



Maintenance and Safety Manual

Saw Chain, Guide Bar and Drive Sprocket



Chain Saw Safety

If you do not have experience and specialized training for dealing with chain saw kickback, then OREGON® urges you to use only low-kickback saw chains which have this green* label:



ATTENTION: READ THIS

The saw chain in this package is low kickback saw chain. It met the reduced kickback requirements of ANSI B175.1 when tested on a representative sample of chain saws. Its safety features significantly reduce the hazard of kickback while maintaining high cutting performance. ALL CUTTING SAW CHAINS CAN KICK BACK, which may result in severe personal injury to the chain saw operator or bystanders. Operate your chain saw safely. Read all warnings in your chain saw operator's manual.

*Some older OREGON® packaging may have low-kickback saw chain identified with a blue label.

CHAIN PITCH	PART NUMBERS			
	.043" GAUGE	.050" GAUGE	.058" GAUGE	.063" GAUGE
	90PX, 90SG	91P, 91PX, 91PXL, 91VG	—	—
	—	20BPX	21BPX	22BPX
	—	95VPX*	—	—
	—	72V	73V	75V

*Narrow Kerf

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



ATTENTION: READ THIS

WARNING: This saw chain may be capable of kickback that could result in serious injury to the chain saw operator or bystanders. DO NOT USE THIS SAW CHAIN UNLESS YOU HAVE EXPERIENCE AND SPECIALIZED TRAINING FOR DEALING WITH KICKBACK. Saw chains with reduced kickback potential are available.

CHAIN PITCH	PART NUMBERS			
	.043" GAUGE	.050" GAUGE	.058" GAUGE	.063" GAUGE
	—	25AP, 25A, 25F	—	—
	90S	91VX, 91VXL, M91VX*, M91VXL*	—	—
	—	20LPX, M20LPX*	21LPX, M21LPX*	22LPX, M22LPX*
	—	72APX, 72DPX, 72JGX, 72LGX, 72JPX, 72LPX, M72LPX*	73DPX, 73JGX, 73LGX, 73JPX, 73LPX, M73LPX*	75DPX, 75JGX, 75LGX, 75JPX, 75LPX, M75LPX*
	—	72RD	73RD	75RD
	—	72CJ, 72CJX, 72CK, 72CKX, 72CL, 72CLX	—	75CJ, 75CJX, 75CK, 75CKX, 75CL, 75CLX
	—	—	58J, 58L	27X, 27AX, 59J, 59L, 68LX, 68JX
	—	—	—	27R, 27RA
	—	—	—	59CJ, 59CK, 59CL, 68CL, 68CJ

*MultiCut™ Chain

Chain Saw Safety

Your chain saw is only as good as your cutting system (saw chain, guide bar, and drive sprocket). They function as a team while doing the actual work of cutting wood and therefore must be maintained as a team.

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

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

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

All saw chain can kick back, which can lead to dangerous loss of control of the chain saw and result in serious injury to the chain saw operator or bystanders. Follow all instructions in your chain saw operator's manual and in this booklet for proper use and maintenance of your chain saw's cutting chain, guide bar, and drive sprocket.

Guard Against Chain Saw Kickback

- Know your personal level of chain saw experience.
- Know your saw chain.

If you do not have experience and specialized training for dealing with chain saw kickback, then OREGON® urges you to use only low-kickback saw chains.

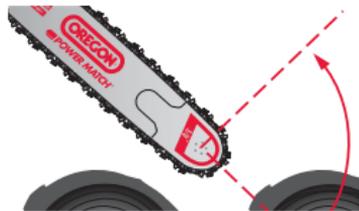
What is Kickback?

Kickback is the violent backward and/or upward motion of the chain saw guide bar occurring when the saw 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.

Avoiding Kickback Injury

Kickback Awareness

1. Be alert at all times to guard against a possible kickback reaction. Always be aware of the position of your guide bar's nose.
2. Different models of saw chain are available for most cutting tasks. Use the saw chain, suitable for your type of cutting, with the lowest kickback potential.
3. Narrow-nose guide bars such as our Double Guard® guide bars are recommended for maximum kickback safety.



Potential kickback situation

Chain Saw Safety

Recommended Personal Protective Equipment



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

Make Proper Work Practices a Habit

- Use only a right-hand grip to hold your chain saw (right hand on the trigger, left hand on the front handle).
- Keep your left arm straight for better control.
- Hold chain saw firmly with both hands. Keep thumb firmly wrapped around front handle.
- Stand to the side of the chain saw, never behind it.
- Run engine at full throttle.
- Use low-kickback saw chain and a reduced-kickback guide bar whenever possible.
- Keep the chain saw, saw chain, guide bar and drive sprocket properly maintained.
- Stand with feet well braced and your body balanced.
- Cut only wood with your chain saw. Do not cut any other material.



Caution

- Keep yourself clear of the work. Before cutting:
 - Check for hazards: Limbs, power lines, dead trees, etc.
 - Calculate how the object being cut will fall.
 - Determine if the chain saw may be thrown unexpectedly by the movement of the cut material.
 - If possible, position yourself to avoid injury, away from the natural lead of the tree.
- Never cut above shoulder level.
- Never cut while in a tree or while on a ladder.
- Keep others a minimum of two tree lengths away from the cutting area.
- Do not allow others to hold wood during cutting.

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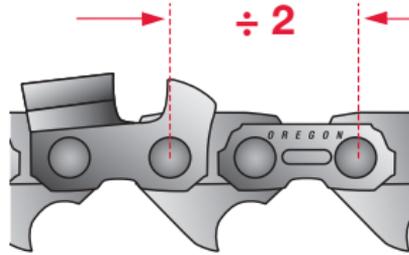
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OREGON® Saw Chain Terms

Saw Chain Pitch

Saw chain pitch is the distance between any three consecutive rivets, divided by two. OREGON® saw chain pitches are:

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



Saw Chain Gauge

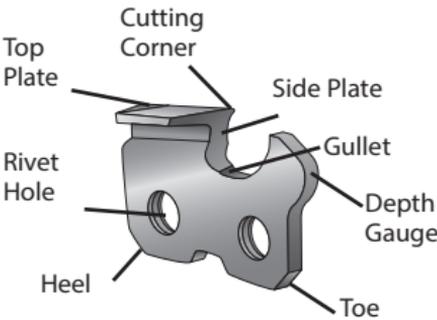
Saw chain gauge is the drive link's thickness where it fits into the guide bar groove. The industry standard for saw chain gauges are:

.043" (1.1 mm)
 .050" (1.3 mm)
 .058" (1.5 mm)
 .063" (1.6 mm)

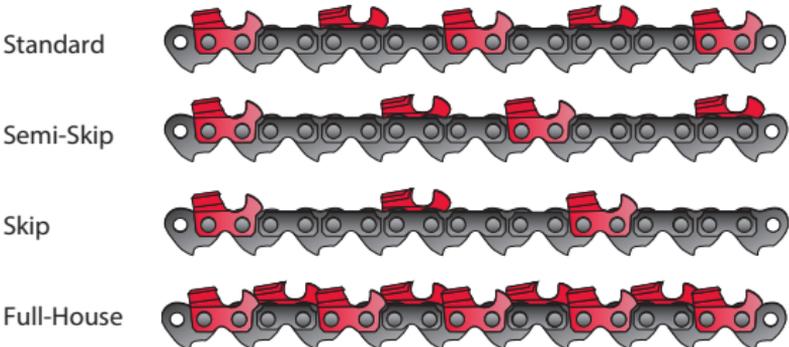
Harvester applications:

.063" (1.6 mm)
 .080" (2 mm)
 .122" (3.1 mm)

Parts of a Cutter

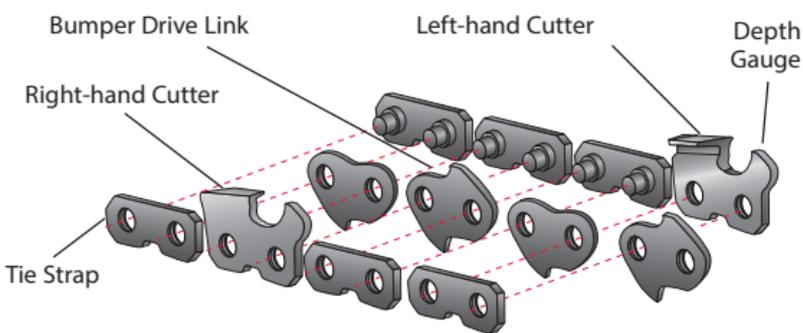
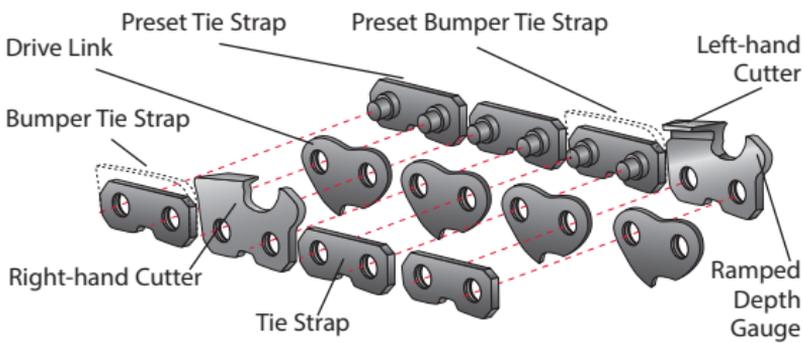


Saw Chain Cutter Sequence Terms



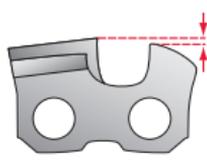
The Parts of a Saw Chain

NOTE: Highlighted parts below indicate kickback-reducing "bumper link" features: bumper tie strap, bumper drive link, and ramped depth gauge.

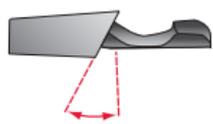


Cutter Maintenance Terms

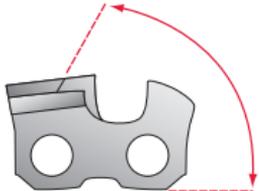
Depth Gauge Setting



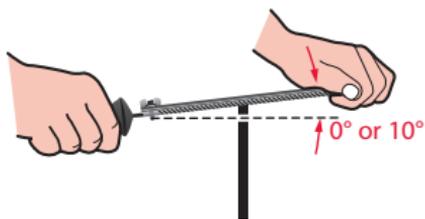
Top Plate Angle



Top Plate Cutting Angle



File Guide Angle



OREGON® Saw Chain Maintenance Tools

Filing Tools

Assembled Filing Guide



Sharpening Kit



Round File



Flat File



Depth Gauge Tool



Guide Bar-mounted Filing Guide



File Handle



Filing Vise



Grinders

Sure Sharp®
12-volt GrinderBench-model
Chain Grinder

Mini Grinder



Grinding Wheels



Saw Chain Repair Tools

Saw Chain Breaker



Rivet Spinner



Pocket Saw Chain Breaker



Saw Chain Identification

OREGON® Saw Chain Part	OREGON® Saw Chain Type	Saw Chain Gauge		Cutter Type		Cutter Sequence	Kickback- Reducing Features (if any)*
		in.	mm	End View	Side View		

Round Ground – 1/4"

25AP	Micro Chisel®	.050"	1.3	Micro Chisel®		Standard	
							

Round Ground – 3/8" Low Profile™

90PX	Micro-Lite® Low Vibration	.043" 	1.1	Chamfer Chisel™		Standard	
							
90SG	Micro-Lite® Low Vibration Low- Kickback	.043" 	1.1	Chamfer Chisel™		Standard	
							
91PX	Low Vibration XtraGuard® Low- Kickback	.050"	1.3	Chamfer Chisel™		Standard	
							
91PXL	Long Top Plate Low- Kickback	.050"	1.3	Semi-Chisel		Standard	
							
91VG	Low Vibration Low- Kickback	.050"	1.3	Chamfer Chisel™		Standard	
							
91VX	Low Vibration Low Profile™	.050"	1.3	Chamfer Chisel™		Standard	
							
91VXL	Long Top Plate	.050"	1.3	Semi-Chisel		Standard	
							

*Kickback-Reducing Features — Icon Key

Bumper Drive Links

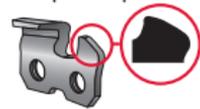
Bumper Tie Straps



Ramped
Depth Gauge

Low Profile
Ramped Depth Gauge

Wide-Track Vanguard™
Depth Gauge



Saw Chain Identification

OREGON® Saw Chain Part	OREGON® Saw Chain Type	Saw Chain Gauge		Cutter Type		Cutter Sequence	Kickback- Reducing Features (if any)*
		in.	mm	End View	Side View		

Round Ground – .325"

20BPX 21BPX 22BPX	Micro Chisel®	.050"	1.3	Micro Chisel®		Standard	
		.058"	1.5				
95VPX	Micro Lite™ Low- Kickback 	.050"	1.3	Micro Chisel®		Standard	 
							
20LPX 21LPX 22LPX	Super 20	.050"	1.3	Chisel		Standard	
		.058"	1.5				
.063"	1.6						

Round Ground – 3/8"

72V 73V 75V	Vanguard® Low- Kickback	.050"	1.3	Chisel		Standard	
		.058"	1.5				
72DPX 73DPX 75DPX	S-70	.050"	1.3	Semi-Chisel		Standard	
		.058"	1.5				
72APX	S-70	.050"	1.3	Semi-Chisel		Skip	
							
72LGX 73LGX 75LGX	Super Guard®	.050"	1.3	Chisel		Standard	
		.058"	1.5				
72JGX 73JGX 75JGX	Super Guard®	.050"	1.3	Chisel		Skip	
		.058"	1.5				
.063"	1.6						

*Refer to the Kickback Reducing Features — Icon Key on page 5 for all kickback icons.

OREGON® Saw Chain Part	OREGON® Saw Chain Type	Saw Chain Gauge		Cutter Type		Cutter Sequence	Kickback- Reducing Features (if any)*
		in.	mm	End View	Side View		

Round Ground – 3/8" (cont.)

72LPX 73LPX 75LPX	Super 70	.050" .058" .063"	1.3 1.5 1.6	Chisel		Standard	
				7			
72JPX 73JPX 75JPX	Super 70	.050" .058" .063"	1.3 1.5 1.6	Chisel		Skip	
				7			

Round Ground – .404"

27X	Micro Chisel®	.063"	1.6	Micro Chisel®		Standard	
				7			
27AX	Micro Chisel®	.063"	1.6	Micro Chisel®		Skip	
				7			
58L 59L	Super Guard®	.058" .063"	1.5 1.6	Chisel		Standard	
				7			
58J 59J	Super Guard®	.058" .063"	1.5 1.6	Chisel		Skip	
				7			
68LX	Super Chisel®	.063"	1.6	Chisel		Standard	
				7			
68JX	Super Chisel®	.063"	1.6	Chisel		Skip	
				7			

Saw Chain Identification

OREGON® Saw Chain Part	OREGON® Saw Chain Type	Saw Chain Gauge		Cutter Type		Cutter Sequence	Kickback- Reducing Features (if any)*
		in.	mm	End View	Side View		

Square Ground – 3/8"

72CL 72CLX 75CL 75CLX	Super Guard®	.050"	1.3	Chisel		Standard	
		.050"	1.3	7			
		.063"	1.6				
		.063"	1.6				
72CK 72CKX 75CK 75CKX	Super Guard®	.050"	1.3	Chisel		Semi-Skip	
		.050"	1.3	7			
		.063"	1.6				
		.063"	1.6				
72CJ 72CJX 75CJ 75CJX	Super Guard®	.050"	1.3	Chisel		Skip	
		.050"	1.3	7			
		.063"	1.6				
		.063"	1.6				

Square Ground – .404"

68CL	Super Chisel®	.063"	1.6	Chisel		Standard	
				7			
68CJ	Super Chisel®	.063"	1.6	Chisel		Skip	
				7			

Specialty – 1/4"

25A	Carving Chain – OREGON Sculptor®	.050"	1.3	Micro Chisel®		Standard	
				7			
25F	Carving Chain – OREGON Sculptor® Full-House	.050"	1.3	Micro Chisel®		Full-House Sequence	
				7			

Specialty – 3/8" Low Profile™

M91VXL	Multicut™	.050"	1.3	Semi-Chisel		Standard	
				7			

*Refer to the Kickback Reducing Features — Icon Key on page 5 for all kickback icons.

OREGON® Saw Chain Part	OREGON® Saw Chain Type	Saw Chain Gauge		Cutter Type		Cutter Sequence	Kickback- Reducing Features (if any)*
		in.	mm	End View	Side View		

Specialty – .325"

M20LPX M21LPX M22LPX	Multicut™	.050"	1.3	Chisel		Standard	
		.058"	1.5				
		.063"	1.6				

Specialty – 3/8"

72RD 73RD 75RD	3/8" Ripping Chain	.050"	1.3	Semi-Chisel		Standard	
		.058"	1.5				
		.063"	1.6				
M72LPX M73LPX M75LPX	Multicut™	.050"	1.3	Chisel		Standard	
		.058"	1.5				
		.063"	1.6				

Specialty – .404"

27R 27RA	.404" Ripping Chain	.063"	1.6	Micro Chisel®		Standard Skip	
							

Harvester – .404"

16H 18HX	Harvester	.063" .080"	1.6 2.0	Micro Chisel®		Standard	
							

Harvester – 3/4"

11BC	Chipper	.122"	3.1	Chipper		Standard	
							
11H	Semi-Chisel	.122"	3.1	Semi-Chisel		Standard	
							

Saw Chain Drive Link Number Identification

Nearly all OREGON® saw chains are named by a part number made up of a number (see below), followed by one, two or three letters (see facing page). OREGON® Part number Examples: 18HX, 72LPX, 91VG

The Numbers: 18 HX, 72 LPX, 91 VG

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

Chain Number	Pitch	Gauge	
		in.	mm
11	3/4"	.122"	3.1
16	.404"	.063"	1.6
18	.404"	.080"	2.0
20	.325"	.050"	1.3
21	.325"	.058"	1.5
22	.325"	.063"	1.6
25	1/4"	.050"	1.3
26	.404"	.058"	1.5
27	.404"	.063"	1.6
58	.404"	.058"	1.5
59	.404"	.063"	1.6
68	.404"	.063"	1.6
72	3/8"	.050"	1.3
73	3/8"	.058"	1.5
75	3/8"	.063"	1.6
90	3/8"	.043"	1.1
91	3/8"	.050"	1.3
95	.325"	.050"	1.3

Saw Chain Letter Identification ➔

The letters: 18HX, 72LPX, 91VG

The letters represent cutter type and sequence, safety features, or other physical traits of the saw chain.

- A** Micro Chisel®, 25A: standard sequence, 27A: skip sequence
- AX** Micro Chisel®, skip sequence
- AP** Micro Chisel® cutter, bumper drive link, standard sequence
- APX** Semi-chisel cutter, skip sequence
- BC** Chipper cutter, standard sequence
- BPX** Low vibration Micro Chisel® cutter, bumper drive link, standard sequence
- CJ** Square-ground chisel cutter, ramped depth gauge, skip sequence
- CJX** Square-ground DuraPro™ chisel cutter, ramped depth gauge, skip sequence
- CK** Square-ground chisel cutter, ramped depth gauge, semi-skip sequence
- CKX** Square-ground DuraPro™ chisel cutter, ramped depth gauge, semi-skip sequence
- CL** Square-ground chisel cutter, ramped depth gauge, standard sequence
- CLX** Square-ground DuraPro™ chisel cutter, ramped depth gauge, standard sequence
- DPX** Semi-Chisel cutter, bumper drive link, standard sequence
- F** Micro Chisel® cutter with full-house sequence
- H** Designed for harvester applications, standard sequence
- HX** Designed for harvester applications, standard sequence, larger kerf
- HJX** Designed for harvester applications, skip sequence, larger kerf
- J** Round-ground chisel cutter, ramped depth gauge, skip sequence
- JGX** Round-ground chisel cutter, ramped depth gauge, skip sequence
- JPX** Round ground chisel cutter, bumper drive link, skip sequence
- JX** Round-ground chisel cutter, standard sequence
- L** Round-ground chisel cutter, standard sequence
- LGX** Round-ground chisel cutter, ramped depth gauge, standard sequence
- LPX** Low vibration round-ground chisel cutter, bumper drive link, standard sequence
- LX** Round-ground chisel cutters, ramped depth gauges, equal pitch, standard sequence
- M** Specially-built chain designed for cutting in extremely dirty or abrasive conditions
- P** Chamfer Chisel™ cutter, bumper drive link, standard sequence
- PS** PowerSharp® chain, ramped depth gauges, guidance drive links, standard sequence (no hand maintenance required)
- PX** Low-vibration Chamfer Chisel™ cutter, ramped depth gauge, bumper drive link, standard sequence
- PXL** Low-vibration Semi-Chisel cutters with long top plate, bumper drive link, ramped depth gauge, standard sequence
- R** Ripping chain with Micro Chisel® cutter, standard sequence
- RA** Ripping Chain, Micro Chisel® cutter, skip sequence
- RD** Ripping chain, Semi-Chisel cutter, standard sequence
- S** Low-vibration Chamfer Chisel™ cutter, ramped depth gauge, standard sequence
- SG** Low-vibration Chamfer Chisel™ cutters, ramped depth gauge, bumper tie strap, standard sequence, narrow kerf design
- VG** Low-vibration Chamfer Chisel™ cutter, ramped depth gauge, bumper tie strap, standard sequence
- VPX** Low-vibration Micro Chisel® cutter, ramped depth gauge, bumper drive link, narrow-kerf design
- VXL** Low-vibration Semi-Chisel cutters with long top plate, ramped depth gauge, standard sequence

OREGON® End-user Symbols

Each of these four symbols represents a large category of saw chain users. OREGON® saw chains are listed under one or more of these symbols, generally indicating the type of user for whom the saw chain is intended.

Casual Chain Saw Users



Homeowners
Occasional firewood cutters
Campers
Hunters

Commercial Chain Saw Users



Arborists
Orchardists
Utility and construction workers
Tree surgeons
Farmers
Commercial thinners
Commercial firewood cutters
Landscapers
Carvers

Professional Chain Saw Users



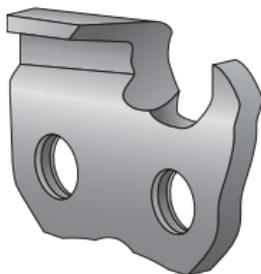
Big-timber loggers
Pulpwood loggers
Forest firefighters

Mechanical Harvester Users



For use on mechanical timber-harvesting equipment
Do not use harvester attachments on hand-held chain saws.

Note: *Harvester saw chains are listed in this manual for reference. For more information on other harvester products, see the OREGON® Harvester catalog and technical data.*

25AP – 1/4"
Micro Chisel®


P/N	Gauge
25AP*	.050" 1.3 mm

Use



Kickback-Reducing Features



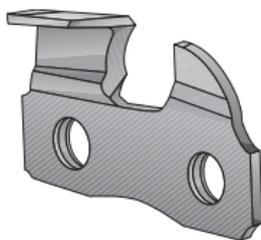
End View



< 2.3 cu in. / 38 cc	< 16" 40 cm	5/32" 4.0 mm	1/8" 3.2 mm

TOOL	File	File Guide	Depth Gauge	5-3/4" Grind Wheel	4-1/8" Grind Wheel
P/N	70504	37534	22290	OR534-18	OR4125-18

*25A and 25F saw chain available for carving applications (pgs. 24 – 25)

90SG – Micro-Lite™ – 3/8" Low Profile™
Micro Chisel® Chamfer Chisel™


P/N	Gauge
90SG	.043" 1.1 mm

Use


 Kickback-Reducing Features **Low-Kickback**


End View

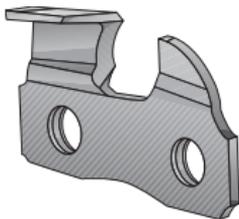


< 2.6 cu in. / 42 cc	< 16" 40 cm	11/64" 4.5 mm	1/8" 3.2 mm

TOOL	File	File Guide	Depth Gauge	5-3/4" Grind Wheel	4-1/8" Grind Wheel
P/N	70511	31692	31941	OR534-18	OR4125-18

90PX – Micro-Lite™ – 3/8" Low Profile™

Micro-Lite® Chamfer Chisel™



P/N	Gauge
90PX	.043" 1.1 mm

Use

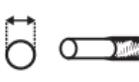


Kickback-Reducing Features



End View

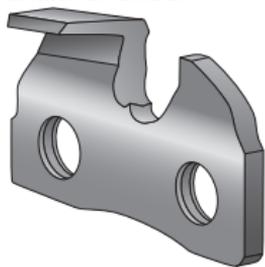


			
< 2.6 cu in. / 42 cc	< 16" 40 cm	11/64" 4.5 mm	1/8" 3.2 mm

TOOL	File	File Guide	Depth Gauge	5-3/4" Grind Wheel	4-1/8" Grind Wheel
P/N	70511	31692	31941	OR534-18	OR4125-18

91PX – 3/8" Low Profile™

Chamfer Chisel™



P/N	Gauge
91PX	.050" 1.3 mm

Use

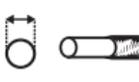


Kickback-Reducing Features **Low-Kickback**



End View

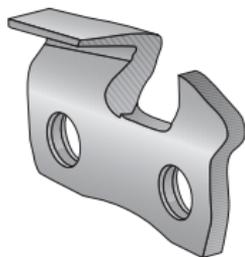


			
< 3.5 cu in. / 57 cc	< 18" 45 cm	5/32" 4.0 mm	1/8" 3.2 mm

TOOL	File	File Guide	Depth Gauge	5-3/4" Grind Wheel	4-1/8" Grind Wheel
P/N	70504	37534	31941	OR534-18	OR4125-18

91PXL – 3/8" Long Top Plate – Low-Profile™

Semi-Chisel



P/N	Gauge
91PXL	.050" 1.3 mm

Use



Kickback-Reducing
Features **Low-Kickback**



End View



< 2.6 cu in. / 42 cc	< 18" 45 cm	5/32" 4.0 mm	1/8" 3.2 mm

TOOL	File	File Guide	Depth Gauge	5-3/4" Grind Wheel	4-1/8" Grind Wheel
P/N	70504	37534	31941	OR534-18	OR4125-18

91VG – Xtraguard® – 3/8" Low-Profile™

Chamfer Chisel™



P/N	Gauge
91VG	.050" 1.3 mm

Use



Kickback-Reducing
Features **Low-Kickback**



End View

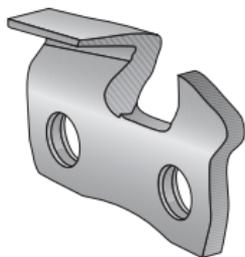


< 2.6 cu in. / 42 cc	< 18" 45 cm	5/32" 4.0 mm	1/8" 3.2 mm

TOOL	File	File Guide	Depth Gauge	5-3/4" Grind Wheel	4-1/8" Grind Wheel
P/N	70504	37534	31941	OR534-18	OR4125-18

91VXL – 3/8" Long Top Plate – Low-Profile™

Semi-Chisel



P/N	Gauge
91VXL	.050" 1.3 mm

Use



Kickback-Reducing Features



End View

< 2.6 cu in. / 42 cc	< 18" 45 cm	5/32" 4.0 mm	1/8" 3.2 mm

TOOL	File	File Guide	Depth Gauge	5-3/4" Grind Wheel	4-1/8" Grind Wheel
P/N	70504	37534	31941	OR534-18	OR4125-18

20BPX, 21BPX, 22BPX – Micro Chisel® – .325"

Micro Chisel®



P/N	Gauge
20BPX	.050" 1.3 mm
21BPX	.058" 1.5 mm
22BPX	.063" 1.6 mm

Use



Kickback-Reducing Features **Low-Kickback**



End View

< 3.8 cu in. / 62 cc	< 20" 50 cm	3/16" 4.8 mm	3/16" 4.8 mm

TOOL	File	File Guide	Depth Gauge	5-3/4" Grind Wheel	4-1/8" Grind Wheel
P/N	70503	31690	31941	OR534-316	OR4125-316

95VPX – Micro-Lite™ – .325"

Micro Chisel®



P/N	Gauge
95VPX	.050" 1.3 mm

Use



Kickback-Reducing Features **Low-Kickback**



End View

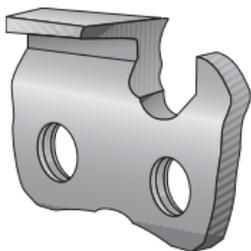


< 3.5 cu in. / 57 cc	< 18" 45 cm	3/16" 4.8 mm	3/16" 4.8 mm	3/16" 4.8 mm

TOOL	File	File Guide	Depth Gauge	5-3/4" Grind Wheel	4-1/8" Grind Wheel
P/N	70503	31690	31941	OR534-316	OR4125-316

20LPX, 21LPX, 22LPX – Super 20 – .325"

Chisel



P/N	Gauge
20LPX	.050" 1.3 mm
21LPX	.058" 1.5 mm
22LPX	.063" 1.6 mm

Use



Kickback-Reducing Features



End View

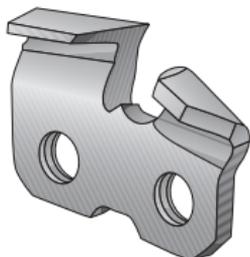


< 3.8 cu in. / 62 cc	< 20" 50 cm	3/16" 4.8 mm	3/16" 4.8 mm	3/16" 4.8 mm

TOOL	File	File Guide	Depth Gauge	5-3/4" Grind Wheel	4-1/8" Grind Wheel
P/N	70503	31690	31941	OR534-316	OR4125-316

72V, 73V, 75V – Vanguard® – 3/8"

Vanguard® Chisel



P/N	Gauge
72V	.050" 1.3 mm
73V	.058" 1.5 mm
75V	.063" 1.6 mm

Use



Kickback-Reducing Features **Low-Kickback**



End View

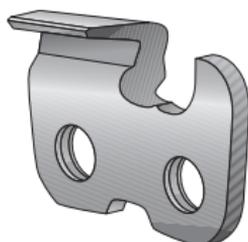


< 6.0 cu in. / 100 cc	< 32" 80 cm	7/32" 5.5 mm	3/16" 4.8 mm

TOOL	File	File Guide	Depth Gauge	5-3/4" Grind Wheel	4-1/8" Grind Wheel
P/N	70502	31686	31941	OR534-316	OR4125-316

72APX, 72DPX, 73DPX, 75DPX – S-70 – 3/8"

Semi-Chisel



P/N	Gauge
72APX	.050" 1.3 mm
72DPX	.050" 1.3 mm
73DPX	.058" 1.5 mm
75DPX	.063" 1.6 mm

Use



Kickback-Reducing Features



End View

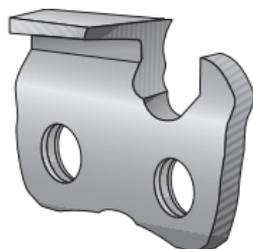


< 6.0 cu in. / 100 cc	< 36" 90 cm	7/32" 5.5 mm	3/16" 4.8 mm

TOOL	File	File Guide	Depth Gauge	5-3/4" Grind Wheel	4-1/8" Grind Wheel
P/N	70502	31686	31941	OR534-316	OR4125-316

72LGX/JGX, 73LGX/JGX, 75LGX/JGX – Super Guard® – 3/8"

Chisel



P/N	Gauge
72LGX, JGX	.050" 1.3 mm
73LGX, JGX	.058" 1.5 mm
75LGX, JGX	.063" 1.6 mm

Use



Kickback-Reducing Features



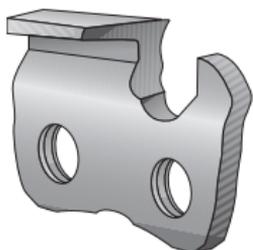
End View

< 6.0 cu in. / 100 cc	< 36" 90 cm	7/32" 5.5 mm	3/16" 4.8 mm

TOOL	File	File Guide	Depth Gauge	5-3/4" Grind Wheel	4-1/8" Grind Wheel
P/N	70502	31686	31941	OR534-316	OR4125-316

72LPX/JPX, 73LPX/JPX, 75LPX/JPX – Super 70 – 3/8"

Chisel



P/N	Gauge
72LPX, JPX	.050" 1.3 mm
73LPX, JPX	.058" 1.5 mm
75LPX, JPX	.063" 1.6 mm

Use



Kickback-Reducing Features



End View

< 6.0 cu in. / 100 cc	< 36" 90 cm	7/32" 5.5 mm	3/16" 4.8 mm

TOOL	File	File Guide	Depth Gauge	5-3/4" Grind Wheel	4-1/8" Grind Wheel
P/N	70502	31686	31941	OR534-316	OR4125-316

27X, 27AX – Micro-Chisel® – .404"

Micro-Chisel®



P/N	Gauge
27X, 27AX	.063" 1.6 mm

Use



Kickback-Reducing Features



End View

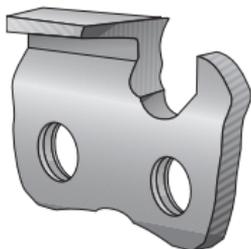


> 4.0 cu in. / 65 cc	> 20" 50 cm	7/32" 5.5 mm	3/16" 4.8 mm

TOOL	File	File Guide	Depth Gauge	5-3/4" Grind Wheel	4-1/8" Grind Wheel
P/N	70502	31686	22291	OR534-316	OR4125-316

58L, 58J, 59L, 59J – Super Guard® – .404"

Chisel



P/N	Gauge
58L	.058" 1.5 mm
59L	.063" 1.6 mm

Use



Kickback-Reducing Features



End View

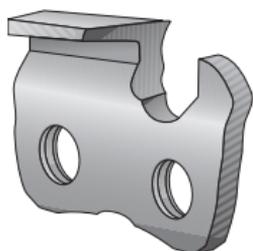


> 4.0 cu in. / 65 cc	> 20" 50 cm	7/32" 5.5 mm	3/16" 4.8 mm

TOOL	File	File Guide	Depth Gauge	5-3/4" Grind Wheel	4-1/8" Grind Wheel
P/N	70502	31686	21941	OR534-316	OR4125-316

68LX, 68JX – Super Chisel® – .404"

Chisel



P/N	Gauge
68LX, 68JX	.063" 1.6 mm

Use



End View

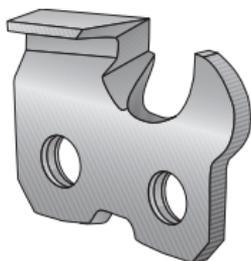


> 4.0 cu in. / 65 cc	> 20" 50 cm	7/32" 5.5 mm	3/16" 4.8 mm

TOOL	File	File Guide	Depth Gauge	5-3/4" Grind Wheel	4-1/8" Grind Wheel
P/N	70502	31686	21941	OR534-316	OR4125-316

72CL/CLX, 75CL/CLX – Super Guard® – 3/8"

Chisel



P/N	Gauge
72CL, CLX	.050" 1.3 mm
75CL, CLX	.063" 1.6 mm

Use



Kickback-Reducing Features



End View

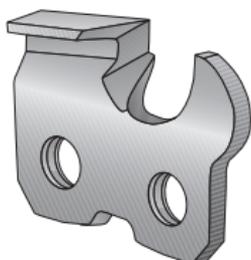


Square Ground Saw Chain

	
< 6.0 cu in. / 100 cc	< 36" 90 cm

72CK/CKX, 75CK/CKX – Super Guard® – 3/8"

Chisel



P/N	Gauge
72CK, CKX	.050" 1.3 mm
75CK, CKX	.063" 1.6 mm

Use



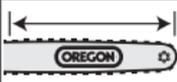
Kickback-Reducing Features



End View

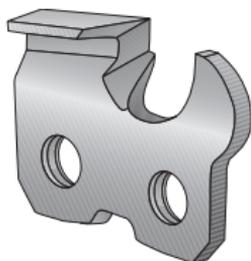


Square Ground Saw Chain

	
< 6.0 cu in. / 100 cc	< 36" 90 cm

72CJ/CJX, 75CJ/CJX – Super Guard® – 3/8"

Chisel



P/N	Gauge
72CJ, CJX	.050" 1.3 mm
75CJ, CJX	.063" 1.6 mm

Use



Kickback-Reducing Features



End View

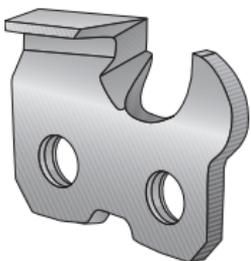


Square Ground Saw Chain

	
< 6.0 cu in. / 100 cc	< 36" 90 cm

68CL, 68CJ – Super Chisel® – .404"

Chisel



P/N	Gauge
68CL, 68CJ	.063" 1.6 mm

Use



End View



Square Ground Saw Chain

	
> 4.0 cu in. / 65 cc	> 20" 50 cm

25A Carving Saw Chain – OREGON Sculptor® – 1/4"

Micro Chisel®



P/N	Gauge
25A	.050" 1.3 mm

End View



< 2.3 cu in. / 38 cc	< 16" 40 cm	5/32" 4.0 mm	1/8" 3.2 mm

TOOL	File	File Guide	Depth Gauge	5-3/4" Grind Wheel	4-1/8" Grind Wheel
P/N	70504	37534	22290	OR534-18	OR4125-18



Warning: Failure to use this saw chain on guide bars with nose radii of 12 mm or smaller can result in severe kickback.

25F Carving Saw Chain – OREGON Sculptor® – 1/4" (Full-House)

Micro Chisel®



P/N	Gauge
25F	.050" 1.3 mm

End View



< 2.3 cu in. / 38 cc	< 16" 40 cm	5/32" 4.0 mm	1/8" 3.2 mm

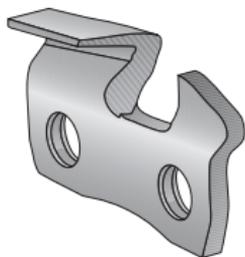
TOOL	File	File Guide	Depth Gauge	5-3/4" Grind Wheel	4-1/8" Grind Wheel
P/N	70504	37534	22290	OR534-18	OR4125-18



Warning: Failure to use this saw chain on guide bars with nose radii of 12 mm or smaller can result in severe kickback.

M91VXL – Multicut™ – 3/8" Low Profile™

Semi-Chisel



P/N	Gauge
M91VXL	.050" 1.3 mm

Use



Kickback-Reducing Features



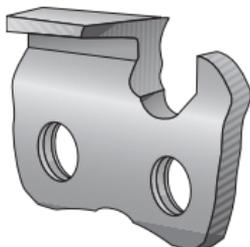
End View

< 2.6 cu in. / 42 cc	< 18" 45 cm	5/32" 4.0 mm	1/8" 3.2 mm

TOOL	File	File Guide	Depth Gauge	5-3/4" Grind Wheel	4-1/8" Grind Wheel
P/N	70504	37534	31941	OR534-18	OR4125-18

M20LPX, M21LPX, M22LPX – Super 20, Multicut™ – .325"

Chisel



P/N	Gauge
M20LPX	.050" 1.3 mm
M21LPX	.058" 1.5 mm
M22LPX	.063" 1.6 mm

Use



Kickback-Reducing Features



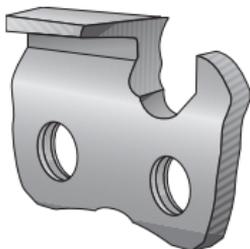
End View

< 3.8 cu in. / 62 cc	< 20" 50 cm	3/16" 4.8 mm	3/16" 4.8 mm

TOOL	File	File Guide	Depth Gauge	5-3/4" Grind Wheel	4-1/8" Grind Wheel
P/N	70503	31690	31941	OR534-316	OR4125-316

M72LPX, M73LPX, 75LPX – Super 70, Multicut™ – 3/8"

Chisel



P/N	Gauge
M72LPX	.050" 1.3 mm
M73LPX	.058" 1.5 mm
M75LPX	.063" 1.6 mm

Use



Kickback-Reducing Features



End View



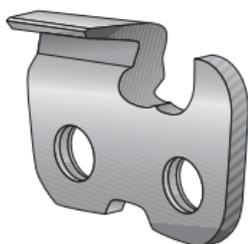
< 6.0 cu in. / 100 cc	< 36" 90 cm	7/32" 4.8 mm	3/16" 4.8 mm

TOOL	File	File Guide	Depth Gauge	5-3/4" Grind Wheel	4-1/8" Grind Wheel
P/N	70502	31686	31941	OR534-316	OR4125-316

M-series (Multicut™) chain is specially built chain designed for cutting in extremely dirty or abrasive conditions.

72RD, 73RD, 75RD – Ripping Saw Chain – 3/8"

Semi-Chisel



P/N	Gauge
72RD	.050" 1.3 mm
73RD	.058" 1.5 mm
75RD	.063" 1.6 mm

Use



End View



< 6.0 cu in. / 100 cc	< 36" 90 cm	7/32" 5.5 mm	3/16" 4.8 mm

TOOL	File	File Guide	Depth Gauge	5-3/4" Grind Wheel	4-1/8" Grind Wheel
P/N	70502	31686	31941	OR534-316	OR4125-316

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

27R, 27RA – Ripping Saw Chain – .404"

Micro Chisel®



P/N	Gauge
27R	.063" 1.6 mm

Use



End View



< 4.0 cu in. / 65 cc	< 20" 50 cm	7/32" 5.5 mm	3/16" 4.8 mm

TOOL	File	File Guide	Depth Gauge	5-3/4" Grind Wheel	4-1/8" Grind Wheel
P/N	70502	31686	22291	OR534-316	OR4125-316

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

16H, 18HX – Harvester Saw Chain, Micro Chisel® – .404"

Micro Chisel®



P/N	Gauge
16H	.063" 1.6 mm
18HX	.080" 2.0 mm

Use



End View



TOOL	File	File Guide	Depth Gauge	5-3/4" Grind Wheel	4-1/8" Grind Wheel
P/N	70502	31686	38850	OR534-516	OR4125-316

*16H and 18HX saw chain is used only on mechanical timber harvesters, processors and pond-and-deck applications.

11BC – Chipper, Harvester Saw Chain – 3/4"

Chipper



P/N	Gauge
11BC	.122" 3.1 mm

Use



End View



TOOL	File	File Guide	Depth Gauge	5-3/4" Grind Wheel	4-1/8" Grind Wheel
P/N	90410	107617	26800	OR534-516	-

*11BC saw chain is used only on mechanical timber harvesters, processors and pond-and-deck applications.

11H – Semi-Chisel, Harvester Saw Chain – 3/4"

Semi-Chisel



P/N	Gauge
11H	.122" 3.1 mm

Use



End View



TOOL	File	File Guide	Depth Gauge	5-3/4" Grind Wheel	4-1/8" Grind Wheel
P/N	90410	107617	26800	OR534-516	-

*11H saw chain is used only on mechanical timber harvesters, processors and pond-and-deck applications.

The Four Basic Saw Chain Rules

Attention Chain Saw Users

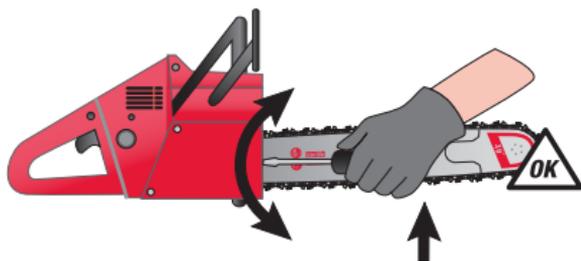
OREGON® urges you to become familiar with the four basic saw chain rules. Users who know and follow these rules can count on superior performance from their saw chain, guide bar, and drive sprocket — and reduce safety hazards at the same time.

Rule Number 1

Your saw chain must be correctly tensioned



More saw chain and guide bar problems are caused by incorrect saw chain tension than by any other single factor. See pages 35 – 37 on how to tension your saw chain.



Rule Number 2

Your saw chain must be well lubricated

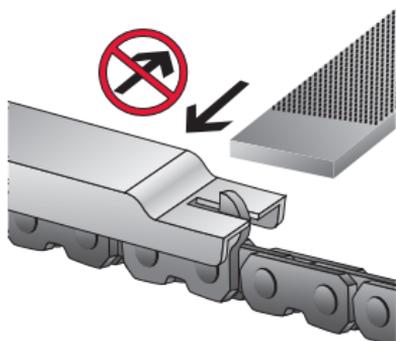


A constant supply of oil to your chain saw's guide bar, saw chain and drive sprocket is vital. Without it, excessive friction, wear, and damage will occur.

See page 37 for instructions on how to lubricate your chain.

Rule Number 3

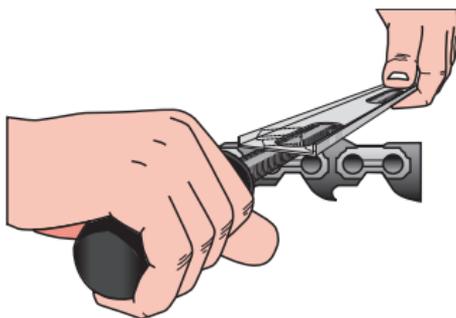
Your saw chain's depth gauges must be set correctly



Depth gauge setting and depth gauge shape are critical to performance and safety. See pages 38 – 39 for instructions on how to set depth gauges.

Rule Number 4

Your saw chain must be sharp



When your saw chain is sharp, it does the work. When it's not, you do the work — and your guide bar and drive sprocket will wear more rapidly. See pages 40 – 41 for instructions on how to sharpen your saw chain. See pages 13 – 31 to find maintenance specifications for each OREGON® saw chain type.

Saw Chain Maintenance

ATTENTION: DEALERS, CHAIN SAW USERS, AND ANYONE WHO SERVICES SAW CHAIN. IMPORTANT SAFETY INFORMATION.

OREGON® urges you to become familiar with proper saw chain maintenance techniques, and the possible dangers which can result if saw chain is not properly maintained.



Warning

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



Always turn off your chain saw before performing any type of maintenance.



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

1. Incorrect sharpening of angles.
2. Dull cutter teeth.
3. Alteration of kickback-reducing features.
4. Excessive depth gauge settings.
5. Incorrect depth gauge shapes.
6. Loose saw chain tension.
7. Incorrectly installed parts.
8. Loose rivets, cracks or breaks in any saw chain component.



When performing maintenance on saw chain, follow all instructions on pages 34 – 49. Doing so can minimize the risk of injury.

How to Tension your Saw Chain without Intenz®



Read operation and handling warnings on previous page.

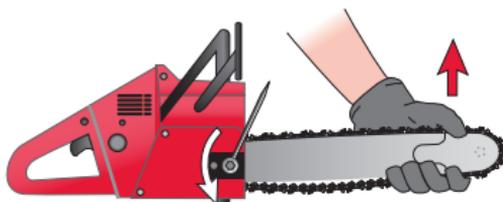


Note: Always wear protective gloves.

1. Turn the engine off.

Note: Never tension your saw chain right after cutting when the saw chain has expanded in length from the heat. Saw chain tensioned while hot will contract when it cools, and can damage your guide bar and saw chain. ONLY TENSION SAW CHAIN WHEN THE SAW CHAIN HAS COOLED.

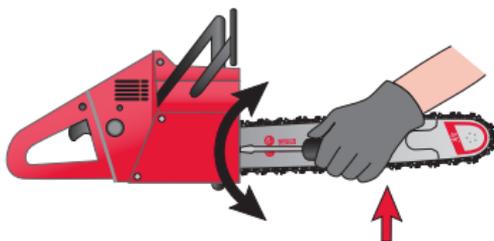
2. Loosen guide bar mounting nuts on the side of your chain saw.
3. Pull the guide bar nose up, and keep it up as you adjust tension.



4. Adjust tension as follows:

If You Have a Solid-nose Guide Bar

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



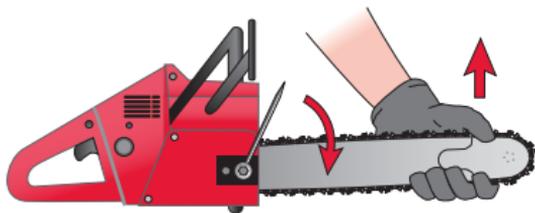
If You Have a Sprocket-nose Guide Bar

Tension must be tighter than on a solid-nose guide bar. Turn your chain saw's tension adjustment screw until the bottoms of the lowest tie straps and cutters come up and solidly contact the bottom of the guide bar rail.

Saw Chain Maintenance

How to Tension your Saw Chain without Intenz® (cont.)

5. With either type of guide bar, hold the nose up and tighten your chain saw's rear guide bar mounting nut first, then tighten the front nut.



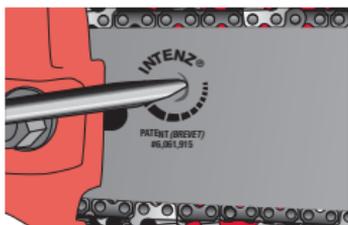
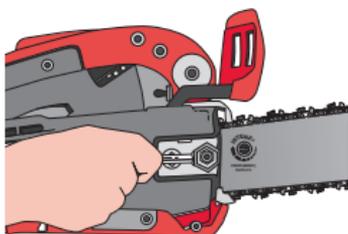
6. Pull the saw chain by hand along the top of the guide bar several times, from the engine to the guide bar's tip. Saw chain should feel snug but still pull freely.

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

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

How to Tension your Saw Chain with Intenz®

1. Turn the engine off.
2. Loosen the guide bar mounting nuts on the side of the chain saw.
3. Insert a screwdriver or Scrench in the Intenz™ slot of the guide bar.
4. Turn the screwdriver or Scrench to move the guide bar forward, away from the chain saw as far as possible.
5. Tighten the back guide bar mounting nut, then tighten the front nut.



How to Lubricate your Saw Chain

1. Keep your chain saw's saw chain oiling system filled with clean guide bar-and-saw chain oil.
2. Never put used oil or old motor oil in your chain saw or on your saw chain. These oils have acids and grit that will shorten the life of your cutting system.
3. Be sure your saw chain, guide bar, and drive sprocket are always receiving oil from the chain saw during operation.
4. Fill your oil reservoir each time you fill your chain saw's gas tank.

Saw Chain Maintenance

How to Set Depth Gauges

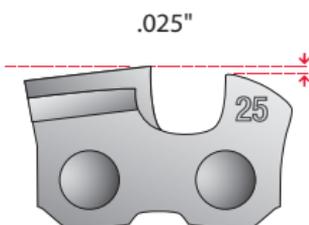


Read operation and handling warnings on page 34.

Note:

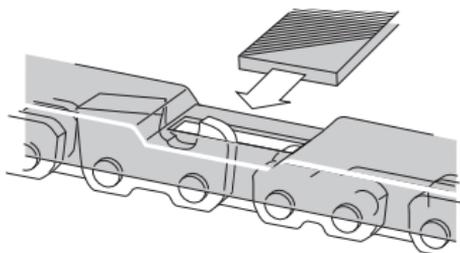
- **On-chain saw depth gauge setting requires proper saw chain tension, as shown on pages 35 – 37, prior to filing.**
- **Pages 13 – 31 show the correct depth gauge setting and the part number of the correct depth gauge tool for each of the different OREGON® saw chain types.**
- **Find the page (13 – 31), which gives the correct filing specifications for your OREGON® saw chain type. To do so, use the Saw Chain Identification Chart on pages 5 – 11.**
- **If unsure of your OREGON® saw chain's type or part number, ask your OREGON® saw chain dealer.**
- **Most OREGON® saw chains have a number stamped on each depth gauge indicating the correct depth gauge setting.**

Example:

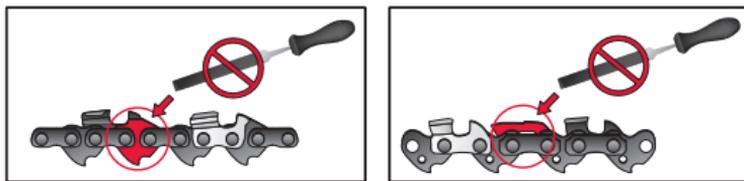


.025" (0.64 mm) Depth Gauge Setting

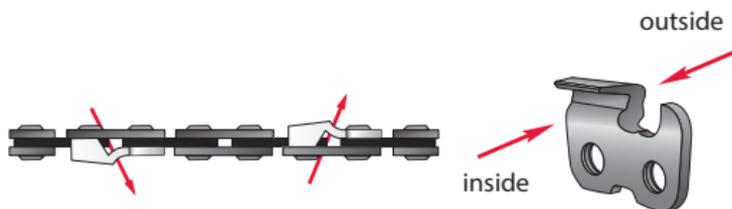
1. Use a depth gauge tool with the correct built-in setting for your saw chain and check your depth gauges every three or four sharpenings.
2. Place the tool on top of your saw chain so one depth gauge protrudes through the slot in the tool.
3. If the depth gauge extends above the slot, file the depth gauge down level with the top of the tool using a flat file. Never file the depth gauge down enough to exceed the depth gauge setting specified in this manual for your OREGON® saw chain.



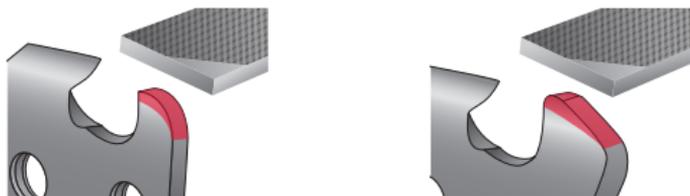
Note: Do not file or alter the tops of kickback-reducing bumper tie straps or bumper drive links.



4. File from the inside of the round ground saw chain cutters to the outside. (For square ground saw chain, file from the outside of the cutter to the inside.)



5. After lowering, always file off the front corner of each depth gauge parallel to its original rounded or ramped shape.



Note: On many saw chains, it may be helpful to tip the depth gauge tool on end and place it in front of the working corner in order to protect the cutting surfaces when reshaping depth gauges.

Saw Chain Maintenance

How to Sharpen Cutters



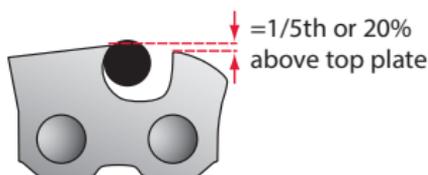
Read operation and handling warnings on page 34.

Note:

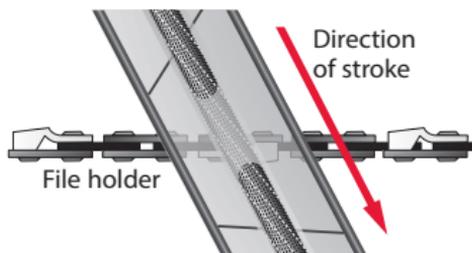
- *On-chain saw sharpening requires proper saw chain tension.*
- *Pages 13–31 show the correct maintenance specifications and the correct maintenance tool part numbers for each of the OREGON® saw chain types.*
- *Find the correct filing specifications for your OREGON® saw chain type.*
- *If unsure of your OREGON® saw chain's type, part number or filing specification, ask your OREGON® saw chain dealer.*
- *Check and adjust depth gauges.*

Round-file Cutter Sharpening

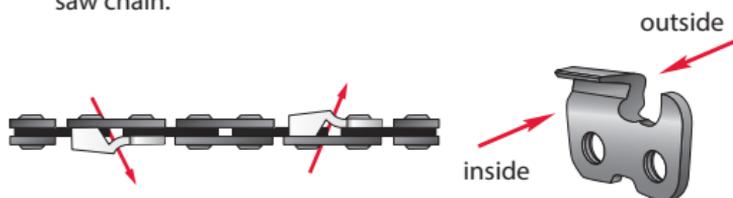
1. Be sure 1/5th, or 20%, of the file's diameter is always held above the cutter's top plate. Using the correct file guide is the easiest way to hold the file in this position.



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



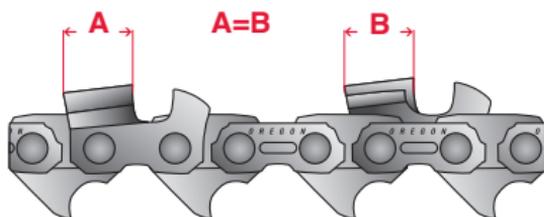
3. Sharpen cutters on one side of the saw chain first. File from the inside of each cutter to the outside. Then turn your chain saw around and repeat the process for cutters on the other side of the saw chain.



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.



6. Recheck depth gauges. If resetting of the depth gauges is necessary, follow instructions on pages 38 – 39.

Note: Do not file or alter the tops of kickback-reducing bumper tie straps or bumper drive links.

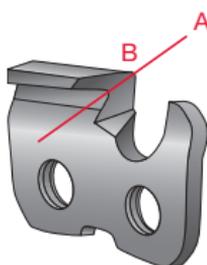
Saw Chain Maintenance – Square Filing

Who should perform square filing?

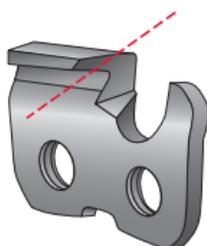
Most chain saw users will probably never need to use square saw chain, nor learn to perform square filing. But in areas where the timber is larger and the guide bars used are longer, the performance advantages of square saw chain can outweigh the fact that square filing is more difficult and much less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

File Positioning

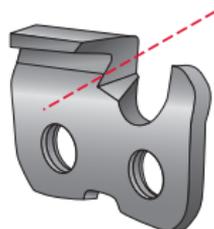
The file will sharpen the top plate, and the side plate, simultaneously. This creates a line, (A), where the top-plate cutting angle meets the side-plate angle. For best results, file so that the line intersects the cutting corner (B).



Correctly
Filed Corner

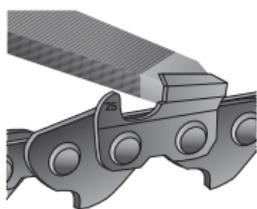


Incorrect
TOO HIGH

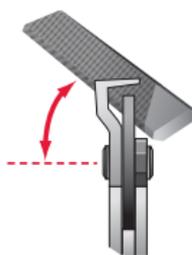


Incorrect
TOO LOW

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

OREGON® recommends that square saw 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. However, filing from the outside in will wear out your file faster.



Some square saw 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 saw chain, then reverse the saw chain and repeat the process. Use the same file positions for cutters on the opposite side of the saw chain.

Tools

Only use files specially designed for square chisel cutters, available from your chain saw dealer.



Double Bevel



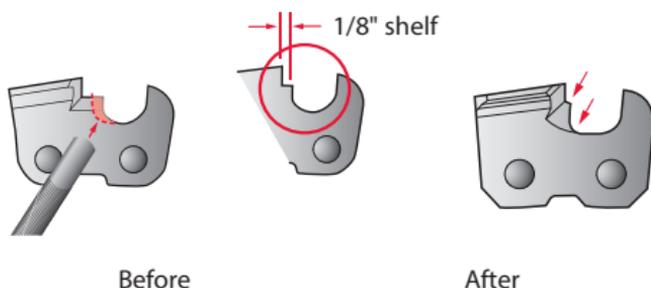
Hexagon



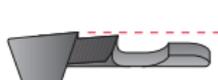
"Goofy"

Gullet Filing

Approximately every fifth 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.

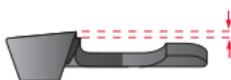


If not cleaned out regularly, the outer edge of your gullets will eventually prevent the working corners of your cutters from getting an adequate bite into the wood.



Wrong

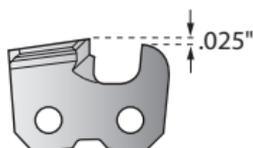
Little or no clearance between the working corner and the gullet's outer edge.



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 saw chain is .025".

Saw Chain Maintenance

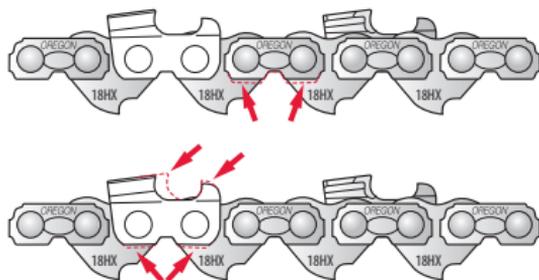
How to Install New Saw Chain Parts



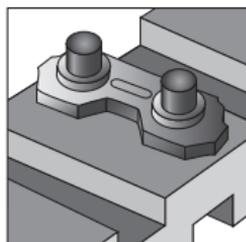
Read operation and handling warnings on page 34.

Note: Use only OREGON® parts to repair OREGON® saw chain, and only use parts which are the correct size and type for your saw chain.

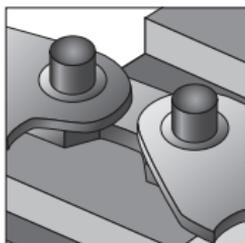
1. Remove rivets, and parts to be replaced, as shown under “How to Break Out Rivets,” pages 46 – 47. Never reassemble a saw chain with old preset tie straps — always use new preset tie straps.
2. If needed, file off bottom of new parts to match existing worn parts. File new cutters back to match worn cutters. Do not file the tops of kickback-reducing bumper tie straps or bumper drive links.



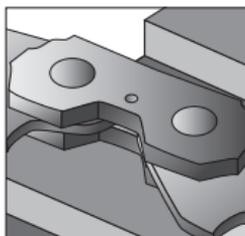
3. Place the preset tie strap on a flat outer surface of a saw chain breaker anvil. Be sure the rivets are pointing up.



4. Assemble saw chain to the preset tie strap.



5. Assemble tie strap with brandmark, Lubrilink™ contour or dot 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 2 – 3. If unsure, ask your OREGON® dealer.
7. To form rivet heads, use an OREGON® rivet spinner. Follow the instructions packaged with the rivet spinner.

Caution:

Rivet heads must be snug and secure while still allowing all joined parts to move freely. Rapid wear leading to possible saw 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.*

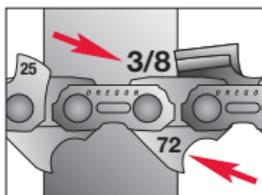
Saw Chain Maintenance

How to Break Out Rivets

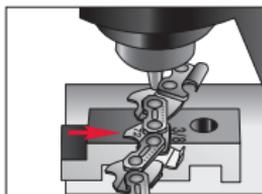


Note: Always wear approved safety accessories for hands and face when breaking out rivets.

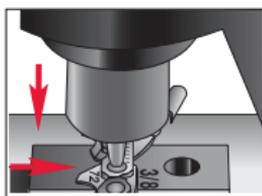
1. Select proper anvil slot number on saw chain breaker anvil which matches the drive link number on the saw chain to be broken (see Saw Chain Drive Link Number Chart on the next page).



2. Insert saw chain portion for breaking into the proper slot of the saw chain anvil and push saw chain forward until bottom tie strap is flush with the far side of slot. (Drive link is then supported on both sides of slot.)



3. Position rivet head directly under punch. Pull handle down if using a bench saw chain breaker, or hammer out rivet if using a handheld punch. Do not use excessive force.

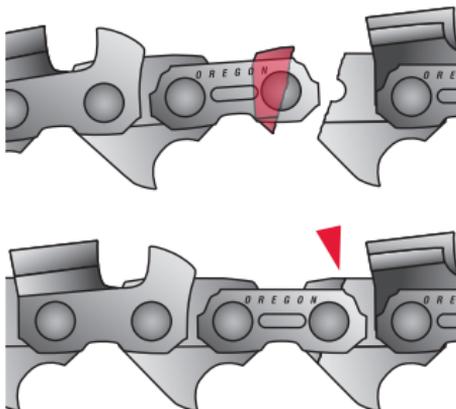


Note: Important — when breaking saw chain at cutter, make sure cutter is in the top position.



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 tighten the saw chain link in the adjustable anvil.



2. See steps 1 – 3 from “How to Break Out Rivets” on the previous page.

Saw Chain Drive Link Number Chart

Anvil Slot Number	1/4	.325	90/ 91	3/8	.404	3/4	18H
Drive Link Number	25	95	90	72	16	11	18
		20	91	73	26		
		21		75	27		
		22			58		
		33			59		
		34			68		
		35					

Saw Chain Maintenance

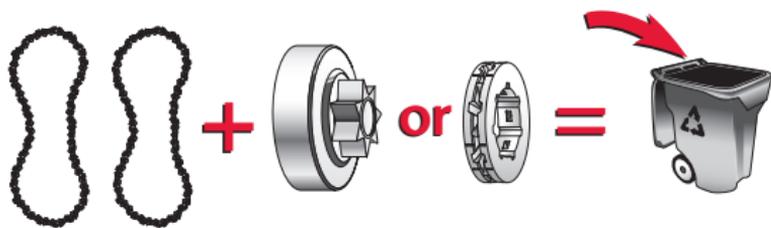
How to Break in a New Saw Chain

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

1. Oil your saw chain prior to use.



- Never run any saw chain on a worn drive sprocket rim or spur system*, especially a new saw chain. Replace your rim or spur system after every two saw chains, or sooner.



- Run new saw chain at half throttle for several minutes before doing any cutting in order to allow oil to reach all parts of the guide bar and saw chain. Allow the chain saw and the cutting system to warm up fully. Also recommended: Dipping the saw chain in guide bar oil or drizzling oil down the length of the saw chain on the guide before running it. This gives the saw chain maximum lubrication at the bearing surfaces and rivets.
- Stop, check saw chain tension, let saw chain cool, and adjust tension often during operation, as shown on pages 35 – 37.
- Keep the first several cuts light. Keep extra oil on the cutting system during these first cuts, and do not apply heavy pressure.

*See top of page 68 for drive sprocket wear-depth indicators.

Saw Chain Troubleshooting

Most saw chain problems are caused by four things: incorrect saw chain tension, incorrect filing, lack of lubrication and cutting any material other than wood.

Here are the things you should look for, and the corrective actions you should take:

Problem

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

Look closely at your saw chain's cutters, and compare them to the 12 illustrations below.

1



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

2



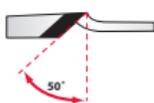
Severe abrasive damage on side plates.
Remedy: **See A.**

3



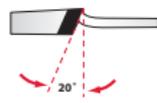
Abrasive or impact damage to the top plate or working corner.
Remedy: **See A.**

4



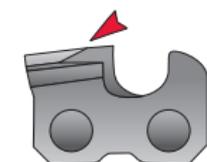
Too much top plate filing angle.
Remedy: **See B.**

5



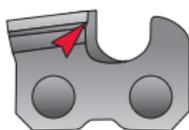
Too little top plate filing angle.
Remedy: **See B.**

6



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

7



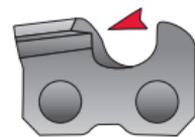
Too little top plate cutting angle.
Remedy: **See D.**

8



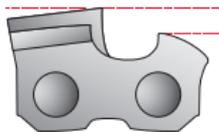
Too much hook in side plate.
Remedy: **See C.**

9



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

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. (pictures 1, 2, and 3)
- B. Resharpener cutters while holding your file at the correct top plate filing angle for your saw chain. Be sure your file guide is stamped with your saw chain's correct top plate angle. (pictures 4 and 5)
- C. Either your file was too small or it was held too low. Resharpener cutters with a file of the correct size, held in the correct position. Use the correct file guide. (pictures 6 and 8)
- D. Either your file was too large or it was held too high. Resharpener cutters with a file of the correct size, held in the correct position. Use the correct file guide. (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 saw chain. (picture 10)
- F. File depth gauges down to their correct height. (picture 11)
- G. File the front corners of depth gauges parallel to their original rounded or ramped shape. (picture 12)

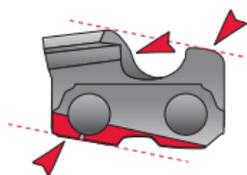
NOTE: See pages 38 – 41 for the proper filing techniques to use when performing the remedies above.

Saw Chain Troubleshooting

Problem

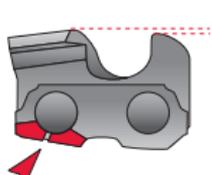
Cutters and tie straps wear heavily or break

13



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

14



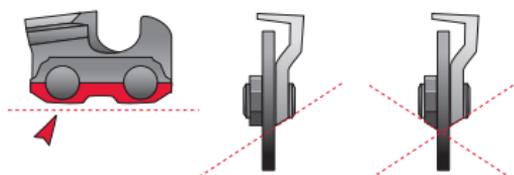
Cracks under rear rivet holes on cutters and opposite tie straps.
Remedy: **See H.**

15



Tie straps between cutters, 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 saw chain and guide bar. (3) Reduce the amount of depth gauge setting (may require replacement of the saw chain). (4) Do not force dull saw chain to cut. (5) Do not force saw chain through frozen wood. (6) Keep cutters sharp. (7) Always maintain proper tension. (pictures 13 and 14)

- I.** Such breakage is usually caused by incorrect field assembly of preset tie straps. Breakage usually occurs on the tie strap opposite the factory preset tie strap (picture 15). See number 7, page 45 for correctly shaped rivets.
- 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 saw chain. (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



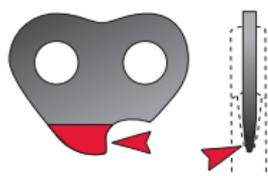
Drive link tang is turned up.
Remedy: **See N.**

22



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

23



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

Remedies:

- K.** Check your guide bar (grooves in guide 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 guide bar, drive sprocket, or both. Sharpen drive link tangs, as shown in the illustration on page 54, if possible. If not, replace the saw chain. (pictures 17 and 18)
- L.** Maintain proper tension to prevent saw chain from climbing out of spur drive sprocket. Replace drive links or replace entire saw chain if many drive links are damaged. (picture 19)
- M.** Drive sprocket has worn out of pitch, replace it. Replace saw chain. Do not attempt to run a new saw chain on an old drive sprocket, or an old saw chain on a new drive sprocket. (picture 20)

Saw Chain Troubleshooting

- 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 saw chain. (picture 21, previous page)
- 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. (picture 22, previous page)
- P.** Guide bar rails have spread, or one rail has worn low, allowing saw chain to lean over. Have guide bar rails serviced by a dealer, otherwise replace guide bar. Replace saw chain if wear is extensive or if problem persists. (picture 23, previous page)

NOTE: Also check bottoms of tie straps (see picture 16, page 52), and tops of guide bar rails (see picture 33, page 66).

Problem

Saw chain has tight joints

Tight joints are caused by either: loose tension or a worn out drive sprocket. Look closely at your saw 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.**

26



Peening in notches of cutters and tie straps.

Remedy: **See R.**

Remedies:

- Q.** Chain with tight joints cannot be repaired. Replace the saw chain and maintain proper tension. Replace rim drive sprocket if worn. (pictures 24 and 25)
- R.** Replace the spur drive sprocket. Replace the saw chain. Always maintain proper tension and do not run saw chain on a worn drive sprocket. (picture 26)

Problem

Saw chain cuts crookedly, leads to one side or cuts unevenly

27



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

28

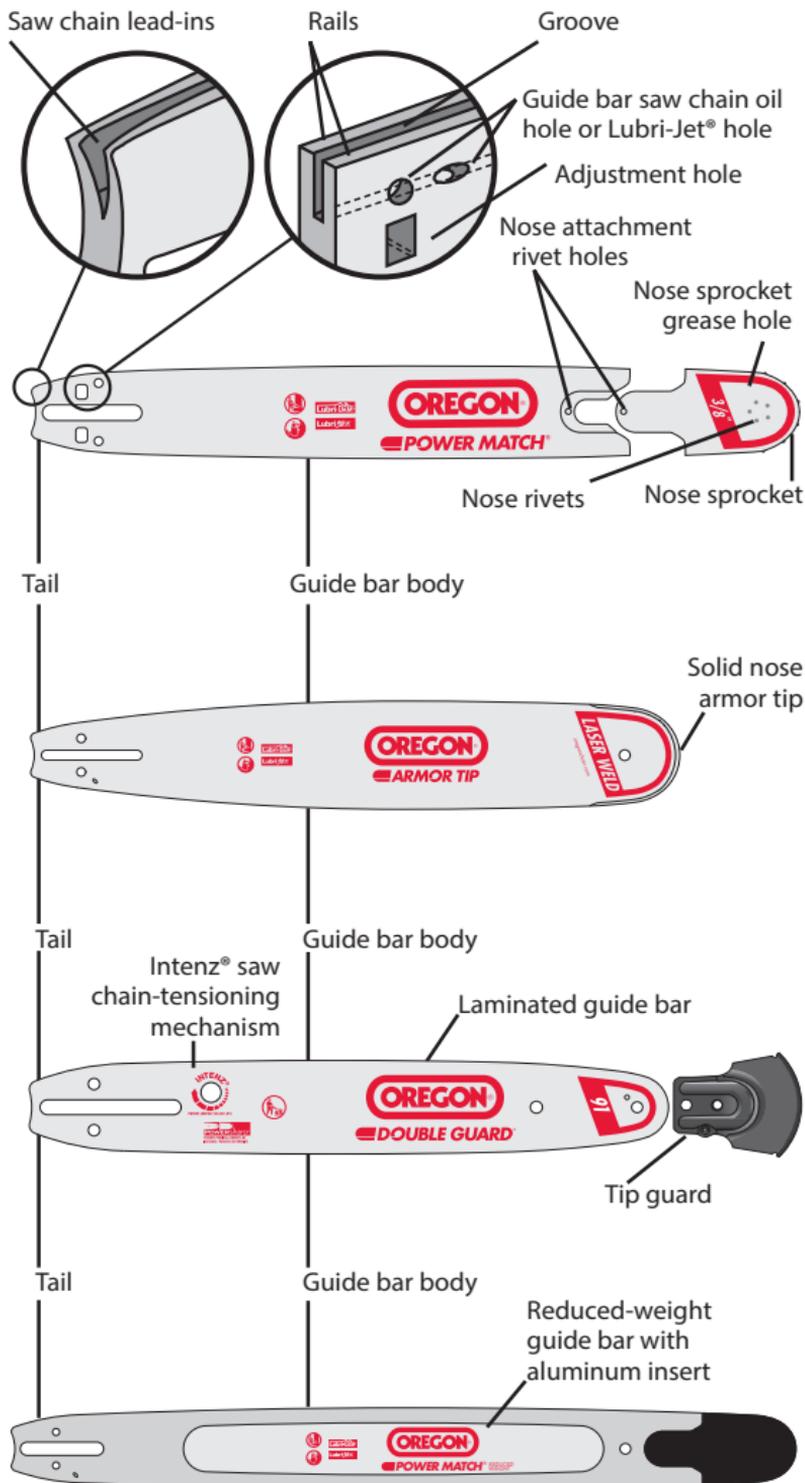


Inconsistent sharpening. Remedy: **See S.**

Remedy:

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

Guide Bar Terms



Guide Bar Maintenance Tools



Spanner wrench
"Scrench"



Flat file with handle



Grease gun



Guide bar groove cleaner

How the OREGON® Guide Bar Part Numbering System Works

OREGON® 10-digit guide bar part numbers are printed on the guide bar package and etched on the guide bar body. Here's what each digit means:



24 0 R N D D025

LENGTH	GAUGE	TIPO DE BARRA
		OREGON®
8"	4 = .043"	ARMOR TIP
10"	0 = .050"	AT = Solid nose, laser welded tip with wear-resistant alloy
11"	8 = .058"	POWER MATCH®
12"	3 = .063"	
13"		
14"		
15"		
16"		
18"		
20"		
21"		
22"		
24"		PRO-LITE®
26"		
25"		
27"		
28"		
30"		
32"		
33"		
34"		
36"		
37"		PRO-AM
42"		
		DOUBLE GUARD®

In a few cases where two guide bars would have the same length in their part numbers but different drive link counts, the letter Z will be used in the guide bar mount description to distinguish between them (K095 and Z095 for example).

Chain saws originally equipped with an Intenz® guide bar, and chain saws adapted to take an Intenz® guide bar, do not have a "guide bar-adjustment pin" for tensioning the saw chain. Use ONLY an Intenz® guide bar when replacing the guide bar on these chain saws. See page 37 for important information on Intenz® guide bars.

SPROCKET NOSE			BAR MOUNT
PITCH		TOOTH COUNT	
A	1/4"	10	A041
B	.325"	10 or 12	A061
D	3/8"	9 or 11	A064
E	3/8"	7 or 9	A074
F	.404"	10	A089
G	.325"	12	A095
H	3/8"	11	A218
			A318
			D007
			D009
			D024
			D025
			D033
SOLID NOSE			D096
M	Medium (1.33")		D176
			D196
			E031
			K041
			K095
			K216
			Z095
			INTENZ®
			T041
			T074
			T095
			T218
			T318

Power Match® solid body guide bars may be stamped with XXX, ZZZ or other letters as they can have different noses installed on the body, thereby changing the part number.

Guard Mate® holes are built into the noses of certain types of OREGON® guide bars and allow the attachment of a Guard Mate® tip guard to help reduce the risk of kickback.

OREGON® Sculptor™ carving bar part numbers do not follow the OREGON® bar part numbering system.

Guide Bar Maintenance

ATTENTION: DEALERS, CHAIN SAW USERS, AND ANYONE WHO SERVICES SAW CHAIN. IMPORTANT SAFETY INFORMATION.



Warning

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

For proper mounting of your guide bar, refer to the operator's manual for your chain saw.

Note:

- *Never use guide bar as a lever to lift, twist, or pry.*
- *A guide bar requires constant supply of oil during operation.*

Basic Guide Bar Maintenance Tasks

▲ Before each use	● Daily
■ Often (Hourly, or at refueling)	◆ Weekly, periodically

1. ▲ ■



2. ▲ ■



3. ▲ ■



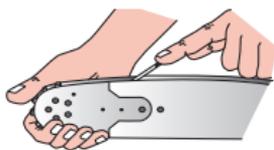
4. ● Clean guide bar grease hole



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



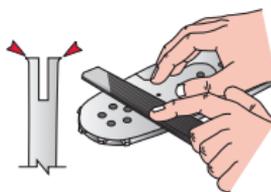
6. ●



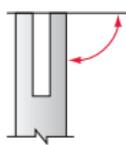
7. ●



8. ◆

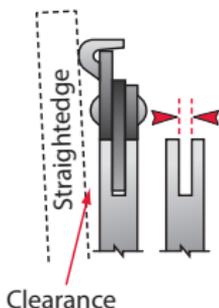


9. ◆

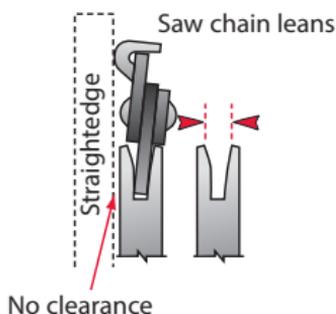


10. ◆ With saw chain on the guide bar, hold a straightedge against the guide bar body and against a cutter side plate. A good groove will hold the saw chain straight, leaving a small gap between the straightedge and guide bar body. A worn groove will let the saw chain lean until straightedge is flush with guide bar body. Replace guide bar if groove is worn.

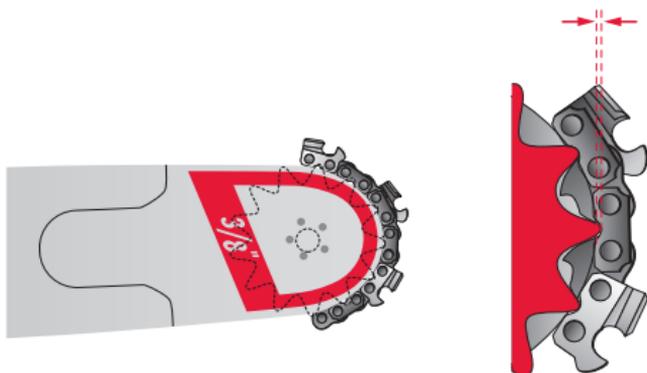
Good Guide Bar Rails



Worn Guide Bar Rails



11. ◆ On sprocket-nose guide bars, check for clearance around the guide 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 guide bar rails.

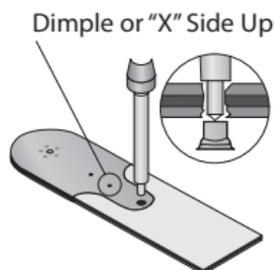


Replacing OREGON® Power Match® Guide Bar Noses

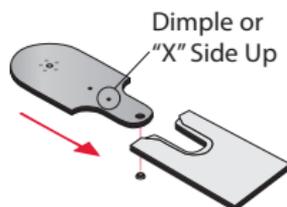
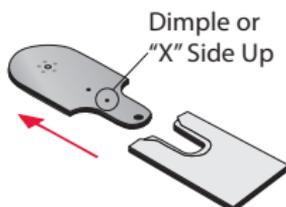
NOTE: Select a new Power Match® nose with the correct pitch for your guide bar and saw chain. Reduced-kickback Double Guard® replacement noses can be installed on any Power Match® guide bar and can be used with the same drive link count loop of saw chain.



1. Note that your OREGON® Power Match® guide bar nose is marked, on one side only, with dimple or "X". Always strike on this side of Power Match® guide bar noses. Striking on the wrong side will damage the nose and guide bar body. Use the Power Match® nose rivet punch (part no. 35518) to drive out the single attaching rivet.



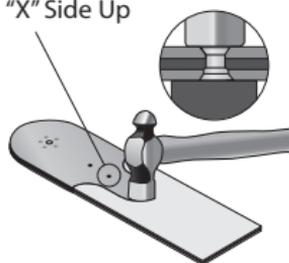
2. Remove the old nose. Clean the guide bar's attachment area.
3. Insert the new nose into the guide bar body. Insert the Power Match® rivet (part no. 34726) through the underside of the nose, opposite the "X" mark.



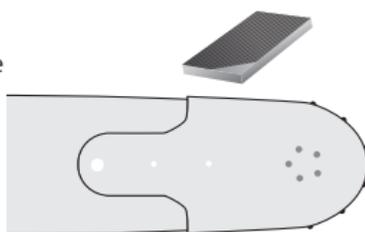
NOTE: The rivet will not fit, and cannot be secured, if inserted through the "X" side.

4. With the guide 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 guide bar body, hit only the rivet head. Strike only on the "X" side; To check installation, grip the guide bar body in one hand, and twist. Nose and body should feel like a single, solid piece. If not (if any movement in the nose guide 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.

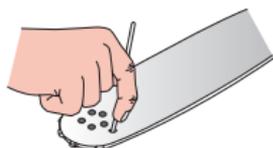
Dimple or
"X" Side Up



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



6. Grease the new nose sprocket. Clean out guide bar grease hole before using lubricant. Pump grease into hole until excess grease appears around the nose sprocket teeth of the guide bar.



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

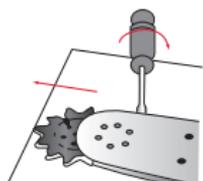
Replacing OREGON® Pro-Lite® Nose Sprockets



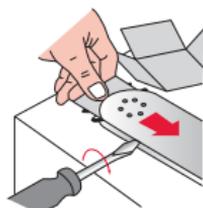
1. Drill or punch out heads from each of the nose sprocket rivets. Punch out the remainder of the rivets. Use a punch narrow enough to keep from damaging rivet holes in the guide bar's nose.



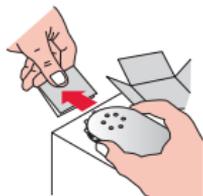
2. Use a small screwdriver to spread the guide bar nose rails just enough to remove the old nose sprocket. Clean out debris from the sprocket area.



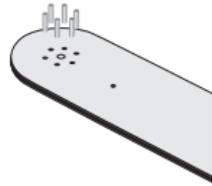
3. Inside the nose sprocket package you'll find the new sprocket wrapped in a tissue. Be careful to keep the sprocket inside the tissue as you remove it from the package — bearings are easily lost. Slide the tissue and the new sprocket, together, into the guide bar's nose.



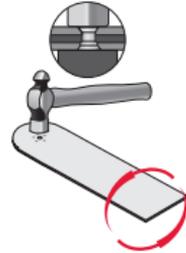
4. Once fully inside the nose, hold the sprocket in place, then remove the tissue.



- Align the drive sprocket's inner race holes with the holes in the guide bar nose. Insert rivets into each hole through the guide bar. On used guide 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.



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



- Grease the new nose sprocket. Clean out guide bar grease hole before using lubricant. 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 guide bar rails, and are caused by four things: lack of lubrication, incorrect saw chain tension, and accidents or irregular operating techniques which pinch the rails or push the drive links sideways against the guide bar rails.

Problem

Worn Rail Conditions

31



Rails are worn down, groove becomes shallow.

Remedy: **See T.**

32



Outsides of rails develop wire edges.

Remedy: **See T.**

33



Rail on one side is worn thin, or low.

Remedy: **See U.**

34



Rails around the tip of solid-nose guide bars show small cracks or broken out sections.

Remedy: **See V.**

35



Rails around the tip of solid-nose guide bars are split at the bottom of the guide bar groove.

Remedy: **See V.**

36



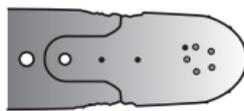
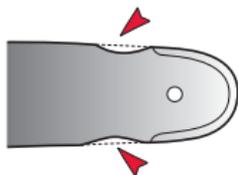
Rails along the guide bar body or around the tip of sprocket-nose guide bars show blue discoloration.

Remedy: **See W.**

Problem

Guide Bar Nose Failure

37



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

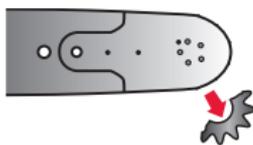
38



Rails in the tip of a sprocket-nose guide bar have spread, allowing loss of bearings.

Remedy: **See Y.**

39



The sprocket in a sprocket-nose guide bar breaks. Remedy:

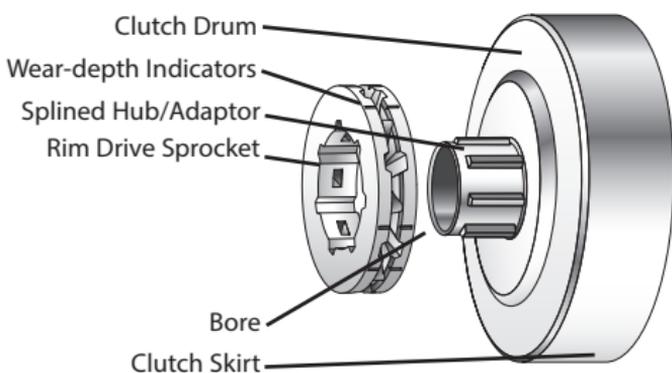
See Y.

Remedies:

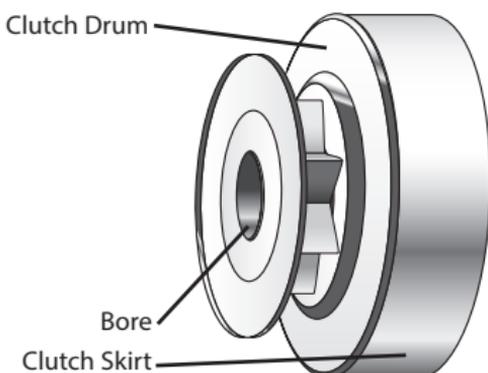
- T.** Shallow grooves and wire edges are the result of normal wear over time. Use a flat file to square up the guide bar's rails and remove wire edges promptly. Left alone, wire edges can break off, chipping away good rail material, (pictures 31 and 32)
- U.** A thin or low rail is caused by one of two things: (1) crooked-cutting saw chain, see pages 55, or (2) saw chain leaning over in a worn groove, see picture 23, page 53. Replace the guide bar. Replace the saw chain as well if saw chain continues to lean in the new guide bar. (picture 33)
- 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 guide bars. Your dealer may be able to repair minor damage on a relatively new guide bar. (pictures 34 and 35)
- 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 guide bar. (picture 36)
- X.** Such wear or chipping near the nose often accompanies heavy limbing, but can also be caused by loose saw chain tension. Invert the guide bar on the chain saw periodically to reduce such wear. On replaceable-nose guide bars with minor wear, install a new nose and file down the nose's rails as shown on page 63 for smooth saw chain flow. If wear is extensive (on solid-nose or replaceable-nose guide bars), replace the guide bar. (picture 37)
- Y.** Frequent boring cuts, loose saw 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 guide bar. (pictures 38 and 39)

OREGON® Drive Sprocket Terms

Rim Drive Sprocket



Spur Drive Sprocket



Drive Sprocket Maintenance Tools

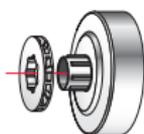
Grease Gun



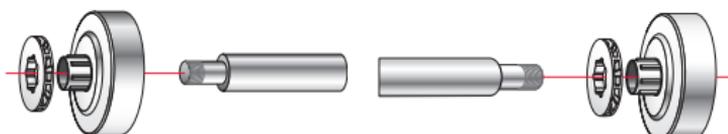
Installing Drive Sprockets

OREGON® drive sprockets can be installed on chain saws having either inboard-clutch or outboard-clutch assemblies. Follow instructions in the operator's manual provided by your chain saw's manufacturer for correct drive sprocket installation. The illustrations below are for general reference only. Do not use them as instructions for drive sprocket or clutch assembly.

Inboard Clutch



Outboard Clutch



Drive Sprocket Maintenance

ATTENTION: DEALERS, CHAIN SAW USERS, AND ANYONE WHO SERVICES SAW CHAIN. IMPORTANT SAFETY INFORMATION.

Warning

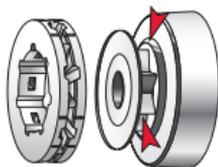
Always turn off your chain saw's engine before handling the drive sprocket. Failure to do so can result in severe injury.

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

Basic Drive Sprocket Maintenance Tasks

▲ Before each use	● Daily
■ Often (Hourly, or at refueling)	◆ Weekly, periodically

1. ▲ ●



2. ▲ ●



3. ▲ ●



4. ▲ ■



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

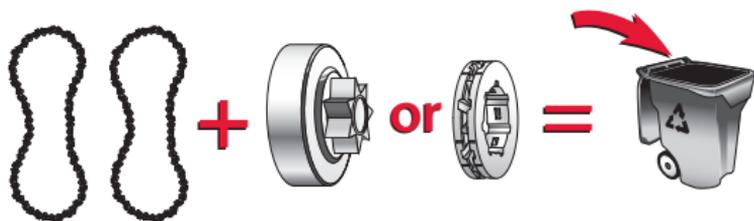


Note: If your chain saw has a saw chain brake, check the saw chain brake's action according to the instructions in your chain saw operator's manual. Be sure the saw chain brake strap around your clutch skirt is not too tight, which can lead to clutch drum overheating and failure.

Drive Sprocket Maintenance

6. ● Clean any build-up of sap or debris from splined hub so rim drive sprocket can float freely.
-

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



8. ◆ Apply clean lithium-based grease to the clutch drum's bearings each time the drive sprocket is removed.



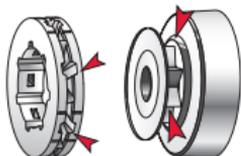
*See top of page 68 for drive sprocket wear-depth indicators.

Drive Sprocket Troubleshooting

Problem

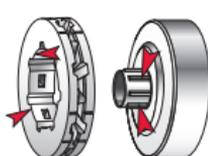
Drive Sprocket Wear

40



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

41



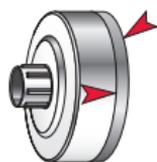
Worn inner surface on rim drive sprockets or wear on the adaptor's splines.
Remedy: **See AA.**

42



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

43



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

44



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

Remedies:

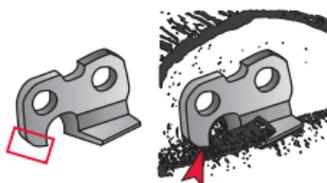
- Z.** Such outer surface wear is normal over time. Replace rim drive sprockets and spur drive sprockets when wear is 1/64" (0.4 mm) deep. Never run saw chain on severely worn drive sprockets. Severely worn drive sprockets could break during operation. (picture 40)
- AA.** Such wear indicates that saw chain drive links are bottoming out on the adaptor's splines. Replace the clutch drum. Replace the rim drive sprocket. (picture 41)
- BB.** Do not attempt to repair cracked or broken clutch drums. Replace the drum. (picture 42)
- CC.** Replace the drum. Have your chain saw dealer adjust the saw chain brake strap. (picture 43)
- DD.** Replace the drum. Have your chain saw dealer service the chain saw's clutch. (picture 44)

Useful Information

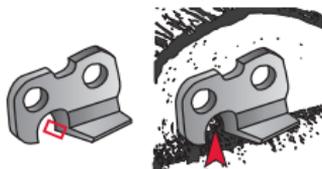
How a Cutter Works

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

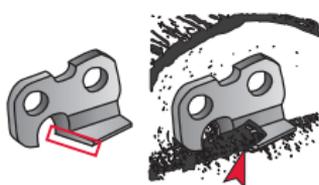
1. The depth gauge rides on the wood and controls the depth at which the working corner bites in.



2. The working corner and side plate sever the wood fibers across the grain. 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.



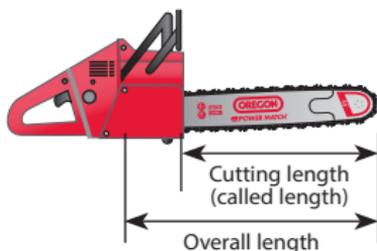
How to Order Replacement Saw Chain

For the best possible service, have the following chain saw information ready for your OREGON® dealer.

1. Make and model

SAW MAN 1100-A

2. Guide bar's cutting length



NOTE: Your guide bar's called length is different from its overall length. The called length is the distance from the front of the chain saw to the tip of the farthest cutter.

3. Saw chain part number and drive link count for saw chain length.

EXAMPLE:

OREGON®
saw chain

72LGX-068G

Part
Number

Drive Link
Count

Cutting in Cold Weather

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

Dilute guide 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 saw chain is receiving oil from the chain saw.

Tension

Keep your saw chain correctly tensioned. Check and adjust often.

Cutters

Keep cutters sharp. Touch up the cutting edge with a file every hour, more often if needed.

Do not force dull saw chain to cut.

Depth Gauges

Check and adjust your cutter's depth gauges every 3 – 4 sharpenings.

Guide Bar

Keep the guide bar groove clean and the oil hole open.

Turn symmetrical* guide bars over to equalize rail wear.

***Do not turn Guard Tip® guide bars over.**

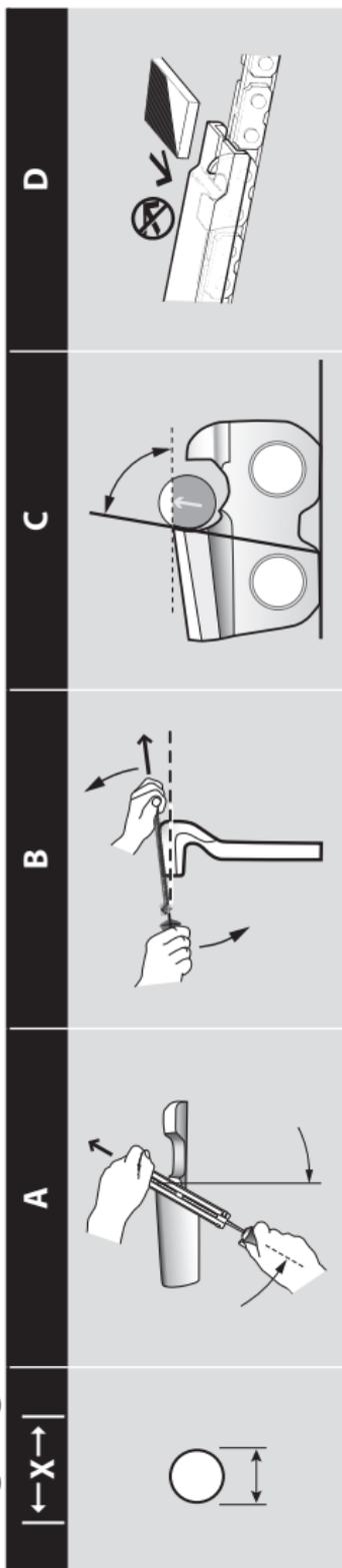
Drive Sprocket

Replace the drive sprocket after every two saw chains, or sooner.

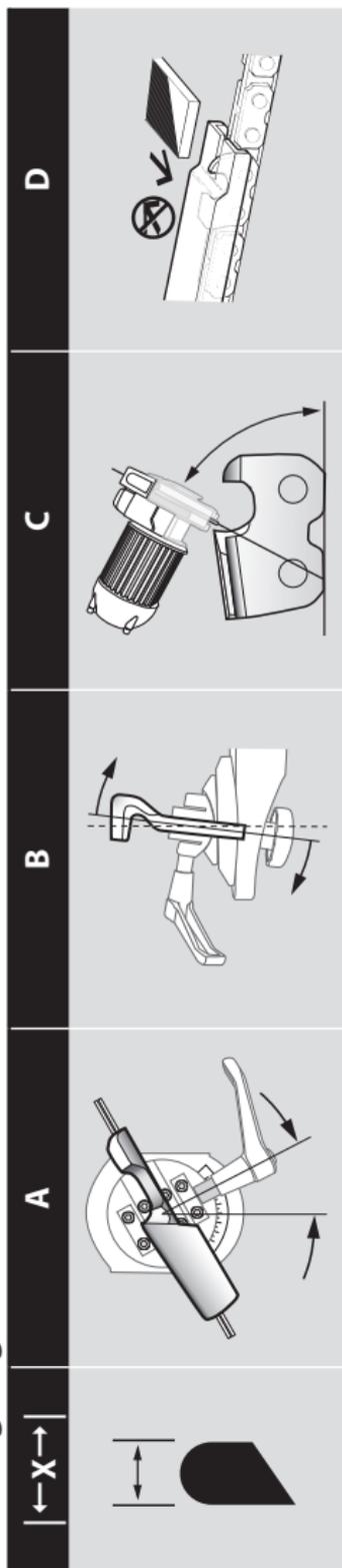
Some Good Chain Saw Advice

1. Saw chain is made to cut only one thing: wood. Do not use saw chain to cut other materials, and never let your saw chain contact rocks or dirt during operation. Dirt may seem soft. In fact, dirt is extremely abrasive and will wear away your saw chain's vital chrome plating in less than a second.
2. Never force dull saw 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. Dullness, or sharpness, is also indicated by the sawdust your chain saw is producing. Dull saw chain produces fine wood dust, which can clog your chain saw's air filter. Sharp saw chain produces wood chips.

Filing Angles



Grinding Angles



		X Filing X Grinding		A	B*	C	D
MICRO CHISEL®	20-21-228PX	3/16" 4.8 mm 3/16"	30°	10°	55°	.025" .65 mm	
	25AP, 25A, 25F	5/32" 4.0 mm 1/8"	30°	0°	55°	.025" .65 mm	
	27A, 27AX	7/32" 5.5 mm 3/16"	30°	10°	55°	.030" .75 mm	
	95VPX 	3/16" 4.8 mm 3/16"	30°	10°	55°	.025" .65 mm	
	20-21-22L PX M20-21-22LPX	3/16" 4.8 mm 3/16"	25°	10°	55°	.025" .65 mm	
ROUND GROUND CHISEL	58, 59L, J	7/32" 5.5 mm 3/16"	25°	10°	55°	.025" .65 mm	
	68JX, LX	7/32" 5.5 mm 3/16"	25°	10°	55°	.030" .75 mm	
	68CJ, CL	-	45°	45°	-	.030" .75 mm	
	72-73-75JGX, JPX, LGX, LPX, M72-73-75LPX	7/32" 5.5 mm 3/16"	25°	10°	55°	.025" .65 mm	
	72-73-75V	7/32" 5.5 mm 3/16"	25°	10°	55°	.025" .65 mm	
SEMI-CHISEL	72APX/72-73-75DPX	7/32" 5.5 mm 3/16"	35°	10°	55°	.025" .65 mm	
	9PXL, 91VXL, M91VLX	5/32" 4.0 1/8"	30°	0°	55°	.025" .65 mm	
RIPPING CHAIN	27R, RA	7/32" 5.5 mm 3/16"	10°	10°	50°	.030" .75 mm	
	72-73-75RD	7/32" 5.5 mm 3/16"	10°	10°	50°	.025" .65 mm	
CHAMFER CHISEL™	90PX, 90S, 90SG 	4.5 mm 1/8"	30°	0°	55°	.025" .65 mm	
	91P, 91PX, 91VG, 91VX, M91VX	5/32" 4.0 mm 1/8"	30°	0°	55°	.025" .65 mm	

* When using an OREGON® Filing Guide, ALWAYS hold it level, 0°, flat on the top plate.



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