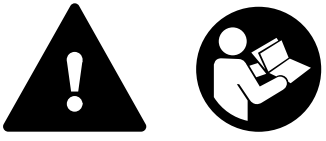
STIHL HTA 65, 85

Instruction Manual
Manual de instrucciones

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

ADVERTENCIA
Antes de usar la máquina lea y siga todas las precauciones de seguridad dadas en el manual de instrucciones – el uso incorrecto puede causar lesiones graves o mortales.



Contents

Allow only persons who fully 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, understand and follow the safety precautions and the operating and maintenance instructions in chapter "Safety Precautions and Working Techniques" before using your pole pruner. For further information you can go to www.stihlusa.com.

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 battery-powered, high-speed, fast-cutting power tool with a very long reach, special safety precautions must be observed to reduce the risk of personal injury. Careless or improper use may cause serious or even fatal injury.

Original Instruction Manual

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

STIHL®

Guide to Using this Manual

Pictograms

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

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


Chain oil tank; chain oil


Direction of chain rotation


Tension the chain


Thermal overload cutout


Unlock


Lock

Symbols in Text

Many operating and safety instructions are supported by illustrations.

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

- A bullet marks a step or procedure.

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 and signal words described below:

DANGER

Indicates an imminent risk of severe or fatal injury.

WARNING

Indicates a hazardous situation which, if not avoided, could result in severe or fatal injury.

NOTICE

Indicates a risk of property damage, including damage to the machine or its individual components.

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. Therefore, some changes, modifications and improvements may not be covered in this manual. If the operating characteristics or the appearance of your machine differs from those described in this manual, please contact your STIHL dealer or the STIHL distributor for your area for assistance.

Safety Precautions and Working Techniques

Because this pole pruner is a battery-powered, 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 instructions periodically. Careless or improper use may cause serious or fatal injury.

WARNING

Reactive forces, including kickback, can be dangerous. Pay special attention to the section on reactive forces.

Have your STIHL dealer show you how to operate your power tool. All safety precautions that are generally observed when working with an axe or a hand saw also apply to the operation of pole pruners. Observe all applicable federal, state and local safety regulations, standards and ordinances.

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

WARNING

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.

WARNING

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.

WARNING

Do not use it for other purposes, since misuse may result in personal injury or property damage, including damage to the machine.

WARNING

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.

WARNING

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. To do this, switch off the motor, move the retaining latch to 🔓 and remove the battery from the power tool.

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.

Always switch off the motor, move retaining latch to 🔓 and remove the battery before transporting, storing or carrying out any work on the power tool. This avoids the risk of the motor starting unintentionally.

STIHL recommends the use of original STIHL replacement parts. They are specifically designed to match your model and meet your performance requirements.

Safe use of a pole pruner involves

1 the operator

2 the power tool

3 the use of the power tool.

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.

WARNING

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:

- Wear gloves and keep your hands warm.
- Keep the saw chain sharp and the pole pruner well maintained. A dull chain will increase cutting time, and pressing a dull chain through wood will increase the vibrations transmitted to your hands. A power tool with loose components 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

According to STIHL's current knowledge, the electric motor of this unit should not interfere with a pacemaker. When in doubt, however, 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.

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 from contact with branches or brush. 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 are recommended. Never wear sandals, flip-flops or go barefoot.

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 Z87 "+" (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.

Always wear heavy duty work gloves (e.g. made of leather or other wear resistant material) when handling the machine and the cutting tool. Heavy-duty, nonslip gloves improve your grip and help to protect your hands.

THE POWER TOOL

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

WARNING

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 your power tool is subjected to unusually high loads for which it was not designed (e.g. heavy impact or a fall), always check that it is in good condition before continuing work – see also "Before Starting Work." Make sure the controls and safety devices are working properly. Do not continue operating your power tool if it is damaged. In case of doubt, have the machine checked by your STIHL servicing dealer.

Battery

WARNING

Risk of fire, explosion and/or burns, including chemical burns. Do not disassemble, crush, heat above 212 °F (100 °C), expose to fire or incinerate. Never expose the battery to microwaves or high pressures.

Do not place the battery on or near fires, stoves or in other high-temperature locations. Do not place the battery in direct sunlight or store it inside a vehicle in hot weather. Doing so may cause the battery to generate heat, rupture or ignite. Using the batteries in this manner may also result in a loss of performance and a shortened battery life.

In case of fire: stay clear of any vapors or gases generated, taking wind direction into account. If possible without danger, remove battery from the vicinity of the fire. In principle, cooling the battery or extinguishing the fire with water is possible. It is preferable to extinguish the fire with a multipurpose dry chemical fire extinguisher. As for any fire, evacuate the area and fight the fire from a safe distance. Once the fire has been extinguished, the area should be monitored (fire watch) in case of a flare-up, until the battery has cooled sufficiently. Restrict access to the area until completion of clean-up. Do not touch the burnt battery or any spilled liquids. Use inert absorbent to absorb spilled liquids.

Use and store the battery only within a temperature range from 14 °F (-10 °C) up to no more than 122 °F (+ 50 °C). Protect the battery from direct sunlight.

WARNING

Use STIHL batteries only with STIHL power tools, and charge them only with STIHL chargers. Replace battery with STIHL battery only. Use only genuine STIHL rechargeable batteries.

Charge the battery before use.

Do not immerse the battery in fluids.

WARNING

Do not open, drop, hit or damage battery. Never insert objects into the battery's cooling slots, since they may damage the battery. The battery contains safety features and devices which, if damaged, may cause the battery to generate heat, rupture or ignite. Never use or charge a defective, damaged, cracked or deformed battery.

Immediately discontinue use of the battery if, while using, charging or storing, it emits an unusual smell, feels hot or appears abnormal in any other way.

WARNING

Fluid may leak from the battery if it is damaged or is not used properly – avoid contact with the skin! Leaking battery fluid can cause skin irritation and chemical burns. In the event of accidental contact, immediately rinse thoroughly with mild soap and water. If fluid gets into your eye(s), do not rub your eye(s) but rinse water over the open eye(s) for 15 minutes at least. Also seek medical attention immediately.

WARNING

Never bridge (short circuit) the battery terminals with metallic objects, since this may damage the battery and possibly

cause a fire. Keep a battery that is not in use away from metal objects (e.g. nails, coins, jewelry). Do not use metal containers for transporting batteries.

Store the battery out of reach of children in a cool and dry area away from direct sunlight and excess heat or cold (14 °F – 122 °F (-10 °C – +50 °C)).

Charger

Use only original STIHL chargers.

Use only for charging geometrically matching STIHL batteries with a maximum capacity of 50 Ah and a maximum voltage of 42 V.

Never charge defective, leaking or deformed batteries.

Connect the charger only to a power supply with the voltage and frequency specified on the rating plate. Always plug the charger into a properly installed wall outlet. Do not use an extension cord unless absolutely neccessary (see below).

Never use a charger with damaged housing, damaged power supply cord or damaged plug. Do not operate the charger if it has received a sharp blow, been dropped or otherwise damaged in any way.

Do not open or dissassemble charger – there are no user serviceable parts inside.

Store charger out of the reach of children.

Protect the charger from rain and dampness. Keep charger dry.

Use and store charger only indoors in dry rooms.

Operate charger at temperatures between 41 °F (5 °C) and 104 °F (40 °C).

Allow the charger to cool down normally – do not cover it.

Never bridge the contacts of the charger with metallic objects (e.g. nails, coins, jewelry) – short circuit. The charger will be damaged by a short circuit.

In the event of smoke or fire in the charger, disconnect it from outlet immediately.

WARNING

To reduce the risk of electric shock or short circuit, do not insert any objects into the charger's cooling slots.

WARNING

The charger heats up during the charging process. Do not operate on an easily combustible surface (e.g. paper, cardboard, textiles) or in an easily combustible environment – risk of fire.

WARNING

Do not operate in a hazardous location, i.e. in a location where there are combustible liquids (fumes), vapors or dusts. Chargers can produce sparks, which may ignite the dust or vapors – risk of explosion.

Check the charger's power supply cord and plug regularly for damage. If the power supply cord or plug is damaged, immediately disconnect the plug from the wall outlet to avoid the risk of electric shock.

Never jerk the power supply cord to disconnect it from the wall outlet. To unplug, grasp the plug, not the cord. Have a damaged power supply cord repaired by an experienced electrician.

Do not use the power supply cord for any other purpose, e.g. for carrying or hanging up the charger.

Never use power supply cords that do not comply with regulations.

Make sure the power supply cord is located and/or marked so that it will not be stepped on, tripped over, come in contact with sharp edges or moving parts or otherwise be subjected to damage or stress.

An extension cord should not be used unless absolutely necessary. If an extension cord must be used, plug the charger into a properly wired 16 gauge (AWG 16) or heavier gauge extension cord with blades that are the same number, size and shapes as the blades on the charger.

To reduce the risk of electric shock:

- Always connect the unit to a properly installed wall outlet.
- Make sure the insulation of the power supply cord and plug is in good condition.

Unplug the power supply cord from the outlet when charger is not in use.

Never store a battery in the charger.

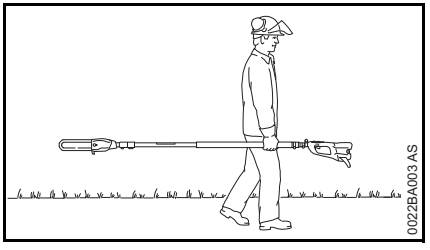
THE USE OF THE POWER TOOL

Transporting the Power Tool

WARNING

Always switch off the motor, move retaining latch to 🔒, remove the battery and fit the chain guard (scabbard) over the chain and guide bar - even when you carry the unit for short distances. When transporting it in a vehicle, properly secure it to prevent turnover, chain oil spillage and damage.

Remove the battery from the power tool. This avoids the risk of the motor starting unintentionally.



It may be carried only in a horizontal position. Grip the shaft in a manner that the machine is balanced horizontally. Keep the cutting attachment behind you.

Before Starting Work

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 trigger switch, trigger switch lockout, retaining latch and cutting attachment. The trigger switch and the trigger switch lockout must move freely and always spring back to the idle position. Ensure that the trigger switch will not engage when the trigger switch lockout is not pressed. Never attempt to modify the controls or safety devices.

WARNING

Your power tool is equipped with a system designed to quickly stop the saw chain – it comes to an immediate standstill as soon as you release the trigger switch and/or the trigger switch lockout on the control handle.

Check this function at regular short intervals. To reduce the risk of injury, do not operate your power tool if the saw chain continue to run. Contact your servicing dealer.

WARNING

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

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. Before replacing any bar and chain, see the chapter entitled "Specifications" in the instruction manual.

WARNING

Proper tension of the chain is extremely important. In order to avoid improper setting, the tensioning procedure must be followed as described in your manual. Always make sure the hexagonal nut(s) for the sprocket cover is (are) tightened securely after tensioning the chain in order to secure the bar. Never start the pole pruner with the sprocket cover loose. Check chain tension once more after having tightened the nut(s) and thereafter at regular intervals (whenever the power tool is shut off). If the chain becomes loose while cutting, switch off the motor, move retaining latch to 🔒, remove the battery and then tighten. Never try to adjust the chain while the motor is running!

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

WARNING

After adjusting a chain, switch on the power tool, let the motor run for a while, then switch motor off and recheck chain tension. Proper chain tension is very important at all times.

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

Check contacts in battery compartment for foreign matter. Keep clean.

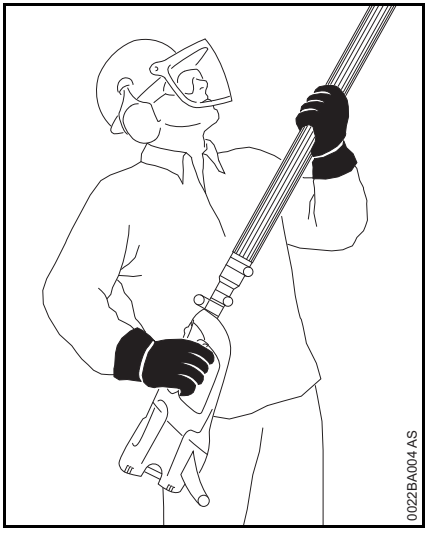
Fit the battery correctly – it must engage audibly.

For specific starting instructions, see the appropriate section of your instruction manual.

If you use a shoulder strap or a backpack carrying system (special accessory): Practice removing and putting down the power tool as you would in an emergency. To avoid damage, do not throw the power tool to the ground when practicing.

During Operation

Holding and Controlling the Power Tool



Place your left hand on the shaft and your right hand on control handle. Left handers should follow these instructions, too. Keep your hands in this position to have your pole pruner under control 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 with the control handle above shoulder height. Do not overreach. When working at a height above 15 feet (4.5 m) use a lift bucket. For a 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

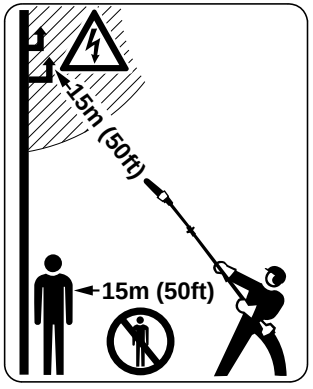
Take extreme care in wet and freezing weather (rain, snow, ice). Put off the work when the weather is windy, stormy or rainfall is heavy.

Working Conditions

Operate your power tool only under good visibility and daylight conditions. Work carefully.

⚠ WARNING

Your pole pruner is a one-person machine. Do not allow other persons in the general work area, even when starting. Stop the motor immediately if you are approached.



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 (15 m) away when the power tool is running.

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.

Hold the power tool by insulated gripping surfaces only, because the saw chain may contact hidden wiring. Saw chains contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.

WARNING

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

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 (such as saw dust), mists (such as oil mist from chain lubrication) and fumes 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 stop cutting and contact your employer or a local OSHA representative.

Operating Instructions

In the event of an emergency, switch off the motor immediately, move the retaining latch to 🔓 and remove the battery.

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 trigger switch is fully released.

WARNING

Your pole pruner is not designed for prying or shoveling away limbs, roots or other objects. Such use could damage the cutting attachment.

WARNING

If the chain becomes clogged, always switch off the motor, move the retaining latch to 🔒, 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.

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

- Switch off the motor.
- Move retaining latch to 🔒.
- Remove the battery.
- Check condition and tightness, look for cracks.

The power tool may be used in rain and wetness. Dry the power tool after finishing work.

Your power tool is equipped with a system designed to quickly stop the saw chain – it comes to an immediate standstill as soon as you release the trigger switch and/or the trigger switch lockout on the control handle.

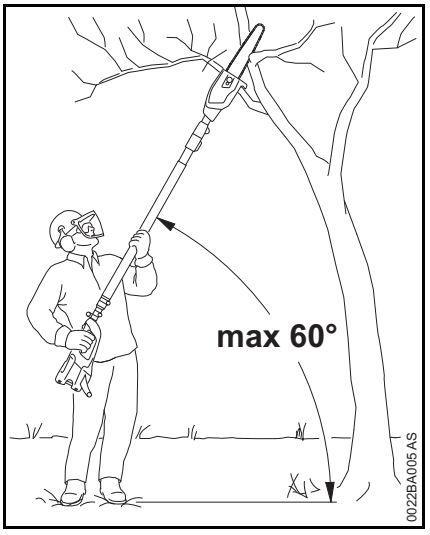
WARNING

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.



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!

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

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, switch off the motor, move the retaining latch to 🔒 and carefully move the branch to open the pinch and release the bar.

⚠ WARNING

If a rotating saw chain strikes a rock or other hard object, sparks may be created, which can ignite flammable materials under certain circumstances. Flammable materials can include dry vegetation and brush, particularly when weather conditions are hot and dry. When there is a risk of fire or wildfire, do not use a power tool around flammable materials or around dry vegetation or brush. Contact your local fire authorities or the U.S. Forestry Service if you have any question about whether vegetation and weather conditions are suitable for the use of a pole pruner.

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.

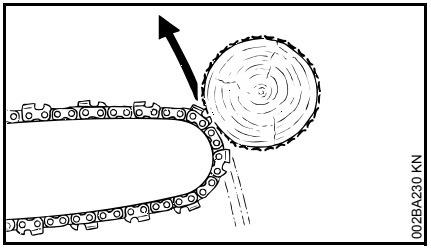
Because of the design of the pole pruner, the reactive forces experienced when working with it are generally not as severe as those encountered with a chain saw. Nevertheless, you should always maintain a proper grip and good footing to control the power tool when you experience such forces.

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.



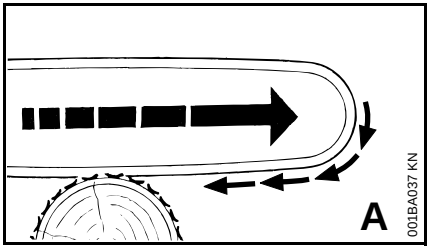
The reaction of the cutting force of the chain causes a rotational force on the pole pruner in the direction opposite to the chain movement. This may cause the bar to move upward.

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



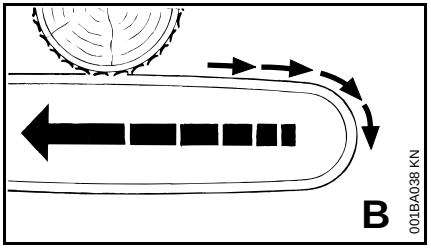
Pull-in occurs when the chain on the bottom of the bar is suddenly stopped when it is pinched, caught or encounters a foreign object in the wood. The reaction of the chain pulls the pruner forward.

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

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 section of your instruction manual. Please also refer to the maintenance chart in this manual.

Always switch off the motor, move retaining latch to 🔒, remove the battery from the power tool and make sure that the cutting attachment is stopped before carrying out any maintenance or repair work, such as replacing the cutting attachment, or cleaning the power tool. This avoids the risk of the motor starting unintentionally.

WARNING

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 saw chains.

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 and burn marks appear on the wood. Keep the chain at proper tension.

Always replace the chain, guide bar and sprocket as necessary.

Tighten all nuts, bolts and screws after each use.

Regularly check the electrical contacts and ensure that the insulation of the power cord and plug of the charger is in good condition and shows no sign of aging (brittleness).

Electrical components, e.g. power cord of charger, may only be repaired or replaced by a qualified electrician.

Keep the battery guides free from foreign matter – clean as necessary.

Do not spray the machine with water.

Do not clean your machine with a pressure washer. The solid jet of water may damage parts of the machine.

Clean plastic components with a cloth. Do not use aggressive detergents. They may damage the plastic.

Store pole pruner in a dry, locked location with the retaining latch on 🔒, the battery removed and out of reach of children (see chapter "Storing the Machine" in the instruction manual).

General Power Tool Safety Warnings

This chapter relays the prescribed wording of general safety advice for handheld motor-operated electric power tools contained in UL 60745-1.

The safety precautions and warnings on avoiding an electric shock given under "2) Electrical safety" do not apply to STIHL cordless electric power tools.

⚠ WARNING

Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

1) Work area safety

a) **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.

b) **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.

c) **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

2) Electrical safety

a) **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.

b) **Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.

c) **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.

d) **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.

e) **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.

f) **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.

3) Personal safety

a) **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating power tools may result in serious personal injury.

b) **Use personal protective equipment. Always wear eye protection.** Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.

c) **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.

d) **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.

e) **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.

f) **Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts.** Loose clothes, jewelry or long hair can be caught in moving parts.

g) **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.

4) Power tool use and care

a) **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.

b) **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.

c) **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.

d) **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.

e) **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.

f) **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

g) **Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.

5) Battery tool use and care

a) **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.

b) **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.

c) **When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another.** Shorting the battery terminals together may cause burns or a fire.

d) **Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help.** Liquid ejected from the battery may cause irritation or burns.

6) Service

a) **Have your power tool serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.

Using the Unit

Preparations

- Wear suitable protective clothing; observe safety precautions.
- Adjust the telescoping shaft to the required length (version with telescoping shaft).
- Put on the shoulder strap or backpack carrying system (see chapters "Fitting the Harness" and "Backpack Carrying System").

Cutting Sequence

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

WARNING

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 – **risk of injury**.

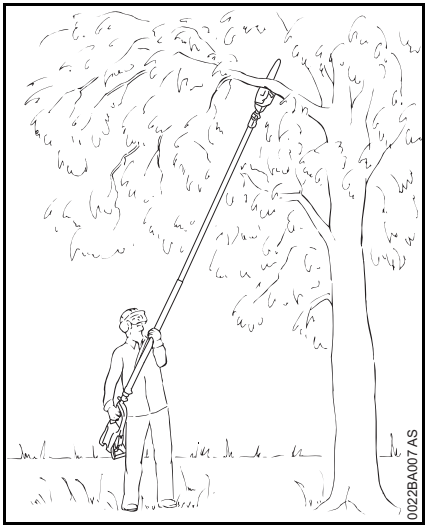
Disposal

Do not throw cuttings into the garbage can – they can be composted.

Working Technique

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.

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

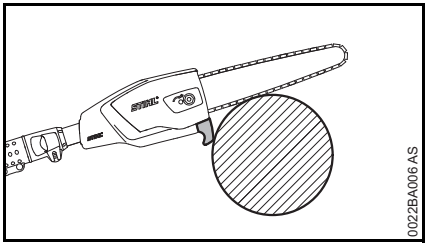


The shaft should always be held at an angle of **60° or less**.

The least tiring working position is a tool angle of 60°.

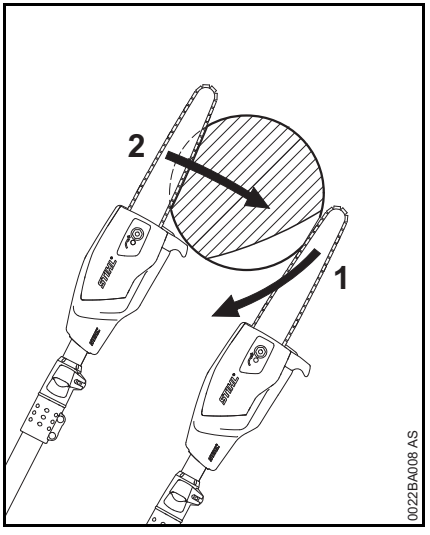
Any lesser angle may be used to suit the situation.

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.

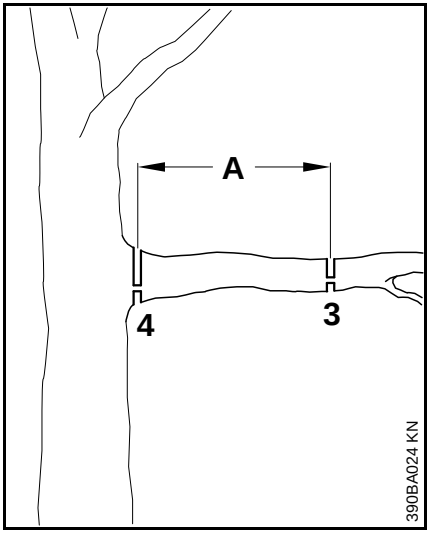
Relieving cut



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 in an arc as far as the bar nose.
- Perform the cross-cut (2) – position the bar with the hook against the branch and then perform the cross-cut.

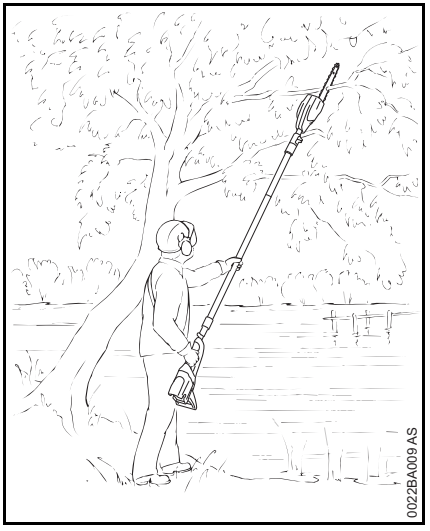
Flush-cutting thick branches



If branch diameter is more than 10 cm (4 in), first

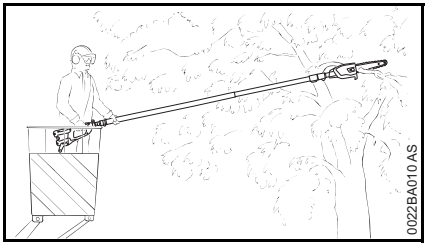
- perform undercut (3) and then cross-cut at a distance of about 20 cm/8 in (A) from the final cut. Then carry out the flush-cut (4), starting with a relieving cut and finishing with a cross-cut.

Cutting above obstacles



The machine'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

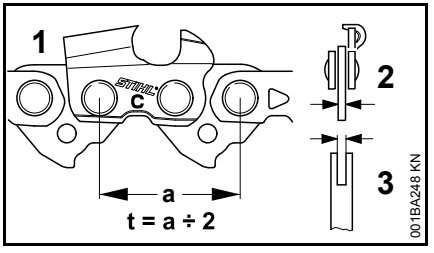


The machine's long reach enables cutting to be performed next to the trunk without the risk of the lift bucket damaging other branches. The tool angle in this case depends on the position of the branch.

Cutting Attachment

A cutting attachment consists of the saw chain, guide bar and chain sprocket.

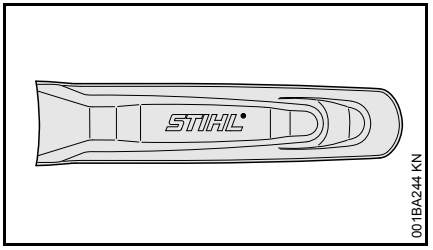
The cutting attachment that comes standard is designed to exactly match the pole pruner.



- The pitch (t) of the saw chain (1), chain sprocket and the nose sprocket of the Rollomatic guide bar must match.
- The drive link gauge (2) of the saw chain (1) must match the groove width of the guide bar (3).

If non-matching components are used, the cutting attachment may be damaged beyond repair after a short period of operation.

Chain scabbard



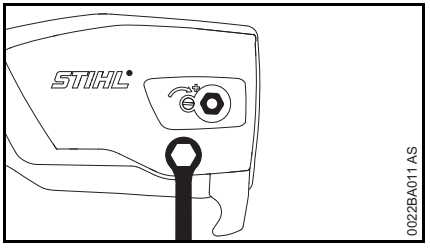
Your pole pruner comes standard with a chain scabbard that matches the cutting attachment.

If you use guide bars of different lenghts on the pole pruner, the length of the chain scabbard must be matched to the guide bar to reduce the risk of injury. It should cover the full length of the guide bar.

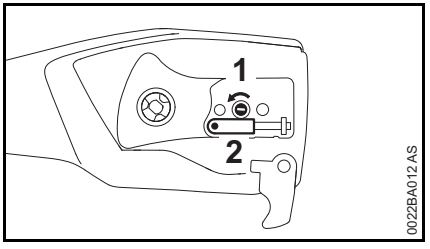
The length of the matching guide bars is marked on the side of the chain scabbard.

Mounting the Bar and Chain

Removing the chain sprocket cover

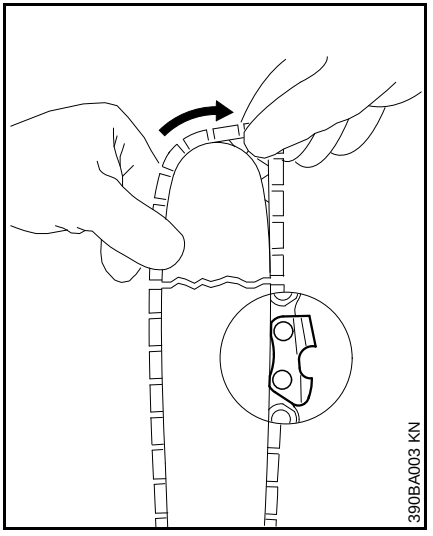


- Unscrew the nut and remove the cover.



- Turn the screw (1) counterclockwise until the tensioner slide (2) butts against the left end of the housing slot, then back it off 5 full turns.

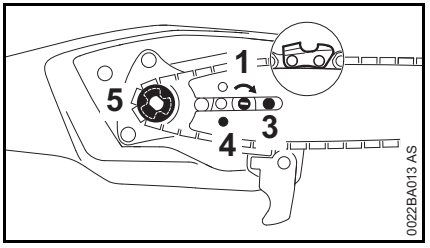
Fitting the chain



WARNING

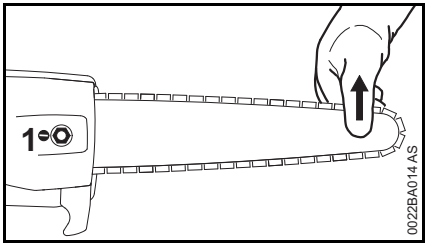
Wear work gloves to protect your hands from the sharp cutters.

- Fit the chain – start at the bar nose.



- Fit the guide bar over the screw (3) and engage peg of tensioner slide in the hole (4) – place the chain over the sprocket (5) at the same time.
- Turn the tensioning screw (1) clockwise until there is very little chain sag on the underside of the bar – and the drive link tangs are engaged in the bar groove.
- Refit the cover and screw on the nut fingertight.
- Go to chapter on "Tensioning the Chain".

Tensioning the Chain



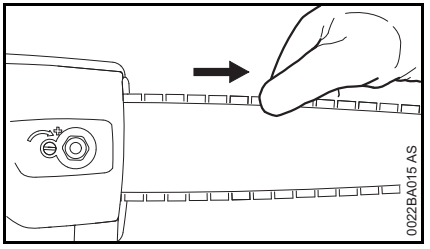
To adjust chain tension:

- Always switch off the power tool, set the retaining latch to 🔓 and remove the battery.
- Loosen the nut.
- Hold the bar nose up.
- Use a screwdriver to turn the tensioning screw (1) clockwise until the chain fits snugly against the underside of the bar.
- While still holding the bar nose up, tighten down the nut firmly.
- Go to "Checking Chain Tension".

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 on "Operating Instructions".

Checking Chain Tension



- Always switch off the power tool, move the retaining latch to 🔓 and remove the battery.
- Wear work gloves to protect your hands.
- The 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, re-tension the chain.

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

- Check chain tension frequently – see chapter on "Operating Instructions".

Chain Lubricant

For automatic and reliable lubrication of the chain and guide bar – use only an environmentally compatible quality chain and bar lubricant. Rapidly biodegradable STIHL BioPlus is recommended.

NOTICE

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.

WARNING

Do not use waste oil. Renewed contact with waste oil can cause skin cancer. Moreover, waste oil is environmentally harmful.

NOTICE

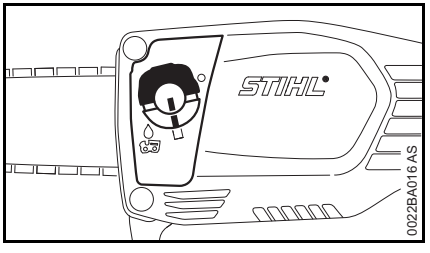
Waste oil does not have the necessary lubricating properties and is unsuitable for chain lubrication.

Filling Chain Oil Tank

- Check the oil level in the tank before starting work, during operation and every time you change the battery, or when otherwise necessary.
- Refill the chain oil tank after changing the battery for the second time at the latest.

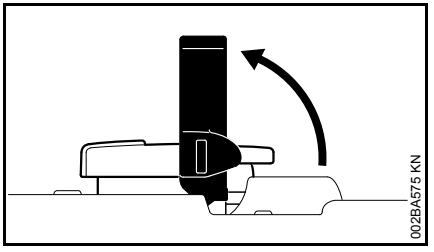
If the oil level in the tank does not go down, the reason may be a problem in the oil supply system: Check chain lubrication, clean the oilways, contact your dealer for assistance if necessary. STIHL recommends that you have servicing and repair work carried out exclusively by an authorized STIHL servicing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

Oil filler cap

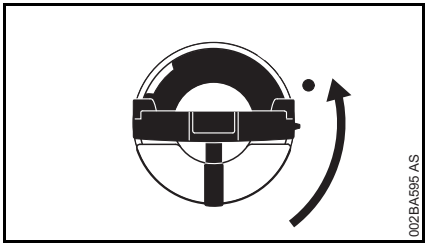


- Thoroughly clean the oil filler cap and the area around it to ensure that no dirt falls into the tank.
- Position the machine so that the tank cap faces up.

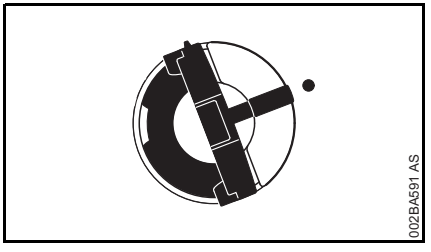
Opening



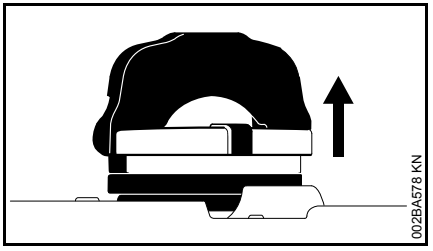
- Raise handle.



- Twist filler cap counterclockwise (approx. 1/4 turn).



Markings on filler cap and housing must align.

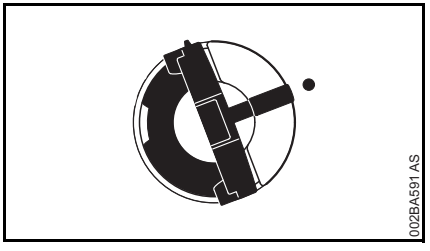


- Remove the filler cap.

Filling Chain Oil Tank

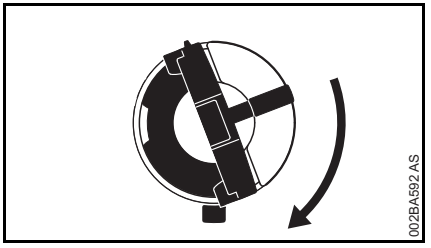
Take care not to spill chain oil during refilling and do not overfill the tank – leave approx. 1/2" (13 mm) air space.

Closing

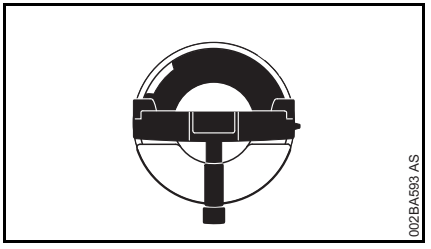


Handle is in an upright position:

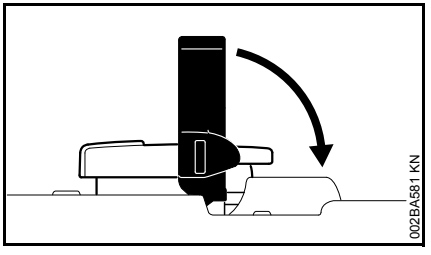
- Position filler cap – markings on filler cap and housing must align.
- Push the filler cap down as far as it will go.



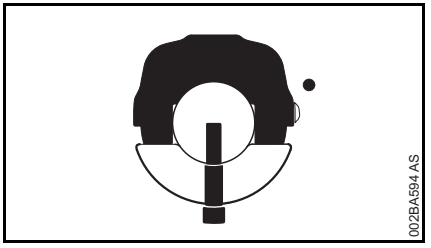
- Push the filler cap down and twist it clockwise until it engages.



Then the markings on filler cap and housing will align.



- Flip the handle down.

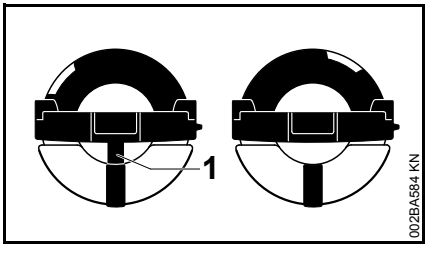


Filler cap is now closed.

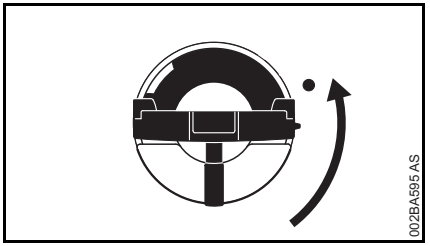
If the filler cap will not engage into the tank housing

The base of the filler cap is rotated in relation to the upper part.

- Look at the black alignment marks on the top of the filler cap.

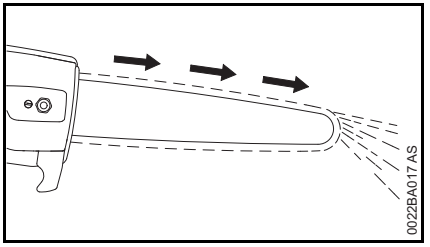


Left:	Base of filler cap is rotated to the closed position – interior marking (1) is aligned with the exterior marking.
Right:	Base of filler cap is in the correct position for installation – interior marking is below the clip. It does not align with the exterior marking.



- If your cap is in the closed position: with the filler cap in the filling neck, twist it counterclockwise until it drops into its seat.
- Continue to twist the filler cap counterclockwise (approx. 1/4 turn) – this will twist the base of the cap into the correct position for installation.
- While pushing down on the cap, twist the filler cap clockwise and close it – see section "Closing."

Checking Chain Lubrication



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

NOTICE

Never operate your machine without chain lubrication. If the chain runs dry, the whole cutting attachment will be irretrievably damaged within a very short time. Always check chain lubrication and the oil level in the tank before starting work.

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

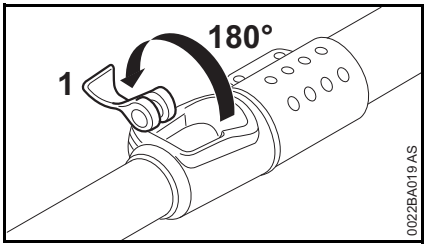
After breaking in the chain, check chain tension and adjust if necessary – see "Checking Chain Tension".

Adjusting the Telescoping Shaft

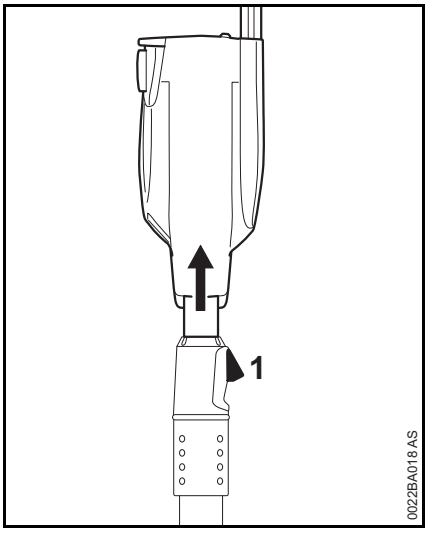
Only version with telescoping shaft

WARNING

Always switch off the power tool and move the retaining latch to 🔓.



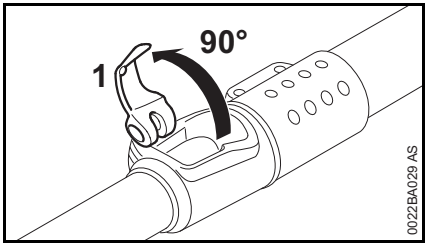
- Open lever (1) of quick-release clamp and swing it back as far as it will go.



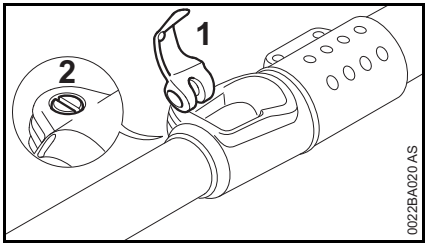
- Adjust shaft to the required length.
- Close the lever (1) and press it down as far as stop.
- Check clamping force – if it is too low: go to "Adjusting Clamping Force".

The clamping force is correct when the shaft is firmly locked in position with the quick-release clamp closed.

Adjusting clamping force



- Swing lever (1) of quick-release clamp up to 90° position.



- Turn screw (2) slowly clockwise as far as stop – the lever must move freely to closed position. If not, the clamping force is too high.
- Close lever (1) and press it home as far as stop – the clamping force is too high if the lever does not locate against the stop.
- Check clamping force.

If clamping force is too low:

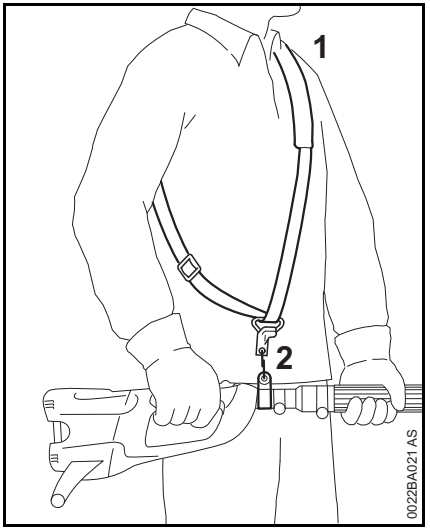
- Carefully turn screw (2) clockwise a 1/4 turn at a time – this increases the clamping force.

If clamping force is too high:

- Carefully turn screw (2) counterclockwise a 1/4 turn at a time – this reduces the clamping force.

Fitting the Harness

Shoulder strap



- Put on the shoulder strap (1).
- Adjust the length of the strap so that the spring hook (2) is level with your right hip when the machine is attached.

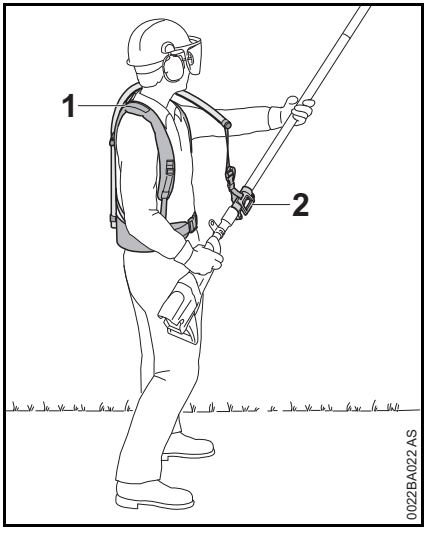
Backpack carrying system (special accessory)

See chapter on "Backpack Carrying System"

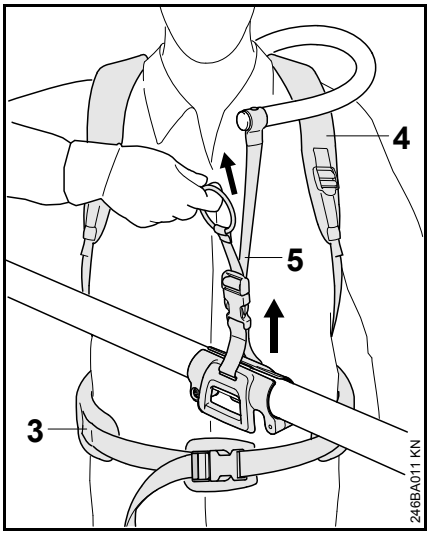
Backpack Carrying System

The backpack carrying system is a special accessory for machines with a telescoping shaft.

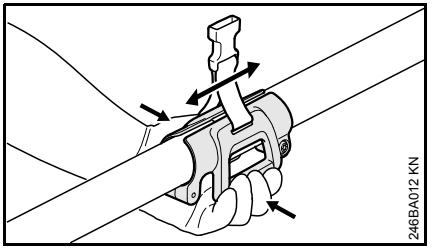
It spreads the weight of machine evenly over the shoulders, back and hips.



- Put the backpack carrying system (1) on your back and adjust it as described in the instruction leaflet provided.
- Secure the sliding adjuster (2) to the shaft.
- Attach the machine to the carrying strap when working.



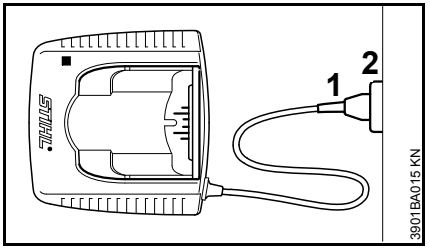
- Adjust the hip belt (3), both shoulder straps (4) and the carrying strap (5).



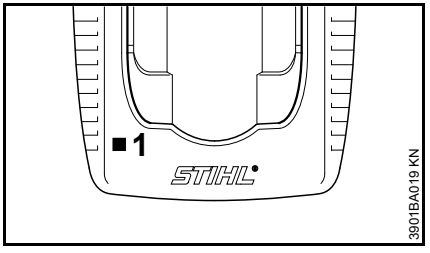
- Squeeze the grips to move the sliding adjuster up or down the shaft.

Connecting Charger to Power Supply

Power supply (mains) voltage and operating voltage must be the same.



- Insert the plug (1) in the wall outlet (2).



A self test is performed after the charger is connected to the power supply. During this process, the light emitting diode (1) on the charger lights up green for about 1 second, then red and goes off again.

Charging the Battery

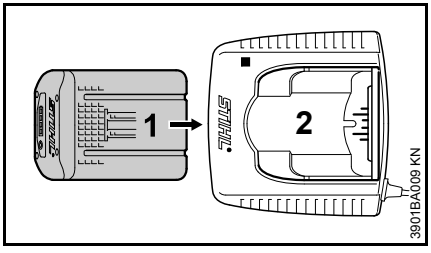
A factory-new battery is not fully charged.

Recommendation: Fully charge the battery before using it for the first time.

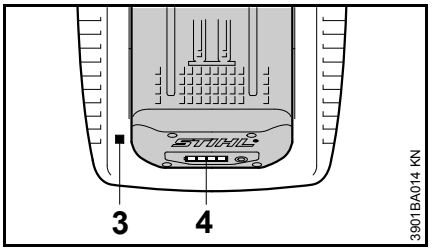
- Connect the charger to the power supply – mains voltage and operating voltage of the charger must be the same – see "Connecting Charger to Power Supply".

Operate the charger only in enclosed and dry rooms at ambient temperatures between +5°C to +40°C (+41°F to +104°F)

Only charge dry batteries. Allow a damp battery to dry before charging.



- Push the battery (1) into the charger (2) until noticeable resistance is felt – then push it as far as stop.



The LED (3) on the charger comes on when the battery is inserted – see "LED on Charger"

Charging begins as soon as the LEDs (4) on the battery glow green – see "LEDs on Battery".

The charge time is dependent on a number of factors, including battery condition, ambient temperature, etc., and may therefore vary from the times specified.

The battery heats up during operation in the power tool. If a hot battery is inserted in the charger, it may be necessary to cool it down before charging. The charging process begins only after the battery has cooled down. The time required for cooling may prolong the charge time.

The battery and charger heat up during the charging process.

AL 300, AL 500 Chargers

The AL 300 and AL 500 chargers are equipped with a battery cooling fan

AL 100 Charger

The AL 100 charger has no fan and waits for the battery to cool down before starting the charging process. The battery is cooled by heat transfer to the ambient air.

End of Charge

The charger switches itself off automatically when the battery is fully charged:

– LEDs on the battery go off.

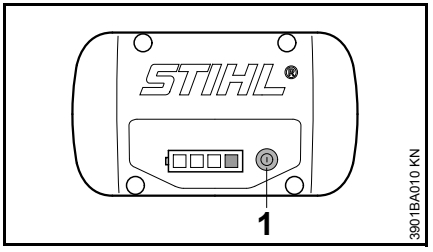
– The LED on the charger goes off.

– The charger's fan is switched off (if charger is so equipped)

Remove the fully charged battery from the charger.

Light Emitting Diodes (LED) on Battery

Four LEDs show the battery's state of charge and any problems that occur on the battery or power tool.



- Press button (1) to activate the display – the display goes off automatically after 5 seconds.

The LEDs can glow or flash green or red.

LED glows continuously green.

LED flashes green.

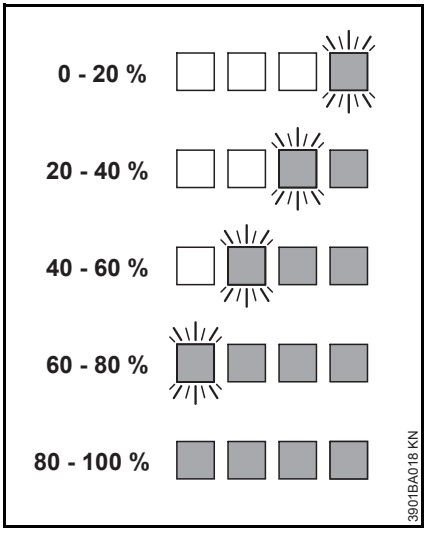
LED glows continuously red.

LED flashes red.

During Charging Process

The LEDs glow continuously or flash to indicate the progress of charge.

A green flashing LED indicates the capacity that is currently being charged.

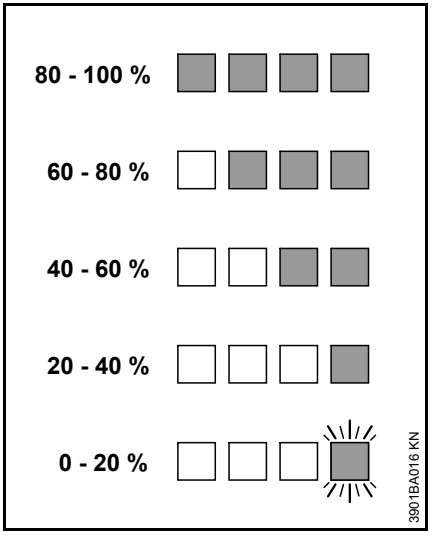


The light emitting diodes on the battery go off automatically when the charge process is completed.

If the LEDs on the battery flash or glow red – see "If the red LEDs glow continuously / flash".

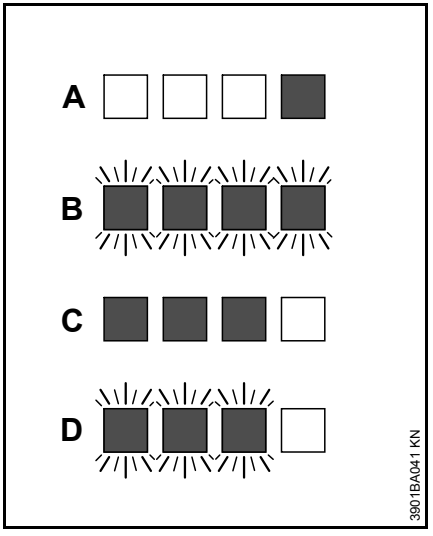
During Operation

The green LEDs glow continuously or flash to indicate the state of charge.



If the LEDs on the battery flash or glow red – see "If the red LEDs glow continuously / flash".

If the red LEDs glow continuously / flash



A	1 LED glows continuously red:	Battery is too hot[1) 2)]/cold[1)]
B	4 LEDs flash red	Malfunction in battery [3)]
C	3 LEDs glow continuously red:	Power tool is too hot – allow it to cool down.
D	3 LEDs flash red	Malfunction in power tool [4)]

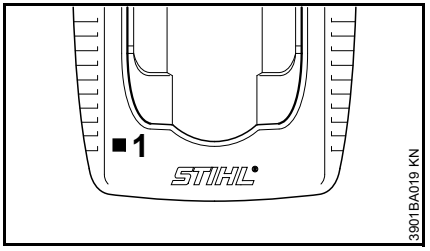
1) When charging: Charge process starts automatically after the battery has cooled down / warmed up.

2) During operation: Power tool cuts out – allow battery to cool down; it may be necessary to take the battery out of the power tool for this purpose.

3) Electromagnetic interference or fault. Take the battery out of the power tool and refit it. Switch on the machine – if the LEDs continue to flash, the battery has a malfunction and must be replaced.

4) Electromagnetic interference or fault. Take the battery out of the machine. Use a blunt tool to remove dirt from the contacts in the battery compartment. Refit the battery. Switch on the power tool – if the light emitting diodes still flash, the power tool is faulty and must be checked by a servicing dealer – STIHL recommends an authorized STIHL servicing dealer.

Light Emitting Diodes (LED) on Charger



The LED (1) on the charger may glow continuously green or flash red.

Green continuous light ...

... indicates the following:

The battery

– is being charged
– is too hot and must cool down before charging

See also "LEDs on battery".

The green LED on the charger goes off as soon as the battery is fully charged.

Red flashing light ...

... may indicate the following:

– No electrical contact between battery and charger – remove and refit the battery
– Malfunction in battery – see also "LEDs on Battery".
– Malfunction in charger – have checked by a servicing dealer. STIHL recommends an authorized STIHL servicing dealer.

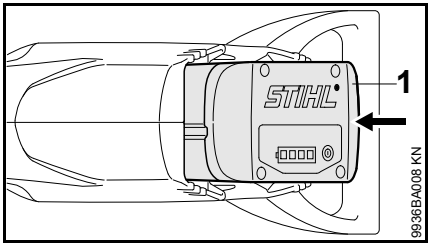
Switching On

A factory-new battery is not fully charged.

Recommendation: Fully charge the battery before using it for the first time.

- If necessary, remove the cover from the battery compartment before fitting the battery, i.e. depress both locking tabs to unlock and remove the cover.

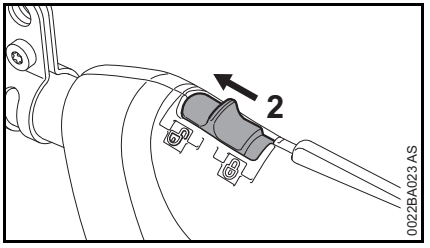
Fitting the battery



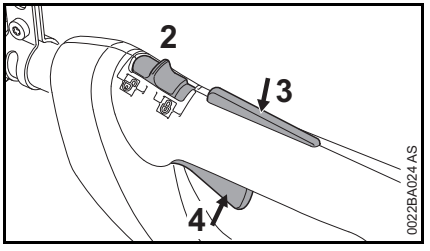
- Insert battery (1) in power tool's compartment – the battery slides into position – press it in until it engages audibly.

Switching on the machine

- Remove the chain guard.
- Make sure you have a secure and firm footing.
- Stand upright – hold the unit in a relaxed position and always on right side of your body.
- Hold the power tool with both hands – one hand on the control handle – one hand on the handle hose.
- Do not rest the saw chain and guide bar on the ground.
- Check that bystanders are well clear of the general work area of the power tool.



- Unlock the power tool by moving the retaining latch (2) to 🔓.



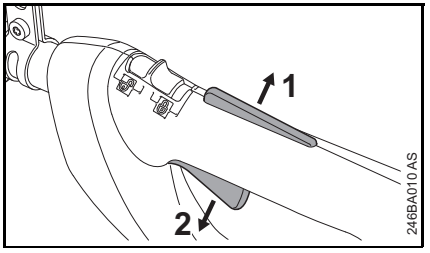
- Push down the trigger switch lockout (3) and depress the trigger switch (4) and hold them in that position.
- Start the cut with the chain running at full speed.

The motor runs only if the retaining latch (2) is on 🔓 and the trigger switch lockout (3) and trigger switch (4) are operated simultaneously.

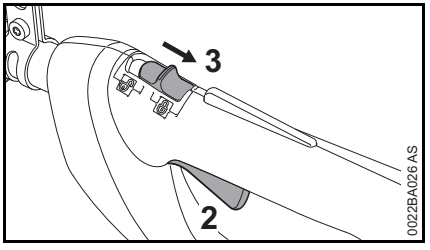
Trigger

Motor speed can be controlled with the trigger switch. Depress the trigger switch to accelerate the motor.

Switching Off



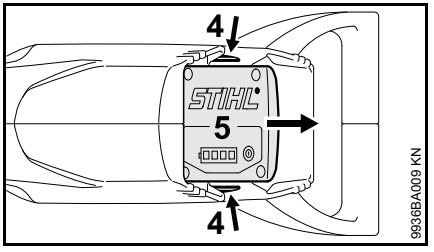
- Release the trigger switch lockout (1) and the trigger switch (2).



- Move the retaining latch (3) to – the trigger switch (2) cannot be operated – the power tool is locked to prevent start-up.

Remove the battery from the power tool during breaks and after finishing work.

Removing the battery



- Press in both locking tabs (4) at the same time to unlock the battery (5).
- Take the battery (5) out of the housing.

When the power tool is not in use, store it so that it does not endanger others.

Secure it against unauthorized use.

Operating Instructions

- Check oil level in tank at frequent intervals during cutting work – see "Filling Chain Oil Tank".

Checking chain tension

Check chain tension frequently

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

Chain cold

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 "Tensioning the Chain".

Chain at operating temperature

The chain stretches and begins to sag. The drive links must not come out of the bar groove – the chain may otherwise jump off the bar. Retension the chain – see "Tensioning the Chain".

After Finishing Work

- Move the retaining latch to 🔓.
- Take the battery out of the machine.
- Slacken off the chain if you have retensioned it at operating temperature during cutting work.

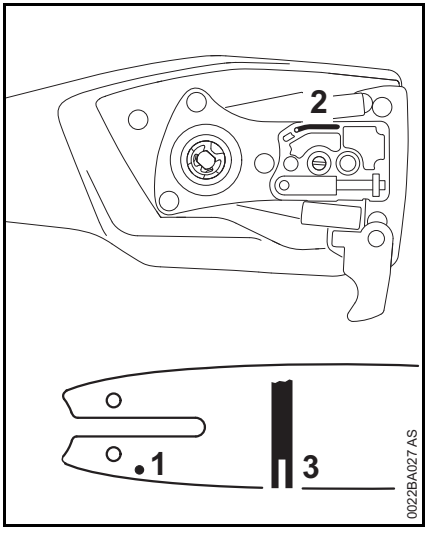
NOTICE

Always slacken off the chain after finishing work. The chain contracts as it cools down. If it is not slackened off, it can damage the drive shaft and bearings.

Storing for a long period

See chapter on "Storing the Machine".

Taking Care of the Guide Bar



- Turn the bar over – every time you sharpen the chain and every time you replace the chain – this helps avoid one-sided wear, especially at the nose and underside of the bar.
- Regularly clean the oil inlet hole (1), the oilway (2) and the bar groove (3).
- Measure the groove depth – with the scale on the filing gauge (special accessory) – in the area used most for cutting.

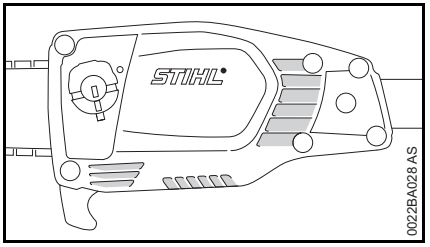
Chain type	Chain pitch	Minimum groove depth
Picco	1/4" P	0.16" (4.0 mm)

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 bar rails.

Motor Cooling



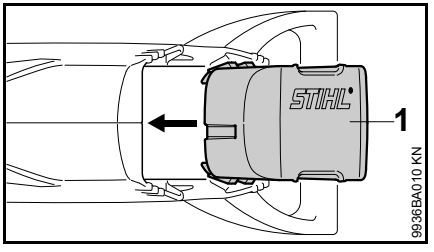
- Use a dry brush or similar tool to clean the cooling slots at regular intervals.

Storing the Machine

- Move the retaining latch to 🔒.
- Remove the battery.
- Remove the saw chain and guide bar, clean them and spray with corrosion inhibiting oil.
- Thoroughly clean the machine, especially the cooling air inlets.
- If you use a biological chain and bar lubricant, e.g. STIHL BioPlus, completely fill the chain oil tank.
- Store the machine in a dry and secure location – out of the reach of children and other unauthorized persons.

Cover for battery compartment (special accessory)

The cover prevents dirt falling into the empty battery compartment.



- After finishing work, slide the cover (1) home until it engages audibly in position.

Storing the Battery

- Take the battery out of the power tool or the charger.
- Store indoors in a dry and safe location. Keep out of the reach of children and other unauthorized persons and protected from contamination.
- Do not store spare batteries unused – use in rotation.

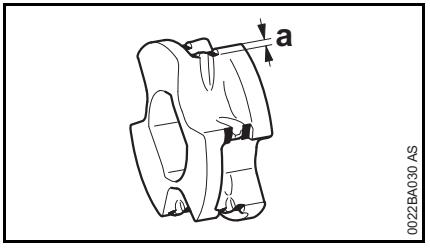
To optimize the life of the battery, store it at a state of charge of about 30%.

Storing the Charger

- Remove the battery.
- Disconnect the plug from the wall outlet.
- Store the charger indoors in a dry and secure location. Keep out of the reach of children and other unauthorized persons and protected from contamination.

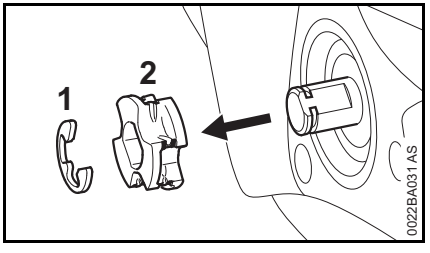
Checking and Replacing the Chain Sprocket

- Move the retaining latch to 🔒.
- Remove the battery.
- Remove the chain sprocket cover, chain and guide bar.
- Replace the chain sprocket:

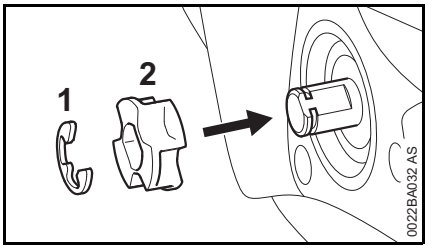


– after using two saw chains;
– or sooner if the wear marks (a) on the sprocket are deeper than approx. 0.5 mm (0.020 in) since this would reduce the life of the chain. You can use a gauge (special accessory) to check the depth of the wear marks.

It is best to use two saw chains in rotation with one sprocket.



- Use a screwdriver to remove the E-clip (1).
- Pull off the chain sprocket (2).



- Push the new sprocket (2) on as far as stop.
- Fit the E-clip (1).

Maintaining and Sharpening the Saw Chain

Cutting effortlessly with a correctly sharpened chain

A properly sharpened chain slices through wood effortlessly and requires very little feed pressure.

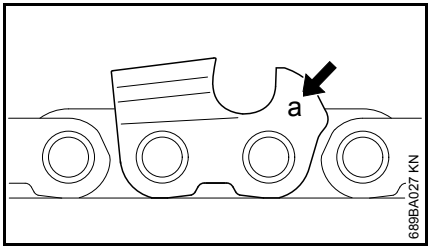
Working with a dull or damaged chain requires more physical effort, exposes the user to higher vibration levels, produces unsatisfactory cutting results and increases wear.

- Move the retaining latch to 🔒.
- Remove the battery.
- Clean the chain.
- Check the chain for cracks in the links and damaged rivets.
- If such cracks or damage are found, remove the chain and replace any worn parts of the chain. Match the new parts to the shape and size of the original parts.

⚠ WARNING

It is absolutely essential to comply with the angles and dimensions specified below. If the saw chain is incorrectly sharpened – and in particular if the depth gauge is set too low – there is an increased risk of kickback, with resulting **risk of loss of control and injury**.

Chain pitch



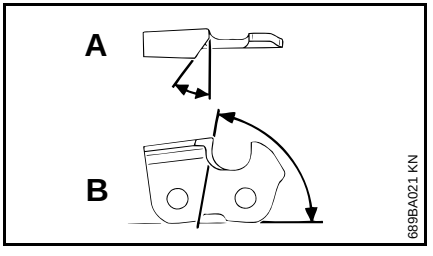
The chain pitch (**a**) is marked on the depth gauge end of each cutter.

Mark (**a**)	Chain pitch	
	inch	mm
7	1/4 P	6.35

Select file diameter according to chain pitch – see table “Sharpening Tools”.

You must observe certain angles when resharpening the chain cutter.

Filing and side plate angles



A Filing angle

B Side plate angle

Chain type	Angle (°)	
	A	B
Picco Micro (PM)	30	75

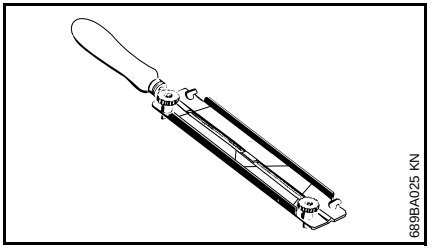
Cutter shapes

Micro = Semi-chisel

The specified angles A and B are obtained automatically if the recommended files or sharpening tools and correct settings are used.

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

File holder



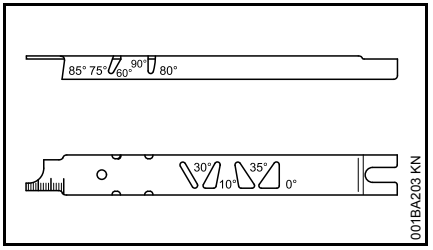
Always use the proper tools. Sufficient and constant practice will make sharpening easier.

- **Use a file holder**

A file holder (special accessory) must be used for manual resharpening (see table "Sharpening Tools" at the end of this chapter). The correct filing angles are marked on the file holder.

Use only special saw chain sharpening files. Other files have the wrong shape and cut.

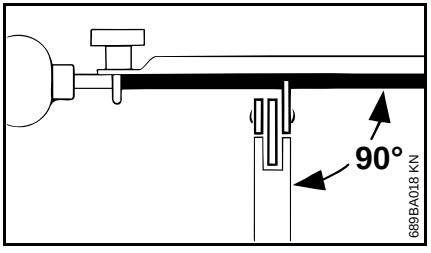
For checking angles

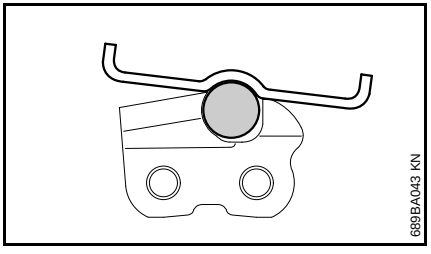


Use a STIHL filing gauge (special accessory, see table "Sharpening Tools"). This is a universal tool for checking the filing and side plate angles, depth gauge setting, cutter length and groove depth. It also cleans the guide bar groove and oil inlet holes.

File correctly

- Move the retaining latch to 🔒.
- Take the battery out of the machine.
- Select sharpening tools according to chain pitch.
- Clamp the bar in a vise if necessary.
- The saw chain cannot be locked in place on the guide bar. To resharpen the chain by hand, increase tension of the chain until it can longer be pulled along the bar. The chain must be re-tensioned after sharpening. The alternative is to remove the chain from the guide bar and resharpen it on a bench-mounted sharpener (FG 2, HOS, USG).
- If you use an FG 2, HOS or USG sharpener: Remove the chain from the bar and sharpen according to the instructions supplied with the tool.
- Sharpen the chain frequently, take away as little metal as possible – two or three strokes of the file are usually enough.





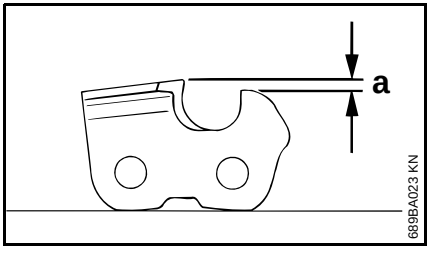
- Hold the file **horizontally** (at a right angle to the side of the guide bar) and file according to the angles marked on the file holder. Rest the file holder on the top plate and depth gauge.
- Always file from the inside to the outside of the cutter.
- The file only sharpens on the forward stroke – 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 the 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 can cause it to break.

- Find the shortest cutter and then file all other cutters back to the same length. It is best to have this work done in the 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.

a Specified distance or setting between depth gauge and cutting edge.

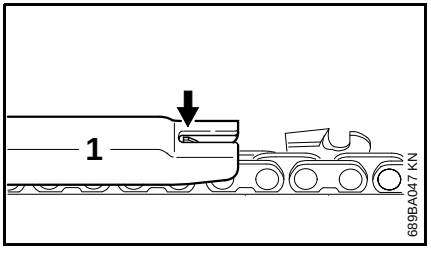
This setting may be increased by 0.2 mm (0.008") for cutting softwood in the mild weather season – no frost.

Chain pitch		Depth gauge Setting (a)	
inch	(mm)	mm	(inch)
1/4 P	(6.35)	0.45	(0.018)

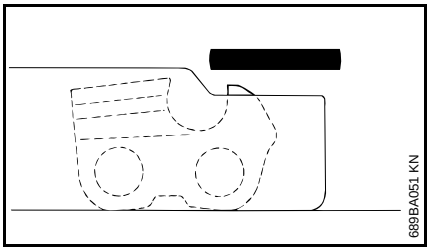
Lowering depth gauges

The depth gauge setting is reduced when the chain is sharpened.

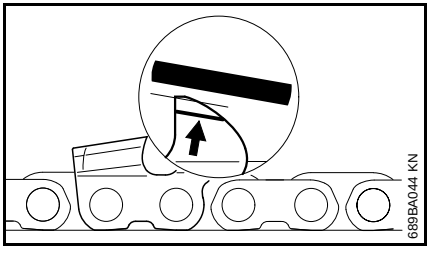
- Use a filing gauge to check the setting every time you sharpen the chain.



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



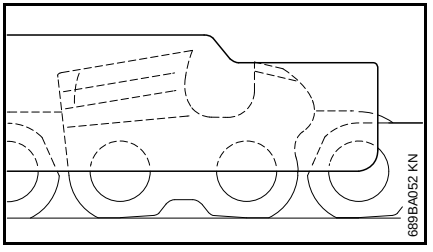
- File down the depth gauge until it is level with the filing gauge.



- 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.

WARNING

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



- Place the filing gauge on the chain – the highest point of the depth gauge must be level with the filing gauge.
- After sharpening, clean the chain thoroughly, remove filings or grinding dust – lubricate the chain thoroughly.
- Before a long out-of-service period, clean the chain and store it in a well-oiled condition.

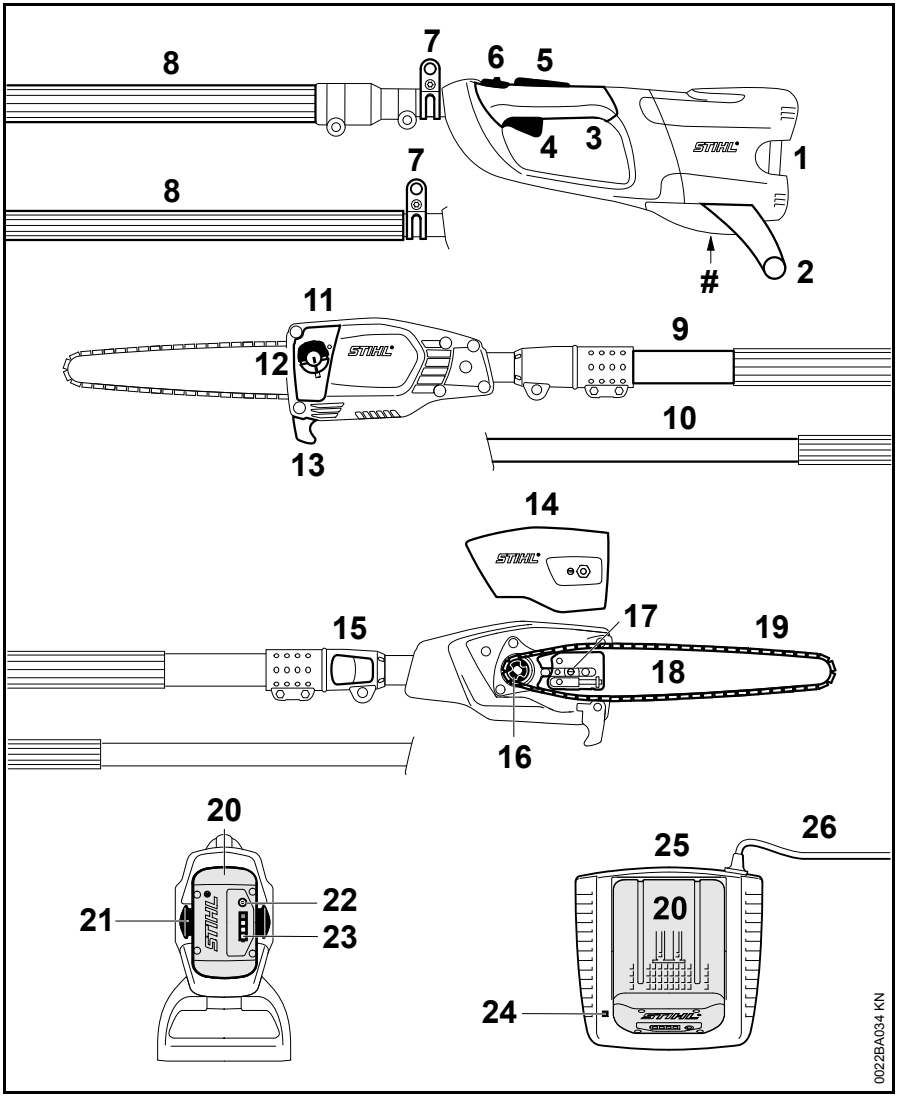
Sharpening Tools (special accessories)

Chain pitch		Round file Ø		Round file diameter	File holder	Filing gauge	Flat file	Sharpening set
inch	(mm)	mm	(inch)	Part No.	Part No.	Part No.	Part No.	Part No.
1/4 P	(6.35)	3.2	(1/8)	5605 771 3206	5605 750 4300	0000 893 4005	0814 252 3356	–

Maintenance and Care

The following maintenance intervals apply to normal usage and operating conditions. If your daily working time is longer or operating conditions are difficult (very dusty work area, resin-rich wood, tropical wood, etc.), shorten the specified intervals accordingly. Move the retaining latch to 🔓 and remove the battery before performing any work on the power tool.		before starting work	after finishing work or daily	after changing battery	weekly	monthly	every 12 months	if problem	if damaged	as required
Complete machine	Visual inspection (condition, leaks)	X								
	Clean		X							
Controls (retaining latch, trigger switch lockout, trigger switch)	Check operation	X		X						
	Clean		X							X
Chain oil tank	Clean					X				
Chain lubrication	Check	X		X						X
Chain	Inspect, also check sharpness	X		X						X
	Check chain tension	X		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					
	Replace									X
Cooling inlets	Visual inspection		X							
	Clean									X
Battery	Visual inspection	X						X	X	
Battery compartment	Clean	X						X		
	Check operation (eject battery)	X								
All accessible screws and nuts	Retighten									X
Safety labels	Replace								X	

Main Parts



1 Battery Compartment
2 Support Foot (only special accessory)
3 Control Handle
4 Trigger Switch
5 Trigger Switch Lockout
6 Retaining Latch
7 Carrying Ring
8 Handle Hose
9 Telescopic Drive Tube (Shaft)
10 Fixed Drive Tube
11 Oil Tank
12 Oil Filler Cap
13 Hook
14 Chain Sprocket Cover
15 Quick-Release Clamp
16 Chain Sprocket
17 Chain Tensioner
18 Guide Bar
19 Oilomatic Saw Chain
20 Battery
21 Battery Locking Tabs
22 Push Button
23 Light Emitting Diodes (LEDs) on Battery
24 Light Emitting Diode (LED) on Charger
25 Charger
26 Power Supply Cord for Charger
Serial Number

Definitions

1 **Battery Compartement**
Accommodates the battery in the unit.

2 **Support Foot (only special accessory)**
For resting machine on the ground.

3 **Control Handle**
The handle of the pole pruner held by the right hand.

4 **Trigger Switch**
Switches the motor on and off.

5 **Trigger Switch Lockout**
Must be depressed before the trigger switch can be activated.

6 **Retaining Latch**
Locks or unlocks the trigger switch.

7 **Carrying Ring**
Connects the unit to the harness.

8 **Handle Hose**
For holding and controlling the unit with the hand during operation.

9 **Telescopic Drive Tube (Shaft)**
Adjustable drive tube enables user to optimize machine's reach.

10 Fixed Drive Tube
Encloses and protects the drive shaft between the engine and gearbox.

11 **Oil Tank**
Tank for chain lubricating oil.

12 **Oil Filler Cap**
For closing the oil tank.

13 **Hook**
For hooking the machine to a branch and pulling branches away.

14 **Chain Sprocket Cover**
Covers the sprocket.

15 **Quick-Release Clamp**
For adjusting the length of the telescopic drive tube.

16 **Chain Sprocket**
The toothed wheel that drives the saw chain.

17 **Chain Tensioner**
Permits precise adjustment of chain tension.

18 **Guide Bar**
Supports and guides the saw chain.

19 **Oilomatic Saw Chain**
A loop consisting of cutters, tie straps and drive links.

20 **Battery**
Supplies the motor with electrical power.

21 **Battery Locking Tabs**
Secure the battery in the unit.

22 **Push Button**
For activating light emitting diodes (LED) on battery.

23 **Light Emitting Diodes (LEDs) on Battery**
Indicates the state of charge and operating condition of the battery.

24 **Light Emitting Diode (LED) on Charger**
Indicate charger operating mode and certain problems.

25 **Charger**
Charges the battery.

26 **Power Supply Cord for Charger**
Supplies electric current to charger.

Specifications

Battery

Type:	Lithium-ion
Category:	AP, AR

The machine may be operated only with original STIHL rechargeable batteries.

Running time is dependent on the energy content of the battery.

Charger

AL 100

Power supply:	120 V / 60 Hz
Rated current:	1.3 A
Power consumption:	75 W
Charge current:	1.6 A
Insulation:	II, ⧈ (double insulated)

AL 300

Power supply:	120 V / 60 Hz
Rated current:	4.7 A
Power consumption:	330 W
Charge current:	6.5 A
Insulation:	II, ⧈ (double insulated)

AL 500

Power supply:	120 V / 60 Hz
Rated current:	4.8 A
Power consumption:	570 W
Charge current:	12 A
Insulation:	II, ⧈ (double insulated)

Charge Times

AL 100

with AP 80:
– up to 80 % capacity: 70 min
– up to 100 % capacity: 100 min
with AP 115:
– up to 80 % capacity: 110 min
– up to 100 % capacity: 140 min
with AP 160:
– up to 80 % capacity: 150 min
– up to 100 % capacity: 165 min
with AP 180:
– up to 80 % capacity: 160 min
– up to 100 % capacity: 210 min

AL 300

with AP 80:
– up to 80 % capacity: 25 min
– up to 100 % capacity: 50 min
with AP 115:
– up to 80 % capacity: 25 min
– up to 100 % capacity: 55 min
with AP 160:
– up to 80 % capacity: 35 min
– up to 100 % capacity: 60 min
with AP 180:
– up to 80 % capacity: 40 min
– up to 100 % capacity: 70 min

AL 500

with AP 80:
– up to 80 % capacity: 25 min
– up to 100 % capacity: 50 min
with AP 115:
– up to 80 % capacity: 20 min
– up to 100 % capacity: 25 min
with AP 160:
– up to 80 % capacity: 35 min
– up to 100 % capacity: 60 min
with AP 180:
– up to 80 % capacity: 25 min
– up to 100 % capacity: 30 min

Chain Lubrication

Fully automatic speed-controlled oil pump with reciprocating piston

Oil tank capacity: 0.105 l (3.6 fl.oz)

Weight

without guide bar, chain and battery

HTA 65:	3.4 kg (7.5 lbs)
HTA 85:	4.5 kg (9.9 lbs)

Cutting Attachments

Rollomatic E Mini guide bars

Reduced kickback STIHL guide bars (with green label)

Bar lengths:	25, 30 cm (10, 12 in.)
Pitch:	1/4" P (6.35 mm)
Groove width:	1.1 mm (0.043 in.)

Actual cutting length will be less than listed bar length.

Saw chain 1/4" P

Low kickback STIHL saw chain (with green label)

Picco Micro 3 (71 PM3) Type 3670

Pitch: 1/4" P (6.35 mm)

Drive link gauge: 1.1 mm (0.043 in.)

Chain sprocket

6-tooth for 1/4" P

Since new bar/chain combinations may be developed after publication of this Manual, ask your STIHL dealer for the latest STIHL recommendations.

Troubleshooting

Always remove the battery before carrying out any work on the power tool.

Condition	Cause	Remedy
Machine does not start when switched on	No electrical contact between power tool and battery	Remove the battery, visually check contacts and refit battery
	Battery has low charge (1 LED on battery flashes green)	Charge the battery
	Battery too hot / too cold (1 LED on battery glows red)	Allow battery to cool down / at temperatures of about 15°C - 20°C (59°F - 68°F), allow battery to warm up slowly
	Malfunction in battery (4 LEDs on battery flash red)	Take the battery out of the power tool and refit it. Switch on the machine – if the LEDs continue to flash, the battery has a malfunction and must be replaced.
	Power tool too hot (3 LEDs on battery glow red)	Allow power tool to cool down
	Electromagnetic problem or fault in machine (3 LEDs on battery flash red)	Take the battery out of the machine. Use a blunt tool to remove dirt from the contacts in the battery compartment. Refit the battery. Switch on the power tool – if the LEDs still flash, the power tool has a malfunction and must be checked by a servicing dealer [1)].
	Moisture in power tool and/or battery	Allow power tool / battery to dry
Machine cuts out during operation	Battery or machine's electronics too hot	Take battery out of machine, allow battery and machine to cool down
	Electrical or electromagnetic malfunction	Remove the battery and refit it

Always remove the battery before carrying out any work on the power tool.

Condition	Cause	Remedy
Running time is too short	Battery not fully charged	Charge the battery
	Useful life of battery has been reached or exceeded	Check battery[1] and replace
	Cutting attachment dirty	Clean the cutting attachment
Battery jams when being inserted in power tool / charger	Guides / contacts dirty	Carefully clean the guides / contacts
Battery is not being charged even though LED on charger glows green	Battery too hot / too cold (1 LED on battery glows red)	Allow battery to cool down / at temperatures of about 15°C - 20°C (59°F - 68°F), allow battery to warm up slowly Operate charger only in closed, dry rooms at ambient temperatures of 5°C - 40°C (40°F - 104°F)
LED on charger flashes red	No electrical contact between charger and battery	Remove the battery and refit it
	Malfunction in battery (4 LEDs on battery flash red for about 5 seconds)	Take the battery out of the power tool and refit it. Switch on the machine – if the LEDs continue to flash, the battery has a malfunction and must be replaced.
	Malfunction in charger	Have charger checked by servicing dealer[1]

[1] STIHL recommends an authorized STIHL servicing dealer.

Maintenance and Repairs

Users of this unit should carry out only the maintenance operations described in this manual. STIHL recommends that other repair work be performed only by authorized STIHL servicing dealers.

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

Genuine STIHL parts can be identified by the STIHL part number, the STIHL® logo and, in some cases, by the STIHL parts symbol . The symbol may appear alone on small parts.

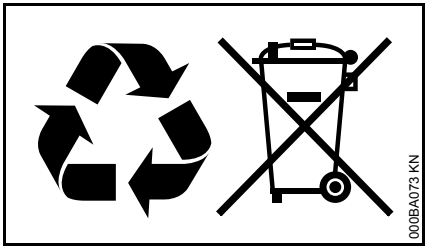
Battery Recycling

Battery Recycling Information

STIHL is committed to the development of products that are environmentally responsible. This commitment does not stop when the product leaves the STIHL dealer. STIHL has partnered with the RBRC (Rechargeable Battery Recycling Corporation) to promote the collection and recycling of spent STIHL lithium ion batteries in the United States and Canada. The RBRC seal can be found on every STIHL rechargeable battery and indicates that STIHL has prepaid for recycling the battery. The seal has a toll free phone number (1-800-822-8837) that connects you to information on battery recycling locations and information on battery disposal bans or restrictions in your area. You can also return your spent battery to any STIHL authorized servicing dealer for recycling free of charge.

Disposal

Observe all country-specific waste disposal rules and regulations.



STIHL products must not be thrown in the garbage can. Take the product, accessories and packaging to an approved disposal site for environment-friendly recycling.

Contact your STIHL servicing dealer for the latest information on waste disposal.

Trademarks

STIHL Registered Trademarks

STIHL®

STIHL®

The color combination orange-grey (U.S. Registrations #2,821,860; #3,010,057, #3,010,058, #3,400,477; and #3,400,476)

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EASYSTART®

FARM BOSS®

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MAGNUM®

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