Maintenance and Safety Manual

Saw Chain, Guide Bar, and Drive Sprocket

Read and follow all Chainsaw Safety Warnings and Important Safety Information.

This Maintenance & Safety Manual supercedes and replaces all previous Oregon® Maintenance & Safety Manuals

Chainsaw Safety

IMPORTANT SAFETY MESSAGE

SAFETY SYMBOL: ⚠

This safety symbol is used to highlight safety messages. When you see this symbol, read and follow the safety message to avoid severe personal injury.

⚠WARNING

⚠ There is a risk of serious injury to the saw operator or bystanders.

All cutting chain can kick back, which can lead to dangerous loss of control of the chainsaw and result in serious injury to the saw operator or bystanders. Follow all instructions in your chainsaw operator's manual and in this booklet for safe use and proper maintenance of your saw's cutting chain, guide bar, and sprocket. Get information from your local chainsaw dealer as well if you are unsure about the use or maintenance of your saw and its cutting attachments.

GUARD AGAINST CHAINSAW KICKBACK

⚠ Know your personal level of chainsaw experience.
⚠ Know your cutting chain.

If you do not have experience and specialized training for dealing with chainsaw kickback, then Oregon® urges you to use only low-kickback saw chains which have this blue label.

ATTENTION: READ THIS

⚠WARNING This saw chain is low kickback chain. It met the kickback performance requirements of ANSI B175.1 when tested on a representative sample of chainsaws. Its safety features significantly reduce the hazard of kickback while maintaining high cutting performance.

ALL CUTTING CHAINS CAN KICK BACK, which may result in severe personal injury to the saw operator or bystanders. Operate your saw safely. Read all warnings in your chainsaw operator's manual.

Saw chains marked with a yellow label, such as the one below, are not low-kickback and are intended for use only by professional chainsaw operators.

ATTENTION: READ THIS

⚠WARNING The chain in this box may be capable of kickback that could result in serious injury to the saw operator or bystanders. Do not use this chain unless you have experience and specialized training for dealing with kickback. Saw chain with reduced kickback potential is available.

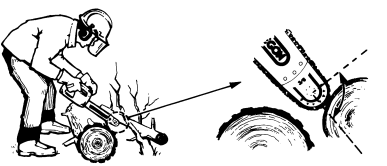
Chainsaw Safety

WHAT IS KICKBACK?

Kickback is the violent backward and/or upward motion of the chainsaw guide bar occurring when the chain near the nose or tip of the guide bar contacts any object, such as another log or branch, or when the wood closes in and pinches the saw chain in the cut.

⚠ BE AWARE OF KICKBACK

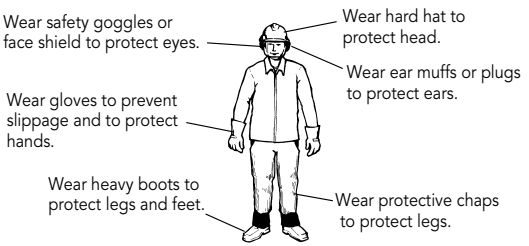
1. Be alert at all times to guard against a possible kickback reaction. Always be aware of the position of your bar's nose.



POTENTIAL KICKBACK SITUATION

2. Different models of cutting chain are available for most cutting tasks. Use the chain suitable for your type of cutting, with the lowest kickback potential.
3. Narrow-nose bars, such as Oregon® Double Guard® bars, are recommended for maximum kickback safety.

WEAR PROPER CLOTHING AND PROTECTIVE EQUIPMENT

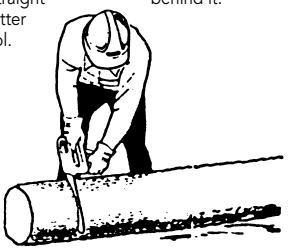


NOTE Dress properly – do not wear clothing that is too tight or too loose.

Chainsaw Safety, (Continued)

⚠ Make proper work practices a habit

- Δ Use only a right-handed grip to hold your saw (right hand on the trigger, left hand on the front handle).
- Δ Keep your left arm straight for better control.
- Δ Hold saw firmly with both hands. Keep thumb firmly locked under front handle.
- Δ Stand to the side of the chainsaw, never behind it.



- Δ Run engine at full throttle.
- Δ Use low-kickback saw chain and a reduced-kickback guide bar.
- Δ Keep the chainsaw, cutting chain, guide bar, and sprocket properly maintained.
- Δ Stand with feet well braced and your body balanced.
- Δ Cut only wood with your chainsaw. Do not cut any other material.

⚠ Caution

- Δ Keep yourself clear of the work. Before cutting:
  - Calculate how the object being cut will fall.
  - Determine if the saw may be pinched during the cut.
  - Calculate whether the saw may be thrown unexpectedly by the movement of the cut material.
  - Position yourself to avoid injury.
- Δ Never cut above shoulder level.
- Δ Never cut while in a tree, or while on a ladder.
- Δ Keep others away from the cutting area. Do not allow others to hold wood during cutting.

FOR ADDITIONAL COPIES OF THIS MANUAL

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P.O. Box 22127
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http://www.oregonchain.com

Introduction/Contents

Your chainsaw is only as good as your chain, guide bar, and sprocket. They function as a team while cutting wood and must be maintained as a team.

A properly maintained chain, bar, and sprocket will provide excellent cutting performance. An improperly maintained chain will cause damage to the bar and sprocket, will cut poorly, and will create potential safety hazards.

This manual addresses the maintenance of only Oregon® manufactured chains, bars, and sprockets. For information on maintenance and operation of your saw, refer to your saw's operator's manual or contact your local chainsaw dealer.

THE FOUR OREGON® END-USE SYMBOLS

Each of these four symbols represents a generalized category of chain saw use. Oregon® chains are listed in this manual under one or more of these symbols, generally indicating the type of use for which the product is intended.

PROFESSIONAL CHAINSAW USE

- Big-timber loggers
- Pulpwood loggers
- Forest firefighters

COMMERCIAL CHAINSAW USE

- Arborists • Orchardists
- Utility and construction workers
- Tree Surgeons
- Farmers • Commercial thinners
- Commercial firewood cutters
- Landscapers

CONSUMER CHAINSAW USE

- Homeowners
- Occasional firewood cutters
- Campers
- Hunters

MECHANICAL HARVESTER USE

- For use on mechanical timber-harvesting and processing equipment.

  Do not use harvester attachments on hand-held saws.

NOTE Harvester chains are listed in this manual for reference. For more information on other harvester products, see the Oregon® Harvester Application Guide or the Oregon® Harvester Handbook.

THE FIVE OREGON® SYMBOLS FOR PERIODIC MAINTENANCE

To keep your cutting system of chain, bar, and sprocket working at peak efficiency - and to minimize wear - there are a number of things every user should do periodically. There are specific maintenance tasks that should be performed and there are more general "common-sense" things to do, some of which need to occur with greater frequency, some with lesser frequency. And there are some things you should never do.

To help you know what to do and how often, Oregon® uses five symbols that tell the frequency at which each of the different activities should occur. Here are the five symbols, what they mean, and an example of a task or activity that corresponds to each.

EXAMPLES OF SYMBOL USE

Symbol	Its Meaning	Example task or activity
▲	Before each use	Be sure your saw's oil reservoir is filled with clean bar-and-chain oil.
■	Often (hourly, or at each refueling)	Check your chain's tension and adjust it if necessary.
●	Daily	Check you drive sprocket for wear and replace it if necessary.
◆	Weekly (periodically)	Check your bar's rails to be sure they are square and free from excessive wear, repair or replace if needed.
⊘	Never	Never allow your chain to contact dirt or rocks during operation.

These five symbols appear throughout this manual, and on other Oregon® product packaging. Oregon® urges you to become familiar with these symbols, and to perform the tasks they refer to, so that you can enjoy maximum performance and maximum life from your Oregon® chain, bar, and sprocket.

Saw Chain

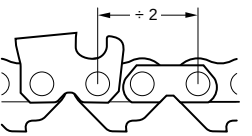
OREGON® CHAIN TERMS

CHAIN PITCH

Chain pitch is the distance between any three consecutive rivets, divided by two.

Oregon® chain pitches are:

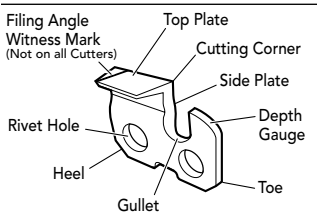
1/4," .325," 3/8," .404," and 3/4."



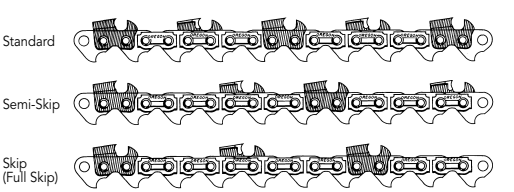
CHAIN GAUGE

Chain gauge is the drive link's thickness where it fits into the guide-bar groove. The industry standard for gauges is: .043," .050," .058" and .063." Oregon® chain gauges of .063," .080" and .122" are used for Harvester applications.

THE PARTS OF A CUTTER



CHAIN CUTTER-SEQUENCE TERMS

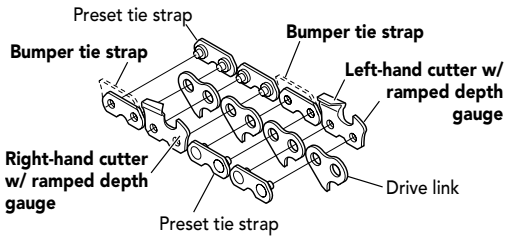


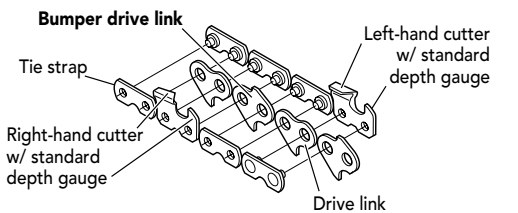
CONTINUED...

OREGON® CHAIN TERMS (CONTINUED)

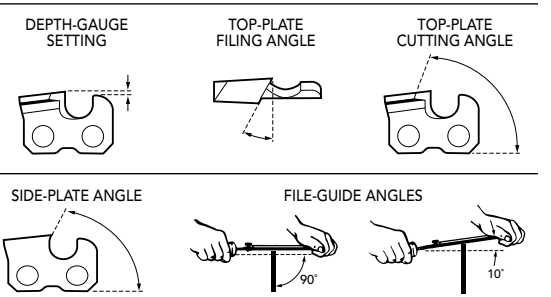
THE PARTS OF A SAW CHAIN

NOTE Parts below named in **Bold Face** indicate kickback-reducing links and features: bumper tie straps, bumper drive links, and ramped depth gauges.





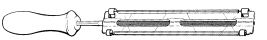
CUTTER MAINTENANCE TERMS



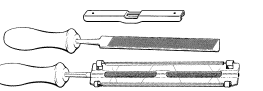
OREGON® CHAIN-MAINTENANCE TOOLS

FILING TOOLS

① ASSEMBLED FILE GUIDE
*Asst'd. P/N's



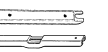
② SHARPENING KITS
*Asst'd. P/N's



③ ROUND FILE
*Asst'd. P/N's

④ FLAT FILE
P/N 12211

⑤ DEPTH-GAUGE TOOLS
*Asst'd. P/N's



⑥ BAR-MOUNT FILING GUIDE
P/N 23736A

⑦ FILE HANDLE
P/N 30870B (100 CT.)

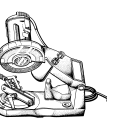
*See pages 31 through 58 for part numbers, file sizes, and other help selecting the right tools for your Oregon® chain.

GRINDERS

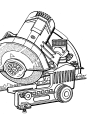
① SURE SHARP® 12-VOLT GRINDER
P/N 28588

② BENCH-MODEL CHAIN GRINDER
P/N 511A

③ MINI GRINDER
P/N 108181



④ BAR-MOUNTED CHAIN GRINDER
P/N 109178 (12 V)
P/N 109176 (115 V)



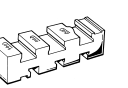
⑤ GRINDING WHEELS
*Asst'd. P/N's

CHAIN-REPAIR TOOLS

① CHAIN BREAKER
P/N 24548A

② RIVET SPINNER
P/N 24549-s (SAE)
P/N 24549-si (Metric)

③ CHAIN BREAKER ANVIL
P/N 11939



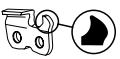
CHAIN IDENTIFICATION

OREGON® CHAIN PART NUMBER	FILING SPEC'S	OREGON® CHAIN TYPE	CHAIN GAUGE	CUTTER TYPE		CUTTER SEQUENCE	KICKBACK-REDUCING FEATURES (IF ANY)*
				END VIEW	SIDE VIEW		
1/4" – PITCH CHAIN							
25AP	PAGE 31	MICRO CHISEL®	.050"	MICRO CHISEL®		STANDARD	
.325" – PITCH CHAIN							
20BP 21BP 22BP	PAGE 32	MICRO CHISEL®	.050" .058" .063"	MICRO CHISEL®		STANDARD	
20LP, M20LP 21LP, M21LP 22LP, M22LP	PAGE 33	SUPER 20	.050" .058" .063"	CHISEL		STANDARD	
33LG 34LG 35LG	PAGE 34	SUPER GUARD®	.050" .058" .063"	CHISEL		STANDARD	
33SL 34SL 35SL	PAGE 35	PRO GUARD™	.050" .058" .063"			STANDARD	
95VP	PAGE 36	MICRO LITE™	.050"	MICRO CHISEL®		STANDARD	
95R	PAGE 37	RIPPING CHAIN	.050"	MICRO CHISEL®		STANDARD	
3/8" – PITCH CHAIN (CONTINUED ON NEXT PAGE)							
72CJ, CJX, CK, CKX, CL, CLX 75CJ, CJX, CK, CKX, CL, CLX	PAGE 44	SUPER GUARD® SQUARE GROUND	.050" .063"	CHISEL		(CJ, CJX) SKIP (CK, CKX) SEMI-SKIP (CL, CLX) STANDARD	
72AP, DP 73DP 75DP	PAGE 39	S-70	.050" .058" .063"	SEMI CHISEL		(AP) SKIP (DP) ST'D.	

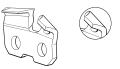
***KICKBACK REDUCING FEATURES**

① BUMPER DRIVE LINK 

② BUMPER TIE STRAP 

③ RAMPED DEPTH GAUGE 

④ LOW-PROFILE RAMPED DEPTH GAUGE 

⑤ WIDE-TRACK RAMPED DEPTH GAUGE 

⑥ HIGH TOP-PLATE TAIL LOCATION 

CHAIN IDENTIFICATION (CONTINUED)

OREGON® CHAIN PART NUMBER	FILING SPEC'S	OREGON® CHAIN TYPE	CHAIN GAUGE	CUTTER TYPE		CUTTER SEQUENCE	KICKBACK-REDUCING FEATURES (IF ANY)
				END VIEW	SIDE VIEW		
3/8" – PITCH CHAIN (CONTINUED)							
72DG,DJ 73DG 75DG	PAGE 40	SPEED GUARD™	.050" .058" .063"	SEMI-CHISEL		(DG) ST'D. (DJ) SKIP	
72JG,LG 73JG,LG 75JG,LG	PAGE 41	SUPER GUARD®	.050" .058" .063"	CHISEL		(JG) SKIP (LG) ST'D.	
72JP,LP,M72LP 73JP,LP,M73LP 75LP,M75LP	PAGE 42	SUPER 70	.050" .058" .063"	CHISEL		(JP) SKIP (LP) ST'D.	
72RD 73RD 75RD	PAGE 45	RIPPING CHAIN	.050" .058" .063"	SEMI-CHISEL		STANDARD	
72SG 73SG 75SG	PAGE 43	XTRA GUARD®	.050" .058" .063"	SEMI-CHISEL		STANDARD	
72V 73V 75V	PAGE 38	VAN-GUARD	.050" .058" .063"	CHISEL		STANDARD	
90SG	PAGE 46	MICRO-LITE™	.043"	CHAMFER CHISEL		(SG) ST'D.	
91VS	PAGE 47	LOW VIBRATION LOW PROFILE	.050"	CHAMFER CHISEL		STANDARD	
91VG	PAGE 48	LOW VIBRATION XTRA GUARD®	.050"	CHAMFER CHISEL		STANDARD	
91LX	**	POWER SHARP®	.050"	SPECIALIZED		STANDARD	

**Use 91LX ONLY on saws with automatic chain-sharpening systems. No hand maintenance required.

CHAIN IDENTIFICATION (CONTINUED)

OREGON® CHAIN PART NUMBER	FILING SPEC'S	OREGON® CHAIN TYPE	CHAIN GAUGE	CUTTER TYPE		CUTTER SEQUENCE	KICKBACK-REDUCING FEATURES (IF ANY)
				END VIEW	SIDE VIEW		
.404" – PITCH CHAIN							
16H 18H	PAGE 56	HAR-VESTER	.063" .080"	MICRO CHISEL®		STANDARD	
26, 26P 27, 27A 27P	PAGE 49	MICRO CHISEL®	.058" .063"	MICRO CHISEL®		STANDARD (A) SKIP	26P, 27P  26, 27, 27A 
27R 27RA	PAGE 50	RIPPING CHAIN	.063"	MICRO CHISEL®		(R) ST'D. (RA) SKIP	
50AJ,AL 51AJ,AL 52AJ, AK,AL	PAGE 54	SUPER CHISEL™ SQUARE GROUND	.050" .058" .063"	CHISEL		(AJ) SKIP (AK) SEMI (AL) ST'D.	
50L 51L 52L	PAGE 51	SUPER CHISEL™	.050" .058" .063"	CHISEL		STANDARD	
58CJ, CL 59CJ, CK, CL	PAGE 54	SUPER GUARD® SQUARE GROUND	.058" .063"	CHISEL		(JG) SKIP (LG) ST'D.	
58CP 59CP	PAGE 52	MICRO BIT®	.058" .063"	CHIPPER		STANDARD	
58J, 58L 58LG 59J, 59L 59JG, LG	PAGE 53	SUPER GUARD®	.058" .063"	CHISEL		(JG) SKIP (LG) ST'D.	
59AA	PAGE 55	CHIPPER CUTTER	.063"	CHIPPER		SKIP	
3/4" – PITCH CHAINS							
11BC	PAGE 57	CHIPPER	.122"	CHIPPER		STANDARD	
11H	PAGE 58	SEMI CHISEL	.122"	SEMI-CHISEL		STANDARD	

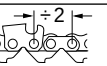
CHAIN DRIVE-LINK NUMBER IDENTIFICATION

Nearly all Oregon® chains are named by a part number made up of a number (see below), and letters (see pages 11 and 12).

Oregon® Part-number Examples: 27A, 72LP, 91VG, M72LP

First, note the numbers: 27A, 72LP, 91VG, M72LP

These numbers are stamped on the chain's drive links and indicate the physical size of the chain (pitch and gauge).



CHAIN NUMBER	PITCH	GAUGE
11	3/4"	.122"
16	.404"	.063"
18	.404"	.080"
20	.325"	.050"
21	.325"	.058"
22	.325"	.063"
25	1/4"	.050"
27	.404"	.063"
33	.325"	.050"
34	.325"	.058"
35	.325"	.063"
50	.404"	.050"
51	.404"	.058"
52	.404"	.063"
58	.404"	.058"
59	.404"	.063"
72	3/8"	.050"
73	3/8"	.058"
75	3/8"	.063"
90	3/8"	.043"
91	3/8"	.050"
95	.325"	.050"

CHAIN LETTER IDENTIFICATION

The Letters: 27 A, 72 LP, 91 VG, M 72 LP

The letters represent cutter type and sequence, kickback-reducing features, or other physical traits of the chain.

- A — Micro Chisel® cutters with skip sequence (27A only)
- AA — Chipper cutters with skip sequence (59AA only)
- AJ — Square-ground chisel cutters with skip sequence
- AK — Square-ground chisel cutters with semi-skip sequence
- AL — Square-ground chisel cutters with standard sequence
- AP — 25AP: Micro Chisel® cutters with bumper drive links and standard sequence. 72AP: Semi-chisel cutters with skip sequence
- BC — Chipper cutters with standard sequence (11BC only)
- BP — Low-vibration Micro Chisel® cutters with bumper drive links and standard sequence
- CJ — Square-ground chisel cutters with ramped depth gauges and skip sequence
- CJX — Square-ground DuraPro™ chisel cutters with ramped depth gauges and skip sequence
- CK — Square-ground chisel cutters with ramped depth gauges and semi-skip
- CKX — Square-ground DuraPro™ chisel cutters with ramped depth gauges and semi-skip sequence
- CL — Square-ground chisel cutters with ramped depth gauges and standard sequence
- CLX — Square-ground DuraPro™ chisel cutters with ramped depth gauges and standard sequence
- CP — Chipper cutters with bumper drive links and standard sequence
- DG — Semi-chisel cutters with ramped depth gauges and standard sequence
- DJ — Semi-chisel cutters with ramped depth gauges and skip sequence (72DJ only)
- DP — Semi-chisel cutters with bumper drive links and standard sequence
- H — Modified for harvester applications, Micro Chisel® cutters with standard sequence

CONTINUED...

CHAIN LETTER IDENTIFICATION (CONTINUED)

- JG — Round-ground chisel cutters with ramped depth gauges, bumper tie straps and skip sequence
- JP — Round-ground chisel cutters with bumper drive links and skip sequence
- L — Chisel cutters with standard sequence
- LG — Round-ground chisel cutters with ramped depth gauges and standard sequence (33LG is a low vibration chain)
- LP — Low-vibration, round-ground chisel cutters with bumper drive links and standard sequence
- LX — Power Sharp® chain with ramped depth gauges, bumper drive links and standard sequence (no hand maintenance required)
- M — Specially built chain with round-ground chisel cutters and bumper drive links for effective cutting in extremely dirty or abrasive conditions
- P — Micro Chisel® cutters with bumper links and standard sequence
- R — Ripping chain with Micro Chisel® cutters and standard sequence
- RA — Ripping chain with Micro Chisel® cutters and skip sequence (27RA only)
- RD — Ripping chain with semi-chisel cutters and standard sequence (3/8"-pitch only)
- SG — Ramped depth gauges, bumper tie straps and standard sequence (72, 73, 75SG have semi-chisel cutters. 90SG has low-vibration chamfer-chisel cutters)
- SL — Round-ground chisel cutters with ramped depth gauges, bumper tie straps and standard sequence (33SL is a low vibration chain)
- V — Low-vibration, round-ground Vanguard chisel cutters with standard sequence and wide-track depth gauges
- VG — Low-vibration semi-chisel cutters with ramped depth gauges, bumper tie straps and standard sequence
- VP — Low-vibration Micro Chisel® cutters with ramped depth gauges, bumper drive links and narrow-kerf design (95VP only)
- VS — Low-vibration semi-chisel cutters with ramped depth gauges and standard sequence (91VS only)

THE FOUR BASIC SAW-CHAIN RULES

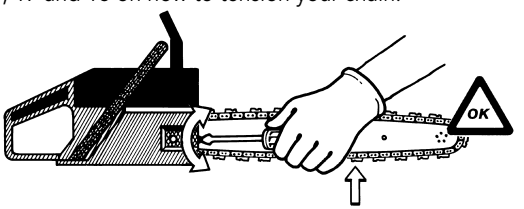
ATTENTION CHAINSAW USERS:

Oregon® urges you to become familiar with the four basic saw-chain rules. Users who know and follow these rules can count on superior performance from their chain, bar, and sprocket – and – reduce safety hazards at the same time.

RULE NUMBER 1

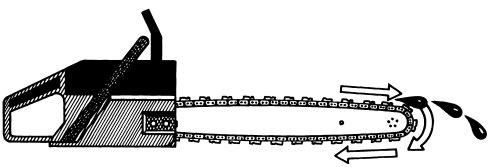
YOUR CHAIN MUST BE CORRECTLY TENSIONED

More chain and bar problems are caused by incorrect chain tension than by any other single factor. See pages 16, 17 and 18 on how to tension your chain.



RULE NUMBER 2

YOUR CHAIN MUST BE WELL LUBRICATED

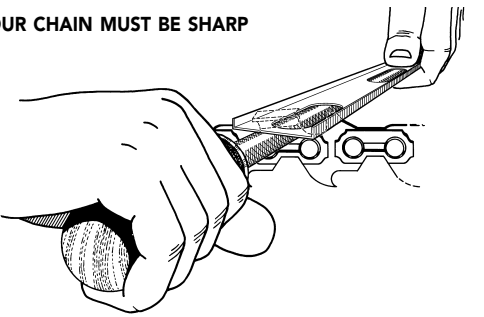


A constant supply of oil to your saw's bar, chain, and sprocket is vital. Without it, excessive friction, wear, and damage will occur. See page 19 for instructions on how to lubricate your chain.

CONTINUED...

RULE NUMBER 3

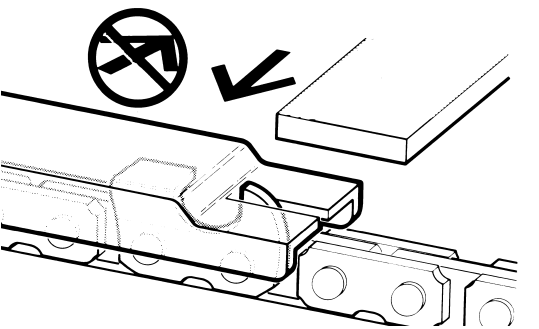
YOUR CHAIN MUST BE SHARP



When your chain is sharp, it does the work. When it's not, you do the work – and your cutting attachments will wear more rapidly. See pages 20 and 21 for instructions on how to sharpen your chain. See pages 31 through 58 to find maintenance specifications for each Oregon® chain type.

RULE NUMBER 4

YOUR CHAIN'S DEPTH GAUGES MUST BE SET CORRECTLY



Depth-gauge setting and depth-gauge shape are critical to performance and safety. See pages 22-25 for instructions on how to set your chain's depth gauges.

NOTE See specific depth gauge maintenance for 72V on page 25..

HOW TO MAINTAIN CHAIN

ATTENTION: Oregon® urges dealers, chainsaw users, and anyone who services saw chain to become familiar with proper chain-maintenance techniques and the possible dangers which can result if chain is not properly maintained.

⚠WARNING

Failure to follow the instructions below can result in severe injury to the saw operator, bystanders, or the person performing maintenance.

△ Always turn off your saw's engine before handling the chain, guide bar or sprocket.

△ Any one of the following conditions can increase a chain's potential kickback energy, increase the risk of a chain throwing itself off the bar, increase the chance of a chain breaking, or increase the risk of other hazards associated with chainsaw use.

- △ Loose chain tension
- △ Incorrect sharpening of chain angles
- △ Dull chain
- △ Alteration of kickback-reducing chain features
- △ Excessive chain depth-gauge settings
- △ Incorrect chain depth-gauge shapes
- △ Incorrectly installed chain parts
- △ Loose rivets, or cracks or breaks in any chain component

△ When performing maintenance on saw chain, follow **all** instructions on the page pertaining to your chain. Doing so can minimize the risk of injury.

HOW TO TENSION YOUR CHAIN

Basic Chain-Tensioning Tasks				
▲ Before use	■ Often	● Daily	◆ Weekly	⃠ Never

▲ Tension chain before each use

■ Tension chain often, or at each refueling

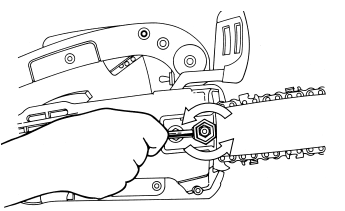
⃠ Never tension your chain right after cutting. Chain tensioned while hot can cool and shrink, causing tension to be too tight. Let chain cool first.

⚠ **READ THE WARNINGS ON PAGE 15.**

NOTE Always wear protective gloves.

1. Turn the engine off.

2. Loosen bar-mounting nuts on the side of your saw.

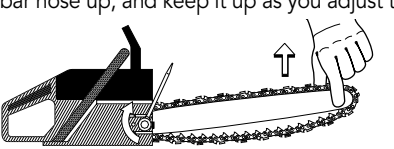


3. Adjust tension as follows:

If you have a ***solid-nose bar***, follow 3a (below).
If you have a ***sprocket-nose bar***, follow 3b (on next page). If you have an **Intenz™ bar** with the internal tensioning feature, follow 3c (page 18).

3a. IF YOU HAVE A SOLID-NOSE BAR

Pull the bar nose up, and keep it up as you adjust tension.

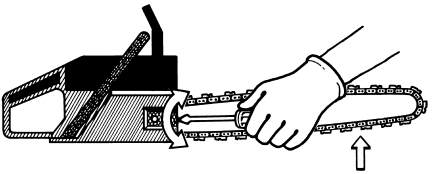


CONTINUED

HOW TO TENSION YOUR CHAIN

(3a CONTINUED)

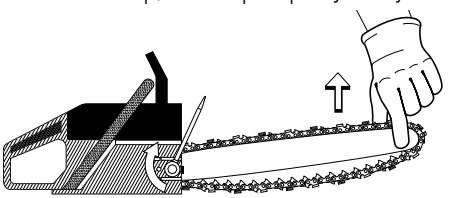
Turn your saw's tension-adjustment screw until the bottoms of the lowest tie straps and cutters come up and ***just*** touch the bottom of the bar rail.



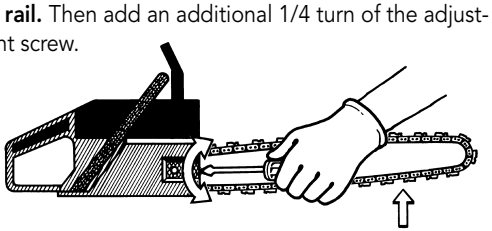
While still holding the nose up, tighten your saw's rear bar-mounting nut first, then tighten the front mounting nut.

3b. If you have a standard sprocket-nose bar

Pull the bar nose up, and keep it up as you adjust tension.



Tension must be tighter on a sprocket-nose bar than on a solid-nose bar. Turn your saw's tension-adjustment screw until the bottoms of the lowest tie straps and cutters come up and ***solidly*** **contact the bottom of the bar rail.** Then add an additional 1/4 turn of the adjustment screw.



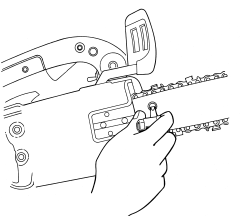
While still holding the nose up, tighten your saw's rear bar-mounting nut first, then tighten the front mounting nut.

CONTINUED

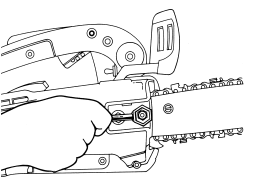
HOW TO TENSION YOUR CHAIN (CONTINUED)

3c. If you have an Intenz™ sprocket-nose bar

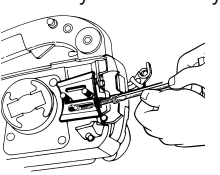
Turn the tension-adjust slot until the bottoms of the lowest cutters and tie straps come up and ***solidly*** contact the bottom of the bar rail.

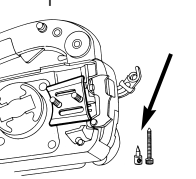


Tighten your saw's rear bar-mounting nut first, then tighten the front mounting nut. **It is not necessary to hold the nose up when adjusting tension on Intenz™ bars.**



NOTE When replacing a standard bar with an Intenz™ bar, the saw's adjustment pin must be removed. Contact your dealer if you need help.





4. 

Pull the chain by hand along the top of the bar several times, from the engine to the bar's tip. Chain should feel snug but still pull freely.

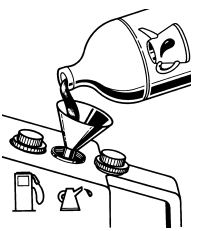
NOTE If you have a sprocket-nose bar you should now perform the snap test. Grasp the chain along the bottom of the bar, pull down, and let go. Chain should snap back to its original position, solidly contacting the bottom of the bar.

5. Check tension often during operation, especially during the first half-hour. If chain loosens: stop, let chain cool, and readjust tension.

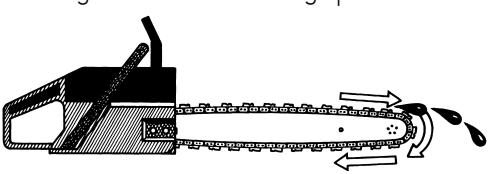
HOW TO LUBRICATE YOUR CHAIN

Basic Lubrication Tasks				
▲ Before use	■ Often	● Daily	◆ Weekly	⃠ Never

▲ Each time you fill your gas tank, fill your oil reservoir with clean bar-and-chain oil.

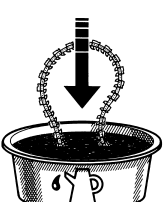


■ Be sure your chain, bar, and sprocket are always receiving oil from the saw during operation.



⃠ Never put used oil, or old motor oil, in your saw or on your chain.

▲ Before the first use, soak the chain overnight to allow oil to penetrate all chain components.



HOW TO SHARPEN CUTTERS

Basic Sharpening Tasks				
▲ Before use	■ Often	● Daily	◆ Weekly	⃠ Never

▲ Sharpen chain before each use.

■ Sharpen chain often, or as needed.

⚠ READ THE WARNINGS ON PAGE 15.

NOTES

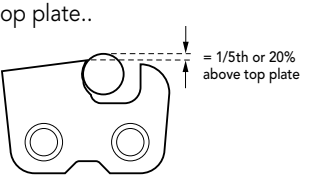
- Sharpening your chain while it is on the saw requires proper chain tension, as shown on pages 16, 17 and 18 prior to filing.

- Pages 31 through 58 show the correct maintenance specifications and the correct maintenance-tool part numbers for each of the Oregon® chain types. Find the page which gives the correct filing specifications for your Oregon® chain. To do so, use the Chain Identification chart on pages 7, 8 and 9.

- If unsure of your Oregon® chain's type, or part number, ask your Oregon® saw chain dealer, or call the Oregon® technical services department between the hours of 7:30 am and 4:00 pm, Pacific time, Monday through Friday.

SHARPENING WITH A ROUND FILE

1. Be sure 1/5th, or 20%, of the file's diameter is always held above the cutter's top plate. The best way to do this is with an Oregon® File Guide. The file guide automatically keeps 20% of the file's diameter above the cutter's top plate..



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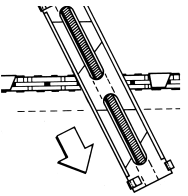
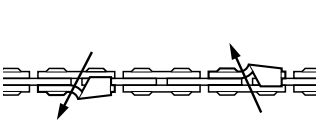
HOW TO SHARPEN CUTTERS (CONTINUED)

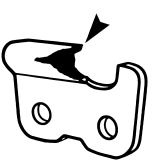
2. Keep the correct Top-plate Filing Angle line on your file guide parallel with your chain.



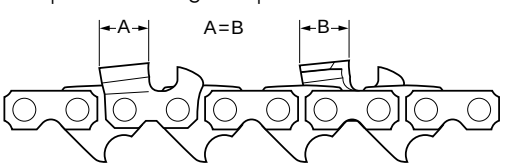
3. Sharpen cutters on one side of the chain first. File from the inside of each cutter to the outside. Then turn your saw around and repeat the process for cutters on the other side of the chain.



4. If damage is present on the chrome surface of top plates or side plates, file back until such damage is removed.



5. Keep all cutter lengths equal.



HOW TO SET DEPTH GAUGES

Basic Depth-Gauge Tasks				
▲ Before use	■ Often	● Daily	◆ Weekly	⃠ Never

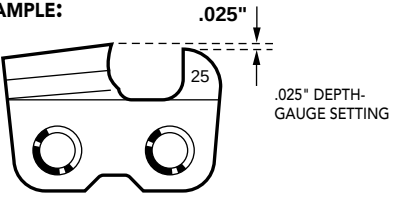
■ Set depth gauges often, every 3 or 4 sharpenings, or more often if needed.

⚠ READ THE WARNINGS ON PAGE 15.

NOTES

- Setting your depth gauges while the chain is on the saw requires proper chain tension, as shown on pages 16, 17 and 18, prior to filing.
- Pages 31 through 58 show the correct depth-gauge setting and the part number of the correct depth-gauge tool for each of the different Oregon® chain types. Find the page which gives the correct filing specifications for your Oregon® chain. To do so, use the Chain Identification chart on pages 7, 8 and 9.
- If unsure of your Oregon® chain's type, or part number, ask your Oregon® saw chain dealer, or call the Oregon® technical services department between the hours of 7:30 am and 4:00 pm, Pacific time, Monday through Friday.
- Most Oregon® chains have a number stamped on each depth gauge indicating the correct depth-gauge setting.

EXAMPLE:



■1. Use a depth-gauge tool with the correct built-in setting for your chain and check your depth gauges every 3 or 4 sharpenings or more often if needed.

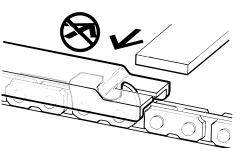
CONTINUED...

HOW TO SET DEPTH GAUGES (CONTINUED)

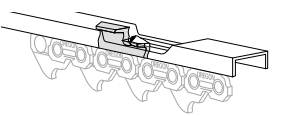
2. Be sure the heel and toe of the cutter are both down, resting on the bar rail, before any filing is done. This is especially important on low-vibration chains, which have a "clipped heel" that rides above the rail slightly when the chain is properly tensioned.
3. Place the tool on top of your chain so one depth gauge protrudes through the slot in the tool.

NOTE Be aware that "standard" depth gauges and "wide-track Vanguard" depth gauges are set differently. See page 25 for additional information on Vanguard depth gauges.

Standard depth gauge with drop-end gaugit tool.
(Always file from the inside out.)

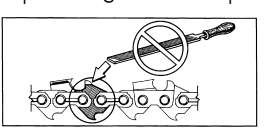


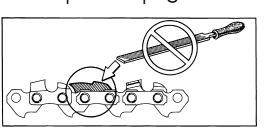
Vanguard wide-track-depth gauge with drop-center depth gauge tool.



4. If the depth gauge extends above the slot, file the depth gauge down level with the top of the tool using a flat file. *Never file the depth gauge down so far that you exceed the depth-gauge setting specified in this manual for your Oregon® chain.*

⃠ Do not file or alter the tops of kickback-reducing bumper tie straps or bumper drive links, except on 33SL, 34SL, and 35SL chains. Only 33SL, 34SL, and 35SL require filing of the bumper tie straps. See page 35.





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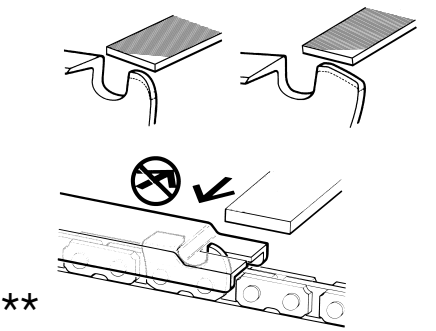
HOW TO SET DEPTH GAUGES (CONTINUED)

5. Rounding off depth gauges after lowering:

- The depth gauges on all non- Vanguard chains should be rounded off after they are filed down.
- Do not round off the depth gagues on Vanguard chain. See the next page for more details on setting Vanguard chain depth gauges.

After filing the depth gauge down, round off its leading edge and return the depth gauge to its original rounded or ramped shape**. On chains with bumper links, it may be necessary to move the cutter to the bar's tip, or remove the chain from the bar, in order to re-shape the depth gauge.



**

**Do not round off the depth gauges on Vanguard chain after filing them down.

NOTE On many chains, it may be helpful to tip the depth-gauge tool on end and place it in front of the cutting corner in order to protect the cutting surfaces when rounding off depth gauges.

TOOLS FOR FILING

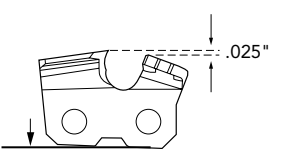
Part No.	Description
12211	Depth-gauge File (flat)

SETTING THE WIDE-TRACK DEPTH GAUGES ON VANGUARD CHAIN

Most experienced timber cutters know that if their newly-sharpened chain fails to cut, then the next step is to check and probably lower the depth gauges. With other Oregon® chains, there is normally sufficient margin for error that a chain with depth gauges set slightly too low will still cut well. However, with Vanguard chain, cutting performance does not improve with depth-gauge settings greater than .025". If your Vanguard depth gauges are set too low, the cutter top plates must be filed back to regain the .025" setting in order to obtain optimum cutting performance. Here are some additional points to remember when setting Vanguard depth gauges:

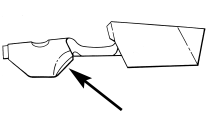
1. Use a .025" drop-center depth-gauge tool and follow instructions number 1 through 4 on pages 22 and 23.

2. Vanguard is a low-vibration chain. Be sure the cutter's clipped heel is down, resting on the bar rail, before doing any filing.



HEEL DOWN

3. The area where depth-gauge filing occurs on Vanguard chain is identified by a witness mark. Do not file outside the witness mark and do not round off Vanguard depth gauges after lowering them.



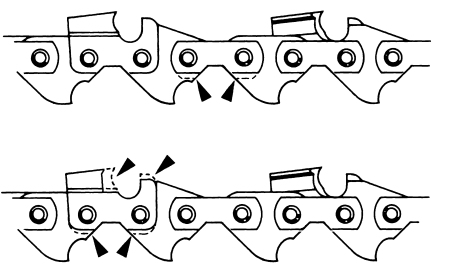
HOW TO INSTALL NEW CHAIN PARTS

⚠ **READ THE WARNINGS ON PAGE 15.**

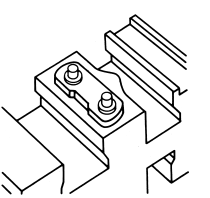
NOTE Use only Oregon® parts to repair Oregon® chain. And only use parts which are the correct size and type for your chain.

1. Remove rivets, and parts to be replaced, as shown under "How to Break Out Rivets," page 28. Never reassemble a chain with old preset tie straps – *always use new preset tie straps.*

2. If needed, file off the bottom of new parts to match existing worn parts. File new cutters back to match worn cutters. Do not file the tops of kickback-reducing bumper tie straps or bumper drive links (except on 33-34-35SL chains, see page 35).



3. Place the preset tie strap on a flat outer surface of a chain-breaker anvil. Be sure the rivets are pointing up.



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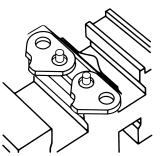
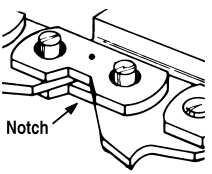
HOW TO INSTALL NEW CHAIN PARTS (CONTINUED)

4. Assemble chain to the preset tie strap.

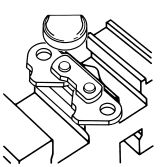


5. Assemble tie strap with dot, or Lubrilink™ contour face up, and the notch toward the drive-link tangs. Assemble bumper tie strap in the correct direction, with the notch toward the drive-link tangs.



6. Be sure parts are assembled in the correct location, sequence and direction. Check the illustrations on pages 4 and 5. If unsure, ask your Oregon® dealer.

7. To form rivet heads, we recommend use of the Oregon® Rivet Spinner, part number 24549A, available from your chainsaw dealer. Follow the instructions packaged with the rivet spinner. If you must use a hammer, strike the rivet head repeatedly with the hammer's flat end at varying angles around the head – carefully forming it as shown. Be certain to strike only the rivet head.



⚠ CAUTION

Δ Rivet heads must be snug and secure while still allowing all joined parts to move freely. Rapid wear leading to possible chain breakage and personal injury can be caused by rivet heads that are either too tight, or too loose.

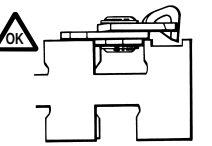
NOTE New rivet heads may be smaller and shaped differently than factory-spun heads.

HOW TO BREAK OUT RIVETS

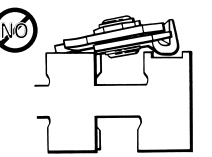
⚠ CAUTION

△ Always wear approved safety accessories for hands and face when breaking out rivets.

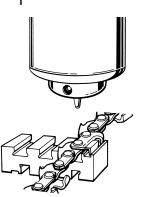
1. Place the chain segment you wish to break in the correct slot of the anvil, according to pitch.

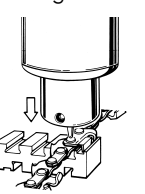


NOTE For Vanguard chain cutters with wide-track depth gauges, be sure that the depth gauge curls downward, into the recessed area of the anvil.



2. Position rivet head directly under the punch. Pull the handle down just far enough to push out the rivet, or hammer out the rivet if you're using a hand-held punch. Do not use excessive force. To avoid tight joints, replace worn or broken punches periodically and be sure the punch is centered when driving out rivets.





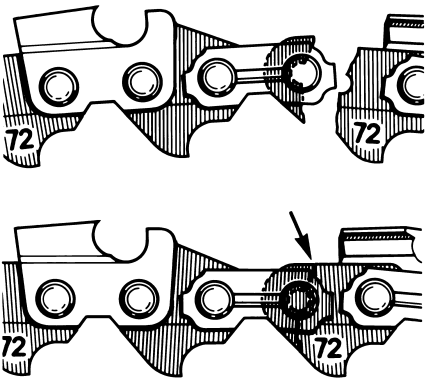
NOTE When breaking chain at a cutter, make sure the chain is positioned so that the drive links are between the anvil and the cutter.

CONTINUED...

HOW TO BREAK OUT RIVETS (CONTINUED)

REMOVING RIVETS FROM BROKEN DRIVE LINKS

1. When removing rivets from broken drive links, hold the two broken segments together in their original (unbroken) positions as you place the chain link in the anvil.



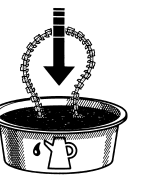
2. Perform steps 1 and 2 from "How to Break Out Rivets." on the previous page.

HOW TO BREAK IN A NEW CHAIN

Basic Break-In Tasks				
▲ Before use	■ Often	● Daily	◆ Weekly	⃠ Never

The life of your new chain can be extended by taking these few simple steps before using it.

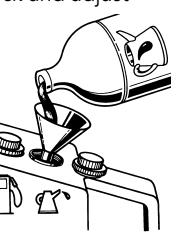
▲1. Before the first use, soak the chain overnight to allow oil to penetrate all chain components.



▲ 2. Run new chain at half throttle for several minutes before doing any cutting in order to allow oil to reach all parts of the bar and chain. Let sprocket, bar, and chain warm up fully.

■ 3. Stop, let the chain cool, then check and adjust

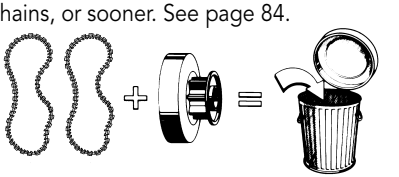
▲ tension often (especially during the first half-hour of use) as shown on pages 16, 17 and 18. Keep the first several cuts light. Keep extra oil on the bar and chain during these first cuts, and do not apply heavy pressure.



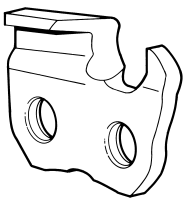
NOTES

⃠ Never run any chain on an overworn drive sprocket, especially a new chain.

◆ Replace drive sprocket systems after every two chains, or sooner. See page 84.



MICRO CHISEL®



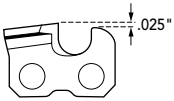
Kickback Reducing Features	End View	Use
		

Not a Low-kickback Chain

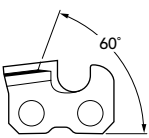
Chain Type	Gauge
25AP	.050"

FILING

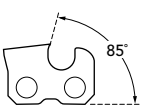
① DEPTH-GAUGE SETTING



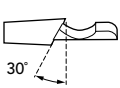
② TOP-PLATE CUTTING ANGLE



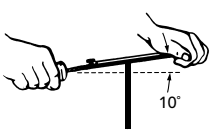
③ SIDE-PLATE ANGLE



④ TOP-PLATE FILING ANGLE



⑤ FILE-GUIDE ANGLE

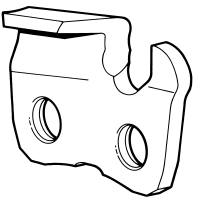


TOOLS FOR FILING

Part No.	Description
70504	5/32" Round File (12-Pack)
37534	5/32" Assembled File Guide
22290	.025" Depth-gauge Tool
OR534-18	1/8" Grinding Wheel, 5-3/4" Dia.
OR4125-18	1/8" Grinding Wheel, 4-1/8" Dia.

Chains on this page are intended for use with saws up to 2.3 cu. in. displacement (38 cc), and bars up to 16 in. length (41 cm).

MICRO CHISEL®



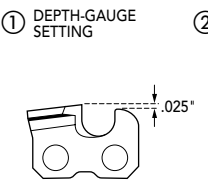
Kickback Reducing Features	End View	Use
		

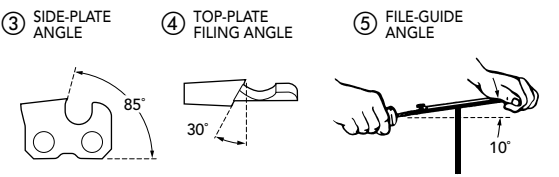
Not a Low-kickback Chain

Low-vibration Chain

Chain Type	Gauge
20BP	.050"
21BP	.058"
22BP	.063"

FILING



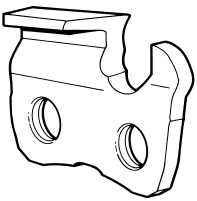


TOOLS FOR FILING

Part No.	Description
70503	3/16" Round File (12-Pack)
31690	3/16" Assembled File Guide
31941	.025" Drop-Center Depth-gauge Tool
OR534-316	3/16" Grinding Wheel, 5-3/4" Dia.
OR4125-316	3/16" Grinding Wheel, 4-1/8" Dia.

Chains on this page are intended for use with saws up to 3.5 cu. in. displacement (58 cc), and bars up to 20 in. length (50 cm).

CHISEL



Kickback Reducing Features	End View	Use
	7	

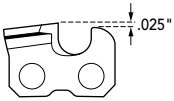
Not a Low-kickback Chain

Low-vibration Chain

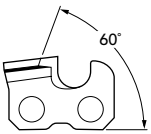
Chain Type	Gauge
20LP, M20LP	.050"
21LP, M21LP	.058"
22LP, M22LP	.063"

FILING

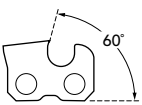
① DEPTH-GAUGE SETTING



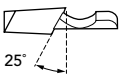
② TOP-PLATE CUTTING ANGLE



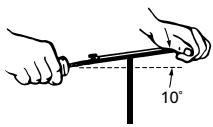
③ SIDE-PLATE ANGLE



④ TOP-PLATE FILING ANGLE



⑤ FILE-GUIDE ANGLE



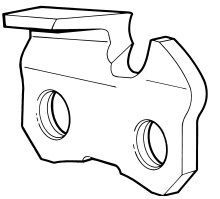
TOOLS FOR FILING

Part No.	Description
70503	3/16" Round File (12-Pack)
31690	3/16" Assembled File Guide
31941	.025" Drop-Center Depth-gauge Tool
OR534-316	3/16" Grinding Wheel, 5-3/4" Dia.
OR4125-316	3/16" Grinding Wheel, 4-1/8" Dia.

Chains on this page are intended for use with saws up to 3.5 cu. in. displacement (58 cc), and bars up to 20 in. length (50 cm).

Super Guard® .325"

CHISEL



Kickback Reducing Features	End View	Use
		

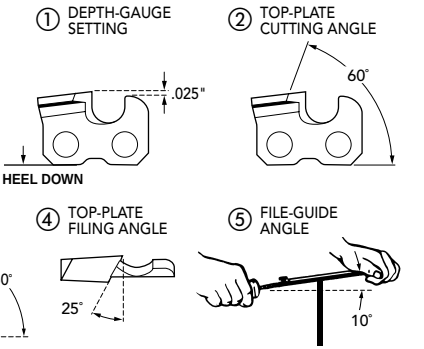
Not a Low-kickback Chain

No Bumper Tie Straps

Low-vibration Chain

Chain Type	Gauge
33LG	.050"
34LG	.058"
35LG	.063"

FILING

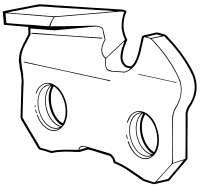


TOOLS FOR FILING

Part No.	Description
70511	4.5 mm Round File (12-Pack)
31692	4.5 mm Assembled File Guide
31941	.025" Drop-Center Depth-gauge Tool
OR534-18	1/8" Grinding Wheel, 5-3/4" Dia.
OR4125-18	1/8" Grinding Wheel, 4-1/8" Dia.

Chains on this page are intended for use with saws up to 3.8 cu. in. displacement (62 cc), and bars up to 20 in. length (50 cm).

CHISEL



Kickback Reducing Features	End View	Use
		

A Low-kickback Chain

With Bumper Tie Straps

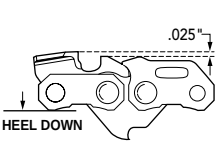
Low-vibration Chain

Chain Type	Gauge
33SL	.050"
34SL	.058"
35SL	.063"

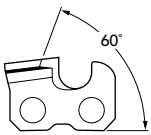
FILING

Depth gauge setting includes cutter depth gauge and bumper tie strap.

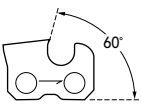
① DEPTH-GAUGE/BUMPER TIE STRAP SETTING



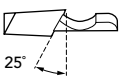
② TOP-PLATE CUTTING ANGLE



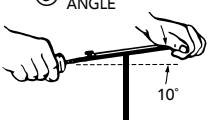
③ SIDE-PLATE ANGLE



④ TOP-PLATE FILING ANGLE



⑤ FILE-GUIDE ANGLE



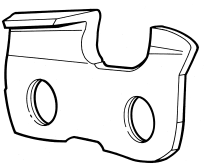
TOOLS FOR FILING

Part No.	Description
70511	4.5 mm Round File (12-Pack)
31692	4.5 mm Assembled File Guide
31941	.025" Drop-Center Depth-gauge Tool
OR534-18	1/8" Grinding Wheel, 5-3/4" Dia.
OR4125-18	1/8" Grinding Wheel, 4-1/8" Dia.

Chains on this page are intended for use with saws up to 3.5 cu. in. displacement (58 cc), and bars up to 20 in. length (50 cm).

Micro-Lite™ .325"

MICRO CHISEL®

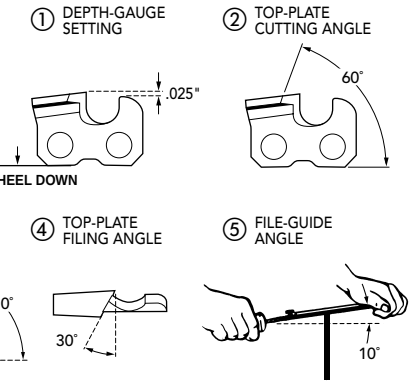


Kickback Reducing Features	End View	Use
		

A Low-kickback Chain
Low-vibration Chain
Narrow-kerf Chain

Chain Type	Gauge
95VP	.050"

FILING

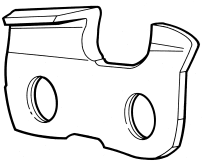


TOOLS FOR FILING

Part No.	Description
70503	3/16" Round File (12-Pack)
31690	3/16" Assembled File Guide
31941	.025" Drop-Center Depth-gauge Tool
OR534-316	3/16" Grinding Wheel, 5-3/4" Dia.
OR4125-316	3/16" Grinding Wheel, 4-1/8" Dia.

Chains on this page are intended for use with saws up to 2.8 cu. in. displacement (45 cc), and bars up to 18 in. length (45 cm).

MICRO CHISEL®



End View	Use
7	

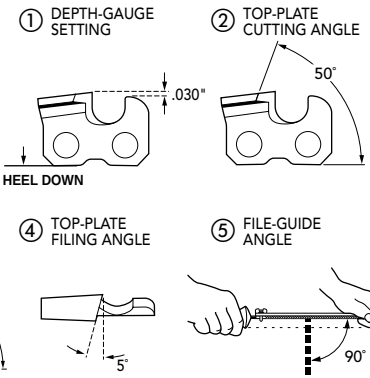
Not a Low-kickback Chain

Narrow-kerf Chain

Low-vibration Chain

Chain Type	Gauge
95R (Micro-Lite™)	.050"

FILING

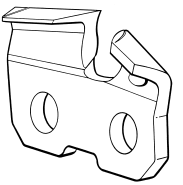


TOOLS FOR FILING

Part No.	Description
70503	3/16" Round File (12-Pack)
22291	.030" Depth-gauge Tool
OR534-316	3/16" Grinding Wheel, 5-3/4" Dia.
OR4125-316	3/16" Grinding Wheel, 4-1/8" Dia.

Ripping chains feature a special grind for use in ripping cuts only. Do not use these chains for any type of cutting other than ripping.

OREGON® VANGUARD



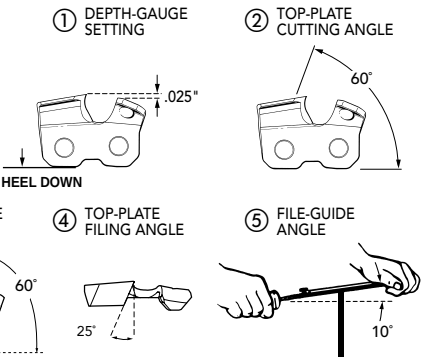
Kickback Reducing Features	End View	Use
	7	

Chain Type	Gauge
72V	.050"
73V	.058"
75V	.063"

Low-kickback Performance

Low-vibration Chain

FILING

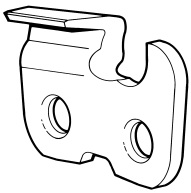


TOOLS FOR FILING

Part No.	Description
70502	7/32" Round File (12-Pack)
31686	7/32" Assembled File Guide
31941	.025" Drop-Center Depth-gauge Tool
OR534-316	3/16" Grinding Wheel, 5-3/4" Dia.
OR4125-316	3/16" Grinding Wheel, 4-1/8" Dia.

Chains on this page are intended for use with saws up to 3.0 to 6.0 cu. in. (50 cc - 100 cc) displacement and bars 12 in. to 32 in. (30 -81 cm) in length.

SEMI CHISEL

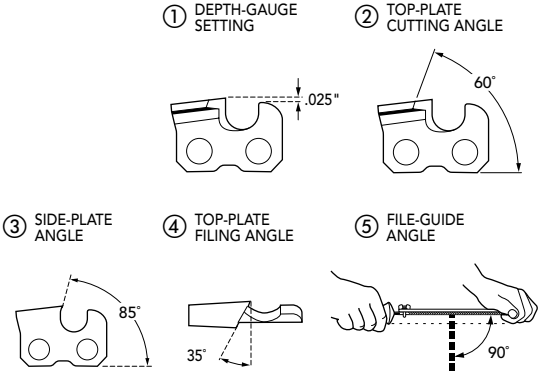


Kickback Reducing Features	End View	Use
		

Not a Low-kickback Chain

Chain Type	Gauge
72AP, DP	.050"
73DP	.058"
75DP	.063"

FILING

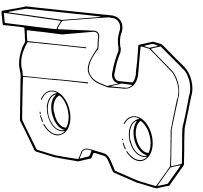


TOOLS FOR FILING

Part No.	Description
70502	7/32" Round File (12-Pack)
31686	7/32" Assembled File Guide
22290	.025" Depth-gauge Tool
OR534-316	3/16" Grinding Wheel, 5-3/4" Dia.
OR4125-316	3/16" Grinding Wheel, 4-1/8" Dia.

Chains on this page are intended for use with saws up to 6.0 cu. in. displacement (100 cc), and bars up to 36 in. length (91 cm).

SEMI CHISEL



Kickback Reducing Features	End View	Use
		

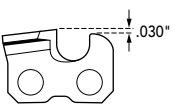
Not a Low-kickback Chain

Chain Type	Gauge
72DG*, 72DJ*	.050"
73DG*	.058"
75DG*	.063"

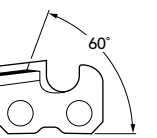
*Recently obsoleted Oregon® chain part numbers

FILING

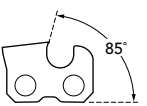
① DEPTH-GAUGE SETTING



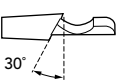
② TOP-PLATE CUTTING ANGLE



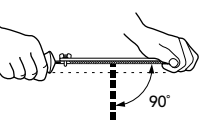
③ SIDE-PLATE ANGLE



④ TOP-PLATE FILING ANGLE



⑤ FILE-GUIDE ANGLE

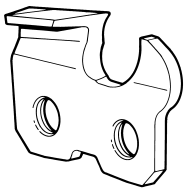


TOOLS FOR FILING

Part No.	Description
70503	3/16" Round File (12-Pack)
31690	3/16" Assembled File Guide
22291	.030" Depth-gauge Tool
OR534-316	3/16" Grinding Wheel, 5-3/4" Dia.
OR4125-316	3/16" Grinding Wheel, 4-1/8" Dia.

Chains on this page are intended for use with saws up to 6.0 cu. in. displacement (100 cc), and bars up to 30 in. length (76 cm).

CHISEL



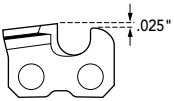
Kickback Reducing Features	End View	Use
		

Not a Low-kickback Chain

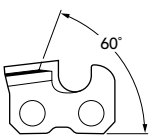
Chain Type	Gauge
72JG, LG	.050"
73JG, LG	.058"
75JG, LG	.063"

FILING

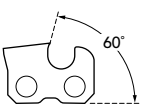
① DEPTH-GAUGE SETTING



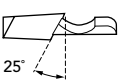
② TOP-PLATE CUTTING ANGLE



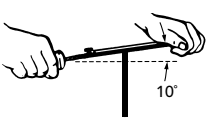
③ SIDE-PLATE ANGLE



④ TOP-PLATE FILING ANGLE



⑤ FILE-GUIDE ANGLE

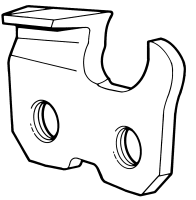


TOOLS FOR FILING

Part No.	Description
70502	7/32" Round File (12-Pack)
31686	7/32" Assembled File Guide
22290	.025" Depth-gauge Tool
OR534-316	3/16" Grinding Wheel, 5-3/4" Dia.
OR4125-316	3/16" Grinding Wheel, 4-1/8" Dia.

Chains on this page are intended for use with saws up to 6.0 cu. in. displacement (100 cc), and bars up to 36 in. length (91 cm).

CHISEL



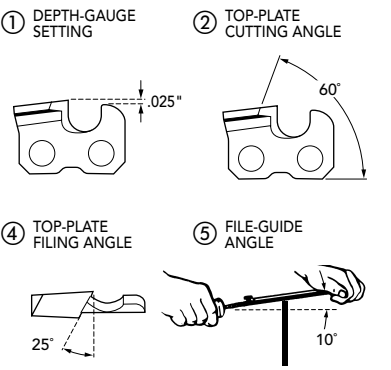
Kickback Reducing Features	End View	Use
	7	

Not a Low-kickback Chain

Low-vibration Chain

Chain Type	Gauge
72JP, LP, M72LP	.050"
73JP, LP, M73LP	.058"
75LP, M75LP	.063"

FILING

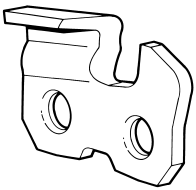


TOOLS FOR FILING

Part No.	Description
70502	7/32" Round File (12-Pack)
31686	7/32" Assembled File Guide
31941	.025" Drop-Center Depth-gauge Tool
OR534-316	3/16" Grinding Wheel, 5-3/4" Dia.
OR4125-316	3/16" Grinding Wheel, 4-1/8" Dia.

Chains on this page are intended for use with saws up to 6.0 cu. in. displacement (100 cc), and bars up to 36 in. length (91 cm).

SEMI CHISEL



Kickback Reducing Features	End View	Use
		

A Low-kickback Chain

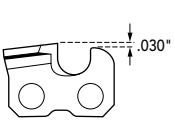
With Bumper Tie Straps

Chain Type	Gauge
72SG*	.050"
73SG*	.058"
75SG*	.063"

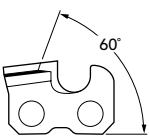
*Recently obsoleted Oregon® chain part numbers

FILING

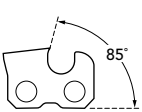
① DEPTH-GAUGE SETTING



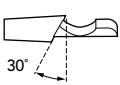
② TOP-PLATE CUTTING ANGLE



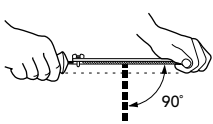
③ SIDE-PLATE ANGLE



④ TOP-PLATE FILING ANGLE



⑤ FILE-GUIDE ANGLE



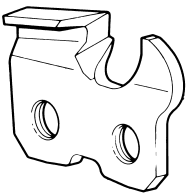
TOOLS FOR FILING

Part No.	Description
70503	3/16" Round File (12-Pack)
31690	3/16" Assembled File Guide
22291	.030" Depth-gauge Tool
OR534-316	3/16" Grinding Wheel, 5-3/4" Dia.
OR4125-316	3/16" Grinding Wheel, 4-1/8" Dia.

Chains on this page are intended for use with saws up to 4.3 cu. in. displacement (70 cc), and bars up to 24 in. length (61 cm).

Square-Ground Chain 3/8"

CHISEL



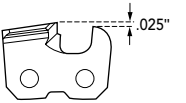
Kickback Reducing Features	End View	Use
	7	

Chain Type	Gauge
72CJ, CJX, CK, CKX, CL,CLX	.050"
75CJ, CJX, CK, CKX, CL, CLX	.063"

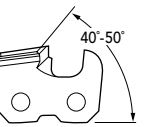
Not a Low-kickback Chain

FILING

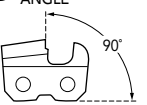
① DEPTH-GAUGE SETTING



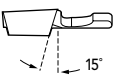
② TOP-PLATE CUTTING ANGLE



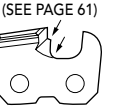
③ SIDE-PLATE ANGLE



④ TOP-PLATE FILING ANGLE



⑤ GULLET FILING (SEE PAGE 61)

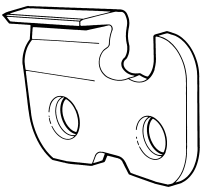


TOOLS FOR FILING

Part No.	Description
22290	.025" Depth-gauge Tool
12211	Depth-gauge File (flat)

Chains on this page are intended for use with saws up to 6.0 cu. in. displacement (98 cc), and bars up to 36 in. length (91 cm).

SEMI CHISEL



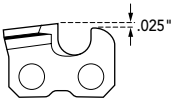
End View	Use
7	

Not a Low-kickback Chain

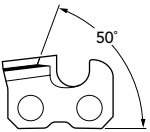
Chain Type	Gauge
72RD	.050"
73RD	.058"
75RD	.063"

FILING

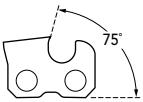
① DEPTH-GAUGE SETTING



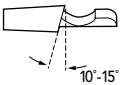
② TOP-PLATE CUTTING ANGLE



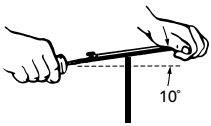
③ SIDE-PLATE ANGLE



④ TOP-PLATE FILING ANGLE



⑤ FILE-GUIDE ANGLE

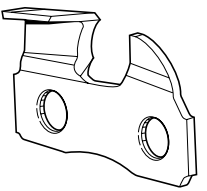


TOOLS FOR FILING

Part No.	Description
70502	7/32" Round File (12-Pack)
22290	.025" Depth-gauge Tool
OR534-316	3/16" Grinding Wheel, 5-3/4" Dia.
OR4125-316	3/16" Grinding Wheel, 4-1/8" Dia.

Ripping chains feature a special grind for use in ripping cuts only. Do not use these chains for any type of cutting other than ripping.

CHAMFER CHISEL



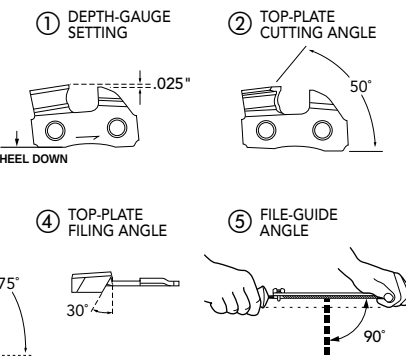
Kickback Reducing Features	End View	Use
		

A Low-kickback Chain

Chain Type	Gauge
90SG	.043"

With Bumper Tie Straps
Low-vibration Chain
Narrow-kerf Chain

FILING

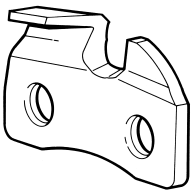


TOOLS FOR FILING

Part No.	Description
70511	4.5mm Round File (12-Pack)
31692	4.5mm Assembled File Guide
31941	.025" Drop-Center Depth-gauge Tool
OR534-18	1/8" Grinding Wheel, 5-3/4" Dia.
OR4125-18	1/8" Grinding Wheel, 4-1/8" Dia.

Chains on this page are intended for use with saws up to 2.4 cu. in. displacement (40 cc), bars for electric saws up to 16 in. (41 cm) and gasoline saws up to 14 in. (35 cm).

CHAMFER CHISEL



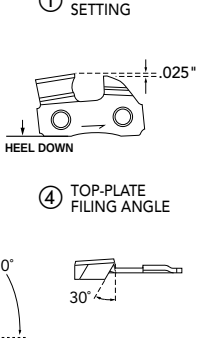
Kickback Reducing Features	End View	Use
		

Not a Low-kickback Chain

No Bumper
Tie Straps
Low-vibration Chain

Chain Type	Gauge
91VS	.050"

FILING

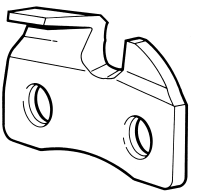


TOOLS FOR FILING

Part No.	Description
70504	5/32" Round File (12-Pack)
37534	5/32" Assembled File Guide
31941	.025" Drop-Center Depth-gauge Tool
OR534-18	1/8" Grinding Wheel, 5-3/4" Dia.
OR4125-18	1/8" Grinding Wheel, 4-1/8" Dia.

Chains on this page are intended for use with saws up to 2.5 cu. in. displacement (41 cc), and bars up to 16 in. length (41 cm).

CHAMFER CHISEL



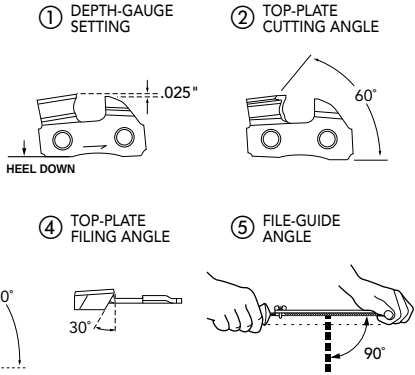
Kickback Reducing Features	End View	Use
		

A Low-kickback Chain

With Bumper
Tie Straps
Low-vibration Chain

Chain Type	Gauge
91VG	.050"

FILING



TOOLS FOR FILING

Part No.	Description
70504	5/32" Round File (12-Pack)
37534	5/32" Assembled File Guide
31941	.025" Drop-Center Depth-gauge Tool
OR534-18	1/8" Grinding Wheel, 5-3/4" Dia.
OR4125-18	1/8" Grinding Wheel, 4-1/8" Dia.

Chains on this page are intended for use with saws up to 2.5 cu. in. displacement (41 cc), and bars up to 16 in. length (41 cm).

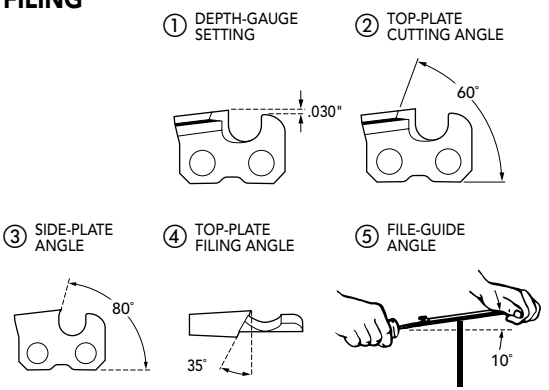
MICRO CHISEL®

Not a Low-kickback Chain

Kickback Reducing Features	End View	Use
26P, 27P 26, 27, 27A	7	

Chain Type	Gauge
26, 26P	.058"
27, 27A, 27P	.063"

FILING



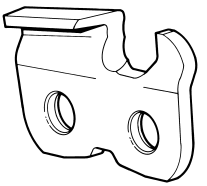
TOOLS FOR FILING

Part No.	Description
70502	7/32" Round File (12-Pack)
31686	7/32" Assembled File Guide
22291	.030" Depth-gauge Tool
OR534-316	3/16" Grinding Wheel, 5-3/4" Dia.
OR4125-316	3/16" Grinding Wheel, 4-1/8" Dia.

Chains on this page are intended for use with saws 4.0 cu. in. displacement (65 cc) and larger, and with bars 20 in. (50 cm) and longer.

Ripping Chain .404"

MICRO CHISEL®



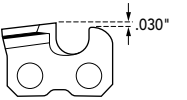
End View	Use
7	

Not a Low-kickback Chain

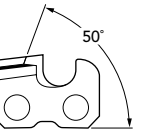
Chain Type	Gauge
27R	.063"
27RA (skip)	.063"

FILING

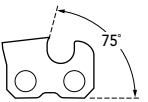
① DEPTH-GAUGE SETTING



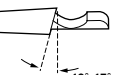
② TOP-PLATE CUTTING ANGLE



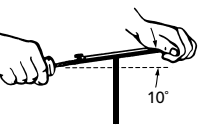
③ SIDE-PLATE ANGLE



④ TOP-PLATE FILING ANGLE



⑤ FILE-GUIDE ANGLE

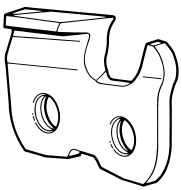


TOOLS FOR FILING

Part No.	Description
70502	7/32" Round File (12-Pack)
22291	.030" Depth-gauge Tool
OR534-316	3/16" Grinding Wheel, 5-3/4" Dia.
OR4125-316	3/16" Grinding Wheel, 4-1/8" Dia.

Ripping chains feature a special grind for use in ripping cuts only. Do not use these chains for any type of cutting other than ripping.

CHISEL



End View	Use
7	

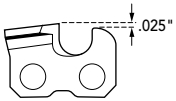
Not a Low-kickback Chain

Chain Type	Gauge
50L*	.050"
51L*	.058"
52L*	.063"

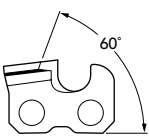
*Recently obsoleted Oregon® chain part numbers

FILING

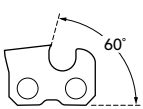
① DEPTH-GAUGE SETTING



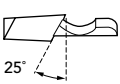
② TOP-PLATE CUTTING ANGLE



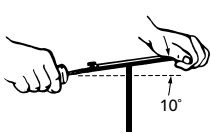
③ SIDE-PLATE ANGLE



④ TOP-PLATE FILING ANGLE



⑤ FILE-GUIDE ANGLE

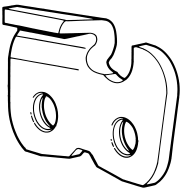


TOOLS FOR FILING

Part No.	Description
70502	7/32" Round File (12-Pack)
31686	7/32" Assembled File Guide
22290	.025" Depth-gauge Tool
OR534-316	3/16" Grinding Wheel, 5-3/4" Dia.
OR4125-316	3/16" Grinding Wheel, 4-1/8" Dia.

Chains on this page are intended for use with saws 4.0 cu. in. displacement (65 cc) and larger, and with bars 20 in. (50 cm) and longer.

CHIPPER



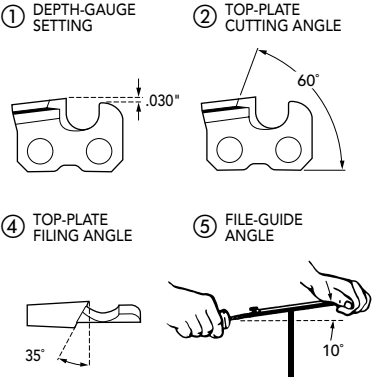
Kickback Reducing Features	End View	Use
		

Not a Low-kickback Chain

Chain Type	Gauge
58CP*	.058"
59CP*	.063"

*Recently obsoleted Oregon® chain part numbers

FILING

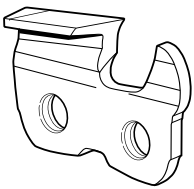


TOOLS FOR FILING

Part No.	Description
70502	7/32" Round File (12-Pack)
31686	7/32" Assembled File Guide
22291	.030" Depth-gauge Tool
OR534-316	3/16" Grinding Wheel, 5-3/4" Dia.
OR4125-316	3/16" Grinding Wheel, 4-1/8" Dia.

Chains on this page are intended for use with saws 4.0 cu. in. displacement (65 cc) and larger, and with bars 20 in. (50 cm) and longer.

CHISEL



Kickback Reducing Features	End View	Use
		

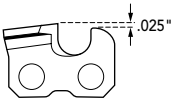
Not a Low-kickback Chain

Chain Type	Gauge
58J, 58L, 58LG*	.058"
59J, 59L, 59JG*, 59LG*	.063"

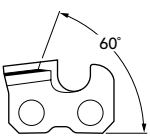
*Recently obsoleted Oregon® chain part numbers

FILING

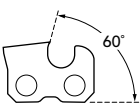
① DEPTH-GAUGE SETTING



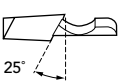
② TOP-PLATE CUTTING ANGLE



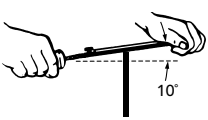
③ SIDE-PLATE ANGLE



④ TOP-PLATE FILING ANGLE



⑤ FILE-GUIDE ANGLE

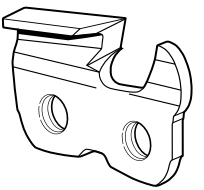


TOOLS FOR FILING

Part No.	Description
70502	7/32" Round File (12-Pack)
31686	7/32" Assembled File Guide
31941	.025" Depth-gauge Tool, J & L Chains
22290	.025" Depth-gauge Tool, JG & LG Chains
OR534-316	3/16" Grinding Wheel, 5-3/4" Dia.
OR4125-316	3/16" Grinding Wheel, 4-1/8" Dia.

Chains on this page are intended for use with saws 4.0 cu. in. displacement (65 cc) and larger, and with bars 20 in. (50 cm) and longer.

CHISEL



End View	Use
7	

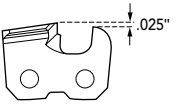
Not a Low-kickback Chain

Chain Type	Gauge
50AJ*, 50AL*	.050"
58CJ, 58CL, 51AJ*, 51AL*	.058"
59CJ, 59CK, 59CL, 52AJ*, 52AK*, 52AL*	.063"

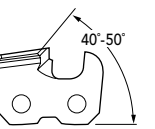
*Recently obsoleted Oregon® chain part numbers

FILING

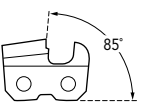
① DEPTH-GAUGE SETTING



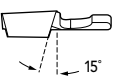
② TOP-PLATE CUTTING ANGLE



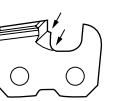
③ SIDE-PLATE ANGLE



④ TOP-PLATE FILING ANGLE



⑤ GULLET FILING (SEE PAGE 61)

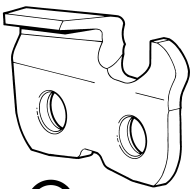


TOOLS FOR FILING

Part No.	Description
22290	.025" Depth-gauge Tool
12211	Depth-gauge File (flat)

Chains on this page are intended for use with saws 4.0 cu. in. displacement (65 cc) and larger, and bars 20 in. (50 cm) and longer.

CHIPPER



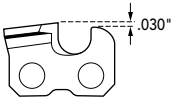
End View	Use
?	

Harvester, no hand-held applications

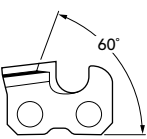
Chain Type	Gauge
59AA	.063"

FILING

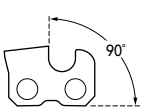
① DEPTH-GAUGE SETTING



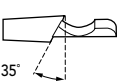
② TOP-PLATE CUTTING ANGLE



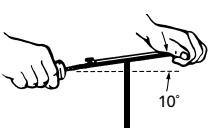
③ SIDE-PLATE ANGLE



④ TOP-PLATE FILING ANGLE



⑤ FILE-GUIDE ANGLE



TOOLS FOR FILING

Part No.	Description
70502	7/32" Round File (12-Pack)
31686	7/32" Assembled File Guide
22291	.030" Depth-gauge Tool
OR534-316	3/16" Grinding Wheel, 5-3/4" Dia.
OR4125-316	3/16" Grinding Wheel, 4-1/8" Dia.

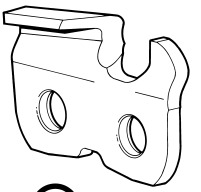
⚠WARNING

For use on mechanized harvesting equipment only.

Do not use on hand-held cutting applications as severe injury to operator or bystanders may result.

Harvester Chain .404"

MICRO CHISEL®

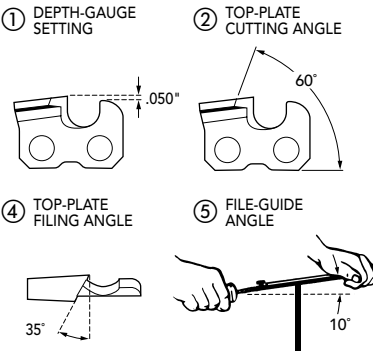


End View	Use
7	

Harvester, no hand-held applications

Chain Type	Gauge
16H	.063"
18H	.080"

FILING



TOOLS FOR FILING

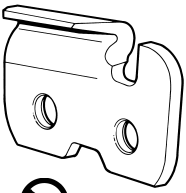
Part No.	Description
70502	7/32" Round File (12-Pack)
31686	7/32" Assembled File Guide
38850	.050" Depth-gauge Tool
OR534-316	3/16" Grinding Wheel, 5-3/4" Dia.
OR4125-316	3/16" Grinding Wheel, 4-1/8" Dia.

⚠WARNING

For use on mechanized harvesting equipment only.

Do not use on hand-held cutting applications as severe injury to operator or bystanders may result.

CHIPPER

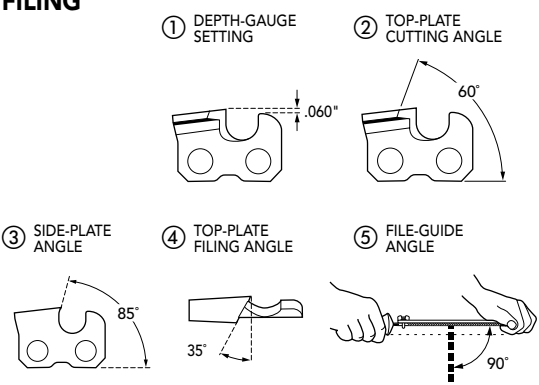


End View	Use
?	

Harvester, no hand-held applications

Chain Type	Gauge
11BC	.122"

FILING



TOOLS FOR FILING

Part No.	Description
90410	5/16" Round File (6-Pack)
26800	.060" Depth-gauge Tool
OR534-516	5/16" Grinding Wheel, 5-3/4" Dia.

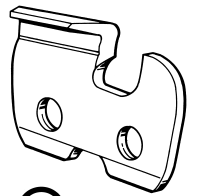
⚠WARNING

For use on mechanized harvesting equipment only.

Do not use on hand-held cutting applications as severe injury to operator or bystanders may result.

Harvester Chain 3/4"

SEMI CHISEL

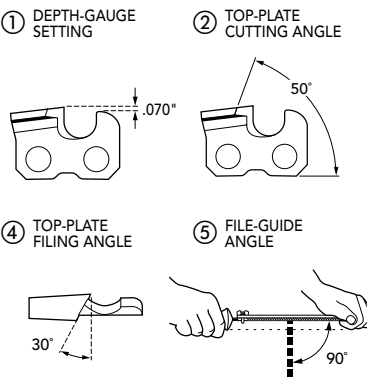


End View	Use
	

Harvester, no hand-held applications

Chain Type	Gauge
11H	.122"

FILING



TOOLS FOR FILING

Part No.	Description
90410	5/16" Round File (6-Pack)
107617	5/16" Assembled 11H File Guide
107529	.070" Depth-gauge Tool
OR534-516	5/16" Grinding Wheel, 5-3/4" Dia.

⚠WARNING

For use on mechanized harvesting equipment only.

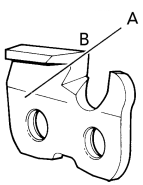
Do not use on hand-held cutting applications as severe injury to operator or bystanders may result.

WHO SHOULD PERFORM SQUARE-GROUND FILING?

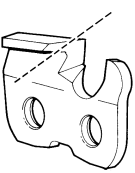
Most chainsaw users will probably never need to use square ground chain, nor learn to perform square-ground filing. But in areas where the timber is larger and the guide bars used are longer, the performance advantages of square-ground chain can outweigh the fact that square-ground filing is more difficult and much less forgiving of filing errors.

FILE POSITIONING

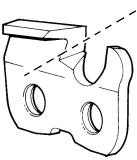
The file will sharpen the top plate, and the side plate, simultaneously. This creates a line, (A), where the top-plate cutting angle meets the side-plate angle. For best results, file so that the line joins the cutting corner (B).



CORRECTLY FILED CORNER

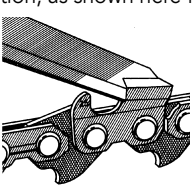


INCORRECT TOO HIGH

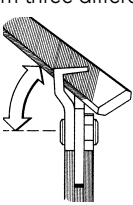


INCORRECT TOO LOW

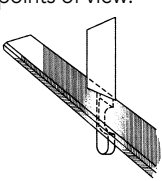
To properly sharpen the cutter, use the correct filing position, as shown here from three different points of view:



SIDE VIEW

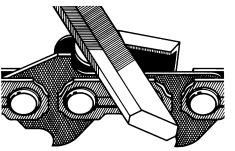


END VIEW



TOP VIEW

FILE DIRECTION



DOWNWARD FILING DIRECTION

Oregon® recommends that square-ground chain be filed from the outside in (in a downward direction). This leaves a better edge on the chromed cutting surfaces and makes it easier to keep the file's position, and the resulting cutting edges, in correct alignment as shown in the preceding "File Positioning" section. Filing from the outside in will wear out your file faster, however.

Some square-ground chain users may prefer to file from the inside out (in an upward direction). You should be aware that inside-out filing is much more difficult.

But whichever direction you choose, be sure your file and your cutting edges stay positioned as shown in the preceding "File Positioning" section. File all cutters on one side of the chain, then reverse the chain and repeat the process. Use the same file positions for cutters on the opposite side of the chain.

TOOLS

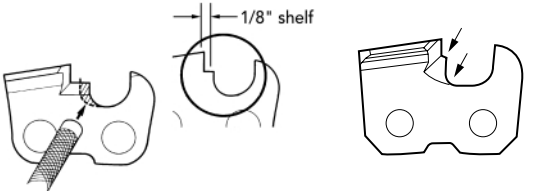
Only use files specially designed for square-ground chisel cutters, available from your chainsaw dealer.

DOUBLE BEVEL HEXAGON "GOOFY"

CONTINUED...

GULLET FILING

Approximately every 5th sharpening, clean out gullets by filing them back with a 7/32" round file. File gullets from the inside out (the side opposite from sharpening). Always leave a 1/8" shelf behind the gullet.



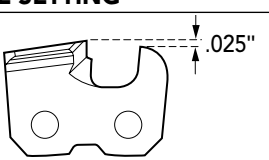
BEFORE AFTER

If not cleaned out regularly, the outer edge of your gullets will eventually prevent the working corners of your cutters from getting an adequate bite into the wood.

Wrong
Little or no clearance between the working corner and the gullet's outer edge.

Right
Clearance is maintained between the working corner and the gullet's outer edge.

DEPTH-GAUGE SETTING



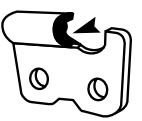
NOTE The depth-gauge setting for all square-ground chisel chain is .025."

SAW CHAIN TROUBLESHOOTING

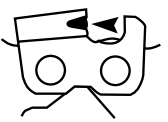
Most chain problems are caused by three things: incorrect chain tension, incorrect filing, and lack of lubrication. *Look closely at your chain's cutters, and compare them to the following illustrations. See the following pages for* ***"Remedies"*** *to these problems.*

PROBLEM

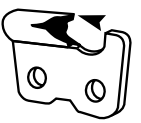
Chain cuts slow, cuts rough, or won't hold an edge

① 

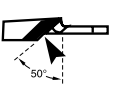
Light abrasive damage on side plates. **Remedy:** See **A**.

② 

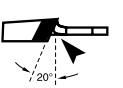
Severe abrasive damage on side plates. **Remedy:** See **A**.

③ 

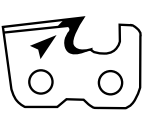
Abrasive or impact damage to the top plate or working corner corner. **Remedy:** See **A**.

④ 

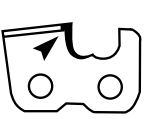
Too much top-plate filing angle. **Remedy:** See **B**.

⑤ 

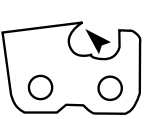
Too little top-plate filing angle. **Remedy:** See **B**.

⑥ 

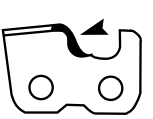
Too much top-plate-cutting angle. **Remedy:** See **C**.

⑦ 

Too little top-plate-cutting angle. **Remedy:** See **D**.

⑧ 

Too much hook in side plate. **Remedy:** See **C**.

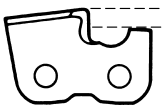
⑨ 

Backslope on side plate. **Remedy:** See **D**.

CONTINUED...

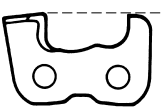
SAW-CHAIN TROUBLESHOOTING (CONTINUED)

⑩



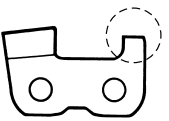
Low depth gauges.
Remedy: See **E**.

⑪



High depth gauges.
Remedy: See **F**.

⑫



Square or blunt depth gauges.
Remedy: See **G**.

REMEDIES

A. File cutters back until all damage is removed. This remedy applies to pictures ①, ② and ③.

B. Resharpen cutters while holding your file at the correct top-plate filing angle for your chain. Be sure your file guide is stamped with your chain's correct top-plate angle. This remedy applies to pictures ④ and ⑤.

C. Either your file was too small or it was held too low. Resharpen cutters with a file of the correct size, held in the correct position. Use the correct file guide. This remedy applies to pictures ⑥ and ⑧.

D. Either your file was too large or it was held too high. Resharpen cutters with a file of the correct size, held in the correct position. Use the correct file guide. This remedy applies to pictures ⑦ and ⑨.

E. In most cases, cutters cannot be filed back enough to correct for depth gauges that are too low. Replace the chain. This remedy applies to picture ⑩.

F. File depth gauges down to their correct height. This remedy applies to picture ⑪.

G. File the front corners of depth gauges parallel to their original rounded or ramped shape. This remedy applies to picture ⑫.

NOTE See pages 20 through 23 for the proper filing techniques to use when performing the remedies above.

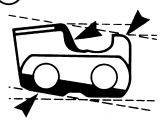
CONTINUED...

SAW-CHAIN TROUBLESHOOTING (CONTINUED)

PROBLEM

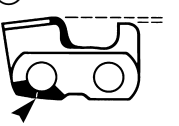
Cutters and/or tie straps wear heavily or break

⑬



Excessive heel wear on cutters and opposite tie straps. **Remedy:** See **H**.

⑭

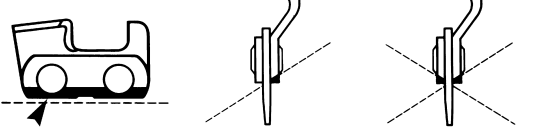


Cracks under rear rivet holes on cutters and opposite tie straps. **Remedy:** See **H**.

⑮

Tie straps broken in the center. **Remedy:** See **I**.

⑯



Bottoms of tie straps and cutters worn out of square. **Remedy:** See **J**.

REMEDIES

H. Replace worn or cracked cutters and/or tie straps.

NOTE One or more of the following may be required to prevent future wear and/or cracks: (1) Refile cutters using the correct angles. (2) Keep more lubrication on the chain and bar. (3) Reduce the amount of depth-gauge setting (may require replacement of the chain). (4) Do not force dull chain to cut. (5) Do not force chain through frozen wood. (6) Keep cutters sharp. (7) Always maintain proper tension. This remedy applies to pictures ⑬ and ⑭.

I. See step 7, page 27 for correctly shaping of rivets. This remedy applies to picture ⑮.

NOTE Such breakage is usually caused by incorrect field assembly of tie straps. Breakage usually occurs on the preset tie strap.

CONTINUED...

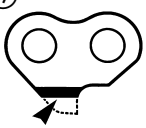
SAW-CHAIN TROUBLESHOOTING (CONTINUED)

REMEDIES (CONTINUED)

J. Dress the tops of the guide bar's rails square. If wear is minor, file the bottoms of tie straps and cutters square. If wear is extensive, replace the chain. This remedy applies to picture ⑯.

PROBLEM
Drive links wear heavily or break

⑰

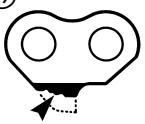


Straight bottoms.
Remedy: See **K**.

⑱

Concave bottoms.
Remedy: See **K**.

⑲



Battered and broken bottoms. **Remedy:** See **L**.

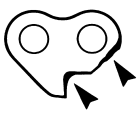
⑳

Peening in front or back.
Remedy: See **M**.

㉑

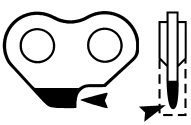
Drive-link tang is turned up.
Remedy: See **N**.

㉒



Worn fronts.
Remedy: See **O**.

㉓



Sides worn round or thin at bottoms.
Remedy: See **P**.

CONTINUED...

SAW-CHAIN TROUBLESHOOTING (CONTINUED)

REMEDIES: (K-P)

K. Check your guide bar (grooves in bar's body or nose have worn too shallow), and check your rim or spur drive sprocket (excessive wear is allowing drive links to bottom out). Replace bar, sprocket, or both. Sharpen drive-link tangs, as shown in the illustration on page 67, if possible. If not, replace the chain. This remedy applies to pictures ⑰ and ⑱.

L. Maintain proper tension to prevent chain from climbing out of spur drive sprocket. Replace drive links or replace entire chain if many drive links are damaged. This remedy applies to picture ⑲.

M. Sprocket has worn out of pitch, replace it. Replace chain. Do not attempt to run a new chain on an old sprocket, or an old chain on a new sprocket. This remedy applies to picture ⑳.

N. Drive sprocket has worn down until drive-link tangs hit bottom. Replace drive sprocket. Sharpen drive-link tangs as shown in the illustration below, if possible. If not, replace the chain. This remedy applies to picture ㉑.

O. Remove damage from sides of drive links with a flat file. Sharpen drive-link tangs as shown in the illustration below. Use a thin file to open the groove lead-in at the guide-bar's tail. This remedy applies to picture ㉒.

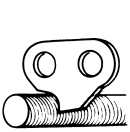
P. Bar rails have spread, or one rail has worn low, allowing chain to lean over. Have bar rails serviced by a dealer, otherwise replace bar. Replace chain if wear is extensive or if problem persists. This remedy applies to picture ㉓.

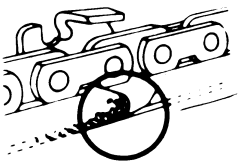
NOTE Also check bottoms of tie straps (picture ⑯, page 64), and tops of bar rails (picture ㉛ page 78).

CONTINUED...

SAW-CHAIN TROUBLESHOOTING (CONTINUED)

SHARPENING DRIVE-LINK TANGS



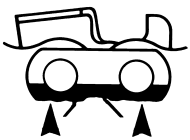


Pointed drive-link tangs help remove chips and debris from your bar groove. Sharpen damaged tangs back to original shape with a round file.

PROBLEM
Chain has tight joints

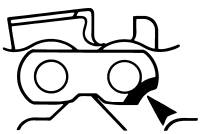
Tight joints are caused by either: loose tension, or an overworn drive sprocket. Look closely at your chain's chassis.

㉔



Peening on bottoms of cutters and tie straps. **Remedy:** See **Q**.

㉕

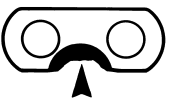


Peening on front corners of cutters and tie straps. **Remedy:** See **Q**.

CONTINUED...

SAW-CHAIN TROUBLESHOOTING (CONTINUED)

(26)



Peening in notches of cutters and tie straps. **Remedy:** See **R**.

REMEDIES: (Q-R)

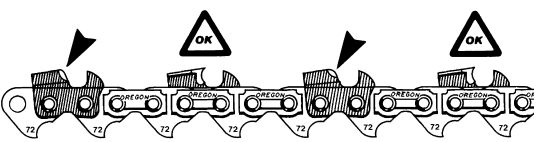
Q. Chain with tight joints cannot be repaired. Replace the chain and maintain proper tension. Replace rim sprocket if worn. This remedy applies to pictures (24) and (25).

R. Replace the spur drive sprocket. Replace the chain. Always maintain proper tension and do not run chain on a worn drive sprocket. This remedy applies to picture (26).

PROBLEM
Chain cuts crooked

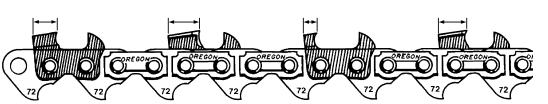
Crooked cutting can be caused by your guide bar as well as your chain. Be sure to also check your bar's rails (pictures (29) through (34), pages 78 and 79).

(27)



Damage to cutters on one side of the chain. **Remedy:** See **S**.

(28)

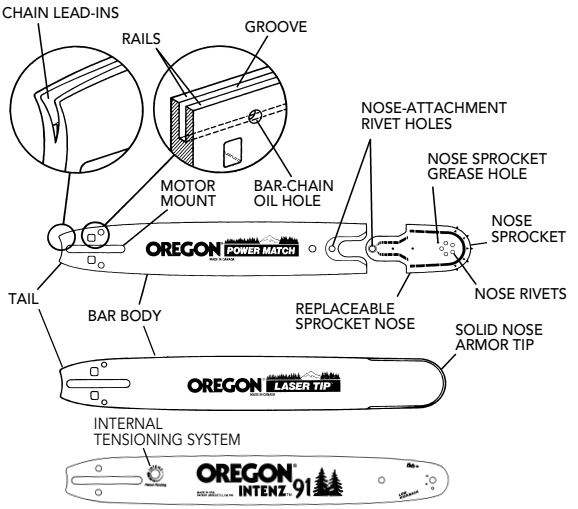


Inconsistent sharpening. **Remedy:** See **S**.

REMEDY

S. File cutters back enough to remove all damage and incorrect angles. Keep cutter lengths and depth-gauge settings equal.This remedy applies to pictures (27) and (28).

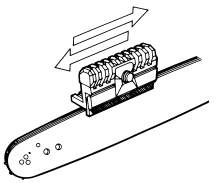
OREGON® GUIDE-BAR TERMS



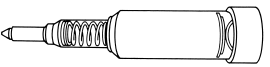
OREGON® GUIDE-BAR-MAINTENANCE TOOLS

SPANNER WRENCH
*Asst'd. P/N's

FLAT FILE WITH HANDLE
File P/N 12211



BAR RAIL DRESSER
P/N 111439



GREASE GUN
P/N's 40469-A, 21939 OR 110534

*Contact your Oregon® dealer for part numbers, wrench sizes and other help selecting the right tools for your bar.

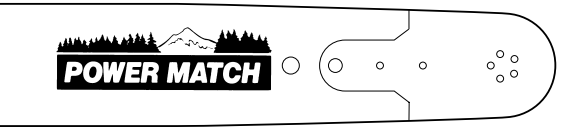
HERE'S HOW THE OREGON® SAW BAR

*** 20 8 RN**

Length in Inches	Gauge
12"	0=.050"
14"	**8**=.058"
18"	
20"	3=.063"
36" (Etc.)	4=.043"

Oregon® Bar Type
POWER MATCH® SYMMETRICAL SPROCKET-NOSE BAR **RN**= Symmetrical replaceable sprocket-nose GN= Symmetrical replaceable sprocket-nose with Guard Mate® holes
POWER MATCH® DOUBLE GUARD® SPROCKET-NOSE BAR RG = Double Guard® replaceable sprocket-nose GG= Double Guard® replaceable sprocket-nose with Guard Mate® holes
OREGON® PRO SYMMETRICAL SPROCKET-NOSE BAR PM= Symmetrical replaceable sprocket-nose
LASER TIP SOLID-NOSE BAR AT = Solid nose with laser-welded stellite tip
PRO-LITE® LAMINATED SPROCKET-NOSE BAR SL = Sprocket-nose GL = Sprocket-nose with Guard Mate® holes
LASER-LITE™ LAMINATED SOLID-NOSE BAR LA = Solid nose with laser-welded stellite tip
PRO 91® SYMMETRICAL SPROCKET-NOSE BAR SP = Symmetrical sprocket-nose GP = Symmetrical sprocket-nose with Guard Mate® holes
MICRO-LITE™ LAMINATED SPROCKET-NOSE BAR MP= Professional narrow-kerf laminated sprocket-nose ML= Narrow-kerf laminated sprocket-nose (90 or 95)
DOUBLE GUARD® CONSUMER SPROCKET-NOSE BAR PX = Double Guard® sprocket-nose (.325" and 3/8") GD= Double Guard® sprocket-nose with Guard Mate® holes (.325" and 3/8") SD = Double Guard® sprocket-nose (25 and 91) DG= Double Guard® sprocket-nose with Guard Mate® holes (25 and 91)

PART-NUMBERING SYSTEM WORKS



D D009

Nose Size			Motor Mount
Sprocket-nose Bars			A218 A318 A041 A061 A064 A074 A095 **D009** D176 (Etc.) **T041 **T061 **T074 **T095 **T218 **T318
	Nose Pitch	**Nose-sprocket Tooth Count**	
A	= 1/4"	= 10	
B	= .325"	= 10, 11, or 12	
D	= 3/8"	= 9, 10, or 11	
E	= 3/8"	= 7 or 9 (90SG/JG or 91VG/VS/LX chains only)	
F	= .404"	= 10 or 11	
G	= .325"	= 12	
H	= 3/8"	= 11	
Solid-nose Laser Tip and Laser-Lite™ Bars			
	Nose Radius		
X	= Extra Small (.95")		
S	= Small (1.12")		
M	= Medium (1.33")		
L	= Large (1.65")		

* Oregon® bar part numbers are printed on the bar package, and have 10 digits. Here's what each digit means:

- The first two digits tell the bar's length.
- The third digit tells the bar's groove width or "gauge."
- The fourth and fifth digits tell the bar's type.
- The sixth digit tells either: (a) the nose pitch and nose-sprocket tooth count of any sprocket-nose bar – or – (b) the nose radius of any solid-nose Laser Tip or Laser-Lite™ bar.
- The last four digits identify the motor mount pattern.

** Bars with "T" motor mounts have the Intenz™ tensioning feature

20 = 20" bar length
8 = .058" gauge
RN = Power Match® Symmetrical
D = 3/8" nose pitch with a 9-, 10-, or 11-tooth nose sprocket
D009 = Motor mount, fits certain models of several brands

OREGON® GUIDE-BAR MAINTENANCE

ATTENTION: Oregon® urges dealers, chainsaw users, and anyone who services guide bars to become familiar with proper bar-maintenance techniques and the possible dangers which can result if bars are not properly maintained.

⚠WARNING

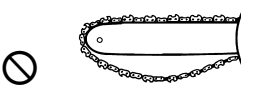
Always turn off your saw's engine before handling the chain, guide bar or sprocket.

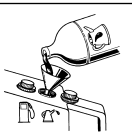
NOTES

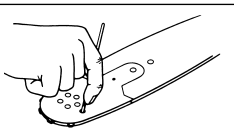
- Never use guide bar as a lever to lift, twist or pry.
- A guide bar requires a constant supply of oil during operation.
- For proper mounting of your guide bar, refer to the operator's manual for your chainsaw.

Basic Guide-Bar-Maintenance Tasks

▲ Before use ■ Often ● Daily ◆ Weekly ⃠ Never





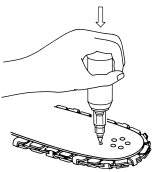


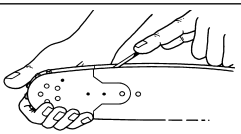
● Clean bar greasehole

CONTINUED...

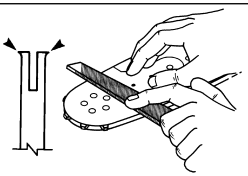
BASIC GUIDE-BAR MAINTENANCE (CONTINUED)

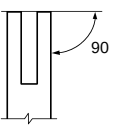
■ Turn nose sprocket while pumping grease until whole sprocket has new grease. Do not push dirt into the hole.



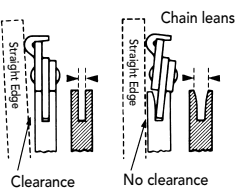


● 



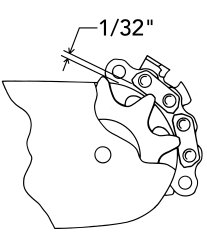
◆ 

◆ With chain on the bar, hold a straightedge against the bar body and against a cutter side plate. A good groove will hold the chain straight, leaving a small gap between the straightedge and bar body.



A worn groove will let the chain lean until straightedge is flush with bar body. Replace bar if groove is worn.

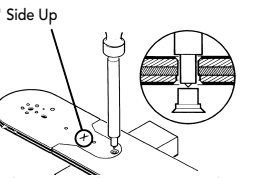
◆ On sprocket-nose bars, check for clearance around the bar's tip between the tops of rails and the bottoms of cutters or tie straps. Replace nose sprockets before cutters or tie straps contact the bar rails.



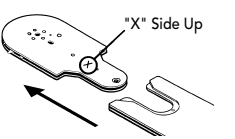
HOW TO REPLACE OREGON® POWER MATCH BAR NOSES

NOTE Select a new Power Match® nose with the correct pitch for your bar and chain. Reduced-kickback Double Guard® replacement noses can be installed on any Power Match® bar and can be used with the same drive-link-count loop of chain.

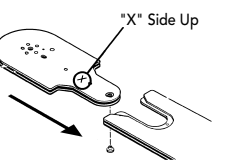
1. Each Oregon® Power Match bar nose is marked, on one side only, with an "X." Always strike on the "X"-stamped side of Power Match® bar noses. Striking on the wrong side will damage the nose and bar body. Use a punch that will fit through the nose-rivet hole as shown to drive out the single attaching rivet.



2. Remove the old nose. Clean the bar's attachment area.



3. Insert the new nose into the bar body. Insert the Power Match® rivet (part no. 34726) through the underside of the nose, opposite the "X" mark.

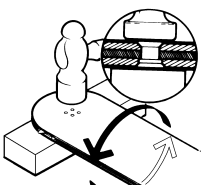


NOTE The rivet will not fit, and cannot be secured, if inserted through the "X" side.

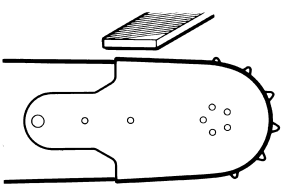
POWER MATCH® BAR NOSES (CONTINUED)

4. With the bar body, nose, and rivet solidly supported on a strong flat metal surface, peen the Power Match® rivet's head down with the flat end of a hammer. Do not hit the bar body, hit only the rivet head. Strike only on the "X" side.

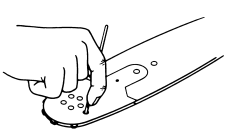
   To check installation, grip the bar body in one hand, the nose in the other hand, and twist. Nose and body should feel like a single, solid piece. If not (if any movement in the nose-bar joint area is felt – or if any clicking sound from the same area is heard), tighten the rivet with a few more hammer strokes.

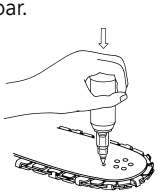


5. File down the rails of new noses to align with the rails of old bar bodies.



6. Grease the new nose sprocket. Pump grease into holes until excess grease appears around the nose-sprocket teeth of the guide bar.

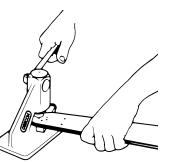




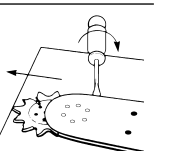
HOW TO REPLACE NOSE SPROCKETS ON PRO-LITE®, AND MICRO-LITE™ PRO BARS

NOTE Select a new nose sprocket with the correct pitch for your bar and chain.

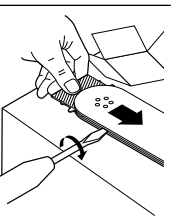
1. Drill or punch out heads from each of the nose-sprocket rivets. Punch out the remainder of the rivets. Use a punch narrow enough to keep from damaging rivet holes in the bar's nose.



2. Use a small screwdriver to spread the bar-nose rails just enough to remove the old nose sprocket. Clean out debris from the sprocket area.



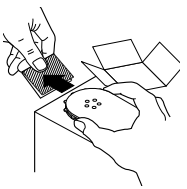
3. Inside the nose-sprocket package you'll find the new sprocket wrapped in a tissue. Be careful to keep the sprocket inside the tissue as you remove it from the package – bearings are easily lost. Slide the tissue and the new sprocket, together, into the bar's nose.



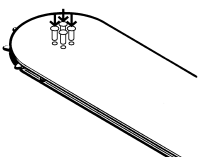
CONTINUED...

PRO-LITE®/MICRO-LITE™ PRO NOSE SPROCKETS (CONTINUED)

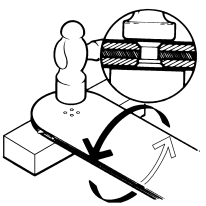
4. Once fully inside the nose, hold the sprocket in place, then remove the tissue.



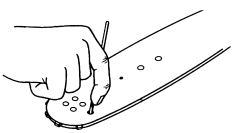
5. Align the sprocket's inner-race holes with the holes in the bar nose. Insert rivets into each hole through the bar. On used bars the nose rails may tend to spread apart. Use a small clamp to hold the nose rails together when inserting and securing the rivets.

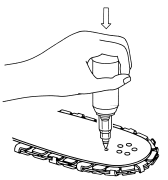


6. With the bar and rivets solidly supported on a strong, flat metal surface, carefully peen the rivet heads down with the flat end of a hammer. Be careful to hit only the rivet head. Do not hit the bar body – this will pinch the nose sprocket. Rivet heads must be snug and secure while still allowing the sprocket to turn freely.



7. Grease the new nose sprocket. Pump grease into hole until excess grease appears around the nose-sprocket teeth of the guide bar.





GUIDE-BAR TROUBLESHOOTING

Most guide bar problems occur in the bar rails, and are caused by four things: incorrect chain tension, lack of lubrication, and accidents or irregular operating techniques which pinch the rails or push the drive links sideways against the bar rails.

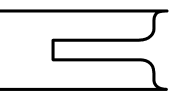
Look closely at your guide bar and compare it to the following illustrations. See the following pages for remedies to these problems.

PROBLEM
Worn rail conditions

(29)

Rails are spread or worn down, groove becomes spread or shallow.
Remedies: See **T** and **U**.

(30)

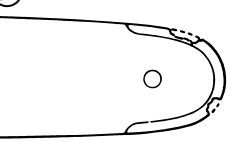


Outsides or rails develop wire edges.
Remedy: See **T**.

(31)

Rail on one side is worn low.
Remedy: See **U**.

(32)



Rails around the tip of solid-nose bars show small cracks or broken-out sections.
Remedy: See **V**.

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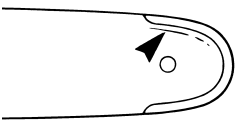
CONTINUED...

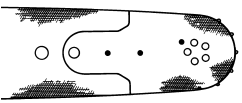
GUIDE-BAR TROUBLESHOOTING (CONTINUED)

(33)



Rails around the tip of solid-nose bars are split at the bottom of the bar groove. **Remedy:** See **V**.

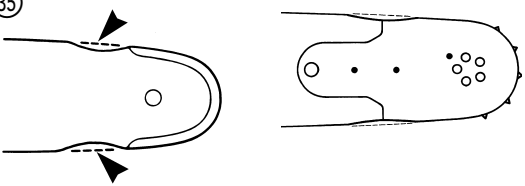
(34)



Rails along the bar body or around the tip of sprocket-nose bars show blue discoloration. **Remedy:** See **W**

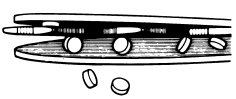
PROBLEM
Bar sprocket-nose failure

(35)



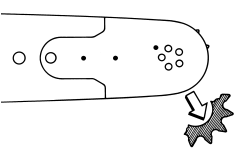
Chipped rails or excessive rail wear just behind the hard stellite alloy on solid-nose bars, or near the nose connection on replaceable-sprocket-nose bars. **Remedy:** See **X**.

(36)



Rails in the tip of a sprocket-nose bar have spread, allowing loss of bearings. **Remedy:** See **Y**.

(37)



The sprocket in a sprocket-nose bar breaks. **Remedy:** See **Y**.

CONTINUED...

GUIDE-BAR TROUBLESHOOTING (CONTINUED)

REMEDIES: (T-Y)

T. Shallow grooves and wire edges are the result of inadequate lubrication, improper tension or normal wear over time. Use a flat file to square up the bar's rails and remove wire edges promptly. Left alone, wire edges can break off, chipping away good rail material. This remedy applies to pictures (29) and (30).

U. A low rail is caused by one of two things: (a) crooked-cutting chain or (b) chain leaning over in a worn groove. Replace the bar. Replace the chain as well if chain continues to lean in the new bar. For more information on this problem and its causes, refer to page 65, and to picture (23) and remedy P on page 66. This remedy applies to pictures (29) and (31).

V. Accidents or irregular operating techniques which push the drive links sideways or place excessive pressure on the side of the nose can cause breaks or cracks in the rails of solid-nose bars. Your dealer may be able to repair minor damage on a relatively new bar. This remedy applies to pictures (32) and (33).

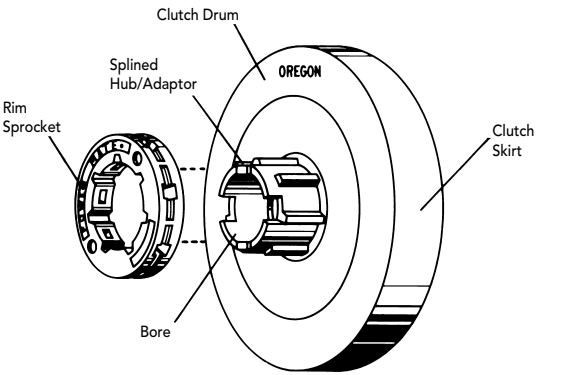
W. Pinched rails, lack of lubrication, or accidents and cutting techniques which push the drive links sideways in the groove can create extreme friction which causes blue discoloration. Blue spots on rails are soft and will wear rapidly. Replace the bar. This remedy applies to picture (34).

X. Such wear or chipping near the nose often accompanies heavy limbing, but can also be caused by loose chain tension. Invert the bar on the saw periodically to reduce such wear. On replaceable-nose bars with minor wear, install a new nose and file down the nose's rails as shown on page 75 for smooth chain flow. If wear is extensive (on solid-nose or replaceable-nose bars), replace the bar. This remedy applies to picture (35).

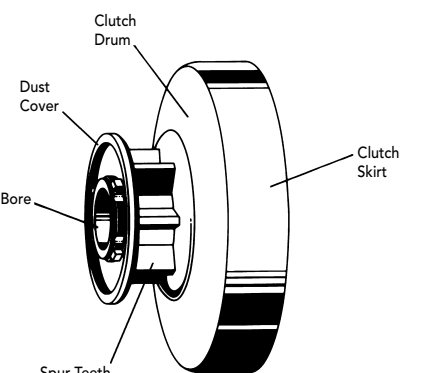
Y. Frequent boring cuts, loose chain tension, and accidents or irregular operating techniques which twist the nose or push the drive links sideways against the nose's rails will cause such breakage. Install a new replaceable-sprocket nose if possible, otherwise replace the bar.This remedy applies to pictures (36) and (37).

OREGON® SPROCKET TERMS

RIM SPROCKET

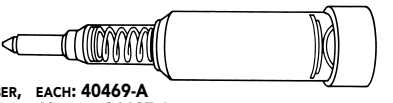


SPUR SPROCKET



OREGON® SPROCKET-MAINTENANCE TOOLS

GREASE GUN



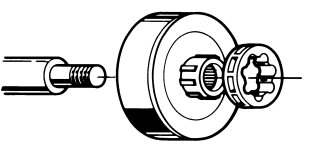
Part Number, each: 40469-A
40-pack: 31187-A

INSTALLING SPROCKETS

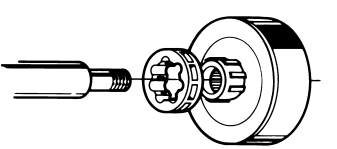
Oregon® sprockets can be installed on chainsaws having either inboard-clutch or outboard-clutch assemblies. Follow instructions in the operator's manual provided by your chainsaw's manufacturer for correct sprocket installation.

The illustrations below are for general reference only. Do not use them as instructions for sprocket or clutch assembly.

INBOARD CLUTCH



OUTBOARD CLUTCH



OREGON® SPROCKET MAINTENANCE

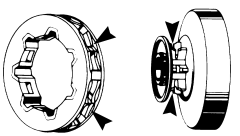
ATTENTION: Oregon® urges dealers, chainsaw users, and anyone who services sprockets to become familiar with proper sprocket-maintenance techniques and the possible dangers which can result if sprockets are not properly maintained.

⚠WARNING

Always turn off your saw's engine before handling the sprocket. Failure to do so can result in severe injury.

Your drive sprocket, the third member of the cutting team, deserves regular attention and maintenance just like your bar and chain. A misused sprocket will cause patterns of chain wear which can damage the guide bar and reduce the life of all three components. A damaged sprocket cannot be repaired, it can only be inspected and replaced. Here are the things to look for, and the steps to take.

Basic Sprocket-Maintenance Tasks				
▲ Before use	■ Often	● Daily	◆ Weekly	⃠ Never



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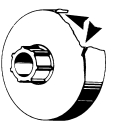
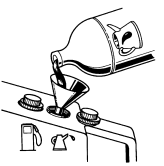


▲●



▲■

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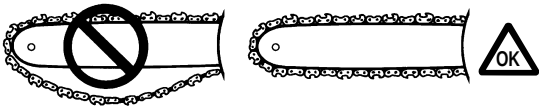
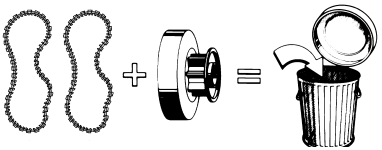
BASIC SPROCKET-MAINTENANCE TASKS (CONTINUED)

▲■

▲■ Chain tension is especially important when the saw is tipped on its side during felling cuts. Loose chain (and rim-type sprocket, if used), will slide down and out of alignment with the bar. Loose chain tension is the leading cause of sprocket problems.



● Clean any buildup of sap or debris from splined hub so rim sprocket can float freely.



◆ Do not run old chain on a new sprocket, or a new chain on an old sprocket. Use two new chains in rotation with each new sprocket so all can wear together. Replace sprocket every two chains, or sooner.

◆ Apply clean grease to the clutch drum's bearings each time the sprocket is removed.

SPROCKET TROUBLESHOOTING

Most sprocket problems are caused by loose chain tension and failure to replace the sprocket or clutch drum when necessary.

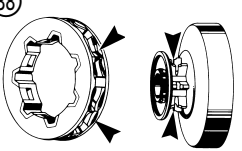
Sprockets are inexpensive. One worn inexpensive sprocket can rapidly damage an expensive chain and bar. Do not try to save money by running new chains on old sprockets. Look for the conditions below and replace sprockets and clutch drums promptly.

NOTE If your saw has a chain brake, check the chain brake's action according to the instructions in your saw operator's manual. Be sure the chain-brake strap around your clutch skirt is not too tight when the brake is not engaged, which can lead to clutch-drum overheating and failure.

Look closely at your sprocket and compare it to the following illustrations. See the following page for remedies to these problems.

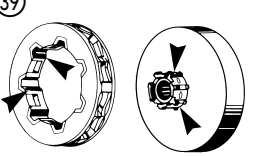
PROBLEM
Sprocket/Clutch drum failure

(38)



Worn outer surfaces on rim sprockets or spur sprockets.
Remedy: See **Z**.

(39)

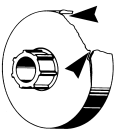


Worn inner surface on rim sprockets, or wear on the adapter's splines.
Remedy: See **AA**.

CONTINUED...

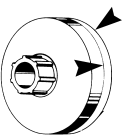
SPROCKET TROUBLESHOOTING (CONTINUED)

(40)



Cracks or breakage on the clutch drum. **Remedy:** See **BB**.

(41)



Obvious wear or discoloration around the outer circumference of the drum skirt. **Remedy:** See **CC**.

(42)

Excessive wear on the inside surface of the drum skirt. **Remedy:** See **DD**.

REMEDIES: (Z-DD)

Z. Such outer surface wear is normal over time. Replace rim sprockets and spur sprockets when wear is 1/64" deep. Never run chain on severely worn sprockets. Severely worn sprockets could break during operation. This remedy applies to picture (38).

AA. Such wear indicates that chain drive links are bottoming out on the adapter's splines. Replace the clutch drum. Replace the rim sprocket. This remedy applies to picture (39).

BB. Do not attempt to repair cracked or broken clutch drums. Replace the drum. This remedy applies to picture (40).

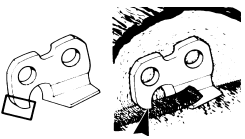
CC. Replace the drum. Have your chainsaw dealer adjust the chain-brake strap. This remedy applies to picture (41).

DD. Replace the drum. Have your chainsaw dealer service the saw's clutch. This remedy applies to picture (42).

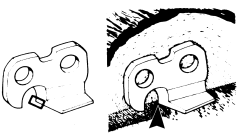
How a Cutter Works

Understanding how cutters work can help you see why proper chain maintenance is so important.

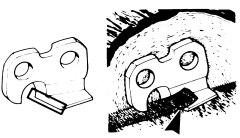
1. The depth gauge rides on the wood and controls the depth at which the cutting corner bites in.



2. The cutting corner and side plate sever the cross grains. This is the hardest part of the work.



3. The top-plate cutting angle chisels out the severed wood fibers, lifting them up and out of the kerf.



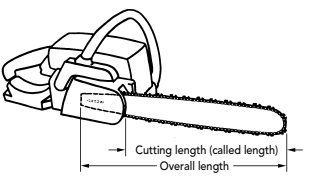
HOW TO ORDER REPLACEMENT CHAIN

For the best possible service, have the following four items of information ready for your Oregon® dealer.

1. Your saw's make and model.

SAW MAN	1100-A

2. Your guide bar's cutting length.



NOTE Your bar's cutting length (or "called length") is different from its overall length. The cutting length is the distance from the front of the saw to the tip of the farthest cutter.

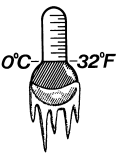
3. Your chain's part number, 72LG for example. See pages 7 through 12 if you need help determining your Oregon® chain's part number.
4. Your chain loop's drive-link count, 68 for example. See page 5 if you need help identifying your chain's drive links.

NOTE A loop of replacement chain is usually ordered by combining the chain's part number with the loop's drive-link count.

Example: 72LG - 68
(Part No.) (Drive-Link Count)

⚠ READ THE WARNINGS ON PAGE 15.

Cutting frozen wood will cause rapid wear and possible breakage around the rear rivet hole of cutters. Follow the steps below to keep cold-weather wear to a minimum.



OIL – use a lighter weight of bar-chain oil, or dilute bar-chain oil 25 percent with clean kerosene or diesel oil. Use twice as much of this diluted oil during operation, and be certain your chain is receiving oil from the saw.

TENSION – Keep your chain correctly tensioned. Check and adjust often.

CUTTERS – Keep cutters sharp. Touch up every hour, more often if needed. Do not force dull chain to cut.

DEPTH GAUGES – Check and adjust your cutter's depth gauges at every sharpening.

BAR – keep the bar groove clean and oil hole open. Turn bars over to equalize rail wear.

DRIVE SPROCKET – Replace the sprocket after every two chains, or sooner.

SOME GOOD SAW CHAIN ADVICE

Saw chain is made to cut only one thing: wood. Do not use saw chain to cut other materials, and never let your chain contact rocks or dirt during operation.

Never force dull chain to cut. When it is sharp, saw chain is designed to feed itself into the wood, and needs only light pressure to cut efficiently. Dull chain produces fine wood dust, which can clog your saw's air filter. Sharp chain produces wood chips.

THE OREGON® CUSTOMER-SATISFACTION POLICY

LIMITED WARRANTY

Oregon® (Oregon Cutting Systems Division, Blount, Inc.) warrants its products to be free from defects in materials and workmanship for as long as they are owned by the original consumer purchaser.

If you like our products, please tell your friends. If you are not satisfied with our products, for any reason, please tell us. Oregon® wants to provide you with products that perform to your full satisfaction. We welcome your calls between the hours of 7:30 a.m. and 4:00 p.m. (Pacific time) Monday through Friday, at (503) 653-4706. Or you can write to: Customer Service Department, Oregon Cutting Systems Division, Blount, Inc., P.O. Box 22127, Portland, Oregon 97269-2127.

If your new Oregon® product should fail because of defects in materials or workmanship, package it carefully and send it prepaid to the address above along with: your name, address, phone number, and a brief explanation of the defect – and Oregon® will replace it, free. Oregon® products are not warranted against user abuse, improper maintenance, or improper repair. Oregon® carbide chain is not covered by this warranty.

Replacement of defective products is the exclusive remedy under this warranty and any applicable implied warranty. The replacement will be undertaken as soon as reasonably possible after receipt of the defective product. TO THE EXTENT ALLOWED BY LAW, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE APPLICABLE TO THIS PRODUCT IS LIMITED TO THE DURATION OF THIS EXPRESS WARRANTY. Oregon® shall not be liable for any consequential or incidental damages. Some states do not allow limitations on how long an implied warranty lasts or do not allow the exclusion of consequential incidental damages, so the above limitation or exclusion may not apply to you. This warranty gives the original owner specific legal rights, and you may also have other rights which vary from state to state.

ANSI Chain Chart

IMPORTANT SAFETY INFORMATION

OREGON® SAW CHAIN CLASSIFICATION CHART

ANSI-STANDARD LOW-KICKBACK SAW CHAIN

Part numbers of Oregon® chain that comply with the ANSI low-kickback standard are highlighted in blue. Packages of Oregon® low-kickback saw chain carry this authorized UL® Classification Marking:

UNDERWRITERS LABORATORIES, INC.
CLASSIFIED LOW KICKBACK SAW CHAIN®

In accordance with American National Standard low-kickback safety requirements for gasoline powered chainsaws (ANSI B175.1-2000), Paragraph 5.11.2.4, the saw chain in this package is low-kickback saw chain. It met the reduced kickback requirement of ANSI B175.1 when tested on a representative sample of chainsaws. 17R2

Chain Pitch	.043"-gauge Part Number	.050"-gauge Part Number	.058"-gauge Part Number	.063"-gauge Part Number
.325"		33SL Narrow-kerf 95VP	34SL	35SL
3/8"		72V	73V	75V
3/8" 90 Series	Narrow-kerf 90SG	91VG Power Sharp® 91LX		

SAW CHAIN FOR PROFESSIONAL USERS

Part numbers of Oregon® chains that do not meet ANSI low-kickback performance requirements are highlighted in yellow. The chains below should be used only by those with experience and specialized training for dealing with kickback.

1/4"	25AP		
.325"	20BP, 20LP, 33LG Ripping Chain: 95R	21BP, 21LP, 34LG	22BP, 22LP, 35LG
3/8"	Round-ground chains: 72AP, 72DP, 72JG, 72LG, 72JP, 72LP MultiCut™ chain: M72LP Ripping chain: 72RD Square-ground chains: 72CJ, 72CJX, 72 CK, 72CKX 72CL, 72CLX	Round-ground chains: 73DP, 73JG, 73LG, 73JP, 73LP MultiCut™ chain: M73LP Ripping chain: 73RD	Round-ground chains: 75DP, 75JG, 75LG 75JP, 75LP MultiCut™ chain: M75LP Ripping chain: 75RD Square-ground chains: 75CJ, 75CJX, 75CK, 75CKX, 75CL, 75CLX
3/8" 90 Series	91VS		
.404"		Round-ground chains: 26, 26P, 58J, 58L Square-ground chains: 58CJ, 58CL	Round-ground chains: 27, 27A, 27P, 59J, 59L Ripping chains: 27R, 27RA Square-ground chains: 59CJ, 59CK, 59CL

This Saw Chain Classification Chart supersedes and replaces all previous Oregon® Saw Chain classification charts and posters. Effective April 30, 2003.

OREGON®

Maintenance & Safety Manual for Saw Chain, Guide Bar, and Drive Sprocket

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