

**STIHL**<sup>®</sup>

# STIHL FR 130 T

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 troublefree 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®

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## Guide to Using this Manual

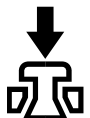
### Pictograms

The meanings of the pictograms attached to the machine are explained in this manual.

Depending on the model concerned, the following pictograms may be attached to your machine.



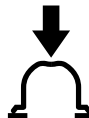
Fuel tank; fuel mixture of gasoline and engine oil



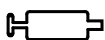
Operate decompression valve



Manual fuel pump



Operate manual fuel pump



Tube of grease



Intake air: Summer operation



Intake air: Winter operation



Handle heating

### 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



Some special safety precautions must be observed to reduce the risk of personal injury when operating this power tool because of the very high speed of its cutting attachment.



It is important that you read the instruction manual before first use and keep it in a safe place for future reference. Non-observance of the instruction manual may result in serious or even fatal injury.

Observe all applicable local safety regulations, standards and ordinances.

If you have not used this type of power tool before: Have your dealer or other experienced user show you how it is operated or attend a special course in its operation.

Minors should never be allowed to use a power tool.

Keep bystanders, especially children, and animals away from the work area.

When the power tool is not in use, shut it off so that it does not endanger others. Secure it against unauthorized use.

The user is responsible for avoiding injury to third parties or damage to their property.

Do not lend or rent your power tool without the instruction manual. Be sure that anyone using it understands the information contained in this manual.

The use of noise emitting power tools may be restricted to certain times by national or local regulations.

To operate the power tool you must be rested, in good physical condition and mental health.

If you have any condition that might be aggravated by strenuous work, check with your doctor before operating a power tool.

Persons with pacemakers only: The ignition system of your power tool produces an electromagnetic field of a very low intensity. This field may interfere with some pacemakers. STIHL recommends that persons with pacemakers consult their physician and the pacemaker manufacturer to reduce any health risk.

Do not operate the power tool if you are under the influence of any substance (drugs, alcohol) which might impair vision, dexterity or judgment.

Depending on the cutting attachment fitted, use your power tool only for cutting grass, wild growth, shrubs, scrub, bushes, small diameter trees and similar materials.

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

Only use cutting attachments 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 and accessories. They are specifically designed to match the product and meet your performance requirements.

The deflector on this power tool cannot protect the operator from all objects thrown by the cutting attachment (stones, glass, wire, etc.). Such objects may ricochet and then hit the operator.

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, 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.

Sturdy shoes with non-slip soles may be worn as an alternative only when using mowing heads.



### **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 a face shield and make sure it is a good fit. A face shield alone does not provide adequate eye protection.

Wear a safety hard hat for thinning operations, when working in high scrub and where there is a danger of head injuries from falling objects.

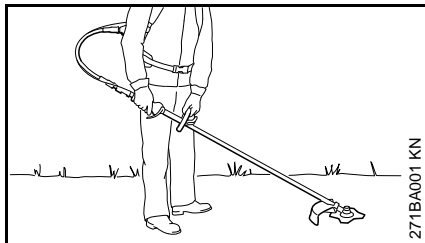
Wear hearing protection, e.g. earplugs or ear muffs.



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



Turn off the engine before transporting the unit over distances of more than about 50 meters.

Carry the unit in the normal working position: Power tool on your back, left hand on the loop handle and the right hand on the control handle – even if you are left-handed – cutting attachment lowered close to ground.

To reduce the risk of cut injuries, fit transport guard on the cutting attachment, even when carrying the tool for short distances – see also "Transporting the Unit".



**To reduce the risk of serious burn injuries**, avoid touching hot parts of the machine, including the gearbox housing.

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

## Fueling



**Gasoline is an extremely flammable fuel.** Keep clear of naked flames. Do not spill any fuel – do not smoke.

Always shut off the engine before refueling.

Do not fuel a hot engine – fuel may spill and **cause a fire**.

Open the fuel cap carefully to allow any pressure build-up in the tank to release slowly and avoid fuel spillage.

Fuel your power tool only in well-ventilated areas. If you spill fuel, wipe the machine immediately – if fuel gets on your clothing, change immediately.



After fueling, tighten down the fuel tank cap as securely as possible.

This reduces the risk of unit vibrations causing the fuel cap to loosen or come off and spill quantities of fuel.

**To reduce the risk of serious or fatal burn injuries**, check for fuel leakage. If fuel leakage is found, do not start or run the engine until leak is fixed.

## Before Starting

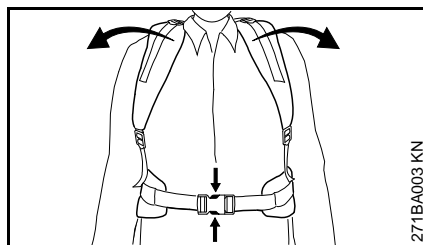
Check that your power tool is properly assembled and in good condition – refer to appropriate chapters in the instruction manual.

- Check the fuel system for leaks, paying special attention to visible parts such as the tank cap, hose connections and the manual fuel pump (on machines so equipped). If there are any leaks or damage, do not start the engine – **risk of fire**. Have your machine repaired by a servicing dealer before using it again.
- Use only an approved combination of cutting attachment, deflector and handle. All parts must be assembled properly and securely.
- Slide control / stop switch must move easily to **STOP** or **0**.
- Smooth action of throttle trigger lockout (if fitted) and throttle trigger – the throttle trigger must return automatically to the idle position.
- Check that the spark plug boot is secure – a loose boot may cause arcing that could ignite combustible fumes **and cause a fire**.

- Check cutting tool or attachment for correct and secure assembly and good condition.
- Check protective devices (e.g. deflector for cutting attachment, rider plate) for damage or wear. Always replace damaged parts. Do not operate your machine with a damaged deflector or worn rider plate (lettering and arrows no longer legible).
- 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 straps and loop handle to suit your height and reach – see chapter on "Fitting the Backpack".
- Check condition of carrying system and the straps - replace if damaged or worn.

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

For emergencies: Practice quickly opening the fastener on the waist belt, loosening the shoulder straps and setting down the unit. To avoid damage, do not throw the machine to the ground when practicing.



### Starting the Engine

Start the engine at least 3 meters from the fueling spot, outdoors only.

Place the powerhead on firm ground in an open area. Make sure you have good balance and secure footing. Hold the powerhead securely. The cutting attachment must be clear of the ground and all other obstructions because it may begin to run when the engine starts. Observe information in chapter on "Starting / Stopping the Engine".

Your power tool is a one-person unit. **To reduce the risk of injury** from thrown objects, do not allow other persons within a radius of 15 meters of your own position – even when starting.



**To reduce the risk of injury**, avoid contact with the cutting attachment.

Do not drop start the power tool – start the engine as described in the instruction manual.

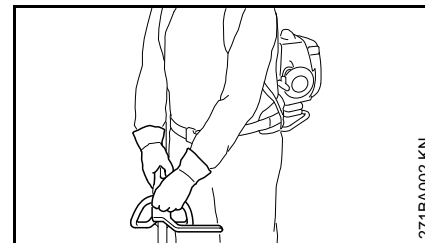


Note that the cutting attachment continues to run for a short period after you let go of the throttle trigger – **flywheel effect**.

Check idle speed setting: The cutting attachment must not rotate when the engine is idling with the throttle trigger released.

**To reduce the risk of fire**, keep hot exhaust gases and hot muffler away from easily combustible materials (e.g. wood chips, bark, dry grass, fuel).

### Holding and Controlling the Power Tool



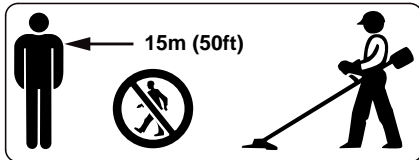
Make sure you always have good balance and secure footing.

Carry the powerhead on your back. **To reduce the risk of injury**, put the powerhead on your back only after starting and making sure the cutting attachment is not rotating.

Always hold the drive tube firmly with both hands on the handles – right hand on control handle and left hand on loop handle – and always keep the drive tube on the right side of your body – even if you are left-handed.

## During Operation

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



**To reduce the risk of injury from thrown objects**, 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).

The correct engine idle speed is important to ensure that the cutting attachment stops rotating when you let go of the throttle trigger. Check and correct the idle speed setting regularly. If the cutting attachment continues to rotate when the engine is idling, have the machine checked by your servicing dealer. STIHL recommends an authorized STIHL servicing dealer.

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

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.

Never work on a ladder or in a tree.

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.



Your power tool produces toxic exhaust fumes as soon as the engine is running. These fumes may be colorless and odorless and contain unburned hydrocarbons and benzol. Never run the engine indoors or in poorly ventilated locations, even if your model is equipped with a catalytic converter.

Ensure proper ventilation when working in trenches, hollows or other confined locations. **This reduces the risk of serious or fatal injury from breathing toxic fumes.**

**To reduce the risk of accidents**, stop work immediately in the event of nausea, headache, visual disturbances (e.g. reduced field of vision), problems with hearing, dizziness, deterioration in ability to concentrate. Apart from other possibilities, these symptoms may be caused by an excessively high concentration of exhaust gases in the work area.

Operate your power tool so that it produces a minimum of noise and emissions – do not run the engine unnecessarily, accelerate the engine only when working.

**To reduce the risk of fire, do not smoke** while operating or standing near your power tool. Note that combustible fuel vapor may escape from the fuel system.

The dusts, vapor and smoke produced during operation may be dangerous to health. If the work area is very dusty or smoky, wear a respirator.

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".

Check the fuel system in particular for leaks and 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.

Do not operate your power tool in the starting throttle position – engine speed cannot be controlled in this position.



**To reduce the risk of injury from thrown objects**, never operate the unit without the proper deflector for the type of cutting attachment being used.





Inspect the work area: Stones, pieces of metal or other solid objects can be thrown and **cause personal injury** or damage the cutting attachment and property (e.g. parked vehicles, windows).



Special care must be taken when working in difficult, over-grown terrain.

When cutting high scrub, under bushes and hedges: Keep cutting attachment at a minimum height of 15 cm to avoid harming small animals.

Before leaving the power tool unattended: Shut off the engine.

Check the cutting attachment at regular short intervals during operation or immediately if there is a noticeable change in cutting behavior:

- Turn off the engine. Hold the unit firmly and wait for the cutting attachment to come to a standstill.
- Check condition and tightness, look for cracks.
- Check sharpness.
- Replace damaged or dull cutting attachments immediately, even if they have only superficial cracks.

Clean grass and plant residue off the cutting attachment mounting at regular intervals – remove any build up of material from the cutting attachment and deflector.

**To reduce the risk of injury**, shut off the engine before changing the cutting attachment.



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

### When using mowing heads

Equip the deflector with the additional components specified in the instruction manual.

Use only the deflector with properly mounted line limiting blade to ensure the mowing lines are automatically trimmed to the approved length.

**To reduce the risk of injury**, always turn off the engine before adjusting the nylon line of manually adjustable mowing heads

Using the unit with over-long nylon cutting lines reduces the engine's operating 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 cutting attachment rotating while the engine is idling.

### Using metal cutting attachments

STIHL recommends the use of original STIHL metal cutting attachments. They are specifically designed to match your model and meet your performance requirements.

Metal cutting attachments rotate at very high speed. The forces that occur act on the machine, the attachment and the material being cut.

Sharpen metal cutting attachments regularly as specified.

Unevenly sharpened metal cutting attachments cause out-of-balance which can impose extremely high loads on the machine and increase the **risk of breakage**.

Dull or improperly sharpened cutting edges can put a higher load on the cutting attachment and increase the **risk of injury** from cracked or broken parts.

Inspect metal cutting attachments for cracks or warping after every contact with hard objects (e.g. stones, rocks, pieces of metal). **To reduce the risk of injury**, remove burrs and other visible build-ups of material (use a file) because they may become detached and be thrown at high speed during operation.

If a rotating metal cutting attachment 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 metal cutting attachments near combustible materials, dry plants or scrub. Always contact your local forest authority for information on a possible fire risk.

Do not continue using or attempt to repair damaged or cracked cutting attachments by welding, straightening or modifying the shape (out of balance).

This may cause parts of the cutting attachment to come off and hit the operator or bystanders at high speed and **result in serious or fatal injuries**.

To reduce the above-mentioned risks when using a metal cutting attachment, never use a metal cutting attachment with a diameter larger than specified. It must not be too heavy. It must be manufactured from materials of adequate quality and its geometry must be correct (shape, thickness).

**To reduce the risk of injury**, a metal cutting attachment not manufactured by STIHL must not be heavier, thicker, have a different shape or a diameter larger than the largest metal cutting attachment approved by STIHL for this power tool model.

### Vibrations

Prolonged use of the power tool may result in vibration-induced circulation problems in the hands (whitefinger disease).

No general recommendation can be given for the length of usage because it depends on several factors.

The period of usage is prolonged by:

- Hand protection (wearing warm gloves)
- Work breaks

The period of usage is shortened by:

- Any personal tendency to suffer from poor circulation (symptoms: frequently cold fingers, tingling sensations).
- Low outside temperatures.
- The force with which the handles are held (a tight grip restricts circulation).

Continual and regular users should monitor closely the condition of their hands and fingers. If any of the above symptoms appear (e.g. tingling sensation in fingers), seek medical advice.

### Maintenance and Repairs

Service the machine regularly. Do not attempt any maintenance or repair work not described in the instruction manual. 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.

Do not turn the engine over on the starter with the spark plug boot or spark plug removed unless the slide control /

stop switch is on **STOP** or **0** since there is otherwise a **risk of fire** from uncontained sparking.

To reduce the **risk of fire**, do not service or store your machine near open flames.

Check the fuel filler cap for leaks at regular intervals.

Use only a spark plug of the type approved by STIHL and make sure it is in good condition – see "Specifications".

Inspect the ignition lead (insulation in good condition, secure connection).

Check the condition of the muffler.

To reduce the **risk of fire and damage to hearing**, do not operate your machine if the muffler is damaged or missing.

Do not touch a hot muffler since **burn injury** will result.

Vibration behavior is influenced by the condition of the AV elements – check the AV elements at regular intervals.

### Symbols on Deflectors

An **arrow** on the deflector shows the correct direction of rotation of the cutting attachments.

Some of the following symbols are applied to the outside of the deflector to indicate the approved combination of cutting attachment and deflector.



Deflector may be used with mowing heads.



Deflector may be used with grass cutting blades.



Deflector must not be used with mowing heads.



Do not use deflector with brush knives, shredder blades or circular saw blades.



Do not use deflector with brush knives, shredder blades, grass cutting blades or circular saw blades.

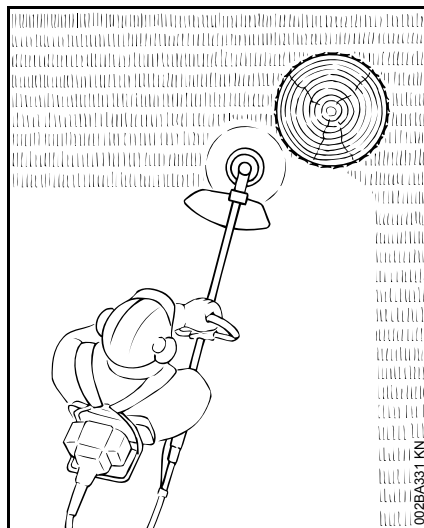


Deflector may be used with mowing heads. Not approved for use with brush knives, shredder blades or circular saw blades.



Deflector may be used with mowing heads – do not use metal cutting attachments.

### Mowing Head with Nylon Line



Nylon line achieves a soft cut for edging and trimming around trees, fence posts, etc. – less risk of damaging tree bark.

The mowing head comes with an instruction leaflet. Refill the mowing head with nylon line as described in the instruction leaflet.

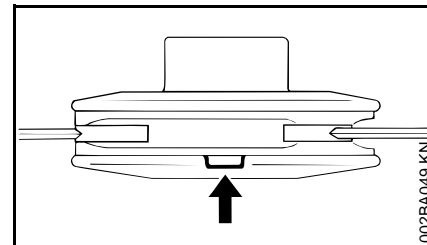
#### **!** WARNING

To reduce the risk of serious injury, never use wire or metal-reinforced line in place of the nylon line.

### STIHL Polycut Mowing Head with Polymer Blades

For mowing unobstructed edges of meadows (without posts, fences, trees or similar obstacles).

### Check the wear limit marks!



If one of the wear limit marks on the PolyCut mowing head is worn through (arrow): Do not continue using the mowing head. Install a new one. There is otherwise a **risk of injury** from thrown parts of the head.

It is important to follow the maintenance instructions for the PolyCut mowing head.

The PolyCut can also be equipped with mowing line in place of the polymer blades.

The mowing head comes with instruction leaflets. Equip the mowing head with polymers blades or nylon line as described in the instruction leaflets.

#### **!** WARNING

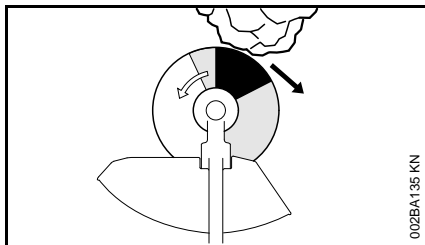
Never use wire in place of the nylon mowing line – **risk of injury**.

## Risk of Kickout (Blade Thrust) with Metal Cutting Attachments

### ! WARNING

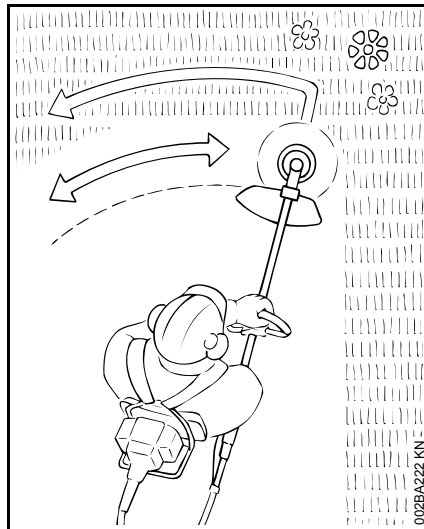


When using metal cutting attachments there is a risk of kickout when the rotating blade comes into contact with a solid object such as a tree trunk, branch, tree stump, rock or similar. The machine is thrown to the right or to the rear – opposite to the attachment's direction of rotation.



The **risk of kickout is greatest** when the **black area** of the rotating cutting attachment comes into contact with a solid object.

## Grass Cutting Blade



Use for grass and weeds only – sweep the brushcutter in an arc like a scythe.

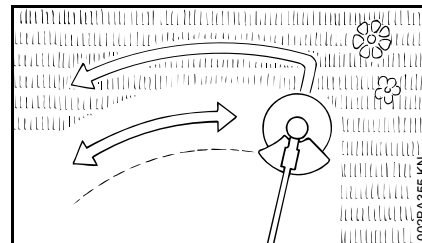
### ! WARNING

Improper use may damage the grass cutting blade – **risk of injury** from thrown parts.

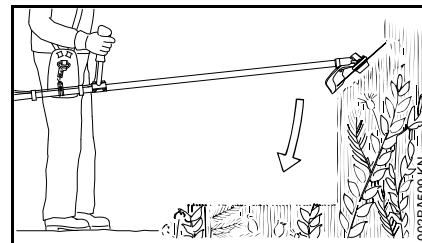
Resharpener the grass cutting blade according to instructions when it has dulled noticeably.

## Brush Knife

For cutting matted grass, wild growth and scrub and thinning young stands with a stem diameter of no more than 2 cm – do not cut thicker stems – **risk of accidents**.



Use the brushcutter like a scythe (sweep it to the right and left) at ground level when cutting grass and thinning young stands.



To cut wild growth and scrub, lower the brush knife down onto the growth to achieve a shredding effect – always keep the cutting attachment below hip level during this process.

Exercise extreme caution when using this method of cutting. The higher the cutting attachment is off the ground, the greater the risk of injury from cuttings being thrown sideways.

Warning! Improper use of a brush knife may cause it to crack, chip or shatter – **risk of injury** from thrown parts.

To reduce the risk of injury it is essential to take the following precautions:

- Avoid contact with stones, rocks, pieces of metal and other solid foreign objects.
- Never cut wood or shrubs with a stem diameter of more than 2 cm – use a circular saw blade for such work.
- Inspect the brush knife at regular short intervals for signs of damage. Do not continue working with a damaged brush knife.
- Resharpener the brush knife regularly and whenever it has dulled noticeably, and have it balanced if necessary (STIHL recommends a STIHL servicing dealer).

## Approved Combinations of Cutting Attachment, Deflector and Handle

Cutting Attachment	Deflector	Handle

### Approved Combinations

Select correct combination from the table according to the cutting attachment you intend to use.



### WARNING

For safety reasons only the cutting attachments, deflectors and handles shown in each row of the table may be used together. No other combinations are permitted – **risk of accidents.**

### Cutting Attachments

#### Mowing heads

- 1 STIHL SuperCut 20-2
- 2 STIHL AutoCut 25-2
- 3 STIHL AutoCut C 25-2
- 4 STIHL AutoCut C 36-2
- 5 STIHL TrimCut 31-2

- 6 STIHL DuroCut 20-2
- 7 STIHL PolyCut 20-3

### Metal cutting attachments

- 8 Grass cutting blade 230-2 (230 mm dia.)
- 9 Grass cutting blade 260-2 (260 mm dia.)
- 10 Grass cutting blade 230-4 (230 mm dia.)
- 11 Grass cutting blade 230-8 (230 mm dia.)
- 12 Grass cutting blade 250-40 Spezial (250 mm dia.)
- 13 Brush knife 250-3 (250 mm dia.)

### **!** WARNING

Non-metal grass cutting blades and brush knives are not approved.

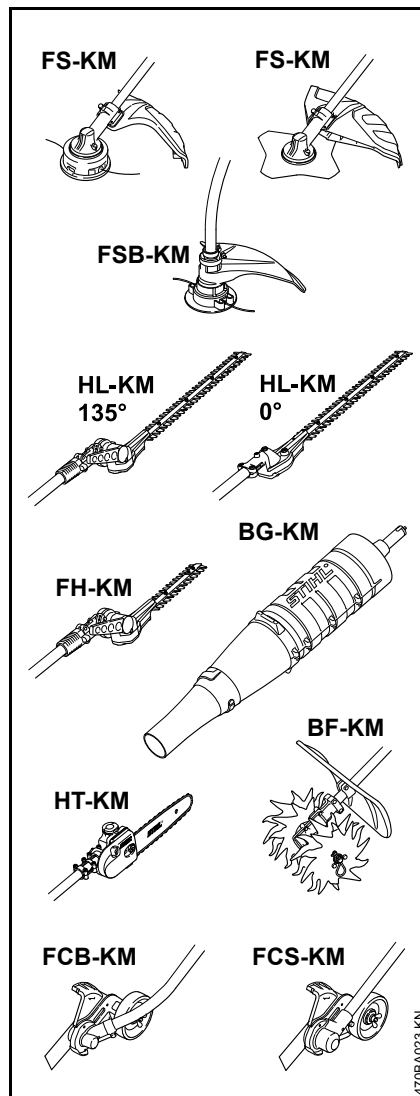
### Deflectors

- 14 Deflector for mowing heads
- 15 Deflector **with** skirt and blade, for mowing heads
- 16 skirt and blade, for mowing heads
- 17 Deflector **without** skirt and blade, for metal cutting attachments

### Handle

- 18 Loop handle (for non-EU countries only)
- 19 Loop handle **with** barrier bar
- 20 barrier bar

## Approved KombiTools



KombiTools are power tool attachments from the STIHL KombiSystem.

Only use KombiTools supplied by STIHL or expressly approved by STIHL for use with your specific model.

Only the following KombiTools may be mounted to this STIHL brushcutter with a split drive tube (T model):

KombiTool	Application
FS-KM <sup>4)</sup>	Brushcutter with mowing head
FS-KM <sup>1) 4)</sup>	Brushcutter with grass cutting blade
FSB-KM <sup>2)</sup>	Brushcutter with mowing head
HL-KM 135°	Hedge trimmer, adjustable
HL-KM 0° <sup>3)</sup>	Long reach hedge trimmer
FH-KM 135°	Power scythe
BG-KM	Blower
HT-KM	Pole pruner
BF-KM	Cultivator with pick tines
FCB-KM <sup>2)</sup>	Edger
FCS-KM <sup>4)</sup>	Edger

1) the barrier bar on the loop handle supplied with the machine must be used – see also "Mounting the Loop Handle"

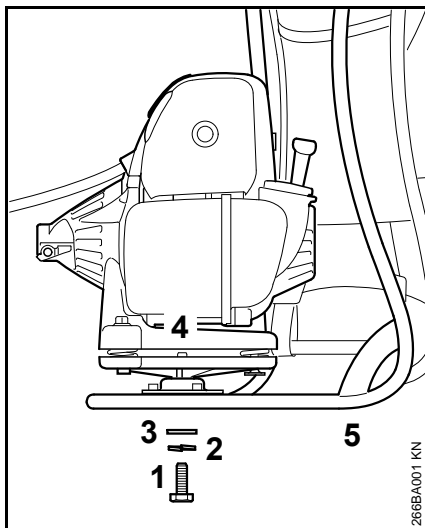
2) Version with curved drive tube

3) Less suitable for ergonomic reasons

4) Version with straight drive tube

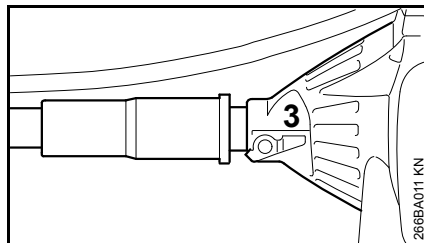
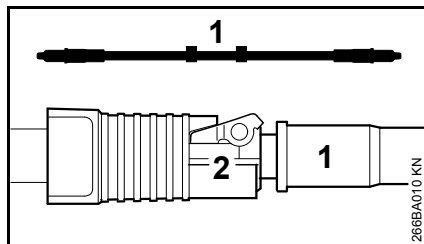
## Assembling the Unit

### Mounting the Support Frame



- Loosen and remove the M 10 x 40 screw (1) with lock washer (2) and plain washer (3) from the powerhead (4).
- Secure the support frame (5) to the powerhead with the screw and washer (torque down to 20 Nm/177 lbf. in).

### Installing the Flexible Shaft



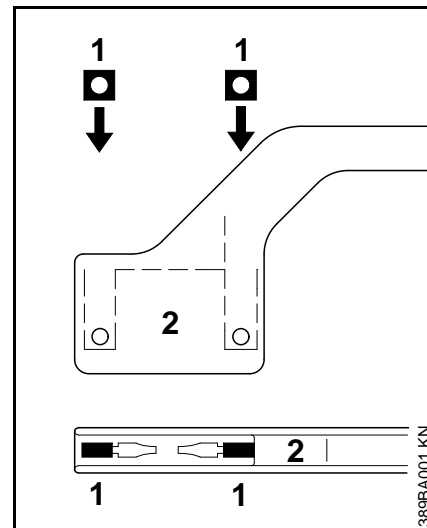
- Remove the protective cap from one end of the shaft.
- Push the end of the flexible shaft (1) into the sleeve (2) until it engages – turn the shaft back and forth at the same time.
- Remove the protective cap from the other end of the shaft.
- Push the flexible shaft into the powerhead coupling (3) until it engages – turn the shaft back and forth at the same time.
- Keep the protective caps in a safe place.

### Mounting Loop Handle with Barrier Bar

A barrier bar may have to be mounted to the loop handle to suit the market and the cutting attachment you intend to use

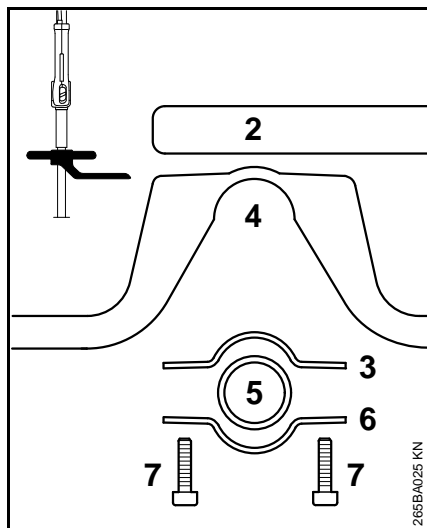
– see "Approved Combinations of Cutting Attachment, Deflector and Handle".

The barrier bar comes standard with the machine or is available as a special accessory.



- Fit the square nuts (1) in the barrier bar (2) – make sure the holes line up.

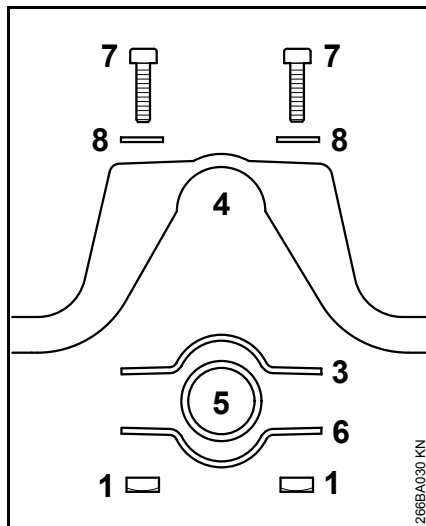




- Place the clamp (3) in the loop handle (4) and position them both against the drive tube (5).
- Position the clamp (6) against the drive tube.
- Place the barrier bar (2) in position as shown.
- Line up the holes.
- Insert the screws (7) in the holes and screw them into the barrier bar as far as stop.
- Go to "Securing the Loop Handle".

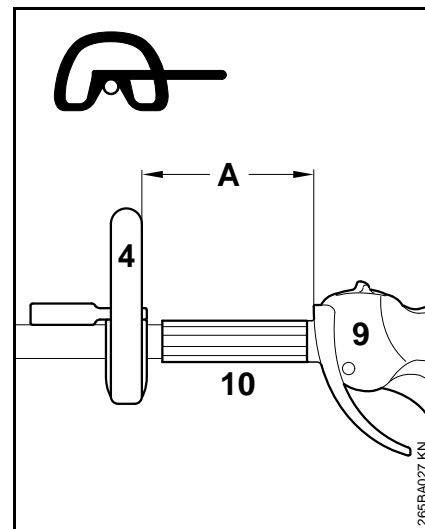
**Leave the barrier bar permanently mounted to the loop handle.**

### Mounting the Loop Handle without Barrier Bar



- Place the clamp (3) in the loop handle (4) and position them both against the drive tube (5).
- Position the clamp (6) against the drive tube.
- Line up the holes.
- Fit the washers (8) on the screws (7), and insert the screws in the holes.
- Screw the square nuts (1) onto the screws (7) as far as stop.
- Go to "Securing the Loop Handle".

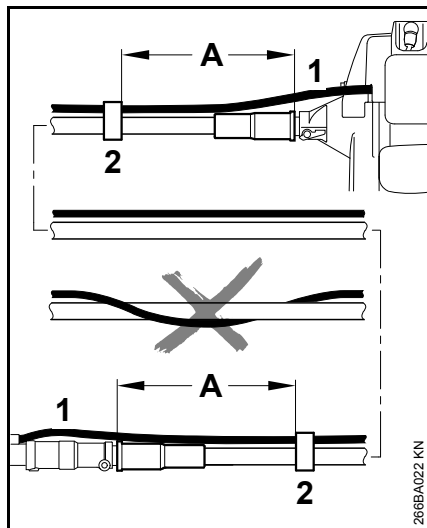
### Securing the Loop Handle



- Secure the loop handle (4) about 20 cm/8 in (A) forward of the control handle (9).
- Line up the loop handle.
- Tighten down the screws firmly – lock the nuts if necessary.

The sleeve (10) (not fitted on all models) must be between the loop handle and the control handle.

## Fitting the Throttle Cable



- Push the throttle cable (1) into the two cable retainers (2) about 20 cm/8 in (A) from either end of the shaft.

### **!** WARNING

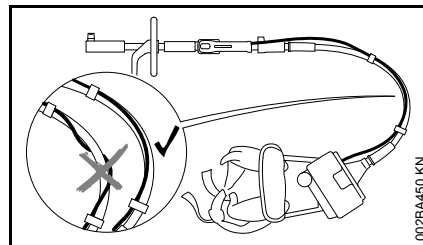
The whole length of the throttle cable must run parallel to the flexible shaft. Do not wrap the throttle cable around the flexible shaft.

- Go to "Adjusting the Throttle Cable".

## Adjusting the Throttle Cable

A properly adjusted throttle cable is the precondition for correct operation in the full throttle, starting throttle and idle positions.

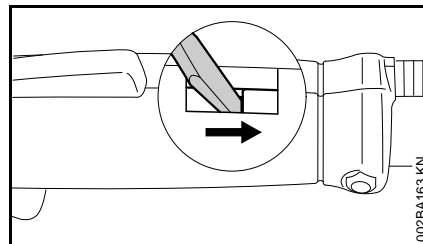
Adjust the throttle cable only after the unit is fully assembled – the control handle must be in the normal operating position.



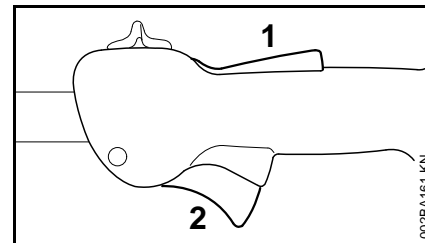
- Put the machine on the ground in the normal operating position.

### **!** WARNING

The throttle cable must be positioned parallel to the flexible shaft, not wrapped around it. Correct adjustment of throttle cable is otherwise not possible.



- Use a suitable tool to push the slide to the end of the slot (see illustration).

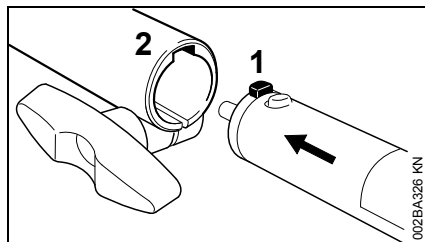


- Press down the trigger lockout (1) and squeeze the throttle trigger (2) (full throttle) – this sets the throttle cable correctly.

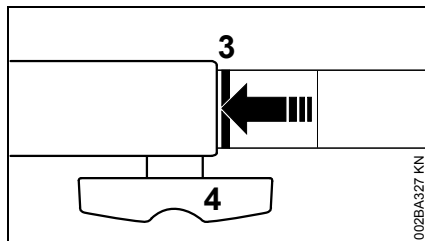
## Mounting the KombiTool

STIHL brushcutter models with the letter T in their designations have a **split drive shaft** for mounting STIHL KombiTools.

### 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.

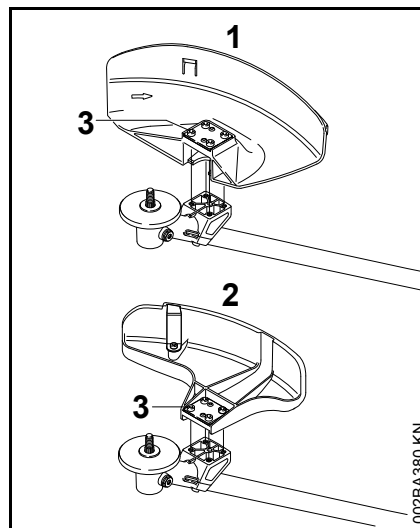
- Tighten down the star knob (4) **firmly**.

### Removing the KombiTool

- Reverse the above sequence to remove the drive tube.

## Mounting the Deflector

### Mounting the Deflector

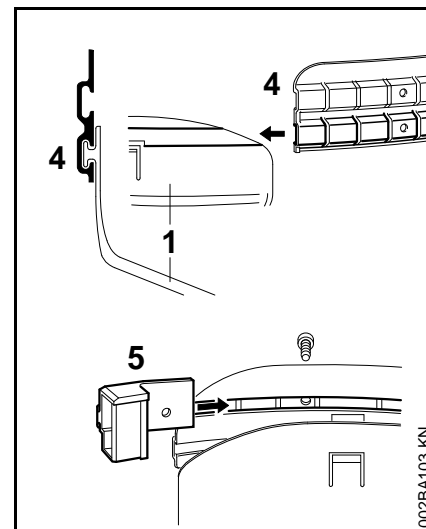


- 1 Deflector for mowing attachments
- 2 Deflector for mowing heads

Deflectors (1 and 2) are both mounted to the gearbox in the same way.

- Place the deflector on the gearbox flange.
- Insert the screws (3) and tighten them down firmly.

### Fitting the Skirt and Blade



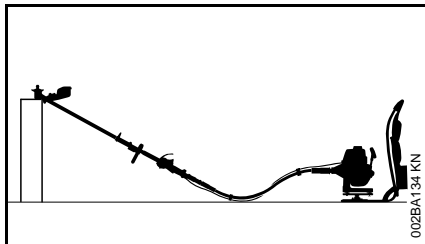
### ⚠ WARNING

These parts must be fitted to the deflector (1) when you use a mowing head.

- Slide the lower guide slot of the skirt (4) onto the deflector (1) – it must snap into position.
- Push the blade (5) into the upper guide slot on the skirt and line it up with the first hole.
- Insert the screw and tighten it down firmly.

## Mounting the Cutting Attachment

### Placing Power Tool on the Ground



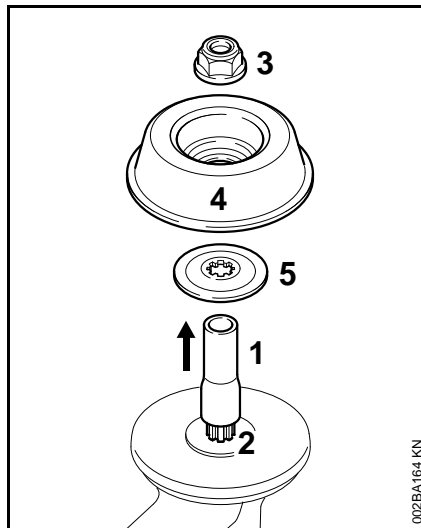
- Shut off the engine.
- Position your power tool so that the cutting attachment mounting face is pointing up.

### Mounting Hardware for Cutting Attachments

The mounting hardware supplied depends on the cutting attachment that comes as original equipment with the new machine.

#### If mounting hardware is packed with machine

Mowing heads and metal cutting attachments may be mounted.



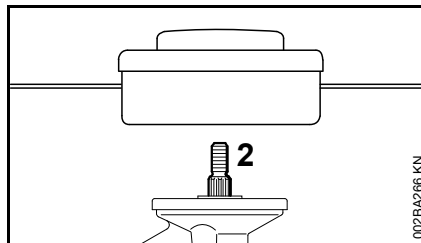
Depending on the cutting attachment, it may be necessary to use the nut (3), rider plate (4) and thrust washer (5).

These parts are included in a kit supplied with the machine and are also available as special accessories.

#### Removing the transport lock

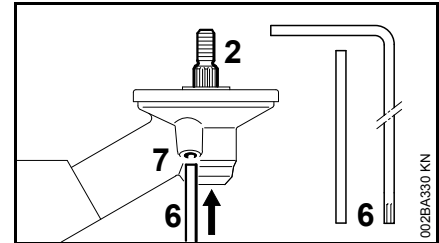
- Pull the hose (1) off the shaft (2).

#### If mounting hardware is not packed with machine



Only mowing heads may be used which mount directly to the shaft (2).

### Blocking the shaft



The output shaft (2) must be blocked with the stop pin (6) or screwdriver (6) to mount or remove cutting attachments. These parts come standard with the machine or are available as special accessories.

- Insert the stop pin (6) or screwdriver (6) in the hole (7) in the gearbox as far as stop – and apply slight pressure.
- Rotate shaft, nut or cutting attachment until the stop pin slips into position and blocks the shaft.

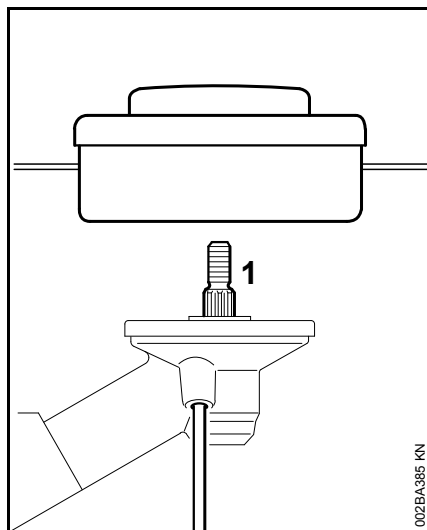
### Mounting the cutting attachment

#### **! WARNING**

Use a deflector that matches the cutting attachment – see "Mounting the Deflector".

#### Fitting Mowing Head with Screw Mounting

Keep the instruction leaflet for the mowing head in a safe place.



- Screw the mowing head counterclockwise on to the shaft (1) as far as stop.
- Block the shaft.
- Tighten down the mowing head firmly.

**NOTICE**

Remove the tool used to block the shaft.

**Removing the Mowing Head**

- Block the shaft.
- Unscrew the mowing head clockwise.

**Mounting Metal Cutting Attachment**

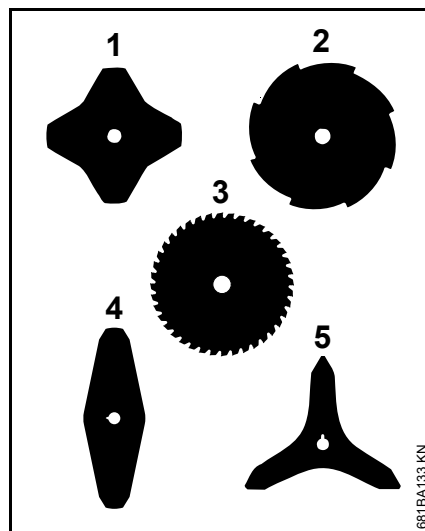
Keep the leaflet and packaging of the metal cutting attachment in a safe place.

**! WARNING**

Wear protective gloves to reduce the risk of direct contact with the sharp cutting edges.

Mount only one metal cutting attachment.

Check direction of rotation of cutting attachment

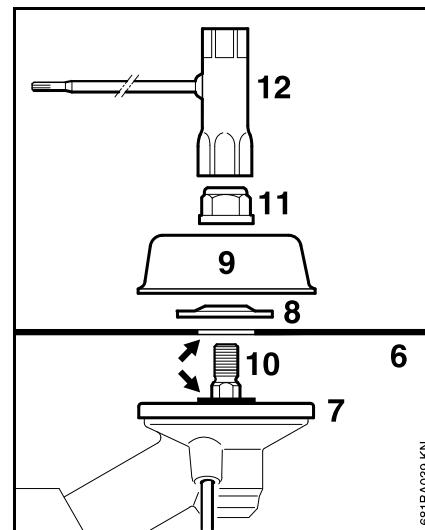


Cutting attachments with 2, 3 or 4 teeth (1, 4, 5) may point in either direction – these cutting attachments must be turned over regularly to help avoid one-sided wear.

The cutting edges of the grass cutting blades (2, 3) must point clockwise.

**! WARNING**

Direction of rotation is indicated by an arrow on the inside of the deflector.



- Place the cutting attachment (6) on the thrust plate (7).

**! WARNING**

Collar (see arrow) must engage the cutting attachment's mounting hole.

**Securing the cutting attachment**

- Fit the thrust washer (8) – convex side must face up.
- Fit the rider plate (9).
- Block the shaft (10).
- Use the combination wrench (12) to screw the mounting nut (11) on to the output shaft counterclockwise and tighten it down firmly.

**! WARNING**

If the mounting nut has become too loose, fit a new one.



Remove the tool used to block the shaft.

### Removing the Metal Cutting Attachment



Wear protective gloves to reduce the risk of direct contact with the sharp cutting edges.

- Block the shaft.
- Unscrew the mounting nut clockwise.
- Remove cutting attachment and its mounting hardware from the gearbox – but **do not** remove the thrust plate (7).

## Fuel

Your engine requires a mixture of gasoline and engine oil.



For health reasons, avoid direct skin contact with gasoline and avoid inhaling gasoline vapor.

### STIHL MotoMix

STIHL recommends the use of STIHL MotoMix. This ready-to-use fuel mix contains no benzol or lead, has a high octane rating and ensures that you always use the right mix ratio.

STIHL MotoMix uses STIHL HP Ultra two-stroke engine oil for an extra long engine life.

MotoMix is not available in all markets.

### Mixing Fuel



Unsuitable fuels or lubricants or mix ratios other than those specified may result in serious damage to the engine. Poor quality gasoline or engine oil may damage the engine, sealing rings, hoses and the fuel tank.

### **Gasoline**

Use only high-quality **brand-name** gasoline with a minimum octane rating of 90 – leaded or unleaded.

If your machine is equipped with a catalytic converter, you must use unleaded gasoline.



A few tankfuls of leaded gasoline will greatly reduce the efficiency of the catalytic converter.

Gasoline with an ethanol content of more than 10% can cause running problems in engines with a manually adjustable carburetor and should not be used in such engines.

Engines equipped with M-Tronic deliver full power when run on gasoline with an ethanol content of up to 25% (E25).

### **Engine oil**

Use only high-quality two-stroke engine oil – preferably **STIHL HP, HP Super or HP Ultra, which are specially formulated for use in STIHL engines. HP Ultra guarantees high performance and a long engine life.**

These engine oils are not available in all markets.

Use only **STIHL 50:1 two-stroke engine oil** for the fuel mix in models with a catalytic converter.

### **Mix Ratio**

STIHL 50:1 two-stroke engine oil: 50 parts gasoline to 1 part oil

## Examples

Gasoline Liters	STIHL engine oil 50:1 Liters (ml)
1	0.02 (20)
5	0.10 (100)
10	0.20 (200)
15	0.30 (300)
20	0.40 (400)
25	0.50 (500)

- Use a canister approved for storing fuel. Pour oil into canister first, then add gasoline and mix thoroughly.

## Storing Fuel

Store fuel only in approved safety-type fuel canisters in a dry, cool and safe location protected from light and the sun.

**Fuel mix ages** – only mix sufficient fuel for a few weeks work. Do not store fuel mix for longer than 30 days. Exposure to light, the sun, low or high temperatures can quickly make the fuel mix unusable.

STIHL MotoMix may be stored for up to 2 years without any problems.

- Thoroughly shake the mixture in the canister before fueling your machine.

## WARNING

Pressure may build up in the canister – open it carefully.

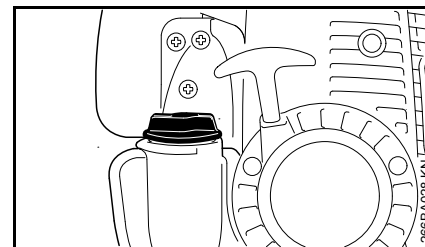
- Clean the fuel tank and canister from time to time.

Dispose of remaining fuel and cleaning fluid properly in accordance with local regulations and environmental requirements.

## Fueling

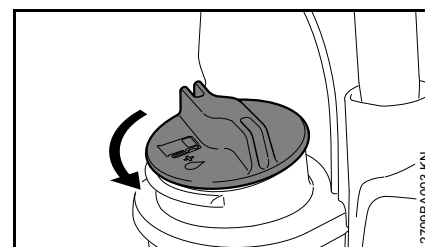


## Preparations



- Before fueling, clean the filler 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 the filler cap



- Turn the cap counterclockwise until it can be removed from the tank opening.
- Remove the cap.

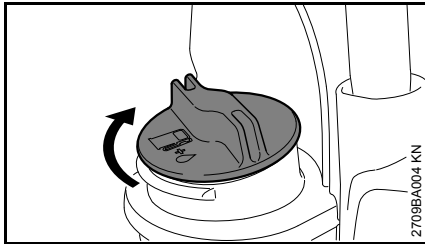
## Filling Up with Fuel

Take care not to spill fuel while fueling and do not overfill the tank.

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

- Fill up with fuel.

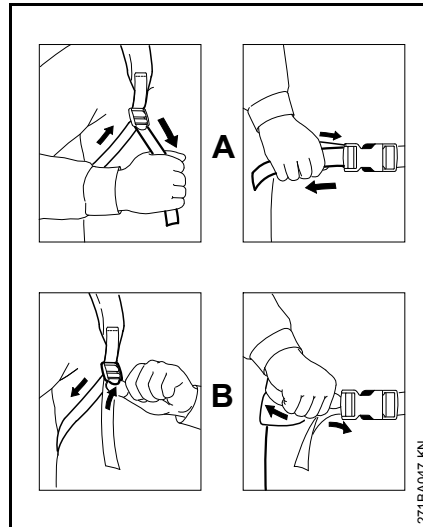
## Closing the filler cap



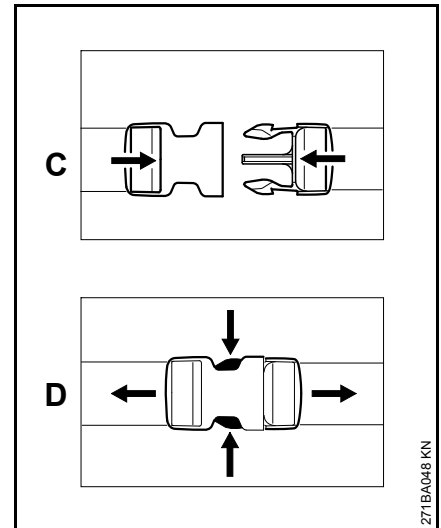
- Place the cap in the opening.
- Turn the cap clockwise as far as stop and tighten it down as firmly as possible by hand.

## Support frame

### Adjusting the Harness Straps



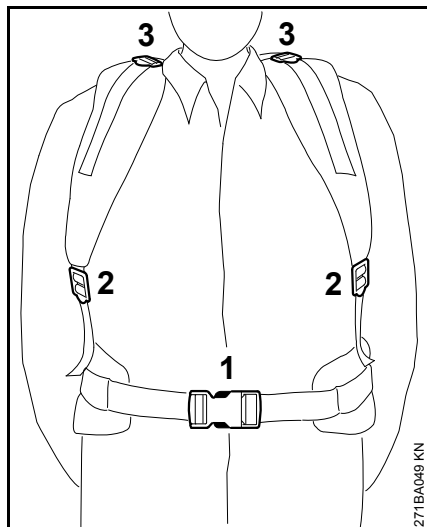
- A Pull the ends of the straps downward to tighten the harness.
- B Lift the tabs of the adjusters to loosen the straps.



- C Close and lock the quick-release fastener by pushing it together.
- D Squeeze the hooks to open the quick-release fastener.



## Fitting the Backpack



- Close the waist belt (1) and adjust it so that it fits snugly against your hip.
- Adjust the harness straps (2) to the correct length.
- Use the straps (3) to adjust the harness to suit your size.

The back padding must fit firmly and securely against your back.

## Removing the Backpack

- Open the quick-release fastener on the waist belt.
- Loosen the harness straps by lifting the sliding adjusters and then take off the backpack.

## Throwing Off the Machine

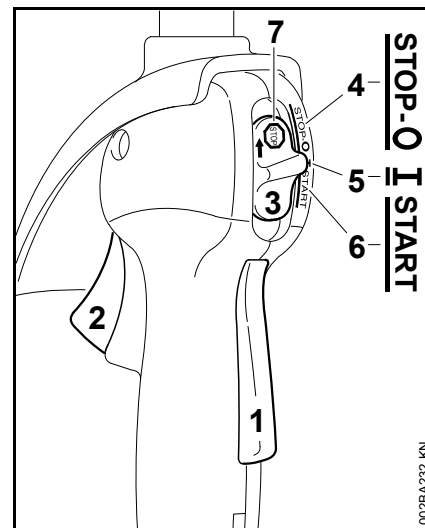


### WARNING

The machine and backpack must be quickly thrown off in an emergency. The waist belt **must** be opened before throwing the machine to the ground.

## Starting / Stopping the Engine

### Controls





- 1 Throttle trigger lockout
- 2 Throttle trigger
- 3 Slide control

### Positions of slide control

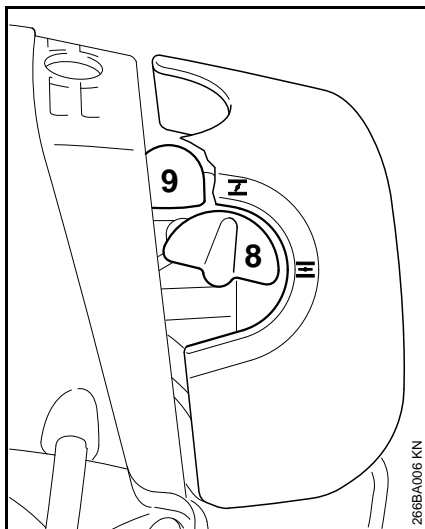
- 4 **STOP-0** – engine off – the ignition is switched off
- 5 **I** – normal run position – the engine is running or can start
- 6 **START** – ignition is switched on – the engine can start

### Symbol on slide control


- 7  – stop symbol and arrow. To stop the engine, push the slide control in the direction of the arrow on the stop symbol () to **STOP-0**.


### Starting

- Press down the trigger lockout lever and squeeze the throttle trigger
- and hold them in that position.
- Move the slide control to **START** and hold it there.
- Now release the throttle trigger, slide control and trigger lockout in that order. This is the **starting throttle position**.



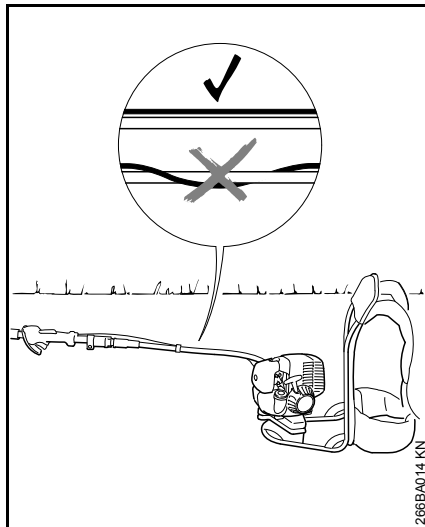
- Set the choke knob (8)

 if the engine is cold

 for warm start – also use this position if the engine has been running but is still cold.

- Press the manual fuel pump bulb (9) at least five times – even if the bulb is already filled with fuel.

### Cranking

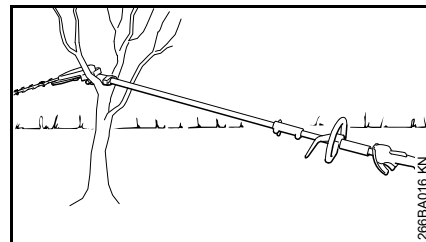
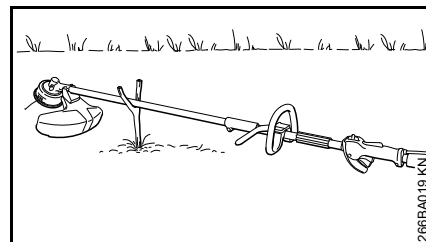
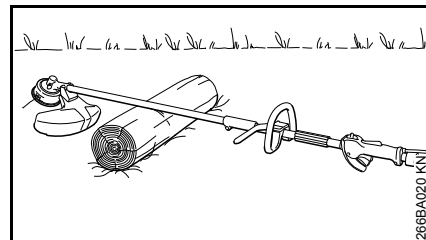


- Put the unit **on the ground**. Make sure it is secure.
- Keep the flexible shaft as straight as possible.

### WARNING

The throttle cable must be positioned parallel to the flexible shaft, not wrapped around it.

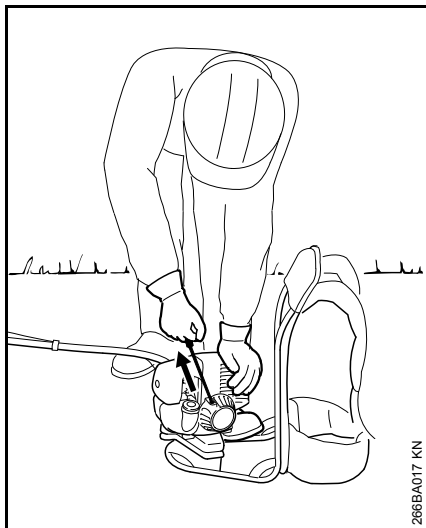
- If fitted: Remove the transport guard from the attachment.



- Rest the KombiTool's gearbox on a raised support, e.g. trestle, forked branch or something similar, to ensure it is clear of the ground.

### WARNING


To reduce the risk of accidents, make sure the attachment and guard are not touching the ground or any other obstacles.



- Make sure you have a firm footing, either standing, stooping or kneeling.
- Hold the unit steady with your left hand on the shroud and put one foot on the support frame and press down.
- Hold the starter grip with your right hand.
- Pull the starter grip slowly until you feel it engage and then give it a brisk strong pull.



Do not pull out the starter rope all the way – **it might otherwise break.**

- Do not let the starter grip snap back. Guide it slowly back into the housing so that the starter rope can rewind properly.
- Crank the engine until it begins to fire. After no more than **five attempts**, turn the choke knob to .
- Continue cranking.

#### As soon as the engine runs

- Blip the throttle trigger. The slide control moves to the normal run position **I** – and the engine settles down to idle speed.




#### WARNING

Make sure the carburetor is correctly adjusted. The cutting attachment must not rotate when the engine is idling.

Your machine is now ready for operation.

#### Stopping the Engine

- Push the slide control in the direction of the arrow on the stop symbol () to **STOP-0**.


#### At very low outside temperatures


As soon as the engine runs:

- Blip the throttle trigger to **disengage the starting throttle position**. The slide control moves to the normal run position **I** – and the engine settles down to idle speed.
- Open the throttle slightly.
- Warm up the engine for a short period.


#### If engine does not start

##### Choke knob

If you did not turn the choke knob to  quickly enough after the engine began to fire, the combustion chamber is flooded.

- Turn the choke knob to .
- Set the slide control, lockout lever and throttle trigger to the **starting throttle position**.
- Start the engine by pulling the starter rope briskly – 10 to 20 pulls may be necessary.

##### If the engine still does not start

- Move the slide control to **STOP-0**.
- Remove the spark plug – see "Spark Plug".
- Dry the spark plug.
- Crank the engine several times with the starter to clear the combustion chamber.
- Refit the spark plug – see "Spark Plug".
- Move the slide control to **START**.
- Set the choke knob to  – even if the engine is cold.
- Now start the engine.

##### Adjusting the throttle cable

- Check adjustment of throttle cable – see chapter on "Adjusting the Throttle Cable".

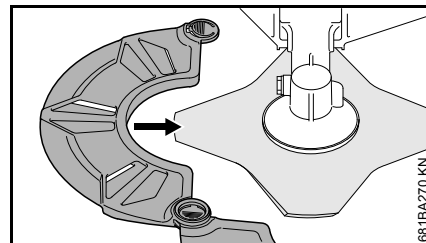
### Fuel tank run until completely dry

- After refueling, press the manual fuel pump bulb at least five times – even if the bulb is filled with fuel.
- Set the choke knob according to engine temperature.
- Now start the engine.

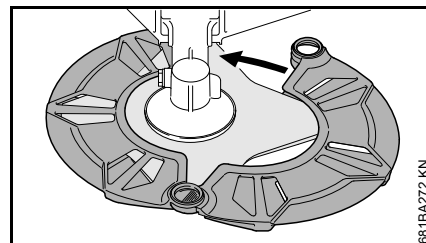
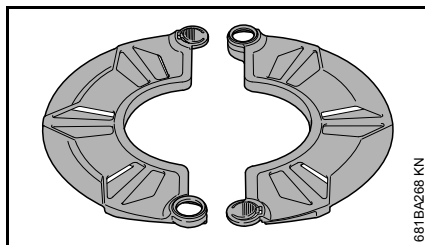
## Transporting the Unit

### Using Transport Guard

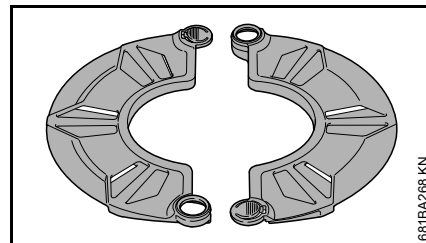
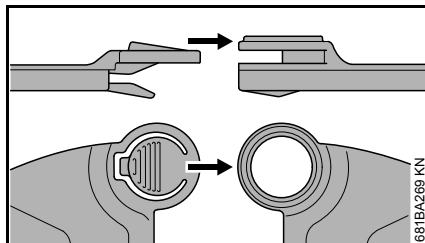
The type of transport guard depends on the metal cutting attachment supplied with the machine. Transport guards are available as special accessories.

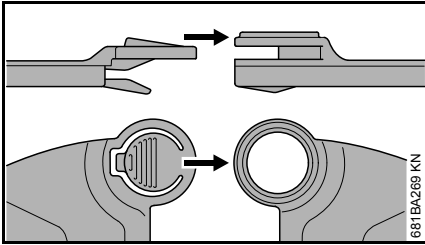


### 230 mm Grass Cutting Blades

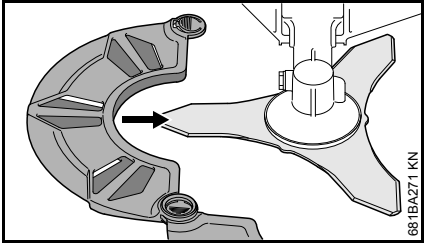


### 250 mm Brush Knives

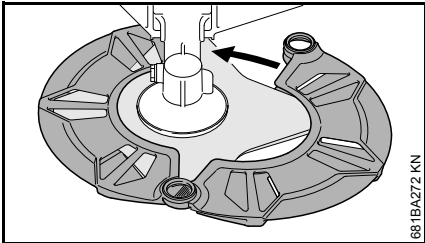




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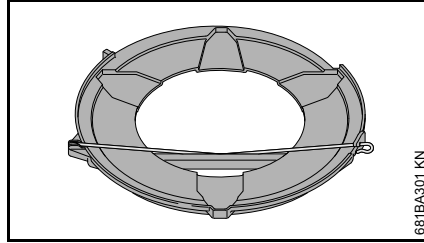


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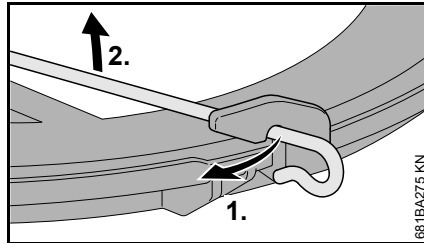


681BA272 KN

**Grass Cutting Blades up to 260 mm**

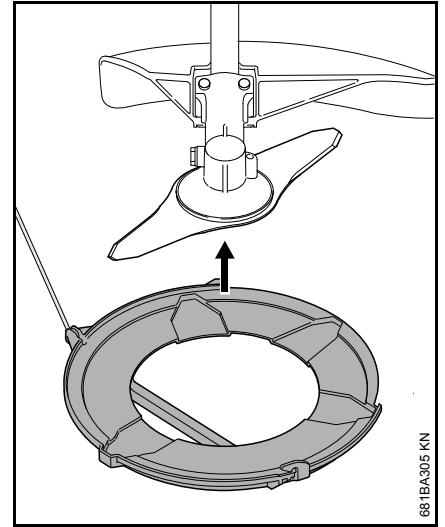


681BA301 KN



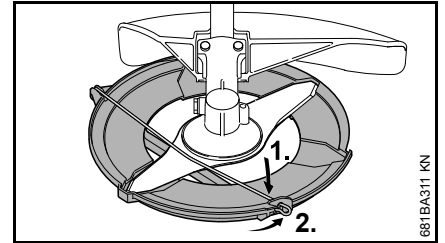
681BA275 KN

- Disconnect wire rod from the transport guard.
- Swing wire rod outwards.



681BA305 KN

- Fit the transport guard on the cutting attachment from below.



681BA311 KN

- Swing wire rod into position.
- Hook wire rod to the transport guard.

## Operating Instructions

### During break-in period

A factory-new machine should not be run at high revs (full throttle off load) for the first three tank fillings. This avoids unnecessary high loads during the break-in period. As all moving parts have to bed in during the break-in period, the frictional resistances in the engine are greater during this period. The engine develops its maximum power after about 5 to 15 tank fillings.

### During Operation

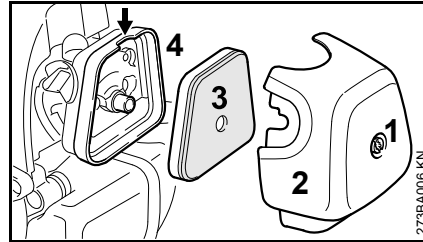
After a long period of full throttle operation, allow the engine to run for a short while at idle speed so that engine heat can be dissipated by the flow of cooling air. This protects engine-mounted components (ignition, carburetor) from thermal overload.

### After Finishing Work

Storing for a short period: Wait for the engine to cool down. Empty the fuel tank and keep the machine in a dry place, well away from sources of ignition, until you need it again. For longer out-of-service periods – see "Storing the Machine".

## Cleaning the Air Filter

If there is a noticeable loss of engine power



- Turn the choke knob to  $\bar{I}$
- Take out the screw (1) and remove the filter cover (2).
- Clean away loose dirt from around the filter.
- Grip the filter element (3) at the cutout (arrow) in the filter housing (4) and remove it.
- Fit a new filter element. As a temporary measure you can knock it out on the palm of your hand or blow it out with compressed air. Do not wash.
- Replace damaged parts.

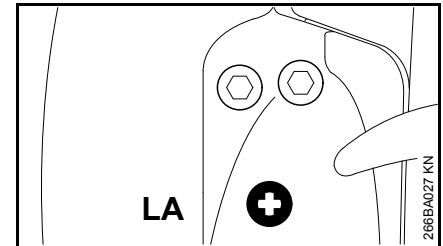
### Installing the filter

- Install the filter element in the filter housing and fit the cover.
- Insert the screw and tighten it down firmly.

## Adjusting the Carburetor

The carburetor has been set at the factory to provide an optimum fuel-air mixture under most operating conditions.

### Adjusting Idle Speed



### Engine stops while idling

- Warm up the engine for about 3 minutes.
- Turn the idle speed screw (LA) slowly clockwise until the engine runs smoothly – the cutting attachment must not rotate.

### Attachment runs when engine is idling

- Turn the idle speed screw (LA) slowly counterclockwise until the cutting attachment stops running and then turn the screw about another 1/2 to 3/4 turn in the same direction.

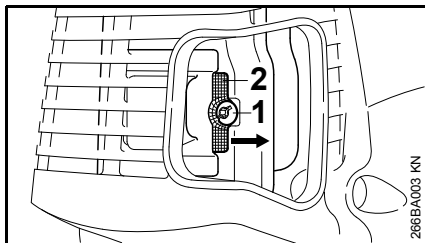
### WARNING

If the attachment continues to run when the engine is idling, have your machine checked and repaired by your servicing dealer.

## Spark Arresting Screen in Muffler

The muffler is equipped with a spark arresting screen.

- If the engine is down on power, check the spark arresting screen in the muffler.
- Wait for the muffler to cool down.
- Move the slide control to **STOP-0**.



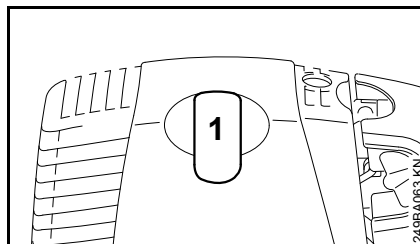
- Take out the screw (1).
- Clean the spark arresting screen (2). If the screen is damaged or heavily carbonized, install a new one.
- Refit the spark arresting screen.
- Insert the screw and tighten it down firmly.

## Spark Plug

- If the engine is down on power, difficult to start or runs poorly at idle speed, first check the spark plug.
- Fit a new spark plug after about 100 operating hours – or sooner if the electrodes are badly eroded. Install only suppressed spark plugs of the type approved by STIHL – see "Specifications".

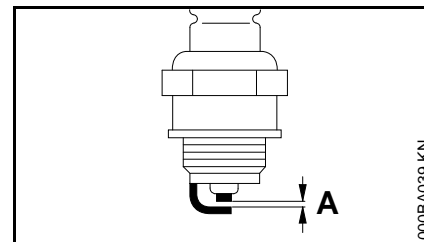
### Removing the spark plug

- Move the slide control to **STOP-0**.



- Pull off the spark plug boot (1).
- Unscrew the spark plug.

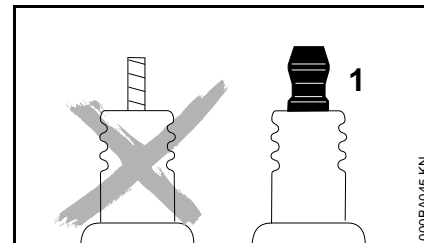
### Checking the spark plug



- Clean dirty spark plug.
- Check electrode gap (A) and readjust if necessary – see "Specifications".
- Rectify the problems which have caused fouling of the spark plug.

Possible causes are:

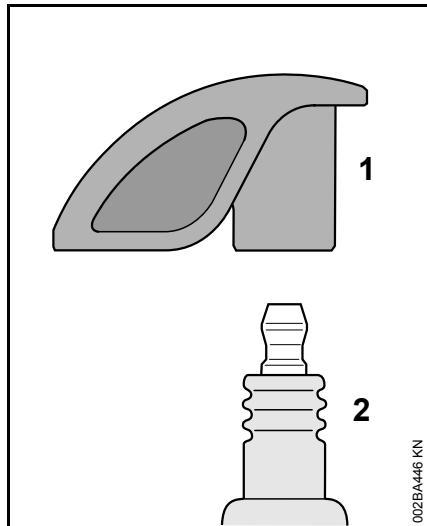
- Too much oil in fuel mix.
- Dirty air filter.
- Unfavorable running conditions.



### WARNING

If the spark plug comes with a detachable adapter nut (1), screw the adapter onto the thread and tighten it down **firmly** to reduce the **risk of arcing and fire**.

## Installing the Spark Plug



- Screw the spark plug (2) into the cylinder and fit the boot (1) (press it down firmly).

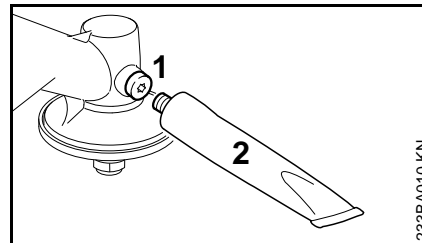
## Engine Running Behavior

If engine running behavior is unsatisfactory even though the air filter is clean and the carburetor is properly adjusted, the cause may be the muffler.

Have the muffler checked for contamination (carbonization) by your servicing dealer.

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

## Lubricating the Gearbox



- Check the grease level regularly – about every 25 hours of operation.
- Unscrew the filler plug (1). If no grease can be seen on the inside of the filler plug, screw the tube (2) of STIHL gear lubricant (special accessory) into the filler hole.
- Squeeze up to 5 g grease into the gearbox.

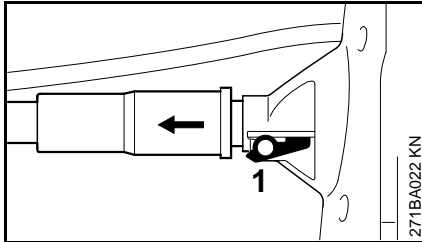
### NOTICE

Do not completely fill the gearbox with grease.

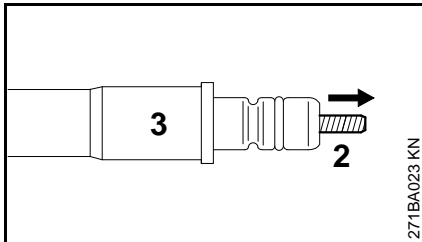
- Remove the tube of grease (2).
- Refit the filler plug (1) and tighten it down firmly.



## Lubricating the Flexible Shaft



- Check the film of grease regularly – about every 25 hours of operation.
- Press down the lever (1) on the powerhead.
- Pull out the flexible shaft.

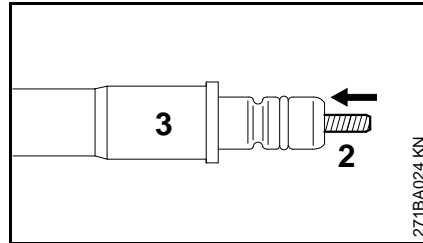


- Pull the shaft (2) out of the protective tube (3) and note its installed position.
- Coat the shaft uniformly with STIHL multipurpose grease (special accessory). Do not apply too much grease.

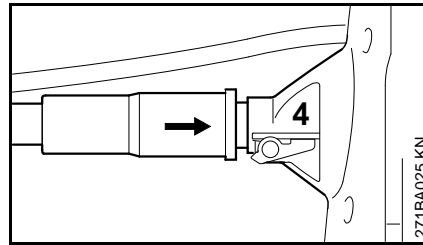


### NOTICE

If the drive shaft has turned blue, install a new one.



- Refit the flexible shaft (2) in the protective tube (3) – **turn it 180° from the original installed position and push it home as far as stop.**



- Push the flexible shaft fully into the powerhead sleeve (4) – turn the shaft back and forth at the same time.

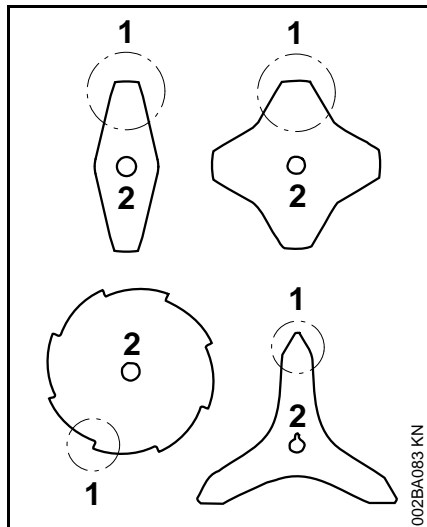
## Storing the Machine

For periods of 3 months or longer

- Drain and clean the fuel tank in a well ventilated area.
- Dispose of fuel properly in accordance with local environmental requirements.
- Run the engine until the carburetor is dry – this helps prevent the carburetor diaphragms sticking together.
- Remove, clean and inspect the cutting attachment. Coat metal cutting attachments with corrosion inhibitor.
- Thoroughly clean the machine.
- Clean the air filter.
- Store the machine in a dry and secure location – out of the reach of children and other unauthorized persons.

## Sharpening Metal Cutting Blades

- Use a sharpening file (see "Special Accessories") to sharpen dull cutting attachments. In case of more serious wear or nicks: Resharpener with a grinder or have the work done by a dealer – STIHL recommends a STIHL servicing dealer.
- Sharpen frequently, take away as little metal as possible – two or three strokes of the file are usually enough.



- Resharpener the teeth (1) uniformly – do not alter the contour of the parent blade (2) in any way.

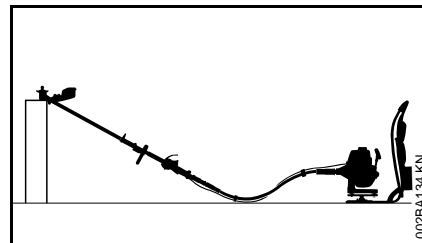
See cutting attachment packaging for additional sharpening instructions. Keep the packaging for future reference.

## Balancing

- After resharpener about 5 times, check the cutting attachment for out-of-balance on a STIHL balancer – see "Special Accessories" – or have it checked by a dealer and re-balanced as necessary – STIHL recommends a STIHL servicing dealer.

## Maintaining the Mowing Head

### Placing Power Tool on the Ground



- Shut off the engine.
- Position your power tool so that the cutting attachment mounting face is pointing up.

### Replacing Nylon Line

Always check the mowing head for signs of wear before replacing the nylon line.

#### **! WARNING**

If there are signs of serious wear, replace the complete mowing head.

The nylon mowing line is referred to as "nylon line" or "line" in the following.

The mowing head is supplied with illustrated instructions for replacing the nylon line. Keep the instructions for the mowing head in a safe place.

- If necessary, remove the mowing head.

## Adjusting Nylon Line

### STIHL SuperCut

Fresh line is advanced automatically if the remaining line is **at least 6 cm (2 1/2 in)** long. The blade on the deflector trims overlong lines to the correct length.

### STIHL AutoCut

- With the engine running, hold the rotating mowing head above the grass surface.
- Tap it on the ground once – fresh line is advanced and the blade on the deflector trims it to the right length.

Fresh line is advanced every time the mowing head is tapped on the ground. For this reason observe the mowing head's cutting performance during operation. If the mowing head is tapped on the ground too often, the line limiter blade will unnecessarily cut off unused lengths of nylon line.

Line feed operates only if both lines are still at least **2.5 cm (1 in)** long.

### STIHL TrimCut



#### **WARNING**

**To reduce the risk of injury**, always shut off the engine before adjusting the nylon line by hand.

- Pull the spool up – rotate it about 1/6 turn counterclockwise until it engages – and allow it to spring back.
- Pull ends of the lines outward.

Repeat the above procedure as necessary until both lines reach the limiter blade on the deflector.

Rotating the spool from one stop to the next advances about **4 cm (1 1/2 in)** of fresh line.

## Replacing Nylon Line

### STIHL PolyCut

A length of nylon line can be fitted to the PolyCut in place of the cutting blades.

### STIHL DuroCut, STIHL PolyCut



#### **WARNING**

**To reduce the risk of injury**, always shut off the engine before refilling the mowing head.

- Fit nylon line in the mowing head as described in the instructions supplied.

## Replacing Cutting Blades

### STIHL PolyCut

Always check the mowing head for signs of wear before installing new cutting blades.



#### **WARNING**

If there are signs of serious wear, replace the complete mowing head.

The thermoplastic cutting blades are referred to as "blades" in the following.

The mowing head is supplied with illustrated instructions for replacing the blades. Keep the instructions for the mowing head in a safe place.



#### **WARNING**

**To reduce the risk of injury**, always shut off the engine before installing the blades.

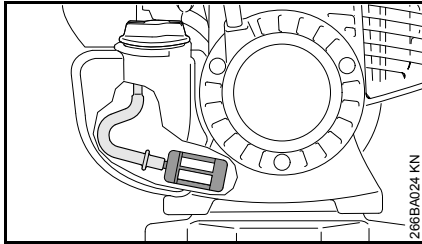
- Remove the mowing head.
- Replace blades as shown in the illustrated instructions.
- Mount the mowing head on the machine.

## Inspections and Maintenance by Dealer

### Maintenance Work

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

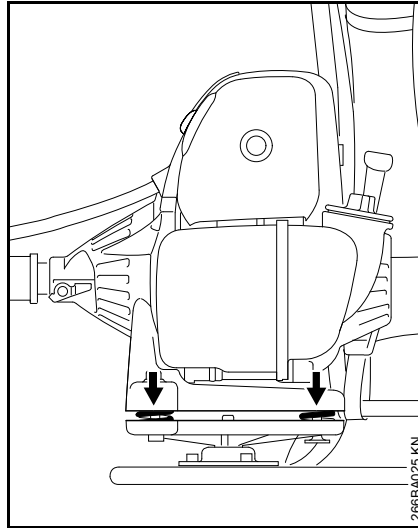
### Fuel Pickup Body in Tank



- Check the pickup body in the fuel tank every year and have it replaced if necessary.

The pickup body should be positioned in the area of the tank shown in the illustration.

### Antivibration elements



Four anti-vibration springs are installed between the powerhead and support frame. Have them checked if there are signs of wear or a noticeable increase in vibration levels.

## 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, etc.), shorten the specified intervals accordingly.		before starting work	after finishing work or daily	after each refueling stop	weekly	monthly	every 12 months	if problem	if damaged	as required
Complete machine	Visual inspection (condition, leaks)	X		X						
	Clean		X							
	Replace any damaged parts	X							X	
Control handle	Check operation	X		X						
Air filter	Visual inspection					X		X		
	Clean									X
	Replace								X	X
Manual fuel pump (if fitted)	Check	X								
	Have repaired by servicing dealer <sup>1)</sup>								X	
Pickup body in fuel tank	Have checked by servicing dealer <sup>1)</sup>							X		
	Have replaced by servicing dealer <sup>1)</sup>						X		X	X
Fuel tank	Clean							X		X
Carburetor	Check idle adjustment – the working/cutting attachment must not move	X		X						
	Adjust idle speed									X
Spark plug	Adjust electrode gap							X		
	Replace after every 100 operating hours									
Cooling inlets	Visual inspection		X							
	Clean									X
Cylinder fins	Have cleaned by servicing dealer <sup>1)</sup>						X			
Valve clearance	Have checked and, if necessary, adjusted by servicing dealer after first 139 hours of operation <sup>1)</sup>									X
Combustion chamber	Have cleaned by servicing dealer <sup>1)</sup> after first 139 hours of operation, then every 150 hours of operation									X

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, etc.), shorten the specified intervals accordingly.		before starting work	after finishing work or daily	after each refueling stop	weekly	monthly	every 12 months	if problem	if damaged	as required
Spark arresting screen in muffler	Check		X					X		
	Clean or replace								X	X
All accessible screws and nuts (not adjusting screws)	Retighten									X
Anti-vibration elements	Check	X						X		X
	Have replaced by servicing dealer <sup>1)</sup>								X	
Cutting attachment	Visual inspection	X		X						
	Replace								X	
	Check tightness	X		X						
Metal cutting attachment	Sharpen	X								X
Flexible shaft	Check				X					
	Replenish film of lubricant									X
Gearbox lubrication	Check				X					
	Replenish									X
Safety labels	Replace								X	

<sup>1)</sup> STIHL recommends an authorized STIHL servicing dealer.

## Minimize Wear and Avoid Damage

Observing the instructions in this 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 this owner's manual.

The user is responsible for all damage caused by non-observance of the safety precautions, operating and maintenance instructions in this manual. 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 "Maintenance Chart" 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:

- Damage to the engine due to neglect or deficient maintenance (e.g. air and fuel filters), incorrect carburetor adjustment or inadequate cleaning of cooling air inlets (intake ports, cylinder fins).
- Corrosion and other consequential damage resulting from improper storage.
- Damage to the machine resulting from the use of poor quality replacement parts.

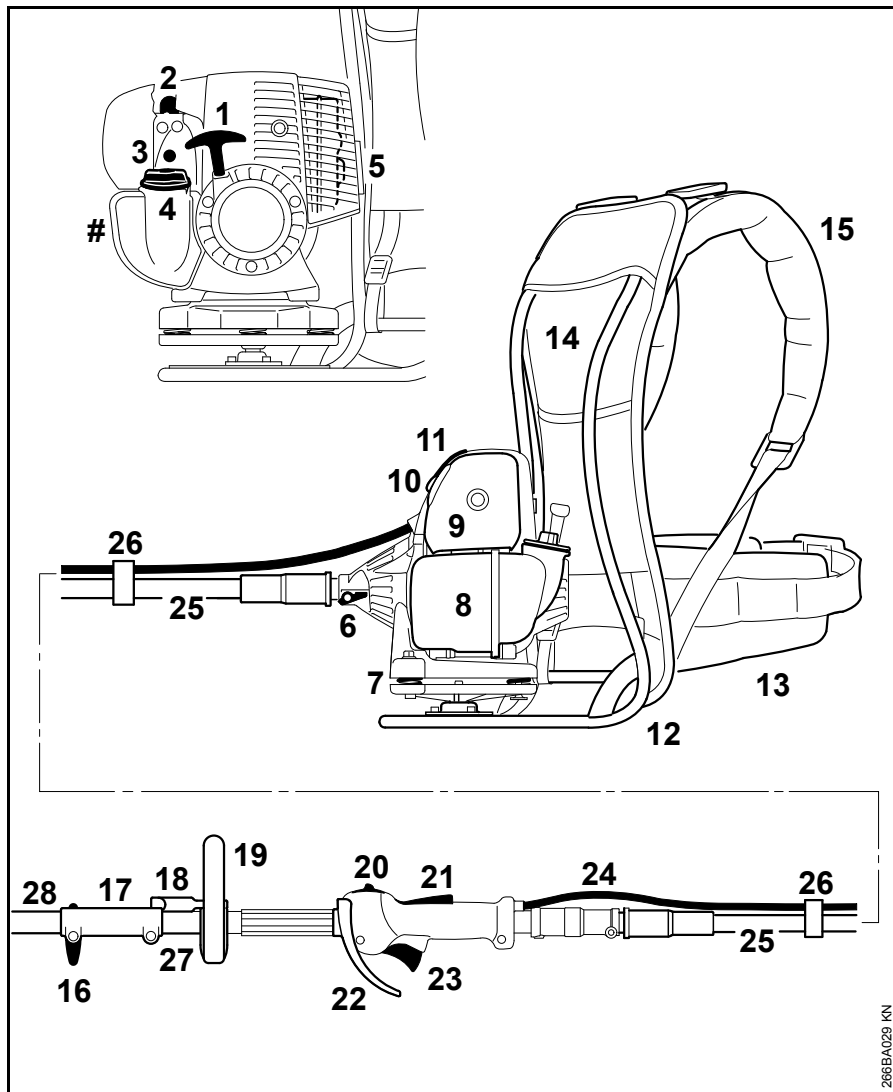
### Parts Subject to Wear and Tear

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 parts, this includes:

- Cutting attachments (all types)
- Mounting hardware for cutting attachments (rider plate, nut, etc.)
- Deflectors for cutting attachments
- Clutch
- Filters (air, fuel)
- Rewind starter

- Spark plug
- Antivibration elements

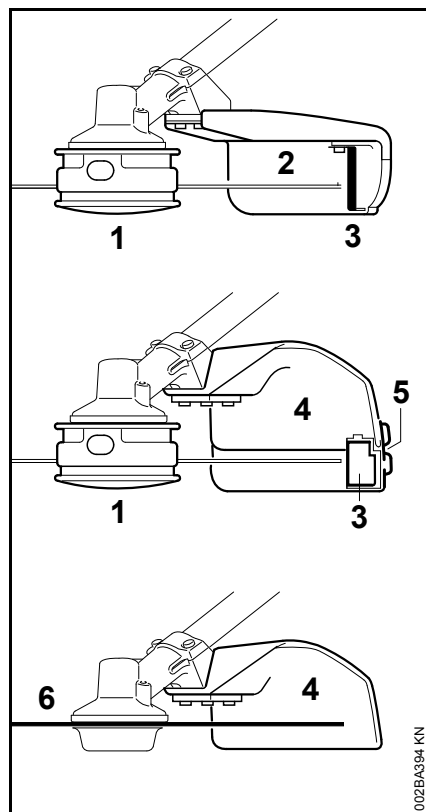
## Main Parts



- 1 Starter grip
  - 2 Manual fuel pump
  - 3 Carburetor adjusting screw
  - 4 Tank cap
  - 5 Muffler with spark arrestor
  - 6 Lever
  - 7 Anti-vibration element
  - 8 Fuel tank
  - 9 Air filter cover
  - 10 Choke knob
  - 11 Spark plug boot
  - 12 Support frame
  - 13 Hip/waist belt
  - 14 Back padding
  - 15 Harness
  - 16 Wing screw
  - 17 Coupling sleeve
  - 18 barrier bar
  - 19 Loop handle
  - 20 Slide control
  - 21 Throttle trigger lockout
  - 22 Guard for throttle trigger
  - 23 Throttle trigger
  - 24 Throttle cable
  - 25 Flexible shaft
  - 26 Cable holder
  - 27 Drive tube (basic powerhead)
  - 28 Drive tube (KombiTool)
- # Serial number

286BA029 KN





- 1 Mowing head
- 2 Deflector for mowing heads only
- 3 Blade
- 4 Deflector for all mowing attachments
- 5 Skirt
- 6 Metal mowing attachment

## Specifications

### Engine

STIHL single cylinder four-stroke engine with mixture lubrication

Displacement:	36.3 cc
Bore:	43 mm
Stroke:	25 mm
Engine power to ISO 8893:	1.4 kW (1.9 bhp) at 8,500 rpm
Idle speed:	2,800 rpm
Cut-off speed (rated):	10,200 rpm
Max. output shaft speed (cutting attachment):	7,500 rpm
Valve clearance	
Inlet valve:	0.10 mm
Exhaust valve:	0.10 mm

### Ignition System

Electronic magneto ignition

Spark plug (resistor type):	NGK CMR 6 H
Electrode gap:	0.5 mm

### Fuel System

All position diaphragm carburetor with integral fuel pump

Fuel tank capacity:	710 cc (0.71 l)
---------------------	-----------------

### Weight

Dry, with FS-KM KombiTool, without cutting attachment and deflector  
10.3 kg

### Overall length

without cutting attachment      2800 mm

### Features

- T Split boom (drive tube)
- Z Spark arresting screen in muffler

### Noise and Vibration Data

For further details on compliance with Vibration Directive 2002/44/EC see [www.stihl.com/vib/](http://www.stihl.com/vib/)

### FS-KM KombiTool (mounted)

Noise and vibration data measurements include idling and rated maximum speed with the same duration of exposure.

### Sound pressure level $L_{peq}$ to ISO 22868

with mowing head	94 dB(A)
with metal mowing attachment	94 dB(A)

### Sound power level $L_{weq}$ to ISO 22868

with mowing head	102 dB(A)
with metal mowing attachment	103 dB(A)

**Vibration measurement  $a_{hv,eq}$  to ISO 22867 at maximum RPM**

	Handle, left	Handle, right
with mowing head:	3.1 m/s <sup>2</sup>	2.1 m/s <sup>2</sup>
with metal mowing attachment	1.5 m/s <sup>2</sup>	1.5 m/s <sup>2</sup>

**Other KombiTools**

For version see "Approved KombiTools".

Noise and vibration data measurements include idling and rated maximum speed in the following ratios.

FCS-KM, FCB-KM, FSB-KM, FH-KM and HT-KM	1 to 1
HL-KM	1 to 4
BF-KM and BG-KM	1 to 6

**Sound pressure level  $L_{peq}$  to ISO 11201, ISO 22868**

92 dB(A)...97 dB(A)

**Sound power level  $L_{weq}$  to ISO 22868, ISO 3744**

102 dB(A)...108 dB(A)

**Vibration measurement  $a_{hv,eq}$  to ISO 11789, ISO 20643, ISO 22867, ISO 8662**

**Handle, left**

1.3 m/s<sup>2</sup>...4.7 m/s<sup>2</sup>

**Handle, right**

1.4 m/s<sup>2</sup>...4.1 m/s<sup>2</sup>

The K-factor in accordance with Directive 2006/42/EC is 2.5 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/s<sup>2</sup> for the vibration measurement.

**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](http://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.

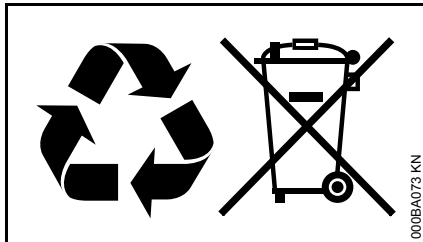
When repairing the machine, only use replacement parts which have been approved by STIHL for this power tool or are technically identical. Only use high-quality replacement parts in order to avoid the risk of accidents and damage to the machine.

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

confirms that the product described below

Category:	Backpack brushcutter
Make:	STIHL
Model:	FR 130 T
Serial identification:	4180
Displacement:	36.3 cc

conforms to the provisions of Directives 2006/42/EC, 2004/108/EC and 2000/14/EC and has been developed and manufactured in compliance with the following standards in the versions valid at the time of production:

ISO DIS 14865, EN 55012, EN 61000-6-1 (in conjunction with the following KombiTools: BF-KM, BG-KM, FCB-KM, FCS-KM, FHKM, FS-KM, FSB-KM, HL-KM and HT-KM)

The basic power tool described here may be operated only in conjunction with the KombiTools approved by STIHL for use with this specific basic power tool.

The measured and guaranteed sound power levels were determined according to Directive 2000/14/EC, Annex V, using the ISO 10884 (FS) standard.

### Measured sound power level:

106 dB(A)

### Guaranteed sound power level:

107 dB(A)

Technical documents deposited at:  
ANDREAS STIHL AG & Co. KG  
Produktzulassung (Product Licensing)  
The year of manufacture and serial number are applied to the product.  
Done at Waiblingen, 15.08.2014  
ANDREAS STIHL AG & Co. KG

Thomas Elsner

Director Group Product Management

0458-266-0121-C

englisch



[www.stihl.com](http://www.stihl.com)



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