

CHAIN TENSIONING TIP SHEET

⚠ IMPORTANT ⚠

A properly tensioned chain will optimize cutting performance. The tensioning rule of thumb for a concrete cutting chain saw is that a properly tensioned diamond chain must not be bowstring tight and can be pulled freely around the guide bar by hand easily without binding.

PROPER CHAIN TENSION

Chain tension is looser than wood chain.

If the chain is too loose, it could come off the bar, or it will allow the drive sprocket to spin without turning the chain, which can chew up the chain drive links. If the chain is too tight, a lot of the saw's power goes into turning the chain rather than into the cut. In extreme over-tightened cases, the saw may not be able to turn the chain at all. In addition, damage can occur to the bar nose and premature stretch may occur.

HOW TO CHECK

Proper tension should allow drive links to hang below bar.

Before cutting, check for proper tension by pulling the chain around the bar by hand. If you cannot easily pull by hand, the chain is too tight and needs to be loosened.

WHEN TO TENSION

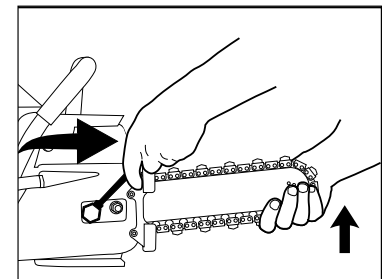
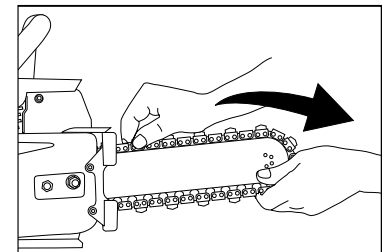
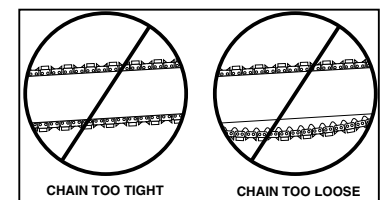
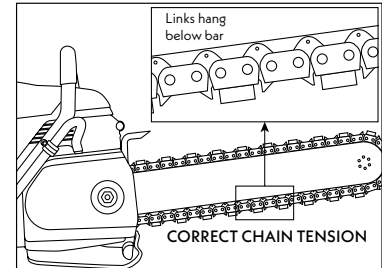
All chains have a tendency to stretch when used. Diamond chains stretch more than wood cutting chains because of the abrasive materials they are cutting. When a chain stretches to a point where the drive links are hanging approximately 1/2 in - 3/4 in (12 - 18 mm) below the bar, it's time to tension the chain.

HOW TO TENSION

To tension the chain, first loosen the side cover nuts, then while holding the nose of the bar up, use a screw driver to turn the tensioning screw clockwise until the chain drive links hanging below the bar are just beginning to enter the bar groove. Continue to hold up on the nose of the bar and firmly tighten the side cover nuts, (20 ft-lbs, 27 Nm). And remember, it's the side cover nuts that hold the bar in position.

HOW TO PREVENT CHAIN TENSIONER BREAKAGE

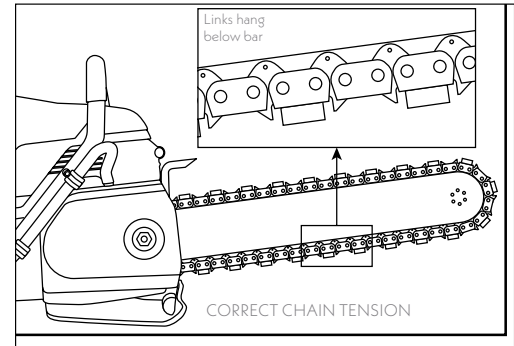
Do not attempt to adjust the tensioner without first loosening the side cover nuts. Do not use the saw without making sure the side cover nuts are tight. If the side cover nuts are not tight, the bar can slip backwards during cutting and break the tensioner pin.



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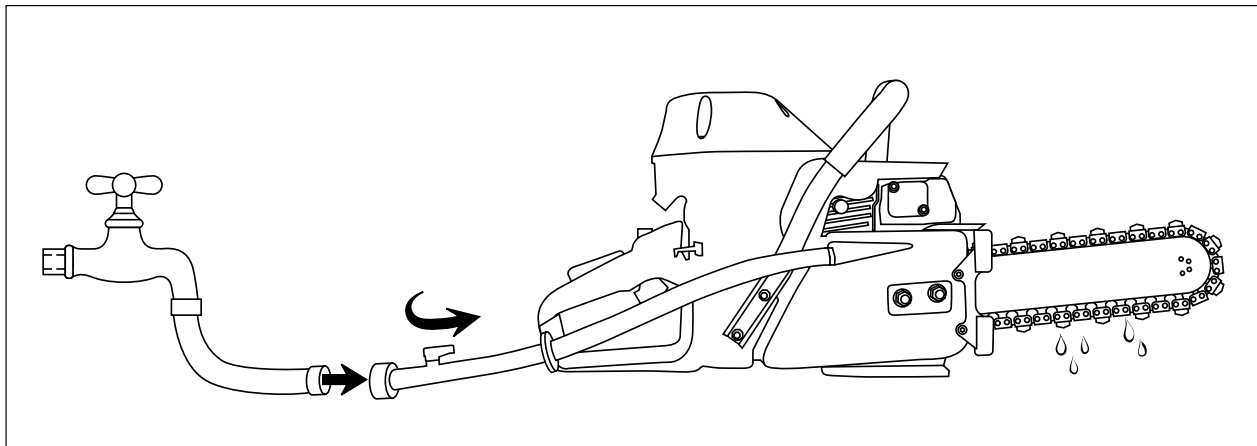
ADDITIONAL INFORMATION

Concrete cutting chainsaws operate with looser chain tension than wood chainsaws. It is common, especially on gas powered, concrete cutting chainsaws to have the drive links hang completely out of the bar. Wood cutting chainsaws use oil to lubricate the chain. The oil makes the chain very slippery and allows the drive links to fully nest between the teeth of the drive sprocket. Concrete cutting chainsaws require water for cooling and flushing the cut. Water is not as good as oil as a lubricant. Also, there are concrete particles mixed in with the water. As a result, sometimes the drive links do not nest properly on the drive sprocket. When this happens, the chain acts like it got tighter. There seems to be tight spots and loose spots as you pull the chain around the bar. If you tension when the chain is in one of the loose spots, it will be too tight at some point in it's rotation around the bar. Rotating the chain completely around the bar by hand will let you know you have the chain properly tensioned.



ADDITIONAL TENSIONING TIPS:

1. To reduce chain stretch and tensioning downtime, use 20 psi (1.5 bar) or greater water pressure.
2. Oil the chain at the end of the day to prevent rust but be careful not to over tension in this condition.
3. When pulling the chain around the bar by hand, be careful not to touch the bar with thumb or forefinger. The bar rails can be very sharp. Grab only the diamond segments to pull the chain.
4. Always pull the chain away from the WallWalker®. The point of the WallWalker® can also be very sharp.
5. Always turn the engine off before tensioning the chain.



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