



STIHL KM 56 R Multi Tool 2 Stroke Engine Instruction Manual

[Home](#) » [STIHL](#) » STIHL KM 56 R Multi Tool 2 Stroke Engine Instruction Manual 

Contents

- 1 STIHL KM 56 R Multi Tool 2 Stroke Engine
- 2 Product Information
- 3 Product Usage Instructions
- 4 KombiSystem
- 5 Guide to Using this Manual
- 6 Symbols in text
- 7 Safety Precautions and Working Techniques
- 8 Transporting the machine
- 9 Approved KombiTools
- 10 Mounting the Loop Handle
 - 10.1 Orienting and Securing the Loop Handle
- 11 Carrying ring
- 12 Fuel
- 13 Fueling
- 14 Starting / Stopping the Engine
- 15 Operating Instructions
- 16 Cleaning the Air Filter
- 17 Adjusting the Carburetor
- 18 Spark Plug
- 19 Maintenance and Care
- 20 Main Parts
- 21 Specifications
- 22 Maintenance and Repairs
- 23 EC Declaration of Conformity
- 24 Documents / Resources
 - 24.1 References

STIHL



Product Information

STIHL KombiSystem KM 56 R

The STIHL KombiSystem is a powerful tool that combines different KombiEngines and KombiTools to produce a versatile machine. The KM 56 R model is a part of this system and comes with an instruction manual in English. The power tool has been built using modern production techniques and comprehensive quality assurance to ensure customer satisfaction and trouble-free use.

Guide to Using this Manual

The instruction manual consists of pictograms, symbols, and engineering improvements that help in understanding product usage. The pictograms attached to the machine are explained in the manual, and the separate instruction manuals for the KombiEngine and KombiTool should be used together for the power tool. The warning and caution symbols in the text indicate the risk of accidents or damage to the machine or its components. STIHL's philosophy is to continually improve its products, so some changes, modifications, and improvements may not be covered in this manual.

Safety Precautions and Working Techniques

Special safety precautions must be observed when operating the STIHL KombiSystem KM 56 R power tool. Both user manuals (KombiEngine and KombiTool) must be read through attentively before using the unit for the first

time and kept in a safe place for future reference. Noncompliance with the user manuals may cause serious or even fatal injuries. Observe all applicable local safety regulations by trade organizations, social insurance institutions, labor safety authorities, etc. Children, animals, and bystanders must remain at a distance when the machine is in use. Ensure that the machine cannot be used without authorization. The user is responsible for accidents or risks involving third parties or their property. The machine should only be provided or loaned to people familiar with this model and its operation, and the KombiEngine and KombiTool User Manuals should always be handed over with the machine.

Product Usage Instructions

for STIHL KombiSystem KM 56 R

1. Read through the user manuals for KombiEngine and KombiTool attentively before using the power tool for the first time.
2. Combine the KombiEngine and KombiTool to form the power tool as per the instruction manual.
3. Observe all applicable local safety regulations, e.g. by trade organizations, social insurance institutions, labor safety authorities, etc.
4. Keep children, animals, and bystanders at a distance when using the machine.
5. Lay down the machine in a way that it does not endanger anyone when not in use.
6. Ensure that the machine cannot be used without authorization.
7. Provide or loan the machine only to people familiar with this model and its operation. Hand over the KombiEngine and KombiTool User Manuals with the machine.

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

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 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



- 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.

Safety Precautions and Working Techniques

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 operating a power tool.
- Both user manuals (KombiEngine and KombiTool) must be read through attentively before using the unit for the first time and kept in a safe place for future reference. Non-compliance with the user manuals may cause serious or even fatal injury.
- Observe all applicable local safety regulations, e.g. by trade organizations, social insurance institutions, labor safety authorities etc.
- If you have never used a power tool before: Have your dealer or other experienced user show you how to operate your machine – or attend a special course to learn how to operate it.
- Minors should never be allowed to use the machine – except for apprentices over the age of 16 when working under supervision.
- Children, animals and bystanders must remain at a distance.
- When not using the machine, it must be laid down in such a way that it does not endanger anyone. Ensure that the machine cannot be used without authorization.
- The user is responsible for accidents or risks involving third parties or their property.
- The machine should only be provided or loaned to people familiar with this model and its operation. The

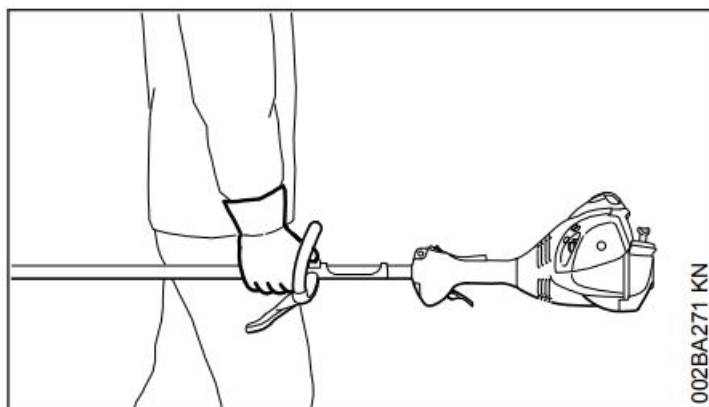
KombiEngine and KombiTool User Manuals should always be handed over with the machine.

- The use of noise emitting power tools may be restricted to certain times by national or local regulations.
- Anyone operating the machine must be well rested, in good physical health and in good mental condition.
- If you have any condition that might be aggravated by strenuous work, check with your doctor before operating a machine. 0458-540-8321-D
- If you have a pacemaker: The ignition system of your machine produces an electromagnetic field of 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.
- Anyone who has consumed alcohol or drugs or medicines affecting their ability to react must not operate a power tool.
- Use your power tool only for the applications described in the User Manual of the KombiTool you are using.
- The machine must not be used for any other purposes – risk of accidents!
- Do not operate the KombiEngine without a properly mounted KombiTool since this may result in damage to the machine.
- Only use KombiTools and accessories that are explicitly approved for this power tool by STIHL or are technically identical. It is important that you read the chapter on “Approved KombiTools”. If you have any questions in this respect, consult your dealer.
- Use only high quality parts and accessories. in order to avoid the risk of accidents and damage to the machine.
- STIHL recommends the use of original STIHL tools and accessories. They are specifically designed to match the product and meet your performance requirements.
- Never attempt to modify your power tool 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 high-pressure washer to clean the power tool. The solid jet of water may damage parts of the unit.

Clothing and equipment

- Wear proper protective clothing and equipment.
- Do not wear clothing which could become trapped in wood, brush or moving parts of the machine. Do not wear a scarf, necktie or jewelry. Tie up and confine long hair above your shoulders.
- See also notes on “Clothing and Equipment” in the User Manual of the KombiTool you are using.

Transporting the machine



Always stop the engine.

- **By vehicle:** When transporting in a vehicle, properly secure your machine to prevent turnover, damage and fuel spillage.
- See also notes on “Transporting the Machine” in the User Manual of the KombiTool you are using.

Refueling

- **Gasoline is highly flammable** – keep away from fire or flame – do not spill any fuel – no smoking.
- 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.
- Only refuel the machine in a well ventilated place. If fuel has been spilled, immediately clean the machine – do not allow your clothes to be splashed with fuel. If that happens, change your clothes at once.
- After fueling, tighten down the screw-type fuel cap as securely as possible.
- This helps reduce the risk of unit vibrations causing an incorrectly tightened fuel cap to loosen or come off and spill quantities of fuel.
- Check for leaks. Do not start the engine if there is a fuel leak – serious or fatal burns could result!

Before starting

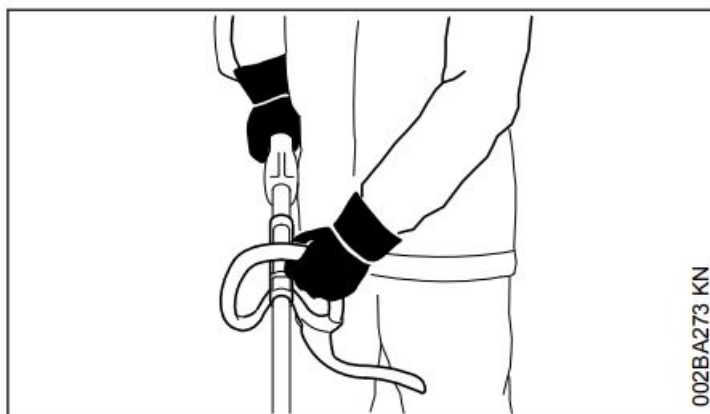
- Check that your power tool is properly assembled and in good condition – refer to appropriate chapters in the User Manuals:
- Check the fuel system for leaks, especially the visible parts, e. g., fuel cap, hose connections,
- Safety Precautions and Working Techniques manual fuel pump (only in machines with a manual fuel pump). In case of leakage and damage, do not start the engine – risk of fire! Have the machine serviced by a dealer before using it
- Use only an approved combination of cutting attachment, deflector, handle and harness. All parts must be assembled properly and securely
- The stop switch must move easily to 0 Check the choke lever, throttle trigger and throttle trigger lockout for smooth action -throttle trigger must return automatically to idle position. The choke lever must spring back from the g and < positions to the run position F when the throttle trigger lockout and throttle trigger are squeezed
- Check that the spark plug boot is secure – a loose boot may cause sparking that could ignite combustible fumes and cause a fire!
- Never attempt to modify the controls or safety devices
- Keep the handles dry and clean – free from oil and dirt – this is important for safe control of the machine
- Adjust the harness and handle(s) to suit your height and reach
- To reduce the risk of personal injury, do not operate your power tool if it is damaged or not properly assembled!
- To prepare for emergencies when using a harness: Practice setting down the machine quickly. To avoid damage, do not throw the machine to the ground when practicing.
- See also notes on “Before Starting” in the User Manual of the KombiTool you are using.

Starting the engine

- Start the engine at least 3 meters from the fuel-ing spot, outdoors only.
- Place the power tool on firm ground in an open area. Make sure you have good balance and secure footing. Hold the power tool securely. The attachment must be clear of the ground and all other obstructions because it may begin to run when the engine starts.
- To reduce the risk of injury, avoid contact with the attachment
- Do not drop-start the power tool – start the engine as described in the User Manual. Note that the attachment continues to run for a short period after you let go of the throttle trigger – fly-wheel effect.
- Check idle speed setting: The attachment must be stationary when the engine is idling with the throttle trigger released.
- Keep easily combustible materials (e. g., wood chips, bark, dry grass, fuel) away from hot exhaust gases and hot muffler surfaces – risk of fire!
- See also notes on “Starting the Engine” in the User Manual of the KombiTool you are using.

Holding and guiding the machine

- Always hold the unit firmly with both hands on the handles.
- Make sure you always have good balance and secure footing.



- Left hand on loop handle, right hand on control handle, even if you are left-handed.

While working

- In the event of impending danger or in an emergency, switch off the engine immediately – move the stop switch in the direction of 0.
- The correct engine idle speed is important to ensure that the attachment stops moving when you let go of the throttle trigger. If the working tool still moves at idle speed, have your dealer make proper adjustments or repairs. Check and correct the idle speed setting at regular intervals. STIHL recommends you have this work done by a STIHL servicing dealer.
- Be particularly alert and cautious when wearing hearing protection because your ability to hear warnings (shouts, alarms, etc.) is restricted.
- Take breaks when you start getting tired or feel-ing fatigue – risk of accidents! Work calmly and carefully – in daylight conditions and only when visibility is good. Proceed with caution, do not put others in danger. 0458-540-8321-D
- Use your power tool only in the areas specified in the KombiTool User Manual.
- As soon as the engine is running, the power machine generates toxic exhaust gas. These gases may be odorless and invisible and may contain unburned hydrocarbons and benzene. Never run the engine indoors

or in poorly ventilated locations, even if your model is equipped with a catalytic converter.

- To reduce the risk of serious or fatal injury from breathing toxic fumes, ensure proper ventilation when working in trenches, hollows or other confined locations.
- 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. Combustible fuel vapor may escape from the fuel system.
- Dust, fumes and smoke produced while working may be hazardous to health! Wear respiratory protection in case of heavy dust or smoke emission.
- 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 in particular that the fuel system has no leaks and the safety equipment is fully operative. Never use a power tool that is no longer safe to operate. In case of doubt, contact a dealer.
- Do not operate your power tool with the choke lever in the warm start position < – the engine speed cannot be controlled in this position.
- Before you leave the machine: Shut the engine off.
- To reduce the risk of injury, always shut off the engine before changing the KombiTool or attachment.

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. These parts are specifically designed to match your machine model and meet your performance requirements.
- To reduce the risk of injury from unintentional engine startup, always shut off the engine and disconnect the spark plug boot before performing any repairs, maintenance or cleaning work. –Exception: Carburetor and idle speed adjustments.

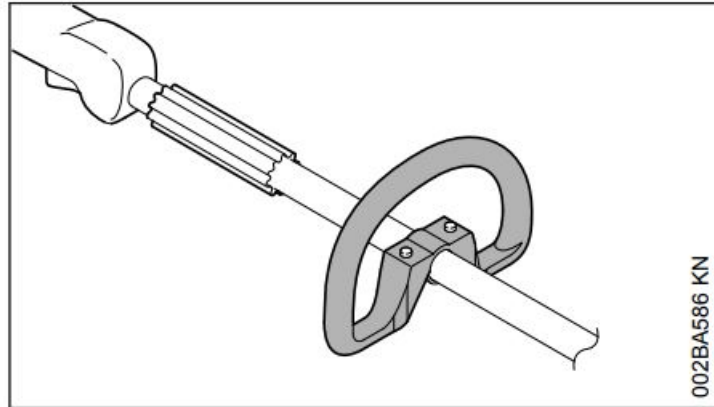
Approved KombiTools

- Do not turn the engine over on the starter with the spark plug boot or spark plug removed 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.
- The following STIHL KombiTools may be attached to the KombiEngine:

KombiTool Intended use

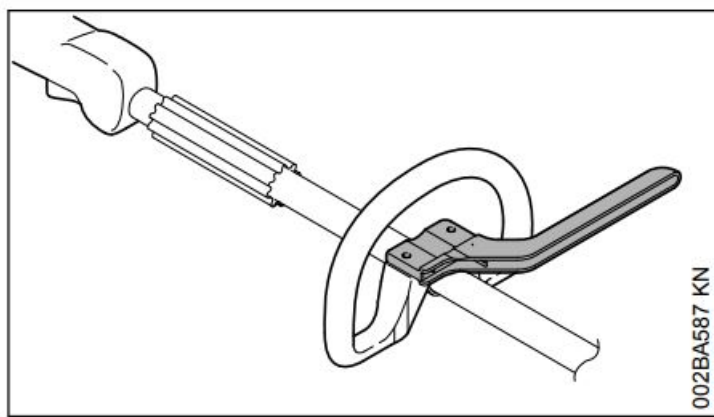
- **FS-KM** Scythe with mowing head FS-KM 1) Scythe with grass cutting blade
- **FSB-KM** Scythe with mowing head
- **HL-KM** 145° Long reach hedge trimmer, adjustable
- **HL-KM** 0° Long-reach hedge trimmer
- **FH-KM** 145° Scrub cutter
- **BG-KM** Blower
- **HT-KM** Pole pruner
- **BF-KM** Cultivator
- **FCB-KM** Edger
- **FCS-KM** Edger
- **SP-KM** Harvesters
- **KB-KM** Bristle brush
- **KW-KM** Sweeper drum assembly
- The included barrier bar on the loop handle must be used – see also “Mounting the Loop Handle”

Mounting the Loop Handle



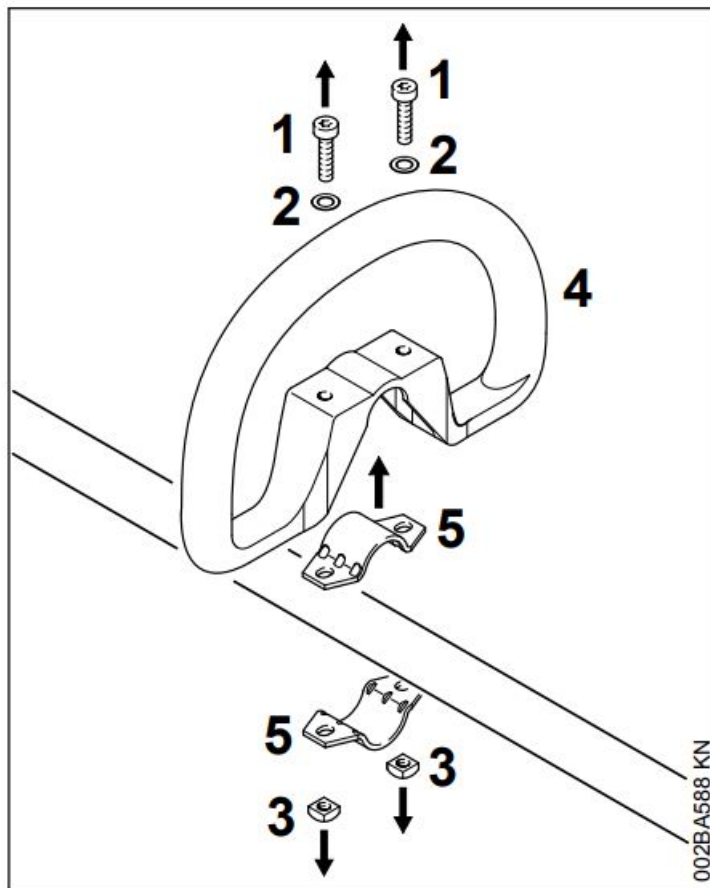
The new machine is delivered with the loop handle pre-assembled on the unit.

Using the Barrier Bar

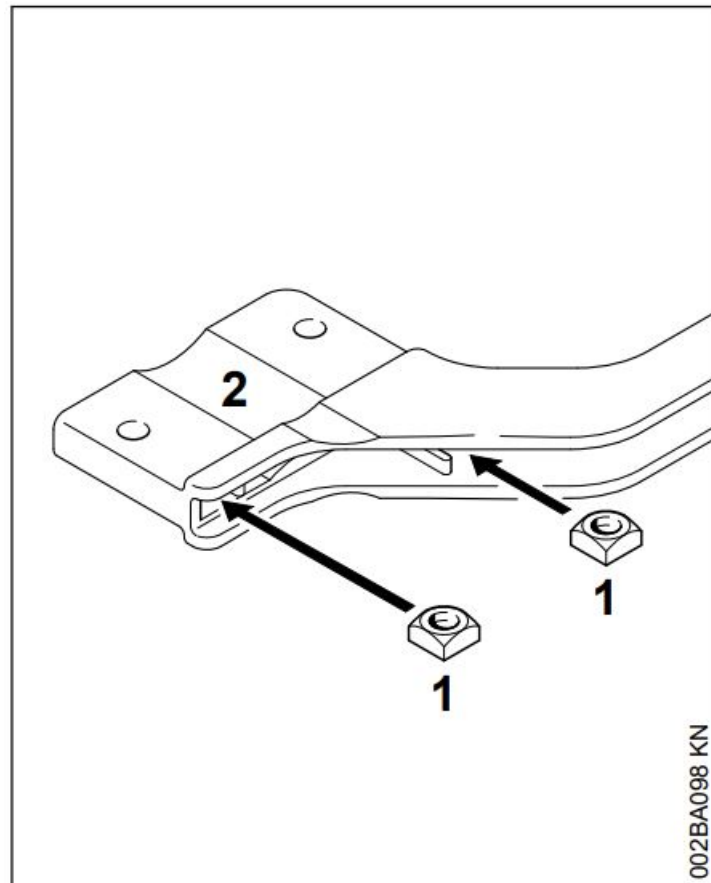


The barrier bar comes as a standard with the machine and must be mounted to the loop handle.

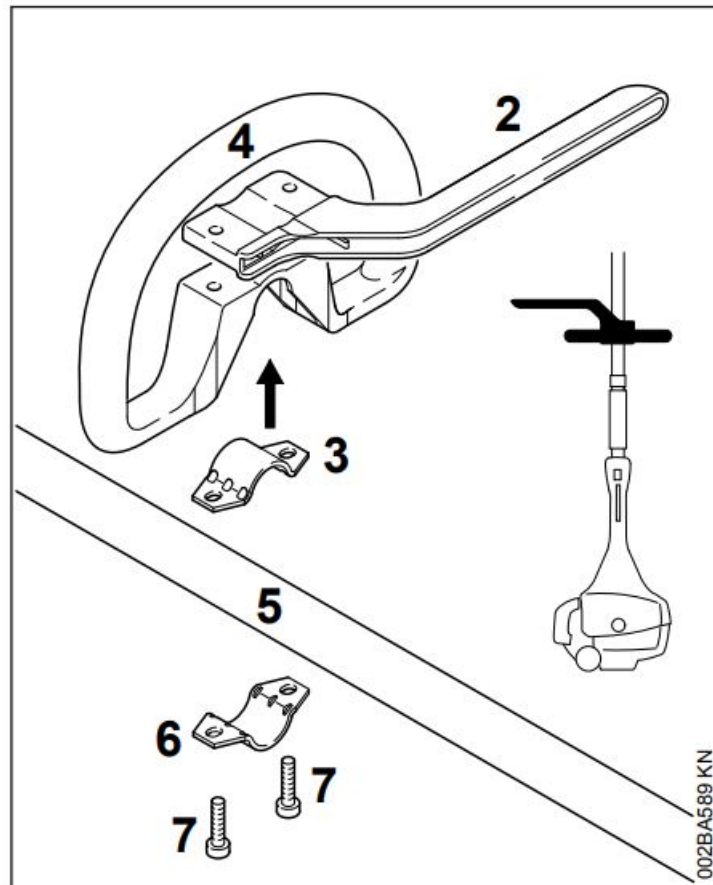
Mounting the Barrier Bar



- Take out the screws (1) and remove them along with washers (2) and nuts (3)
- Remove the loop handle (4) and clamps (5)

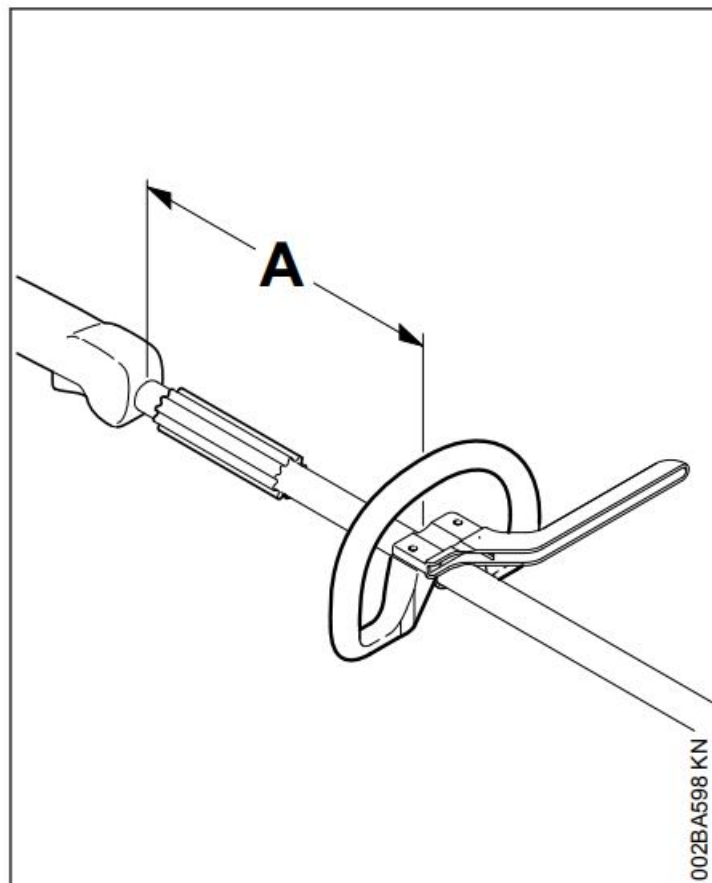


- Insert the square nuts (1) in the barrier bar (2)
the holes must line up



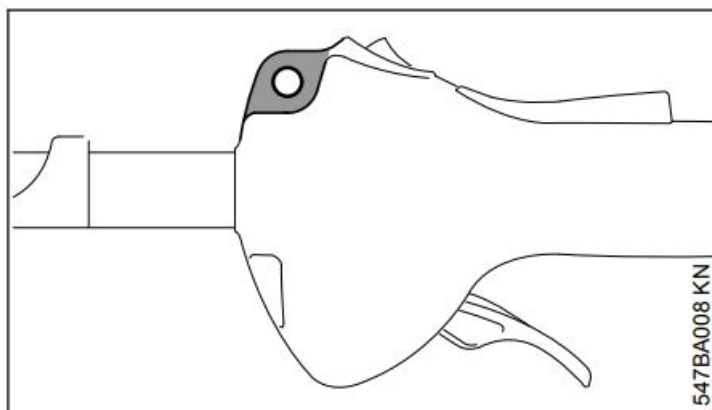
- Insert the clamp (3) in the loop handle (4) and position them together on the shaft (5)
- Position the clamp (6) against the shaft
- Position the barrier bar (2) – note position!
- Line up the holes
- Insert the screws (7) in the holes and screw them into the barrier bar as far as they will go
- Go to “Adjusting and Securing the Loop Handle”
- Always leave the barrier bar attached.

Orienting and Securing the Loop Handle



- By changing the distance (A), the handle can be moved into the best position for the operator and application.
- Secure the loop handle
- Line up the loop handle
- Tighten down the screws firmly – lock the nuts if necessary

Carrying ring



The carrying ring is integrated in the front end of the control handle.

Fuel

The engine requires a mixture of gasoline and engine oil.

WARNING

Avoid direct skin contact with fuel and breathing in of gasoline fumes.

STIHL MotoMix

- STIHL recommends using STIHL MotoMix. This pre-blended fuel is free of benzene and lead, is distinguished by a high octane rating, and always provides the proper mixing ratio.
- STIHL MotoMix uses STIHL HP Ultra two-stroke engine oil for optimum engine life.
- MotoMix is not available in all markets.

Mixing fuel

NOTICE

- Unsuitable fuels or a mixing ratio that deviates from the specification can lead to severe engine damage. The engine, seals, fuel lines and fuel tank may be damaged if low-quality gasoline or engine oil is used.

Gasoline

- Use only high-quality gasoline with an octane rating of at least 90 ROC – leaded or unleaded.
- Gasoline with an alcohol component exceeding 10% can cause impaired engine performance in engines with manually adjustable carburetors and thus should not be used in these engines.
- Engines with M-Tronic deliver full engine performance using gasoline with an alcohol component of up to 27% (E27).

Engine oil

- If you mix the fuel yourself, use only STIHL two-stroke engine oil or another high-performance engine oil classified as JASO FB, JASO FC, JASO FD, ISO-L-EGB, ISO-L-EGC or ISO-L-EGD.
- STIHL specifies STIHL HP Ultra two-stroke engine oil or an equivalent high-performance engine oil in order to maintain emission limits over the machine's service life.

Mixing ratio

- with STIHL two-stroke engine oil 1:50; 1:50 = 1 part oil + 50 parts gasoline

Examples

Quantity of gasoline

STIHL two-stroke engine oil 1:50

- 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)
- Pour oil into an approved safety fuel canister first, then add gasoline and mix thoroughly

Storing fuel mixture

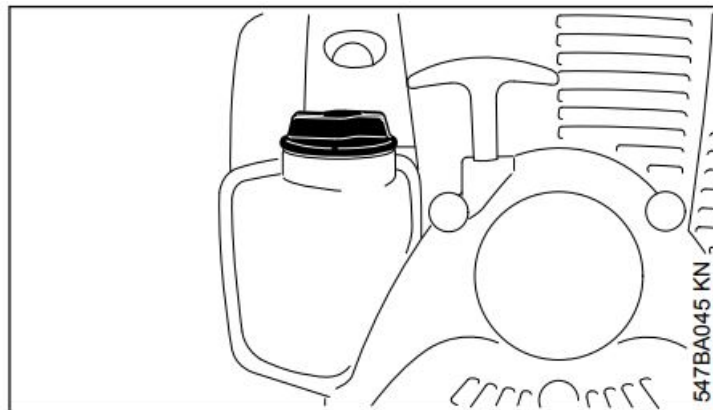
- Store in approved safety fuel canisters only in a dry, cool and secure place protected against light and sunlight.
- Fuel mixture deteriorates with age – mix only as much as needed for a few weeks. Do not store fuel mixture for longer than 30 days. The fuel mixture can become unusable more quickly if exposed to light, sunlight or low or high temperatures.
- STIHL MotoMix however can be stored for up to 5 years without any problems.
- Shake the canister containing the fuel mixture thoroughly before refueling

WARNING

- Pressure may have built up in the canister –open it carefully.
- The fuel tank and the canister in which fuel mixture is stored should be cleaned thoroughly from time to time
- Residual fuel and the liquid used for cleaning must be disposed of in accordance with regulations and without harming the environment!

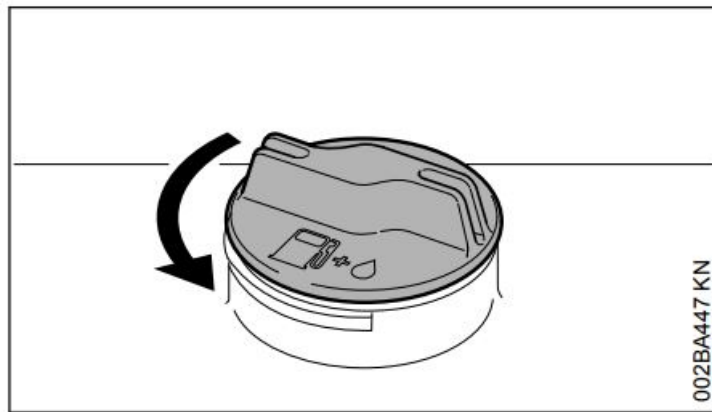
Fueling

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 filler cap is facing up.

Opening screw-type tank cap

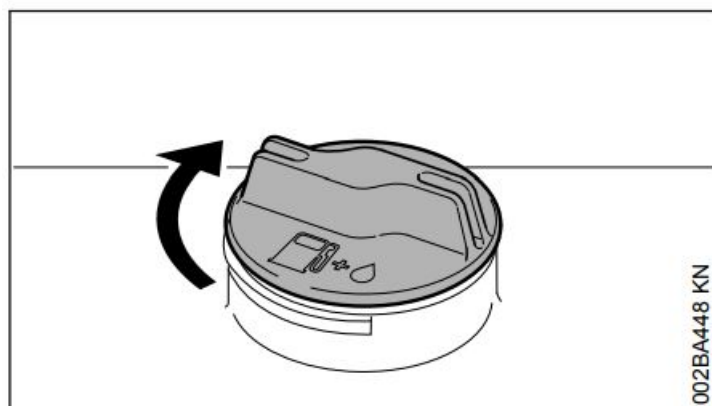


- Turn the cap counterclockwise until it can be removed from the tank opening.
- Remove the cap.

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 (special accessory).

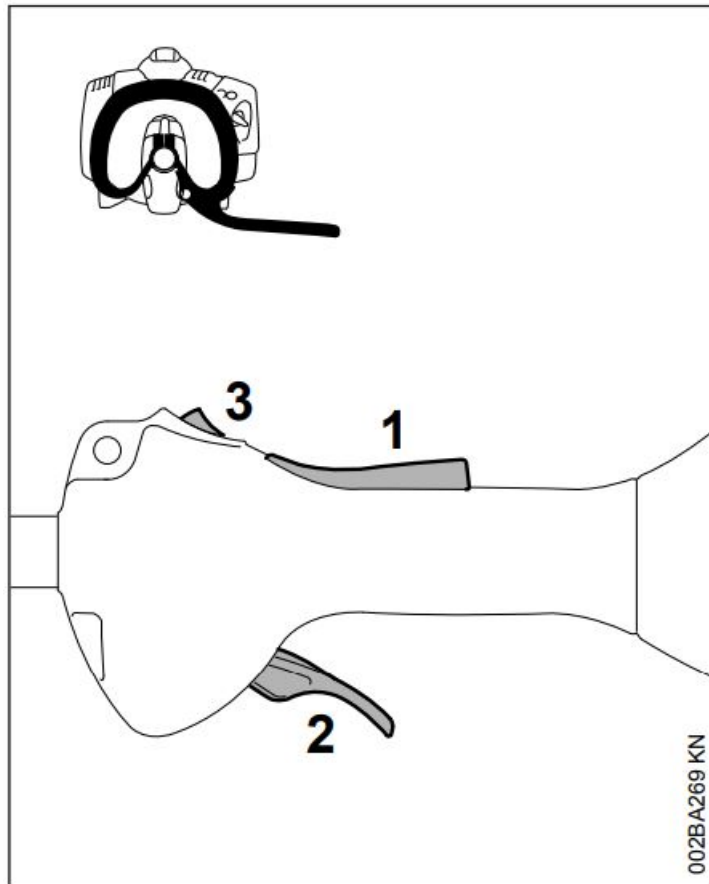
Closing screw-type tank cap



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

Starting / Stopping the Engine

Controls



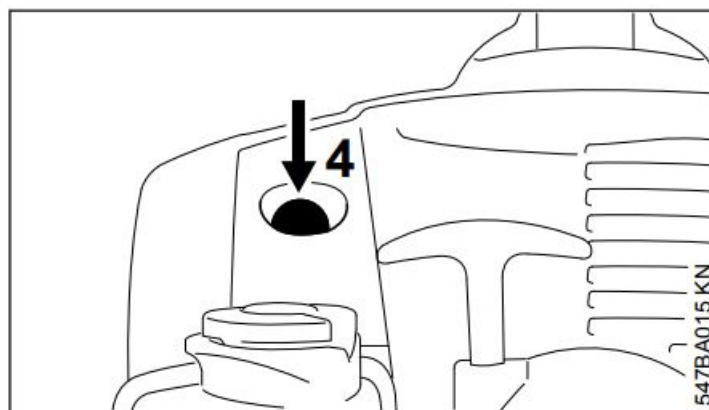
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1. Throttle trigger lockout
2. Throttle trigger
3. Stop switch with Run and 0 = Stop positions.

The function of stop switch and ignition system

The stop switch is normally in the Run position, i.e. when it is not depressed: The ignition is switched on – the engine is ready to start. If the stop switch is moved to the 0 position, the ignition is switched off. The ignition is switched on again automatically after the engine stops.

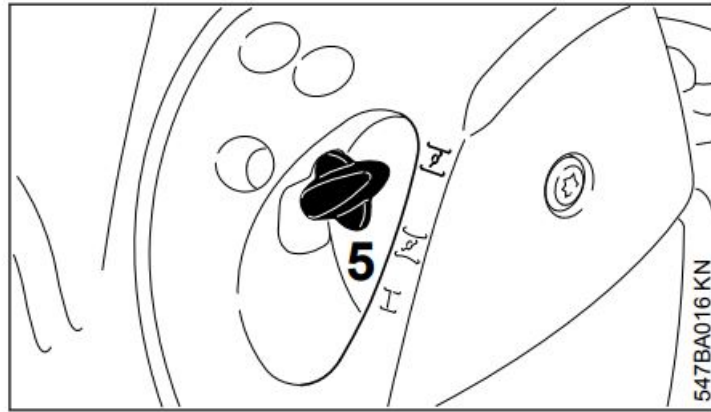
Starting the Engine



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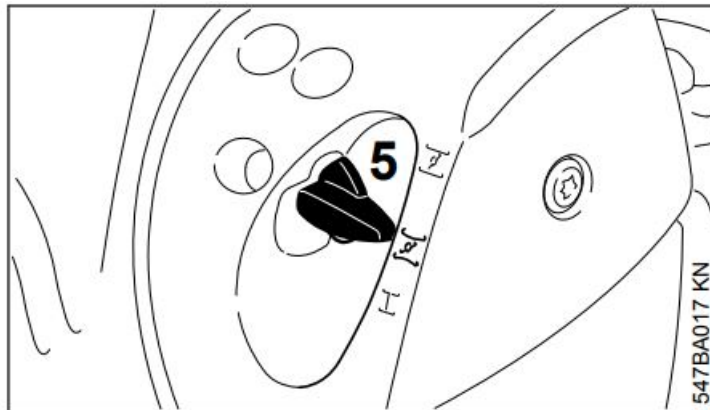
- Press the manual fuel pump bulb (4) at least five times – even if the bulb is filled with fuel.

Cold engine (cold start)



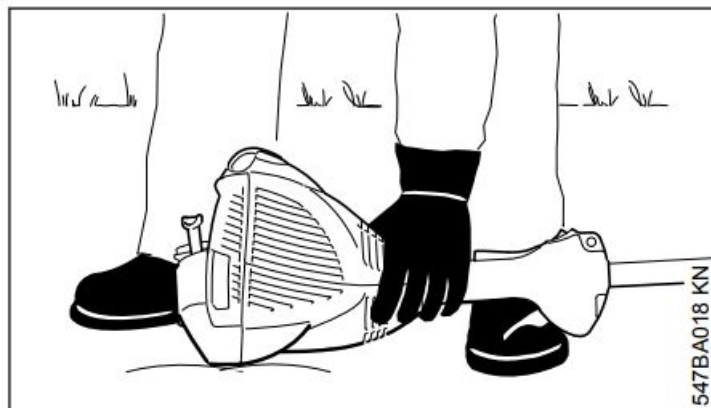
- Press in the choke lever (5) and turn it to g at the same time.

Warm engine (warm start)



- Press in the choke lever (5) and turn it to < at the same time.
- Also use this setting if the engine has been run-ning but is still cold.

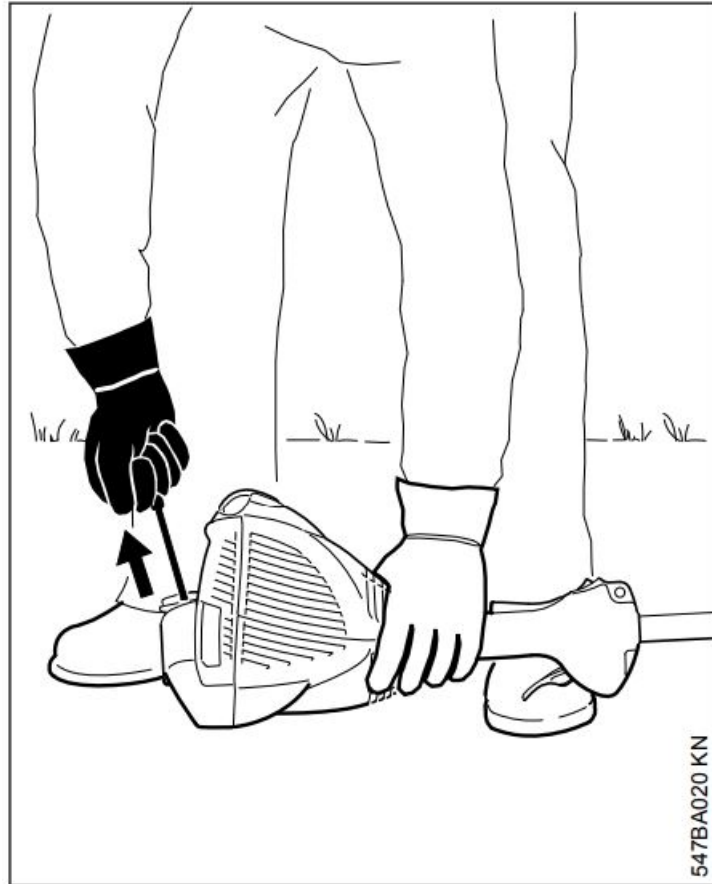
Cranking



- Place the unit on the ground: Check that the working tool is not touching the ground or any other obstacles – see also “Starting / Stopping the Engine” in the KombiTool instruction manual.
- Make sure you have a safe and secure foot-ing.
- Hold the unit firmly on the ground with your left hand and press down – do not touch the throt-tle trigger or lockout lever.

NOTICE

- Do not stand or kneel on the drive tube.



- Hold the starter grip with your right hand.

Version without ErgoStart

- Pull the starter grip slowly until you feel it engage and then give it a brisk strong pull.

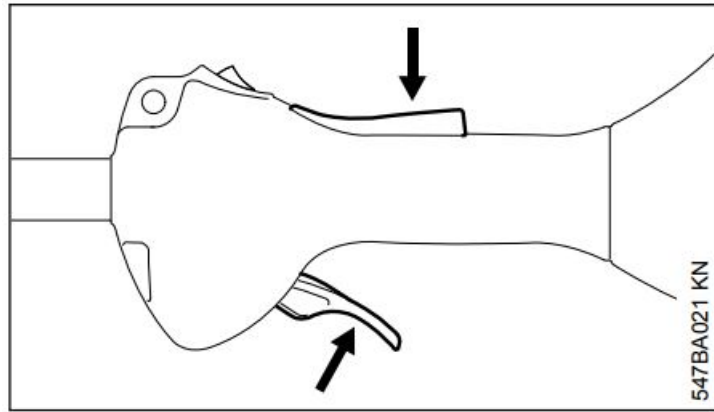
Version with ErgoStart

- Pull the starter grip steadily.

NOTICE

- 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.
- Continue cranking until engine runs.

As soon as the engine runs



- Press down the throttle trigger lockout and open the throttle – the choke lever moves to the run position F. After a cold start, warm up the engine by opening the throttle several times.

WARNING

- Make sure the carburetor is correctly adjusted. The working tool must not rotate when the engine is idling.
- Your machine is now ready for operation.

Stopping the Engine

- Move the stop switch in the direction of 0 – the engine stops – release the stop switch – it springs back to the run position.

Other Hints on Starting

- Engine stalls in cold start position g or under acceleration
- Move the choke lever to < and continue cranking until the engine runs.
- Engine does not start in warm start position
- Move the choke lever to g and continue < cranking until the engine runs.
- If the engine does not start
- Check that all settings are correct.
- Check that there is fuel in the tank and refuel if necessary.
- Check that the spark plug boot is properly connected.
- Repeat the starting procedure.
- 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 lever to suit the engine temperature.
- Now start the engine.

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

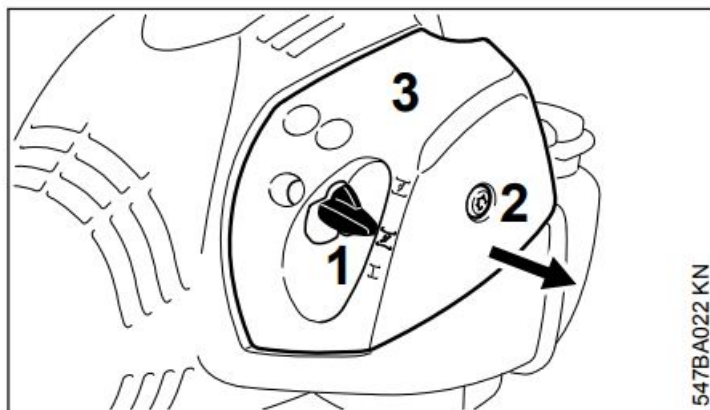
- After a long period of full throttle operation, allow the engine to run for a short while at idle speed so that engine heat can be dissipated by the flow of cooling air. This protects engine-mounted components (ignition, carburetor) from thermal overload.

After Finishing Work

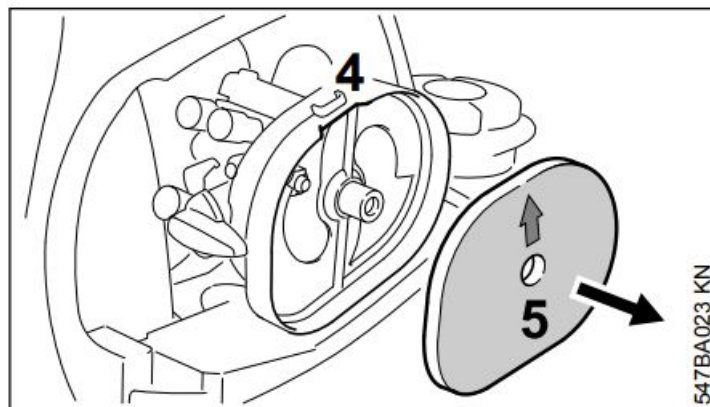
- Storing for a short period: Wait for the engine to cool down. Empty the fuel tank and keep the machine in a dry place, well away from sources of ignition, until you need it again. For longer out-of-service periods – see “Storing the Machine”.

Cleaning the Air Filter

If there is a noticeable loss of engine power



- Move the choke lever (1) to <.
- Turn the screw (2) in the filter cover (3) counter-clockwise until the cover is loose.
- Ease the filter cover (3) over the choke lever and lift it away.
- Clean away loose dirt from around the filter.



- Reach into the recess (4) in the filter housing and take out the felt filter (5).
- Fit a new felt filter element (5). 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.

NOTICE

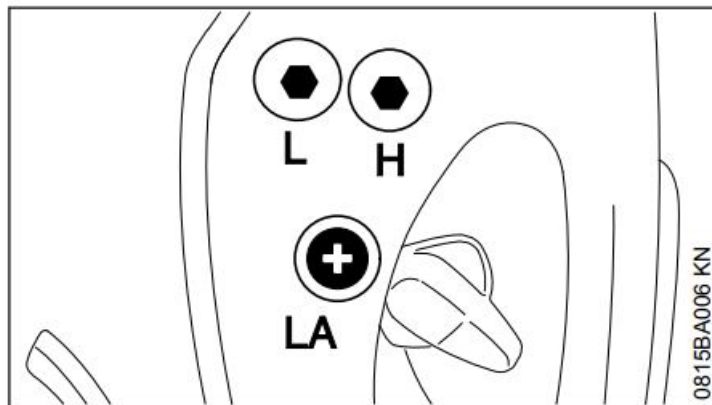
- Replace damaged parts.
- Fit the felt filter (5) in the filter housing, make sure it is properly seated – the arrow points to the recess.
- Move the choke lever (1) to <.
- Fit the filter cover in position, making sure the screw is square. Tighten down the screw.

Adjusting the Carburetor

- The carburetor comes from the factory with a standard setting.
- On this machine it is no longer necessary to adjust the carburetor.
- It has been set at the factory to provide an optimum fuel-air mixture in all locations and operating conditions.

Adjusting Idle Speed

- Engine stops while idling



- Warm up the engine for about 3 minutes.
- Turn the idle speed screw (LA) slowly clock-wise until the engine runs smoothly – the cutting attachment must not move.
- Cutting attachment runs when engine is idling
- Turn the idle speed screw (LA) counterclock-wise until the cutting attachment stops running and then turn the screw about another 1/2 to 3/4 turn in the same direction.

WARNING

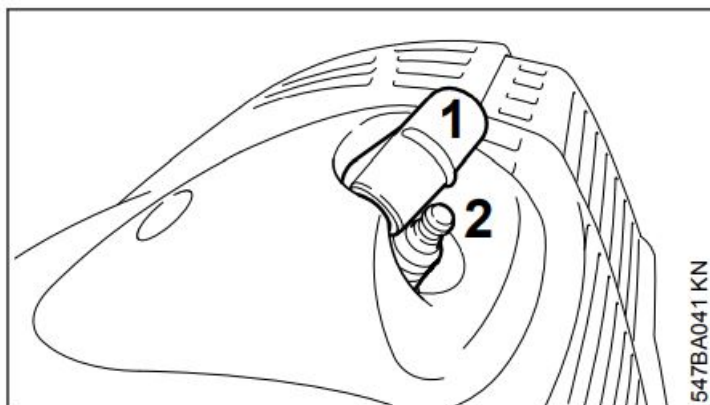
- If the working tool or cutting attachment continues to run when the engine is idling, have your machine checked and repaired by your servicing dealer.

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”.

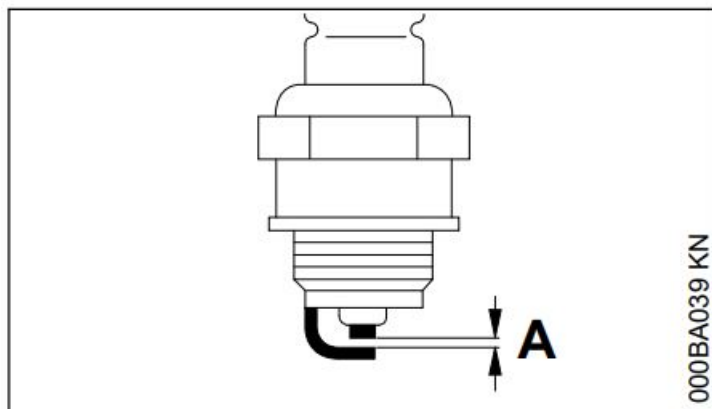
Removing the Spark Plug

- Shut off the engine.



- Remove the spark plug boot (1).
- Unscrew the spark plug (2).

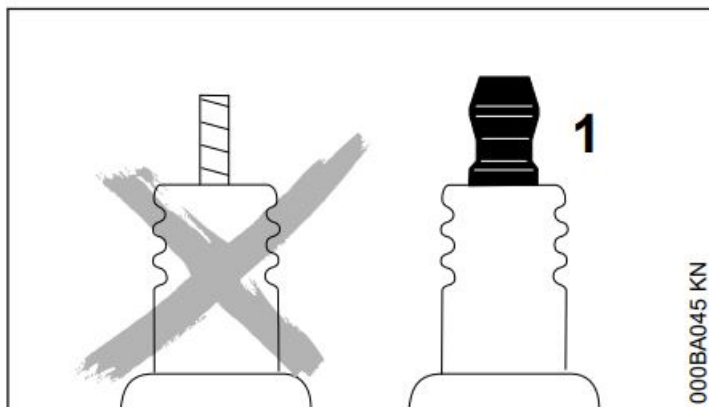
Checking the Spark Plug



- 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

- Arcing may occur if the adapter nut (1) is loose or missing. Working in an easily combustible or explosive atmosphere may cause a fire or an explosion. This can result result in serious inju-ries or damage to property.
- Use resistor type spark plugs with a properly tightened adapter nut.

Installing the Spark Plug

- Screw the spark plug into the cylinder.
- Press the boot firmly onto the spark plug.

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 (car-bonization) by your servicing dealer.
- STIHL recommends that you have servicing and repair work carried out exclusively by an author-ized STIHL servicing dealer.

Storing the Machine

- For periods of 30 days or longer
- Drain and clean the fuel tank in a well ventila-ted area.
- Dispose of fuel properly in accordance with local environmental requirements.
- If a manual fuel pump is fitted: Press the man-ual fuel pump at least 5 times.
- Start the engine and run it at idling speed until it stops.
- Thoroughly clean the machine – pay special attention to the air filter.
- Remove, clean and check the attachment. Coat metal parts with corrosion inhibiting oil.
- Store the machine in a dry and secure location Keep out of the reach of children and other unauthorized persons.
- Inspections and Maintenance by Dealer

Spark arresting screen in muffler

WARNING

- To reduce the risk of fire caused by hot particles escaping from the machine, never operate the machine without a spark arresting screen, or with the spark arresting screen damaged. Do not modify the muffler or spark arresting screen. To reduce the risk of fire from accumulated debris such as pine needles, branches or leaves, ensure that the muffler plugs are in place before taking up work.

NOTICE

- According to the law or regulations in some countries or federal states, certain operations may only be carried

out if a properly serviced spark arresting screen is provided.

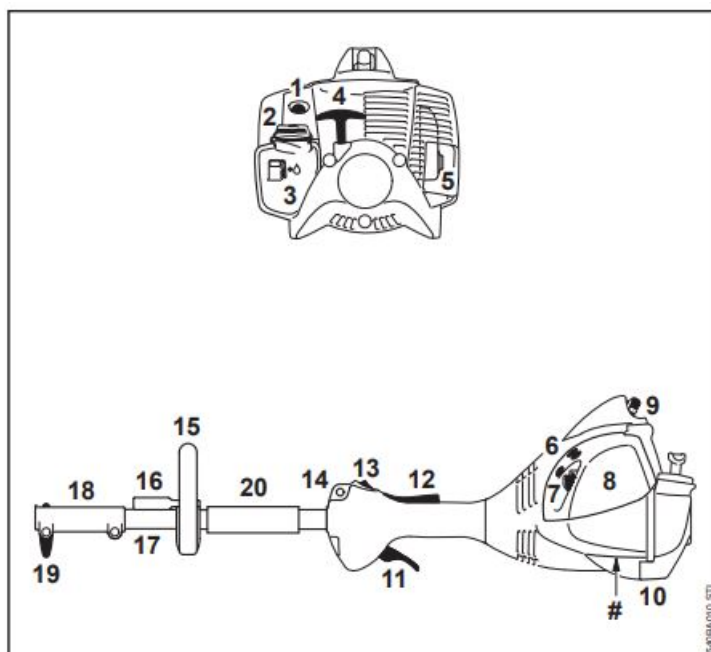
- If the engine is down on power, check the spark arresting screen in the muffler.
- If the muffler plugs are missing or damaged, mount new plugs.
- STIHL recommends that maintenance and repair work be carried out only by authorized STIHL dealers.

Maintenance and Care

The following intervals apply for normal operating conditions. The specified intervals must be shortened accordingly when working for longer than normal or under difficult cutting conditions (extensive dust, etc.).		Before starting work	At the end of work and/or daily	Whenever the tank is refilled	Weekly	Monthly	Annually	If faulty	If damaged	As required
Complete machine	Visual inspection (condition, leaks)	X		X						
	Clean		X							
Control handle	Function test	X		X						
Air filter	Clean							X		X
	replace								X	
Manual fuel pump	check	X								
	Have repaired by a specialist dealer ¹⁾								X	
Fuel pickup body in fuel tank	check							X		
	replace						X		X	X
Fuel tank	Clean							X		X
Carburetor	Check idle adjustment, the work tool must not turn	X		X						
	Readjust idle speed									X

Spark plug	Adjust electrode gap							X		
	Replace after every 100 hours of operation									
Intake port for cooling air	Visual inspection		X							
	Clean									X
Spark arresting screen in muffler	Check if installed	X								
	Check or replace1)						X			
All accessible screws, nuts and bolts (not adjusting screws)	Tighten									X
Safety information label	replace								X	
1)STIHL recommends STIHL servicing dealers										

Main Parts



1. Manual fuel pump
2. Fuel cap
3. Tank
4. Starter grip
5. Muffler
6. Carburetor adjusting screws 7 Choke lever
7. Air filter cover

8. Spark plug boot
9. Machine support
10. Throttle trigger
11. Throttle trigger lockout
12. Stop switch
13. Carrying ring
14. Loop handle
15. Barrier bar
16. Shaft
17. Coupling sleeve
18. Wing screw
19. Sleeve

Serial number

Specifications

Engine

Single-cylinder two-stroke engine

- **Displacement:** 27.2cm³
- **Cylinder bore:** 34 mm
- **Piston stroke:** 30 mm
- Engine power to ISO 8893: 0.8 kW (1.1 hp) at 8500 1/min
- **Idle speed:** 2800 rpm
- **Cut-off speed** (nominal value): 10000 rpm

Ignition system

- Electronic magneto ignition
- **Spark plug (suppressed):** NGK CMR 6 H,
- **BOSCH** USR 4AC
- **Electrode gap:** 0.5 mm

Fuel system

- All-position diaphragm carburetor with integral fuel pump
- Fuel tank capacity: 340 cm³ (0.34 l) 19.4 Weight without fuel, without KombiTool KM 56 RC with ErgoStart: 4.3 kg 19.5 Sound and Vibration Levels
- For further details on compliance with Vibration
- Directive 2002/44/EC, see www.stihl.com/vib 19.5.1 KombiTools
- For version see "Approved KombiTools".
- To determine the noise and vibration values, idle speed and nominal maximum speed are considered in the following ratios: for FCS-KM, FCB-KM, FS-KM, FSB-KM, FH-KM, and HT-KM 1 to 1 for HL-KM 1 to 4 for BF-KM, KB-KM, KW-KM, BG-KM and SP-KM 1 to 6

- The exact noise and vibration specifications depend on the KombiTool being used and are described in the User Manual of the KombiTool.
- 19.5.2 Sound pressure level L_{peq} measured according to ISO 22868, ISO 11201, ISO 11789
- KM 56 RC: 90 dB(A) ... 96 dB(A)
- 19.5.3 Sound power level L_w measured according to ISO 22868, ISO 3744
- KM 56 RC: 103 dB(A) ... 109 dB(A)
- 19.5.4 Vibration level a_{hv} , eq to ISO 20643, ISO 22867, ISO 11789
- Handle, left
- KM 56 RC: 4.7 m/s² ... 8.5 m/s²

Handle, right

- KM 56 RC: 4.8 m/s² ... 8.2 m/s²
- 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, Authorization and
- Restriction of Chemical Substances.
- For information on compliance with the REACH regulation (EC) No. 1907/2006 see www.stihl.com/reach 19.7 Exhaust Emissions
- The CO₂ value measured in the EU type-approval procedure is specified at www.stihl.com/co2 in the product-specific technical data.
- The measured CO₂ value was determined on a representative engine in accordance with a standardized test procedure under laboratory conditions and does not represent either an explicit or implied guarantee of the performance of a specific engine.
- The applicable exhaust emission requirements are fulfilled by the intended usage and maintenance described in this User Manual. The operating license shall be void if the engine is modified in any way.

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 that 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 { logo, and the STIHL parts symbol K (the symbol may appear alone on small parts).

Disposal

- Contact the local authorities or your STIHL servicing dealer for information on disposal.
- Improper disposal can be harmful to health and pollute the environment.
- Take STIHL products including packaging to a suitable collection point for recycling in accordance with local regulations.
- Do not dispose of domestic waste.



EC Declaration of Conformity

- **ANDREAS** STIHL AG & Co. KG
- **Badstr.** 115 D-71336 Waiblingen
- **Germany** declares under our sole responsibility that
- **Designation:** KombiEngine
- **Make:** STIHL
- **Series:** KM 56 R
- **KM 56 RC**
- **KM 56 RC-E**
- **Serial identification number:** 4144






Displacement: 27.2cm³ conforms to the relevant provisions of Directives 2011/65/EU, 2006/42/EC, and 2014/30/EU 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 55012, EN 61000-6-1 (in conjunction with the following KombiTools:
- BF-KM, BG-KM, FCB-KM, FCS-KM, FH-KM, FS-KM, FSB-KM, HL-KM, HT-KM, KB-KM, KW-KM and SP-KM)
- The KombiEngine described here may be operated only in conjunction with the KombiTools approved by STIHL for use with this KombiEngine.
- **Technical documents deposited at:** ANDREAS STIHL AG & Co. KG Produktzulassung
- The year of manufacture and serial number are applied to the product.
- Done at Waiblingen, 15.07.2021
- ANDREAS STIHL AG & Co. KG pp
- Dr. Jürgen Hoffmann
- Director Product Certification & Regulatory Affairs
- www.stihl.com

Documents / Resources

 	<p>STIHL KM 56 R Multi Tool 2 Stroke Engine [pdf] Instruction Manual KM 56 R Multi Tool 2-Stroke Engine, KM 56 R, Multi Tool 2-Stroke Engine, Tool 2-Stroke Engine , Stroke Engine, Engine</p>
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References

-  [Country Routing Page: Welcome to STIHL | STIHL](#)
-  [CO2 values according to EURO V | STIHL](#)
-  [REACH Regulation: Available in different languages | STIHL | STIHL](#)
-  [Information on Physical Agents Directive Vibration | STIHL | STIHL](#)
-  [Country Routing Page: Welcome to STIHL | STIHL](#)

Manuals+.