



Not intended to be a complete Operator Manual. Available upon request.

STIHL HT 100, 101, 130, 131

Instruction Manual
Manual de instrucciones

Warning!

Read and follow all safety precautions in Instruction Manual – improper use can cause serious or fatal injury.

Advertencia!

Lea y siga todas las precauciones de seguridad dadas en el manual de instrucciones – el uso incorrecto puede causar lesiones graves o mortales.



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Allow only persons who understand this manual to operate your pole pruner.

To receive maximum performance and satisfaction from your STIHL pole pruner, it is important that you read and understand the maintenance and safety precautions, starting on page 3, before using your pole pruner.

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 pole pruner is a high-speed cutting tool with a very long reach 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.

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 pole pruner differ from those described in this manual, please contact your STIHL dealer for information and assistance.



Guide to Using this Manual

Pictograms

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

The operating and handling instructions are supported by illustrations.

Symbols in text

The individual steps or procedures described in the manual may be marked in different ways:

- A bullet marks a step or procedure without direct reference to an illustration.


A description of a step or procedure that refers directly to an illustration may contain item numbers that appear in the illustration.


Example:


Loosen the screw (1)


Lever (2) ...

In addition to the operating instructions, this manual may contain paragraphs that require your special attention. Such paragraphs are marked with the symbols described below:

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

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

 Note or hint which is not essential for using the machine, but may improve the operator's understanding of the situation and result in better use of the machine.

 Note or hint on correct procedure in order to avoid damage to the environment.

* Equipment and features

This instruction manual may refer to several models with different features. Components that are not installed on all models and related applications are marked with an asterisk (*). Such components may be available as special accessories from your STIHL dealer.

Engineering improvements

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 machine differ from those described in this manual, please contact your STIHL dealer for assistance.

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

Safety Precautions and Working Techniques



Because a pole pruner is a high-speed, fast-cutting power tool with a very long reach, 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 instruction manual and the safety precautions periodically. Careless or improper use may cause serious or fatal injury.

Have your STIHL dealer show you how to operate your power tool. Observe all applicable local safety regulations, standards and ordinances.



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



The use of this machine may be hazardous. The pole pruner chain has many sharp cutters. If the cutters contact your flesh, they will cut you, even if the chain is not moving.

Do not cut any material other than wood or wooden objects. Use your pole pruner for limbing only. It must not be used for any other purposes, since such misuse may result in an accident or damage to the machine.



Minors should never be allowed to use this power tool. Bystanders, especially children, and animals should not be allowed in the area where it is in use.



To reduce the risk of injury to bystanders and damage to property, never let your power tool run unattended. When it is not in use (e.g. during a work break), shut it off and make sure that unauthorized persons do not use it.

Most of these safety precautions and warnings apply to the use of all STIHL pole pruners. Different models may have different parts and controls. See the appropriate section of your instruction manual for a description of the controls and the function of the parts of your model.

Safe use of a pole pruner involves

1. the operator
2. the pole pruner
3. the use of the pole pruner.

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 this machine when you are fatigued.



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

⚠ Warning!

Prolonged use of a power tool (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 development 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 machine 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 power tool 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 pressure. 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 closely monitor the condition of their hands and fingers. If any of the above symptoms appear, seek medical advice immediately.

⚠ Warning!

The ignition system of the STIHL unit produces an electromagnetic field of a very low intensity. This field may interfere with some pacemakers. To reduce the risk of serious or fatal injury, persons with a pacemaker should consult their physician and the pacemaker manufacturer before operating this tool.

Proper Clothing

⚠ Warning!

To reduce the risk of injury, the operator should wear proper protective apparel.

⚠ Warning!



To reduce the risk of injury to your eyes never operate your power tool unless wearing goggles or properly fitted protective 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 protective glasses.

Wear an approved safety hard hat to reduce the risk of injury to your head.

Power tool 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.

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

Always wear gloves when handling the machine and the cutting tool. Heavy-duty, nonslip gloves improve your grip and help to protect your hands.



Clothing must be sturdy and snug-fitting, but allow complete freedom of movement. Wear long pants made of heavy material to help protect your legs. Do not wear shorts, sandals or go barefoot.



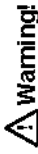
Avoid loose-fitting jackets, scarfs, neckties, jewelry, flared or cuffed pants, unconfined long hair or anything that could become caught on branches, brush or the moving parts of the unit. Secure hair so it is above shoulder level.

Good footing is very important. Wear sturdy boots with nonslip soles. Steel-toed safety boots with cut retardant inserts are recommended.



THE POWER TOOL

For illustrations and definitions of the power tool parts see the chapter on "Main Parts and Controls."

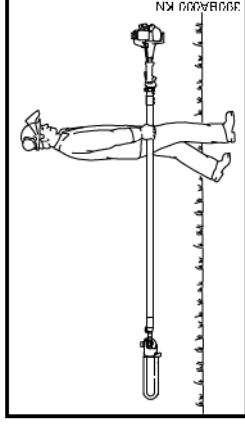


Never modify this power tool in any way. Only attachments supplied by STIHL or expressly approved by STIHL for use with the specific STIHL model are authorized. Although certain unauthorized attachments are useable with STIHL power tools, their use may, in fact, be extremely dangerous.

If this tool is subjected to unusually high loads for which it was not designed (e.g. heavy impact or a fall), always check that it is in good condition before continuing work. Check in particular that the fuel system is tight (no leaks) and that the controls and safety devices are working properly. Do not continue operating this machine if it is damaged. In case of doubt, have it checked by your STIHL servicing dealer.

THE USE OF THE POWER TOOL

Transporting the Power Tool



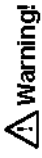
This power tool should be carried only in a horizontal position. Grip the shaft in a manner that the machine is balanced horizontally. Keep the hot muffler away from your body and the cutting attachment behind you. Accidental acceleration of the engine can cause the chain to rotate and cause serious injuries.



Always switch off the engine and fit the scabbard over the cutting attachment before transporting the power tool over long distances. When transporting it in a vehicle, properly secure it to prevent turnover, fuel spillage and damage to the unit.

Fuel

Your STIHL power tool uses an oil-gasoline mixture for fuel (see the chapter on "Fuel" of your instruction manual).



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 or the power tool. Note that combustible fuel vapor may escape from the fuel system.

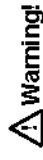


Select bare ground for fueling and move at least 10 feet (3 m) from the fueling spot before starting the engine. Wipe off any spilled fuel before starting your machine.

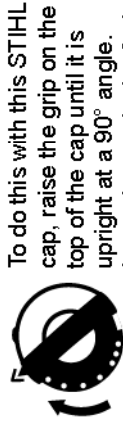


Check for fuel leakage while refueling and during operation. If fuel leakage is found, do not start or run the engine until the leak is fixed and any spilled fuel has been wiped away. Take care not to get fuel on your clothing. If this happens, change your clothing immediately. Different models may be equipped with different fuel caps.

Cap with grip



In order to reduce the risk of fuel spillage and fire from an improperly tightened fuel cap, correctly position and tighten the fuel cap in the fuel tank opening.



To do this with this STIHL cap, raise the grip on the top of the cap until it is upright at a 90° angle. Insert the cap in the fuel tank opening with the triangular marks on the grip of the cap and on the fuel tank opening lining up. Using the grip, turn the cap firmly clockwise as far as it will go (approx. a quarter turn).



Fold the grip flush with the top of the cap. If the grip does not lie completely flush with the cap and the detent on the grip does not fit in the corresponding recess in the filler neck, the cap is not properly seated and tightened and you must repeat the above steps.

Screw cap



Unit vibrations can cause an improperly tightened fuel filler cap to loosen or come off and spill quantities of fuel. In order to reduce the risk of fuel spillage and fire, tighten the fuel filler cap by hand as securely as possible.

Fueling Instructions



Fuel your power tool in well-ventilated areas, outdoors. Always shut off the engine and allow it to cool before refueling. Gasoline vapor pressure may build up inside the fuel tank depending on the fuel used, the weather conditions and the tank venting system.

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 power tool carefully so as to allow any pressure build-up in the tank to release slowly. Never remove the fuel filler cap while the engine is running.

Before Starting

Take off the chain guard (scabbard) and inspect the pole pruner for proper condition and operation. (See the maintenance chart near the end of the instruction manual.)

⚠ Warning!

Always check your power tool for proper condition and operation before starting, particularly the throttle trigger, throttle trigger interlock, stop switch and cutting attachment. The throttle trigger must move freely and always spring back to the idle position. Never attempt to modify the controls or safety devices.

⚠ Warning!

Never operate your power tool if it is damaged, improperly adjusted or maintained, or not completely or securely assembled.

⚠ Warning!

Check that the spark plug boot is securely mounted on the spark plug – a loose boot may cause arcing that could ignite combustible fumes and cause a fire.

Keep the handles clean and dry at all times; it is particularly important to keep them free of moisture, pitch, oil, fuel mix, grease or resin in order for you to maintain a firm grip and properly control your power tool.

For proper assembly of the bar and chain follow the procedure described in the chapter "Mounting the Bar and Chain" of your instruction manual.

STIHL Oilomatic chain, guide bar and sprocket must match each other in gauge and pitch.

⚠ Warning!

Proper chain tension is extremely important. In order to avoid improper setting, the tensioning procedure must be followed as described in your manual. Always make sure the hex nut(s) for the sprocket cover is (are) tightened securely after tensioning the chain. Check chain tension once more after having tightened the nut(s). Never start the pole pruner with the sprocket cover loose.

Adjust carrying harness and hand grip to suit your size before starting work.

Starting

⚠ Warning!

To reduce the risk of fire and burn injuries, start the engine at least 10 feet (3 meters) from the fueling spot, outdoors only.

Start and operate your pole pruner without assistance.

For specific starting instructions, see the appropriate section of your manual. Proper starting methods reduce the risk of injury.



Place the pole pruner on firm ground or other solid surface in an open area or, in the alternative, as shown in the above picture. Maintain good balance and secure footing.

⚠ Warning!

To reduce the risk of injury from loss of control, do not attempt to “drop start” your power tool.

⚠ Warning!

To reduce the risk of injury from loss of control be absolutely sure that the guide bar and chain are 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 the sprocket and turn the chain.

Once the engine has started, immediately blip the throttle trigger, which should release the starting throttle and allow the engine to slow down to idle

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

⚠ Warning!

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

Important Adjustments

⚠ Warning!

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

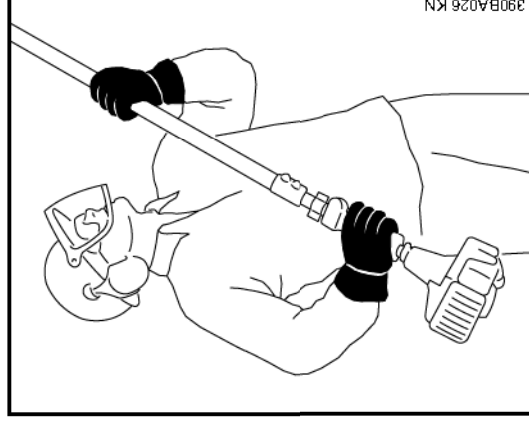
If you cannot set the correct idle speed, have your STIHL dealer check your power tool and make proper adjustments and repairs.

Proper chain tension is very important at all times. Check it at regular intervals (whenever the pole pruner is shut off). If the chain becomes loose while cutting, switch off the engine and then tighten. Never try to tighten the chain while the engine is running.

During Operation

Holding and controlling the power tool

Always hold the unit firmly with both hands on the handles while you are working. Wrap your fingers and thumbs around the handles.



Place your left hand on the shaft and your right hand on rear grip and throttle trigger. Left handers should follow these instructions too. Keep your hands in this position to have your pole pruner under control at all times.

⚠ Warning!

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

⚠ Warning!

In order to properly control your pole pruner, always maintain good balance and a firm foothold. Never work on a ladder, in a tree or on any other insecure support. Never hold the machine above shoulder height. Do not overreach. When working at a height above 15 feet (4.5 m) use a lift bucket. For pole pruner with adjustable shaft, expand the shaft only as far as necessary for the intended application.

⚠ Warning!

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, rocks, holes and ditches to avoid stumbling. For better footing, clear away fallen branches, scrub and cuttings. Be extremely cautious when working on slopes or uneven ground.

⚠ Warning!

Take extreme care in wet and freezing weather (rain, snow, ice). Put off the work when the weather is windy, stormy or rainfall is heavy.

Working conditions

Operate and start your power tool only outdoors in a well ventilated area. Operate it under good visibility and daylight conditions only. Work carefully.

⚠ Warning!



As soon as the engine is running, this product generates toxic exhaust fumes containing chemicals, such as unburned hydrocarbons

(including benzene) and carbon monoxide, that are known to cause respiratory problems, cancer, birth defects, or other reproductive harm. Some of the gases (e.g. carbon monoxide) may be colorless and odorless. To reduce the risk of serious or fatal injury/illness from inhaling toxic fumes, never run the machine indoors or in poorly ventilated locations. If exhaust fumes become concentrated due to insufficient ventilation, clear obstructions from work area to permit proper ventilation before proceeding and/or take frequent breaks to allow fumes to dissipate before they become concentrated.

⚠ Warning!

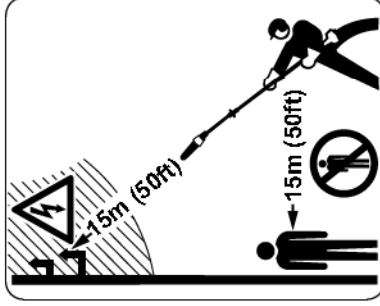
Inhalation of certain dusts, especially organic dusts such as mold or pollen, can cause susceptible persons to have an allergic or asthmatic reaction. Substantial or repeated inhalation of dust and other airborne contaminants, in particular those with a smaller particle size, may cause respiratory or other illnesses. This includes wood dust, especially from hardwoods, but also from some softwoods such as Western Red Cedar. Control dust at the source where possible. Use good work practices, such as always cutting with a properly sharpened chain (which produces wood chips rather than fine dust) and operating the unit so that the wind or operating process directs any dust raised by the power tool away from the operator. Follow the recommendations of EPA/OSHA/NIOSH and occupational and trade associations with respect to dust ("particulate matter"). When the inhalation of dust cannot be substantially controlled, i.e., kept at or near the ambient (background) level, the operator and any bystanders should wear a respirator approved by NIOSH/MSHA for the type of dust encountered.

⚠ Warning!
Breathing asbestos dust is dangerous and can cause severe or fatal injury, respiratory illness or cancer. The use and disposal of asbestos-containing products have been strictly regulated by OSHA and the Environmental Protection Agency. If you have any reason to believe that you might be cutting asbestos, immediately contact your employer or a local OSHA representative.

⚠ Warning
This power tool has a large range. In order to reduce the risk of personal or even fatal injury to bystanders from falling objects or inadvertent contact with the moving chain of your power tool always keep bystanders at least 50 feet (15m) away when the power tool is running.

⚠ Warning!
Even though bystanders should be kept away from the running saw, never work alone. Keep within calling distance of others in case help is needed.

Stop the engine immediately if you are approached.



Danger!



Your power tool is not insulated against electric shock. To reduce the risk of electrocution, never operate this power tool in the vicinity of any wires or cables (power, etc.) which may be carrying electric current.

Electricity can jump from one point to another by means of arcing. Higher voltage increases the distance electricity can arc. Electricity can also move through branches, especially if they are wet. Maintain a clearance of at least 50 feet (15 m) between the pole pruner (including any branches it is contacting) and any electrical line carrying live current. Before working with less clearance, contact your electric utility and make sure the current is turned off.

Operating instructions

⚠ Warning!
Do not operate your power tool using the starting throttle lock, as you do not have control of the engine speed.
In the event of an emergency, switch off the engine immediately – move the slide control / stop switch to **0** or **STOP**.

⚠ Warning
To reduce the risk of cut injuries, keep hands and feet away from the saw chain. Never touch a moving chain with your hand or any other part of your body. The saw chain continues to move for a short period after the throttle trigger is released (inertia effect).

Accelerating the engine while the chain is blocked increases the load and will cause the clutch to slip continuously. This may result in overheating and damage to important components (e.g. clutch, polymer housing components) – which can then increase the risk of injury from the chain moving while the engine is idling.

⚠ Warning!
If the chain becomes clogged, always turn off the engine and make sure the chain has stopped before cleaning.

Make sure that the saw chain does not touch any foreign materials such as rocks, fences, nails and the like. Such objects may be flung off and injure the operator or bystanders, or damage the saw chain.

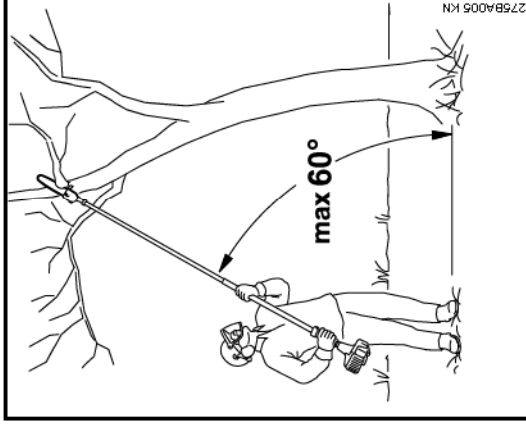
Warning!

Prior to limbing, clear the working area from interfering limbs and brush. Then, establish an escape area away from where the cut limbs can fall, and remove all obstacles.

Keep work area clear – move away fallen limbs. Place all tools and equipment at a safe distance from the branches being limbed, but not in the escape area.

Warning!

Always observe the general condition of the tree. Look for decay and rot in the trunk and branches. If it is rotted inside, it could snap and fall toward the operator while being cut. Also look for broken or dead branches which could vibrate loose and fall on the operator. If branch is thick or heavy, make a shallow relief cut on the bottom of the branch before cutting down from the top to help prevent splitting of the branch.



Watch for falling wood! As soon as the limbed branch starts to fall, step aside and keep a sufficient distance away from the falling wood.

Warning!

Always pull the unit out of the cut with the chain running to reduce the possibility of pinching the cutting attachment. Don't put pressure on the pole pruner when reaching the end of a cut. The pressure may cause the bar and rotating chain to pop out of the cut or kerf, go out of control and strike some other object.

If the bar becomes pinched and caught in the branch so that the chain can no longer move, shut off the pole pruner and carefully move the branch to open the pinch and release the bar.

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.

Warning!

To reduce the risk of severe or even fatal injury from falling objects do not cut vertically above your body. Hold the pole pruner at an angle of not more than 60° from the horizontal level (see picture). Objects may fall in unexpected directions. Do not stand directly underneath the limb being cut!

⚠ Warning!

To reduce the risk of fire and burn injury, keep the area around the muffler clean. Remove excess lubricant and all debris such as pine needles, branches or leaves. Let the engine cool down sitting on concrete, metal, bare ground or solid wood (e.g. the trunk of a felled tree) away from any combustible substances.

⚠ Warning!

Never modify your muffler. The muffler could be damaged and cause an increase in heat radiation or sparks, thereby increasing the risk of fire and burn injury. You may also permanently damage the engine. Have your muffler serviced and repaired by your STIHL servicing dealer only.

Catalytic converter

⚠ Warning!

Some STIHL power tools are equipped with a catalytic converter, which is designed to reduce the exhaust emissions of the engine by a chemical



process in the muffler. Due to this process, the muffler does not cool down as rapidly as conventional mufflers when the engine returns to idle or is shut off. To reduce the risk of fire and burn injuries, the following specific safety precautions must be observed.

⚠ Warning!

Since a muffler with a catalytic converter cools down less rapidly than conventional mufflers, always set your power tool down in the upright position and never locate it where the muffler is near dry brush, grass, wood chips or other combustible materials while it is still hot.

⚠ Warning!

An improperly mounted or damaged cylinder housing or a damaged/deformed muffler shell may interfere with the cooling process of the catalytic converter. To reduce the risk of fire or burn injury, do not continue work with a damaged or improperly mounted cylinder housing or a damaged/deformed muffler shell.

Your catalytic converter is furnished with screens designed to reduce the risk of fire from the emission of hot particles. Due to the heat from the catalytic reaction, these screens will normally stay clean and need no service or maintenance. If you experience loss of performance and you suspect a clogged screen, have your muffler maintained by a STIHL servicing dealer.

Reactive forces

⚠ Warning!

Reactive forces may occur any time the chain is rotating. The force used to cut wood can be reversed and work against the operator. If the rotating chain is suddenly stopped by contact with any solid object such as a branch or is pinched, the reactive forces may occur instantly. These reactive forces may result in loss of control, which, in turn, may cause personal injury. An understanding of the causes of these reactive forces may help you avoid the element of surprise and loss of control.

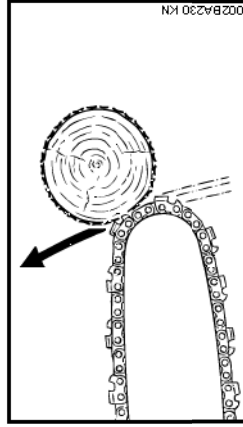
Because of the design of the pole pruner, the reactive forces experienced when working with it are generally not as severe as those encountered with a chainsaw. Nevertheless, you should always maintain a proper grip and good footing to control the power tool when you experience such forces.

The most common reactive forces are:

- kickback,
- pushback,
- pull-in.

Kickback

Kickback may occur when the moving saw chain near the upper quadrant of the bar nose contacts a solid object or is pinched.



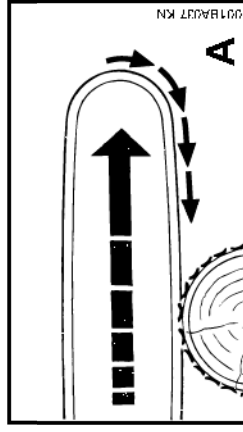
The reaction of the cutting force of the chain causes a rotational force on the chainsaw in the direction opposite to the chain movement. This may cause the bar to move upward.

To avoid kickback

The best protection from kickback is to avoid kickback situations:

1. Be aware of the location of the guide bar nose at all times.
2. Never let the nose of the guide bar contact any object. Do not cut limbs with the nose of the guide bar. Be especially careful near wire fences and when cutting small, tough limbs, which may easily catch the chain.
3. Cut only one limb at a time.

A = Pull-in



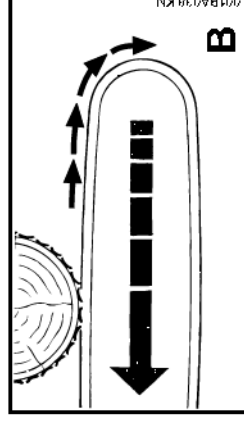
Pull-in occurs when the chain on the bottom of the bar is suddenly stopped when it is pinched, caught or encounters a foreign object in the wood. The reaction of the chain pulls the saw forward.

Pull-in frequently occurs when the chain is not rotating at full speed before it contacts the wood.

To avoid pull-in

1. Be alert to forces or situations that may cause material to pinch the chain at the bottom of the bar.
2. Always start a cut with the chain rotating at full speed

B = Pushback



Pushback occurs when the chain on the top of the bar is suddenly stopped when it is pinched, caught or encounters a foreign object in the wood. The reaction of the chain may drive the saw rapidly straight back toward the operator. Pushback frequently occurs when the top of the bar is used for cutting.

To avoid pushback

1. Be alert to forces or situations that may cause material to pinch the chain at the top of the bar.
2. Do not cut more than one limb at a time.
3. Do not twist the bar when withdrawing it from an underbuck cut because the chain can pinch.

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 make a warranty claim for a component which has not been serviced or maintained properly or if nonapproved replacement parts were used, STIHL may deny coverage.

Warning!

Use only identical STIHL replacement parts for maintenance and repair. Use of non-STIHL parts may cause serious or fatal injury.

Strictly follow the maintenance and repair instructions in the appropriate sections of your instruction manual. Please refer to the maintenance chart in this manual.

Warning!

Always stop the engine and make sure that the chain is stopped before doing any maintenance or repair work or cleaning the power tool. Do not attempt any maintenance or repair work not described in your instruction manual. Have such work performed by your STIHL servicing dealer only.

Wear gloves when handling or performing maintenance on the cutting attachment.

Warning!

Use the specified spark plug and make sure it and the ignition lead are always clean and in good condition. 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 securely attached.) A loose connection between spark plug terminal and the ignition wire connector in the boot may create arcing that could ignite combustible fumes and cause a fire.

Warning!

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

Warning!

Do not operate your power tool if the muffler is damaged, missing or modified. An improperly maintained muffler will increase the risk of fire and hearing loss. If your muffler was equipped with a spark-arresting screen to reduce the risk of fire, never operate your power tool if the screen is missing or damaged. Remember that the risk of forest fires is greater in hot or dry weather.

Warning!

Keep the chain, bar and sprocket clean; replace worn sprockets or chains. Keep the chain sharp. You can spot a dull chain when easy-to-cut wood becomes hard to cut or burn marks appear on the wood.

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

For maintenance items please also refer to the maintenance chart in this manual.

Store the power tool in a dry and high or locked location out of reach of children.


Before storing for longer than a few days, always empty the fuel tank. See chapter "Storing the machine" in this manual.


Store fuel and chain oil in approved and properly labeled safety-type canisters only. Take care when handling gasoline! Avoid direct contact with the skin and avoid inhaling fuel vapor!

Using the Pole Pruner

Preparations

- Wear suitable protective clothing and equipment – see "Safety Precautions".
- Adjust telescopic shaft to the required length (HT 101, HT 131 only)
- Start the engine.
- Put on the shoulder strap.

 Never throw cuttings into the household garbage can – cutting can be composted.

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

Cutting sequence

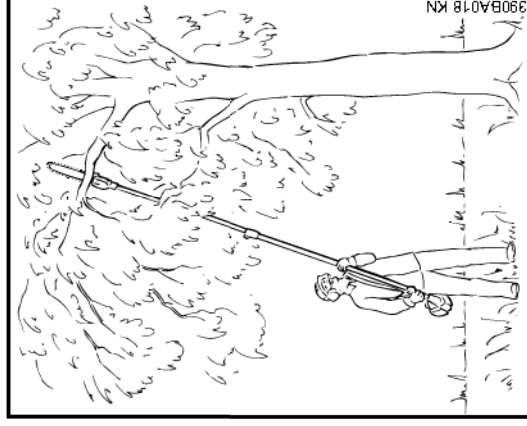
To allow branches a free fall, always cut the lower branches first. Prune heavy branches (large diameter) in several controllable pieces.

Working techniques

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

HT 100, HT 130:

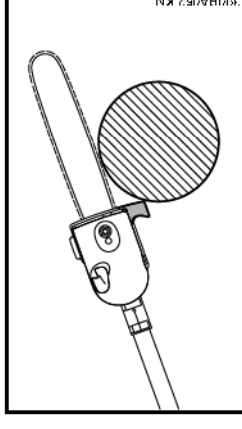
Always hold the shaft with your left hand in the area of the handle hose.



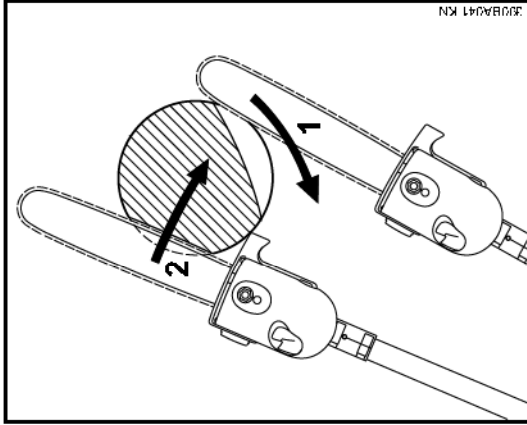
The shaft should always be held at an angle of **60° or less**.

The most convenient working position is a tool angle of 60°, but any lesser angle may be used to suit the situation concerned.

Cross-cut

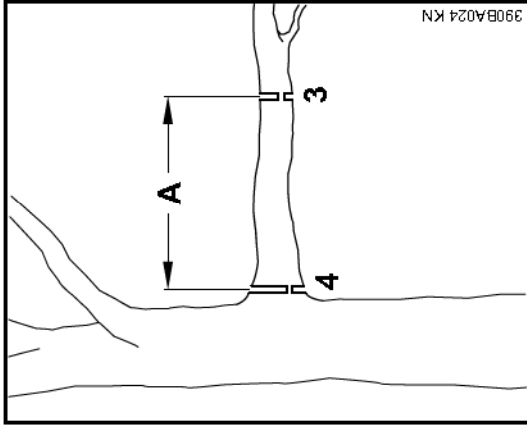


To avoid pinching the bar in the cut, position the cutting attachment with the hook against the branch and then perform the cross-cut from the top downwards.



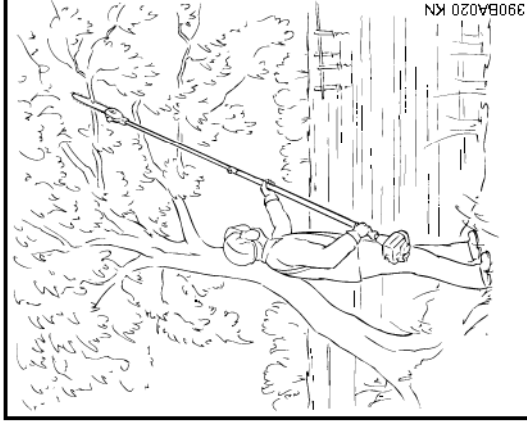
Relieving cut

- To avoid tearing the bark on thick branches, always start by performing a relieving cut (1) on the underside of the branch.
- To do this, apply the cutting attachment and pull it across the bottom of the branch as far as the bar nose.
- Locate the hook against the branch and then perform the cross-cut (2).



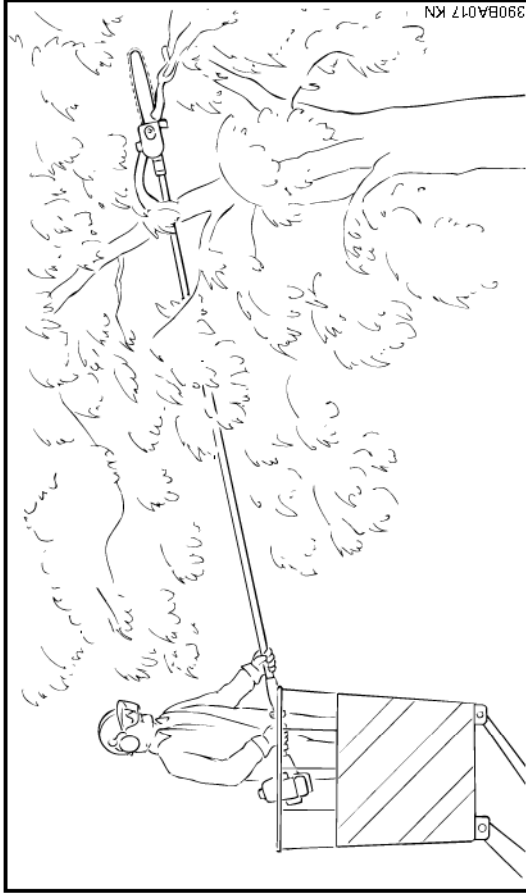
Flush-cutting thick branches

- If branch diameter is more than 4" (10 cm), first perform undercut (3) and then cross-cut at a distance of about 8" (20 cm) (A) from the final cut.
Then carry out the flush-cut (4), starting with a relieving cut and finishing with a cross-cut.



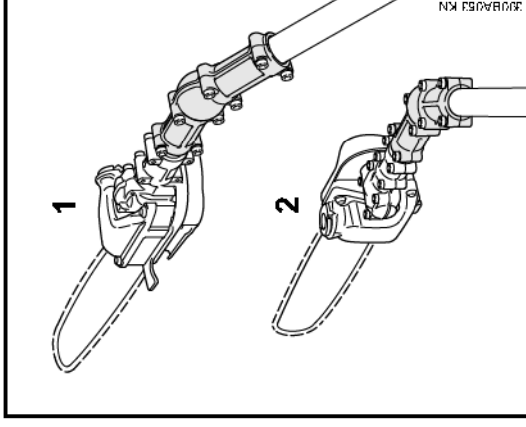
Cutting above obstacles

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



Cutting from a lift bucket

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



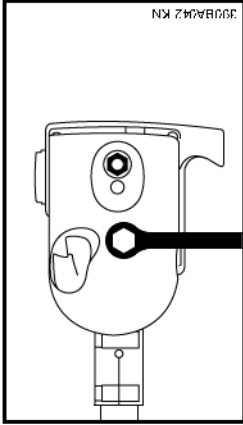
30° angle drive

The angle drive keeps the cutting attachment at an angle of 30° to the drive tube.

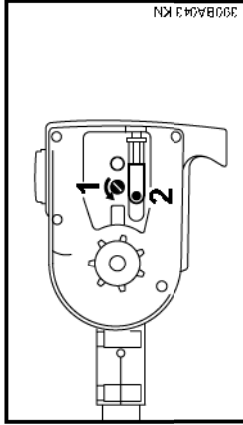
The angle drive may be adjusted on the drive tube to the following positions only:

- 1 = For cross-cutting vertical branches and bushes.
- 2 = For a better view of the cutting attachment.

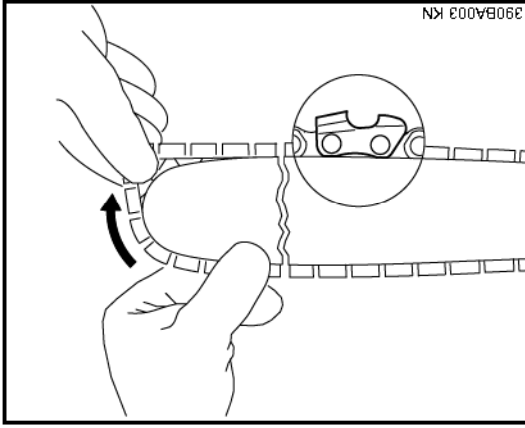
Mounting the Bar and Chain



- Unscrew nut and take off cover.

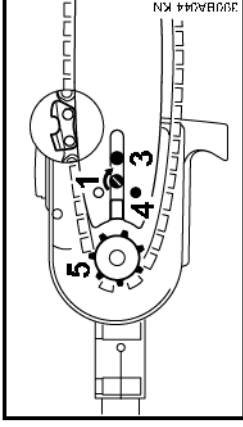


- Turn tensioning screw (1) counter-clockwise until the tensioning nut (2) butts against the left end of the housing slot, then back it off 5 full turns.



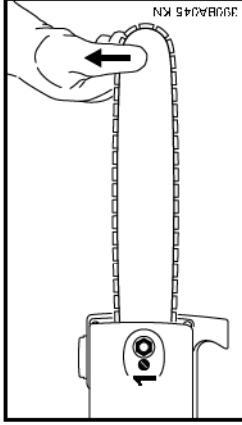
⚠ The chain is very sharp – wear work gloves to protect hands from cuts.

- Fit the chain – start at the bar nose.



- Fit guide bar over the stud (3). Engage peg of tensioner slide in locating hole (4) – place the chain over sprocket (5) at the same time.
- Now turn tensioning screw (1) clockwise until there is very little chain sag on the underside of the bar – and the drive link tangs are located in the bar groove.
- Refit the sprocket cover and screw on the nut only fingertight.
- Now refer to "Tensioning the Saw Chain".

Tensioning the Saw Chain



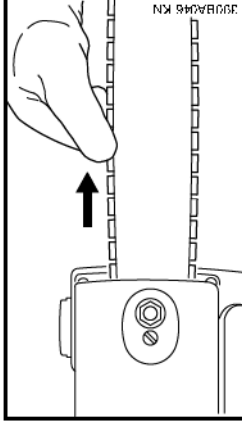
Retensioning during cutting work:

- Shut off the engine and then slacken the nut.
- Hold the bar nose up.
- Use screwdriver to turn the tensioning screw (1) clockwise until chain fits snugly against the underside of the bar.
Tighten down the nut **firmly**.

A new chain has to be retensioned more often than one that has been in use for some time – check chain tension frequently – see chapter "Operating Instructions / During Operation".

- Check chain tension.

Checking Chain Tension




- Shut down the engine.
- Wear work gloves to protect hands.
- Chain must fit snugly against the underside of the bar and it must still be possible to pull the chain along the bar by hand.
- If necessary, retension the chain.

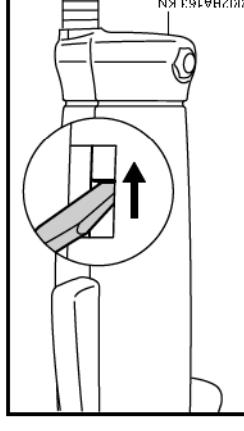
A new chain has to be retensioned more often than one that has been in use for some time.

Check chain tension frequently – see chapter "Operating Instructions / During Operation".

Adjusting the Throttle Cable*

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

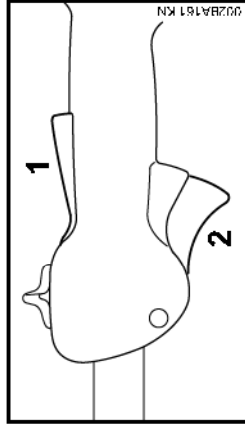
Adjust the throttle cable only after the unit is fully assembled.



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

* see "Guide to Using this Manual"

4-MIX Engine



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

Fuel

This engine is certified to operate on unleaded gasoline and the STIHL two-stroke engine oil at a mix ratio of 50:1.

Your engine requires a mixture of high-quality gasoline and quality two-stroke air cooled engine oil.

Use mid-grade unleaded gasoline with a minimum octane rating of 89 (R+M/2). If the octane rating of the mid-grade gasoline in your area is lower, use premium unleaded fuel.

Fuel with a lower octane rating may increase engine temperatures. 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 and catalytic converters as well. This could cause running problems or even damage the engine. For this reason STIHL recommends that you use only nationally recognized high-quality unleaded gasoline!

Fueling

Use only STIHL two-stroke engine oil or equivalent high-quality two-stroke engine oils that are designed for use only in air cooled two-cycle engines.

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 rated (two-stroke water cooled) mix oils or other mix oils that state they are for use in both water cooled and air cooled engines (e.g., outboard motors, snowmobiles, chainsaws, mopeds, etc.).

Take care when handling gasoline. Avoid direct contact with the skin and avoid inhaling fuel vapor. When filling at the pump, first remove the canister from your vehicle and place the canister on the ground before filling. Do not fill fuel canisters that are sitting in or on a vehicle.

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

The machine's fuel tank and the canister in which fuel mix is stored should be cleaned as necessary.

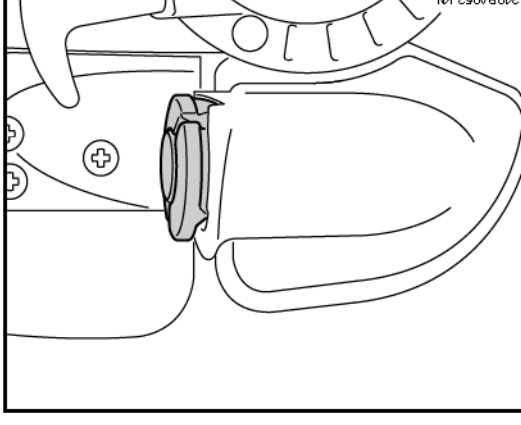
Fuel mix ages

Only mix sufficient fuel for a few days work, not to exceed 3 months of storage. Store in approved fuel-canisters only.

When mixing, pour oil into the canister first, and then add gasoline. Close the canister and shake it vigorously by hand to ensure proper mixing of the oil with the fuel.

Gasoline	Oil (STIHL 50:1 or equivalent high-quality oils)	US gal.	US fl.oz
1			2.6
2 1/2			6.4
5			12.8

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



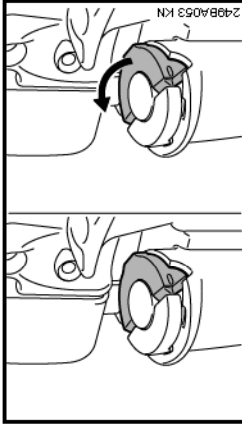
Before fueling, clean the filler cap and the area around it to ensure that no dirt falls into the tank.

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

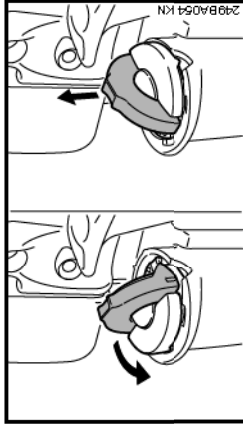
⚠ In order to reduce the risk of burns or other personal injury from escaping gas vapor and fumes, remove the fuel filler cap carefully so as to allow any pressure build-up in the tank to release slowly.

Chain Lubricant

Opening the cap

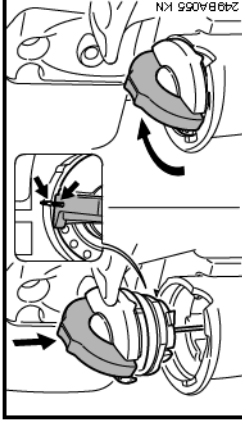


- Raise the grip until it is upright.



- Turn the cap counterclockwise (approx. a quarter turn).
- Remove the filler cap.

Closing the cap





- Fit the cap – grip upright –marks must line up.
- Turn the cap clockwise as far as stop (approx. a quarter turn).



- Fold the grip flush with the top of the cap.

If the grip does not lie completely flush with the cap and the detent on the grip does not engage the recess in the filler neck, the cap is not properly seated and tightened and you must repeat the above steps.

 For automatic and reliable lubrication of the chain and guide bar – use only an environmentally compatible quality chain and bar lubricant with non-fling additive or the rapidly biodegradable **STIHL BioPlus** is recommended.

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

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

Filling Chain Oil Tank



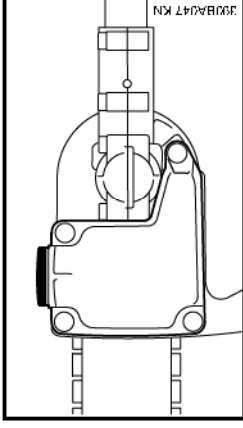
If special chain lubricant is not available, you may – in an emergency – use an HD single grade or multigrade engine oil with a viscosity that suits the prevailing outside temperature.

⚠ Do not use waste oil!

Medical studies have shown that renewed contact with waste oil can cause skin cancer. Moreover, waste is environmentally harmful!



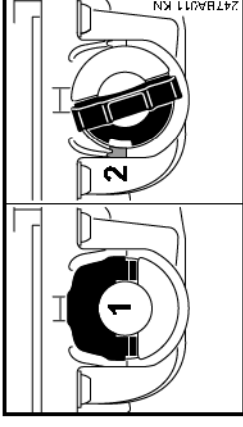
Waste oil does not have the necessary lubricating properties and is unsuitable for chain lubrication.



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

- Thoroughly clean the filler cap and area around it so that no dirt can fall into the tank.
- Position the unit so that the filler cap faces up.

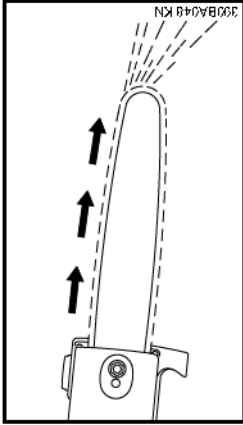
If the oil level in the tank does not go down, the reason may be a problem in the oil supply system: Check chain lubrication, clean the oilways, contact your servicing dealer for assistance if necessary. STIHL recommends that you have maintenance and repair work performed only by a STIHL servicing dealer.



The bayonet-type oil tank filler cap with its hinged grip can be opened and closed without tools.


- To open the tank, swing the grip (1) to the vertical position.
- Turn the filler cap counterclockwise as far as stop and remove.
- Fill up with chain oil.
- To close the oil tank, place the filler cap in position with the grip upright, making sure the recesses (2) are in alignment.
- Turn the filler cap clockwise as far as stop.
- Fold the grip down so that it is flush with the top of the cap.

Checking Chain Lubrication




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

- Always check chain lubrication and the oil level in the tank before starting work.

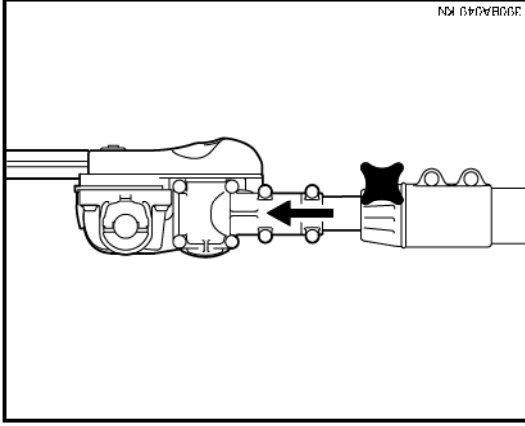
 Never operate your pruner without chain lubrication. If the chain is run dry, the whole cutting attachment will be irretrievably damaged within a very short time.

Inadequate lubrication can be caused by a dirty oil strainer. Have the oil strainer cleaned or replaced by your servicing dealer.

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

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

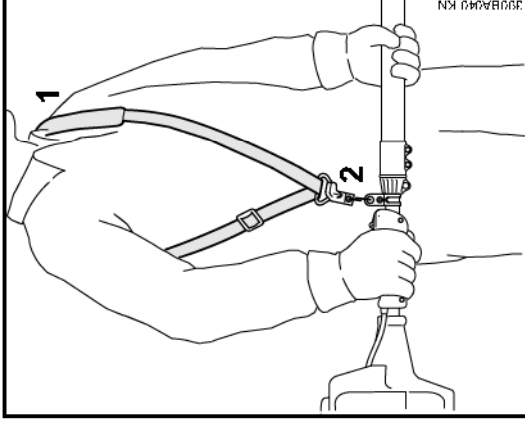
Adjusting the Telescopic Shaft (HT 101, HT 131)



Always shut off the engine and fit the chain guard

- Loosen the screw.
- Adjust shaft to the required length.
- Tighten the screw firmly.

Fitting the Harness

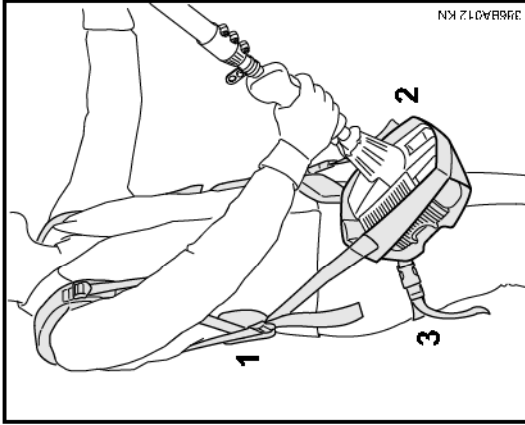


Shoulder strap*

- Put on the shoulder strap (1).
- Adjust length of strap so that the spring hook (2), with the unit attached, is at about the same height as your right hip.

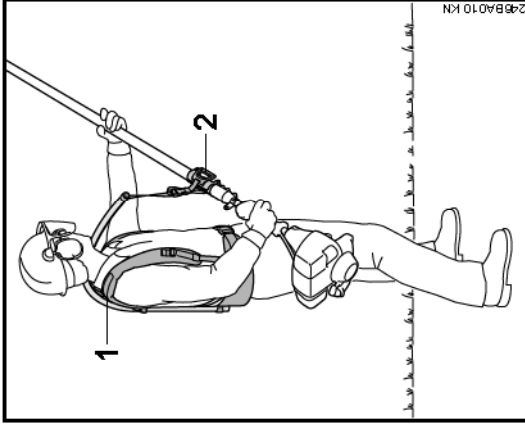
* see "Guide to Using this Manual"

Backpack Carrying System



Full harness*

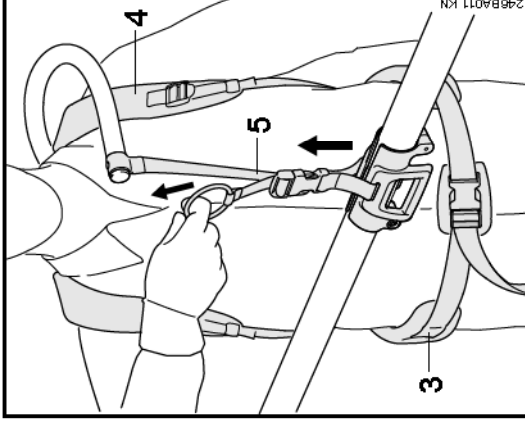
- Put on the full harness (1) and sling (2) as shown on the instruction sheet supplied.
- Adjust the harness and thigh belt (3) as required.
- Rest the powerhead in the sling during cutting work.



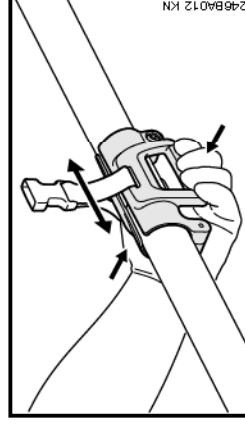
Backpack carrying system

For pole pruners with a telescopic shaft.

- Adjust the backpack carrying system (1) and put it on your back as described in the instructions provided with the system.
- Secure the sliding adjuster (2) to the shaft.
- Attach the pole pruner to the carrying strap when cutting.



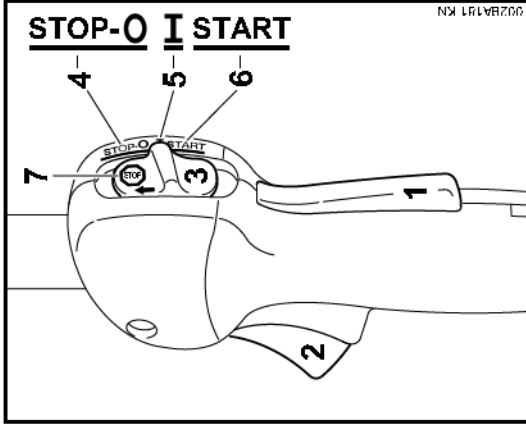
- Adjust the hip belt (3), both shoulder straps (4) and the carrying strap (5).



- Squeeze the grips to move the sliding adjuster up or down the shaft.

* see "Guide to Using this Manual"

Starting / Stopping the Engine

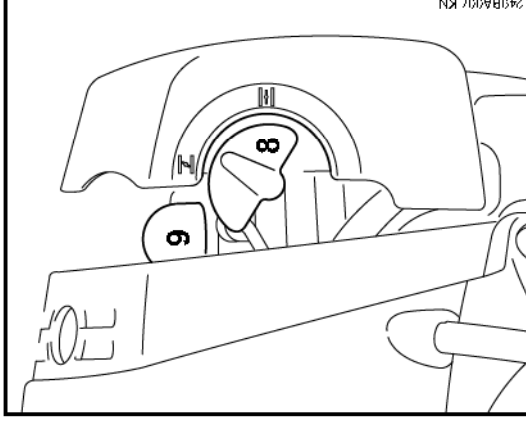


Symbol on slide control

- (7) – stop symbol and arrow. To stop the engine, move the slide control in direction of arrow ((8)) to **STOP - 0**

Starting

- Hold down the throttle trigger interlock and squeeze the throttle trigger.
- Keep both levers in that position.
- Move the slide control to **START** and hold it there.
- Now release the throttle trigger, slide control and throttle trigger interlock in that order. This is the **starting throttle position**.



Controls

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

Positions of slide control

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

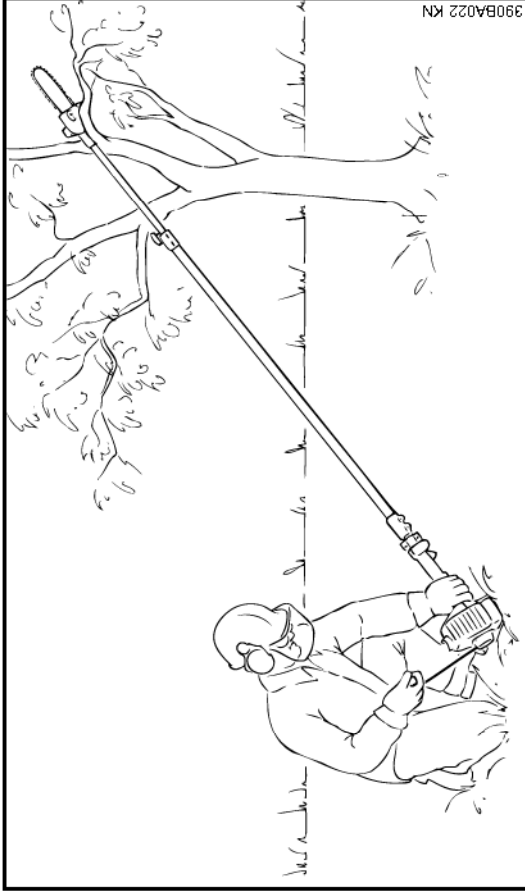
- Set the choke knob (8):

For cold start to:

Form warm start to:

also use this setting if the engine has been running but is still cold

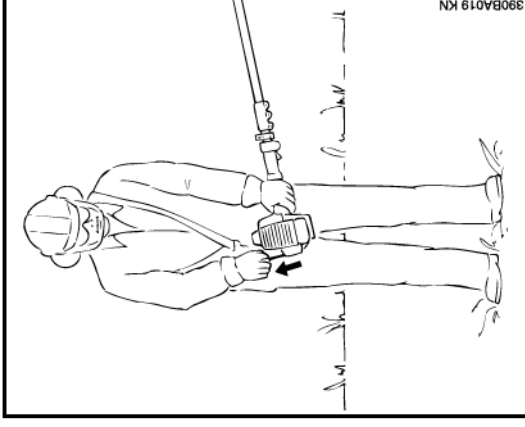
- Press fuel pump bulb (9) at least 5 times – even if bulb is filled with fuel.




- Place the unit on the ground: it must rest securely on the engine support and the hook. If necessary, rest the hook on a raised support (e.g. a branch, mound or something similar).
- Remove the chain guard. Check that chain is not touching any object or the ground.

⚠ Check that nobody is standing within the working range of the pruner.

- Make sure you have a firm footing. Press the unit **firmly** against the ground with your left hand on the fan housing. Your thumb should be under the fan housing.
- ⚠** Do not stand or kneel on the drive tube. This will bend the tube and result in permanent damage to the telescopic shaft.




- Alternative method:**
- Remove the chain guard. Position the shaft on a branch so that it is held by the hook.
 - Hold the unit **firmly** with your left hand around the fan housing – your thumb under the fan housing.
 - Pull the starter grip slowly with your right hand until you feel it engage - and then give it a brisk strong pull. Do not pull out strater rope at full length - it might break.

 Do not let the starter grip snap back. Guide it slowly back into the housing so that the starter rope can rewind properly.

- Crank engine until it begins to fire – after no more than five pulls: Set the choke knob to \pm .
- Continue cranking.


As soon as engine runs:

- Blip the throttle trigger – the slide control moves to the run position **I** – and the engine returns to idling speed

 Make sure carburetor is correctly adjusted – chain must not run when engine is idling.

Your pruner is ready for operation.

To shut down the engine

- Move the slide control in direction of arrow  to **STOP** – **0**.

At very low temperatures

- As soon as engine runs:
 - Blip the throttle trigger to disengage the starting throttle position. The slide control moves to the normal run position **I** and the engine settles down to idle speed.
 - Open the throttle slightly.
 - Warm up engine for brief period.

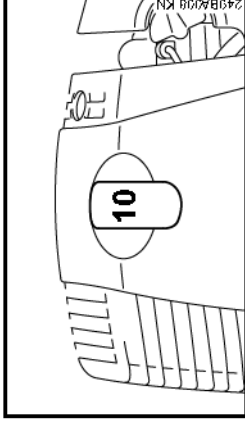
If the engine does not start:

Choke knob

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

- Choke knob to \pm
- Set slide control, interlock lever and throttle trigger to starting throttle position
- Start the engine by pulling the starter rope firmly. 10 to 20 pulls may be necessary.

If the engine still does not start:



- Move the slide control to **STOP** – **0**.
- Pull off the spark plug boot (10).
- Unscrew and dry off the spark plug.
- Open the throttle wide.
- Crank the engine several times with the starter to clear the combustion chamber.
- Refit the spark plug.
- Connect the spark plug boot (press it down firmly).
- Move the slide control to **START**.
- Set the choke knob to \pm – even if engine is cold.
- Now start the engine.

Operating Instructions

Throttle cable adjustment


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

Tank run until dry

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

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.

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

During operation

Check chain tension frequently!

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

Cold chain


Tension is correct when the chain fits snugly against the underside of the bar and can still be pulled along the bar by hand.

Retension if necessary – see chapter "Tensioning the Saw Chain".

Chain at operating temperature

The chain stretches and begins to sag. The drive links on the underside of the bar must not come out of the bar groove – the chain may otherwise jump off the bar.

Retension the chain – see chapter "Tensioning the Saw Chain".

 Always slacken off the chain again after finishing work. The chain contracts as it cools down. If it is not slackened off, it may damage the crankshaft and bearings.

Taking Care of Guide Bar

After a long period of full-throttle operation

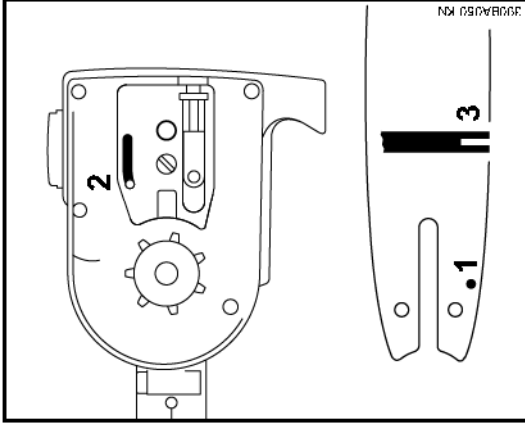
Allow engine to run for a while at idle speed so that the heat in the engine can be dissipated by flow of cooling air. This protects engine-mounted components (ignition, carburetor) from thermal overload.

After finishing work

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

The chain contracts as it cools down. If it is not slackened off, it may damage the crankshaft and bearings.

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.



- **Turn the bar over** – every time you sharpen the chain – and every time you replace the chain – this avoids one-sided wear, especially at nose and underside of the bar.

Regularly clean

- 1 = oil inlet hole
- 2 = oil passage
- 3 = bar groove

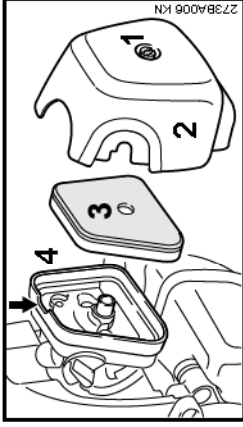
- **Measure groove depth** – with scale on filing gauge – see "Special Accessories" – in area used most for cutting on Rollomatic bars.

Chain type	Chain pitch	Minimum groove depth
Picco-Mini	3/8" P	5.0 mm (0.20")

If groove depth is less than specified:

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

Cleaning the Air Filter



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

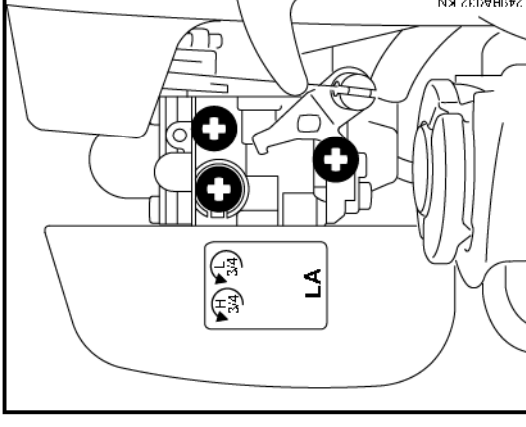
If there is a noticeable loss of engine power:

- Set the choke knob to I.
- Take out the screw (1) and remove the filter cover (2).
- Clean away loose dirt from around the filter.
- Grip the filter element (3) at the notch (arrow) in the filter housing (4) and take it out.
- Fit a new filter element. As a temporary measure you can knock it out on the palm of your hand or blow it out. **Do not wash.**
- Replace any damaged parts.
- Install filter element in the filter housing.
- Refit the filter cover.
- Insert the screw and tighten it down firmly.

Motor Management

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

Adjusting the Carburetor



The carburetor comes from the factory with a standard setting.

This setting provides an optimum fuel-air mixture under most operating conditions.

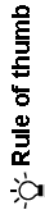
With this carburetor it is only possible to adjust the high speed and low speed screws within fine limits.

Standard Setting

- Shut off the engine.
- Check chain tension.
- Check the air filter and clean or replace as necessary.
- Check adjustment of throttle cable and readjust if necessary – see "Adjusting the Throttle Cable".
- Check spark arresting screen* and clean or replace as necessary.
- Carefully turn both adjusting screws counterclockwise as far as the stop: The high speed screw (H) and low speed screw (L) are now $\frac{3}{4}$ turn open.
- Start and warm up the engine.
- Adjust idle speed with the idle speed screw (LA) so that the chain does not rotate.

Fine Tuning

A slight correction of the setting of the high speed screw (H) may be necessary if engine power is not satisfactory when operating at high altitude or at sea level.



Rule of thumb

- Turn the high speed screw (H) about one quarter turn for every 3300 ft (1000 m) change in altitude.
- Carry out the standard setting.
- Warm up the engine for about 3 minutes.
- Open the throttle wide.

At high altitude

- Turn the high speed screw (H) clockwise (leaner), no further than stop, until there is no noticeable increase in engine speed.

At sea level

- Turn the high speed screw (H) counterclockwise (richer), no further than stop, until there is no noticeable increase in engine speed.



It is possible that maximum engine speed may be reached with the standard setting in each case.

Adjusting Idle Speed

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

- Warm up engine for about 3 minutes.

Engine stops while idling

- Turn idle speed screw (LA) slowly clockwise until the engine runs smoothly – chain must not rotate.

* see "Guide to Using this Manual"

Spark Arresting Screen in Muffler

Chain rotates when engine is idling

- Turn idle speed screw (LA) slowly counterclockwise until chain stops rotating and then turn the screw about another $\frac{1}{2}$ to $\frac{3}{4}$ turn in the same direction.

Erratic idling behavior, engine stops even though setting of LA screw is correct, poor acceleration

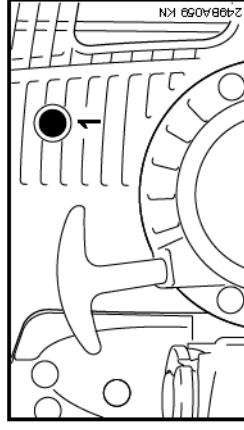
- **Idle setting too lean:**
Turn low speed screw (L) counterclockwise, no further than stop, until the engine runs and accelerates smoothly.

Erratic idling behavior

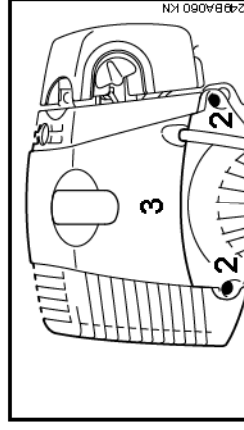
- **Idle setting too rich:**
Turn low speed screw (L) clockwise, no further than stop, until the engine runs and accelerates smoothly.

The spark arresting screen is an option that is not fitted in all machines.

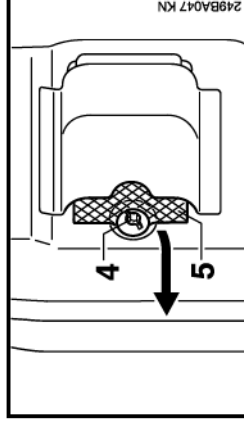
- If the engine is low on power, check the spark arresting screen in the muffler.
- Wait for muffler to cool down.



- Move slide control to **STOP-O**.
- Remove the screw (1).

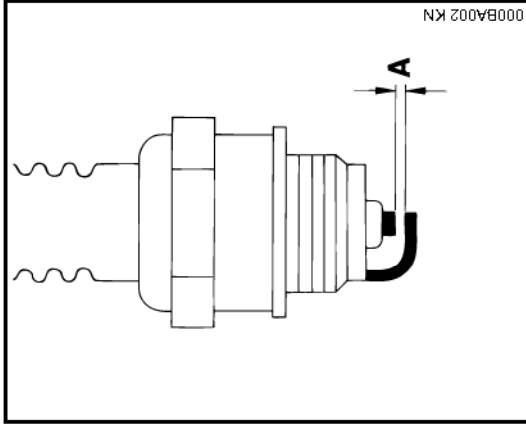


- Remove the screws (2).
- Lift away the shroud (3).



- Remove the screw (4).
- Lift spark arresting screen (5) and pull it out.
- Clean spark arresting screen if necessary – if screen is damaged or coked up, fit a new one.
- Refit the spark arresting screen.
- Insert screw and tighten down.
- Fit the shroud.

Checking the 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.

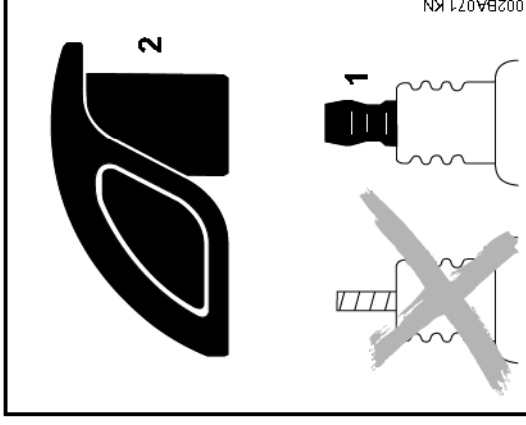
If engine is down on power, difficult to start or runs poorly at idling speed, first check the spark plug.

- Remove spark plug as described in chapter "Starting / Stopping the Engine".
- Clean dirty spark plug.
- Check the electrode gap (A) and readjust if necessary – see "Specifications".
- Use only resistor type spark plugs of the approved range.

Rectify problems which have caused fouling of spark plug:

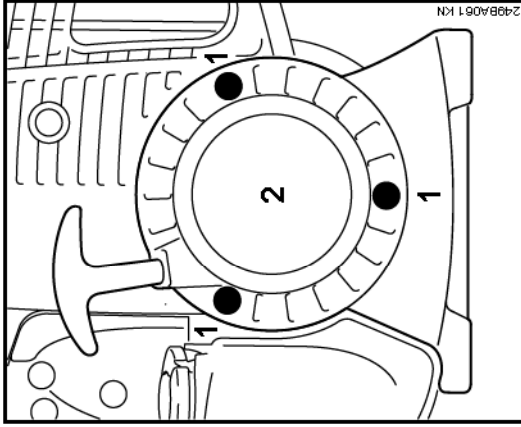
- Too much oil in fuel mix.
- Dirty air filter.
- Unfavorable running conditions, e.g. operating at part load.

Fit a new spark plug after approx. 100 operating hours or earlier if the electrodes are badly eroded.




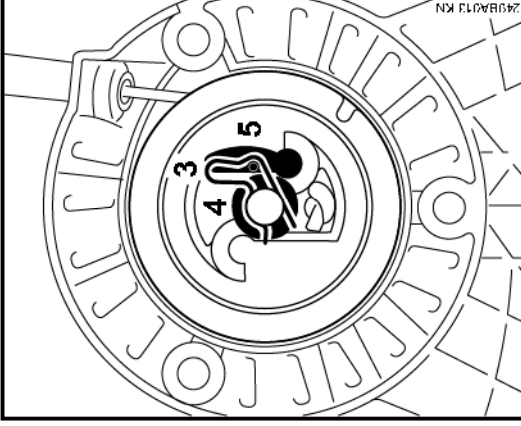
⚠ To reduce the risk of fire and burn injury, use only spark plugs authorized by STIHL. Always press spark plug boot (2) snugly onto terminal (1) of the proper size. (Note: If terminal has detachable SAE adapter nut, it must be attached.) A loose connection between spark plug boot and ignition wire connector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

Replacing Starter Rope and Rewind Spring

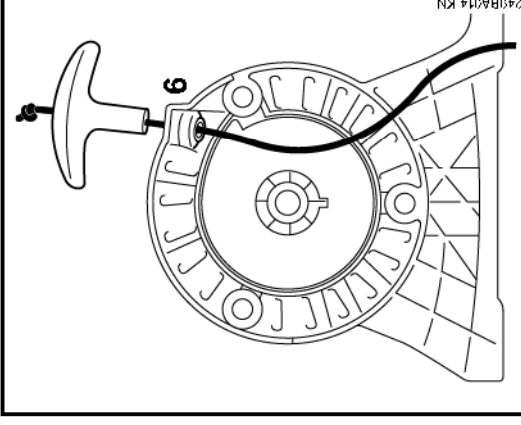


Replacing the starter rope

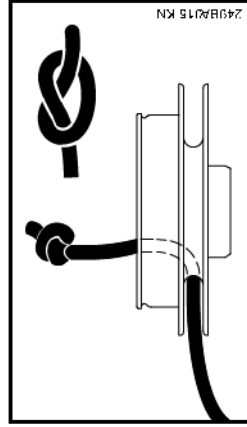
- Move slide control in direction of  - arrow to **STOP-O**.
- Take out the screws (1).
- Lift the starter cover (2) off the housing.



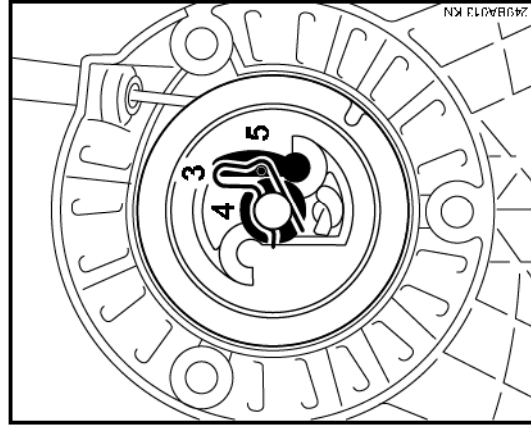
- Remove the spring clip (3).
- Remove the rope rotor with washer (4) and pawl (5).



- Remove remaining rope from the rotor and grip.
- Tie a simple overhand knot in the new rope (see "Specifications") and then thread it through the top of the grip and the rope bushing (6).



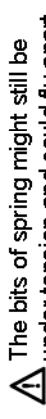
- Thread the rope through the rotor and secure it with a simple overhand knot.
- Coat rope rotor bearing bore with non-resinous oil.
- Slip rotor over starter post – turn it back and forth to engage anchor loop of rewind spring.



- Refit the pawl (5) in the rotor.
- Fit the washer (4) on the starter post.
- Use a screwdriver or suitable pliers to install spring clip (3) on starter post and engage it on the pawl's peg post – the spring clip must point counterclockwise clockwise as shown in the illustration.
- Go to "Tensioning the rewind spring".

Replacing a broken rewind spring

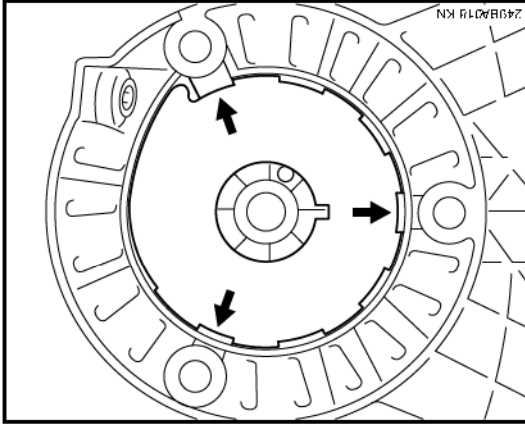
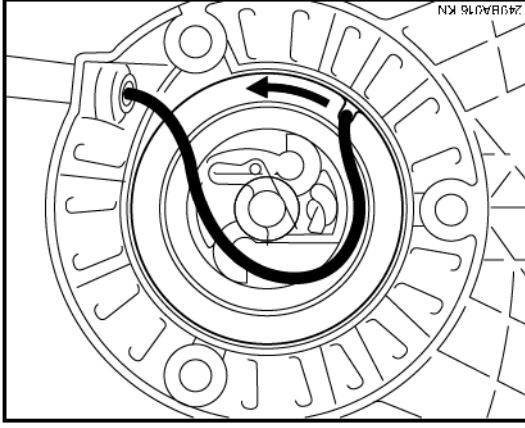
- Remove the rope rotor as described under "Replacing Starter Rope and Rewind Spring".



The bits of spring might still be under tension and could fly apart when you take them out of the housing. To reduce **risk of injury**, wear eye and face protection and work gloves.

- Remove spring housing and the parts of the spring.
- Lubricate the new spring with a few drops of non-resinous oil.

- When the starter rope is fully extended it must still be possible to rotate the rotor another half turn. If this is not the case, the spring is over-tensioned and could break. Take one turn of rope off the rotor in such a case.
- Fit the starter cover on the housing.
- Tighten down the screws firmly.



- Place the new spring housing on the recesses (arrows) – bottom plate must face up.
- Push the spring housing into the starter cover.
- Install the rope rotor as described under "Tensioning the rewind spring".
- If the spring pops out of the housing during installation: Refit it in the counterclockwise direction, starting outside and working inward.

Tensioning 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 rotor steady – pull out and straighten the twisted rope.
- Release the rope rotor.
- Let go of rope slowly so that it winds onto the rotor. The starter grip must locate firmly in the rope guide bushing. If the grip droops to one side: Increase spring tension by adding one more turn.

Storing the Machine

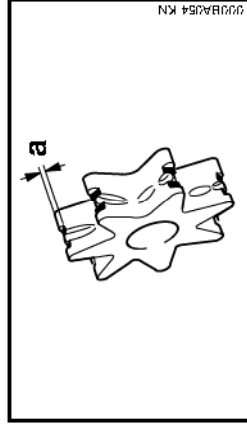
For periods of about 3 months or longer:

- Drain and clean the fuel tank in a well ventilated area.
- Dispose of remaining fuel and cleaning solution properly in accordance with local environmental requirements.
- Run engine until carburetor is dry, this helps prevent the carburetor diaphragms sticking together.
- Remove the saw chain and guide bar, clean them and spray with corrosion inhibiting oil.
- Thoroughly clean the unit, pay special attention to the cylinder fins and air filter.
- If you use a biological chain and bar lubricant, e.g. STIHL BioPlus, completely fill the chain oil tank.
- Store the unit in a dry and high or locked location, out of the reach of children and other unauthorized persons.


Checking and Replacing the Chain Sprocket

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

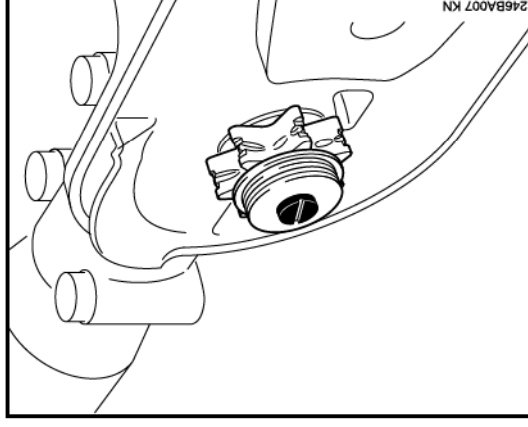
Replace the chain sprocket:



- after using two Oilomatic chains or sooner
 - if the wear marks (dimension a) on the sprocket are deeper than 0.02 in (0.5 mm) – the life of the chain would otherwise be reduced.
- Use reference gauge (special accessory) to check the depth of the wear marks.

 The service life of the chain sprocket is prolonged if it is used with two chains in rotation.

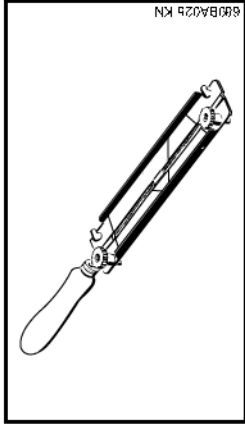
Use only original STIHL replacement sprockets.



The chain sprocket is driven via a friction clutch and must be replaced by a servicing dealer.

STIHL recommends that you have maintenance and repair work performed only by a STIHL servicing dealer.

Furthermore, the angles must be the same on all cutters. If angles are uneven the chain will run roughly, not in a straight line, wear quickly and break prematurely.

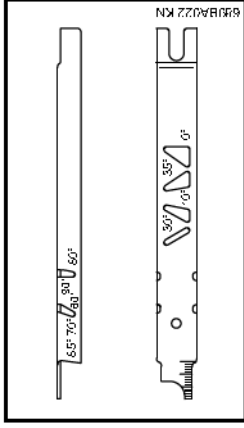


As these requirements can be met only after sufficient and constant practice:

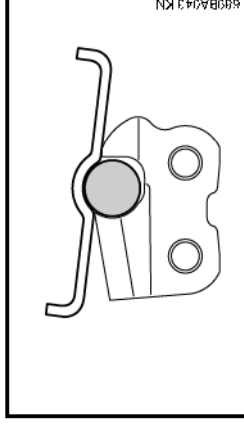
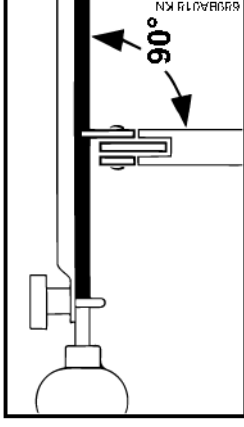
- Use a file holder

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

For checking angles



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



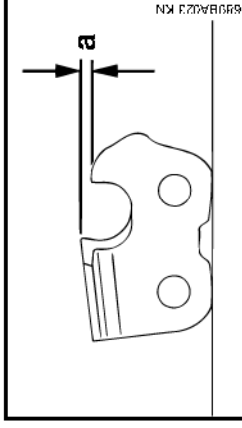
- ### File correctly
- If you use an FG 2, HOS or USG sharpener: Remove the chain from the bar and sharpen according to instructions supplied with the tool.
 - Sharpen chain frequently; take away as little metal as possible – two or three strokes of the file are usually enough.
 - Hold the file **horizontally** (at right angle to side of guide bar) and file according to the angles marked on the file holder. Rest the file holder on the top plate and depth gauge.
 - Always file from the inside to the outside of the cutter.
 - The file only sharpens on the forward stroke – lift the file off the cutter on the backstroke.
 - Avoid touching the tie straps and drive links with the file.

- Rotate the file at regular intervals while filing to avoid one-sided wear.
- Use a piece of hardwood to remove burrs from cutting edge.
- Check angles with the filing gauge. All cutters must be the same length.

If the cutters are not the same length, they will have different heights. This makes the chain run roughly and increases the risk of breakage of the chain.

- Find the shortest cutter and then file all other cutters back to the same length – it is best to have this work done in a workshop on an electric grinder.

Depth gauge setting



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

Specified distance or setting between depth gauge and cutting edge = a:

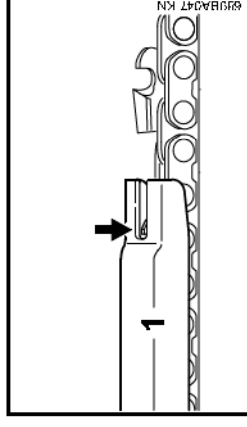
This setting may be increased by 0.008" (0.2 mm) for cutting softwood in mild weather season – no frost.

Chain pitch	Depth gauge setting "a"	mm	(inch)
Inch	(mm)		
$\frac{3}{8}$ " PMMC3	(9.32)	0.65	(0.026)
$\frac{3}{8}$ " PMN	(9.32)	0.45	(0.018)

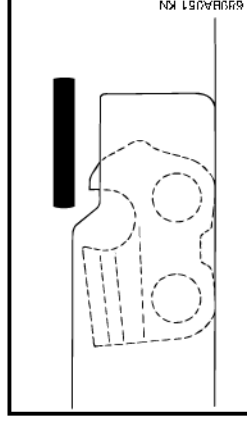
Lowering depth gauges

The depth gauge setting is reduced when the chain is sharpened because the top plate of the cutter slopes downward towards the back.

- Check the depth gauge setting every time you sharpen the chain.



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



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

Inspections and Maintenance by Dealer

Fuel pickup body in tank

- Have the pickup body in the fuel tank replaced every year.

STIHL recommends that maintenance and repair work be carried out only by authorized STIHL dealers.

After sharpening

After sharpening, clean the chain thoroughly, remove filings or grinding dust – lubricate the chain thoroughly.

Before long out-of-service period

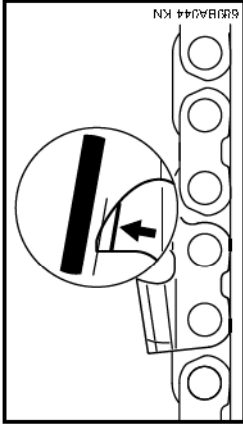
Clean the chain with a brush and store it in a well-oiled condition.

Saw chain

Type: Picco Micro Mini (PMMC3, PMN)
Pitch: 3/8" P (9.32 mm)

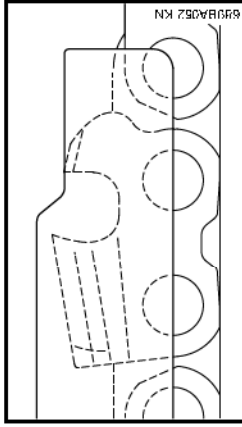
Sharpening Tools (special accessories)

Description	Part No.
Round file 5/32" (4.0 mm) diameter	5605 772 4006
File holder with Round file	5605 750 4327
Filing gauge PMMC3	1110 893 4000
PMN	0000 893 4000
Flat file	0814 252 3356
Sharpening kit (includes all parts listed above)	5605 007 1027
PMMC3	5605 007 1026
PMN	



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

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



- Place filing gauge on the chain – highest point of depth gauge must be level with the filing gauge.

Maintenance Chart

The following maintenance intervals apply for normal operating conditions only. If your daily working time is longer than normal or cutting conditions are difficult (very dusty work area, resin-rich wood, tropical wood etc.), shorten the specified intervals accordingly.		before starting work	after finishing work or daily	after each refueling stop	weekly	monthly	yearly	if problem	if damaged	if required
Complete machine	Visual inspection (condition, leaks)	X		X						
	Clean		X							
Control handle	Check operation	X		X						
	Clean							X		X
Air filter	Replace								X	
	Check							X		
Pickup body in fuel tank	Replace						X			X
	Clean							X		X
Fuel tank	Check idle adjustment – chain must not rotate	X		X						
	Readjust idle									X
Carburetor	Readjust electrode gap							X		
	Replace after 100 hours of operation									
Spark plug	Inspect		X							
	Clean									X
Cooling inlets	Clean									
	Clean					X				
Cylinder fins	Check and adjust if necessary after first 139 hours of operation									X
	Decarbonize after first 139 hours of operation, then after every 150 hours of operation									X
Valve clearance	Inspect		X							
	Clean or replace								X	X
Combustion chamber	Retighten									X
	Check	X						X		X
Antivibration elements	Have replaced by servicing dealer ¹⁾								X	

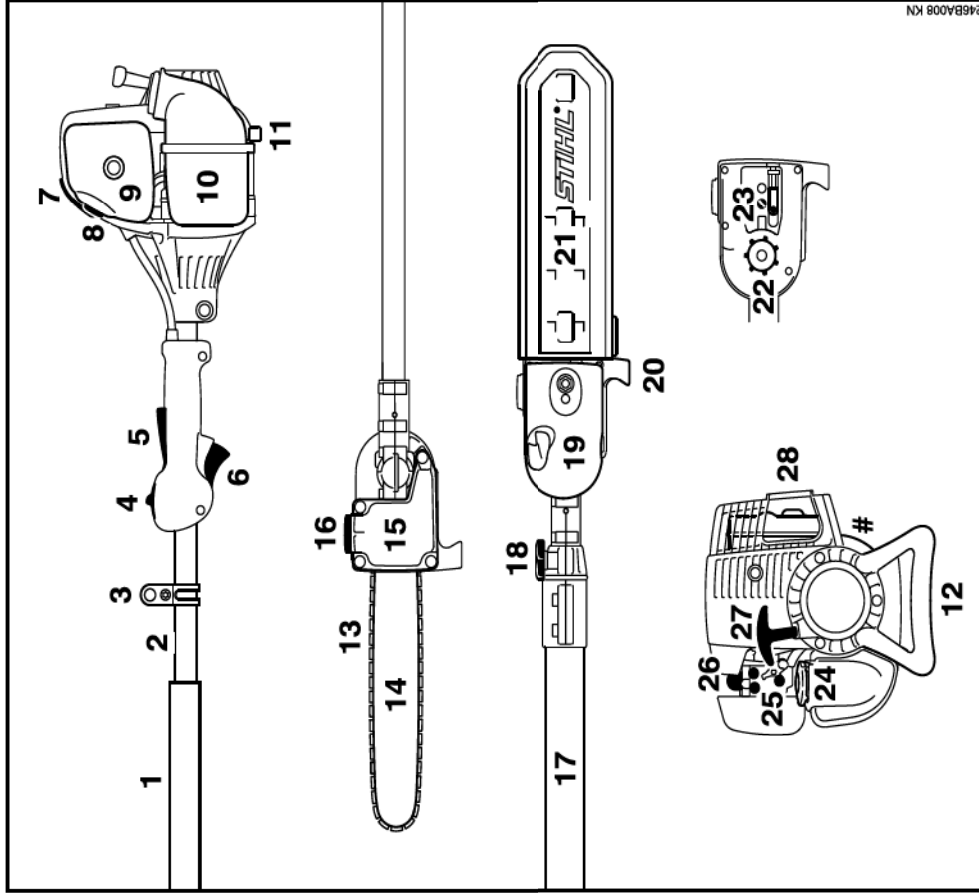
1) STIHL recommends a STIHL servicing dealer

* not in all versions, depends on market

The following maintenance intervals apply for normal operating conditions only. If your daily working time is longer than normal or cutting conditions are difficult (very dusty work area, resin-rich wood, tropical wood etc.), shorten the specified intervals accordingly.		before starting work	after finishing work or daily	after each refueling stop	weekly	monthly	yearly	if problem	if damaged	if required
Chain lubrication	Check	X								
Saw chain	Check, also check sharpness	X		X						
	Check chain tension	X		X						
	Sharpen									X
Guide bar	Check (wear, damage)	X								
	Clean and turn over				X			X		
	Deburr				X					
	Replace								X	X
Chain sprocket	Check				X					
	Have replaced by servicing dealer ¹⁾									X

1) STIHL recommends a STIHL servicing dealer

Main Parts and Controls



- 1= Handle hose (HT 100, HT 130)
- 2= Fixed drive tube (HT 100, HT 130)
- 3= Carrying ring
- 4= Slide control
- 5= Throttle trigger interlock
- 6= Throttle trigger
- 7= Spark plug boot
- 8= Choke knob
- 9= Air filter cover
- 10= Fuel tank
- 11= Machine support
- 12= Machine support (HT 130, HT 131)
- 13= Oilomatic saw chain
- 14= Guide bar
- 15= Oil tank
- 16= Oil filler cap
- 17= Telescopic drive tube (HT 101, HT 131)
- 18= Clamp screw (HT 101, HT 131)
- 19= Chain sprocket cover
- 20= Hook
- 21= Chain guard (scabbard)
- 22= Chain sprocket
- 23= Chain tensioner
- 24= Fuel filler cap
- 25= Carburetor adjusting screws
- 26= Fuel pump
- 27= Starter grip
- 28= Muffler (with spark arresting screen*)
- # Serial number

* not in all versions, depends on market

Definitions

1. **Handle Hose**
For holding the machine during starts and cutting work.
2. **Fixed Drive Tube**
Connects the engine to the gearbox.
3. **Carrying Ring**
Connects the machine to the shoulder strap.
4. **Slide Control**
For starting throttle, run and stop. Keeps the throttle partially open during starting, switches the ignition off to stop the engine.
5. **Throttle Trigger Interlock**
Must be depressed before the throttle trigger can be activated.
6. **Throttle Trigger**
Controls the speed of the engine.
7. **Spark Plug Boot**
Connects the spark plug to the ignition wire.
8. **Choke Knob**
Eases engine starting by enriching the mixture.
9. **Air Filter Cover**
Encloses and protects the air filter.
10. **Fuel Tank**
For fuel mixture consisting of gasoline and oil.
11. **Machine Support**
For resting the machine on the ground.
12. **Machine Support**
For resting the machine on the ground.
13. **Oilomatic Saw Chain**
A loop consisting of cutters, tie straps and drive links.
14. **Guide Bar**
Supports and guides the saw chain.
15. **Oil Tank**
Tank for chain lubricating oil.
16. **Oil Filler Cap**
For closing the oil tank.
17. **Telescopic Drive Tube (Shaft)**
Adjustable drive tube enables user to optimize machine's reach.
18. **Clamp Screw**
Must be loosened before adjusting length of telescopic drive tube.
19. **Chain Sprocket Cover**
Covers and protects the clutch and sprocket.
20. **Hook**
For hooking the machine to a branch and pulling branches away.
21. **Chain Guard (Scabbard)**
Covers chain for transportation and during out-of-service periods.
22. **Chain Sprocket**
The toothed wheel that drives the saw chain.
23. **Chain Tensioner**
Permits precise adjustment of chain tension.
24. **Fuel Filler Cap**
For closing the fuel tank.
25. **Carburetor Adjusting Screws**
For tuning the carburetor.
26. **Fuel Pump**
Provides additional fuel for a cold start.
27. **Starter Grip**
The grip of the pull starter, for starting the engine.
28. **Muffler (with spark arresting screen)**
Reduces engine exhaust noise and directs the exhaust gases. The spark arresting screen is designed to help reduce the risk of fire.

Specifications

EPA:

The Emission Compliance Period referred to on the Emissions Compliance Label indicates the number of operating hours for which the engine has been shown to meet Federal emission requirements. Category
 A = 300 hours
 B = 125 hours
 C = 50 hours

CARB:

The Emission Compliance Period used on the CARB Air Index Label indicates the terms:
 Extended = 300 hours,
 Intermediate = 125 hours,
 Moderate = 50 hours

STIHL single cylinder four-stroke engine with gasoil lubrication

Displacement

HT 100, HT 101: 1.92 cu.in (31.4 cm³)
 HT 130, HT 131: 2.22 cu.in (36.3 cm³)

Bore

HT 100, HT 101: 1.57 in (40 mm)
 HT 130, HT 131: 1.69 in (43 mm)

Stroke

HT 100, HT 101: 0.98 in (25 mm)
 HT 130, HT 131: 0.98 in (25 mm)

Power to ISO 8893

HT 100, HT 101: 1.36 bhp (1 kW)
 HT 130, HT 131: 1.90 bhp (1.4 kW)

Idle speed

2800 rpm

Max. output shaft speed

(chain sprocket)

HT 100, HT 101: 8,290 rpm
 HT 130, HT 131: 10,500 rpm

Valve clearance

Inlet valve: 0.004 in (0.10 mm)
 Exhaust valve: 0.004 in (0.10 mm)

Fuel tank capacity

18.0 fl. oz. (0.53 l)

Spark plug (resistor type)

HT 100, HT 101: Bosch USR7AC

Electrode gap 0.02 in (0.5 mm)

HT 130, HT 131: NGK CMR6H

Electrode gap 0.028 in (0.7 mm)

Rewind starter

Starter rope: 0.12 in dia., 33.5 in long
 (3.5 mm dia., 850 mm long)

Weight (without cutting attachment, tank dry)

HT 100: 12.1 lb (5.5 kg)

HT 101: 16.3 lb (7.4 kg)

HT 130: 12.6 lb (5.7 kg)

HT 131: 17.2 lb (7.8 kg)

Cutting attachment

Guide bar

Rollomatic with sprocket nose
 Length: 12" (30 cm)

Oilomatic chain

Picco-Micro-Mini

Pitch: 3/8" P (9.32 mm)

Drive link gauge: 0.04 in (1.1 mm)

Chain sprockets

Spur sprocket

Pitch: 3/8" P (9.32 mm)

No. of teeth: 6, 7 (option)

Chain lubrication

Fully automatic speed-controlled rotary piston pump

Oil tank capacity: 7.4 fl. oz. pt (0.22 l)


Special Accessories

Contact your STIHL dealer for information regarding special accessories that may be available for your product.

Maintenance and Repairs

Users of this unit should carry out only the maintenance operations described in this manual. Other repair work may be performed only by authorized STIHL service shops.

Warranty claims following repairs can be accepted only if the repair has been performed by an authorized STIHL servicing dealer using original STIHL replacement parts.

Original STIHL parts can be identified by the STIHL part number, the **STIHL** logo and, in some cases, by the STIHL parts symbol . This symbol may appear alone on small parts.

STIHL Incorporated Federal Emission Control Warranty Statement

Your Warranty Rights and Obligations

The U.S. Environmental Protection Agency (EPA) and STIHL Incorporated are pleased to explain the Emission Control System Warranty on your equipment type engine. In the U.S. 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.

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:

In the U.S., 1997 and later model year small off-road equipment engines are 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.

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.

Warranty Period

The warranty period 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 following list specifically defines the emission-related warranted parts:

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

Trademarks

STIHL Registered Trademarks

STIHL®



The color combination orange-grey
(U.S. Registrations #2,821,860;
#3,010,057; and #3,010,058)

4-MIX®

AUTOCUT®

EASYSTART®

OILOMATIC®

STIHL Cutquik®

STIHL DUROMATIC®

STIHL Farm Boss®

STIHL Quickstop®

STIHL ROLLOMATIC®

STIHL WOOD BOSS®

TIMBERSPORTS®

YARD BOSS®

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BioPlus™

Easy2Start™

EasySpool™

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Ermatic™ / Stihl-E-Matic™

FixCut™

HT Plus™

IntelliCarb™

Master Control Lever™

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Quiet Line™

STIHL Arctic™

STIHL Compact™

STIHL HomeScaper Series™

STIHL Interchangeable Attachment Series™

STIHL Magnum™ / Stihl-Magnum™

STIHL MiniBoss™

STIHL MotoPlus 4™

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