

STIHL HT-KM

Instruction Manual



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Dear Customer,

Thank you for choosing a quality engineered STIHL product.

It has been built using modern production techniques and comprehensive quality assurance. Every effort has been made to ensure your satisfaction and trouble-free use of the product.

Please contact your dealer or our sales company if you have any queries concerning this product.

Your



Dr. Nikolas Stihl

STIHL®

HT-KM

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KombiSystem

In the STIHL KombiSystem a number of different KombiEngines and KombiTools can be combined to produce a power tool. In this instruction manual the functional unit formed by the KombiEngine **and** KombiTool is referred to as the power tool.

Therefore, the separate instruction manuals for the KombiEngine and KombiTool should be used together for the power tool.

Always read and and make sure you understand **both** instruction manuals before using your power tool for the first time and keep them in a safe place for future reference.

Guide to Using this Manual

Pictograms

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

Symbols in text



WARNING

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



NOTICE

Caution where there is a risk of damaging the machine or its individual components.

Engineering improvements

STIHL's philosophy is to continually improve all of its products. For this reason we may modify the design, engineering and appearance of our products periodically.

Therefore, some changes, modifications and improvements may not be covered in this manual.

Safety Precautions and Working Techniques



Special safety precautions must be observed when working with the pole pruner because it is a high-speed, fast-cutting power tool with very sharp cutters and a long reach.



Always read and and make sure you understand both instruction manuals (KombiEngine and KombiTool) before using your power tool for the first time and keep them in a safe place for future reference. Non-observance of the safety precautions may result in serious or even fatal injury.

Lend or rent your power tool only to persons who are familiar with this model and its operation – do not lend or rent your power tool without the KombiEngine and KombiTool instruction manuals.

Use your pole pruner for limbing only (removing or pruning branches). Only cut wood or wooden objects.

Do not use your power tool for any other purpose because of the **increased risk of accidents**.

Only use guide bars, chains, chain sprockets and accessories that are explicitly approved for this power tool

model by STIHL or are technically identical. If you have any questions in this respect, consult a servicing dealer.

Use only high quality tools and accessories in order to avoid the risk of accidents and damage to the machine.

STIHL recommends the use of genuine STIHL tools, guide bars, chains, chain sprockets and accessories. They are specifically designed to match the product and meet your performance requirements.

Never attempt to modify your machine in any way since this may increase the risk of personal injury. STIHL excludes all liability for personal injury and damage to property caused while using unauthorized attachments.

Do not use a pressure washer to clean your power tool. The solid jet of water may damage parts of the power tool.

Clothing and Equipment

Wear proper protective clothing and equipment.



Clothing must be sturdy but allow complete freedom of movement. Wear snug-fitting clothing, e.g. an overall and jacket combination, do not wear a work coat.

Avoid clothing that could get caught on branches or brush or moving parts of the machine. Do not wear a scarf, necktie or jewelry. Tie up and confine long hair (e.g. with a hair net, cap, hard hat, etc.).



Wear steel-toed safety boots with non-slip soles and cut-retardant inserts.



WARNING



To reduce the risk of eye injuries, wear close-fitting safety glasses in accordance with European Standard EN 166. Make sure the safety glasses are a comfortable and snug fit.

Wear hearing protection, e.g. earplugs or ear muffs.

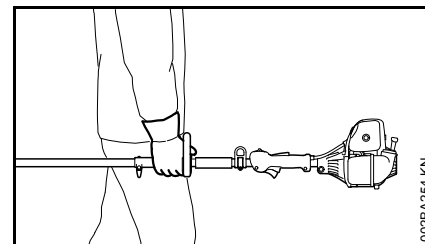
Wear a safety hard hat with chin strap where there is a danger of head injuries from falling objects.



Wear heavy-duty work gloves made of durable material (e.g. leather).

STIHL offers a comprehensive range of personal protective clothing and equipment.

Transporting the Power Tool



Always turn off the engine.

Always fit the chain guard (scabbard) – even when you carry the unit for short distances.

Carry the power tool properly balanced by the drive tube.

Do not touch hot parts of the machine since **burn injury** will result.

Transporting by vehicle: Properly secure your power tool to prevent turnover, fuel spillage and damage.

Before Starting

Check that your power tool is properly assembled and in good condition – refer to appropriate chapters in the KombiEngine and KombiTool instruction manuals.

- Correctly mounted guide bar
- Correctly tensioned chain
- Never attempt to modify the controls or safety devices in any way.

- Keep the handles dry and clean – free from oil and dirt – for safe control of the power tool.
- Adjust shoulder strap and handles to suit your height and reach. See chapter on "Fitting the Harness".

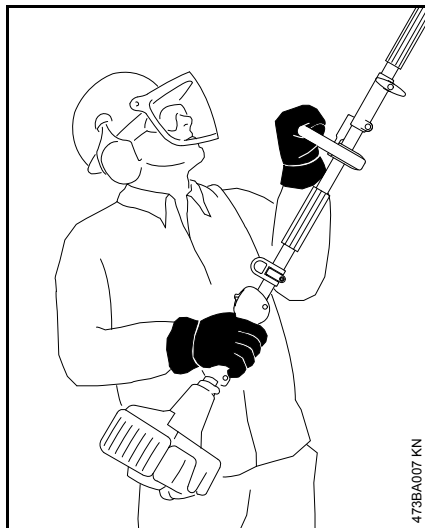
To reduce the risk of accidents, do not operate your power tool if it is damaged or not properly assembled.

If you use a shoulder strap or full harness: Practice removing and putting down the machine as you would in an emergency. To avoid damage, do not throw the machine to the ground when practicing.

See also notes on "Before Starting" in the instruction manual of the KombiEngine you are using.

Holding and Controlling the Power Tool

Make sure you always have good balance and secure footing.



Always hold your power tool firmly with both hands:

Right hand on control handle, left hand on the loop handle or handle hose, even if you are left-handed. Wrap fingers and thumbs firmly around the handles.

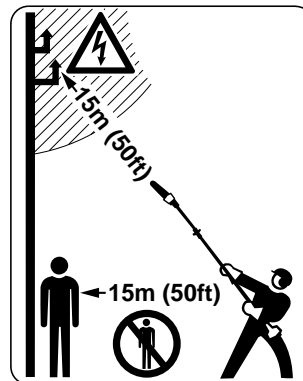
If your KombiEngine is a KM 94 R, always use the handle hose on the KombiTool as the left handle.

During Operation

In the event of impending danger or in an emergency, switch off the engine immediately by moving the slide control / stop switch / button to **0** or **STOP**.



This power tool is not insulated against electric shock. To reduce the **risk of electrocution** maintain a minimum clearance of 15 m from electric power lines.



To reduce the risk of injury from falling objects and thrown pieces of wood, do not allow any other persons within a radius of 15 meters of your own position.

To reduce the risk of damage to property, also maintain this distance from other objects (vehicles, windows).

Maintain a minimum clearance of 15 m between the bar nose and electric power lines. Electricity can jump considerable distances by means of arcing. Higher voltage increases the distance electricity can arc. Have the power switched off before starting cutting work in the immediate vicinity of power lines.

Make sure the idle speed setting is correct. The chain must not run when the engine is idling with the throttle trigger released.

Check and correct the idle speed setting regularly. If the saw chain continues to run when the engine is idling, have your dealer check your machine and make proper adjustments or repairs – see KombiEngine service manual.

Take special care in slippery conditions (ice, wet ground, snow) – on slopes or uneven ground.



The gearbox becomes hot during operation. **To reduce the risk of burn injury**, do not touch the gearbox housing.

Watch out for obstacles: Roots and tree stumps which **could cause you to trip or stumble**.

Make sure you always have good balance and secure footing.

When working at heights:

- Always use a lift bucket
- Never work on a ladder or in a tree
- Never work on an insecure support
- Never operate your power tool with one hand

Be particularly alert and cautious when wearing hearing protection because your ability to hear warnings (shouts, alarms, etc.) is restricted.

To reduce the risk of accidents, take a break in good time to avoid tiredness or exhaustion.

Work calmly and carefully – in daylight conditions and only when visibility is good. Stay alert so as not to endanger others.

The dusts (e.g. sawdust), vapor and smoke produced during operation may be dangerous to health. If dust levels are high, wear a suitable respirator.

Do not touch the chain while the engine is running. If the chain becomes jammed by an obstruction, switch off the engine immediately before attempting to remove the obstruction – **risk of injury**.

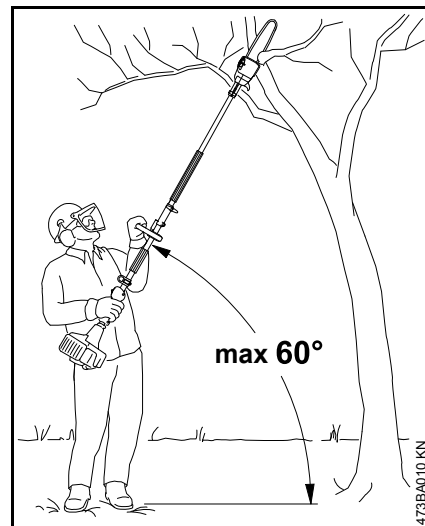
Opening the throttle while the chain is blocked increases the load and reduces engine speed. The clutch then slips continuously and this causes overheating and damage to important components (e.g. clutch, polymer housing components) – and **this can increase the risk of injury** from the chain moving while the engine is idling.

If your power tool is subjected to unusually high loads for which it was not designed (e.g. heavy impact or a fall), always check that it is in good condition before continuing work – see also "Before Starting". Make sure the safety devices are working properly. Do not continue operating your power tool if it is damaged. In case of doubt, consult your servicing dealer.

To reduce the risk of injury, shut off the engine before changing the saw chain.

If you use a shoulder strap, make sure exhaust gases are diverted away from your body since there is otherwise **a risk of fire**.

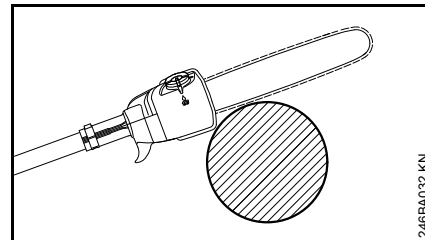
Limbing



Hold the pole pruner at an angle. Do not stand directly underneath the limb being cut. Do not exceed an angle of 60° from the horizontal. Watch for falling wood.

Keep the work area clear – remove interfering limbs and brush.

Before limbing, establish a path of escape and remove all obstacles.



Position the housing against the branch and then perform the cross-cut. This reduces the risk of the pruner being jerked forward as you start the cross-cut.

Always start the cut with the engine at full throttle.

Always cut with a correctly sharpened, properly tensioned chain – the depth gauge setting must not be too large.

Perform cross-cut from the top downward to avoid the chain pinching in the cut.

If branch is thick or heavy, make a relieving cut – see chapter on "Using the Pole Pruner".

To reduce the risk of injury, take special care when cutting branches under tension. Always make a relieving cut on the compression side first and then perform the bucking cut at the tension side.

To reduce the risk of injury, take special care when cutting shattered wood because of the risk of injury from splinters being caught and thrown in your direction.

If on a slope, stand on the uphill side or to one side of the branch to be cut. Watch out for rolling branches.

Note when reaching the end of a cut that the unit is no longer supported by the guide bar in the cut. You have to take the full weight of the machine since **it might otherwise go out of control**.

Always pull the unit out of the cut with the chain running.

To reduce the risk of accidents, use your pole pruner for limbing and pruning only. It is not designed for felling.

Make sure your saw chain does not touch any foreign materials: Stones, nails, etc. may be flung off and damage the saw chain.

If the rotating chain makes contact with a rock or other solid object there is a risk of sparking which may cause easily combustible material to catch fire under certain circumstances. Dry plants and scrub are also easily combustible, especially in hot and dry weather conditions. If there is a risk of fire, do not use your pole pruner near combustible materials, dry plants or scrub. Always contact your local forest authority for information on a possible fire risk.

Maintenance and Repairs

Service the machine regularly. Do not attempt any maintenance or repair work not described in the KombiTool and KombiEngine instruction manuals. Have all other work performed by a servicing dealer.

STIHL recommends that you have servicing and repair work carried out exclusively by an authorized STIHL servicing dealer. STIHL dealers are regularly given the opportunity to attend training courses and are supplied with the necessary technical information.

Only use high-quality replacement parts in order to avoid the risk of accidents and damage to the machine. If you have any questions in this respect, consult a servicing dealer.

STIHL recommends the use of genuine STIHL replacement parts. They are specifically designed to match your model and meet your performance requirements.

To reduce the risk of injury, **always shut off the engine** before carrying out any maintenance or repairs or cleaning the machine. – Exception: Carburetor and idle speed adjustments.

Stopping the engine

- before checking chain tension.
- before retensioning the chain.
- before replacing the chain.
- before rectifying problems.

Observe sharpening instructions – keep the chain and guide bar in good condition at all times for safe and correct handling of the saw. The chain must be properly sharpened, tensioned and well lubricated.

Always change the chain, guide bar and sprocket in good time.

Store chain lubricant in properly labelled, safety-type canisters only.

Using the Unit

Preparations

- Wear suitable protective clothing, observe safety precautions.
- Start the engine.
- Put on the shoulder strap.

Cutting Sequence

To allow branches to free fall, always cut the lower branches first. Prune heavy branches (large diameter) in several controllable pieces.



WARNING

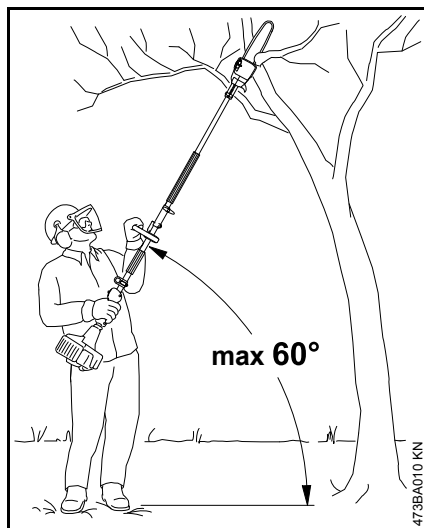
Never stand directly underneath the branch you are cutting – be wary of falling branches. Note that a branch may spring back at you after it hits the ground – **risk of injury**.

Disposal

Do not throw cuttings into the garbage can – they can be composted.

Working Techniques

Hold the control handle with your right hand, and the loop handle with your left hand. Your left arm should be extended to the most comfortable position.

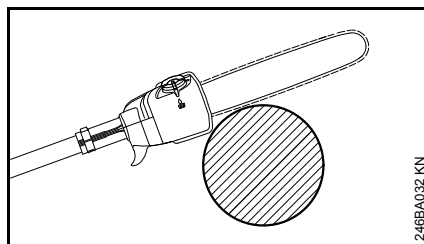


The shaft should always be held at an angle of **60° or less**.

The least tiring working position is a tool angle of 60°.

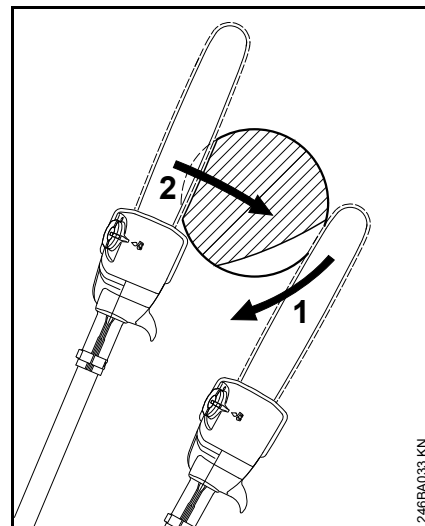
Any lesser angle may be used to suit the situation.

Cross-cut



To avoid pinching the bar in the cut, position the housing against the branch and then perform the cross-cut from the top downwards.

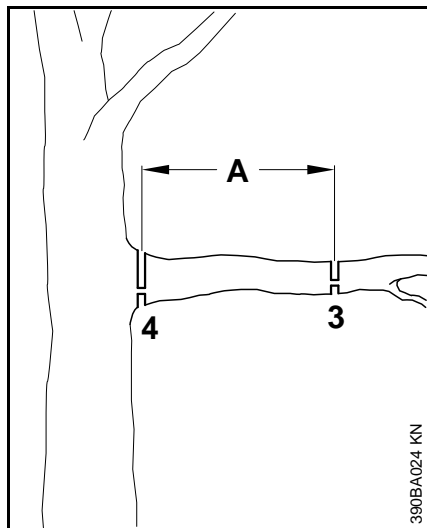
Relieving cut



To avoid tearing the bark on thick branches, always start by performing a relieving cut (1) on the underside of the branch.

- To do this, apply the cutting attachment and pull it across the bottom of the branch in an arc as far as the bar nose.
- Position the housing against the branch and then perform the cross-cut (2).

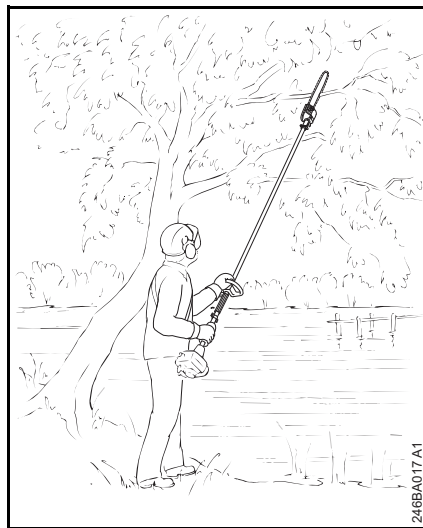
Flush-cutting thick branches



If branch diameter is more than 10 cm (4 in), first

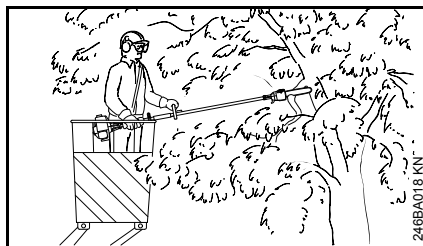
- perform undercut (3) and then cross-cut at a distance of about 20 cm./8 in (A) from the final cut. Then carry out the flush-cut (4), starting with a relieving cut and finishing with a cross-cut.

Cutting above obstacles



The machine's long reach makes it possible to prune branches that are overhanging obstacles, such as rivers or lakes. The tool angle in this case depends on the position of the branch.

Cutting from a lift bucket



The machine's long reach enables cutting to be performed next to the trunk without the risk of the lift bucket damaging other branches. The tool angle in this case depends on the position of the branch.

Approved KombiEngines

KombiEngines

Only use KombiEngines supplied or explicitly approved by STIHL for use with the attachment.

This KombiTool may be operated only in combination with the following KombiEngines:

STIHL KM 55 R, KM 56 R, KM 85 R¹⁾, KM 94 R, KM 111 R, KM 131 R, KM 130 R



WARNING

Loop-handled machines must be equipped with a barrier bar.

Brushcutters with split drive tube

This KombiTool may also be mounted to STIHL brushcutters (basic power tools) with a split drive tube (T models).

Operation of this KombiTool is therefore also permitted on the following power tool model:

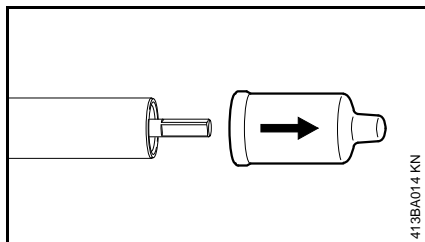
STIHL FR 131 T



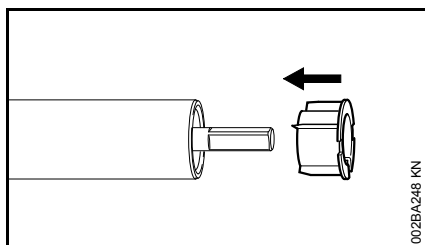
WARNING

Refer to the power tool's instruction manual for use of the barrier bar.

Assembling the Unit



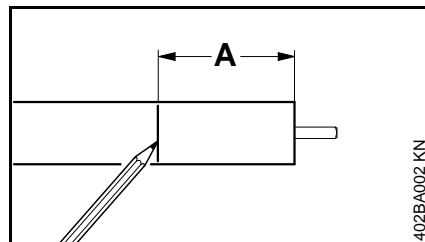
- Pull the protective caps off the ends of the drive tube and keep them in a safe place for later use – see "Storing the Machine".



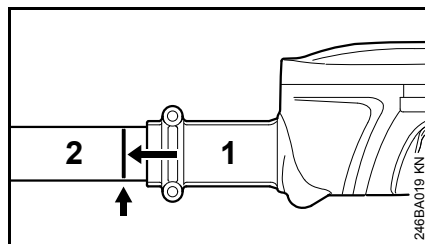
NOTICE

The plug may come out of the drive tube when you pull off the cap. Push it back into the drive tube as far as stop.

Mounting the Gearbox

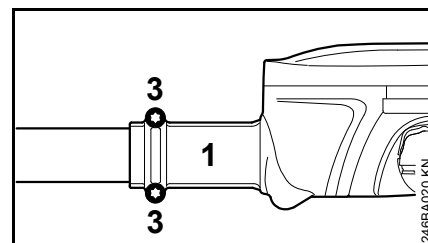


- Apply a mark at distance A of 60 mm (2.4 in) from the end of the drive tube.

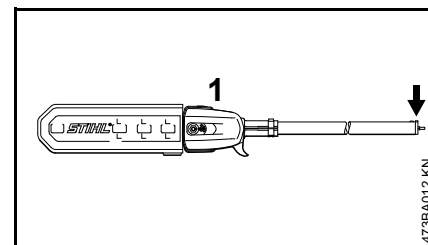


- Push the gearbox (1) onto the drive tube (2) as far as stop – turn the gearbox back and forth until the square end of the shaft engages.

The gearbox is correctly positioned when the end of its housing reaches or covers the mark (arrow).

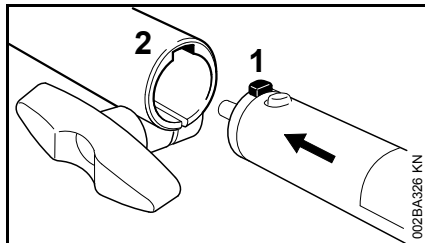


- Insert the clamp screws (3) as far as stop.

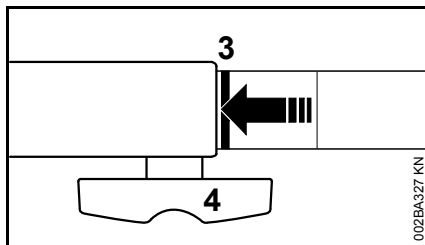


- Line up the gearbox (1) so that the chain sprocket cover is exactly vertical and the lug (arrow) on the end of the drive tube faces up.
- Tighten down the clamp screws (3) in the following sequence:
 - tighten the left screw moderately
 - tighten the right screw moderately
 - tighten down the left screw **firmly**
 - tighten down the right screw **firmly**

Mounting the KombiTool



- Push the lug (1) on the drive tube into the slot (2) in the coupling sleeve as far as stop.



When correctly installed, the red line (3) (arrow point) must be flush with the end of the coupling sleeve.

- Tighten down the star knob (4) **firmly**.

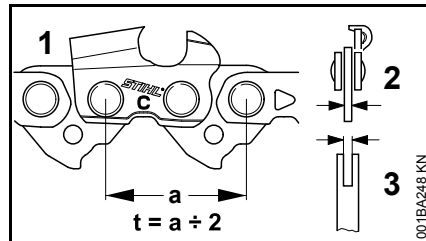
Removing the KombiTool

- Reverse the above sequence to remove the drive tube.

Cutting Attachment

A cutting attachment consists of the saw chain, guide bar and chain sprocket.

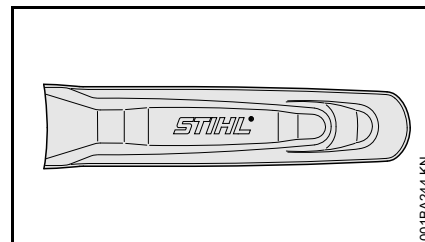
The cutting attachment that comes standard is designed to exactly match the pole pruner.



- The pitch (t) of the saw chain (1), chain sprocket and the nose sprocket of the Rollomatic guide bar must match.
- The drive link gauge (2) of the saw chain (1) must match the groove width of the guide bar (3).

If non-matching components are used, the cutting attachment may be damaged beyond repair after a short period of operation.

Chain Scabbard



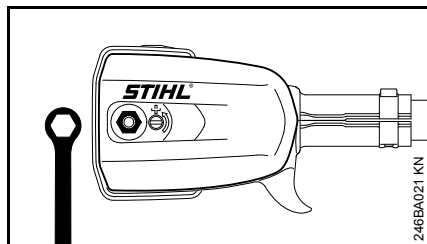
The scope of supply includes a bar scabbard that matches the cutting attachment.

If guide bars of different lengths are mounted to the pole pruner, always use a chain scabbard of the correct length which covers the complete guide bar.

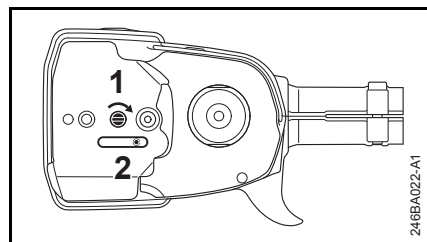
The length of the matching guide bars is marked on the side of the chain scabbard.

Mounting the Bar and Chain

Removing the Chain Sprocket Cover

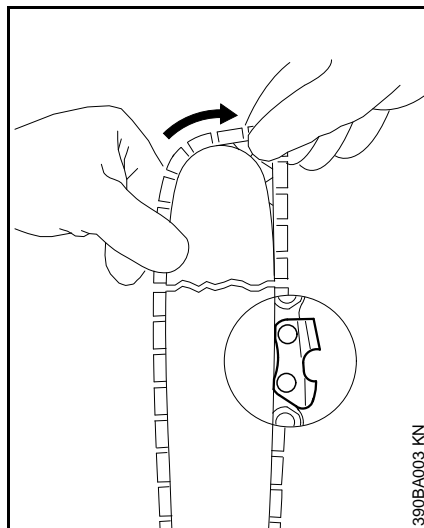


- Unscrew the nut and remove the chain sprocket cover.



- Turn the screw (1) clockwise until the tensioner slide (2) butts against the right end of the housing slot.

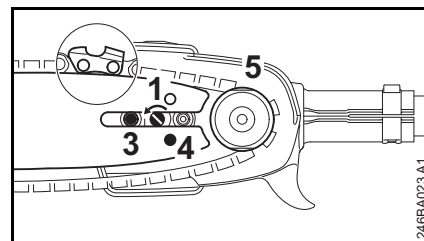
Fitting the Chain



! WARNING

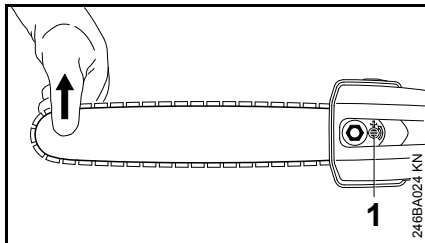
Wear work gloves to protect your hands from the sharp cutters.

- Fit the chain – start at the bar nose.



- Fit the guide bar over the screw (3) and engage peg of tensioner slide in the hole (4) – place the chain over the sprocket (5) at the same time.
- Turn the tensioning screw (1) counterclockwise until there is very little chain sag on the underside of the bar – and the drive link tangs are engaged in the bar groove.
- Refit the sprocket cover and screw on the nut fingertight.
- Go to chapter on "Tensioning the Saw Chain".

Tensioning the Chain



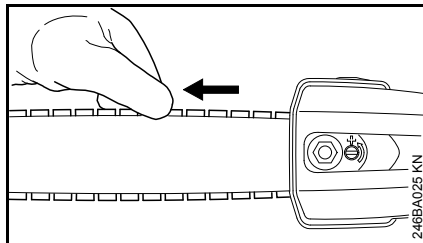
Re-tensioning during cutting work:

- Shut off the engine.
- Loosen the nut.
- Hold the bar nose up.
- Use a screwdriver to turn the tensioning screw (1) counterclockwise until the chain fits snugly against the underside of the bar.
- While still holding the bar nose up, tighten down the nut firmly.
- Go to "Checking Chain Tension".

A new chain has to be re-tensioned more often than one that has been in use for some time.

- Check chain tension frequently – see chapter on "Operating Instructions".

Checking Chain Tension



- Shut off the engine.
- Wear work gloves to protect your hands.
- The chain must fit snugly against the underside of the bar and it must still be possible to pull the chain along the bar by hand.
- If necessary, re-tension the chain.

A new chain has to be re-tensioned more often than one that has been in use for some time.

- Check chain tension frequently – see chapter on "Operating Instructions".

Chain Lubricant

For automatic and reliable lubrication of the chain and guide bar – use only an environmentally compatible quality chain and bar lubricant. Rapidly biodegradable STIHL BioPlus is recommended.



NOTICE

Biological chain oil must be resistant to aging (e.g. STIHL BioPlus), since it will otherwise quickly turn to resin. This results in hard deposits that are difficult to remove, especially in the area of the chain drive and chain. It may even cause the oil pump to seize.

The service life of the chain and guide bar depends on the quality of the lubricant. It is therefore essential to use only a specially formulated chain lubricant.



WARNING

Do not use waste oil. Renewed contact with waste oil can cause skin cancer. Moreover, waste oil is environmentally harmful.



NOTICE

Waste oil does not have the necessary lubricating properties and is unsuitable for chain lubrication.

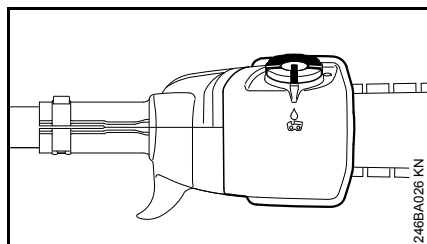
Filling Chain Oil Tank



NOTICE

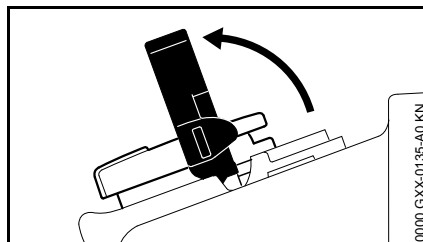
A full chain oil tank is sufficient for only half a tankful of fuel. Check the oil level regularly during cutting work. Never allow the oil tank to run dry.

Preparations

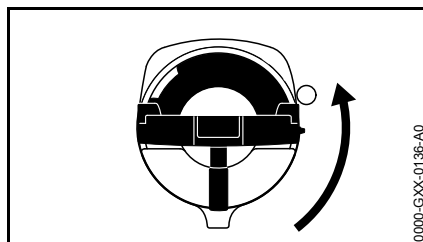


- Thoroughly clean the tank cap and the area around it to ensure that no dirt falls into the tank.
- Position the machine so that the tank cap faces up.

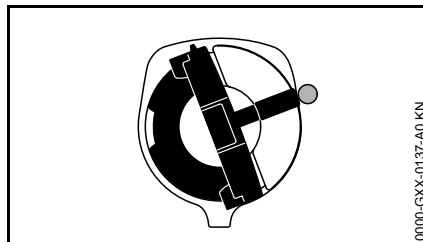
Opening



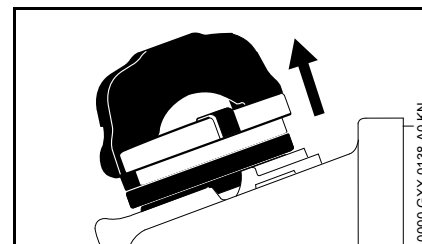
- Raise the grip until it is upright.



- Turn the cap counterclockwise (about a quarter turn).



Marks on tank cap and oil tank must line up.



- Remove the tank cap.

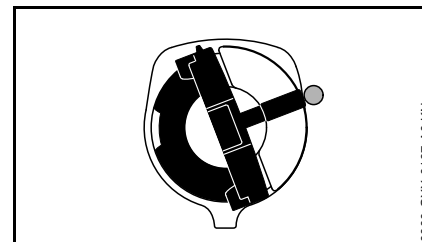
Filling Up with Chain Oil

- Fill the tank with chain oil.

Take care not to spill chain oil while refilling and do not overfill the tank.

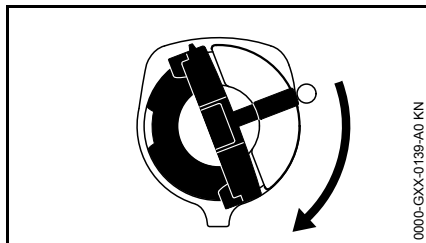
STIHL recommends you use the STIHL filler nozzle for chain oil (special accessory).

Closing

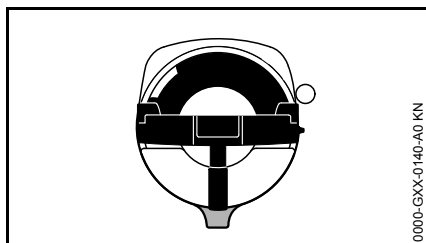


Grip must be vertical:

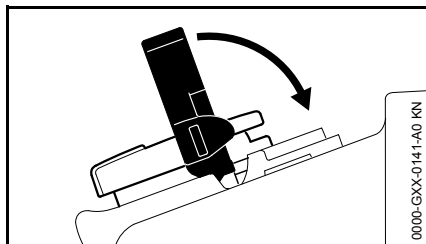
- Fit the cap – marks on tank cap and oil tank must line up.
- Press the cap down as far as stop.



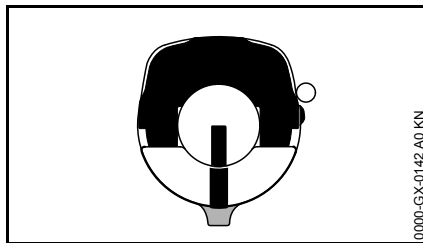
- While holding the cap depressed, turn it clockwise until it engages in position.



The marks on the cap and oil tank are then in alignment.



- Fold the grip down.



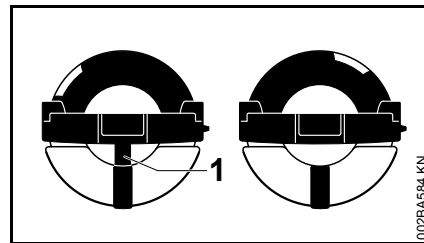
Tank cap is locked.

If the oil level in the tank does not go down, the reason may be a problem in the oil supply system: Check chain lubrication, clean the oilways, contact your dealer for assistance if necessary. STIHL recommends that you have servicing and repair work carried out exclusively by an authorized STIHL servicing dealer.

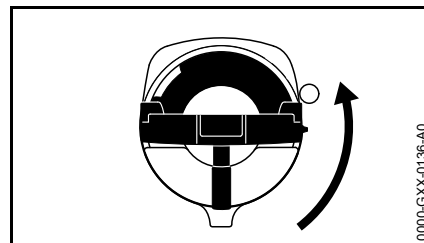
If the tank cap cannot be locked in the oil tank opening

Bottom of cap is twisted in relation to top.

- Remove the cap from the oil tank and check it from above.

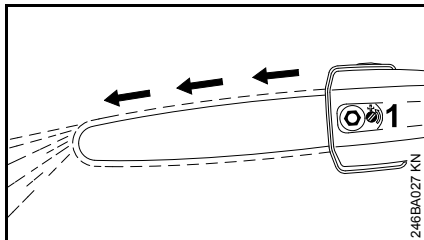


Left:	Bottom of cap is twisted – inner mark (1) in line with outer mark.
Right:	Bottom of cap in correct position – inner mark is under the grip. It is not in line with the outer mark.



- Place the cap on the opening and rotate it counterclockwise until it engages the filler neck.
- Continue rotating the cap counterclockwise (about a quarter turn) – this causes the bottom of the cap to be turned to the correct position.
- Turn the cap clockwise and lock it in position – see section on "Closing".

Checking Chain Lubrication



The saw chain must always throw off a small amount of oil.



NOTICE

Never operate your machine without chain lubrication. If the chain runs dry, the whole cutting attachment will be irretrievably damaged within a very short time. Always check chain lubrication and the oil level in the tank before starting work.

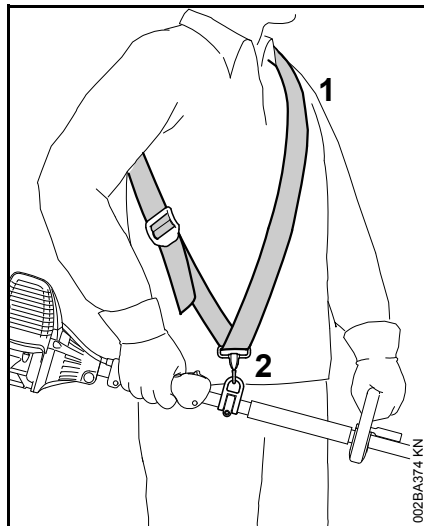
Every new chain has to be broken in for about 2 to 3 minutes.

After breaking in the chain, check chain tension and adjust if necessary – see "Checking Chain Tension".

Fitting the Harness

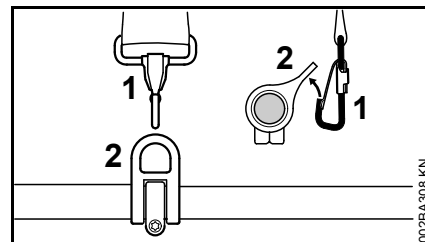
The type and style of the harness, carrying ring and carabiner (spring hook) depend on the market.

Shoulder Strap



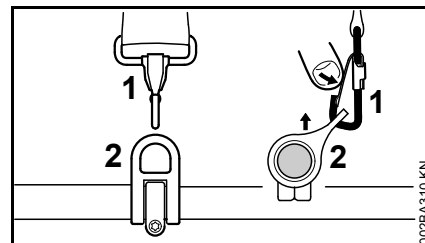
- Put on the shoulder strap (1).
- Adjust the length of the strap so that the carabiner (2) is about a hand's width below your right hip.

Attaching Machine to Harness



- Attach the carabiner (1) to the carrying ring (2) on the drive tube – hold the carrying ring steady.

Detaching Machine from Harness



- Press down the bar on the carabiner (1) and pull the carrying ring (2) out of the carabiner.

Throwing Off the Machine



WARNING

The machine must be quickly thrown off in the event of imminent danger. Practice removing and putting down the power tool as you would in an emergency. To avoid damage, do not throw the power tool to the ground when practicing.

Practice quickly detaching the power tool from the carabiner as described under "Detaching Machine from Harness".

Practice slipping the strap off your shoulder.

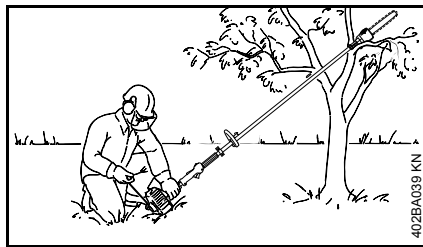
Starting / Stopping the Engine

Starting the Engine

Always follow the operating instructions for the KombiEngine and basic power tool.

- Remove the chain guard.

Check that the chain is not touching the ground or any other obstacles.



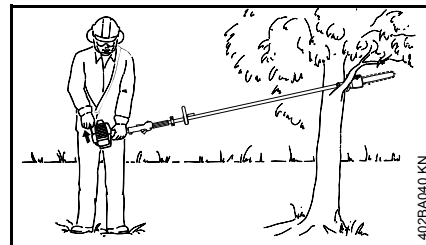
- Position the unit securely for starting: Put the powerhead on the ground so that it rests on the engine support. Rest the hook on the cutting attachment on a raised support, e.g. a mound or branch.
- Make sure you have a firm footing, either standing, stooping or kneeling.
- Hold the machine with your left hand and press it down **firmly** – do not touch the controls on the control handle – see KombiEngine or basic power tool instruction manual.



NOTICE

Do not stand or kneel on the drive tube.

Alternative method of starting



- Hang the cutting attachment on a branch so that it is held by the hook.
- Make sure you have a safe and secure footing.
- Hold the machine with your left hand and press it down firmly – do not touch the controls on the control handle – see KombiEngine or basic power tool instruction manual.

WARNING

The saw chain may begin to run as soon as the engine starts. For this reason, blip the throttle after starting – the engine returns to idling speed.

The starting procedure is now as described in the instruction manual of the KombiEngine or basic power tool you are using.

Stopping the Engine

- See KombiEngine or basic power tool instruction manual.

Operating Instructions

During Operation

Check chain tension frequently

A new chain has to be retensioned more often than one that has been in use for some time.

Chain cold

Tension is correct when the chain fits snugly against the underside of the bar and can still be pulled along the bar by hand. Retension if necessary – see "Tensioning the Saw Chain".

Chain at operating temperature

The chain stretches and begins to sag. The drive links must not come out of the bar groove – the chain may otherwise jump off the bar. Retension the chain – see "Tensioning the Saw Chain".



NOTICE

The chain contracts as it cools down. If it is not slackened off, it can damage the gear shaft and bearings.

After Finishing Work

- Slacken off the chain if you have retensioned it at operating temperature during cutting work.



NOTICE

Always slacken off the chain after finishing work. The chain contracts as it cools down. If it is not slackened off, it can damage the gear shaft and bearings.

Storing for a long period

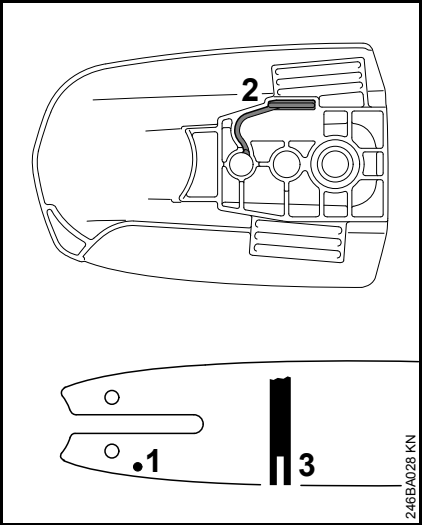
See chapter on "Storing the Machine"

Storing the Machine

For periods of 3 months or longer

- Remove the saw chain and guide bar, clean them and spray with corrosion inhibiting oil.
- If you use a biological chain and bar lubricant, e.g. STIHL BioPlus, completely fill the chain oil tank.
- If the KombiTool is removed from the KombiEngine and stored separately: Fit the protective cap on the drive tube to avoid dirt getting into the coupling.
- Store the machine in a dry, high or locked location – out of the reach of children and other unauthorized persons.

Taking Care of the Guide Bar



- Turn the bar over every time you sharpen the chain and every time you replace the chain – this helps avoid one-sided wear, especially at the nose and underside of the bar.
- Regularly clean the oil inlet hole (1), the oilway (2) and the bar groove (3).
- Measure the groove depth – with the scale on the filing gauge (special accessory) – in the area used most for cutting.

Chain type	Chain pitch	Minimum groove depth
Picco	1/4" P	4.0 mm (0.16 in)

If groove depth is less than specified:

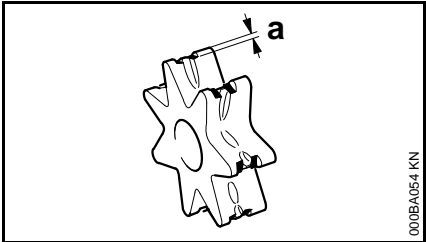
- Replace the guide bar.

The drive link tangs will otherwise scrape along the bottom of the groove – the cutters and tie straps will not ride on the bar rails.

Checking and Replacing the Chain Sprocket

- Remove the chain sprocket cover, chain and guide bar.

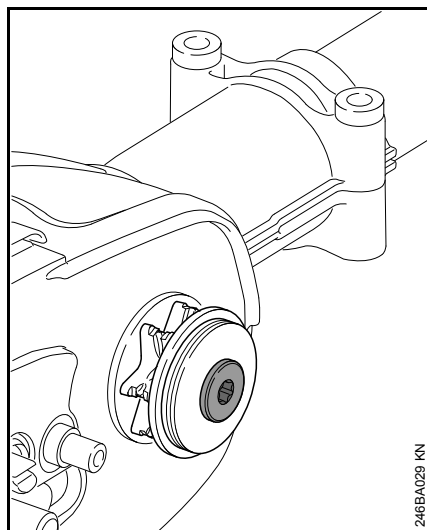
Replace the chain sprocket:



- after using two saw chains or sooner
- if the wear marks (a) on the sprocket are deeper than approx. 0.5 mm (0.02 in) since this would reduce the life of the chain. You can use a gauge (special accessory) to check the depth of the wear marks.

It is best to use two saw chains in rotation with one sprocket.

STIHL recommends the use of original STIHL chain sprockets.



The chain sprocket is driven via a friction clutch. Have the chain sprocket replaced by a servicing dealer.

STIHL recommends that you have servicing and repair work carried out exclusively by an authorized STIHL servicing dealer.

Maintaining and Sharpening the Saw Chain

Cutting effortlessly with a correctly sharpened chain

A properly sharpened chain slices through wood effortlessly and requires very little feed pressure.

Do not work with a dull or damaged chain as it will increase the physical effort required, produce unsatisfactory results and a higher rate of wear.

- Clean the chain.
- Check the chain for cracks in the links and damaged rivets.
- Replace any damaged or worn parts of the chain and match the new parts to the shape and size of the original parts.

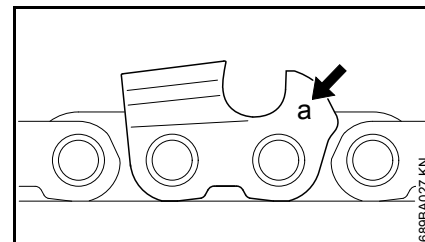
Carbide-tipped saw chains (Duro) are particularly wear resistant. STIHL recommends you have your chain resharpened by a STIHL servicing dealer.

WARNING

It is absolutely essential to comply with the angles and dimensions specified below. If the saw chain is incorrectly sharpened – and in particular if the depth gauge is set too low – there is an increased risk of kickback, with resulting **risk of injury**.

The saw chain cannot be locked in place on the guide bar. Therefore, it is best to remove the chain from the bar and resharpen it on a workshop sharpening tool (FG 2, HOS, USG).

Chain pitch



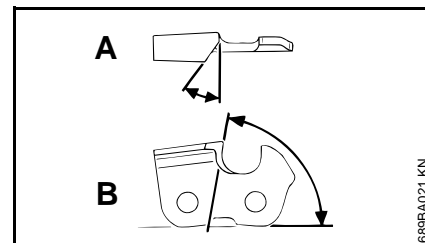
The chain pitch (a) is marked on the depth gauge end of each cutter.

Mark (a)	Chain pitch	
	inch	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

Select file diameter according to chain pitch – see table “Sharpening Tools”.

You must observe certain angles when resharpening the chain cutter.

Filing and side plate angles



A Filing angle

STIHL saw chains are sharpened to a filing angle of 30°. Exceptions are ripping chains with a filing angle of 10°. Ripping chains have an X in their designations.

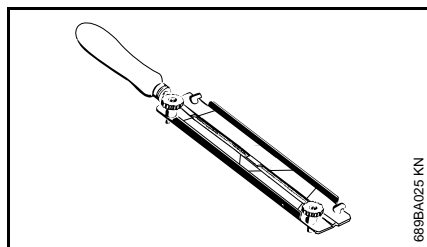
B Side plate angle

The correct side plate angle is obtained automatically if you use the prescribed file holder and file diameter.

Cutter shapes	Angle (°)	
	A	B
Micro = semi chisel cutter, e.g. 63 PM3, 26 RM3, 71 PM3	30	75
Super = chisel cutter, e.g. 63 PS3, 26 RS, 36 RS3	30	60
Ripping chain, e.g. 63 PMX, 36 RMX	10	75

The angles must be the same on all cutters. If the angles are uneven: Chain will run roughly, not in a straight line, wear quickly and finally break.

File holder

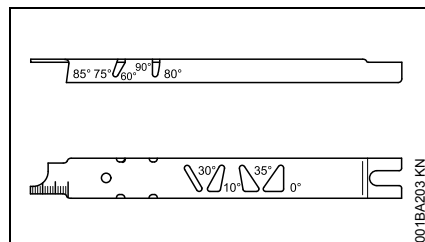


● Use a file holder

A file holder must be used for manual reshaping (see table "Sharpening Tools"). The correct filing angles are marked on the file holder.

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

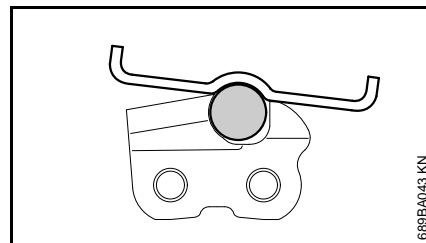
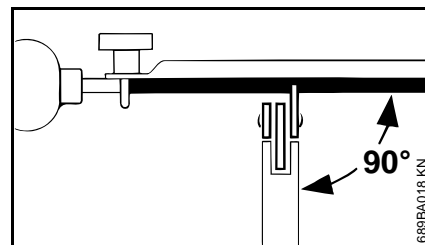
For checking angles



Use a STIHL filing gauge (special accessory, see table "Sharpening Tools"). This is a universal tool for checking the filing and side plate angles, depth gauge setting, cutter length and groove depth. It also cleans the guide bar groove and oil inlet holes.

File correctly

- Select sharpening tools according to chain pitch.
- If you use an FG 2, HOS or USG sharpener: Remove the chain from the bar and sharpen according to the instructions supplied with the tool.
- Clamp the bar in a vise if necessary.
- Sharpen the chain frequently, take away as little metal as possible – two or three strokes of the file are usually enough.

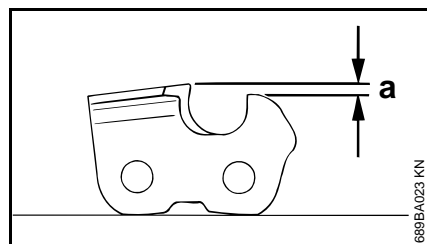


- Hold the file **horizontally** (at a right angle to the side of the guide bar) and file according to the angles marked on the file holder. Rest the file holder on the top plate and depth gauge.
 - Always file from the inside to the outside of the cutter.
 - The file only sharpens on the forward stroke – lift the file off the cutter on the backstroke.
 - Avoid touching the tie straps and drive links with the file.
 - Rotate the file at regular intervals while filing to avoid one-sided wear.
 - Use a piece of hardwood to remove burrs from the cutting edge.
 - Check angles with the filing gauge.
- All cutters must be the same length.

If the cutters are not the same length, they will have different heights. This makes the chain run roughly and can cause it to break.

- Find the shortest cutter and then file all other cutters back to the same length. It is best to have this work done by a servicing dealer on an electric grinder.

Depth gauge setting



The depth gauge determines the height at which the cutter enters the wood and thus the thickness of the chip removed.

- a** Specified distance or setting between depth gauge and cutting edge.

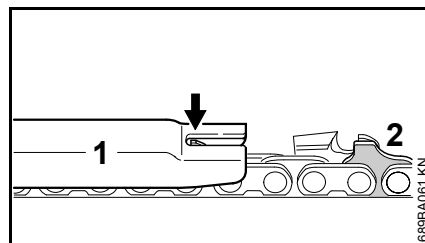
This setting may be increased by 0.2 mm (0.008") for cutting softwood in the mild weather season – no frost.

Chain pitch		Depth gauge Setting (a)	
inch	(mm)	mm	(inch)
1/4 P	(6,35)	0,45	(0.018)
1/4	(6,35)	0,65	(0.026)
3/8 P	(9,32)	0,65	(0.026)
0.325	(8,25)	0,65	(0.026)
3/8	(9,32)	0,65	(0.026)

Lowering depth gauges

The depth gauge setting is reduced when the chain is sharpened.

- Use a filing gauge to check the setting every time you sharpen the chain.

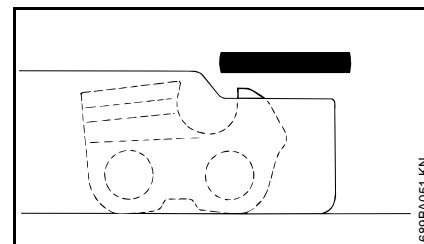


- Place a filing gauge (1) that matches the chain pitch on the chain and press it against the cutter – if the depth gauge projects from the filing gauge, the depth gauge has to be lowered.

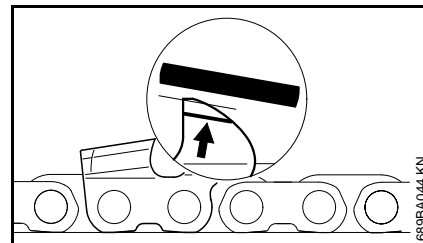
Saw chains with humped drive link (2) – upper part of humped drive link (2) (with service mark) is lowered along with the depth gauge.

! WARNING

The other parts of the humped drive link must not be filed since this may increase the kickback tendency of the power tool.



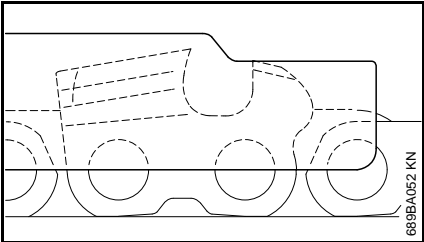
- File down the depth gauge until it is level with the filing gauge.



- File the top of the depth gauge parallel to the stamped service marking (see arrow) – but do not lower the highest point of the depth gauge in this process.

! WARNING

The kickback tendency of the machine is increased if the depth gauges are too low.



- After sharpening, clean the chain thoroughly, remove filings or grinding dust – lubricate the chain thoroughly.
 - Before a long out-of-service period, clean the chain and store it in a well-oiled condition.
- Place the filing gauge on the chain – the highest point of the depth gauge must be level with the filing gauge.

Sharpening Tools (special accessories)

Chain pitch		Round file Ø		Round file	File holder	Filing gauge	Flat file	Sharpening kit ¹⁾
inch	(mm)	mm	(inch)	Part No.	Part No.	Part No.	Part No.	Part No.
1/4 P	(6,35)	3,2	(1/8)	5605 771 3206	5605 750 4300	0000 893 4005	0814 252 3356	5605 007 1000
1/4	(6,35)	4,0	(5/32)	5605 772 4006	5605 750 4327	1110 893 4000	0814 252 3356	5605 007 1027
3/8 P	(9,32)	4,0	(5/32)	5605 772 4006	5605 750 4327	1110 893 4000	0814 252 3356	5605 007 1027
0.325	(8,25)	4,8	(3/16)	5605 772 4806	5605 750 4328	1110 893 4000	0814 252 3356	5605 007 1028
3/8	(9,32)	5,2	(13/64)	5605 772 5206	5605 750 4329	1110 893 4000	0814 252 3356	5605 007 1029

¹⁾ consisting of file holder with round file, flat file and filing gauge

Maintenance and Care

The following intervals apply to normal operating conditions only. If your daily working time is longer or operating conditions are difficult (very dusty work area, resin-rich wood, tropical wood, etc.), shorten the specified intervals accordingly. If you only use the saw occasionally, extend the intervals accordingly.		before starting work	after finishing work or daily	after each refueling stop	weekly	monthly	every 12 months	if problem	if damaged	if required
All accessible screws and nuts (not adjusting screws)	Retighten									X
Chain lubrication	Check	X								
Saw chain	Inspect, also check sharpness	X		X						
	Check chain tension	X		X						
	Sharpen									X
Guide bar	Check (wear, damage)	X								
	Clean and turn over				X			X		
	Deburr				X					
	Replace								X	X
Chain sprocket	Check				X					
	Have replaced by dealer ¹⁾									X
Safety labels	Replace								X	
¹⁾ STIHL recommends a STIHL servicing dealer.										

Minimize Wear and Avoid Damage

Observing the instructions in this manual and the KombiEngine manual helps reduce the risk of unnecessary wear and damage to the power tool.

The power tool must be operated, maintained and stored with the due care and attention described in these instruction manuals.

The user is responsible for all damage caused by non-observance of the safety precautions, operating and maintenance instructions. This includes in particular:

- Alterations or modifications to the product not approved by STIHL.
- Using tools or accessories which are neither approved or suitable for the product or are of a poor quality.
- Using the product for purposes for which it was not designed.
- Using the product for sports or competitive events.
- Consequential damage caused by continuing to use the product with defective components.

Maintenance Work

All the operations described in the chapter on "Maintenance and Care" must be performed on a regular basis. If these maintenance operations cannot be performed by the owner, they should be performed by a servicing dealer.

STIHL recommends that you have servicing and repair work carried out exclusively by an authorized STIHL

servicing dealer. STIHL dealers are regularly given the opportunity to attend training courses and are supplied with the necessary technical information.

If these maintenance operations are not carried out as specified, the user assumes responsibility for any damage that may occur. Among other parts, this includes:

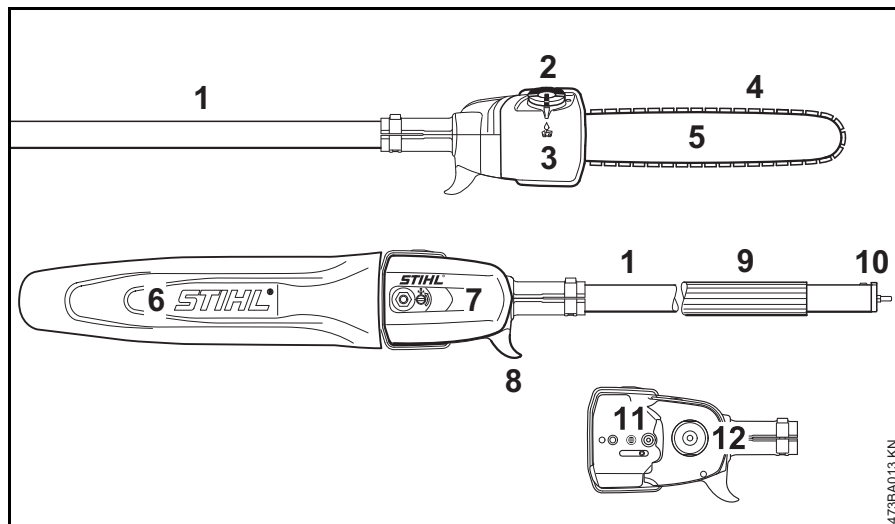
- Corrosion and other consequential damage resulting from improper storage.
- Damage to the product resulting from the use of poor quality replacement parts.

Parts Subject to Wear and Tear

Some parts of the power tool are subject to normal wear and tear even during regular operation in accordance with instructions and, depending on the type and duration of use, have to be replaced in good time. Among other things, this includes:

- Saw chain, guide bar
- Chain sprocket
- Friction clutch
- Chain tensioner

Main Parts



- 1 Drive Tube
- 2 Oil Filler Cap
- 3 Oil Tank
- 4 Saw Chain
- 5 Guide Bar
- 6 Chain Scabbard
- 7 Chain Sprocket Cover
- 8 Hook
- 9 Handle Hose
- 10 Sleeve
- 11 Chain Tensioner
- 12 Chain Sprocket

473BA013 KN

Specifications

Chain Lubrication

Fully automatic, speed-controlled oil pump with rotary piston

Oil tank capacity: 120 cc (0.12 l)

Weight

without cutting attachment: 1.3 kg

Cutting Attachment

Actual cutting length may be less than the specified length

Rollomatic E Mini guide bars

Cutting length: 25, 30 cm
Pitch: 1/4" P (6.35 mm)
Groove width: 1.1 mm

1/4" P chain

Picco Micro 3 (71 PM3) Type 3670
Pitch: 1/4" P (6.35 mm)
Drive link gauge: 1.1 mm

Chain Sprocket

8-tooth for 1/4" P

Noise and Vibration Data

Noise and vibration data measurements on power tools with the HT-KM KombiTool include idling and rated maximum speed with the same duration of exposure.

For further details on compliance with Vibration Directive 2002/44/EC visit www.stihl.com/vib.

Sound pressure level L_p to ISO 22868

KM 55 R with loop handle: 92 dB(A)
KM 56 R with loop handle: 90 dB(A)
KM 85 R with loop handle: 92 dB(A)
KM 94 R with loop handle: 91 dB(A)
KM 111 R with loop handle: 92 dB(A)
KM 131 R with loop handle: 92 dB(A)
KM 130 R with loop handle: 85 dB(A)
FR 131 T: 92 dB(A)

Sound power level L_w to ISO 22868

KM 55 R with loop handle: 107 dB(A)
KM 56 R with loop handle: 106 dB(A)
KM 85 R with loop handle: 109 dB(A)
KM 94 R with loop handle: 106 dB(A)
KM 111 R with loop handle: 108 dB(A)
KM 131 R with loop handle: 109 dB(A)
KM 130 R with loop handle: 93 dB(A)
FR 131 T: 109 dB(A)

Vibration level $a_{hv,eq}$ to ISO 22867

	Handle, left	Handle, right
KM 55 R with loop handle:	8.6 m/s ²	7.0 m/s ²
KM 56 R with loop handle:	6.8 m/s ²	4.8 m/s ²
KM 85 R with loop handle:	5.2 m/s ²	6.6 m/s ²
KM 94 R with loop handle:	6.7 m/s ²	3.8 m/s ²
KM 111 R with loop handle:	4.4 m/s ²	3.7 m/s ²
KM 131 R with loop handle:	5.4 m/s ²	4.3 m/s ²
KM 130 R with loop handle:	3.0 m/s ²	2.4 m/s ²
FR 131 T:	1.3 m/s ²	1.4 m/s ²

The K-factor in accordance with Directive 2006/42/EC is 2.0 dB(A) for the sound pressure level and sound power level; the K-factor in accordance with Directive 2006/42/EC is 2.0 m/s² for the vibration level.

REACH

REACH is an EC regulation and stands for the Registration, Evaluation, Authorisation and Restriction of Chemical substances.

For information on compliance with the REACH regulation (EC) No. 1907/2006 see www.stihl.com/reach.


Maintenance and Repairs

Users of this machine may only carry out the maintenance and service work described in this user manual. All other repairs must be carried out by a servicing dealer.

STIHL recommends that you have servicing and repair work carried out exclusively by an authorized STIHL servicing dealer. STIHL dealers are regularly given the opportunity to attend training courses and are supplied with the necessary technical information.

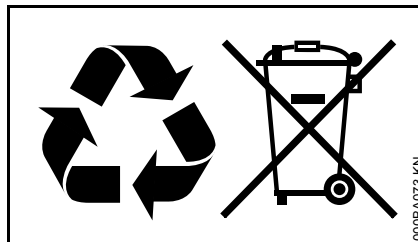
When repairing the machine, only use replacement parts which have been approved by STIHL for this power tool or are technically identical. Only use high-quality replacement parts in order to avoid the risk of accidents and damage to the machine.

STIHL recommends the use of original STIHL replacement parts.

Original STIHL parts can be identified by the STIHL part number, the **STIHL** logo and the STIHL parts symbol  (the symbol may appear alone on small parts).

Disposal

Observe all country-specific waste disposal rules and regulations.



STIHL products must not be thrown in the garbage can. Take the product, accessories and packaging to an approved disposal site for environment-friendly recycling.

Contact your STIHL servicing dealer for the latest information on waste disposal.

EC Declaration of Conformity

ANDREAS STIHL AG & Co. KG
Badstr. 115
D-71336 Waiblingen

Germany

declare in exclusive responsibility that

Category:	Pole pruner KombiTool
Make:	STIHL
Model:	HT-KM
Serial identification:	4182

conforms to the relevant provisions of Directive 2006/42/EC and has been developed and manufactured in compliance with the following standards in the versions valid on the date of production:

EN ISO 12100, EN ISO 11680-1 (in conjunction with the specified KM models).

EN ISO 12100, EN 60745-1, EN 60745-2-13 (in conjunction with the specified KMA models).

EN ISO 12100, EN ISO 11680-2 (in conjunction with the specified FR models).

EC Type Examination

The EC type examination was carried out

for HT-KM with KM 56 R, KM 94 R at:

DPLF Deutsche Prüf- und
Zertifizierungsstelle für Land- und
Forsttechnik
(NB 0363)
Max-Eyth-Weg 1
D-64823 Gross-Umstadt

Certification No.
HT-KM with
KM 56 R: D-EG 16.00573/01
HT-KM with
KM 94 R: D-EG 16.00574/01

**HT-KM with KM 55 R, KM 111 R,
KM 131 R, FR 131 T**

TÜV Süd Product Service GmbH
(NB 0123)
Ridlerstrasse 65
D-80339 Munich

Certification No.
HT-KM with
KM 55 R: M6A 10 04 10127 422
HT-KM with
KM 111 R: M6A 16 07 10127 475
HT-KM with
KM 131 R: M6A 16 07 10127 475
HT-KM with
FR 131 T: M6A 16 07 10127 475

HT-KM with KM 130 R:

VDE Testing & Certification Institute
(NB 0366)
Merianstrasse 28
D-63069 Offenbach

Certification No.
HT-KM with
KM 130 R: 40047718
Technical documents deposited at:
ANDREAS STIHL AG & Co. KG
Produktzulassung (Product Licensing)
The year of manufacture is applied to
the power tool.

Done at Waiblingen, 07.03.2018
ANDREAS STIHL AG & Co. KG



Thomas Elsner
Director Product Management and
Services



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