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STIHL®

STIHL GS 461

Instruction Manual

Contents

Dear Customer,

Thank you for choosing a quality engineered STIHL product.

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

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

Your

Hans Peter Stihl

CE

Original Instruction Manual

Printed on chlorine-free paper
Printing inks contain vegetable oils, paper can be recycled.

STIHL®

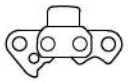
Guide to Using this Manual

Pictograms

Pictograms that appear on the machine are explained in this Instruction Manual.

Depending on the machine and equipment version, the following pictograms may appear on the machine.

Fuel tank; fuel mixture of gasoline and engine oil



Direction of chain travel

Tension diamond abrasive chain

Actuate decompression valve

Water connection, shut-off cock

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

Because the chain of a concrete cutter runs at very high speeds, special safety precautions must be observed to reduce the risk of personal injury.

It is important that you carefully read the entire Instruction Manual before using the machine for the first time and keep it in a safe place for future reference. Non-compliance with the Instruction Manual may cause serious or even fatal injury.

Observe the national safety regulations issued, e. g. by the employers' liability insurance association, social security institutions, occupational safety and health authorities or other organizations.

If you have never used a power tool before: Ask the salesperson or another expert to explain how to use it safely – or attend a training course.

Minors should never be allowed to use the machine – except for young trainees 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 Instruction Manual should always be handed over with the machine.

Use of machines that emit noise may be restricted in terms of time by national and/or on-site, local regulations.

The machine may only be operated by people who are fit, 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.

If you have a pacemaker: The ignition system of your machine produces an electromagnetic field of very low intensity. An effect on individual pacemaker types cannot be excluded entirely. STIHL recommends that you consult your doctor and the manufacturer of your pacemaker in order to avoid health hazards.

Anyone who has consumed alcohol, medicines affecting their ability to react or drugs must not operate the machine.

Postpone the work if the weather is bad (rain, snow, ice, wind) – **higher risk of accidents!**

The machine may only be used for cutting.

The machine must not be used for any other purposes – **risk of injury!**

It is not suitable for cutting wood or wooden objects.

Asbestos dust is extremely toxic - the machine must therefore **never be used to cut asbestos!**

Only use tools, guide bars, diamond abrasive chains or accessories that have been approved by STIHL for this machine or which are technically equivalent. Contact a servicing dealer if in doubt. Only use high-quality tools or accessories. Otherwise there may be a risk of accidents or damage to the machine.

STIHL recommends the use of genuine STIHL guide bars, diamond abrasive chains, chain sprockets and accessories. These have been optimized for the product and the user's requirements.

Never modify the machine in any way, as this could be extremely dangerous. STIHL excludes all liability for personal injury and damage to property caused while using unauthorized attachments.

Do not use high-pressure cleaners to clean the machine. The hard water jet can damage parts of the machine.

Clothing and equipment

Wear proper protective clothing and equipment.

Clothing must be sturdy and snug-fitting, but allow complete freedom of movement. Wear snug fitting clothing – an overall, not a loose-fitting jacket.

Do not wear clothing that could become trapped in moving parts of the machine – no scarves, no neckties, no jewelry. Long hair must be tied up and covered.

Wear **safety boots** with steel toe caps and non-slip soles.

Wear a **hard hat** wherever there is any risk of falling objects. Wear **goggles** to protect the eyes against flying objects. Wear "personal" **hearing protection** – e. g., ear defenders.

A face mask alone is not sufficient to protect the eyes.

Dust (e. g., crystalline material from the object being cut), fumes and smoke may be produced while cutting - **health hazard!**

Always wear a **dust mask** if dust is generated.

If fumes or smoke are anticipated (e. g., when cutting composite materials), wear **respiratory protection**.

Wear **sturdy gloves**.

STIHL can supply a comprehensive range of protective clothing and equipment.

Transporting the machine

Always stop the engine and attach the chain scabbard.

Carry the machine only by the top handle – guide bar towards the rear – with the hot muffler facing away from the body.

Avoid touching hot parts of the machine, especially the surface of the muffler – **risk of burns!**

In vehicles: Properly secure your machine to prevent turnover, damage and fuel spillage.

Refueling

Gasoline is an extremely flammable fuel – keep clear of naked flames and fire – do not spill any fuel – no smoking.

Switch off the engine before refueling.

Never refuel the machine while the engine is still hot – the fuel may spill over – **risk of fire!**

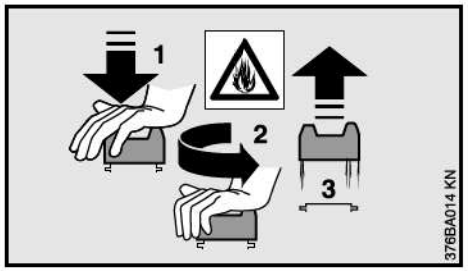
Open the fuel filler cap carefully so that any excess pressure is relieved gradually and fuel does not splash out.

The machine may only be refueled in a well ventilated place. Clean the machine immediately if fuel is spilled. Change your clothes immediately if they are contaminated with fuel.

Dust may collect on the engine unit, particularly around the carburetor. If the dust is soaked with gasoline, it may catch fire. For this reason, ensure that the dust is always removed.

Check for fuel leakage while refueling and during operation. Never start the engine if fuel has been spilled or is leaking – **Fatal burns may result!**

Bayonet filler cap



Never use a tool to open or close the bayonet filler cap. This could damage the cap and cause fuel to leak out.

Secure the bayonet filler cap tightly after refueling.

Diamond abrasive chain

The diamond abrasive chain, guide bar and chain sprocket must match each other and your concrete cutter.

Use only approved diamond abrasive chains. If unauthorized chains are used, aggressive cutting cannot be ruled out. This may lead to uncontrolled and exceedingly dangerous reaction forces (kickback) in the machine – **risk of fatal injuries!**

Only use diamond abrasive chain for the specified materials, observe diamond abrasive chain codes.

Always cut with water.

Before fitting used diamond abrasive chains, check that they are not cracked, chipped, check also that there are no damaged or missing segments, signs of overheating (discoloration).

Never use diamond abrasive chains that are cracked or have chipped segments. Visit your servicing dealer.

Before starting

Check that concrete cutter is properly assembled and in good condition – refer to appropriate chapters in the Instruction Manual:

- Check fuel system for leaks, especially the visible parts, e. g., filler cap, hose connections, fuel pump. Do not start the engine if there are leaks or damage – **risk of fire!** Have the machine repaired by a servicing dealer before using it
- functional, front hand guard
- Check chain sprocket
- Sprocket nose moves easily
- Correctly mounted guide bar
- The diamond abrasive chain must be suitable for the material to be cut. It must be in good condition and fitted correctly (direction of running).
- Correctly tensioned diamond abrasive chain

- The throttle trigger and throttle trigger lockout must move easily – throttle trigger must return automatically to the idle position when released
- Master control lever can be moved to **STOP** or **0**
- Check that the spark plug boot is secure. A loose boot can lead to flying sparks which may ignite the escaping fuel/air mixture – **risk of fire!**
- Never attempt to modify the controls or safety devices
- Keep the handles dry and clean, free from oil and dirt – important for safe control of the concrete cutter

The concrete cutter should only be used if it is in full working order – **risk of accident!**

Starting the engine

Move at least 3 meters away from the place at which the machine was refueled and never start the machine in enclosed spaces.

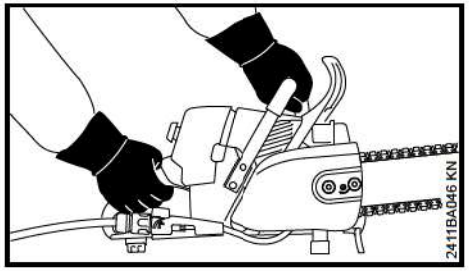
The machine may only be used on level ground. Ensure a firm and secure footing and hold the machine firmly. The diamond abrasive chain must not touch any objects or the ground and must not be in the cut, because it may begin to rotate when the machine is started.

The machine is operated by only one person. There should not be any other person within the working area, not even when starting the machine.

Do not drop-start the engine – start as described in the Instruction Manual.

Before starting, open the shut-off valve completely and ensure a supply of water to the diamond abrasive chain – do not allow diamond abrasive chain to run dry.

Holding and guiding the machine



Always hold the machine **firmly with both hands:** Right hand on the rear handle – even if you are left-handed. To ensure reliable control, wrap your thumbs tightly around the handlebar and handle.

The object that is to be cut must be positioned firmly; always guide the machine to the workpiece – never vice versa.

During work

Ensure you always have a firm and safe footing.

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

The machine is operated by only one person. There should not be any other person within the working area.

Use extreme caution with openings, recesses, etc., someone could be standing behind them – look beforehand.

Never let the machine run unattended.

When the engine is running: The diamond abrasive chain continues to run for some time after the throttle trigger has been released – **Risk of injury due to coasting effect!**

Beware of **slipping** on ice, water, snow or uneven ground!

Never work on a ladder or on any other unsteady support. Do not work above shoulder height and never operate the machine with one hand - **risk of accidents!**

Ensure that the working area is clear – watch out for obstacles, holes and pits.

Do not work alone – keep within calling distance of others in case help is needed.

More care and attention than usual are required when wearing ear protection – warning sounds (shouts, alarms, etc.) cannot be heard properly.

Take breaks in due time in order to prevent tiredness and exhaustion – **risk of accidents!**

Keep easily combustible materials away from hot exhaust gases and hot mufflers – **risk of fire!** Mufflers with catalytic converters can become especially hot.

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

Ensure proper ventilation when working in trenches, hollows or other confined areas. **Toxic fumes can kill!**

If you feel sick, if you have a headache, vision problems (e.g., your field of vision gets smaller), hearing problems, dizziness or inability to concentrate, stop work immediately. Such symptoms may be caused by an excessively high concentration of exhaust emissions – **risk of accident!**

No smoking when working with or near the machine - **risk of fire!** Combustible fuel vapor may escape from the fuel system.

Examine the diamond abrasive chain periodically at short intervals, check that they are not cracked, chipped, check also that there are no damaged or missing segments, signs of overheating (discoloration).

Never use diamond abrasive chains that are cracked or have chipped segments. Visit your servicing dealer.

In the event of noticeable changes in cutting behavior (e. g., increased vibration, reduced cutting performance), stop work and eliminate the causes of the changes.

- Switch off the engine and wait until the diamond abrasive chain is stationary
- Check condition and correct tension of diamond abrasive chain
- Ensure that the cutting blades are sharp

Never touch the diamond abrasive chain when the motor is running. If the diamond abrasive chain becomes jammed by an object, switch off the engine immediately before attempting to remove the object – **risk of injury!**

To change the diamond abrasive chain, switch off the engine – **risk of injury!**

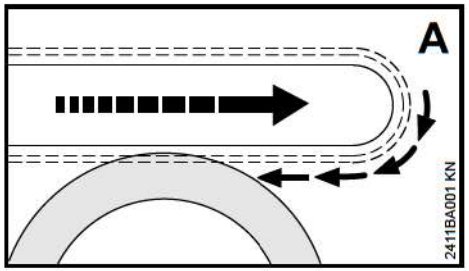
If the machine is subjected to unusually high loads for which it was not designed (e. g., heavy impact or a fall), always check that it is in good condition before continuing work – refer also to the section "Before starting". Check the fuel system for leaks and make sure the safety devices are working properly. Never continue using a power tool that is not in perfect working order. Consult a servicing dealer if in doubt.

Check for correct idling, so that the diamond abrasive chain stops moving when the throttle trigger is released. Check and/or correct the idle setting regularly. Have the machine repaired by a STIHL servicing dealer if the diamond abrasive chain continues to run nevertheless.

Reactive forces

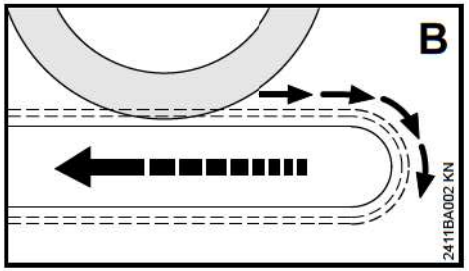
The most frequently occurring reactive forces are pull-in and pushback.

Pull-in (A)

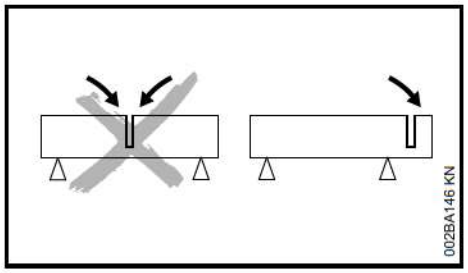


When the diamond abrasive chain on the bottom of the guide bar – overbucking – is jammed or encounters a solid object, the concrete cutter may suddenly be drawn forward to the workpiece.

Pushback (B)



When the diamond abrasive chain on the top of the guide bar – underbucking – is jammed or encounters a solid object, the concrete cutter may suddenly be driven straight back toward the operator.



- Do not allow the guide bar to become jammed
- Always be aware that the object to be cut may move and other factors may cause the cut to close and jam the diamond abrasive chain
- The object to be cut must be secured and supported so that the cut remains open during and after cutting
- Do not twist the guide bar in the cut

Working – abrasive cutting

Ensure sufficient water supply to diamond abrasive chain – do not allow diamond abrasive chain to run dry.

Always wet cut – regardless of the material to be cut.

The diamond abrasive chain must be guided straight in the cut, without wedging. Never exert lateral pressure on the diamond abrasive chain.

Do not use the diamond abrasive chain for lateral grinding or scrubbing.

Do not use the starting throttle position for cutting. Engine speed cannot be controlled with the throttle trigger in this position.

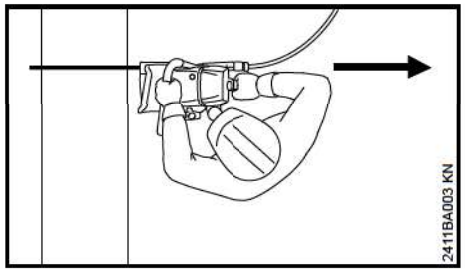
Examine the workplace. Avoid all danger due to damaged piping or electrical wiring.

The machine must not be used near inflammable substances or gases.

Never use the machine to cut inside pipes, metal troughs or other containers unless you are absolutely sure that they do not contain any volatile or inflammable substances.

Never leave the machine unattended with the engine running. Switch off the engine before leaving the machine (e. g., for a break).

Work calmly and methodically – only with good lighting and visibility. Do not endanger others – stay alert at all times.



Make certain that all parts of your body are well clear of the extended **range of travel** of the diamond abrasive chain.

Only pull concrete cutter out of the object being cut with the diamond abrasive chain running.

Only use concrete cutter for cutting – not for prying or shoveling away objects.

Always decide the cutting direction before positioning the concrete cutter. After that, do not change the cutting direction. Avoid knocks and bumps with the machine while in the cut – do not drop the machine into the cut – **danger of breakage!**

If cutting performance begins to deteriorate, check the sharpness of the diamond abrasive chain, resharpen as needed. To do this, briefly cut through abrasive material, e. g., sandstone, aerated concrete or asphalt.

When working above ground level:

- Always use a lift bucket
- Never use the machine while standing on a ladder
- Never use the machine in unsteady locations
- Never cut above shoulder height
- Never use the machine with one hand

Begin cutting with the concrete cutter at full throttle.

At the end of the cut, the concrete cutter is no longer supported by the cutting attachment in the cut. The machine's weight must be borne by the user – **risk of loss of control!**

Keep water and sludge away from electric cables - **risk of electric shocks!**

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

The machine must be serviced regularly. Do not attempt any maintenance or repair work not described in the Instruction Manual. All other work should be carried out by a servicing dealer.

STIHL recommends that maintenance and repair work be carried out only by authorized STIHL dealers. STIHL dealers receive regular training and are supplied with technical information.

Use only high-quality spare parts. Otherwise, there may be a risk of accidents or damage to the machine. Contact a servicing dealer if in doubt.

STIHL recommends the use of genuine STIHL spare parts. Such parts have been optimized for the machine and the user's requirements.

Before starting any maintenance or repair work and before cleaning the machine, always **stop the engine – risk of injury!** – Exception: adjustment of carburetor and idle speed.

To reduce the **risk of fire** due to ignition outside the cylinder, move the slide control to **STOP** or **0** before turning the engine over on the starter with the spark plug boot removed or the spark plug unscrewed.

Do not service or store the machine near a naked flame – **risk of fire** due to the fuel.

Check fuel cap regularly for tightness.

Use only spark plugs that are in perfect condition and have been approved by STIHL – see "Specifications".

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

Check that the muffler is in perfect working condition.

Do not use the machine if the muffler is damaged or missing – **risk of fire!** – **Hearing damage!**

Never touch a hot muffler – **risk of burns!**

The condition of the antivibration elements influences vibration behavior – inspect antivibration elements periodically.

Switch off the engine

- to check the chain tension
- to retension the chain
- to change chains
- for remedying malfunctions

Sample applications

Use diamond abrasive chain only with water. Connect concrete cutter to water supply network (min. 1.5 bar).

The water introduced is used to cool the diamond abrasive chain and rinse the cutting attachment, and for binding dust.

After finishing work, run the concrete cutter for a few seconds with water and at operating speed to rinse the cutting attachment.

If the water pressure or water volume is too low, this leads to significantly increased wear and irreparable damage to the cutting attachment – **danger of breakage!**

Objects to be cut

- Must be fully supported
- Must be secured so it cannot roll or slip off
- Must be prevented from vibrating

Severed parts

With openings, recesses, etc., the sequence of the cuts is important. Always make the last cut so that the diamond abrasive chain does not become jammed and so that the operator is not endangered by the severed or separated part.

If necessary, use wedges and if necessary, leave small ridges that hold the part that is to be separated in position. Break these ridges later.

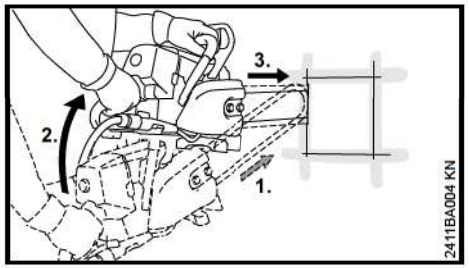
Before finally separating the part, determine:

- how heavy the part is
- how it can move after separation
- whether it is under tension

When breaking out the part, do not endanger assistants.

Plunge-cutting

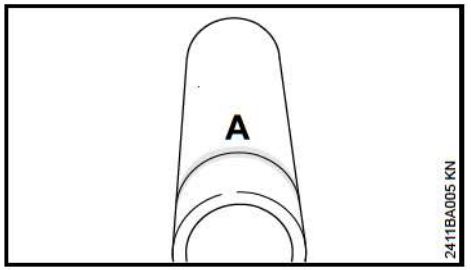
Begin cutting with the concrete cutter at full throttle.



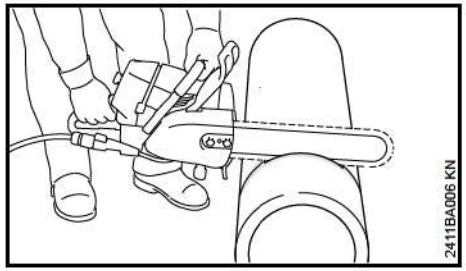
1. Apply the lower portion of the guide bar nose
2. Swing slowly into the plunge-cutting position
3. Make the plunge cut very carefully

When making the plunge cut into existing, narrower joints, proceed with extreme care.

Cut in several passes

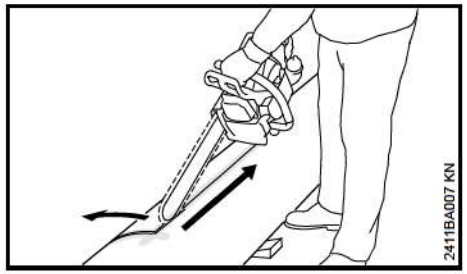


- Mark cutting line (A)



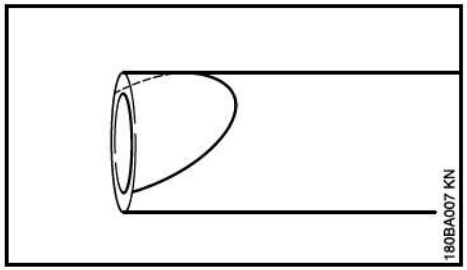
- Work along the cutting line. When making corrections, do not tilt the diamond abrasive chain, always reposition it afresh

Cutting round and hollow bodies



- Secure pipes, round bodies, etc. against rolling away
- Mark a cutting line - when determining the cutting line, avoid reinforcement, especially in the direction of the severing cut
- Make the plunge cut very carefully
- Feed with full cutting depth along the cutting line – for small corrections of direction, do not tilt the diamond abrasive chain, but always position it anew instead – if necessary, use wedges and if necessary, leave small ridges that hold the part that is to be separated in position. Break these ridges later

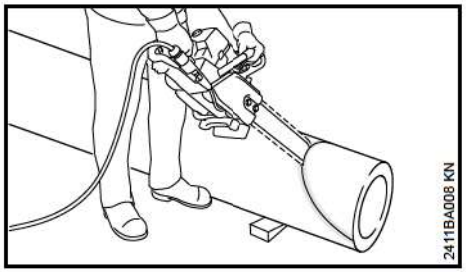
Shaping pipe



- Secure pipes, round bodies, etc. against rolling away
- Mark a cutting line - when determining the cutting line, avoid reinforcement, especially in the direction of the severing cut

⚠ DANGER

Manual cutting along this line requires particular caution and precision.



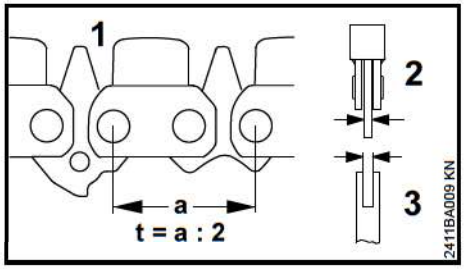
- Cut into pipes, round bodies, etc. in the area at the ends of the cutting line, so that the material does not break away
- Make the plunge cut very carefully at the apex and cut outward on both sides - feed with full cutting depth along the cutting line – for small corrections of direction, do not tilt the diamond abrasive chain, but always position it anew instead – if necessary, use wedges and if necessary, leave small ridges that hold the part that is to be separated in position. Break these ridges later

Cutting Attachment

STIHL is the only manufacturer who manufactures concrete cutters, guide bars, diamond abrasive chains and chain sprockets itself.

Diamond abrasive chain, guide bar and chain sprocket make up the cutting attachment.

The cutting attachment that is supplied has been optimized for the concrete cutter.



– The pitch (t) of the diamond abrasive chain (1), chain sprocket and sprocket nose of the Rollomatic guide bar must match
– The drive link gauge (2) of the diamond abrasive chain (1) must be matched to the groove width of the guide bar (3)

When pairing components that are not compatible with each other, the cutting attachment may become damaged beyond repair after only a short period of operation.

Diamond abrasive chain

The correct use of the STIHL diamond abrasive chain ensures economical use and avoids accelerated wear.

The STIHL diamond abrasive chain is suitable for cutting the following materials:

– Concrete
– Reinforced concrete
– General blocks
– Masonry
– Stone pipes
– Abrasive stone*, e. g. asphalt and bricks (sandstone)
– Hard stone*, granite*
– ductile cast iron pipes*

*) Restrictions on power and service life are possible

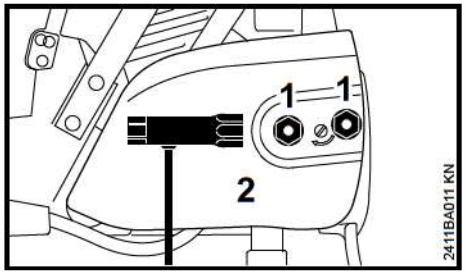
Do not cut any other materials – **risk of accident!**

Chain scabbard

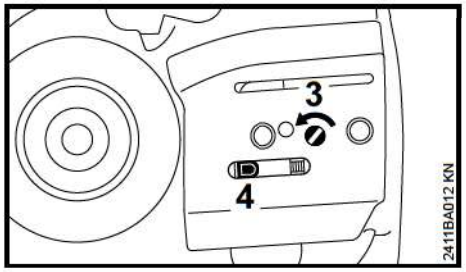
The product contents includes a chain scabbard that is suitable for the bar and chain.

Mount guide bar and diamond abrasive chain

Removing the chain sprocket cover

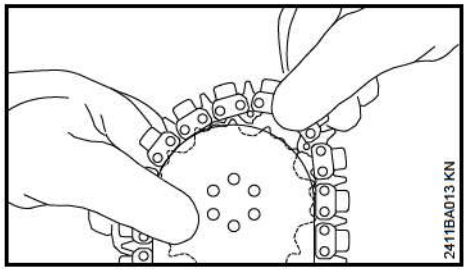


- Unscrew nuts (1) from the studs – nuts are fastened to the chain sprocket cover so that they are secured against loss
- Remove chain sprocket cover (2)

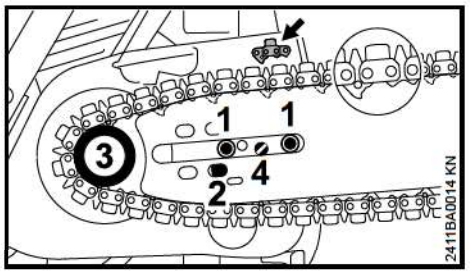


- Turn the screw (3) to the left until the tensioner slide (4) butts against the left end of the housing slot

Fit diamond abrasive chain



- Fit the diamond abrasive chain starting at the nose of the guide bar



- Position the guide bar over the bolts (1) – align drive links so that the position lines up with the symbol (arrow)

WARNING

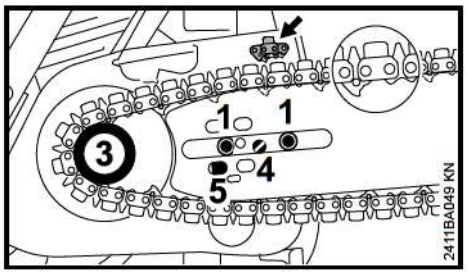
If the drive links are not directionally aligned one behind the other correctly, the diamond abrasive chain and chain sprocket will be damaged beyond repair.

- Position the right locating hole (2) over the peg of the tensioner slide – simultaneously place the diamond abrasive chain over the sprocket wheel (3)
- Turn screw (4) to the right until there is very little diamond abrasive chain sag on the underside of the bar and the lugs of the drive links engage in the bar groove
- Refit the chain sprocket cover – and then screw on the nut by hand until it is fingertight
- Go to chapter "Tensioning the diamond abrasive chain"

Moving the guide bar

Only move the guide bar if the diamond abrasive chain cannot be tensioned properly.

- Removing the chain sprocket cover
- Remove guide bar with diamond abrasive chain
- Fit the diamond abrasive chain starting at the nose of the guide bar



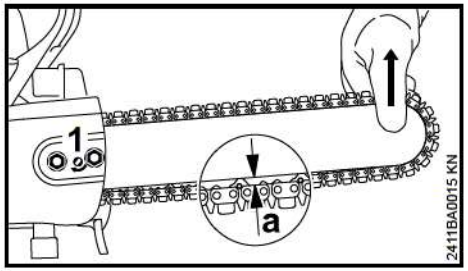
- Position the guide bar over the bolts (1) – align drive links so that the position lines up with the symbol (arrow)

WARNING

If the drive links are not directionally aligned one behind the other correctly, the diamond abrasive chain and chain sprocket will be damaged beyond repair.

- Position the left locating hole (5) over the peg of the tensioner slide – simultaneously place the diamond abrasive chain over the sprocket wheel (3)
- Turn screw (4) to the right until there is very little diamond abrasive chain sag on the underside of the bar and the lugs of the drive links engage in the bar groove
- Refit the chain sprocket cover – and then screw on the nuts by hand until they are fingertight
- Go to chapter "Tensioning the diamond abrasive chain"

Tension diamond abrasive chain

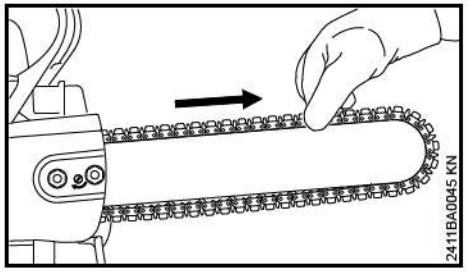


For retensioning during operation:

- Switch off the engine
- Put on protective gloves
- Loosen nuts
- Raise the guide bar at the nose
- Use the screwdriver to turn the screw (1) to the right until the distance (a) = approx. 5 mm

If the distance (a) = approx. 5 mm cannot be set due to an elongated diamond abrasive chain, move guide bar – see installing "guide bar and diamond abrasive chain".

- Raise the guide bar further and tighten the nuts securely

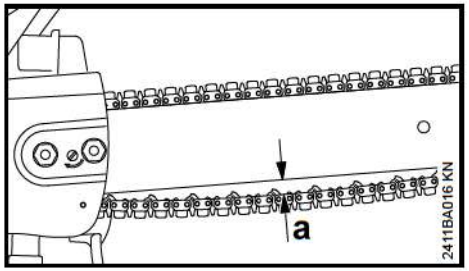


- Check tension of diamond abrasive chain – diamond abrasive chain can be pulled across the guide bar by hand

A new diamond abrasive chain must be retensioned more frequently than one that has been in use already for an extended period.

- Check chain tension frequently – see "Operating Instructions"

Check tension of diamond abrasive chain



- Switch off the engine
- Diamond abrasive chain can sag a maximum of a = 15 mm
- Retension diamond abrasive chain if necessary – see "Tensioning the diamond abrasive chain".

If the diamond abrasive chain sags too much, this leads to significantly increased wear of the cutting attachment.

A new diamond abrasive chain must be retensioned more frequently than one that has been in use already for an extended period.

- Check chain tension frequently – see "Operating Instructions"

Fuel

The engine requires a mixture of gasoline and engine oil.

WARNING

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

STIHL MotoMix

STIHL recommends using STIHL MotoMix. This pre-blended fuel is free of benzene and lead, stands out because of a high octane rating, and always provides the proper mixing ratio.

STIHL MotoMix is blended with STIHL HP Ultra two-stroke engine oil for maximum 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 poor 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.

Unleaded gasoline must be used in machines equipped with a catalytic converter.

NOTICE

Using multiple tankfuls of leaded gasoline can substantially reduce the effectiveness of the catalytic converter.

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 25% (E25).

Engine oil

Use only high-quality two-stroke engine oil – ideally **STIHL HP, HP Super or HP Ultra two-stroke engine oil, as they are specially engineered for STIHL engines. HP Ultra ensures maximum performance and engine life.**

The engine oils are not available in all markets.

Only **STIHL two-cycle engine oil 1:50** may be used to produce the fuel mixture for machines with a catalytic converter.

Mixing ratio

for STIHL two-cycle engine oil 1:50; 1:50 = 1 part oil + 50 parts gasoline

Examples

Quantity of gasoline	STIHL two-cycle engine oil 1:50	
Liters	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 ages – mix only as much as needed for a few weeks. Do not store fuel mixture for longer than three months. The fuel mixture can become unusable faster if exposed to light, sunlight or low or high temperatures.

- Shake the canister containing the fuel mixture thoroughly before refueling

WARNING

Pressure can build up inside the canister – open 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

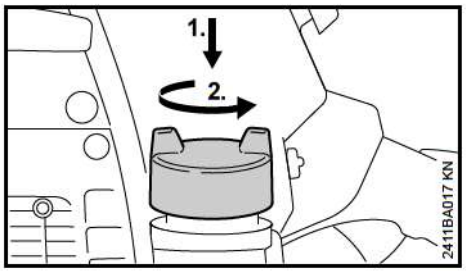
Preparing the machine

- Before fueling, clean the filler cap and the area around it so that dirt cannot fall into the tank
- Always position the machine so that the filler cap is facing upwards

WARNING

Never use a tool to open the bayonet filler cap. This could damage the cap and cause fuel to leak out.

Opening the twist lock

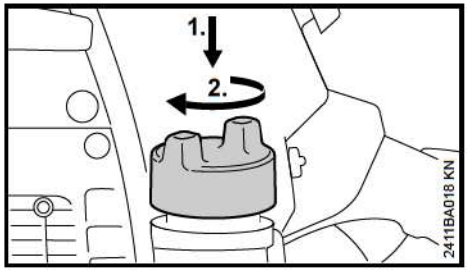


- Press the filler cap down as far as possible by hand, then turn it counterclockwise (approx. 1/8 turn) and remove

Refuel

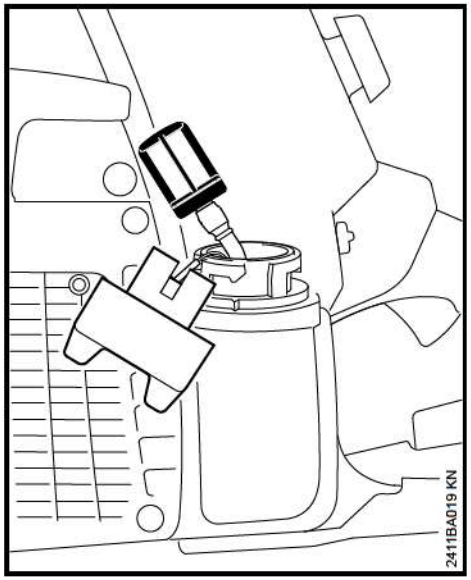
Take care not to spill fuel while fueling and do not overfill the tank. STIHL recommends use of the STIHL filling system for fuel (special accessory).

Closing the filler cap



- Fit the cap and turn it until it engages in the bayonet catch
- Press the cap down as far as possible with your hand and turn it clockwise (approx. 1/8 of a turn) until it engages properly

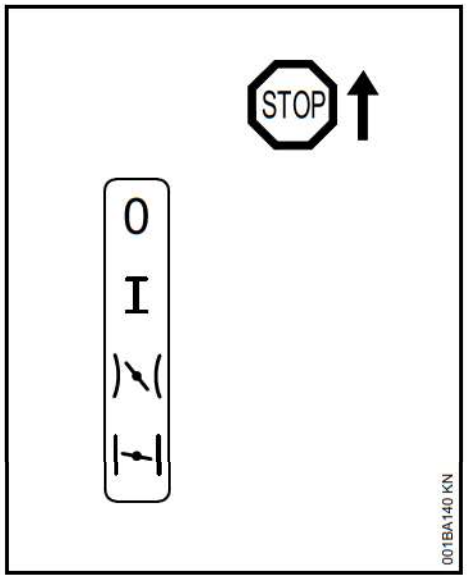
Changing the fuel pickup body every year



- Drain the fuel tank
- Pull the fuel pickup body out of the tank with a hook and disconnect it from the hose
- Connect a new fuel pickup body to the hose
- Return the fuel pickup body to the tank

Starting / Stopping the Engine

The four positions of the Master Control lever



STOP or **0** – engine off – ignition is switched off

Run I – engine is running or can start

Warm start)\(– this position is for starting the warm engine

Cold start |~| – this position is for starting the cold engine

Adjusting the Master Control lever

The throttle trigger lockout and throttle trigger must be pressed simultaneously to adjust the Master Control lever from run I to cold start |~|.

To set the Master Control lever to warm start)\(, first set it to cold start |~|, then push the Master Control lever into the warm start)\(position.

Changing to warm start)\(is only possible from the cold start |~| position.

When the throttle trigger is squeezed, the Master Control lever returns from warm start)\(to run I.

To switch off the engine, set the master control lever to **STOP** or **0**.

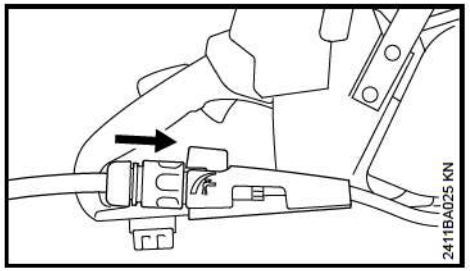
Position cold start |~|

- If the engine is cold
- If the engine stalls during opening of throttle after starting
- If the fuel tank has run empty (engine stalled out)

Position warm start)\(

- If engine is warm (once the engine has been running for approx. one minute)
- When the engine has fired for the first time
- After ventilation of the combustion chamber, if the engine was flooded

Connect concrete cutter to water supply network

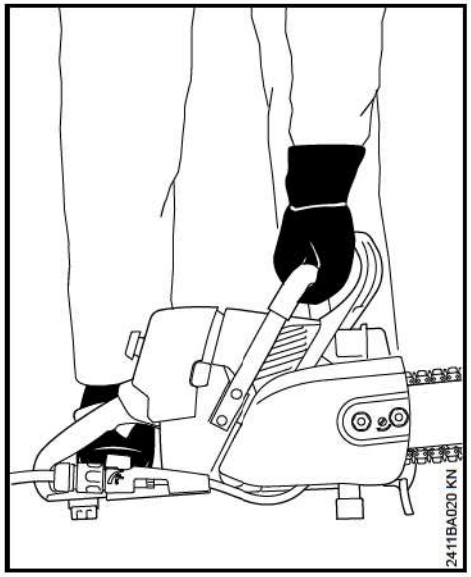


- Connect concrete cutter to water supply network (min. 1.5 bar)
- Before starting, open shut-off valve (arrow) completely

Hold concrete cutter

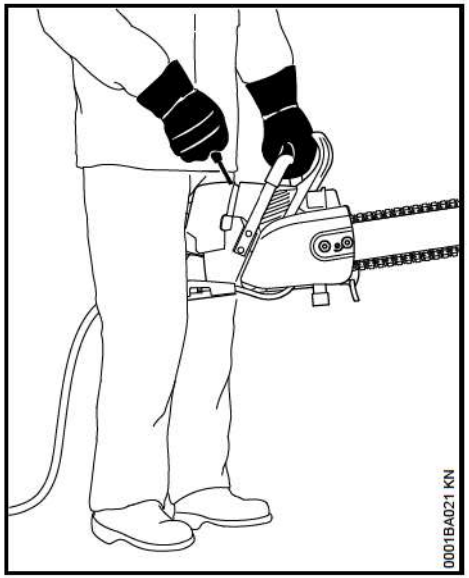
There are two ways to hold the concrete cutter during starting.

On the ground



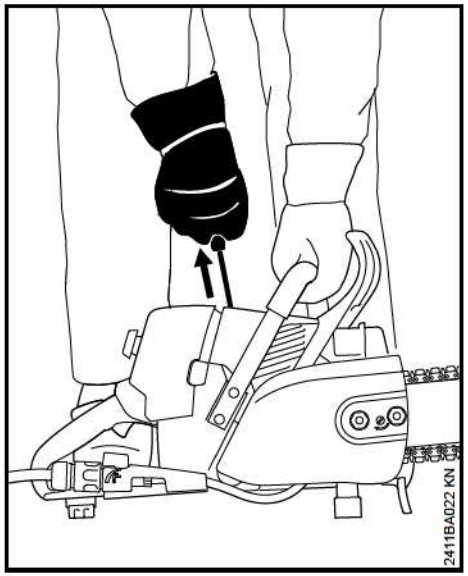
- Place the concrete cutter securely on the ground – assume a steady stance- the diamond abrasive chain must not touch any objects or the ground
- Press the concrete cutter firmly against the ground, holding the front handle with your left hand, thumb wrapped round the handle
- Place your right foot into the rear handle

Between the knees or thighs



- Clamp the rear handle between the knees or thighs
- Grip the handlebar firmly with the left hand – thumb wrapped around the handlebar

Starting

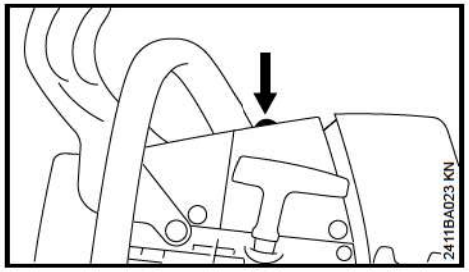


- With the right hand, pull the starter grip slowly until you feel it engage – and then give it a brisk strong pull – simultaneously press down on the handlebar – do not pull the starter rope out all the way – **risk of breakage!** Do not let the starter grip snap back – guide it vertically back into the housing so that the starter rope can rewind properly

Starting the concrete cutter

Before starting, open the shut-off valve completely and ensure a supply of water to the diamond abrasive chain – do not allow diamond abrasive chain to run dry.

Decompression valve

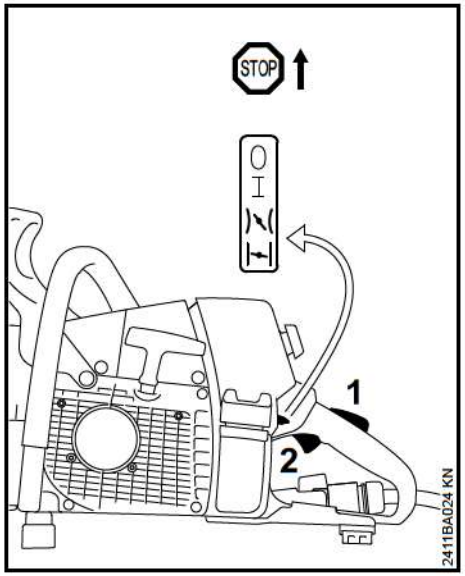


- Press the button, the decompression valve will be opened

The decompression valve is closed automatically when the engine fires for the first time. For this reason, press the button again before each additional starting attempt.

DANGER

There must not be anyone within the swivel range of the concrete cutter.



- Simultaneously press the throttle trigger lockout (2) and throttle trigger (3) – set the master control lever

Position cold start |⌐|

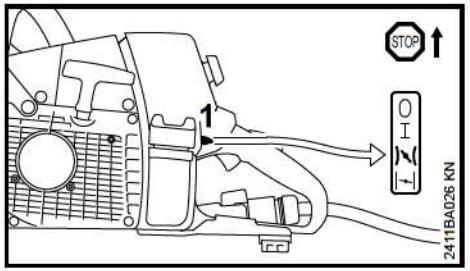
– If engine is cold (even if the engine has stalled during opening of throttle after starting)

Position warm start)⌐|

– If engine is warm (once the engine has been running for approx. one minute)

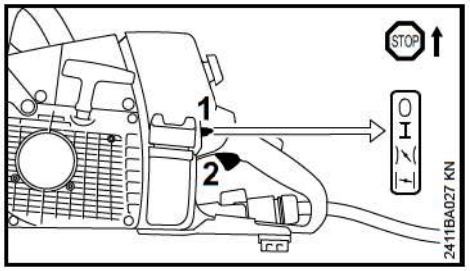
- Hold and start the concrete cutter

When the engine has turned over for the first time



- Move the Master Control lever (1) to the position warm start)\(
- Press the button on the decompression valve
- Hold and continue cranking the concrete cutter

Once the engine is running



- Blip the throttle trigger (2); the Master Control lever (1) jumps to run I and the engine begins to idle

The concrete cutter is now ready for use.

At very low temperatures

- Let the engine warm up briefly with the throttle slightly open

Switch off the engine

- Set master control lever to **STOP** or **0**

If the engine does not start

The Master Control lever was not returned to its "warm start" position)\(in time when the engine turned over for the first time and has now flooded.

- Remove the spark plug - see "Spark plug"
- Dry the spark plug
- Set master control lever to **STOP** or **0**
- Crank the engine several times with the starter – to clear the combustion chamber
- Reinstall the spark plug – see "Spark plug"
- Set the Master Control lever to warm start)\(– even if the engine is cold
- Restart the engine

Wet filter

- Dry wet filter if necessary – do not expose to extreme heat
- If the filter is very dirty, clean the filter thoroughly – see "Cleaning the air filter"

Operating Instructions

During the 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 unnecessarily 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 shortblock are greater during this period. The engine develops its maximum power after about 5 to 15 tank fillings.

During work

CAUTION

Always work with water.

CAUTION

Do not make the mixture leaner to achieve an apparent increase in power – this could damage the engine – see "Adjusting the Carburetor".

Check chain tension frequently

The diamond abrasive chain stretches and begins to sag. The drive links on the underside of the bar must not come out of the bar groove by more than 15 mm – the diamond abrasive chain may otherwise jump off the bar – retension the diamond abrasive chain – see "Tensioning the diamond abrasive chain".

If the diamond abrasive chain sags too much, this leads to significantly increased wear of the diamond abrasive chain and chain sprocket – retension the diamond abrasive chain – see "Tensioning the diamond abrasive chain".

A new diamond abrasive chain must be retensioned more frequently than one that has been in use already for an extended period.

After a long period of full-throttle operation

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

After finishing work

Short-term storage

Wait for engine to cool down. Keep the machine with a full tank of fuel in a dry place, well away from sources of ignition, until you need it again.

Clean and dry guide bar and diamond abrasive chain, and spray with STIHL multispray – in particular the bearing of the sprocket nose – corrosion protection. Do not spray engine unit!

Long-term storage

See "Storing the machine"

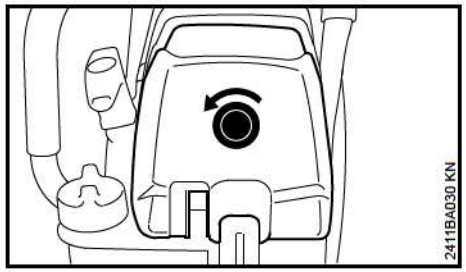
Air Filter System

When dry, STIHL filters attain a long service life.

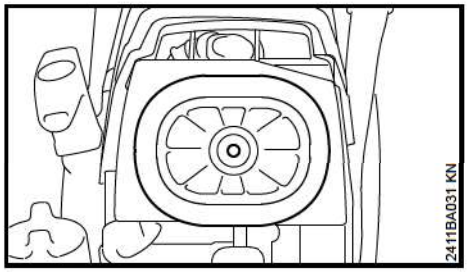
- Always use STIHL filters dry

Fouled air filters will impair engine performance, increase fuel consumption and make the machine more difficult to start.

Remove air filter



- Turn screw plug above the rear handle in the direction of the arrow and remove filter cover – screw plug is secured in the filter cover



- Detach the air filter

Do not remove and clean the auxiliary filter.

Cleaning the Air Filter

If there is a noticeable loss of engine power:

- Dry wet air filter if necessary – do not expose to extreme heat
- If the air filter is very dirty, clean the filter thoroughly

Thorough filter cleaning

- Wash the air filter in STIHL special-purpose cleaner (special accessory) or a clean, non-flammable cleaning liquid (e. g., warm soapy water) – rinse the air filter from inside to out under a water flow – do not use high-pressure washers
- Dry the air filter – do not expose to extreme heat, do not dry with compressed air
- Do not oil the air filter
- Reinstall air filter

Always replace a damaged air filter.

Adjusting the Carburetor

Basic information

The carburetor comes from the factory with a standard setting.

The carburetor has been adjusted for optimum performance and fuel efficiency in all operating states.

The adjusting screws on this carburetor can only be set within narrow limits.

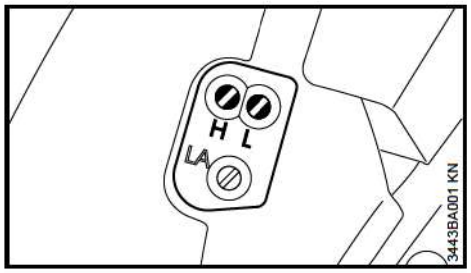
The ignition module limits the maximum speed. It is therefore not possible to increase the maximum speed by further turning the high speed screw (H) in the clockwise direction (making the mix leaner).

NOTICE

If you make the setting too lean it will increase the risk of engine damage through lack of lubrication and overheating.

Standard setting

- Switch off the engine
- Check the air filter – clean or replace it if necessary
- Check the spark arresting screen in the muffler (present only in some countries) – clean or replace it if necessary

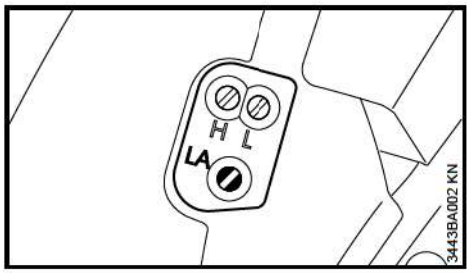


- Turn the high speed screw (H) counterclockwise as far as possible (max. 3/4 turn)
- Turn the low speed screw (L) clockwise – as far as possible – then back off 1/4 turn

Setting the idle speed

Before starting, open the shut-off valve completely and ensure a supply of water to the diamond abrasive chain – do not allow diamond abrasive chain to run dry.

Engine stops when idling or diamond abrasive chain rotates at idle speed

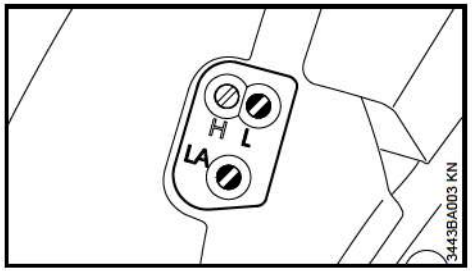


- Check standard setting
- Turn the idle speed adjusting screw (LA) clockwise until the diamond abrasive chain begins to run – then turn it back 1 1/2 turns.

WARNING

If the diamond abrasive chain continues to keep rotating in idle even after adjustment, have the concrete cutter checked by a servicing dealer.

Speed erratic when idling; poor acceleration (despite low speed screw = 1/4)



- Idle speed setting is too lean – turn the low speed adjusting screw (L) counterclockwise until the engine runs and accelerates smoothly

Whenever the low speed adjusting screw (L) has been adjusted, it is usually also necessary to readjust the idle speed adjusting screw (LA).

Correcting the carburetor setting for use at high altitudes

The setting may have to be marginally corrected if engine performance is unsatisfactory at high altitudes:

- Check standard setting
- Let the engine warm up
- Turn the high speed adjusting screw (H) slightly clockwise (leaner) – max. up to the stop

NOTICE

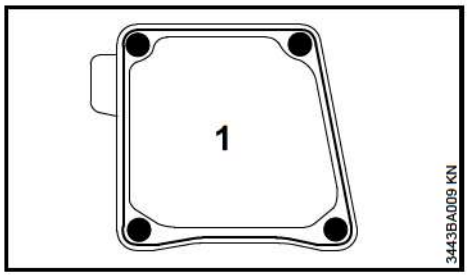
After descending from a high altitude, restore the carburetor setting to the standard setting.

If you make the setting too lean it will increase the risk of engine damage through lack of lubrication and overheating.

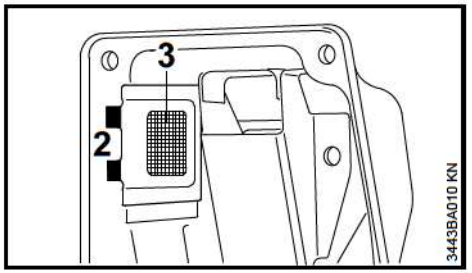
Spark Arresting Screen in Muffler

In some countries, the muffler is fitted with a spark arresting screen.

- If engine performance deteriorates, check the spark arresting screen in the muffler
- Let the muffler cool down



- Remove four screws
- Remove exhaust casing (1) of the muffler



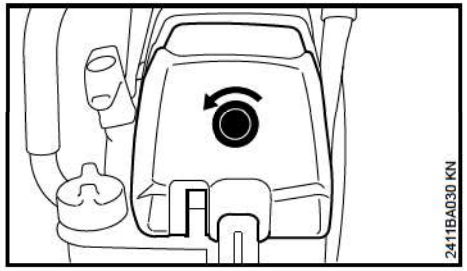
- Bend back the retaining lugs (2)
- Pull out spark arresting screen (3)
- Clean the dirty spark arresting screen, replace if damaged or heavily carbonized
- Refit the spark arresting screen in reverse order of steps

Spark Plug

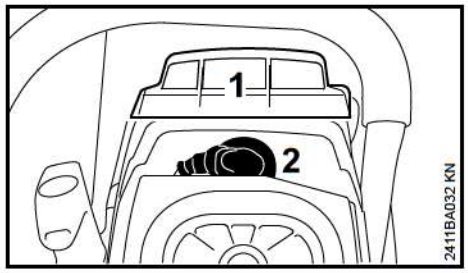
- If the engine is down on power, difficult to start or runs poorly at idle speed, first check the spark plug.
- Fit a new spark plug after about 100 operating hours – or sooner if the electrodes are badly eroded. Install only suppressed spark plugs of the type approved by STIHL – see "Specifications".

Remove the spark plug

- Remove coarse dirt from the machine

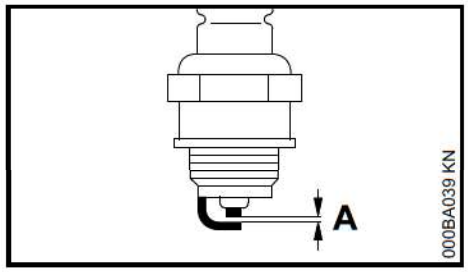


- Turn screw plug above the rear handle in the direction of the arrow and remove filter cover – screw plug is secured in the filter cover



- Lift the air baffle (1) up and off
- Unplug spark plug boot (2)
- Unscrew spark plug

Checking the spark plug



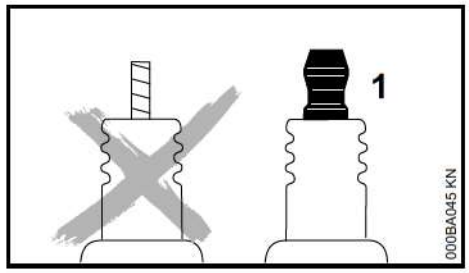
- Clean dirty spark plug.
- Check electrode gap (A) and readjust if necessary – see "Specifications".
- Rectify the problems which have caused fouling of the spark plug.

Possible causes are:

– Too much oil in fuel mix.

– Dirty air filter.

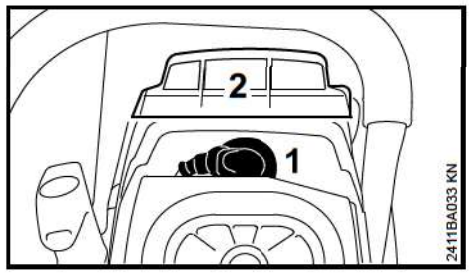
– Unfavorable running conditions.



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**.

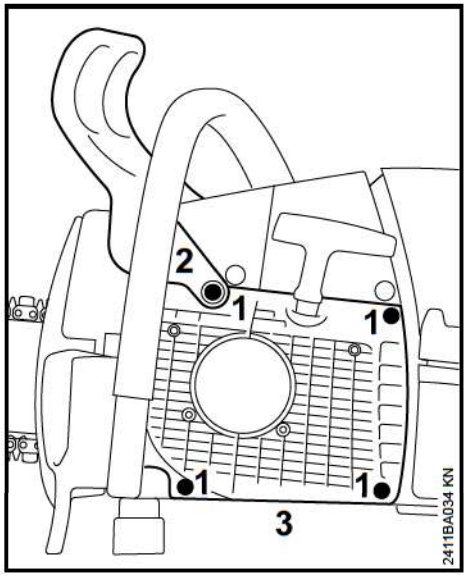
Installing the spark plug



- Install in the spark plug and tighten
- Press on the spark plug boot (1) firmly
- Insert the air baffle (2) from above
- Mount filter cover

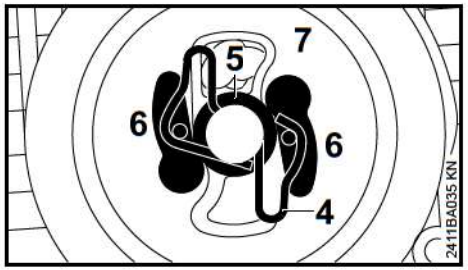
Replacing the Starter Rope and Rewind Spring

Removing the fan housing

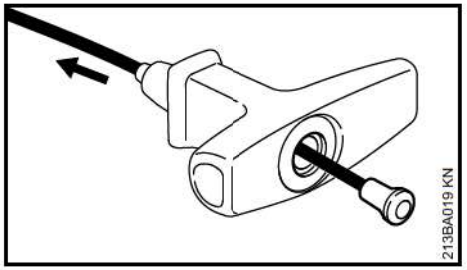


- Remove screws (1)
- Push the hand guard (2) upwards
- Pull the bottom of the fan housing (3) away from the crankcase and remove downwards

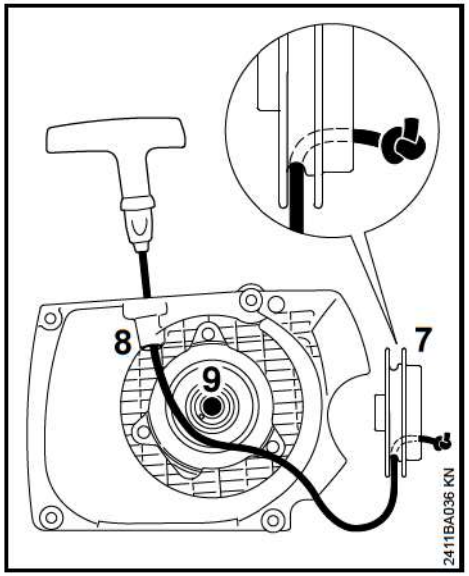
Replacing a torn starter rope



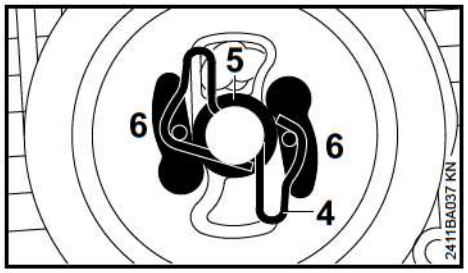
- Carefully press the spring clip (4) off of the axle with a screw driver or suitable pliers
- Remove washer (5)
- Remove the pawls (6)
- Remove the rope rotor (7)
- Lever the rope out of the starter handle with a screwdriver
- Remove the remainder of the rope from the rotor and starter handle



- Thread a new ElastoStart starter rope from top to bottom through the starter handle and
- Press the remaining rope into the handle until the nipple is flush with the handle

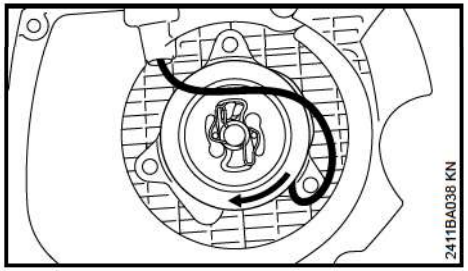


- Thread the starter handle with the starter rope from top to bottom through the rope guide bush (8)
- Pull the starter rope through the rope rotor (7) and secure it with an overhand knot
- Coat the bearing bore in the rope rotor with non-resinous oil
- Slip the rope rotor onto the starter post (9) – turn it back and forth a little until the anchor loop of the rewind spring engages



- Fit the pawls (6) in the rope rotor
- Place the washer (5) on the starter post
- Press the spring clip (4) on to the starter post and over the pegs of the pawls with a screwdriver or suitable pliers - note position of spring clip

Tension the rewind spring



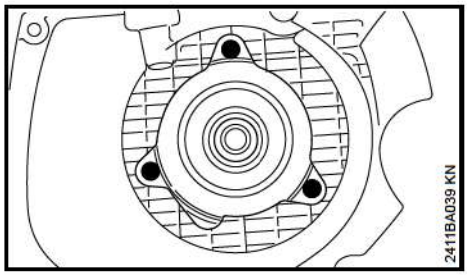
- Make a loop in the unwound starter rope and use it to turn the rope rotor six full revolutions in the direction of the arrow
- Hold the rope rotor tight – pull out the twisted rope and untangle it
- Release the rope rotor
- Slowly let go of the rope so that it winds on to the rotor. The starter grip must be drawn firmly into the rope guide bushing. If it tips sideways: increase the spring tension by another turn.
- It must be possible to turn the rope rotor another half-turn when the rope has been drawn out completely. If not, the spring has been tensioned too tightly **and may break!** Remove one turn of the rope from the rotor
- Install the fan housing
- Set master control lever to **STOP** or **0** and press the remaining rope into the handle – until the nipple is flush with the handle

Replacing broken rewind spring

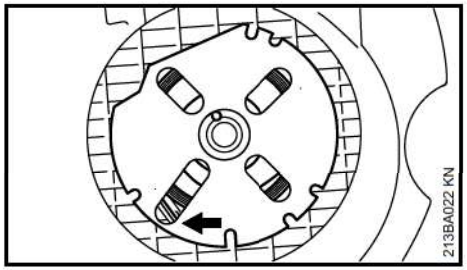
- Remove the rope rotor - see section "Replacing torn starter rope"

⚠ WARNING

The broken pieces of spring may still be under tension and can spring apart unexpectedly on removal – **risk of injury!** Wear a face shield and protective gloves.



- Undo the screws and remove the spring housing
- Carefully pry out the broken pieces of spring with a screwdriver
- Apply a few drops of non-resinous oil to the new replacement spring



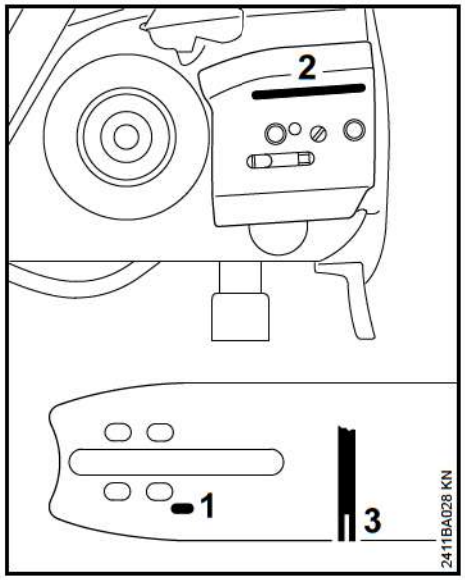
- Position the replacement spring with frame in the fan housing – the anchor loop (arrow) must be located over the retaining lug in the fan housing
- Apply suitable tools (screwdriver, punch, etc.) to the recesses and push the spring into its seat in the fan housing – the spring slides out of the frame holder.
- Remove spring housing, reinstall the rope rotor, tension the rewind spring, replace the fan housing and screw it into place

Storing the Machine

If the machine is to remain out of use for approx. 3 months or more

- Drain and clean the fuel tank in a well ventilated place
- Dispose of fuel in accordance with the regulations and having regard for the environment
- Run the engine until the carburetor is dry, this helps to prevent the carburetor diaphragms sticking together
- Remove, clean and dry diamond abrasive chain and guide bar, and spray with STIHL multispray – in particular the bearing of the sprocket nose – corrosion protection.
- Thoroughly clean the machine - pay special attention to the cylinder fins and air filter
- Store machine in a safe and dry place. Protect against unauthorized use (e. g., by children)

Taking Care of the Guide Bar



- Flip the guide bar – each time the chain is changed – to avoid uneven wear, especially at the sprocket nose and on the bottom
- Periodically clean the water inlet hole (1), water outlet channel (2) and bar groove (3)
- Measure groove depth – using the measuring tool on the file gauge (special accessory) – in the area with the greatest wear

If the groove is not at least 6 mm deep:

- Replace guide bar

Otherwise the drive links will grind against the base of the groove – tie straps will not lie against the bar.

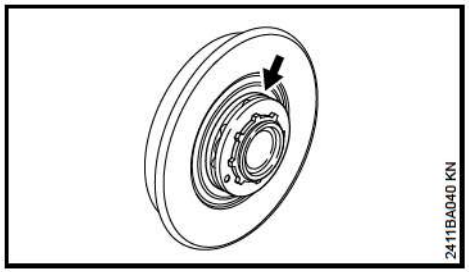
If the guide bar runs in the cut:

- Check guide bar for uneven wear (ridge offset)
- Flip the guide bar, if necessary remove the bore of the guide bar with guide bar straightener

Checking and Replacing the Chain Sprocket

- Remove chain sprocket cover, diamond abrasive chain and guide bar

Replacing rim sprocket



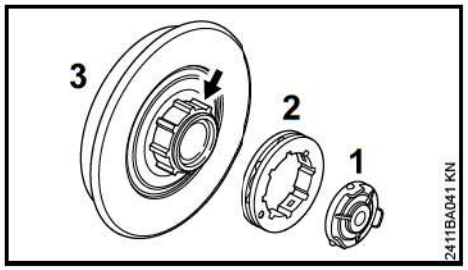
– If the diamond abrasive chain is being replaced, also replace the rim sprocket

– If the wear marks (arrows) are deeper than 0.5 mm – otherwise the service life of the diamond abrasive chain is reduced – use check gauge (special accessory) to test

Using two diamond abrasive chains in alternation helps preserve the chain sprocket.

Removing rim sprocket

If only the rim sprocket is removed, the clutch drum does not need to be removed.

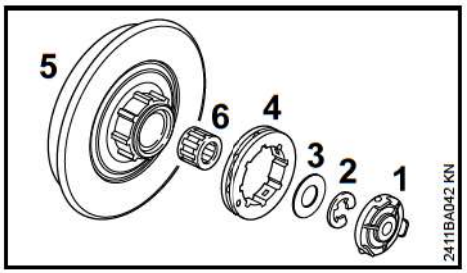


- Remove cap (1)
- Remove rim sprocket (2)
- Inspect transport profile on the clutch drum (3) – if there are also heavy signs of wear, also replace the clutch drum (3)

Installing rim sprocket

- Fit rim sprocket (2)
- Fit cap (1)

Replacing clutch drum



- Remove cap (1)
- Remove rim sprocket (4)
- Use a screwdriver to remove the E-clip (2)
- Remove washer (3)
- Remove clutch drum (5) with needle cage (6) from the crankshaft

Installing the clutch drum

- Clean crankshaft stub and needle cage and lubricate with STIHL lubricant (special accessory)
- Slip the needle cage onto the crankshaft stub.
- Fit clutch drum
- Fit rim sprocket
- Refit washer and E-clip on the crankshaft
- Fit cap

Maintain and sharpen diamond abrasive chain

Maintaining the diamond abrasive chain

After finishing work:

- Remove diamond abrasive chain and guide bar
- Rinse diamond abrasive chain and guide bar with water
- Dry diamond abrasive chain and guide bar
- Spray diamond abrasive chain and guide bar with STIHL multispray – in particular the bearing of the sprocket nose – corrosion protection

Check diamond abrasive chain regularly

- Check the diamond abrasive chain for cracks and damaged rivets
- Replace damaged or worn chain components – contact a servicing dealer

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

If cutting performance begins to deteriorate, check the sharpness of the diamond abrasive chain, resharpen as needed. To do this, briefly cut through abrasive material, e. g., sandstone, aerated concrete or asphalt.

Maintenance and Care

The following information applies under 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 tank is refilled	weekly	monthly	yearly	if faulty	if damaged	as required
Complete machine	visual inspection (condition, leaks)	X		X						
	clean		X							
Throttle trigger, throttle trigger lockout, master control lever	Checking operation	X		X						
Fuel pickup body in fuel tank	check							X		
	replace						X		X	X
Fuel tank	clean					X				
Water supply, chain lubrication	check	X								
Diamond abrasive chain	check, pay attention to sharpness	X		X						
	Check chain tension, retension if necessary; also check every 15 minutes while working, retension if necessary	X		X						
	sharpen									X
	clean and spray with STIHL multispray		X							
Guide bar	check (wear, damage, action of sprocket nose)	X								
	clean and spray with STIHL multispray		X							
	flip									X
	deburr				X					
	replace								X	X
Chain sprocket	check, replace if necessary	X[3)]						X	X	
Air filter	clean							X		X
	replace								X	
Antivibration elements	check	X						X		
	have them replaced by a specialist dealer[1)]								X	
Cooling air intake slits	clean		X							

The following information applies under 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 tank is refilled	weekly	monthly	yearly	if faulty	if damaged	as required
Cylinder fins	clean		X			X				
Carburetor	Check idle adjustment – chain must not rotate	X		X						
	Set the idle speed									X
Spark plug	adjust electrode gap							X		
	replace after 100 hours' operation									
All accessible screws, nuts and bolts (not adjusting screws)[2)]	retighten									X
Spark arresting screen (present only in some countries)	check[1)]							X		
	clean or replace if necessary[1)]								X	
Exhaust bore	decarbonise after 139 hours of operation, subsequently after every 150 hours of operation									X
Safety information labels	replace								X	

1) STIHL recommends STIHL servicing dealers

2) During initial use, tighten the cylinder block screws after 10 to 20 hours of operation

3) If diamond abrasive chain is mounted or changed

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:

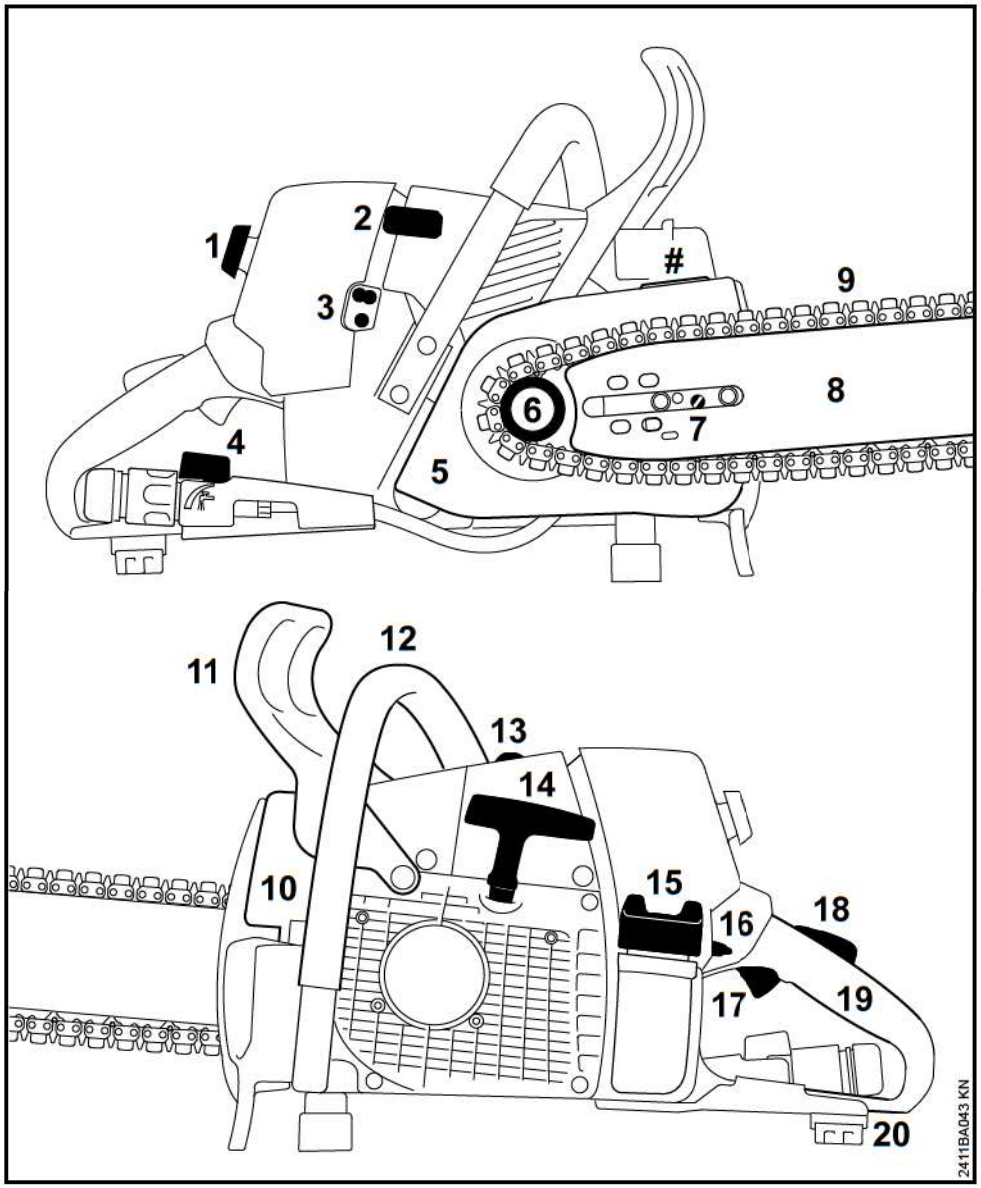
- Damage to the engine due to neglect or deficient maintenance (e.g. air and fuel filters), incorrect carburetor adjustment or inadequate cleaning of cooling air inlets (intake ports, cylinder fins).
- Corrosion and other consequential damage resulting from improper storage.
- Damage to the machine resulting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

- Diamond abrasive chain, guide bar
- Drive components (clutch, clutch drum, chain sprocket)
- Filters (air, fuel)
- Rewind starter
- Spark plug
- Components of antivibration system

Main Parts



1 Twist lock
2 Spark plug boot
3 Carburetor adjusting screws
4 Water connection, shut-off cock
5 Chain sprocket cover
6 Chain sprocket
7 Chain tensioner
8 Guide bar
9 Diamond abrasive chain
10 Muffler
11 Front hand guard
12 Front handle (handlebar)
13 Decompression valve
14 Starter grip
15 Fuel filler cap
16 Master Control lever
17 Throttle trigger
18 Throttle trigger lockout
19 Rear handle
20 Rear hand guard
Serial number

Specifications

Engine

STIHL single cylinder two-stroke engine

Displacement:	76.5 cm^3
Bore:	52 mm
Stroke:	36 mm
Engine power to ISO 7293:	4.3 kW (5.8 HP) at 9,800 rpm
Idle speed:	2,500 rpm
Engine cut-off speed:	13,500 rpm

Ignition System

Electronic magneto ignition

Spark plug (resistor type):	Bosch WSR 6 F, NGK BPMR 7 A
Electrode gap:	0.5 mm

Fuel System

All position diaphragm carburetor with integral fuel pump

Fuel tank capacity:	0.78 L

Weight

dry, without bar and chain:	7.6 kg

Cutting Attachment (GS 461)

Rollomatic G guide bar

Bar lengths (3/8" pitch):	40 cm
Groove width:	1.6 mm

3/8" diamond abrasive chain

36 GBM, Type 3210

Pitch:	3/8" (9.32 mm)
Drive link gauge:	1.6 mm

Chain sprockets

7-tooth for 3/8" (rim sprocket)

Sound and vibration levels

When determining sound and vibration levels, idling and full load are taken into account in a ratio of 1:6.

For further details concerning compliance with the Physical Agents Directive Vibration 2002/44/EC, see www.stihl.com/vib.

Sound pressure level L_{peq} to ISO 11201

105 dB(A)

Sound power level L_{weq} to ISO 11201

115 dB(A)

Vibration level $a_{hv,eq}$ to ISO 19432

	Handle, left	Handle, right
GS 461	4.5 m/s^2	4.0 m/s^2

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^2 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.

Special Accessories

- Check gauges
- STIHL grease
- STIHL filling system for fuel – prevents spillage or overfilling during filling
- Guide bar straightener

Ask your STIHL servicing dealer for current information about this and other special accessories.

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.

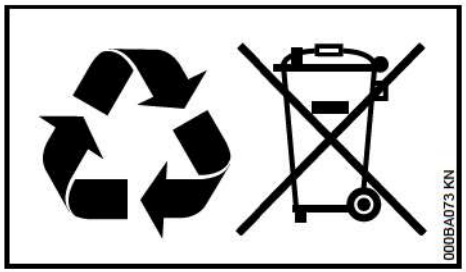
When repairing the machine, only use replacement parts which have been approved by STIHL for this power tool or are technically identical. Only use high-quality replacement parts in order to avoid the risk of accidents and damage to the machine.

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.



Do not throw your STIHL product 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

hereby confirms that

Model:	Stone cutter
Make:	STIHL
Type:	GS 461
Serial identification number:	4252
Displacement:	76.5 cm^3

conform to the specifications of Directives 2006/42/EC and 2004/108/EC and have been developed and built in compliance with the following standards:

EN ISO 12100, EN 55012, EN 61000-6-1

The technical documentation has been retained by:

ANDREAS STIHL AG & Co. KG
Product approval

The year of construction and the serial number are shown on the machine.

Waiblingen, 03.05.2012

ANDREAS STIHL AG & Co. KG

p p.

Elsner

Head of Product Group Management

Quality Certification

All STIHL products comply with the highest quality standards.

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

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