

Maintaining and Sharpening the Saw Chain

Sawing effortlessly with a properly sharpened saw chain

A properly sharpened saw chain cuts through wood effortlessly even with very little pushing.

Never use a dull or damaged saw chain – this leads to increased physical strain, increased vibration load, unsatisfactory cutting results and increased wear.

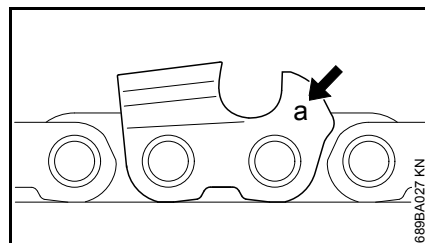
- Clean the saw chain
- Check the saw chain for cracks and damaged rivets
- Replace damaged or worn chain components and adapt these parts to the remaining parts in terms of shape and level of wear – rework accordingly

Carbide-tipped (Duro) saw chains are especially wear-resistant. For an optimal sharpening result, STIHL recommends STIHL servicing dealers.

WARNING

Compliance with the angles and dimensions listed below is absolutely necessary. An improperly sharpened saw chain – especially depth gauges that are too low – can lead to increased kickback tendency of the chain saw – **risk of injury!**

Chain pitch



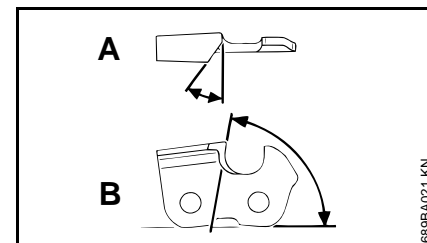
The chain pitch marking (a) is embossed in the area of the depth gauge of each cutter.

Marking (a)	Chain pitch	
	Inches	mm
7	1/4 P	6.35
1 or 1/4	1/4	6.35
6, P or PM	3/8 P	9.32
2 or 325	0.325	8.25
3 or 3/8	3/8	9.32
4 or 404	0.404	10.26

The diameter of file to be used depends on the chain pitch – see table "Sharpening tools".

The angles of the cutter must be maintained during reshaping.

Sharpening and side plate angles



A Sharpening angle

STIHL saw chains are sharpened with a 30° sharpening angle. Ripping chains, which are sharpened with a 10° sharpening angle, are exceptions. Ripping chains have an X in the designation.

B Side plate angle

The correct side plate angle results automatically when the specified file holder and file diameter are used.

Tooth shapes	Angle (°)	
	A	B
Micro = semi-chisel tooth, e. g., 63 PM3, 26 RM3, 36 RM	30	75
Super = full chisel tooth, e. g., 63 PS3, 26 RS, 36 RS3	30	60
Ripping chain, e. g., 63 PMX, 36 RMX	10	75

The angles must be identical for all cutters in the saw chain. Varying angles: Rough, uneven running of the saw chain, increased wear – even to the point of saw chain breakage.