the nose,** keep increasing the tension until the chain tie-straps are all flush with the bar; pull the chain around the bar by hand and make the tension as tight as possible without causing any binding between chain and bar.
4. Now, after you tighten the clutch cover nut securely, you can stop holding up the bar nose. Do not use oversize wrench or overtighten clutch cover nut (suggested 6" wrench size).

Above 40° Farenheit

HOMELITE BAR AND CHAIN OIL or any clean SAE-30 motor oil.

CHAIN LUBRICANT CHART

30° to 40° Farenheit

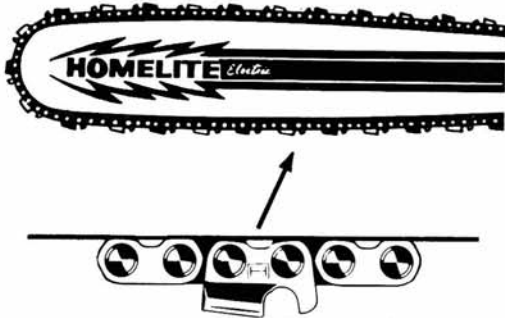
HOMELITE BAR AND CHAIN OIL OR SAE-20 motor oil or SAE-30 motor oil diluted with kerosene.

Colder than 32° Farenheit

HOMELITE BAR AND CHAIN OIL OR SAE-10 or SAE-05 motor oil—or SAE-30 diluted with kerosene to flow freely.

Figure 4.

TIE-STRAPS SHOULD BE UP SNUG AGAINST BAR RAILS WHEN BAR AND CHAIN ARE COLD. RETENSION CHAIN WHEN TIE-STRAPS HANG DOWN AWAY FROM RAILS.



5. Plug into a power outlet. Pump oil to the bar and chain. (USE OIL PROFUSELY DURING THIS BREAK-IN STAGE.) DO NOT CUT ANY WOOD YET—KEEP THE CHAIN IN THE CLEAR. Hold saw firmly and squeeze trigger to let chain rotate for thirty seconds to one minute. Stop the motor and examine the chain tension. If the tie-straps are still up snug against the bar, it's O.K. to proceed with cutting. But, if the tension is now too loose, unplug the motor, reset the tension (see steps 1 through 5), and you are ready to put the saw to work.

NOTE: During the first half-hour to one hour of operation, while the chain, bar and sprocket are wearing in together, chain slack will develop. Stop cutting after every five to ten minutes during this wear-in period, unplug the saw and check the tension. Always reset the tension whenever you find it incorrect; too much tension creates excessive heat and wear, and robs power and overloads the motor. Too little tension allows the chain to hammer and chatter during operation, damaging the chain, bar groove and sprocket.

6. When cutting, pump oil to the chain at least every 10-20 seconds to maintain a steady flow of oil to the chain.

REMEMBER THAT OVEROILING COSTS LITTLE COMPARED TO THE COST OF UNDEROILING.

7. Check oil level (and fill the reservoir) after every 10-20 minutes of cutting, or whenever the chain does not load up with oil when you pump the oiler. Stop cutting every so often to be sure the surfaces between the chain links are wet with oil. If these surfaces appear dry, the chain is not getting enough oil—if the oiler output is low, have the oiler checked before further use.

8. Once the chain has worn in on the bar (and with saw unplugged), you should be able to rotate the chain by hand with no slack in the chain.

9. **TENSION CHECKS DURING OPERATION:** If the chain hangs down at the middle of the bar, it is too loose. After the switch is shut off, the chain should coast to a stop. If it stops abruptly, the tension is too tight.

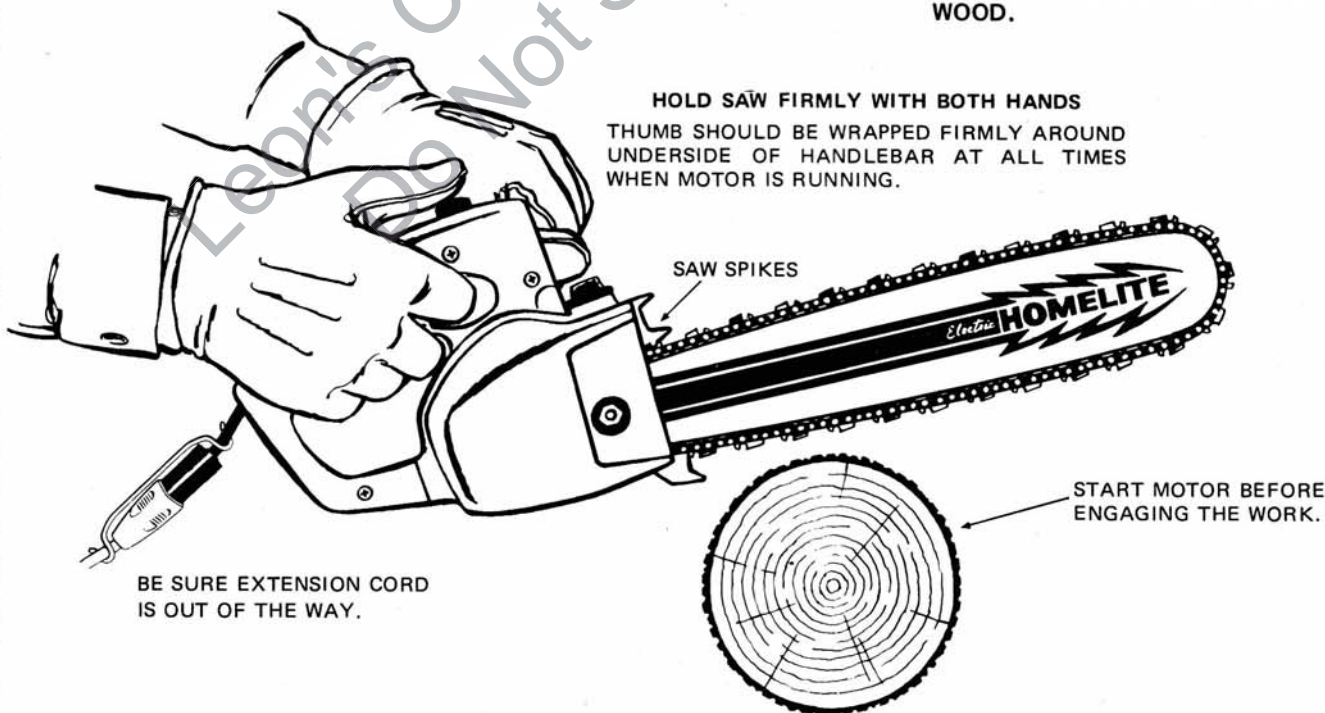
WARNING: Make sure after each adjustment and before plugging in the saw, that the cover nut is on tightly. Do not use oversize wrench or overtighten clutch cover nut (suggested 6" wrench size).

Figure 5.

OPERATING INSTRUCTIONS

WARNING: NEVER START THE MOTOR WHILE CHAIN IS IN CONTACT WITH THE WOOD.

HOLD SAW FIRMLY WITH BOTH HANDS
THUMB SHOULD BE WRAPPED FIRMLY AROUND
UNDERSIDE OF HANDLEBAR AT ALL TIMES
WHEN MOTOR IS RUNNING.



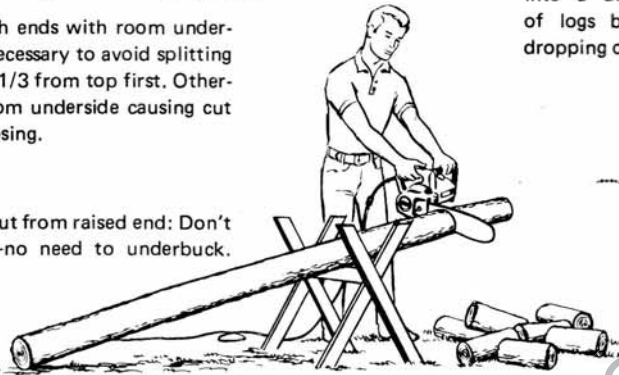
STRESS ANALYSIS

Log lying flat on the ground: buck from the top, cutting as much wood as you can, but not letting chain hit the ground. Roll log, if possible, to put uncut side on top.



Log supported on both ends with room underneath for cutting: if necessary to avoid splitting large, heavy log, buck 1/3 from top first. Otherwise do all cutting from underside causing cut to widen instead of closing.

Firewood length logs cut from raised end: Don't worry about stresses—no need to underbuck.



Log having one end hanging in air: cut 1/3 from underside to avoid splitting. Overbuck to finish cut.

When log is generally lying flat but cut-off section may sag into a depression, prevent binding of saw between cut ends of logs by making cut a few degrees off square so that log dropping off is longer at bottom than at top.

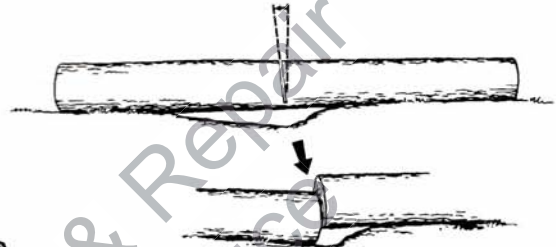
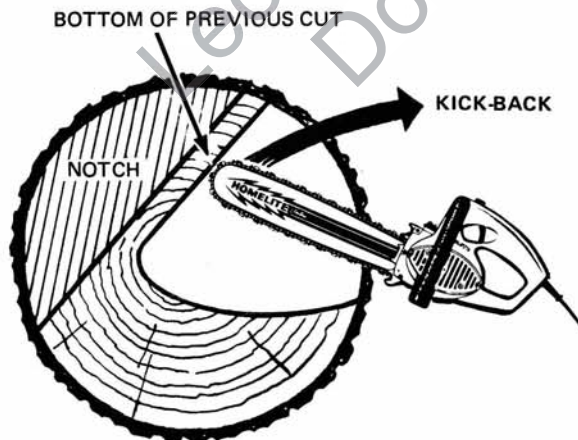


Figure 6.

1. Position saw with bumper spikes close to the wood, start up motor and engage the work, allowing chain to feed itself into the wood.
2. Pivot the saw on the bumper spikes and continue cutting. Remember to keep using the oiler button to keep the chain well supplied with oil. Watch out for grit or sand in the bark. Dirty bark will dull the chain immediately.
3. **IMPORTANT:** Know where the blade is with reference to obstructions—stop pivoting before the chain touches the ground or any obstruction.
4. Binding and pinching of the chain can be avoided by analyzing the stresses as shown in Figure 6, and varying the cutting technique accordingly. Do not use the undercutting technique if there is not enough room under the log, or if the wood is dirty. Use an axe to chip away dirty bark or wood where the cut is to be made.
5. **FEED PRESSURE:** The amount of feed pressure to be applied in cutting should always be slight. When the chain is in good condition, it is self-feeding and cuts with little coaxing. If too much feed pressure is applied, the safety

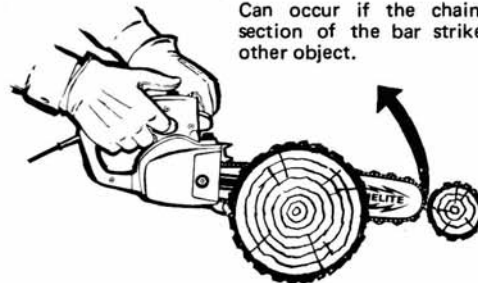
SITUATIONS KNOWN TO CAUSE KICK-BACK.

NOTE: While you can't always prevent kick-back from occurring, you can guard against being injured by maintaining proper grip and balance at all times.



KICK-BACK

Can occur if the chain at top or nose section of the bar strikes another log or other object.



KICK-BACK

Can occur when removing saw from cut, if moving chain catches side of the cut along top edge of the bar.

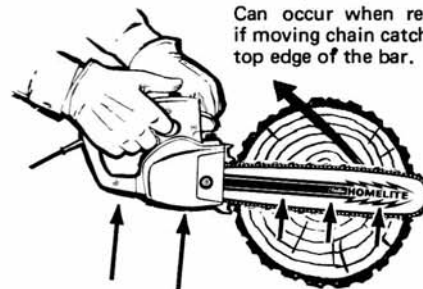


Figure 7.

NEAT PRUNING SEQUENCE (To Avoid Splitting and Pinching)

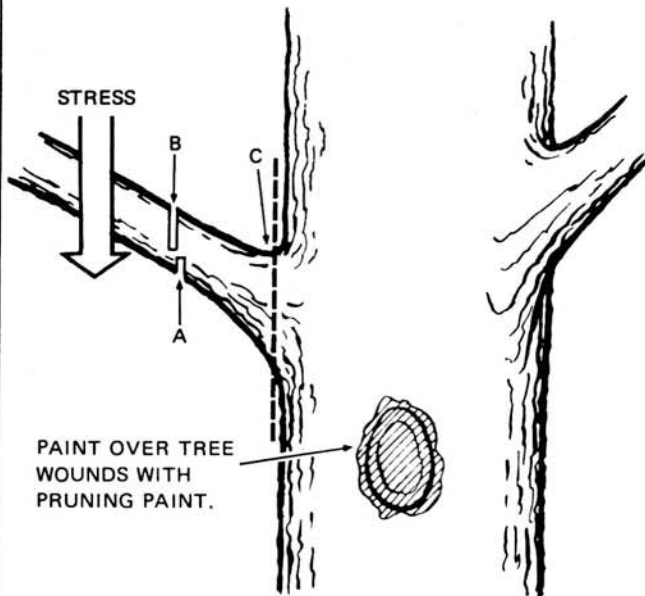


Figure 8.

clutch will slip to prevent motor damage. Habitual "slipping of the clutch" by overfeeding the chain will overheat and damage the clutch and should be avoided. When the chain does not cut willingly it should be removed and filed. A damaged chain must be repaired by corrective filing.

NOTE: An incorrect extension cord (See Page 3) will not permit motor to reach full operating speed which, in turn, will increase clutch slippage.

LIMBING AND PRUNING

1. Always work to prevent pinching of the chain and splitting of the wood or stripping of the bark. (Refer to Figure 8.
2. When pruning or limbing a tree that is not to be felled, first take the stress off the branch. Make a slight undercut to prevent stripping, and lop it off a bit further out than the final pruning cut. Then, cut it off where you want—neatly flush to the trunk for good pruning—and paint the cut with tree compound or paint.

WARNING: When necessary to work in a tree, climb tree **FIRST**, then haul up saw with a rope. Always have a firm foothold.

FELLING TREES

CAUTION: Always select and properly prepare a path of safe retreat from the tree before you fell it. This path should be to the rear and a bit off to one side of the line of fall.

1. All trees should be prepared for felling by cutting a notch 1/3 of the trunk diameter in the side of the trunk toward which the tree is to fall. The inside edge of the notch should be at a right angle (90°) to the proposed line of fall.
2. Control of the tree—preventing it from twisting off the stump or falling in an uncontrolled direction—is achieved by proper notching and back-cutting, the back cut (felling cut) being made at least 2 inches higher than the horizontal cut of the notch as shown in Figure 9. Always leave a section of wood between the notch and back cut to act as a hinge. Never cut right through to the notch, as a tree left without hingewood is uncontrollable.
3. Before starting a felling operation, always analyze the shape, balance, and lean of the tree, possible threat of dead overhead branches, and whether there is enough room for the tree to fall clearly. Also consider factors such as wind

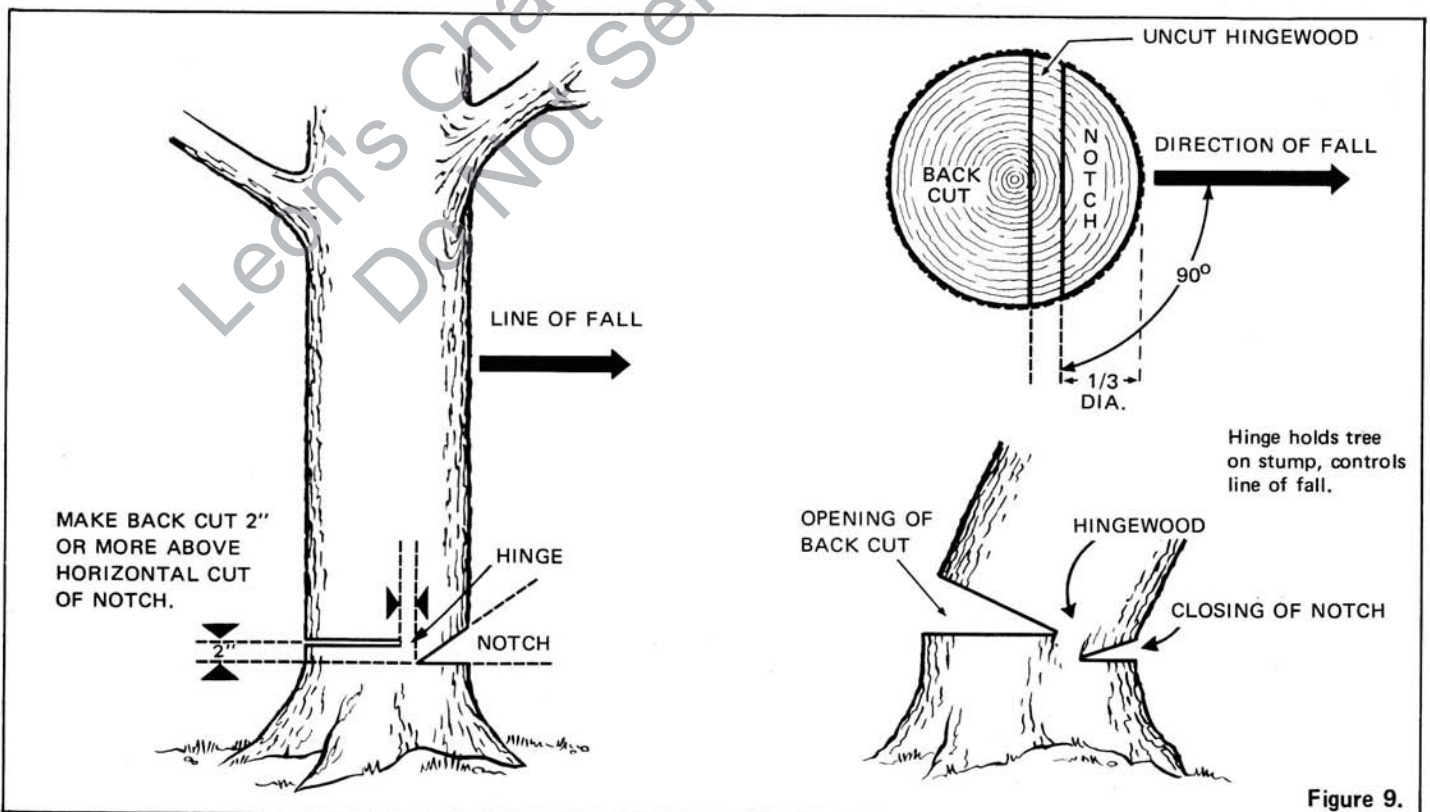


Figure 9.

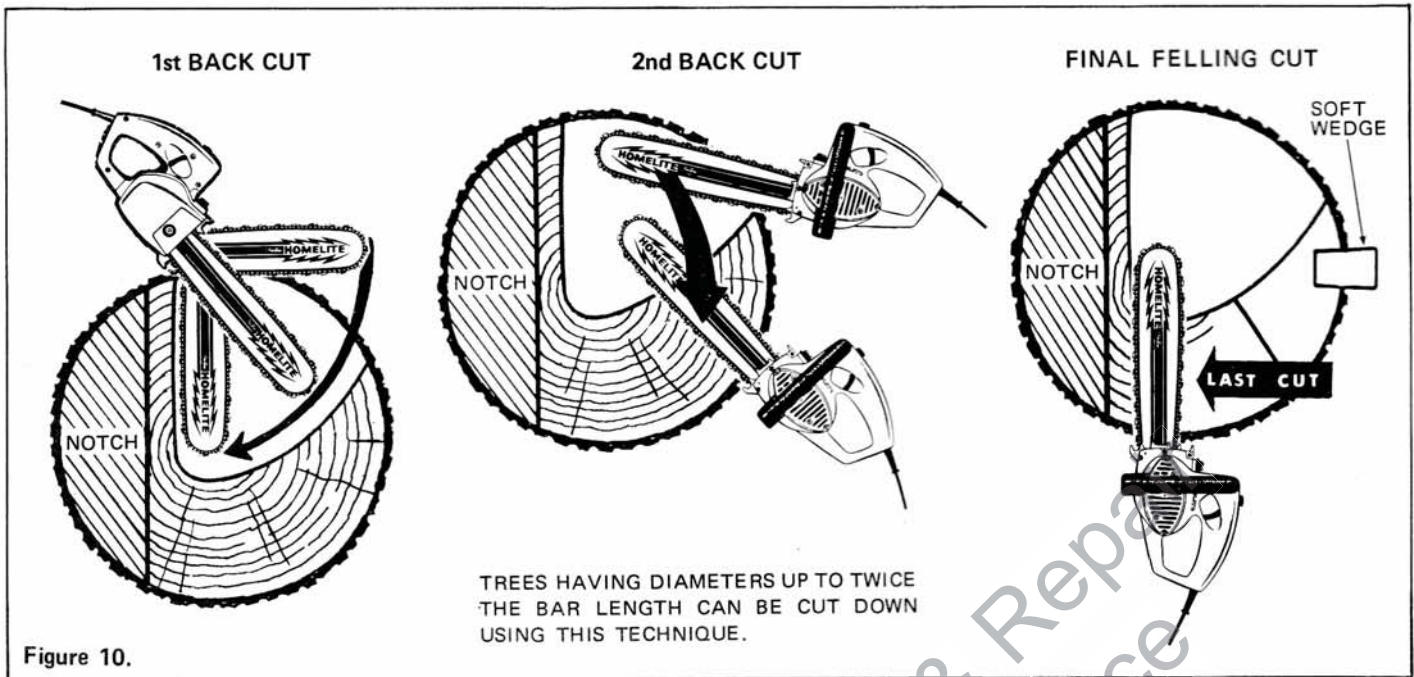


Figure 10.

direction and velocity. Do not fell trees when it is very windy. If there is any possibility that the tree may not fall where you want it to, attach a rope to the trunk as high up as possible, (See Figure 11) run it around a tree trunk or other solid object some distance away and have a helper exert a steady pull on the rope from a position further away from the tree than its height. Do not tug intermittently on the rope or the tree will sway, possibly falling backwards. The pulling force can be increased by using a pulley, and also by attaching a rope to the line and pulling at 90° to it.

- Soft plastic or wooden wedges can be driven into the uncompleted back cut to force it open. This is a preferred technique with large trees. Do not use hard metal splitting wedges which would ruin the chain and cause severe kick-back of saw.
- CAUTION:** Before felling a tree, be sure there are no drain tiles, surface piping, or power or telephone wires in the path of fall.
- As illustrated in Figure 10, it is possible to cut trees up to nearly twice the usable length of the saw blade, by notching

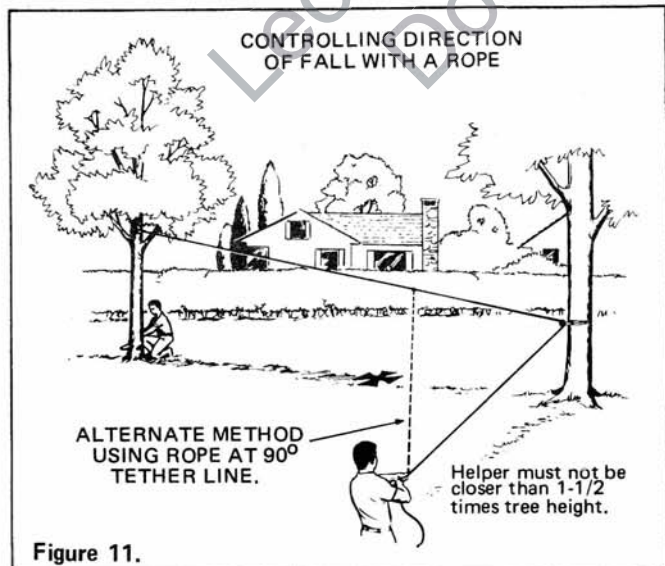


Figure 11.

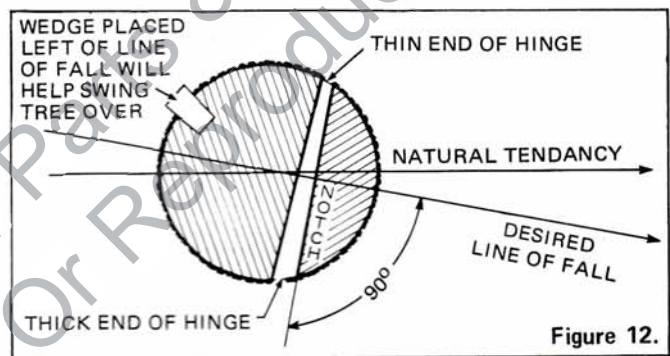


Figure 12.

and back-cutting in a series of cuts. However, always remember that the series should be completed leaving hinge wood of equal thickness from end to end.

- The tree can be made to swing a few degrees either to left or right of the natural direction of fall by leaving the hinge wood a bit thicker on the side toward which you favor the tree to fall as shown in Figure 12.
- If a tree becomes hung up on the way down, do not try to cut it down. Get some mechanical help—a rope and a tractor, car or winch to pull it clear of the obstruction.

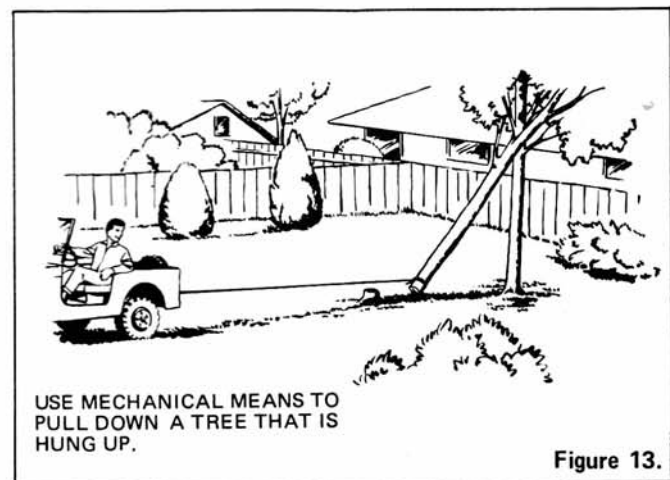


Figure 13.

SAW CHAIN MAINTENANCE

Your HOMELITE 110 Electric Chain Saw has a fast-cutting 1/4-inch pitch chain with a sprocket of matching pitch. When the chain is to be replaced, always install a new 1/4-inch pitch sprocket at the same time, because a worn sprocket would be out-of-pitch with a new chain.

Not only for fastest cutting, but also for maximum life of the chain and all saw parts, always keep the chain in such good, sharp condition that bearing down hard to make the cut is unnecessary. When the sawdust turns from chips into a fine powder and you find yourself pressing hard to feed the chain, STOP IMMEDIATELY and file the chain.

FILING EQUIPMENT

Uniformity and accuracy are necessary for success in filing saw chain. These are easiest to obtain with the aid of a file holder which has the required 35° top filing angles marked on it, and also holds the file at the correct height (1/10 of file diameter above top plate of tooth) to produce the required side plate angle and beveled cutting edge.



DEPTH GAUGE JOINTER 7" SAFE EDGE FLAT FILE



A FILE HOLDER WITH
3/16" DIAMETER ROUND FILE.

ALL YOU HAVE TO DO IS MAINTAIN THE CORRECT FILING ANGLE, HEIGHT AND PRESSURE AGAINST THE TOOTH.

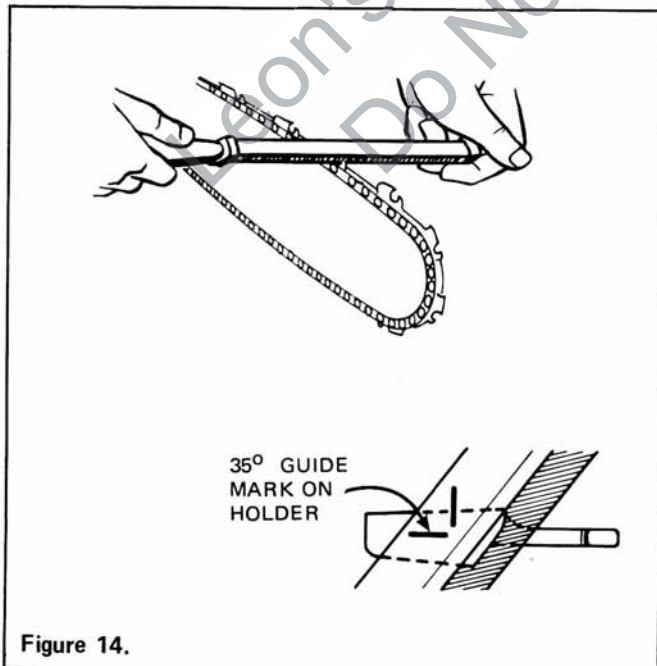
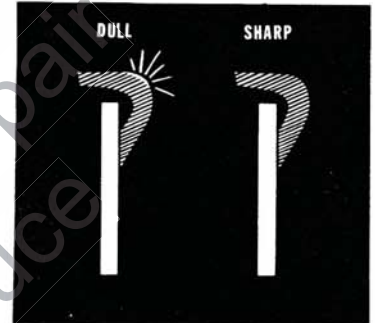


Figure 14.

A 3/16" diameter round chain saw file is the correct size for 1/4"-pitch chain. After many filings, when less than half of the tooth steel remains, a 5/32" diameter file is better to use, because of the slight taper of the top plate. A chain filing vise holds the cutters rock-steady during filing. But you can file satisfactorily "on the bar" if you tighten up the tension enough to keep the chain from wobbling, and do all of the filing at the mid point of the bar.

Be sure to file all cutters to the same length. If you replace damaged cutters, file them back to the same length so that each cutter has the same biting chance.

A SHARP EDGE
WILL NOT
REFLECT
LIGHT



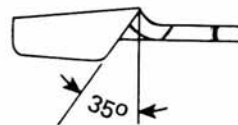
HOW TO FILE CUTTERS

1. Hold file against cutter face at 35° angle (marked on file holder).
2. Keep file level—do not let it dip or rock.
3. File in one direction only—towards front corner of the tooth. Move file away from tooth face on return stroke.
4. Use light but firm pressure, mostly towards back of tooth. Avoid heavy downward filing pressure. The holder will keep 10% of the file above the top plate, automatically producing a beveled hollow-ground under edge.
5. Put a few firm strokes on every tooth, filing all cutters on one side of the chain, then all cutters on the other. Rotate file in holder occasionally.
6. A sharp edge will not reflect light. Examine the edge to see if the dulled area has been removed.

NOW EXAMINE YOUR FILING JOB (see below).

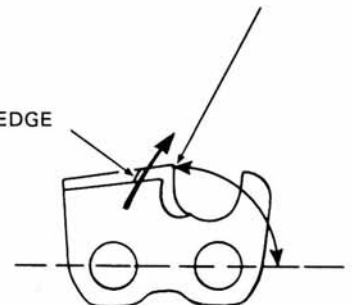
HERE'S WHAT YOU SHOULD GET:

1. 35° TOP PLATE ANGLE



3. SIDE PLATE 90° to line of chain travel.

2. BEVELED UNDER EDGE



REFILE ANY TEETH HAVING ONE OR MORE OF THESE FAULTS:



FORWARD HOOK

Chain will grab and jerk, producing rough cutting.

Caused by excessive downward filing pressure, or tip of file held too low on tooth.

BACK SLOPE

Chain resists entering wood (scrapes instead of cutting wood). Causes excessive heat and wear to bar and chain.

Caused by lowering handle end of file or holding file too high on the tooth.

IMPROPER TOP PLATE ANGLES

Blunt chain requires too much feed pressure. This top plate angle causes chain to bind, produces a rough cut, robs power from saw, and increases bar groove wear.

Caused by holding file at wrong angle or letting it drift or rock during the stroke.

CUTTERS FILED AT NON-MATCHING ANGLES

Chain will not cut at its best. May cut off line or "run" to one side, drag may slow down motor.

Caused by letting pressure and filing angle vary from tooth to tooth or one side filed with different angle and lengths than the other.

THIN FEATHERED EDGES

When they almost immediately break off, you have a dull chain. Usually found on chain filed with a hook (see "forward hook").

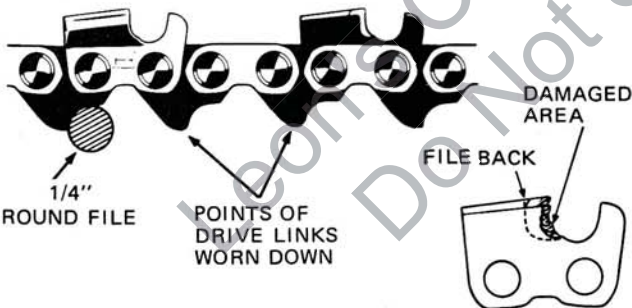
Caused by holding file with handle too low, or pressing back down too hard on file.

BLUNT CUTTING EDGES

Although edge is durable, it won't cut properly; scrapes wood, robs power and produces sawdust instead of chips.

Caused by holding file too high on face of tooth, or keeping file handle too high.

CORRECTIVE FILING OF CUTTERS and DRIVE LINKS

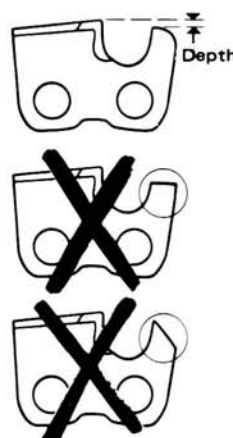


Chain drive tangs must have sharp points to clean sawdust from the bar groove and bar groove must be deep enough for the tangs to clear the bottom all the way around bar. (Every fourth or fifth tang resharpened will do the job as the chain wears.

When teeth have hit hard objects such as stones, nails, etc., or cut dirt, sand etc., the damaged area must be filed away before the tooth will cut or have the proper set.

NOTE: All cutters must be filed equally back to this point. This can be done by hand. It is less expensive and easier to have it done on an electric chain grinder at your dealer or HOMELITE factory service office (see "Yellow Pages"). This is an extra advantage since it "trues" the chain to original factory shape.

HOW AND WHEN TO SET DEPTH GAUGE JOINTER



ORIGINAL AND CORRECT-CONTOUR

Top Filed Flat and Forward Half Rounded Off.

WRONG

Filed Flat But Not Rounded Off—Too Square To Slide Smoothly.

WRONG

Pointed or Rounded Off Too Much—Not Enough Flat Section Left at Top to Act as a Depth Gauge—Gauge Digs into Wood and Does Not Control Thickness of Chips.

Every second or third time the teeth are sharpened, or if a large amount of steel is removed from the cutters, the depth gauges should be jointed to correct depth.

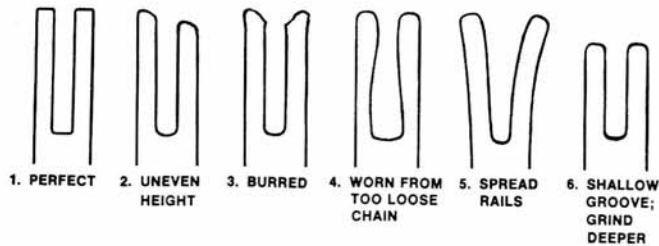
A SUGGESTED DEPTH FOR THIS SAW AND CHAIN IS:
HARDWOOD TO MIXED HARD/SOFTWOOD DIET . . .025"
 (factory setting of new chain)
STRICTLY SOFTWOOD DIET030"

Use a depth gauge jointer and a safe-edge (no teeth on edge) flat file. Fit the jointer over the chain so that the slotted end of the jointer points toward the bar nose and the depth gauge projects up through the slot. File the depth gauge flush with the top of the jointer. File the gauges to this height.

If the gauges are too high, the chain teeth will not get a good bite; if too low, the teeth will take too large a bite, causing the chain to grab and jerk. If some gauges are higher than others, the chain will cut off line, favoring the side having the lowest gauges.

GUIDE BAR MAINTENANCE

WEAR PATTERNS IN GUIDE BAR GROOVE AND BAR RAILS:



The bar should be cleaned periodically. Using a putty knife or stiff wire, clean the packed sawdust out of the chain groove. Also clean out the chain oil holes, as a clogged hole will block oil flow to the chain.

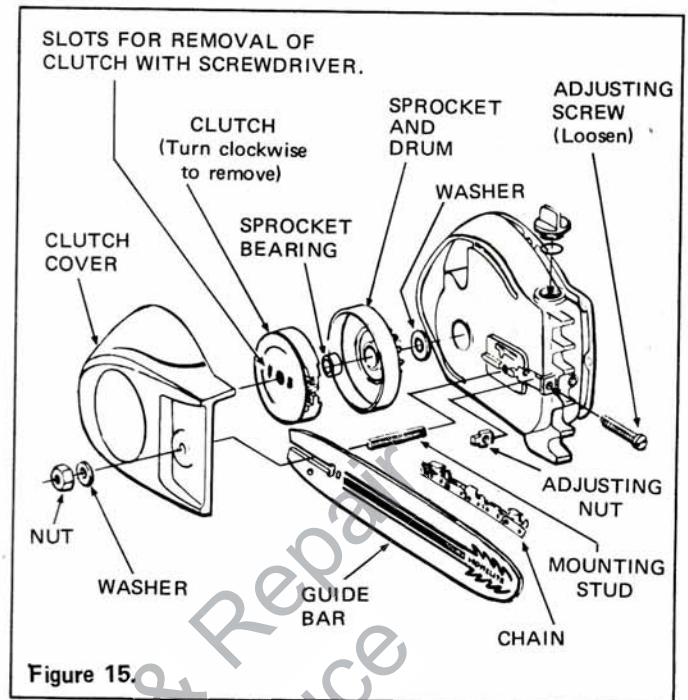
Examine the cleaned bar periodically. With a flat file, remove any burrs that occur along the bar rails, because burrs interfere with cutting. Check the illustrations of wear patterns of guide bar rails. Also check that the bar is straight and the rails uncracked and be sure that the groove is deep enough all the way around the bar that the chain drive tangs do not "bottom out". A blue discoloration along the bar rails indicates a) that the bar and chain need more oil, or b) that you have been bearing down too hard for too long on a dull chain or c) that the rails have been pinched together at this point. (You can carefully pry the groove open with a screwdriver). Rotating the bar helps to equalize wear. Dealers in some areas have facilities for repair of damaged or worn bars. If your bar is not in good condition, have it repaired or replaced.

OPERATING NOTE: Pinching in a cut, excessive boring with the bar nose, and operating with the chain too loose or too tight all result in excessive bar wear and damage.

SPROCKET, CLUTCH AND BEARING MAINTENANCE

The life of the bar and sprocket depends more on your operating habits and how well you keep the chain, than on corrective maintenance. The sprocket may become worn down while the chain still has some useful life. It should be changed if, in the opinion of your serviceman, continued use might damage the chain. **HOWEVER**, when a new chain is being installed, always install a new sprocket at the same time. Also be sure that the guide bar is in good condition (see "Wear Patterns of Guide Bar Groove and Bar Rails"). Guide bars can be reconditioned by your HOMELITE dealer or Service Center.

SPROCKET BEARING (See Figure 15): When changing the clutch, remove clutch cover nut, washer and clutch cover. Remove chain and bar. Insert a screwdriver in one of the slots in the clutch and gently tap screwdriver to rotate the clutch in a clockwise direction. Spin off the clutch and remove the bearing



and sprocket. Clean all parts thoroughly. Renew the bearing if excessive wear or damage is apparent. Pack the bearing with **HOMELITE ALL-TEMP Multi-Purpose GREASE, Part No. 24551** prior to reassembling the bearing and clutch on the shaft.

BEARING LUBRICATION

SPROCKET BEARING: Add 2-3 drops of SAE-20 and SAE-30 motor oil onto shaft just behind the clutch drum after either every ten hours of operation or any lengthy period of storage.

REAR BEARING OF MOTOR: Add 2-3 drops of SAE-20 or SAE-30 oil in the oil hole in the center of the air screen at the rear of the motor housing after every ten hours of operation or any lengthy period of storage.

MOTOR MAINTENANCE

VENTILATION: The motor must have adequate ventilation in order for it to stay cool during operation. Keep the motor housing vents open by removing all visible dirt and dust whenever you detect it. Occasionally, **WITH THE MOTOR RUNNING AND SAW CHAIN REMOVED**, vacuum the motor by applying the vacuum cleaner nozzle against the air screen, or blow the passages clean by putting the cleaner hose on the other end of the machine. When necessary to clean the vents in the field; 1) Pull power plug from outlet, then 2) clean vents out with a brush.

MOTOR BRUSHES: The motor is equipped with special "Safety Stop" brushes which after considerable wear will no longer make contact with the commutator (and the motor will stop). This prevents damage to the commutator. Should brush replacement be required, take the saw to your dealer or nearest HOMELITE Factory Service Branch Office.

SERVICE: Service Manuals may be obtained from HOMELITE (Port Chester, N.Y. 10573) at a charge of \$.50 each to cover printing and postage costs. Nevertheless, it is recommended that this saw be disassembled and serviced only by our qualified dealer and factory service personnel. To be assured of long service life of the saw, we recommend your having it inspected and serviced before each cutting season, and even more frequently if you have used the saw a great deal.

HOMELITE®

A **textron** DIVISION, PORT CHESTER, N.Y. 10573

HOMELITE ELECTRIC CHAINSAW WARRANTY

We warrant this HOMELITE® product to be free from defects in material or workmanship under normal use and service. Our obligation under this warranty is limited to replacing free of charge any defective part which within ninety (90) days after delivery of the unit to the original retail purchaser is returned to us, with transportation charges prepaid, at a HOMELITE® branch office or to a dealer whom we have authorized to make the replacement.

This warranty does not apply to any trade accessories, not manufactured by HOMELITE®.

THIS WARRANTY IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, AND ANY OTHER OBLIGATION OR LIABILITY WHATEVER ON THE PART OF HOMELITE® AND IN NO EVENT SHALL HOMELITE® BE LIABLE FOR ANY SPECIAL OR CONSEQUENTIAL DAMAGES.

HOMELITE®

a division of Textron Inc.

PART NO. 24680

PRINTED IN U.S.A.