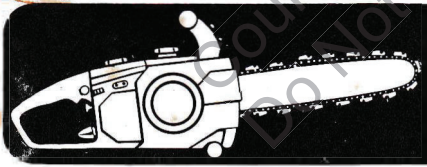
OWNERS MANUAL

FIRST EDITION
PART NO. 23754-C
PRINTED IN U.S.A.

HOMELITE®

CHAIN SAWS

MODEL SERIES: XL-12, Super XL-AO, Super EZ, VI-Super Mini, XL-925, VI-955



WARNING
CHAIN SAWS CAN BE DANGEROUS. TO REDUCE DANGER, FOLLOW ALL SAFETY PRECAUTIONS IN THIS OWNER'S MANUAL.

Thank you...

...for choosing a Homelite® chain saw. Before putting your new saw to use, we urge you to read this booklet carefully...Follow the operating and maintenance tips it contains...Enjoy every bit of the superior performance and long life expectancy built into your saw.

Homelite Division of Textron Inc.

HOMELITE
TEXTRON

CONTENTS

SAFE•T•TIP® (Pat. Pending)

Now supplied free of charge with all Super EZ models and some XL-12 chain saws. Can be ordered to fit most new production models for which this manual is issued. Instructions pamphlet #17067 supplied with every SAFE•T•TIP tells you how to install the SAFE•T•TIP properly on the saw, and how to operate with it on the saw. When properly installed, the SAFE•T•TIP prevents kickback from happening.

SPARK ARRESTORS: When purchased in any state where use of a spark arrestor is required by law, a spark arrestor kit will be included with your chain saw. In these states the spark arrestor must be kept in good condition (intact) in the saw exhaust system by the owner/operator.

HEARING PROTECTORS: Long or continuous exposure to high noise levels, such as in the operation of a chain saw, may cause permanent hearing impairment or other possible effects. Hearing protection devices are available from your Homelite dealer, or can be ordered through him. When ordering, specify "Homelite Hearing Protectors #92810."

BOW GUIDE KITS: Homelite-approved bow guide kits are available for Models XL-12, Super XL-AO and Super XL-925. Bow guides are not recommended for use on any Super EZ or Super XL Mini series models. The saw must be modified for bow installation. Refer to your dealer and the instructions packed with the bow guide assembly for installation, maintenance and proper use of the bow assembly purchased.

FUEL REQUIREMENTS

GASOLINE	32:1 PREMIUM OIL	16:1 OIL
1 Gallon	¼ Pint	½ Pint
2 Gallons	½ Pint	1 Pint
3 Gallons	¾ Pint	1½ Pints
4 Gallons	1 Pint	2 Pints

Measure out the exact amounts of oil and gasoline required and pour them into a clean safety type fuel can. The fuel must be mixed thoroughly. Never mix fuel directly in the saw tank.

RECOMMENDED GASOLINES: The gasoline must be fresh and clean. Use regular grade or low lead gasoline.

QUANTITIES OF OIL AND GASOLINE: With HOMELITE® SAE 40 Premium (32:1) Motor Oil only, mix one part oil with 32 of gasoline. This napthalenic base 32:1 Premium oil gives superior protection with minimum build up of engine deposits.

With SAE 30 HOMELITE® 2-cycle Motor Oil or any other high-quality 2-cycle motor oil, mix 1 part of oil with 16 of gasoline. See table for amounts of oil required for various quantities of fuel. NOTE: Avoid use of multi-grade products (such as 10W-30) and any oils formulated for 4-cycle engines.

CAUTION: Select bare ground for fueling. Do not smoke or bring any flame near fuel. Move at least 25 feet (6.6m) from fueling spot before starting saw. When removing fuel cap at any time, loosen cap ¼ turn and wait about 30 seconds to relieve pressure and prevent spraying or spillage of fuel.

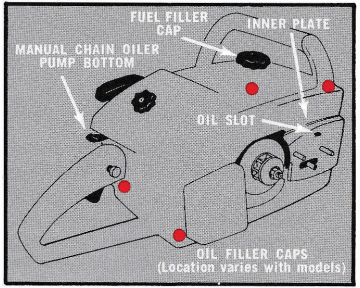
CHAIN OIL REQUIREMENTS

USE HOMELITE® BAR AND CHAIN OIL

1. HOMELITE® BAR & CHAIN OIL is made expressly for bar and chain lubrication. If HOMELITE Oil is not available, fill oil reservoir with a light oil (not over SAE 30). The chain oil cap is identified by the word "OIL." When it is so cold that the oil stiffens, thin it with kerosene until it flows freely.

2. AUTOMATIC OILER models should be refilled with chain oil every time engine is fueled.

3. MANUAL OILER models, including Automatics with supplementary manual oiler, should be refilled with oil each time engine is fueled, but should be checked more frequently — especially when manual oiler is used extensively.

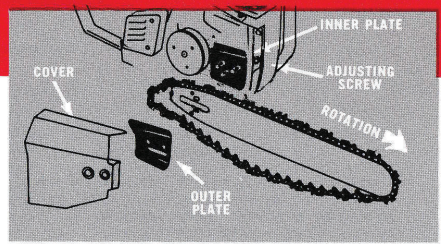


NOTE: Keep oil slot in bar mounting pad open and clean frequently.

INSTALLING THE CHAIN

NOTE: ALWAYS USE A RAG OR WEAR GLOVES FOR PROTECTION WHEN WORKING ON THE SAW CHAIN.

1. Remove the two nuts, the drivecase cover and the OUTER plate from the mounting bolts, but leave the INNER plate on the bolts.
2. Put the guide bar on the bolts. Turn the guide bar adjuster screw as required to move the adjuster pin until it fits into the hole in the bar.
3. Turn the adjuster screw to the left (counterclockwise) to move the bar as close to the drive sprocket as possible.
4. Lay out the loop of chain so that the cutting edges of the teeth will face towards the nose of the bar along the top edge of the bar when installed. Arrange chain around the sprocket and begin feeding the drive links into the bar groove from the sprocket toward the nose along top of bar. Continue on around the nose until the chain is on the bar.



Chain tension device is in drive case. The pin must be located where it will engage hole in bar during bar mounting.

5. Hold bar in place so the pin remains in the hole. Put the OUTER plate and the drivecase cover back on the bolts.
6. Check assembly. Make sure chain is correctly on the bar, with no drive links out of place. Keep pin in hole. Put the nuts back on. Make them only finger tight, because the bar must be free to slide during adjustment of the chain tension.

CHAIN TENSION

TENSION ON HARD NOSE GUIDE BARS

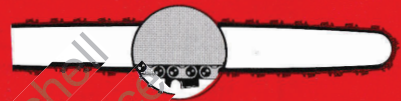
NOTE: Always use a rag or wear gloves for protection when working on saw chain.

Proper tension is extremely important. In order to avoid a false setting, the tensioning procedure must include steps to control certain variables. These include:

1. Holding up the nose of the bar to take up any play between the bar and the mounting bolts.
2. Moving the chain along the bar to where it becomes the tautest on the bar, and always adjusting the tension at this maximum tautness position. (Tautness varies as the sprocket turns.)

GENERAL TENSIONING PROCEDURE

1. With mounting nuts only finger-tight, and most of the sag or slack removed from the chain, pull the chain along the top of the bar toward the nose. Note that the clearance between the chain tie-straps and the bar will fluctuate. Pull chain to where it sags the least.
2. Set the chain to the tension prescribed (below) for the type of bar you are using.
3. "Snap" the chain to remove any kinks (pull away from bar and let go several times). If too much clearance develops, tighten up the tension. Tighten the nuts securely to lock the assembly at the proper tension.



TENSION ON SPROCKET NOSE BARS

4. In use, the clearance will increase as the chain warms and expands. Know these facts:
   a) A hot chain — so hot that you cannot hold it without discomfort while counting to 20 — cannot be accurately adjusted because it will be contracting rapidly as you proceed. Always allow it to cool a few minutes before adjusting.
   b) An underoiled chain gets hot and stiff and is likely to kink up, becoming too tight on the bar. Keep the chain well oiled.
   c) A warm chain will sag more than when cold, but will return to the original clearance when it cools. Leave it alone unless so loose that the tangs are not in the bar groove at all.

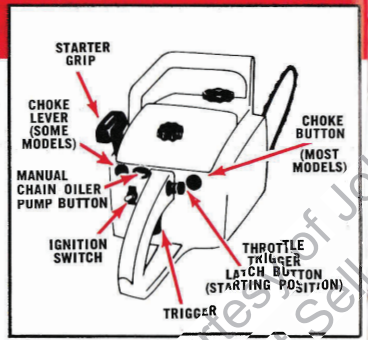
TENSION SETTINGS FOR HARD NOSE BARS

1. When "cold" tensioning, set to where the chain tie-straps do not quite touch bar rails at center of chain span, but do not hang away more than the thickness of a small denomination coin (or four business cards).
2. When "warm" adjusting, set to where the chain tangs hang about half way out of the bar at the center of the chain span. This leaves about a ⅛" gap (3,2 mm) between tie-straps and bar rails.
3. Do not readjust warm chain unless tangs hang all the way out. Do not adjust overheated chain.

4. When starting out with cold chain condition, always recheck to see that tension is as in step 1.

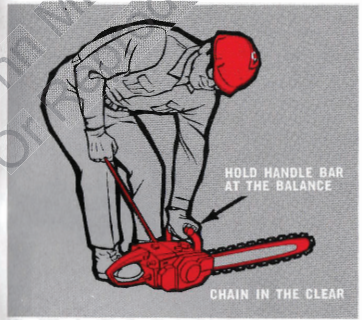
TENSION SETTINGS FOR SPROCKET NOSE BARS

1. The "cold" tension should be "snug" or taut like a chalk line—as much as possible without your feeling any binding as you pull the chain along the bar by hand.
2. The chain will expand when warm and contract to the original setting as it cools. Under heavy duty cutting conditions the sag may progress to where no more than the points of the tangs stay in the bar.
3. For extra long duration cutting, the tension can be reset to where the warm chain hangs down about half the depth of the chain tangs at center of chain span. CAREFUL: Upon cooling, the chain will be too tight on the bar and should be readjusted before next use as in step 1.



*NOTE: On Super EZ and Super XL Mini Models only, just depress latch button to latch trigger for starting.

STARTING AND STOPPING



*See "Simplex Starting System" instructions on page 12.

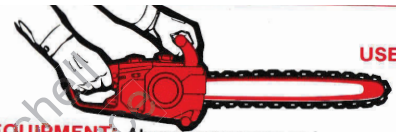
1. Be sure the ignition switch is at "RUN." (To stop engine, flip switch to "STOP.")
2. Choke the engine. (See drawing — pull out choke button or depress choke lever.)
3. Latch the throttle trigger for starting: Squeeze the trigger,* depress throttle latch button, AND let go of the trigger first. NOTE: Latch is automatically released when throttle trigger is squeezed.
4. Hold the saw firmly on the ground or on a stump, and be sure the chain is clear of all obstacles. The thumb should be wraped around the underside of the handle bar and the other fingers curved around the top, as illustrated.
5. Pull the starter grip smartly to give a fast cranking spin to the engine. Hold the

grip during rewinding. When engine fires but does not run, position choke about halfway and crank until the engine runs. As soon as it starts, squeeze and immediately release the trigger to unlatch the trigger and idle the engine. Pull up or push in the choke control.

6. A hot engine normally needs no choking, and can be started with the throttle latched or unlatched; but if no start results, latch the throttle open and use the choke. In freezing cold weather when the saw is not to be used right away, choke the engine to a stop instead of using the switch. This leaves fuel in the engine for extra cold-starting ease.

SIMPLEX STARTING SYSTEM: On Super EZ, Super XL Mini, XL-925 and VI-955 series of models, the starting speed can be adjusted so the chain will not rotate (see pages 36-38).

WOOD CUTTING INSTRUCTIONS

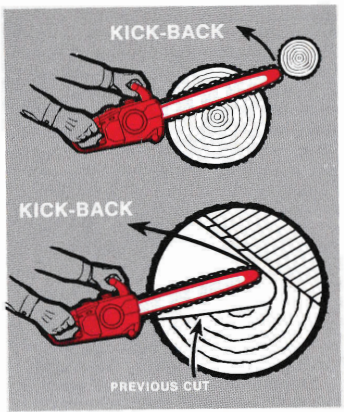


USE PROPER GRIP. ALWAYS KEEP BOTH HANDS FIRMLY ON THE SAW.

EQUIPMENT: Always carry your saw in a case, or keep the guide bar in a scabbard. Keep all fuel in safety type fuel cans. Bring chain oil, some plastic or wooden (not hard metal) bucking and felling wedges, a sharp axe, and touch-up tools for chain maintenance. Under dry woods conditions, bring a fire extinguisher or shovel. All power saws should be equipped with an exhaust muffler and, if need be or required by local regulations, a spark arrestor.

WORKING SITE: Always move away from fueling spot before starting the engine. Prepare immediate cutting area by cleaning out undergrowth likely to interfere with operator and saw, and removing dead material which could cause fire. Prepare a path of safe retreat to the rear and diagonal to the line of fall. Keep all bystanders from the work area. Other workers should remain within hailing distance in case you need help.

PERSONAL PROTECTIVE EQUIPMENT: Your attire should include sturdy shoes with non-slip soles, non-slip work gloves that improve your grip, good fitting clothing and pants with no cuffs. Do not wear jewelry or scarfs. Wear a "hard" hat whenever you are working in the forest under large trees. Long or continuous exposure to high noise levels, such as involved in the operation of a chain saw, may cause permanent hearing impairment or other possible effects. Hearing protection devices are available from your Homelite dealer, or can be ordered through him. When ordering, specify "Homelite Hearing Protectors #92810."



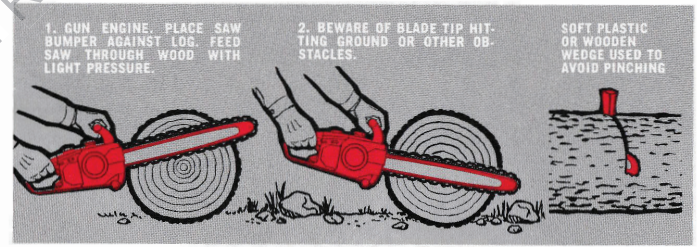
Saw may kick back in direction of arrow if chain becomes pinched in a closing cut; or hits an obstruction such as another branch or the end of a previous, uncompleted cut . . . To prevent accidents, stand with your weight evenly distributed on both feet. Hold saw firmly with both hands. The proper grip will protect you if saw kicks.

Stand on the uphill side when bucking logs which might roll. Play it safe — always stop engine before working on the saw or carrying it from tree to tree.

THE BASIC TECHNIQUES OF

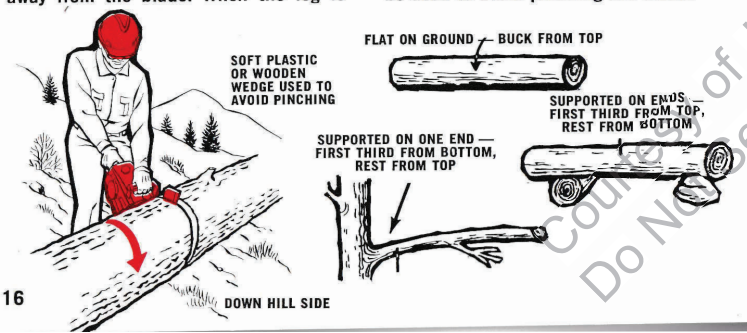
BUCKING AND LIMBING

For small work such as limbing, use any portion of the top or bottom of the bar that is convenient. For large cuts, use the saw bumper plate for leverage and pivot the saw as shown.



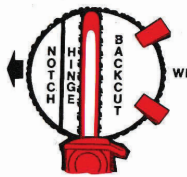
NOTE: When undercutting with top of bar as described below, the reaction is back toward the operator — maintain control with good balance and proper grip.

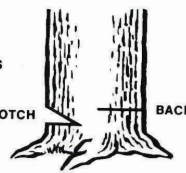
Any log supported along its entire length can be cut through from the top, but when a log or limb is supported on one end, cut ⅓ through from underneath, then finish from top so the log will fall away from the blade. When the log is supported on both ends and would close on the blade if bucked through from the top, cut ⅓ through from the top, then finish bucking from the bottom up. With large logs, soft bucking wedges should be used to avoid pinching the blade.

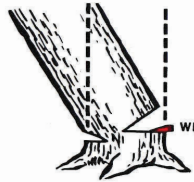


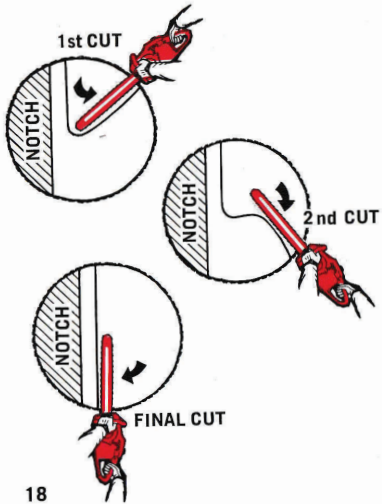
NOTCHING AND FELLING

When felling a tree, consider factors such as wind, the natural lean and balance of the tree, and whether the trunk is sound, hollow, or partially rotted. Watch for dead limbs overhead. Cut a notch ⅓ the diameter of the trunk and perpendicular to the line of fall as shown. Make the back cut





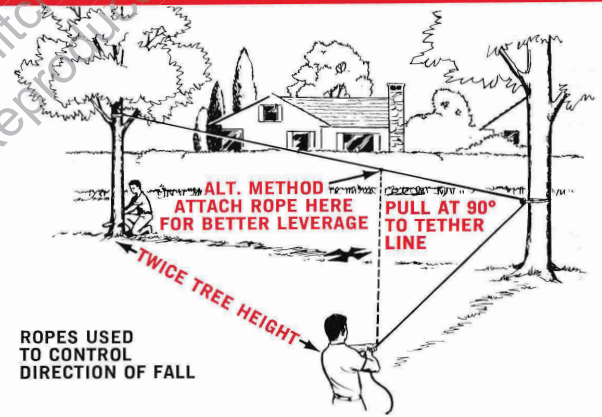




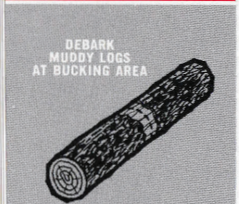
at least 2" higher than the notch and leave a hinge of uncut wood to guide the tree over. If there is any chance that the tree might not go over in the desired direction, or may rock back and bind the saw, stop cutting before the back cut is completed and use wooden or plastic wedges to open the cut and tilt the tree in the desired direction of fall. Never let a wedge contact the chain — kick-back will result. Large diameter trees should always be wedged over in this manner. Do not cut through the hinge. Large trees can be felled in a series of cuts with a short blade. As shown, the final cut must leave hinge wood parallel to the notch.

NOTE: DO NOT USE HARD METAL WEDGES WHEN CUTTING WITH A CHAIN SAW.

HELPING TREE TO FALL IN DIRECTION PLANNED



MAINTENANCE OF SAW AND ENGINE



FRICTION and abrasive DIRT in all forms — mud, dust, sawdust, steel filings in the guide bar groove — are the enemies of the moving parts of the saw. Here are some points of preventive maintenance:

1. To prevent quick-dulling of the chain and harmful abrasion, avoid cutting through muddy logs, and never let the chain hit the ground.

2. For smooth cutting and minimum friction, keep the chain clean, well oiled, properly tensioned on the bar, and correctly sharpened.

3. Wipe the entire unit down after using it, and clean the air filter.

MAINTENANCE OF HOMELITE® SAW CHAIN

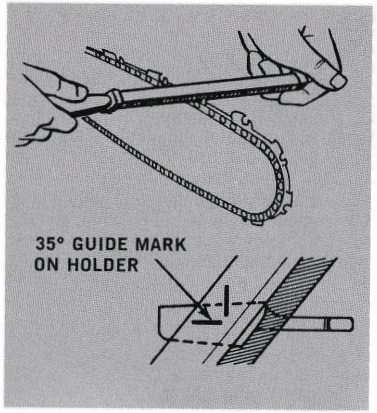
Your saw has a fast-cutting chain with a sprocket which matches it in pitch. When the chain is to be replaced, always install a new sprocket of matching pitch because a worn sprocket would be out-of-pitch and damage the new chain.

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.

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



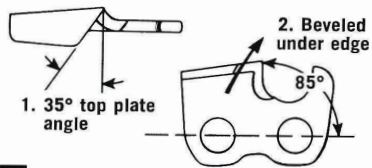
For new ⅜ pitch chain, a 7/32" diameter "fast-cut" round file and holder (#DA-92615) are required. When about half od the original tooth steel has been filed away, you should switch to 3/16" diameter file (92603) which you can use in the same holder. The reason for using a smaller size file on a "short-filed" tooth is the slight taper of the tooth's top plate which reduces the size of the tooth.

A chain filing vise holds the cutters rock-steady during filing: but you can do a satisfactory job "on the bar" If you tighten up the tension enough that the chain doesn't wobble, and do all of the filing at the mid-point of the bar. Wear gloves for protection. Be sure to file all cutters to the same length. If you replace damaged cutters, file them back to the same length as the rest of the cutters so that each cutter has the same chance to bite.

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.

NOW EXAMINE YOUR FILING JOB (see below).
HERE'S WHAT YOU SHOULD GET:



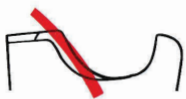
A sharp edge will not reflect light. Examine the edge to see if the dulled area has been removed.

REFILE ANY TEETH HAVING ONE OR MORE OF THESE FAULTS:

FORWARD HOOK

Chain will grab and jerk, producing rough cutting.

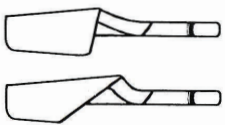
Caused by excessive downward filing pressure, or tip of file held too low on tooth.



BACK SLOPE

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

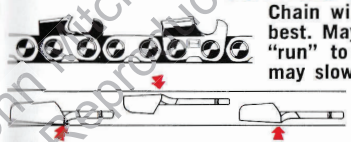
Caused by lowering handle end of file or holding file too high on the tooth.



IMPROPER TOP PLATE ANGLES

Blunt chain requires too much feed pressure. Too sharp an angle causes the chain to bind, produces a rough cut, robs power from the 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

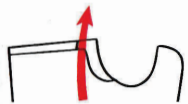
Chain will not cut at its best. May cut off line or "run" to one side, drag may slow down motor.

Caused by letting pressure and filing angle vary from tooth to tooth or one side filed with different angles 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 high, or pressing down too hard on file.



BLUNT CUTTING EDGES

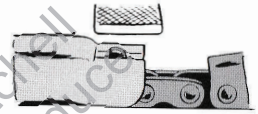
Although edge is durable it won't cut properly; scrapes wood, robs power and produces dust instead of chips.

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

CORRECTIVE FILING OF CUTTERS AND DRIVE TANG SHARPENING

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 bottom all the way around bar. (Every fourth or fifth tang resharpened will do the job as the chain wears).

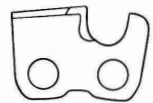
When teeth have hit hard objects such as stones, nails, etc., or cut dirt, sand etc., the damaged area must be filed away before the tooth will cut or have the proper set. NOTE: All cutters must be filed equally back to this point. This can be done by hand. It is less expensive and easier to have it 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.



DEPTH GAUGE CLEARANCE

Every third or fourth time the teeth are sharpened, the depth gauges should be filed to correct depth. Use a gauge jointer and a flat file, both of which are available from your dealer. After filing gauges to proper depth, round off the front third of all gauges uniformly to facilitate smooth entry of gauges into the cut.

Depth gauges control the size chips the teeth can cut. A tooth with a "high" gauge cannot bite, and a chain that cannot get a good bite requires too much feed pressure. On the other hand, setting gauges so low that the chain takes too large a bite causes it to grab and jerk during cutting. The depth at which you should keep the gauges depends upon the type of chain and the type of wood you cut. New chains have gauges set for a mixed hardwood-softwood diet. (Settings: $\frac{3}{8}$ pitch, .025"; .404 pitch, .030".)



SHAPES:

ORIGINAL AND CORRECT CONTOUR

WRONG: TOO BLUNT TO FEED SMOOTHLY

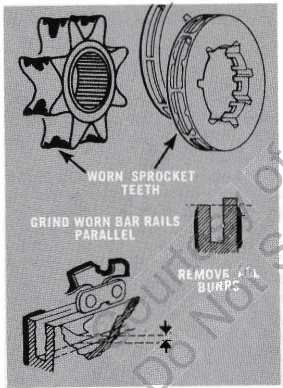
WRONG: NOT ENOUGH STRAIGHT SECTION LEFT TO ACT AS DEPTH GAUGE.

MAINTENANCE OF

SPROCKET AND GUIDE BAR

THE SPROCKET must always match the chain in pitch. Wear changes the pitch. Whether your saw has an open type (shown, right) or a rim type where the rims show wear, always either change the sprocket whenever you install a new chain, or be sure the old sprocket is still in "like new" condition.

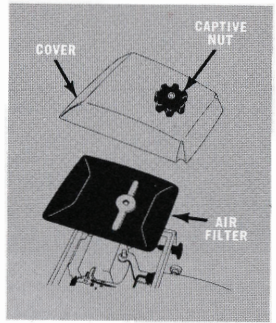
THE BAR should be kept clean. Examine it periodically. Remove any burrs that occur along the bar rails, because burrs interfere with cutting. Pinching in a cut, boring excessively with the nose, and running with the chain too "dry," too tight, or too loose all result in excessive bar wear and damage. Your HOMELITE Servicing Dealer can advise you whether a worn or damaged bar can be repaired—sometimes it is possible to straighten bent bars, close bar rails, regrind unevenly worn rails, and deepen the bar groove. When the rails have been worn or ground down, check for chain clearance in the bar groove: if the chain hits bottom anywhere, your dealer can grind the groove to provide clearance.



AIR FILTER MAINTENANCE

The air filter keeps dirt and sawdust out of the engine. The dustier conditions are, the sooner the filter will become clogged. But, because the effect of reduced air supply to the engine is not noticeable until the filter is almost completely clogged, the filter should be cleaned daily, or more frequently, for top performance. Never run the saw without the filter.

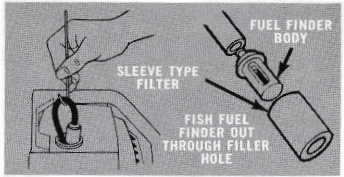
Turn the captive nut and lift the cover off the throttle handle assembly, as shown in the sketch. First remove all loose particles so they can't fall inside the saw, then remove the filter. The filter can be cleaned by tapping it against a flat surface, by blowing it with compressed air, or by **SLOSHING** it in clean solvent. If cleaned in solvent, dry filter before use.



NEVER USE SAW WITHOUT THE AIR FILTER.

FUEL TANK MAINTENANCE

The fuel tank is vented. Whenever the saw refuses to start, or starts and then loses power, see if loosening the cap temporarily improves performance. If it does, replace vented cap or valve in tank as necessary: if it does not, check for a clogged air or fuel filter, or for improper carburetor adjustment. The FELT FILTER on the end of the flexible fuel pick-up may be expected to last for many months without clogging. Under unusually dirty operating conditions, however, inspect the filter and change as necessary to preserve engine power. To remove the filter, remove the fuel cap and fish for



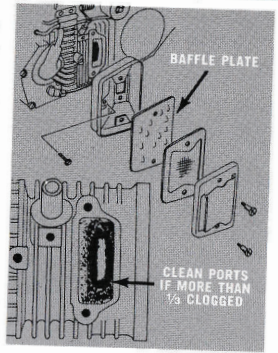
the flexible pick-up tube with a hook as shown in the sketch. Gently pull the fuel pick-up out through the filler hole. There are two types of filter construction. In the type illustrated the filter sleeve can be pulled off the bottom of the fuel pick-up body. In another type the fuel pick-up body and sleeve are first disassembled from the flexible fuel line and then the sleeve is pulled off the top end of the fuel pick-up body. Clean the filter pick-up body, then slide a clean filter sleeve onto the body. Assemble to fuel line and drop them into the tank.

MUFFLER & CYLINDER

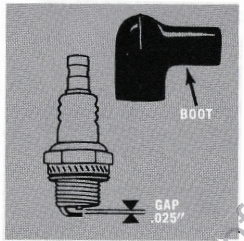
CYLINDER FINS and fan housing should be cleaned occasionally to prevent engine from running too hot.

MUFFLER should be kept clean and open, but saw should never be run without the muffler. If local regulations require use of spark arrestor screen, check condition periodically.

SCRAPING CARBON: While muffler is off, check condition of cylinder ports (and piston and rings through the ports.) If ports are more than 1/3 clogged, as shown in carbon scraping sketch, first put piston to top dead center, then remove carbon carefully with a wooden scraper. Do not scratch the piston or damage edges of the ports.



CHECK SPARK PLUG:



Failure of the engine to start may be due to a wet, fouled, or otherwise faulty spark plug, and the remedy is to clean the plug or install a new one. As explained below, conditions of the plug can tell you where to look for trouble.

Spark plugs are made in wide heat ranges to suit different engines. Your dealer can furnish the proper replacement spark plug for your saw. He stocks both regular and special tip spark plugs made by Champion.

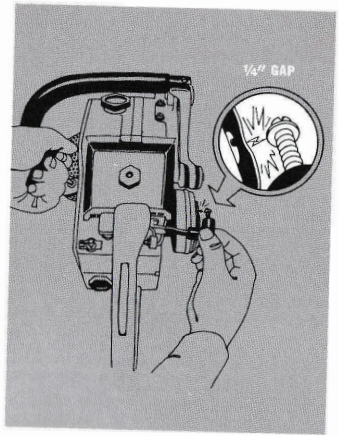
1. Pull the rubber boot off the spark plug and remove the spark plug.

2. A wet spark plug indicates a flooded engine, due either to faulty fuel supply, spark plug itself, or faulty ignition. An oily spark plug indicates too much oil in the fuel mix, or a rich mixture.

3. Spark plug should be wiped clean and dry and adjusted to .025" electrode gap. The test for spark (page 33) should be made while the spark plug is removed.

SPARK TEST

Make the test with the switch on and the spark plug removed from the cylinder. Push a long ¼ diameter bolt into the rubber boot on the high-tension lead to contact the spring connector. . . . Hold the boot — (KEEP FINGERS AWAY FROM THE BARE WIRE TO AVOID A SHOCK) — so head of the bolt is ¼" away from any metal part of the engine. Crank the engine rapidly and observe the spark:



BROAD, BLUE SPARK — Magneto is working properly. In bright sunlight, you may not be able to see the spark, but you should be able to hear its characteristic "snap".

WEAK SPARK, OR NO SPARK AT ALL — Have the faulty magneto checked by your HOMELITE Dealer.

CARBURETOR ADJUSTMENTS

IMPORTANT: Before adjusting carburetor, always check fuel tank (page 30) for proper venting, and clean the air filter.

PRELIMINARY SETTINGS: IDLE SPEED ADJUSTMENT SCREW

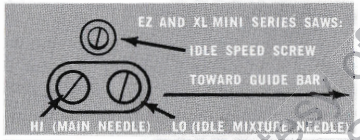
—Remove filter and cover so you can see the Throttle Shaft Stop Lever. Back the Idle Speed Screw out enough that you can turn it back in until it just touches the Throttle Shaft Stop Lever. Then, turn the screw in ¾ turn more. Put air filter and cover back on saw.

IDLE MIXTURE ADJUSTMENT NEEDLE

(MARKED "LO") G-E-N-T-L-Y turn the needle in until it bears against its seat, then back it out one to 1¼ turn.

MAIN MIXTURE ADJUSTMENT NEEDLE

(marked HI on throttle handle assembly) — G-E-N-T-L-Y turn the needle in until it bears against its seat, then back it out one to 1¼ turn.



MAKING FINAL CARBURETOR ADJUSTMENTS AT OPERATING TEMPERATURE

1. ADJUSTMENT FOR IDLING. The preliminary settings (previous page) should enable the saw to be started. First, run the engine until it is warm. Then turn the LO NEEDLE slightly to right or left to find the fastest idling speed without touching the idle speed screw setting. Next, use the IDLE SPEED SCREW to adjust the idle SPEED. Proper idle speed is slightly below that causing chain rotation (approximately 2,600 rpm). Turn screw out to reduce, or in to increase the speed. Any time the IDLE SPEED SCREW setting is changed, always readjust the LO NEEDLE, as above, for proper mixture.

2. ADJUSTMENT FOR ACCELERATION AND FULL POWER. IMPORTANT: CHANGES IN THESE ADJUSTMENTS MUST BE MADE WITH THE SAW RETURNED TO IDLE AND HAND OFF THE THROTTLE TRIGGER. Set the HI NEEDLE as follows so the engine carries a load; pull throttle trigger wide open. Start cut in a log and gradually apply enough pressure on handles to stall chain (slip clutch) momentarily. If engine falters, release throttle and open HI NEEDLE 1/4 turn counterclockwise or to where engine carries a full clutch-slipping load. If, when first check is made, engine does not falter but does carry the load, then HI NEEDLE should be turned clockwise to where the engine will falter. Then the HI NEEDLE should be reset as per above instructions. If the engine cannot accelerate smoothly, adjust as follows:

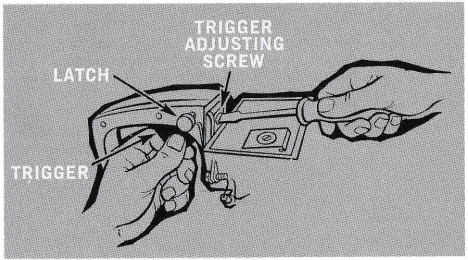
a) Super EZ and Mini, XL-925 and VI-955: Open the HI NEEDLE a bit at a time until the engine accelerates smoothly.

b) XL-12 and Super XL-AO:
The LO NEEDLE controls acceleration on these saws: Open the LO NEEDLE counterclockwise until saw accelerates smoothly. Then reset IDLE SPEED SCREW for proper idling speed as in paragraph 1 (above).

Simplex Starting System™

ADJUSTMENT FOR SERIES EZ AND MINI ONLY

(See page 38 for XL-925 — VI-955 Series adjustment)



IF SAW CANNOT BE STARTED OR IF CHAIN ROTATES RAPIDLY WITH TRIGGER LATCHED, FOLLOW THESE INSTRUCTIONS TO ADJUST THE STARTING SPEED.

NOTE:
Other methods of adjusting may result in a false setting.

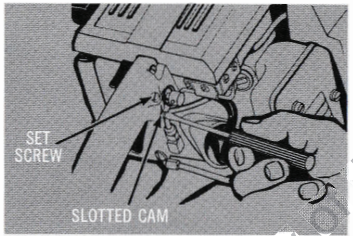
1. Remove the guide bar and chain. Remove the air filter cover and the air filter.
2. Open (turn in clockwise direction) the trigger adjusting screw ⅛ turn.
3. With the trigger latched, follow starting instructions.

4. Run the engine at half throttle (not at high speed) for 30 to 50 seconds to warm it up.
5. Release the trigger, then latch it while the engine is running. If the engine quits, restart it. Then with trigger latched and engine running;
   a) Gently hold trigger down and slowly back out (counterclockwise) the trigger adjusting screw until the engine falters.
   b) Turn the screw back in (clockwise) 1/16 turn. Squeeze and release trigger, idle engine and then shut it off with the stop switch. Turn the switch back on.
   c) Try to start the engine. If the engine is hard to start, repeat step 5b to open the screw another 1/16 turn (clockwise). If this is still not enough for consistent starting, go 1/16 turn more.
6. When starting speed is adjusted satisfactorily, shut off the engine. Install air filter and cover and the guide bar and chain. Tension chain properly. Then latch trigger, start engine and observe the chain; if the chain does not turn, or turns slowly, the trigger is adjusted properly. If the chain turns rapidly the trigger setting may be a bit too high; remove the chain and repeat adjustment step 5.

NOTE: If the starting speed cannot be adjusted satisfactorily by the above method, make sure the carburetor is correctly adjusted. After this, if the correct speed and consistent starts cannot be obtained, have saw checked by your nearest HOMELITE® factory branch office or local dealer.

ADJUSTMENT FOR XL 925 — VI 955 MODEL SERIES ONLY

1. Shut off the engine. With the saw on the ground, loosen the set screw on the throttle handle.
2. Latch the trigger in starting position, then turn the slotted cam left or right and observe the movement of the trigger. Turn the cam to move the trigger up into the throttle handle as far as it will go. (This is the fastest setting obtainable—turning the cam now, in either direction, will lower the starting speed.)
3. Make sure the chain is clear of obstructions. Start the engine and don't touch the trigger (keep the trigger latched).
4. Rotate the cam to set the desired starting speed or until the chain quits turning.
5. Shut off engine as soon as starting speed adjustment is completed. Tighten the set screw.



NOTE: Except during starting, or when adjusting the starting speed, do not let the engine run with the throttle latched.

FAN HOUSING ASSEMBLY

CAUTION: Should the fan housing need to be removed for any reason, be sure to RESEAT THE FAN HOUSING flush against the engine during reassembly as follows: FIRST, position housing on engine. NEXT, pull the starter handle out, THEN let the starter rewind until the FAN HOUSING CLICKS INTO PERFECT all-the-way-around register against the engine. The fastening screws can now be tightened without cracking the fan housing or breaking the pawls.

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HOMELITE TEXTRON

Homelite Division of Textron Inc.