

# **STIHL**

**FEILGERÄT FG 1**  
**FILING UNIT FG 1**  
**AFFUTEUR A LIME FG 1**  
**APARATO LIMADOR FG 1**



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**Dear Customer,**

**Thank you for choosing a quality engineered STIHL product.**

**This machine has been built using modern production techniques and comprehensive quality assurance. Every effort has been made to ensure your satisfaction and troublefree use of the machine.**

**Please contact your dealer or our sales company if you have any queries concerning your machine.**



**Hans Peter Stihl**



## Guide to Using this Manual

### Pictograms

All the pictograms attached to the machine are shown and explained in the this manual.

The operating and handling instructions are supported by illustrations.

### Symbols in text

The individual steps or procedures described in the manual may be marked in different ways:

- Step or procedure without direct reference to an illustration.


Description of step or procedure that refers directly to the illustration and contains item numbers that appear in the illustration.


Example:


Loosen the screw **(1)**


Lever **(2)** ...

In addition to the operating instructions, this manual may contain paragraphs that require your special attention. Such paragraphs are marked with the symbols described below:

 Warning where there is a risk of an accident or personal injury or serious damage to property.

 Warning where there is a risk of damaging the power tool or individual components.

 Note or hint which is not essential for using the power tool, but may improve the operator's understanding of the situation and result in better use of the power tool.

 Note or hint on correct procedure in order to avoid damage to the environment.

### \* Equipment and features

This instruction manual refers to several models with different features. Components that are not installed in all models and related applications are marked thus \*. Such components are available as special accessories from your STIHL dealer.

### Engineering improvements

STIHL's philosophy is to continually improve all of its products. As a result, engineering changes and improvements are made from time to time. If the operating characteristics or the appearance of your machine differ from those described in this manual, please contact your STIHL dealer for assistance.

Therefore, we cannot be responsible for changes, modifications or improvements not covered in this manual.


## Safety Precautions



To reduce the risk of personal injury, special safety precautions must be observed while operating the filing tool.



Read the operating instructions carefully and keep them in a safe place for later reference.

Always shut off the saw engine before working with the filing tool:  
Move Master Control lever / slide control or the separate stop switch to **STOP** or .

Electric saws: Disconnect plug from power supply.



Wear gloves.

It is absolutely essential to comply with the angles and dimensions specified in these instructions. If the **saw chain is incorrectly sharpened** – and in particular if the depth gauges are set too low – there is a risk of increased saw kickback and **personal injury**.

Observing the safety precautions and specifications in these instructions and the owner's manual of the saw model on which the filing tool is mounted can help reduce the risk of injury and damage to the saw.

## Application

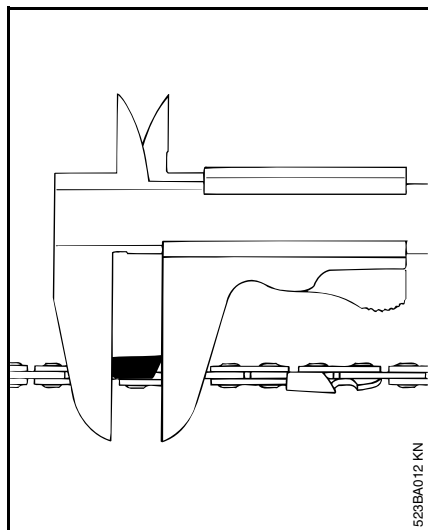
The STIHL FG 1 filing tool can be used to sharpen all STIHL Oilomatic saw chains with the exception of square ground chains (RSL, RSLF, RSLH) and carbide-tipped chains (RD, RDS). Sharpening is effected with the guide bar and chain mounted on the saw.

For accurate results it is best to clamp the guide bar in a bench vise or, at the cutting site, in the STIHL bar vise (special accessory).

### File correctly

- Sharpen the chain frequently, take away as little metal as possible – two or three strokes of the file are usually enough.
- Always file from the inside to the outside of the cutter.
- The file only sharpens on the forward stroke – lift the file off the cutter on the backstroke.
- Avoid touching the tie straps and drive links with the file.

## Clamping the Guide Bar



### Finding the master cutter

- Use a slide caliper to find the shortest cutter and mark it, with chalk.

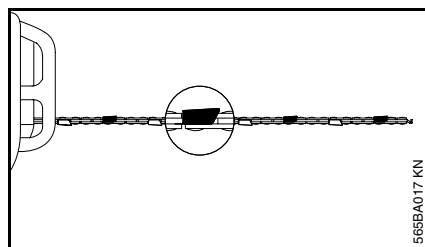
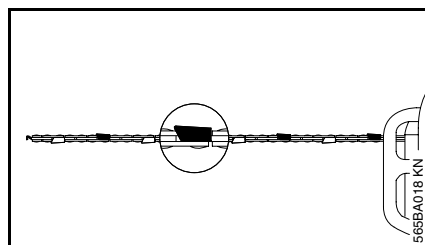
This is the master cutter for filing all the other cutters to the same length.

### Clamping the guide bar

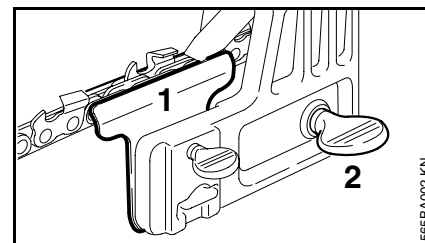
Depending on the position of the master cutter

- Clamp the guide bar in a bench vise or, at the cutting site, the STIHL bar vise (special accessory).

Master cutter in row	Nose of guide bar
Left-hand	Pointing to right
Right-hand	Pointing to left



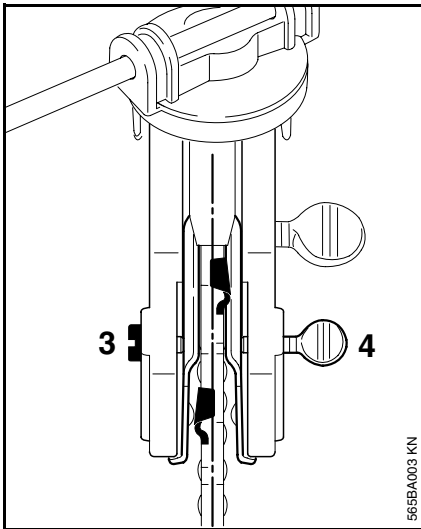
## Mounting the Filing Tool on the Guide Bar



- Place the filing tool on the guide bar.
- The clamping jaws (1) must point towards the bar nose and be in line with top edge of the rivet heads.
- Tighten down the wing screw (2).

## Selecting and Fitting File

## Setting Up

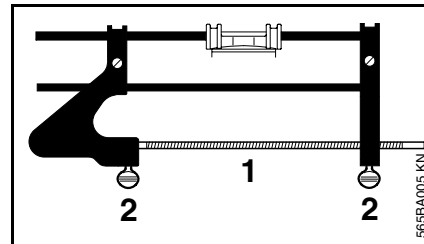


- Use the adjusting screw (3) to center the filing tool above the chain.
- Tighten the second clamping jaw with the clamp screw (4) so that the chain can still be pulled along the bar with a screwdriver engaged in a cutter.

Use only special saw chain sharpening files. Other files have the wrong shape and cut and are unsuitable for sharpening saw chain.

- Select the round file (special accessory) that matches the chain pitch.

Chain pitch		Round file Ø	
inch	mm	mm	inch
1/4	6.35	4.0	5/32
3/8 PMN	9.32	4.0	5/32
3/8 P	9.32	4.0	5/32
0.325	8.25	4.8	3/16
3/8	9.32	5.2	13/64
0.404	10.26	5.5	7/32

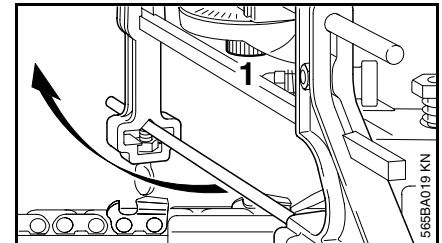


- Place the selected file (1) in the filing frame.
- Tighten down the screws (2) moderately.

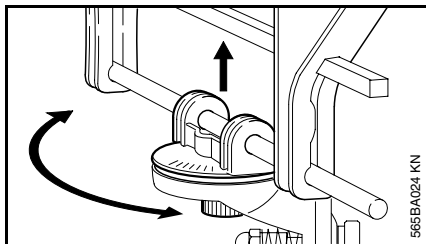
## Adjusting filing angle

- Check filing angle in the following table

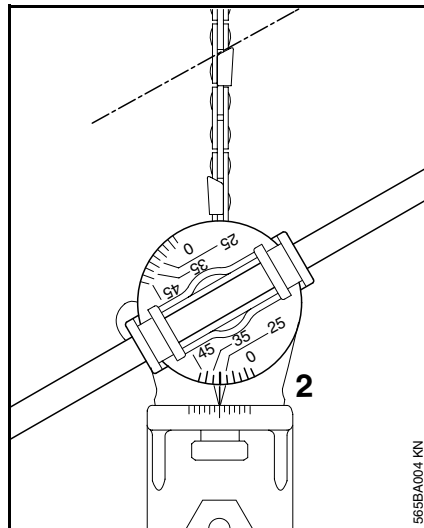
Chain Type	Filing Angle
Rapid Standard (RC)	30 °
Rapid Micro (RM)	30 °
Rapid Super (RS)	30 °
Picco Micro (PM/PMN)	30 °
RCX, RMX, PMX (ripping chain)	10 °



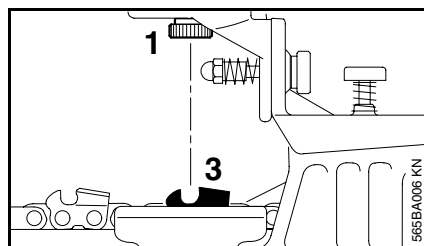
- Swing the filing frame upwards.
- Loosen the knurled nut (1).



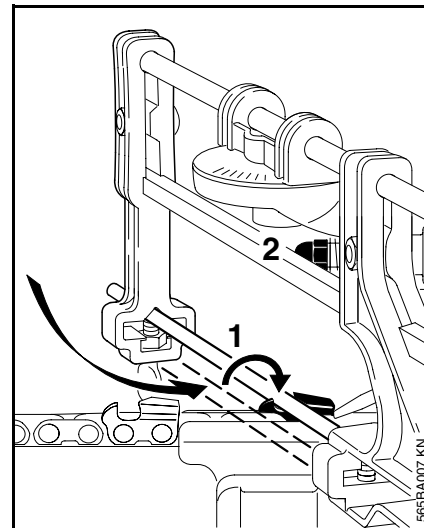
- To rotate guide, lift it clear of the teeth.



- Set the filing angle (2), e.g. 30° and tighten down the knurled nut.

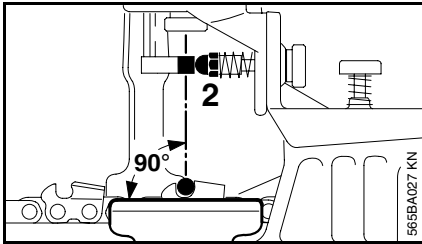


- Position the master cutter (3) below the center of the knurled nut (1).

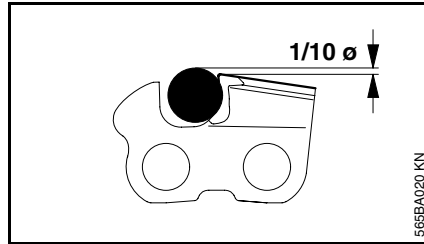
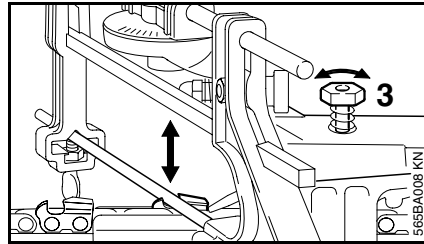


### Aligning the filing frame

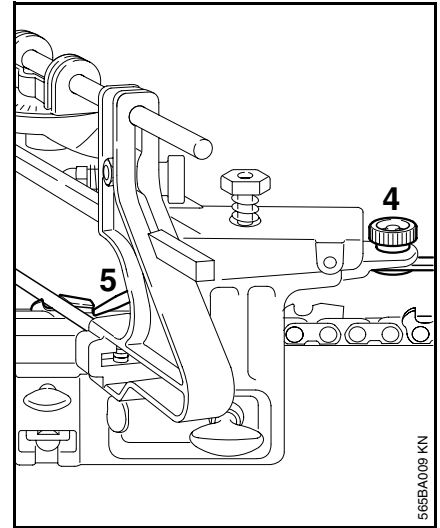
- Position the round file (1) between the side plate and depth gauge of the master cutter by swinging and lifting the filing frame.



- Turn the acorn nut **(2)** to set filing frame at a right angle to the clamping jaws.



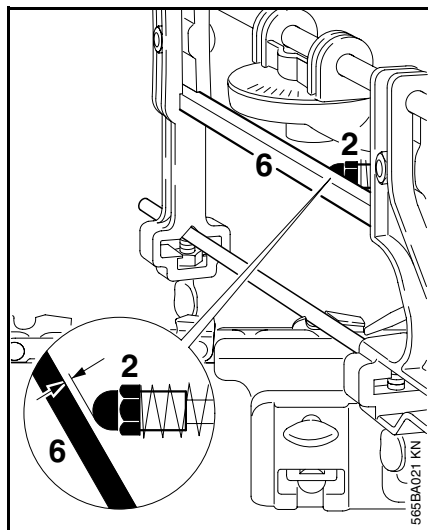
- Turn the adjusting screw **(3)** (counterclockwise to lower file – clockwise to raise file) until about 1/10 of file diameter projects above the top plate.



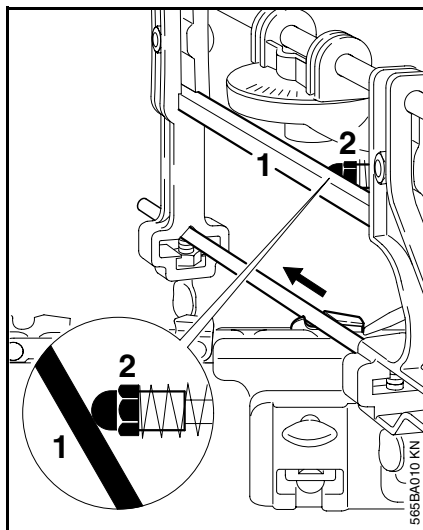
- Loosen the knurled nut **(4)**.
- Move the stop **(5)** up against the back of the cutter to be sharpened (master cutter) and tighten down the knurled nut.



## Sharpening



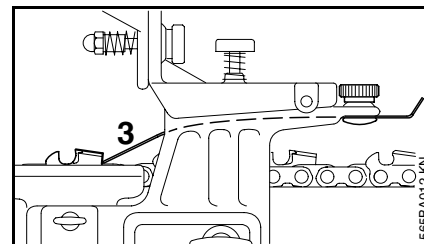
- Turn the acorn nut **(2)** slowly clockwise until the distance between it and the stop bar **(6)** is about 0.1 to 0.2 mm.



Sharpen the master cutter with 2 to 3 firm strokes of the file, from the inside to the outside of the side plate.

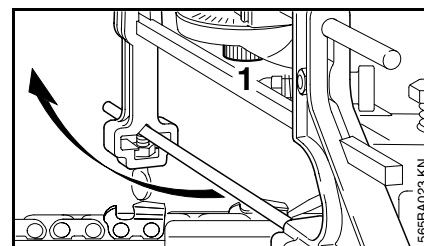
- The stop bar **(1)** should now locate against the acorn nut **(2)**. If this is not the case, readjust the acorn nut so that the stop bar butts against it.

Use the setting for the master cutter to sharpen all the other cutters in the row.

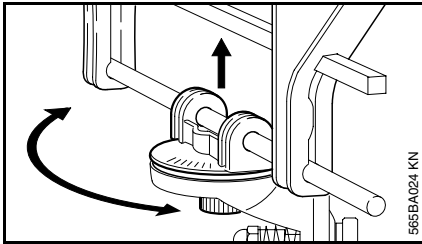


During the sharpening process make sure the stop **(3)** always locates properly against the back of the cutter being sharpened.

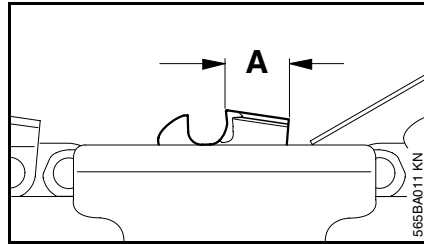
### Sharpening second row of cutters



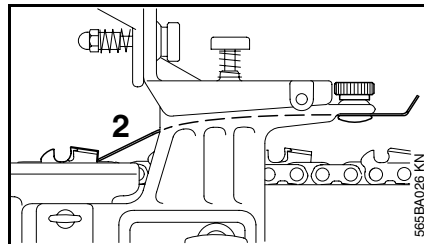
- Swing the filing frame upwards and loosen the knurled nut **(1)**.



- Lift the guide clear of the teeth and turn it to exactly the same angle setting on the opposite side.
- Tighten down the knurled nut.
- Turn the guide bar through 180° and clamp it in the bench vise or STIHL bar vise (special accessory).
- Swing the filing frame down.
- Position the round file between the side plate and depth gauge of the first cutter in the second row.



- Sharpen the first cutter in the second row.
- Check the cutter length (**A**).

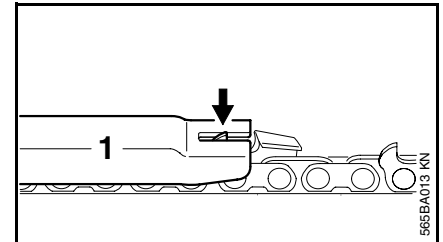


- If it differs from the length of the master cutter, move the stop (**2**) forwards or backwards, sharpen and check length (**A**) again.
- If the length is correct, sharpen all cutters in the second row using this setting.

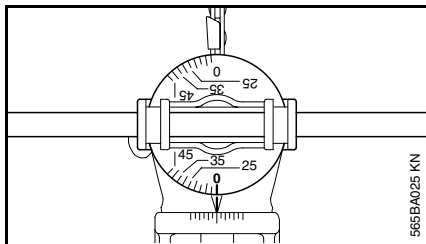
## Depth gauges

- Select filing gauge (special accessory) that matches the chain pitch.

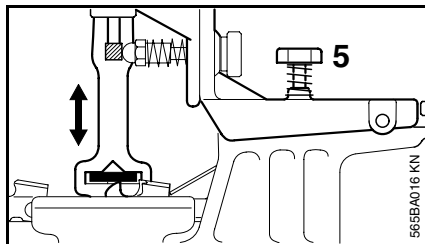
Chain pitch		Filing gauge
inch	mm	Part No.
1/4	6.35	1110 893 4000
3/8 PMN	9.32	0000 893 4000
3/8 P	9.32	1110 893 4000
0.325	8.25	1110 893 4000
3/8	9.32	1110 893 4000
0.404	10.26	1106 893 4000



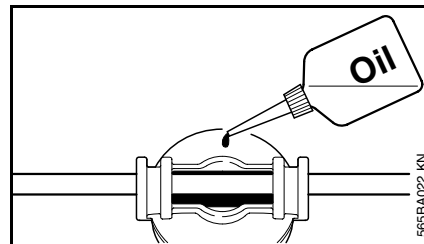
- Place the selected filing gauge (**1**) (special accessory) on the chain. If the depth gauge projects above the filing gauge, it has to be lowered.



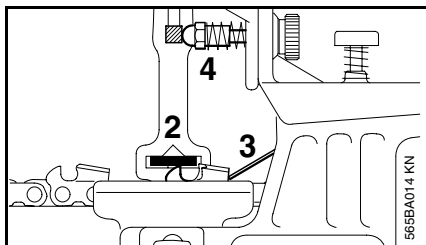
- Set the filing angle on the guide to 0°.
- Pull chain along the bar until the depth gauge is under the file.



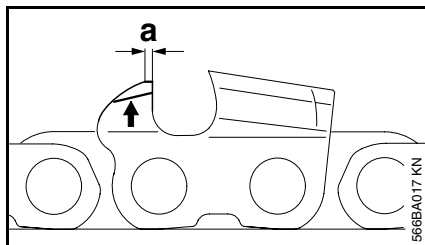
- Adjust height adjusting screw (5) so that the depth gauge is filed back to the required height (flush with gauge). Then remove the filing gauge and file down all depth gauges to the same setting.



- Lubricate the guide with oil.
- 💡 Impregnate the felt in the guide to ensure free movement of the filing frame.
- 💡 Rotate the file at regular intervals while filing to avoid one-sided wear.



- Fit the flat file (2) (special accessory) in place of the round file.
- Adjust the stop (3) so that the file does not touch the cutting edge.
- Use acorn nut (4) to align filing frame at right angle to the clamping jaws.



- Finish off by filing the slope by hand, parallel to the stamped marking, until dimension "a" is approx. 0.5 mm.

## Quality Certification



All STIHL products comply with the highest quality standards.

An independent organization has certified that all products manufactured by STIHL meet the strict requirements of the ISO 9001 standard for quality management systems in terms of product development, materials purchasing, production, assembly, documentation and customer service.

