

**STIHL**<sup>®</sup>

**STIHL FS 36**

**Instruction Manual**



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Allow only persons who understand this manual to operate your trimmer. To receive maximum performance and satisfaction from your STIHL trimmer, it is important that you read and understand the maintenance and safety precautions before using your trimmer. Contact your STIHL dealer or the STIHL distributor for your area if you do not understand any of the instructions in this manual.

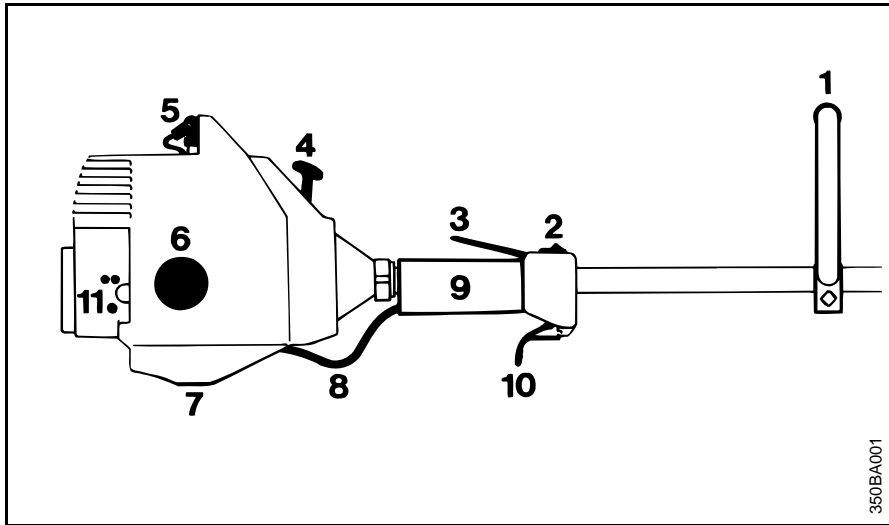
### **Warning!**

Because a trimmer is a high-speed cutting tool some special safety precautions must be observed to reduce the risk of personal injury. Careless or improper use may cause serious or even fatal injury. Make sure your unit is equipped with the proper deflector, handle and harness for the type of cutting attachment being used. Always wear proper eye protection. STIHL's philosophy is to continually improve all of its products. As a result, engineering changes and improvements are made from time to time. If the operating characteristics or the appearance of your trimmer differ from those described in this manual, please contact your STIHL dealer for information and assistance.

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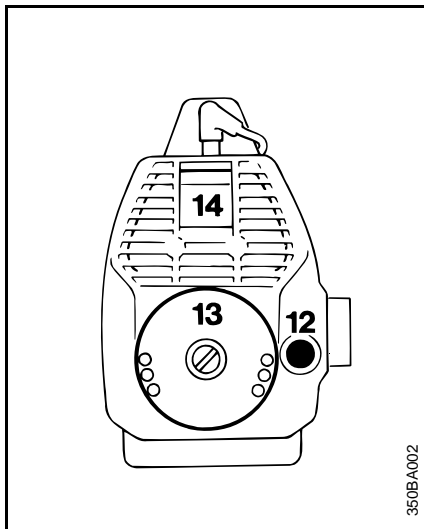
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## Parts and Controls



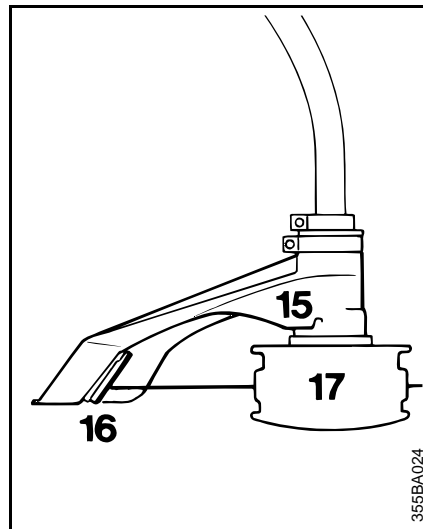
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- 1 = Loop handle
- 2 = Stop slide
- 3 = Throttle trigger interlock
- 4 = Starter grip
- 5 = Spark plug boot
- 6 = Fuel filler cap
- 7 = Machine support
- 8 = Throttle cable
- 9 = Handle hose
- 10 = Throttle trigger
- 11 = Carburetor adjusting screws



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- 12 = Fuel pump
- 13 = Air filter cover / Choke
- 14 = Muffler  
(with spark arrester screen)
- 15 = Deflector
- 16 = Line limiting blade
- 17 = Mowing head



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## Definitons

- 1. Loop handle**  
For easy control of machine during cutting work.
- 2. Stop slide**  
Switches the engine's ignition system off and stops the running engine.
- 3. Throttle trigger interlock.**  
Must be depressed before the throttle trigger can be activated.
- 4. Starter grip**  
The grip of the pull starter, which is the device to start the engine.
- 5. Spark plug boot**  
Connects the spark plug to the ignition wire.
- 6. Fuel filler cap**  
For closing the fuel tank.
- 7. Machine support**  
For resting machine on the ground.
- 8. Throttle cable**  
Connect operator's control grip to the powerhead
- 9. Handle hose**  
For holding machine during starting and cutting work.
- 10. Throttle trigger**  
Controls the speed of the engine.
- 11. Carburetor adjustment screws**  
For tuning carburetor.
- 12. Fuel pump**  
Provides additional fuel feed for a cold start.
- 13. Air filter cover/Choke**  
Covers the air filter element/Eases engine starting by enriching mixture.
- 14. Muffler**  
Attenuates exhaust noises and diverts exhaust gases away from operator.
- 15. Deflector**  
The defector is designed to reduce the risk of injury from foreign objects flung backwards toward the operator by the cutting tool and from contact with the cutting tool.
- 16. Line limiting blade**  
Metal blade at the deflector in order to keep the line of the cutting head at the proper length.
- 17. Mowing head**  
The cutting head is intended to supplement a lawn mower (special accessory).

## Safety Precautions and Working Techniques



### Warning!

Because a trimmer is a high-speed, fast-cutting power tool, special safety precautions must be observed to reduce the risk of personal injury.



It is important that you read, fully understand and observe the following safety precautions and warnings. Read the owner's manual and the safety instructions periodically. Careless or improper use of any trimmer may cause serious or fatal injury. Have your STIHL dealer show you how to operate your trimmer. Observe all applicable local safety regulations, standards and ordinances.



### Warning!

The use of any trimmer may be hazardous. If the rotating cutting tool comes in contact with your body, it will cut you. When it comes in contact with solid foreign objects such as rocks or bits of metal, it may fling them directly or by ricochet in the direction of bystanders or the operator. Striking such objects could damage the cutting attachment. Thrown objects or damaged cutting tools may result in serious or fatal injury to the operator or bystanders.



### Warning!

Minors should never be allowed to use a trimmer. Bystanders, especially children, and animals should not be allowed in the area where a trimmer is in use.

Never let the trimmer run unattended.



### Warning!

Do not lend or rent your trimmer without the owner's manual. Be sure that anyone using your trimmer understands the information contained in this manual.

Most of these safety precautions and warnings apply to the use of all STIHL trimmers. Different models may have different parts and controls. See the appropriate section of your owner's manual for a description of the controls and function of the parts of your model trimmer.

Safe use of a trimmer involves

1. the operator
2. the trimmer
3. the use of the trimmer.

## THE OPERATOR!

### Physical Condition

You must be in good physical condition and mental health and not under the influence of any substance (drugs, alcohol, etc.) which might impair vision, dexterity or judgment. Do not operate a trimmer when you are fatigued.

Be alert - if you get tired while operating your trimmer, take a break. Tiredness may result in loss of control. Working with any trimmer can be strenuous. If you have any condition that might be aggravated by strenuous work, check with your doctor before operating a trimmer.



### Warning!

Prolonged use of a trimmer (or other machines) exposing the operator to vibrations may produce whitefinger disease (Raynaud's phenomenon) or carpal tunnel syndrome. These conditions reduce the hand's ability to feel and regulate temperature, produce numbness and burning sensations and may cause nerve and circulation damage and tissue necrosis.

All factors which contribute to whitefinger disease are not known, but cold weather, smoking and diseases or physical conditions that affect blood vessels and blood transport, as well as high vibration levels and long periods of exposure to vibration are mentioned as factors in the develop-

ment of whitefinger disease. In order to reduce the risk of whitefinger disease and carpal tunnel syndrome, please note the following:

- Most STIHL power tools are available with an anti-vibration ("AV") system designed to reduce the transmission of vibrations created by the engine to the operator's hands. An AV system is recommended for those persons using power tools on a regular or sustained basis.
- Wear gloves and keep your hands warm.
- Keep the AV system well maintained. A trimmer with loose components or with damaged or worn AV buffers will tend to have higher vibration levels.
- Maintain a firm grip at all times, but do not squeeze the handles with constant, excessive pressures, take frequent breaks.

All the above mentioned precautions do not guarantee that you will not sustain whitefinger disease or carpal tunnel syndrome. Therefore continual and regular users should monitor closely the condition of their hands and fingers. If any of the above symptoms appear, seek medical advice immediately.

### Proper Clothing



#### Warning!



Trimmer operation can cause serious injury to eyes, ears and person. The deflector provided with your trimmer may not protect the operator from all foreign objects (gravel, glass, wire, etc.) thrown by the rotating cutting attachment. Thrown objects may also ricochet and strike the operator. Therefore, to reduce the risk of injury to your eyes never operate a trimmer unless wearing goggles or properly fitted safety glasses with adequate top and side protection complying with ANSI Z 87.1 (or your applicable national standard). To reduce the risk of injury to your face STIHL recommends that you also wear a face shield or face screen over your goggles or safety glasses.



#### Warning!



Trimmer noise may damage your hearing. Wear sound barriers (ear plugs or ear muffs) to protect your hearing. Continual and regular users should have their hearing checked regularly.

Wear proper protective clothing.



Protect your hands with gloves when handling the trimmer and the cutting tool. Heavy-duty, nonslip gloves improve your grip and protect your hands.



Clothing must be sturdy and snug-fitting, but allow complete freedom of movement. Avoid loose-fitting jackets, scarfs, neckties, jewelry, flared or cuffed pants, unconfined long hair or anything that could become caught on branches, brush or moving parts of the unit. Wear long pants made of heavy material to protect your legs. Do not wear shorts, pants, sandals or go bare foot. Secure hair so it is above shoulder level.



Good footing is most important in trimmer work. Wear sturdy boots with nonslip soles. Steeltoed safety boots are recommended.

## THE TRIMMER

For illustrations and definitions of the trimmer parts see the chapter on "Parts and Controls"

### Warning!

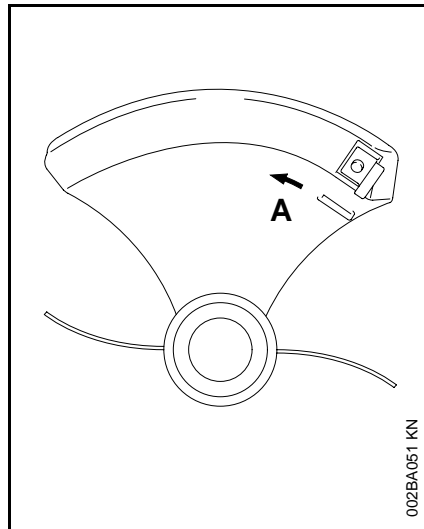
Never modify a trimmer in any way. Only attachments supplied by STIHL or expressly approved by STIHL for use with the specific STIHL trimmer models are authorized. Although certain unauthorized attachments are useable for the STIHL trimmer, their use may, in fact, be extremely dangerous.

### Warning!



Improper use of any trimmer can cause serious or fatal personal injury.

Read and understand all safety instructions in your owner's manual before use and follow them carefully. To reduce the risk of injury to operator from blade contact, metal blades may be used on FS-trimmers equipped with a bicycle, "J" handle or loop handle with barrier bar and not on those FS- and FE-models with a loop handle. Never use any metal cutting attachment on a FS-model that has a flexible shaft.



## THE USE OF THE TRIMMER

### Transporting the trimmer

#### Warning!

Always turn off the engine and make sure the cutting attachment has stopped before putting a trimmer down. When transporting your trimmer in a vehicle, properly secure it to prevent turnover, fuel spillage and damage to the trimmer.

### Preparation for the use of the trimmer

Adjust hand grip according to instructions in the owner's manual to suit your size before starting work.


Always check your trimmer for proper condition and operation before starting, particularly the throttle trigger, throttle trigger interlock (if applicable), stop switch, cutting tool, and deflector.

Arrows on the deflector (**A**) show the correct direction of rotation of the cutting tool.

The throttle trigger must move freely and always spring back to the idle position. The cutting tool must be properly tightened and in safe operating condition. Inspect for loose parts (nuts, screws, etc.).

### Fueling

Your STIHL trimmer uses an oil-gasoline mixture for fuel (see the chapter on "Fuel" of your owner's manual).

 **Warning!**
 Gasoline is an extremely flammable fuel. If spilled and ignited by a spark or other ignition source, it can cause fire and serious burn injury or property damage. Use extreme caution when handling gasoline or fuel mix.

Do not smoke or bring any fire or flame near the fuel.

### Fueling Instructions

Fuel your trimmer in well-ventilated areas, outdoors.

 **Warning!**

Gasoline vapor pressure may build up inside the gas tank of a two cycle engine depending on the fuel used, the weather conditions, and the venting system of the tank. In order to reduce the risk of burns and other personal injury from escaping gas vapor and fumes, remove the fuel filler cap on your trimmer carefully so as to allow any pressure build-up in the tank to release slowly. Never remove fuel filler cap while engine is running. Select bare ground for fueling and move at least 10 feet (3 m) from the fueling spot before starting the engine. Wipe off any spilled fuel before starting your trimmer and check for leakage.

 **Warning!**

Check for fuel leakage while refueling and during operation. If fuel or oil leakage is found, do not start or run the engine until leak is fixed and spilled fuel has been wiped away. If this happens, change your clothing immediately.

 **Warning!**


Unit vibrations can cause an improperly tightened fuel cap to loosen or come off and spill quantities of fuel.

In order to reduce risk of fuel spillage and fire, tighten fuel cap by hand with as much force as possible. The screwdriver end of the STIHL combination wrench or other similar tool can be used as an aid for tightening slotted fuel caps.

### Starting

 **Warning!**

Your trimmer is a one-person machine. Once started, it may fling foreign objects for a great distance.



To reduce the risk of eye and other injury insure that bystanders are at least 50 feet (15 m) away. Stop the engine and cutting tool immediately if you are approached. Start and operate your trimmer without assistance. For specific starting instructions, see the appropriate section of your manual. Place the trimmer on firm ground or other solid surface in an open area. Maintain a good balance and secure footing.



**Warning!**

To reduce the risk of injury from loss of control, be absolutely sure that the cutting tool is clear of you and all other obstructions and objects, including the ground, because when the engine starts at starting-throttle, engine speed will be fast enough for the clutch to engage and turn the cutting tool.

**Warning!**

When you pull the starter grip, don't wrap the starter rope around your hand. Do not allow the grip to snap back, but guide the starter rope to rewind it properly. Failure to follow this procedure may result in injury to hand or fingers and may damage the starter mechanism.

With the engine running but at idle, attach the trimmer to the spring hook of your harness (see appropriate chapter of this manual).

**Working Conditions**

Operate and start your trimmer only outdoors in a ventilated area.

**Warning!**

Your trimmer produces toxic exhaust fumes as soon as the engine is running. These gases (e.g. carbon monoxide) may be colourless and odourless. To reduce the risk of serious or fatal injury from inhaling toxic fumes, never run the trimmer indoors or in poorly ventilated locations.

**Warning!**

Use of this product can generate dust and fumes containing chemicals known to cause respiratory disease, cancer, birth defects, or other reproductive harm. If you are unfamiliar with the risks associated with the particular dust or fume at issue, consult your employer, governmental agencies such as OSHA and NIOSH and other sources on hazardous materials. California and some other authorities, for instance, have published lists of substances known to cause cancer, reproductive toxicity, etc.

Control dust and fumes at the source where possible. In this regard use good work practices and follow the recommendations of OSHA/NIOSH and occupational and trade associations. When the in-

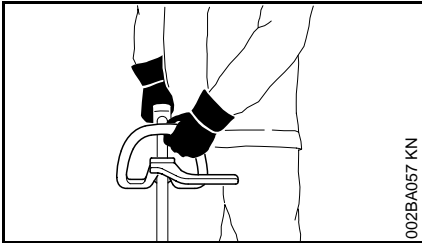
halation of toxic dust and fumes cannot be eliminated, the operator and any bystanders should always wear a respirator approved by NIOSH/MSHA for the type of dust and / or fumes encountered.

**Warning!**

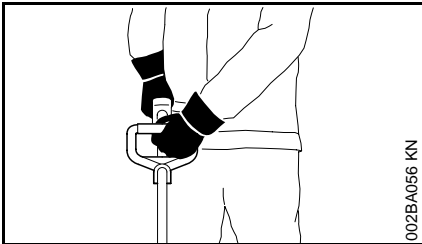
The muffler and other parts of the engine (e.g. fins of the cylinder, spark plug) become hot during operation and remain hot for a while after stopping the engine. To reduce risk of burns do not touch the muffler and other parts while they are hot.

Operate the trimmer under good visibility and daylight conditions only. Work carefully.

Do not cut any material other than grass, weed or similar soft vegetation. The cutting tools may be used only for the operations described in your manual.



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Always hold the trimmer firmly with both hands. Wrap your fingers tightly around the handles, keeping the handles cradled between your thumb and fore-finger. Keep your hands in this position, to have your trimmer under control at all times. Make sure your trimmer handles and grip are in good condition and free of moisture, pitch, oil or grease.

**Warning!**

Never attempt to operate any trimmer with one hand. Loss of control of the trimmer resulting in serious or fatal injury may result.

To reduce the risk of bodily injury resulting from loss of control and/or contact with the cutting tool, make sure

your unit is equipped with the proper handle and harness for the type of cutting attachment being used (see chart in chapter on "Selecting the Cutting Tool").

Special care must be taken in slippery conditions (wet ground, snow) and in difficult, overgrown terrain. Watch for hidden obstacles such as tree stumps, roots and ditches to avoid stumbling.



Before cutting, inspect the area for stones, glass, pieces of metal, trash or other solid objects. The cutting attachment could throw objects of this kind.



To reduce the risk of injury from thrown objects and blade contact, never operate a trimmer without a properly mounted deflector. Keep the deflector (and the skirt where appropriate) adjusted properly at all times (see chapter on mounting the various cutting tools of your owner's manual). Do not overreach. Keep proper footing and balance at all times.

**Warning!**

This trimmer is normally to be used at ground level with the cutting attachment parallel to the ground. Use of a trimmer above ground level or with the cutting

attachment perpendicular to the ground may increase the risk of injury, since the cutting attachment is more fully exposed and the trimmer may be more difficult to control. Never use your trimmer as a hedge trimmer.

Do not operate using the starting throttle lock as you do not have control of the engine speed. See section of your owner's manual on the proper use of the slide control.

If the cutting tool or deflector becomes clogged or stuck, always turn off the engine and make sure the cutting tool has stopped, before cleaning. Grass, weeds, etc. should be cleaned off the cutting tool at regular intervals.

**Warning!**

During cutting, check the tightness and the condition of the cutting tool at regular intervals. If the behavior of the tool changes, stop the engine immediately, and check the nut securing the tool for tightness and the cutting tool for cracks and damage. Replace damaged cutting tools immediately. Such tools may shatter at high speed and cause serious or fatal injury.



**Warning!**

Keep hands and feet away from cutting tool. Never touch a rotating cutting tool with your hand or any part of your body. It continues to rotate for a short period after the throttle trigger is released (flywheel effect).

### Important adjustments



**Warning!**

To reduce the risk of personal injury from loss of control or contact with the running cutting tool, do not use a cutting tool with incorrect idle adjustment. At correct idle speed, the cutting tool should not move. For directions on how to adjust idle speed, see the appropriate section of your owner's manual.

If you cannot set the correct idle speed, have your STIHL dealer check your trimmer and make proper adjustments and repairs

### MAINTENANCE, REPAIR AND STORING

**Maintenance, replacement, or repair of the emission control devices and systems may be performed by any nonroad engine repair establishment or individual. However if you claim warranty for a component which has not been serviced or maintained properly or if nonapproved replacement parts were used, STIHL may deny warranty.**

Use only identical STIHL replacement parts for maintenance and repair. Use of non-STIHL parts may cause serious or fatal injury. Follow the maintenance and repair instructions in the appropriate section of your owner's manual. Please refer to the maintenance chart on the last pages of this manual.



**Warning!**

Always stop the engine and make sure that the cutting tool is stopped before doing any maintenance or repair work or cleaning the trimmer. Do not attempt any maintenance or repair work not described in your owner's manual. Have such work performed at your STIHL service shop only.



**Warning!**

Never repair damaged cutting attachments by welding, straightening or modifying the shape. This may cause parts of the cutting tool to come off and result in serious or fatal injuries.



**Warning!**

Check condition of cutting tool at regular short intervals. If behavior of tool changes, check it immediately for tightness or any signs of cracks in particular. Replace damaged or dull cutting tools immediately, even if they have only superficial cracks. If the blade loosens after being properly tightened, the retaining nut may be worn or damaged and should be replaced. If the blade continues to loosen, see your STIHL dealer.



**Warning!**

To reduce the risk of fire and burn injuries, check fuel filler cap for leaks at regular intervals. Use the specified spark plug and make sure it and the ignition lead are always in good condition.

 **Warning!**

Never test the ignition system with ignition wire terminal removed from spark plug or with unseated spark plug, since uncontained sparking may cause a fire.

 **Warning!**

To reduce the risk of fire and burn injury, use only spark plugs authorized by STIHL. Always press spark plug boot snugly onto spark plug terminal of the proper size. (Note: If terminal has detachable SAE adapter nut, it must be attached.) A loose connection between spark plug terminal and ignition wire connector in the boot may create arcing that could ignite combustible fumes and cause a fire. Keep spark plug clean, and make sure ignition lead is in good condition.

 **Warning!**

Do not operate your trimmer if the muffler is damaged, missing or modified. An improperly maintained muffler will increase the risk of fire and hearing loss. Never touch a hot muffler or burn will result. If your muffler was equipped with a spark-arresting screen to reduce the risk of fire (e.g. in the USA, Canada and Australia), never operate your trimmer if the screen is missing or damaged. Do not modify or remove any part of the muffler or spark arresting screen.

Remember that the risk of forest fires is greater in hot or dry weather.

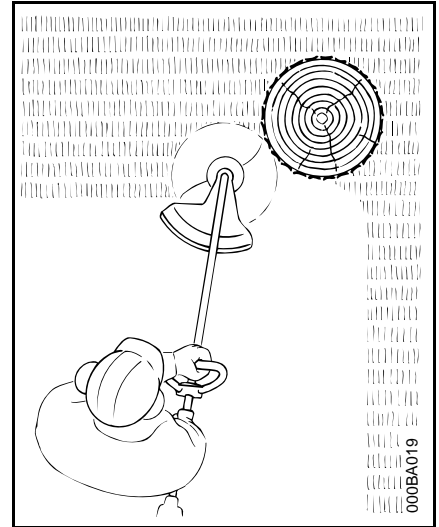
Tighten all nuts, bolts and screws, except the carburetor adjustment screws, after each use.

Additionally, the daily maintenance schedule for your trimmer set forth in your STIHL Owner's Manual should be strictly followed.

For any maintenance please refer to the maintenance chart **and to the warranty statement** near the end of this manual.

Store trimmer in a dry, high or locked location out of reach of children.

Before storing for longer than a few days, always empty the fuel tank.



## USING THE CUTTING TOOLS

For an illustration of the various cutting tools and instructions on proper mounting see the chapter on "mounting the cutting tools" in your owner's manual.

### Using the mowing heads

The STIHL Autocut and Polycut mowing heads produce a clean and tidy finish.

They are to be used only on trimmers equipped with a limiter blade in the deflector in order to keep the line at the proper length (see "Parts and Controls" chapter of this manual).

If the lawn edges are planted with trees or bordered by a fence etc., it is best to use a nylon line head. It achieves a "softer" cut with less risk of damaging tree bark etc. than with the polymer blades.

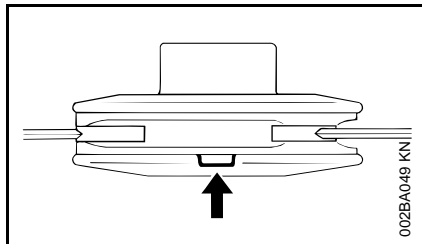
However, the polymer bladed STIHL "Polycut" produces a better cut if there are no plants along the edge of the lawn. Sharpening is not necessary and worn cutting blades are easily replaced.

**Warning!**

To reduce the risk of serious injury, never use wire or metal-reinforced line or other material in place of the nylon cutting lines. Pieces of wire could break off and be thrown at high speed toward the operator or bystanders.

**STIHL "Autocut" mowing head**

Nylon cutting cord advances automatically when tapped against the ground.

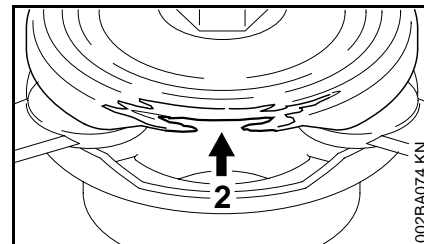
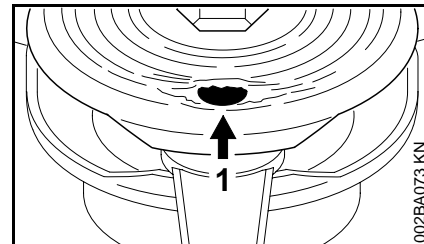


**STIHL "Polycut" mowing head**

Uses either nylon lines or nonrigid plastic blades

**Important!**

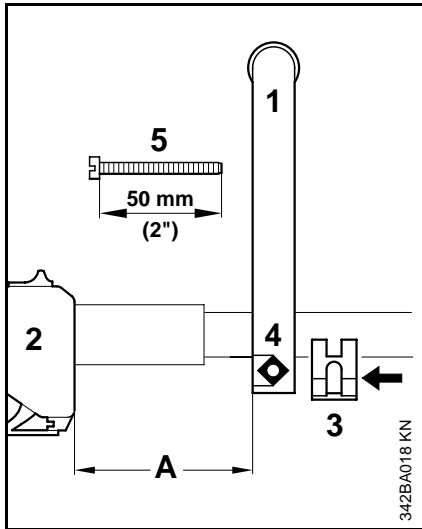
Three rectangular wear limit marks are applied to the base (periphery) of the Polycut 10-3. To reduce the risk of serious injury from breakage of the head or blades, the Polycut must not be used when it has worn as far as one of these marks. It is important to follow the maintenance instructions supplied with the head!



**Warning!**

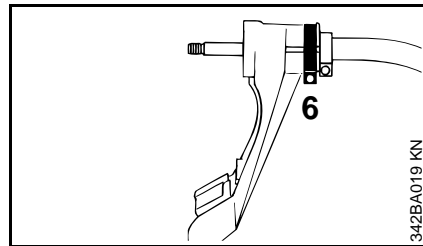
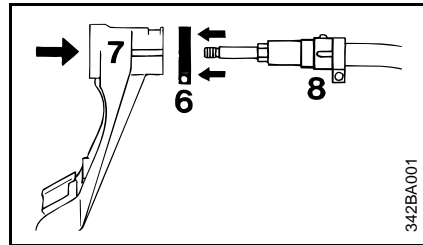
Wear limit marks are integrated in the base of the Polycut 5-3. Do not use the Polycut 5-3 if one of the circular holes (1) starts to become visible or if the projecting rim (2) has worn away, since the cutting tool may otherwise shatter and flying objects could result in injury to the operator or bystanders.

## Assembling the Trimmer



### Mounting the loop handle

- Fit the loop handle (1) on the drive tube - 15 cm (6") (A) forward of the control handle (2).
- Position the clamp (3) against the drive tube and slide it into the loop handle.
- Fit square nut (4) in the loop handle, insert the clamp screw (5) from the other side and tighten down securely.



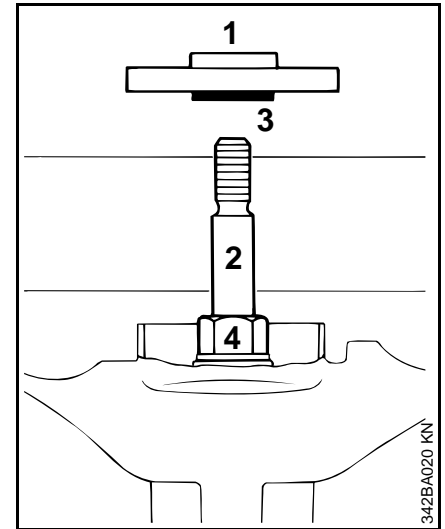
### Adjusting loop handle to most comfortable position:

- Release clamp screw (5).
- Move the loop handle along the drive tube as required - retighten the clamp screw.

### Mounting the deflector

- Slip the clamp (6) over the deflector (7)
- Push the deflector onto the bearing housing (8) as far as stop.
- Tighten the clamp firmly.

## Mounting the Cutting Head



### Preparing the brushcutter

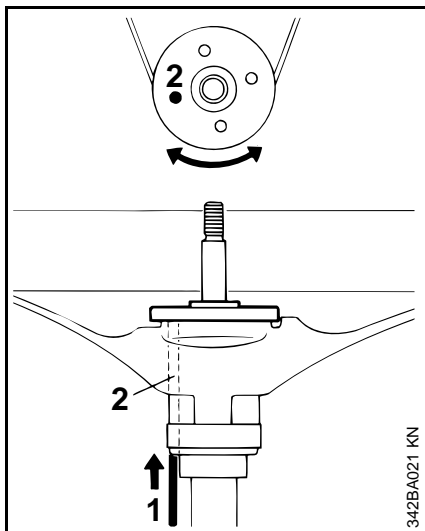
- Lay brushcutter down: loop handle and engine hood facing downwards,  
2 = shaft facing upwards -

#### Cutting head STIHL "Autocut 11-2":

- 1 = Remove thrust plate
- 2 = from shaft -

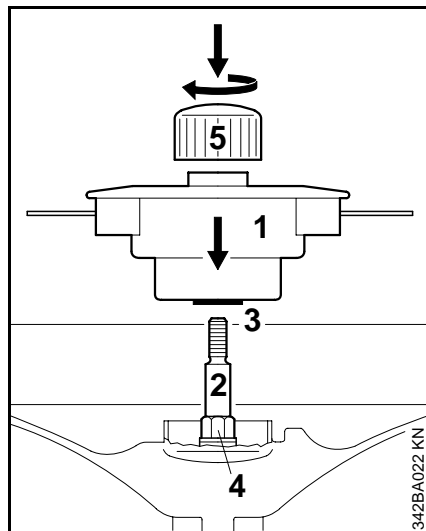
#### Cutting heads STIHL "Polycut 5-3" and "Polycut 10-3":

- 1 = Slide thrust plate
- 2 = onto shaft and insert
- 3 = hexagon socket over
- 4 = hexagon -



### Blocking the shaft

- 1 = Insert locking pin in  
 2 = holes in deflector and thrust plate, turning the latter back and forth until the shaft blocks -

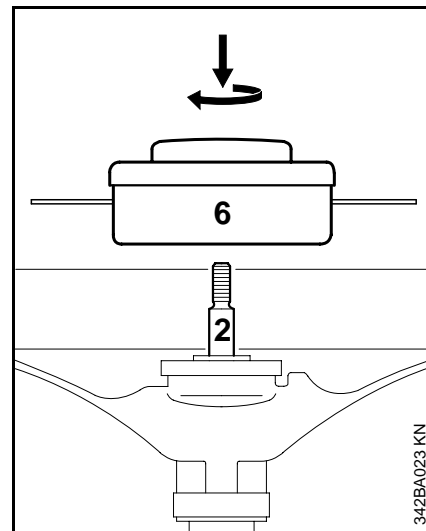


### Fitting the cutting head

**Keep the instruction sheet supplied with the cutting head in a safe place!**

#### STIHL "Autocut 11-2"

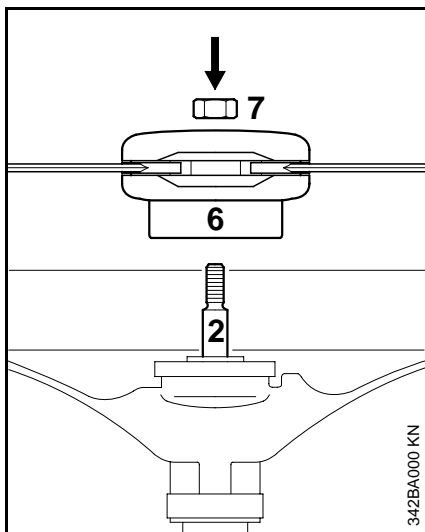
- 1 = Slide upper part  
 2 = onto shaft and fit  
 3 = hexagon socket  
 4 = over hexagon -  
 5 = Place cap on upper part - turn clockwise as far as possible on the shaft and tighten securely



### STIHL "Polycut 10-3" (for FS 40 only)

- 6 = Screw cutting head as far as possible clockwise on  
 2 = the shaft -  
 ● Block the shaft -  
 ● Tighten the cutting head securely.  
**Important!**  
 Remove the locking pin!



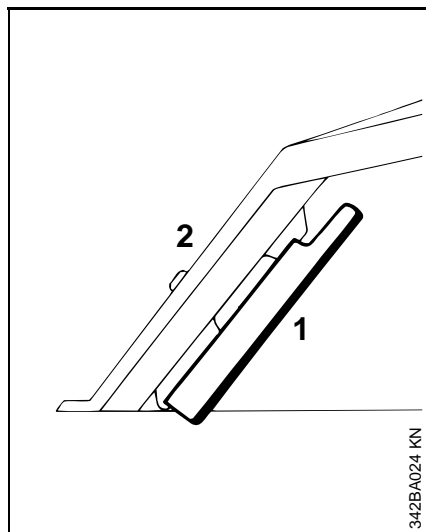


### STIHL "Polycut 5-3"

- 7 = Insert locking nut in cutting head  
 6 = Screw cutting head as far as possible clockwise on  
 2 = the shaft -
- Block the shaft -
  - Tighten the cutting head securely.

#### Important!

Remove the locking pin!



### Adjusting the nylon line

- on the STIHL "Autocut 11-2"**
- Hold the rotating cutting head parallel to the overgrown area - lightly tap the ground - the line is adjusted by approx. 3 cm - Excessively long nylon lines are shortened to the optimum length by the
- 1 = cutter on  
 2 = the deflector -
- Do not tap the ground several times in succession!
- The line is only adjusted when **both** nylon lines are **at least 2.5 cm** long!

### on the STIHL "Polycut 10-3"

- As described on the instruction sheet supplied with the cutting head

### Removing the cutting head

- Block the shaft -
- Turn the cutting head counterclockwise.

### Replacing the nylon line or cutting blade

- As described on the instruction sheet supplied with the cutting head.

## Fuel Mix

This engine is certified to operate on unleaded gasoline and with the mix ratio 50:1.

Your two-stroke engine requires a mixture of brand-name gasoline and quality two-stroke engine oil with the **classification TC**.

Use regular branded unleaded gasoline with a minimum octane rating of 89 ROZ. If the octane rating of the regular grade gasoline in your area is lower, use premium unleaded fuel. Fuel with a lower octane rating may result in preignition (causing "pinging") which is accompanied by an increase in engine temperature. This, in turn, increases the risk of piston seizure and damage to the engine.

The chemical composition of the fuel is also important. Some fuel additives not only detrimentally affect elastomers (carburetor diaphragms, oil seals, fuel lines etc.), but magnesium castings as well. This could cause running problems or even damage the engine. For this reason it is essential that you use only name branded fuels!

Use only STIHL two-stroke engine oil or equivalent branded two-stroke air-cooled engine oils with the classification TC for mixing.

We recommend STIHL 50:1 two-stroke engine oil since it is specially formulated for use in STIHL engines.

Do not use BIA or TCW (two-stroke water cooled) mix oils!

Take care when handling gasoline. Avoid direct contact with the skin and avoid inhaling fuel vapour.

The canister should be kept tightly closed in order to avoid any moisture getting into the mixture.

The fuel tank and the canister in which fuel mix is stored should be cleaned from time to time.

### Fuel mix ages:

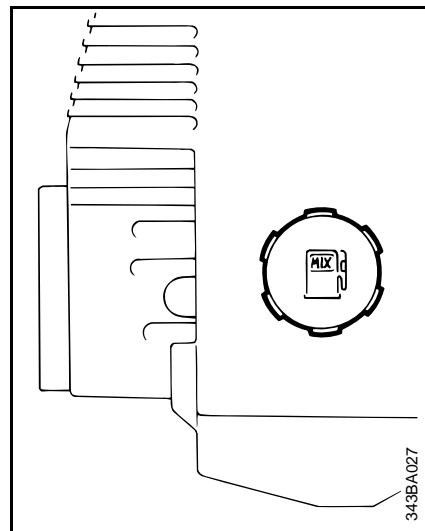
Only mix sufficient fuel for a few days work, not to exceed 3 months of storage. Store in approved safety fuel-canisters only. When mixing, pour oil into the canister first, and then add gasoline.

Gasoline      Oil (STIHL 50:1 or equivalent branded TC oils)

Liters	Liters	(cc)
1	0,02	(20)
5	0,10	(100)
10	0,20	(200)
15	0,30	(300)
20	0,40	(400)

Dispose empty mixing-oil canisters only at authorized disposal locations.

## Fueling



Before fueling, clean the filler cap and the area around it to ensure that no dirt falls into the tank.

Always thoroughly shake the mixture in the canister before fueling your machine.

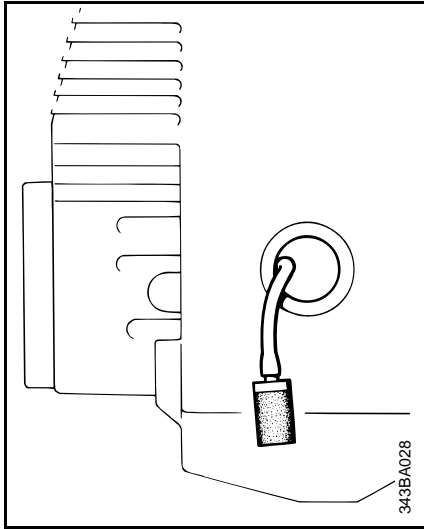
### **Warning!**

In order to reduce the risk of burns or other personal injury from escaping gas vapor and fumes, remove the fuel filler cap carefully so as to allow any pressure build-up in the tank to release slowly.

### **Warning!**

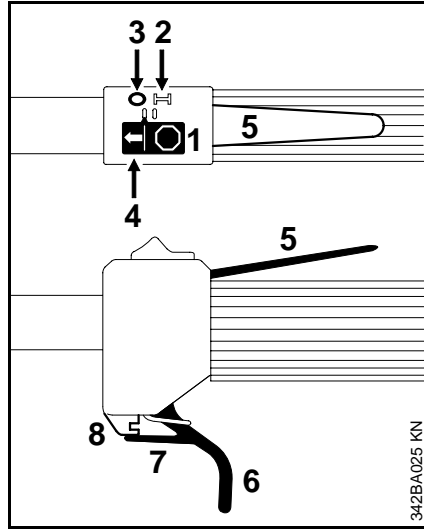
After fueling, tighten fuel cap **as securely as possible** by hand.

## Starting



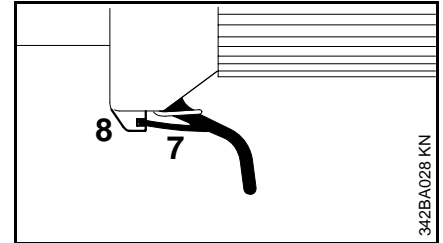
### Change the fuel pick up body every year.

Before storing your machine for a long period, drain and clean the fuel tank and run engine until carburetor is dry.



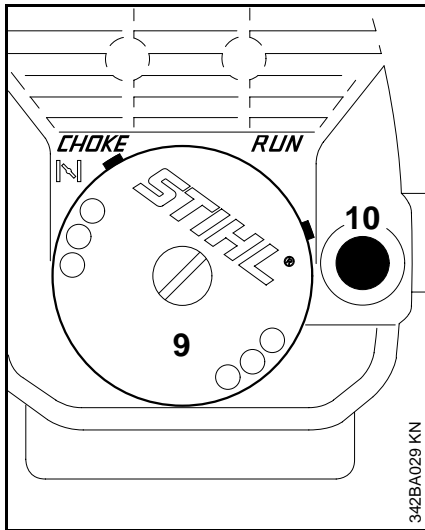
### Controls

- 1 = Stop switch with the positions:
- 2 = **I** - normal - operating - position, idle position and
- 3 = **0** - stop position  
Slide the switch in the direction of the arrow
- 4 = **←** to stop.
- 5 = Throttle interlock
- 6 = Throttle trigger - with
- 7 = spring-loaded tab
- 8 = Detent on throttle trigger retainer



### Starting

- Move stop switch to position **I** -
  - Press and hold throttle interlock -
  - Squeeze throttle trigger until
- 7 = tab can  
8 = engage in detent -  
then release throttle trigger, tab and throttle interlock in succession  
= **starting throttle position** -



#### Cold engine:

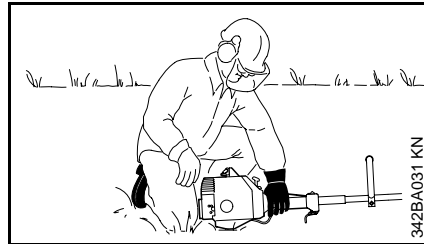
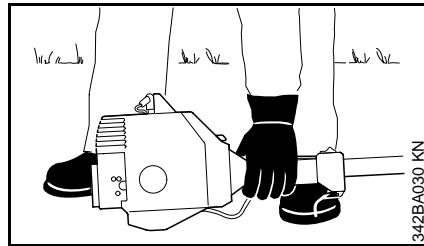
**9** = Turn filter cover clockwise to "CHOKE".

#### Warm engine:

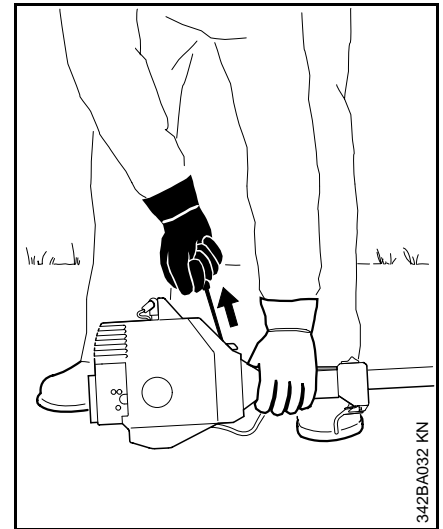
**9** = Turn filter cover counterclockwise to "RUN".

This setting also applies if the engine has already been run, but is still cold.

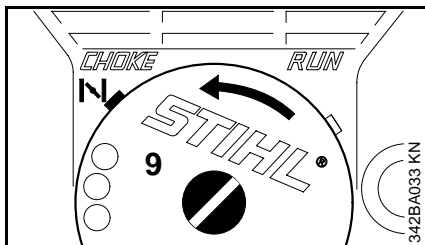
**10** = Press fuel pump bulb at least five times - bulb must be filled with fuel -



- Lay the unit safely on the ground: engine support and deflector for cutting tool on the ground - the cutting tool must not touch the ground or any other objects! -
- Make sure you have a firm footing: Hold the unit with your left hand around the handle hose and press it **firmly** onto the ground - thumb under the handle hose - Do not stand or kneel on the drive tube! -



- With your right hand, slowly pull the starter grip until you feel it engage - then give it a brisk, strong pull - Do not pull out the starter rope completely - it may break! - Do not let the starter grip snap back - guide it back slowly so that the starter rope can rewind properly -



### When engine begins to fire:

if **cold**:

- 9 = Turn filter cover counterclockwise until mark points to |↘| - then continue cranking until engine starts -

if **warm**:

continue cranking until engine starts -

### As soon as engine is running:

if **cold**:

- Press throttle interlock -
- Let engine run at full throttle for a few minutes to warm up -
- Release throttle interlock -
- Turn filter cover to "RUN" - engine idles -

if **warm**:

- Press throttle interlock -
- Squeeze throttle until tab disengages - engine idles.

If the carburetor has been set correctly, the cutting tool should not rotate when the engine is idling!

The unit is now ready for use.

### Switching off:

- Slide stop switch to position **0**.

### At very low temperatures:

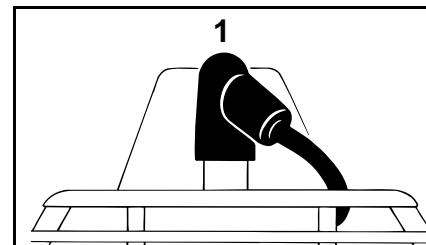
#### Let engine warm up -

When engine has started:

- Let it run at full throttle for a minute to warm up -
- Release throttle -
- Turn filter cover to "RUN", engine idles.

### If engine does not start:

Filter cover was not turned to "RUN" quickly enough after engine fired for the first time, engine has been flooded.



- Turn filter cover to "RUN" -
- Set starting throttle position -
- Start engine - pull starter rope briskly - 10 or 20 pulls may be needed -

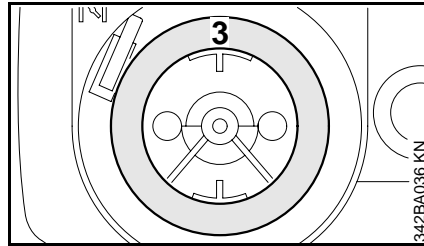
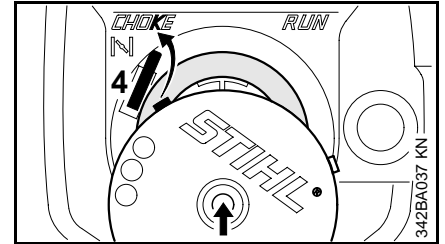
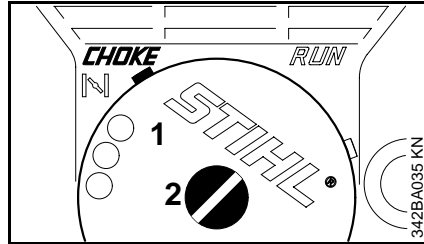
### If engine still does not start:

- Slide stop switch to position **0**
- 1 = Pull off spark plug boot -
- Unscrew and dry spark plug -
- Open throttle fully -
- Pull starter rope several times to clear combustion chamber -
- Refit spark plug -
- Connect spark plug terminal -
- Slide stop switch to position **I** -
- Turn filter cover to "RUN" even if engine is cold! -
- Restart the engine.

## Cleaning the Air Filter

### Fuel tank run until dry before refuelling

- Press fuel pump bulb at least five times even if full of fuel.
- Restart the engine!



Always replace a damaged filter element.

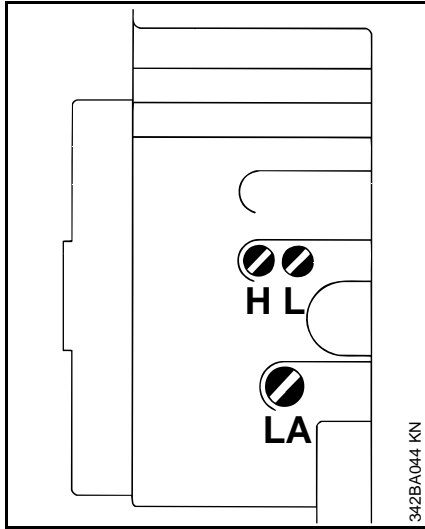
- Install foam filter element (3).
- Fit the filter cover with the choke lever (4) in the closed position, i.e. choke lever must engage filter cover.
- Line up choke mark on filter cover with K of CHOKE on housing.
- Secure cover with screw (2).

Dirty air filters reduce engine power, increase fuel consumption and make starting more difficult.

### If there is a noticeable loss of engine power

- Turn filter cover (1) to CHOKE - to prevent dirt falling into the carburetor.
- Take out the screw (2) and pull off the filter cover without turning it.
- Take the foam filter element (3) out of the filter housing.
- Wash the element in fresh, non-flammable cleaning solution (e.g. warm soapy water) and dry it off.

# Adjusting the Carburetor



## Motor Management

Exhaust emissions are controlled by the design of the fundamental engine parameters and components (e.g. carburetion, ignition, timing and valve or port timing) without the addition of any major hardware.

Your carburetor is preset at the factory. This is the optimum setting under the barometric pressure and climatic conditions at the factory and is suitable for most operating sites.

It ensures that your machine will run smoothly, be fuel efficient, operate reliably and produce low emissions.

## If the engine runs unsatisfactorily at high altitudes or at sea level:

Slight readjustment of the carburetor may be necessary:

- Check the air filter and clean it if necessary.
- Check spark arresting screen (if fitted) and clean it if necessary.
- Mount the cutting head and trim lines to correct length:  
Lines must extend as far as line limiting blade on the deflector.
- Start the engine and adjust idling speed correctly with the idle speed adjusting screw (**LA**) - the cutting tool must not rotate.
- Warm up the engine.

### At high altitude:

Turn the high speed adjusting screw (**H**) and low speed adjusting screw (**L**) clockwise (leaner) or as far as stop.

### At sea level:

Turn the high speed adjusting screw (**H**) and low speed adjusting screw (**L**) counterclockwise (richer) or as far as stop.

## Adjusting idle speed

It is usually necessary to change the setting of the idle speed adjusting screw (**LA**) after every correction to the low speed adjusting screw (**L**).

## Engine stops while idling

Turn the idle speed adjusting screw (**LA**) clockwise until engine runs smoothly - cutting tool must not rotate.

## Cutting tool rotates when engine is idling

Turn the idle speed adjusting screw (**LA**) counterclockwise until cutting tool stops rotating - then back off screw about another one half turn from that position.

## Erratic idling behavior, poor acceleration

Idle setting is too lean.  
Turn the low speed adjusting screw (**L**) counterclockwise until engine runs and accelerates smoothly.

## General Notes on Operation

### 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.

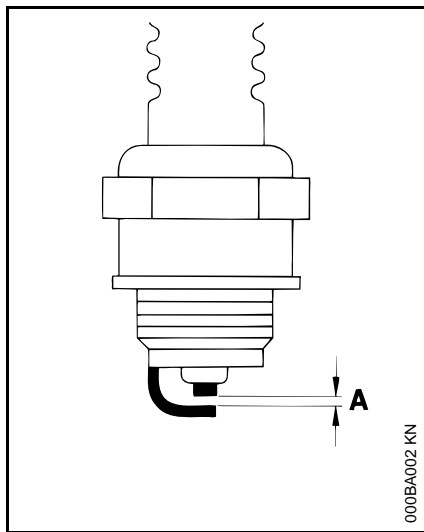
### During operation

After a long period of full-throttle operation, allow 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

Wait for engine to cool down. Drain the fuel tank. Store the machine in a dry place. Check tightness of nuts and screws (not adjusting screws) at regular intervals and retighten as necessary.

## Checking Spark Plug



Wrong fuel mix (too much engine oil in the gasoline), a dirty air filter and unfavorable running conditions (mostly at part throttle etc.) affect the condition of the spark plug. These factors cause deposits to form on the insulator nose which may result in trouble in operation.

If engine is down on power, difficult to start or runs poorly at idling speed, first check the spark plug.

- Remove spark plug - see chapter "Starting":
- Clean dirty spark plug.
- Check electrode gap - it should be 0.7mm/0.03" (A) - readjust if necessary.
- Use only resistor type spark plugs of the approved range.

Rectify problems which have caused fouling of spark plug:  
Incorrect carburetor setting, too much oil in fuel mix, dirty air filter, unfavorable running conditions, e.g. operating at part load.

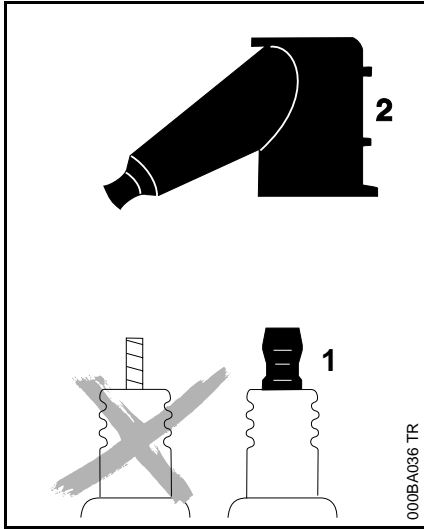
- Fit a new spark plug after approx. 50 operating hours - or earlier if the electrodes are badly eroded.

### **Warning!**

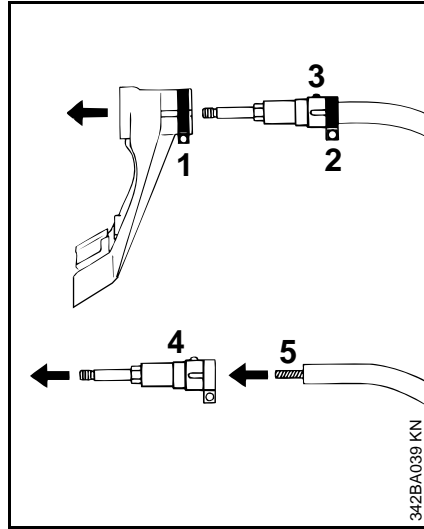
To reduce the risk of fire and burn injury, use only spark plugs authorized by STIHL (see "Specifications").



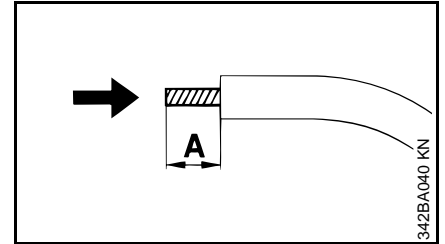
## Lubricating the Flexible Shaft



Always press spark plug boot (2) snugly onto spark plug terminal (1) of the proper size. (Note: If terminal has detachable SAE adapter nut, it must be attached.) A loose connection between spark plug terminal and ignition wire connector in the boot may create arcing that could ignite combustible fumes and cause a fire.



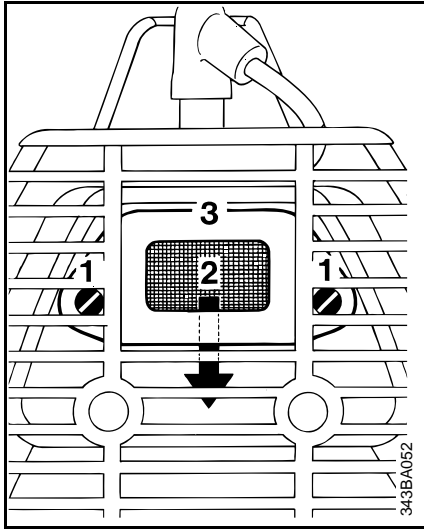
- Check film of lubricant at regular intervals - about every 50 hours of operation if you use your power edger daily or once a year if you are an occasional user.
- Release clamp (1) on deflector - pull off the deflector.
- Release clamp (2) on gear housing.
- Take out the fixing screw (3).
- Pull off the bearing housing (4).
- Pull the flexible shaft (5) out of the drive tube.



If shaft has turned blue, fit a new one.

- Use STIHL multipurpose grease 0781 120 1109 to coat dry areas of the shaft -
- Push shaft into the drive tube - turn it back and forth until distance A is less than 15 mm (0.6").
- Push bearing housing onto drive tube - turn output shaft back and forth.
- Line up holes for fixing screw.
- Insert and tighten down the fixing screw.
- Tight the clamp on the bearing housing.
- Mount the deflector - as described in "Assembling the Trimmer".

## Spark Arrester in Muffler



If the engine is low on power, check the spark arrester inside the muffler.

- Slacken off the screws (1), don't remove them.
- Pull the spark arrester (2) out from behind the cover (3).
- Clean the spark arrester if necessary.
- If spark arrester is damaged or coked up, fit a new one.
- Refit the spark arrester.
- Assemble in the reverse sequence.

## Storing the Machine

For periods of about 3 months or longer:


- Drain and clean the fuel tank.
- Run engine until carburetor is dry - this helps prevent the carburetor diaphragms sticking together.
- Remove, clean and inspect the cutting tool.
- Thoroughly clean the machine - pay special attention to the cylinder fins and air filter.
- Store the machine in a dry, high or locked location - out of the reach of children and other unauthorized persons.

## Maintenance Chart

Please note that the following maintenance intervals apply for normal operating conditions only. If conditions are difficult or your daily working time is longer than normal, shorten the specified intervals accordingly.		before starting work	after finishing work or daily	after each refueling stop	weekly	monthly	if faulty	if damaged	as required	see page:
Complete machine	Visual inspection (condition, leaks)	x		x						
	Clean		x							
Throttle trigger, stop switch	Check operation	x		x						17-20
Air filter	Clean						x		x	20
	Replace							x		20
Filter in fuel tank	Check						x			17
	Replace							x	x	17
Fuel tank	Clean						x		x	17
Carburetor	Check idle adjustment - cutting tool must not turn	x		x						21
	Readjust idle								x	21
Spark plug	Readjust electrode gap						x			21
Cooling air inlets	Visual inspection		x							
	Clean								x	
Spark arrester in muffler	Inspect		x				x			24
	Clean or replace							x	x	24
All accessible screws and nuts (not adjusting screws)	Retighten								x	
Rubber vibration buffers	Have replaced by STIHL dealer						x			
Cutting tool	Visual inspection	x		x						13-15
	Replace							x	x	13-15
	Check tightness of cutting tool	x		x						13-15
Flexible drive shaft	Visual inspection					x				23
	Lubricate								x	23

The user of this unit should carry out only the maintenance operations described in this manual. Other repair work may be performed only by an authorized STIHL Service dealer.

**Warranty claims following repairs can be accepted only if the repair has been performed by an authorized STIHL Service dealer using original STIHL spare 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.

## Specifications

### Engine

Single cylinder two-stroke engine  
Displacement: 30.2 cm<sup>3</sup>  
(1.84 cu.in)  
Bore: 34.8 mm (1.37 in)  
Stroke: 31.8 mm (1.25 in)  
Power to ISO 8893: 0.7 kW (0.95 bhp)  
Max. engine speed  
with cutting head: 10 000 r.p.m.  
(speed limited by control valve)  
Max. output shaft speed  
(tool mounting): 9 300 r.p.m.  
Idle speed: 3 100 r.p.m.

### Ignition System

Type: Electronic (breakerless) magneto  
ignition  
Spark plug GM AC CSR 45,  
(suppressed): Champion RCJ8  
or NGK BMR 6A;  
Electrode gap: 0.7...0.8 mm  
(0.03")  
Spark plug thread: M 14 x 1.25;  
9.5 mm (0.37 in)  
long

### Fuel System

Carburetor: All position dia-  
phragm carburetor  
with integral fuel  
pump  
Air filter: Foam element  
Fuel tank capacity: 0.51 l (1.1 US pt)  
Fuel mixture: See chapter "Fuel"

### Weight

without cutting tool  
and deflector:  
FS 36: 4.6 kg (10.1 lb)  
FS 40: 4.7 kg (10.4 lb)

### Special Accessories

#### STIHL "Autocut 11-2" cutting head 4004 710 2192

Replacement nylon line  
2.0 mm/0.08" dia., green  
(15 m/50 ft) 0000 930 2588

#### STIHL "Polycut 10-3" cutting head 4004 710 2188

Replacement blades  
(set of 12) 4111 007 1001  
Replacement nylon line  
2.4 mm/0.095" dia., orange  
(15 m/50 ft) 0000 930 2587  
2.7 mm/0.105" dia., red  
(10.7 m/35 ft) 0000 930 2586

#### STIHL "Polycut 5-3" cutting head 4004 710 2180

Replacement blades  
(set of 12) 4111 007 1001

### Other Special Accessories

Safety goggles

Rust plate 4130 713 1501

STIHL Gear lubricant for hedge trimmers  
(80 g/3 oz tube) 0781 120 1109  
(225g/8 oz tube) 0781 120 1110

# STIHL Incorporated Limited Warranty Federal and California Emission Control Systems Utility Engines

## Your Warranty Rights and Obligations

The U.S. Environmental Protection Agency (EPA), the California Air Resources Board (CARB) and STIHL Incorporated are pleased to explain the Emission Control System Warranty on your model year 2000 and later equipment type engine. In California, new small off-road engines must be designed, built and equipped to meet the State's stringent anti-smog standards. In other states, new 1997 and later model year small off-road equipment engines must be designed, built and equipped, at the time of sale, to meet the U.S. EPA regulations for small non road engines. The equipment engine must be free from defects in materials and workmanship which cause it to fail to conform with U.S. EPA standards for the first two years of engine use from the date of sale to the ultimate purchaser.

STIHL Incorporated must warrant the emission control system on your small off-road engine for the period of time listed below provided there has been no abuse, neglect or improper maintenance of your small off-road equipment engine.

Your emission control system includes parts such as the carburetor and the ignition system. Also included may be hoses, and connectors and other emission related assemblies.

As the small off-road equipment engine owner, you should be aware, however, that STIHL Incorporated may deny you warranty coverage if your small off-road equipment engine or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.

You are responsible for presenting your small off-road equipment engine to a STIHL service center as soon as a problem exists. The warranty repairs will be completed in a reasonable amount of time, not to exceed 30 days. If you have any questions regarding your warranty rights and responsibilities, please contact a STIHL customer service representative at 1-800-467-8445 or you can write to STIHL Inc., 536 Viking Drive, P.O. Box 2015, Virginia Beach, VA 23450-2015.

### Coverage by STIHL Incorporated

STIHL Incorporated warrants to the ultimate purchaser and each subsequent purchaser that your small off-road equipment engine will be designed, built and equipped, at the time of sale, to meet all applicable regulations. STIHL Incorporated also warrants to the initial purchaser and each subsequent purchaser that your engine is free from defects in materials and workmanship which cause the engine to fail to conform with applicable regulations for a period of two years.

Where a warrantable condition exists, STIHL Incorporated will repair your small off-road equipment engine at no cost to you, including diagnosis (if the diagnostic work is performed at an authorized dealer), parts, and labor.

### Manufacturer's Warranty Coverage:

The small off-road equipment engines are warranted for two years in California. In other states, 1997 and later model year small off-road equipment engines are also warranted for two years. If any emission-related part on your engine is defective, the part will be repaired or replaced by STIHL Incorporated free of charge.

### Owner's Warranty Responsibilities:

As the small off-road equipment engine owner, you are responsible for the performance of the required maintenance listed in your owner's manual. STIHL Incorporated recommends that you retain all receipts covering maintenance on your small off-road equipment engine, but STIHL Incorporated cannot deny warranty solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.

Any replacement part or service that is equivalent in performance and durability may be used in non-warranty maintenance or repairs, and shall not reduce the warranty obligations of the engine manufacturer.

### **Warranty Period**

The warranty periods will begin on the date the utility equipment engine is purchased by the initial purchaser and you have signed and sent back the warranty card to STIHL. If any emission related part on your engine is defective, the part will be replaced by STIHL Incorporated at no cost to the owner. Any warranted part which is not scheduled for replacement as required maintenance, or which is scheduled only for regular inspection to the effect of "repair or replace as necessary" will be warranted for the warranty period. Any warranted part which is scheduled for replacement as required maintenance will be warranted for the period of time up to the first scheduled replacement point for that part.

### **Diagnosis**

You, as the owner, shall not be charged for diagnostic labor which leads to the determination that a warranted part is defective. However, if you claim warranty for a component and the machine is tested as non-defective, STIHL Incorporated will charge you for the cost of the emission test.

Mechanical diagnostic work will be performed at an authorized STIHL servicing dealer. Emission test may be performed either at STIHL Incorporated or at any independent test laboratory.

### **Warranty Work**

STIHL Incorporated shall remedy warranty defects at any authorized STIHL servicing dealer or warranty station. Any such work shall be free of charge to the owner if it is determined that a warranted part is defective. Any manufacturer-approved or equivalent replacement part may be used for any warranty maintenance or repairs on emission-related parts and must be provided without charge to the owner. STIHL Incorporated is liable for damages to other engine components caused by the failure of a warranted part still under warranty.

The California Air Resources Board's Emission Warranty Parts List specifically defines the emission-related warranted parts. These warranted parts are:

Carburetor  
Choke (Cold start enrichment system)  
Intake manifold  
Air filter  
Spark plug  
Magneto or electronic ignition system (ignition module)  
Catalytic converter (if applicable)  
Fasteners

### **Where to make a claim for Warranty Service**

Bring the product to any authorized STIHL servicing dealer and present the signed warranty card.

### **Maintenance Requirements**

The maintenance instructions in this manual are based on the application of the recommended 2-stroke fuel-oil mixture (see also instruction "Fuel"). Deviations from this recommendation regarding quality and mixing ratio of fuel and oil may require shorter maintenance intervals.

### **Limitations**

This Emission Control Systems Warranty shall not cover any of the following:

- repair or replacement required because of misuse, neglect or lack of required maintenance,
- repairs improperly performed or replacements not conforming to STIHL Incorporated specifications that adversely affect performance and/or durability, and alterations or modifications not recommended or approved in writing by STIHL Incorporated,

and

- replacement of parts and other services and adjustments necessary for required maintenance at and after the first scheduled replacement point.

 **WARNING!**

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

**0458 342 3021**

**englisch / English**