

BR 350, 430

STIHL



2 - 22

Instruction Manual



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1 Guide to Using this Manual

1.1 Pictograms

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

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



Fuel tank; fuel mixture of gasoline and engine oil



Operate manual fuel pump

1.2 Symbols in text



WARNING

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

NOTICE

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

1.3 Engineering improvements

STIHL's philosophy is to continually improve all of its products. For this reason we may modify the design, engineering and appearance of our products periodically.

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

2 Safety Precautions and Working Techniques



Special safety precautions are necessary when operating a machine.



Before commissioning, it is important to read and understand the User Manual and to keep it in a safe place for future reference. Failure to observe the User Manual may lead to serious or even fatal injury.

Comply with all applicable local safety regulations, e.g., by employers' liability insurance associations, social insurance systems, occupational safety authorities, etc.

If you have not used this machine before: Have your dealer or other experienced user show you how to handle your machine safely or attend a specialist course.

Minors must never work with the machine – except for young people over the age of 16 who are being trained under supervision.

Children, animals and onlookers must not be allowed near the machine.

When the machine is not in use, put it in a place where it does not endanger others. Secure the machine against unauthorized access.

The user is responsible for accidents or risks involving other persons or their property.

The machine should only be provided or loaned to people familiar with this model and its operation. The instruction manual should always be handed over with the machine.

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

Do not operate the machine if any of its components are damaged.

Do not use a high-pressure washer to clean the power tool. The solid jet of water may damage parts of the unit.

2.1 Accessories and spare parts

Only use parts and accessories that are explicitly approved for this power tool by STIHL or are technically identical. If you have any questions in this respect, consult your dealer. Use only high quality parts and accessories in order to avoid the risk of accidents and damage to the machine. In order to avoid the risk of accidents and damage to the machine. Otherwise, there is a risk of accidents and damage to the unit.

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

Never attempt to modify your power tool in any way since this may increase the risk of personal injury. STIHL excludes all liability for personal injury and damage to property caused while using unauthorized attachments.

2.2 Physical fitness

To operate the power tool you must be rested, in good physical condition and mental health.

If you have any condition which may be aggravated by strenuous work, check with your doctor before operating a power tool.

If you have a pacemaker: The ignition system of your machine produces an electromagnetic field of very low intensity. This field may interfere with some pacemakers. To reduce health risks, STIHL recommends that persons with pacemakers consult their physician and the pacemaker manufacturer before operating this tool.

Do not operate the power tool if you are under the influence of any substance (drugs, alcohol) which might impair vision, dexterity or judgment.

2.3 Intended Use

The blower is designed for blow-sweeping leaves, grass, paper and similar materials, e.g. in gardens, sports stadiums, car parks and driveways. It is also suitable for blow-sweeping forest paths.

Do not blow-sweep hazardous materials.

Do not use the power tool for any other purpose because of the increased risk of accidents and damage to the power tool itself. The product must not be modified in any way - this may also lead to accidents or damage to the unit.

2.4 Clothing and equipment

Wear proper protective clothing and equipment.



Clothing must be sturdy but allow complete freedom of movement. Wear snug-fitting clothing, an overall and jacket combination; do not wear a work coat.



Avoid clothing with loose drawstrings, laces and ribbons, scarves, neckties, jewelry or anything that could be sucked into the air intake in the side and bottom of the machine. Tie up and confine long hair above your shoulders so that it cannot be pulled into the machine.

Wear sturdy shoes with non-slip soles.



WARNING



To reduce the risk of eye injuries, wear close-fitting safety glasses in accordance with European Standard EN 166, EN ISO 16321. Make sure the safety glasses fit snugly.

Wear "personal" sound protection, e.g., ear defenders.

STIHL offers a comprehensive range of personal protective equipment.

2.5 Transporting the unit

Always stop the engine.

Transporting in a vehicle:

- Secure the machine against overturning, damage and fuel spillage

2.6 Refueling



Gasoline is extremely flammable – keep it away from naked flames – do not spill any fuel – no smoking.

Always **shut off the engine** before refueling.

Do not fuel a hot engine – **fuel may spill and cause a fire.**

Always remove the power tool from your back and put it on the ground before refueling. Fuel the machine only when it is standing on the ground.

Open the fuel cap carefully to allow any pressure build-up in the tank to release slowly and to prevent fuel spraying out.

Only refuel the machine in a well ventilated place. If you spill fuel, wipe the machine immediately – if fuel gets on your clothing, change immediately.



Check for fuel leakage! Never start the engine if fuel has been spilled or is leaking – **fatal burns may result!**

Fuel cap



After fueling, tighten down the screw-type fuel cap as securely as possible.

This helps reduce the risk of unit vibrations causing an incorrectly tightened fuel cap to loosen or come off and spill quantities of fuel.

2.7 Before starting

Check that your machine is properly assembled and in good condition – refer to appropriate chapters in the instruction manual:

- Check the fuel system for leaks, especially the visible parts, e. g., fuel cap, hose connections, manual fuel pump (only in machines with a manual fuel pump). In case of leakage and damage, do not start the engine – **risk of fire!** Have the machine serviced by a dealer before using it
- The throttle trigger must move freely and spring back by itself to the idle position.
- The setting lever must move easily to **STOP** or **0**
- The blower tubes must be properly assembled
- Keep the handles dry and clean – free from oil and dirt – this is important for safe control of the machine.
- Check that the spark plug boot is secure – a loose boot may cause sparking that could ignite combustible fumes **and cause a fire!**
- Never attempt to modify the controls or safety devices.
- Check the condition of blower housing.

- Check the condition of the harness straps and backpack and replace damaged or worn straps.

Wear of the blower housing (cracks, nicks, chips) may result in an increased risk of injury from thrown foreign objects. If the blower housing is damaged, consult your dealer – STIHL recommends you contact a STIHL servicing dealer

To reduce the risk of accidents and personal injury, do not operate the unit if it is not in proper condition!

For emergencies: Practice quickly opening the fastener on the waist belt, loosening the shoulder straps and setting down the unit.

2.8 Starting the engine

Start the engine at least 3 meters from the fueling spot, outdoors only.

Your power tool is designed to be operated by one person only. Do not allow other persons in the work area – even when starting.

Do not drop start your machine – the correct starting procedure is described in the User Manual.

Place the machine on level ground only, ensure that you have a secure footing and hold the machine securely.

As soon as the engine starts, the increasing air flow may eject objects (e.g., stones).

2.9 While working

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



To reduce the risk of injury from thrown objects, do not allow any other persons within 15 meters of your own position.

This distance must also be maintained in relation to objects (vehicles, window panes) – **risk of property damage!**



Do not direct the air blast towards bystanders or animals since the air flow can blow small objects at great speed – **risk of injury.**

When blow-sweeping (in open terrain and in gardens), look out for small animals to prevent endangering them.

Never leave a running unit unattended.

Use caution with slippery surfaces, water, snow, ice, on slopes, on uneven ground - **Danger of slipping!**

Watch out for obstacles: Be careful of refuse, tree stumps, roots and ditches which could **cause you to trip or stumble**

Do not work on a ladder or in unstable locations.

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

Work calmly and carefully – in daylight conditions and only when visibility is good. Proceed with caution, do not put others in danger.

Take breaks when you start getting tired or feeling fatigue – **risk of accidents!**



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

To reduce the risk of **serious or fatal injury from breathing toxic fumes**, ensure proper ventilation when working in trenches, hollows or other confined locations.

Stop work immediately if you start suffering from nausea, headaches, impaired vision (e.g. your field of vision gets smaller), impaired hearing, dizziness, or impaired concentration – these symptoms may possibly be the result of too-high exhaust gas concentration – **risk of accidents!**

To reduce the risk of fire, do not smoke while operating or standing near your power tool. Combustible fuel vapor may escape from the fuel system.

Always wear a dust mask if dust is generated.

Operate your power tool in such a way that it produces a minimum of noise and emissions – do not run the engine unnecessarily, accelerate the engine only when working.

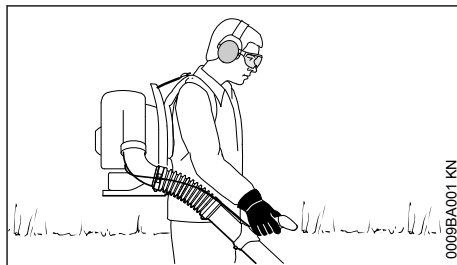
After work, place the machine on a level, non-flammable surface. Do not place the machine near easily flammable materials (e.g. wood chips, bark, dry grass, fuel) – **risk of fire!**

If the machine was exposed to a load for which it was not designed (e.g., heavy impact or a fall), always check that it is in good condition before

continuing work – see also "Before Starting".

Check the fuel system for leaks and make sure the safety devices are working properly. Do not continue operating your power tool if it is damaged. In case of doubt, contact a STIHL authorized dealer.

2.10 Using the blower



The unit is carried on your back. Hold and control the blower tube with your right hand on the control handle.

Work only slowly, moving in a forwards direction – always observe the discharge area of the blower tube – do not move backwards – **risk of tripping!**

Always shut off the engine before taking the machine off your back.

2.11 Working Technique

To minimize blowing time, use a rake and broom to loosen dirt particles before you start blowing.

- If necessary, dampen the surface to be cleaned in order to avoid creating too much dust.
- Do not blow particles in the direction of bystanders, in particular in the direction of children, pets, open windows or freshly washed vehicles. Take special care in such situations.
- Remove the blow-swept debris in rubbish bins – do not blow it onto the neighbor's land.
- Operate your power tool at reasonable times only – not early in the morning, late at night or during midday rest periods when people could be disturbed. Observe local rest periods.
- Operate blowers at the lowest engine speed necessary to accomplish the task.
- Check your blower before starting work. Pay special attention to the muffler, air intakes and air filter.

2.12 Vibrations

Prolonged use of the power tool may result in vibration-induced circulation problems in the hands (whitefinger disease).

No general recommendation can be given for the length of usage because it depends on several factors.

The period of usage is prolonged by:

- Keeping your hands warm
- Work breaks

The period of usage is shortened by:

- Any personal tendency to suffer from poor circulation (symptoms: frequently cold fingers, itching).
- Low outside temperatures.
- Gripping force (a tight grip hinders circulation).

Continual and regular users should monitor closely the condition of their hands and fingers. If any of the above symptoms appear (e.g. tingling sensation in fingers), seek medical advice.

2.13 Maintenance and Repairs

Service the machine regularly. Do not attempt any maintenance or repair work not described in the instruction manual. Have all other work performed by a servicing dealer.

STIHL recommends that you have servicing and repair work carried out exclusively by an authorized STIHL servicing dealer. STIHL dealers are regularly given the opportunity to attend training courses and are supplied with the necessary technical information.

Only use high-quality replacement parts in order to avoid the risk of accidents and damage to the machine. If you have any questions in this respect, consult a servicing dealer.

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

To reduce the risk of injury, **always shut off the engine** before carrying out any maintenance or repairs or cleaning the machine. – Exception: Carburetor and idle speed adjustments.

Do not turn the engine over on the starter with the spark plug boot or spark plug removed since there is otherwise a **risk of fire** from uncontained sparking.

Do not service or store your machine near open flames.

Check the fuel filler cap for leaks at regular intervals.

Use only a spark plug of the type approved by STIHL and make sure it is in good condition – see "Specifications".

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

Check the condition of the muffler.

To reduce the **risk of fire and damage to hearing**, do not operate your machine if the muffler is damaged or missing.

Do not touch a hot muffler since **burn injury** will result.

Vibration behavior is influenced by the condition of the AV elements – check the AV elements at regular intervals.

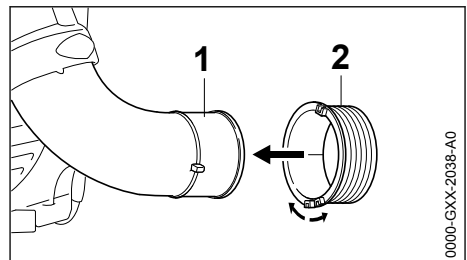
Shut off the engine before rectifying problems.

3 Assembling the Unit

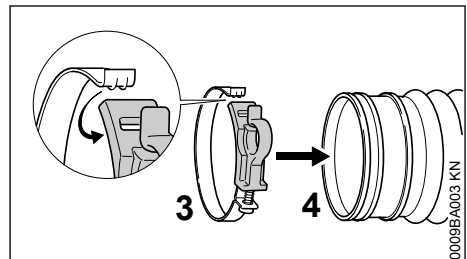
The combination wrench and screwdriver are in the supplied accessory bag.

3.1 BR 350 Blower Tube

Fitting the pleated hose on the elbow

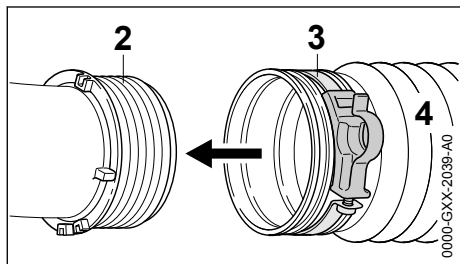


- Ease the slip ring (2) apart and push it over the elbow (1).

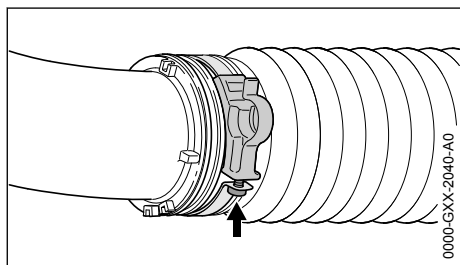


- Open the hose clamp (3) and fit it on the pleated hose (4).

- Close the hose clamp (3) – engage tab in recess.

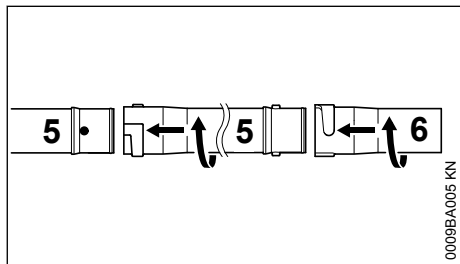


- Push the pleated hose (4) over the slip ring (2) as far as stop.
- Position the hose clamp (3) as shown in the illustration.



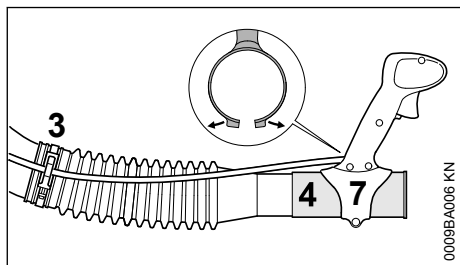
- Tighten down the screw (arrow).

Mounting the blower tubes and nozzle



- Assemble the blower tubes (5) and nozzle (6).

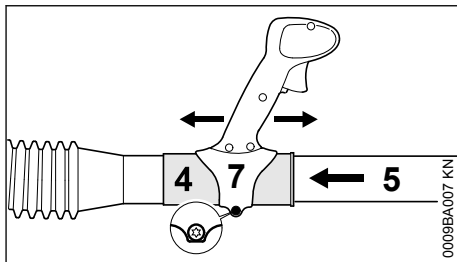
Mounting the control handle



- Pull the ends of the clamp on the control handle (7) apart and push it over stub of pleated hose (4).
- Attach throttle cable to retainer on the hose clamp (3).

Adjusting the control handle

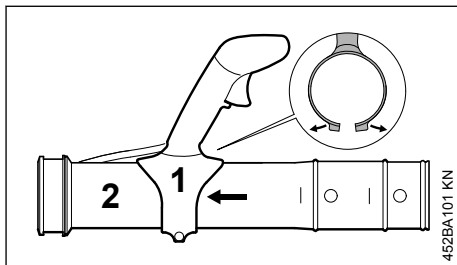
- Put the machine on your back and adjust the harness – see "Fitting the Harness".



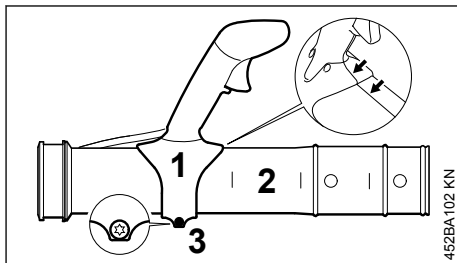
- Push the blower tube (5) into the stub of pleated hose (4) as far as the stop.
- Move the control handle (7) along the tube to the most comfortable position.
- Tighten down the screw in the control handle (7).

3.2 BR 430 Blower Tube

Mounting the control handle



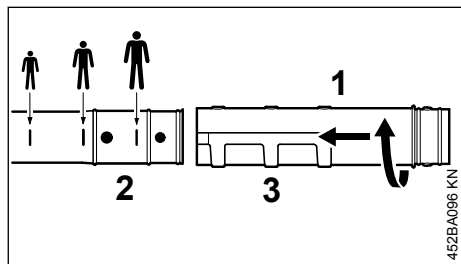
- Pull the two halves of the clamp apart.
- Push the control handle (1) onto the blower tube (2).



- Line up the control handle (1) with the tube's seam – as shown.

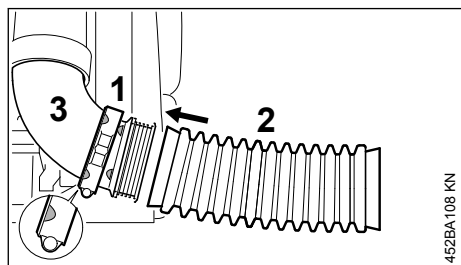
- Secure the control handle (1) with the screw (3) so that it can still be moved on the blower tube (2).

Mounting the blower tubes

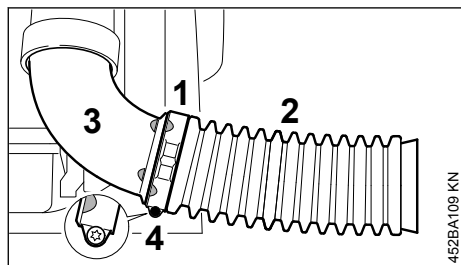


- Depending on your height and reach: Push blower tube (1) up to the appropriate mark on the blower tube (2).
- Rotate the blower tube (1) in the direction of the arrow and engage it in the appropriate slot (3).

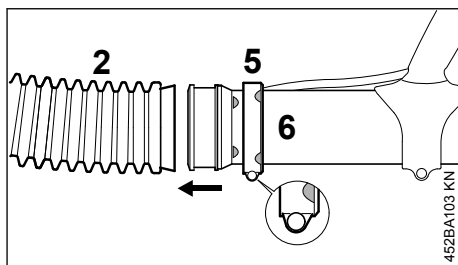
Mounting the hose clamps and pleated hose



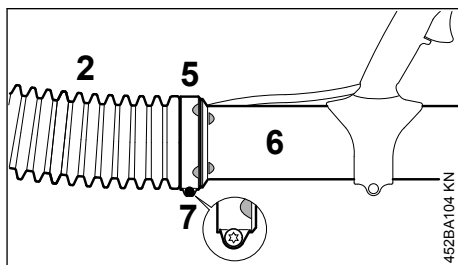
- Push the hose clamp (1) (with retainer for throttle cable) onto the elbow (3) – the positioning marks must face to the left.
- Push the pleated hose (2) over the elbow (3).



- Push the hose clamp (1) onto the pleated hose (2).
- Line up the positioning marks on the hose clamp (1) and elbow (3) – the screw recess facing down.
- Secure the hose clamp (1) with the screw (4).

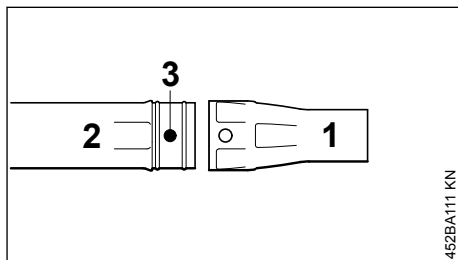


- Push the hose clamp (5) (without retainer for throttle cable) onto the elbow (6) – the positioning marks must face to the right.
- Push the blower tube (6) into the pleated hose (2).

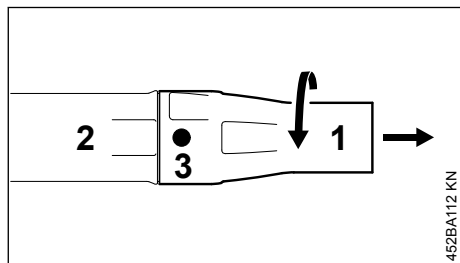


- Push the hose clamp (5) onto the pleated hose (2).
- Line up the hose clamp (5) and blower tube (6) – as shown.
- Secure the hose clamp (5) with the screw (7).

Mounting the nozzle



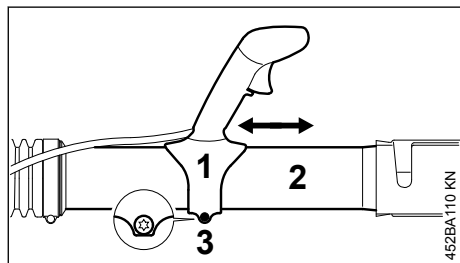
- Push the nozzle (1) onto the blower tube (2) and engage it on the lugs (3).

Removing the nozzle

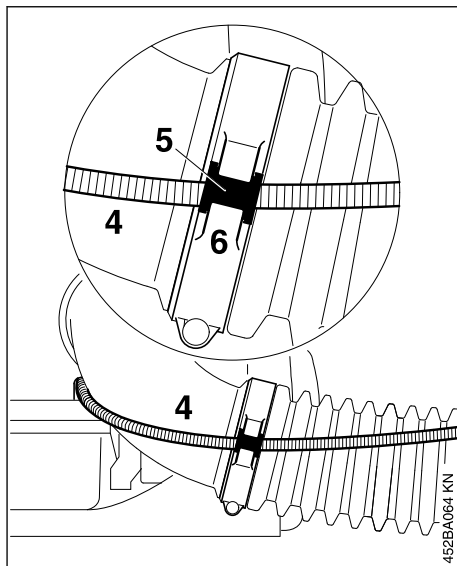
- Rotate the nozzle (1) in the direction of the arrow until the lugs (3) are covered.
- Pull the nozzle (1) off the blower tube (2).

Adjusting the control handle

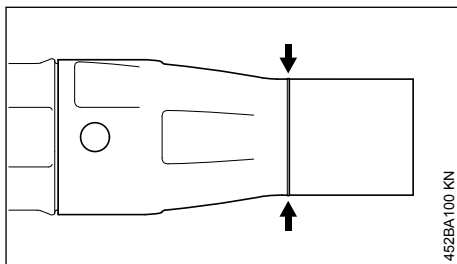
- Put the machine on your back and adjust the harness – see "Fitting the Harness".



- Move the control handle (1) along the blower tube (2) to the most comfortable position.
- Secure the control handle (1) with the screw (3).



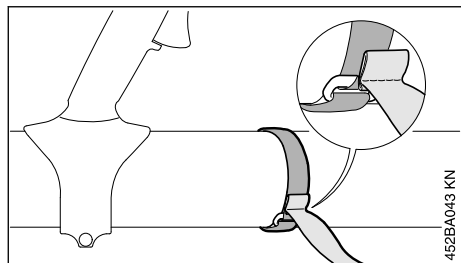
- Engage the throttle cable (4) with sleeve (5) in the retainer (6).

Wear mark on nozzle

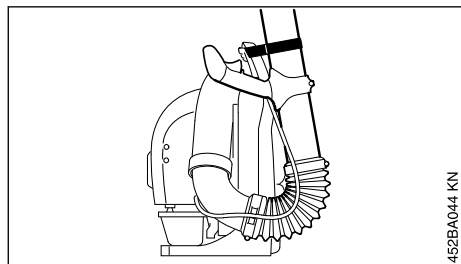
The front end of the nozzle wears away due to abrasive ground contact during operation. The nozzle is subject to normal wear and tear and must be replaced when the wear mark is reached.

Fitting the transport aid

When storing or transporting the machine:



- Secure the hook and loop fastener to the blower tube – pull the flap through the buckle.

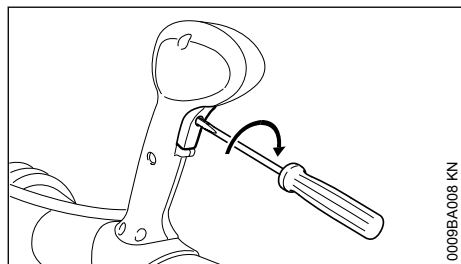


- Secure the blower tube to the handle on the backplate.

4 Adjusting the Throttle Cable

It may be necessary to correct the adjustment of the throttle cable after assembling the machine or after a prolonged period of operation.

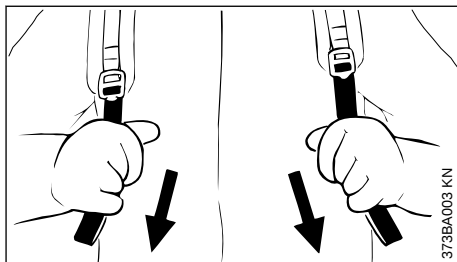
Adjust the throttle cable only when the unit is completely and properly assembled.



- Set throttle trigger to the full throttle position – as far as stop.
- Carefully rotate the screw in the throttle trigger in the direction of the arrow until you feel initial resistance. Then rotate it another full turn.

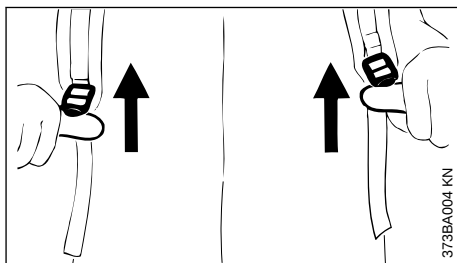
5 Fitting the Harness

5.1 Adjusting the Harness



- Pull the straps downwards to tighten the harness

5.2 Loosening the Harness



- Lift the tabs of the two sliding adjusters.
- Adjust the harness so that the backplate fits snugly and securely against your back

6 Fuel

The engine requires a mixture of gasoline and engine oil.



WARNING

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

6.1 STIHL MotoMix

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

STIHL MotoMix uses STIHL HP Ultra two-stroke engine oil for optimum engine life.

MotoMix is not available in all markets.

6.2 Mixing fuel

NOTICE

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

6.2.1 Gasoline

Use only **high-quality gasoline** with an octane rating of at least 90 ROC – leaded or unleaded.

Gasoline with an alcohol component exceeding 10% can cause impaired engine performance in engines with manually adjustable carburetors and thus should not be used in these engines.

Engines with M-Tronic deliver full engine performance using gasoline with an alcohol component of up to 27% (E27).

6.2.2 Engine oil

If you mix the fuel yourself, use only STIHL two-stroke engine oil or another high-performance engine oil classified as JASO FB, JASO FC, JASO FD, ISO-L-EGB, ISO-L-EGC or ISO-L-EGD.

STIHL specifies STIHL HP Ultra two-stroke engine oil or an equivalent high-performance engine oil in order to maintain emission limits over the machine's service life.

6.2.3 Mixing ratio

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

6.2.4 Examples

Quantity of gasoline	STIHL two-stroke engine oil 1:50	
Liters	Liters	(ml)
1	0.02	(20)
5	0.10	(100)
10	0.20	(200)
15	0.30	(300)
20	0.40	(400)
25	0.50	(500)

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

6.3 Storing fuel mixture

Store in approved safety fuel canisters only in a dry, cool and secure place protected against light and sunlight.

Fuel mixture deteriorates with age – mix only as much as needed for a few weeks. Do not store fuel mixture for longer than 30 days. The fuel mixture can become unusable more quickly if exposed to light, sunlight or low or high temperatures.

STIHL MotoMix however can be stored for up to 5 years without any problems.

- Shake the canister containing the fuel mixture thoroughly before refueling



WARNING

Pressure may have built up in the canister – open it carefully.

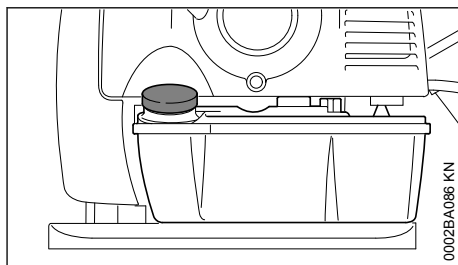
- The fuel tank and the canister in which fuel mixture is stored should be cleaned thoroughly from time to time

Residual fuel and the liquid used for cleaning must be disposed of in accordance with regulations and without harming the environment!

7 Fueling

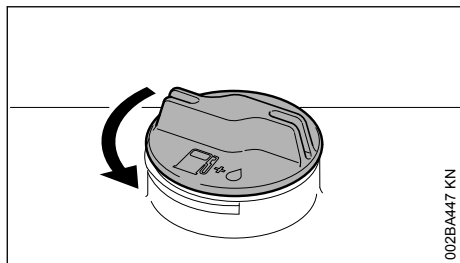


7.1 Preparations



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

7.2 Opening screw-type tank cap



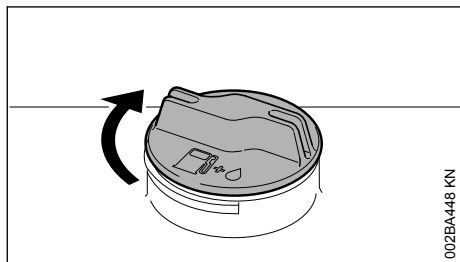
002BA447 KN

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

7.3 Filling up with fuel

Take care not to spill fuel while fueling and do not overfill the tank. STIHL recommends you use the STIHL filler nozzle (special accessory).

7.4 Closing screw-type tank cap



002BA448 KN

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

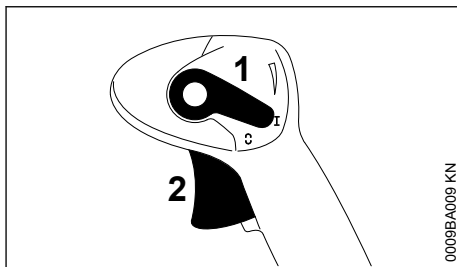
8 Information Before You Start

NOTICE

With the engine stopped and before starting, check the air intakes between the backplate and powerhead for blockages and clean if necessary.

8.1 Functions of setting lever

The power tool is equipped with different types of control handle.



0009BA009 KN

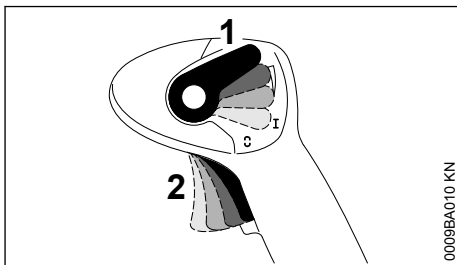
Run position I

Engine runs or is ready to start. Throttle trigger (2) can be moved to any position.

Switch off engine 0

Ignition is interrupted, engine stops. The setting lever (1) is not locked in this position. It springs back to the run position I. The ignition is again ready for operation.

Fixed throttle

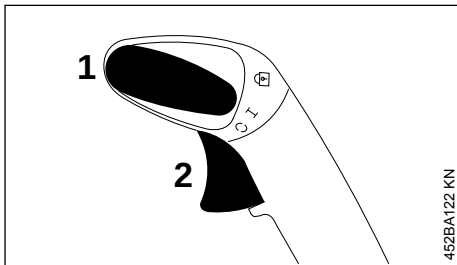


0009BA010 KN

The throttle trigger (2) can be locked in any position:

To disengage the lock:

- Return the setting lever (1) to the run position I.



452BA122 KN

Run position I

Engine runs or is ready to start. Throttle trigger (2) can be moved to any position.

Switch off engine

Ignition is interrupted, engine stops. The setting lever (1) is not locked in this position. It springs back to the run position **I**. The ignition is again ready for operation.

Lock position

The throttle trigger (2) can be locked in three positions: 1/3 throttle, 2/3 throttle and full throttle. To disengage the lock, move the setting lever (1) back to the normal run position **I**.

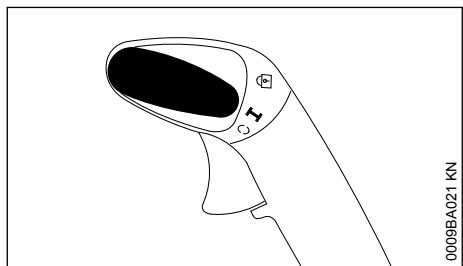
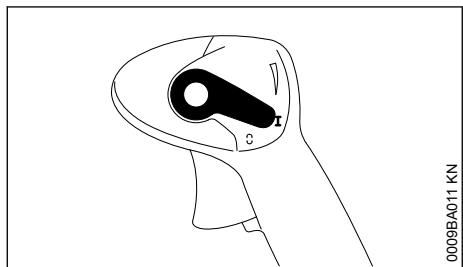
9 Starting / Stopping the Engine

9.1 Starting the Engine

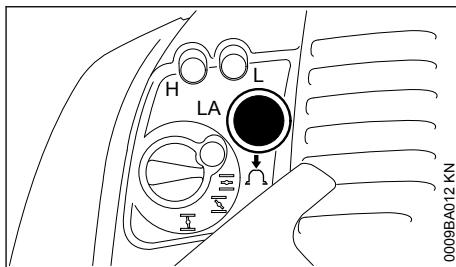
- Observe safety precautions.

NOTICE

Start your unit on a clean, dust-free surface only to ensure that no dust is sucked in.

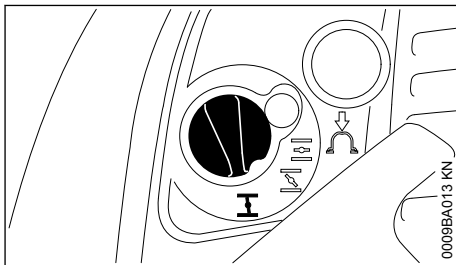


- The setting lever must be on **I**



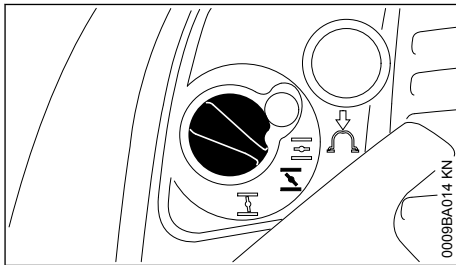
- Press the fuel pump bulb at least eight times – even if the bulb is filled with fuel.

9.1.1 Cold engine (cold start)



- Push the choke knob in and turn it to **I**.

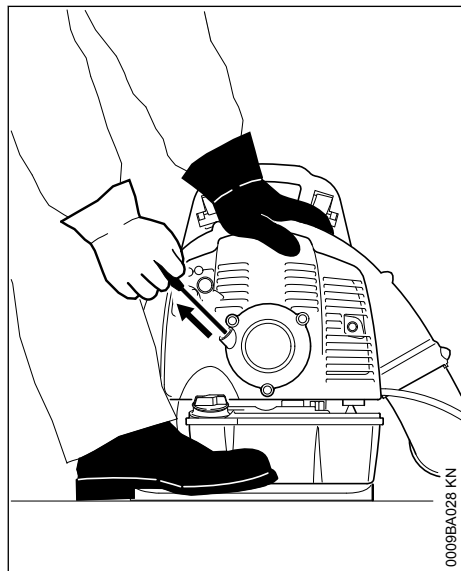
9.1.2 Warm engine (warm start)



- Push the choke knob in and turn it to **I**.

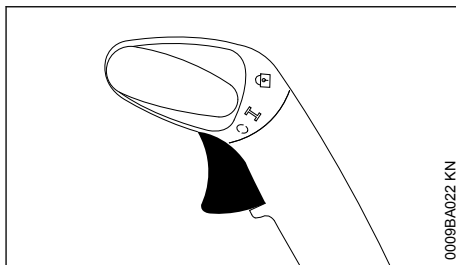
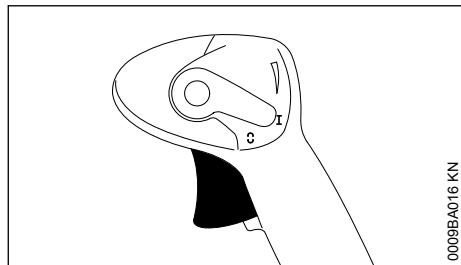
Also use this setting if the engine has been running but is still cold.

9.1.3 Cranking

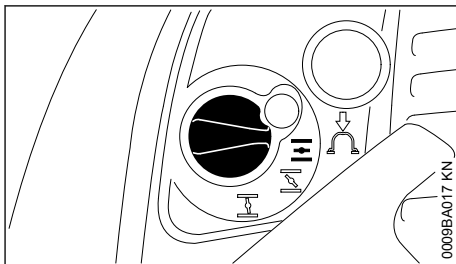


- ▶ Place the unit securely on the ground and make sure that bystanders are well clear of the nozzle outlet.
- ▶ Make sure you have a firm footing: Hold the unit with your left hand on the housing and put one foot against the base plate to prevent it slipping.
- ▶ Pull the starter grip slowly with your right hand until you feel it engage and then give it a brisk strong pull. Do not pull out the starter rope to full length – **it might otherwise break**.
- ▶ Do not let the starter grip snap back. Guide it slowly back into the housing so that the starter rope can rewind properly.
- ▶ Continue cranking until the engine runs.

9.2 As soon as the engine runs



- ▶ Operate the throttle trigger.

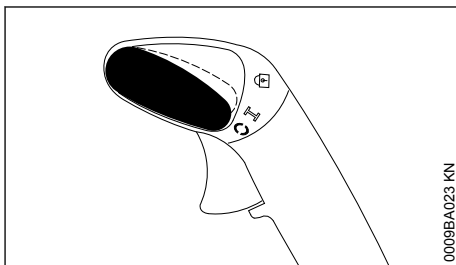
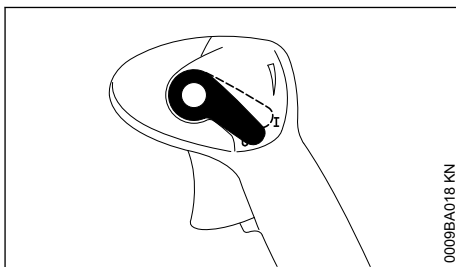


- ▶ Choke knob automatically returns to the run position **I** when the throttle trigger is operated.

9.2.1 At very low outside temperatures

- ▶ Open throttle slightly – warm up the engine for a short period.

9.3 Stopping the Engine



- Move the setting lever in the direction of  – the engine stops – the setting lever springs back to the on position.

9.4 Other Hints on Starting

Engine stalls in cold start position  or under acceleration

- Move the choke knob to  and continue cranking until the engine runs.

Engine does not start in warm start position 

- Move the choke knob to  and continue cranking until the engine runs.

If the engine does not start

- Check that all settings are correct.
- Check that there is fuel in the tank and refuel if necessary.
- Check that the spark plug boot is properly connected.
- Repeat the starting procedure.

Fuel tank run until completely dry

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

10 Operating Instructions

10.1 During Operation

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

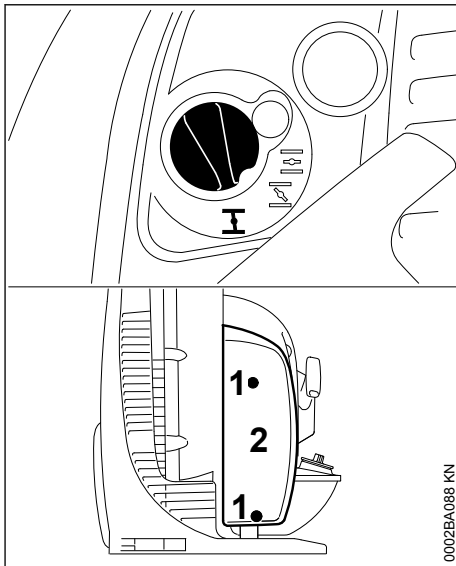
10.2 After Finishing Work

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

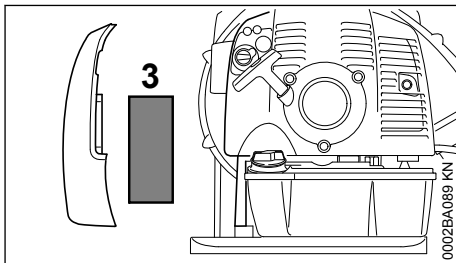
11 Replacing the Air Filter

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

11.1 If there is a noticeable loss of engine power



- Turn the choke knob to .
- Loosen the screws (1).
- Remove the filter cover (2).



- Remove the filter element (3).
- Replace dirty or damaged filters.
- Fit the new filter in the filter housing.
- Fit the filter cover.
- Fit the screws and tighten them down firmly.

12 Adjusting the Carburetor

12.1 General Information

The carburetor comes from the factory with a standard setting.

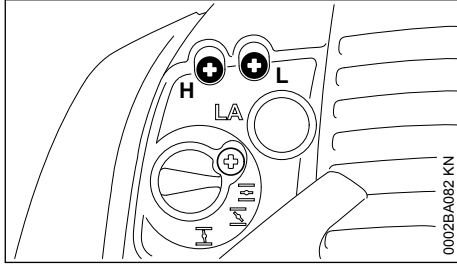
This setting provides an optimum fuel-air mixture under most operating conditions.

12.2 Preparations

- Shut off the engine.

- ▶ Check the air filter and clean or replace if necessary.
- ▶ Check that the throttle cable is properly adjusted – readjust if necessary – see chapter on "Adjusting the Throttle Cable".
- ▶ Check the spark arresting screen (not in all models, country-specific) in the muffler and clean or replace if necessary.

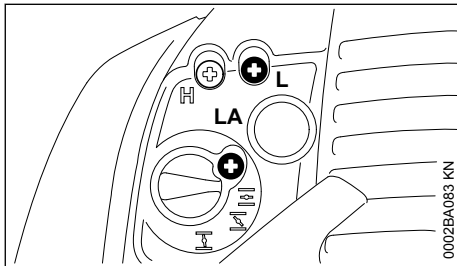
12.3 Standard Setting



- ▶ Turn high speed screw (H) counterclockwise as far as stop (no more than 3/4 turn).
- ▶ Turn the low speed screw (L) clockwise as far as stop, then turn it back 3/4 turn.

12.4 Adjusting Idle Speed

- ▶ Carry out the standard setting.
- ▶ Start and warm up the engine.



12.4.1 Engine stops while idling

- ▶ Turn the idle speed screw (LA) slowly clockwise until the engine runs smoothly.

12.4.2 Erratic idling behavior, engine stops even though setting of LA screw has been corrected, poor acceleration

Idle setting is too lean

- ▶ Turn the low speed screw (L) counterclockwise, no further than stop, until the engine runs and accelerates smoothly.

12.4.3 Erratic idling behavior

Idle setting is too rich

- ▶ Turn the low speed screw (L) clockwise, no further than stop, until the engine runs and accelerates smoothly.

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

12.5 Fine Tuning for Operation at High Altitude

A slight correction of the setting may be necessary if the engine does not run satisfactorily:

- ▶ Carry out the standard setting.
- ▶ Warm up the engine.
- ▶ Turn high speed screw (H) slightly clockwise (leaner) – no further than stop.

NOTICE

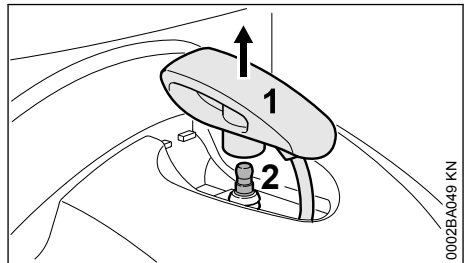
After returning from high altitude, reset the carburetor to the standard setting.

If the setting is too lean there is a risk of engine damage due to insufficient lubrication and overheating.

13 Spark Plug

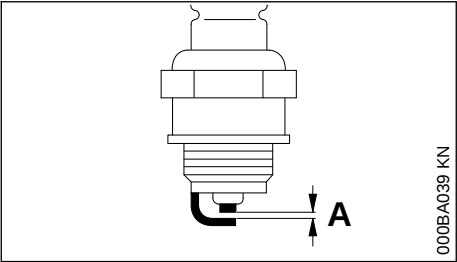
- ▶ If the engine is down on power, difficult to start or runs poorly at idle speed, first check the spark plug.
- ▶ Fit a new spark plug after about 100 operating hours – or sooner if the electrodes are badly eroded. Install only suppressed spark plugs of the type approved by STIHL – see "Specifications".

13.1 Removing the spark plug



- ▶ Pull off the spark plug boot (1) vertically.
- ▶ Unscrew the spark plug (2).

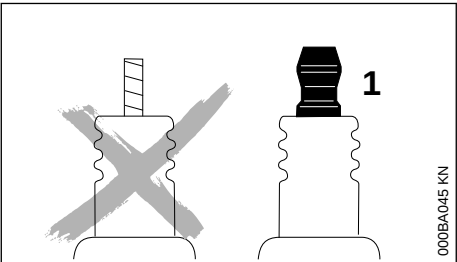
13.2 Checking the Spark Plug



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

Possible causes are:

- Too much oil in fuel mix.
- Dirty air filter.
- Unfavorable running conditions.



WARNING

Arcing may occur if the adapter nut (1) is loose or missing. Working in an easily combustible or

explosive atmosphere may cause a fire or an explosion. This can result result in serious injuries or damage to property.

- ▶ Use resistor type spark plugs with a properly tightened adapter nut.

13.3 Installing the spark plug

- ▶ Screw home the spark plug, fit the boot and press it down firmly.

14 Engine Running Behavior

If engine running behavior is unsatisfactory even though the air filter is clean and the carburetor is properly adjusted, the cause may be the muffler.

Have the muffler checked for contamination (carbonization) by your servicing dealer.

STIHL recommends that you have servicing and repair work carried out exclusively by an authorized STIHL servicing dealer.

15 Storing the Machine

If out of use for periods of about 30 days or longer

- ▶ Drain and clean the fuel tank in a well ventilated area.
- ▶ Dispose of fuel properly in accordance with local environmental requirements.
- ▶ If a manual fuel pump is fitted: Press the manual fuel pump at least 5 times.
- ▶ Start the engine and run it at idling speed until it stops
- ▶ Thoroughly clean the machine, especially the cylinder fins and air filter.
- ▶ Store the machine in a dry and safe location. Keep out of the reach of children and other unauthorized persons

16 Maintenance and Care

The following intervals apply for normal operating conditions. The specified intervals must be shortened accordingly when working for longer than normal or under difficult cutting conditions (extensive dust, etc.).		Before starting work	At the end of work and/or daily	Whenever tank is refilled	Weekly	Monthly	Annually	If faulty	If damaged	As required
Complete machine	Visual inspection (condition, leaks)	X		X						
	Clean		X							

The following intervals apply for normal operating conditions. The specified intervals must be shortened accordingly when working for longer than normal or under difficult cutting conditions (extensive dust, etc.).		Before starting work	At the end of work and/or daily	Whenever tank is refilled	Weekly	Monthly	Annually	If faulty	If damaged	As required
Control handle	Function test	X		X						
Air filter	Clean							X		
	replace								X	
Manual fuel pump	check	X								
	Have repaired by a specialist dealer ¹⁾								X	
Fuel pickup body in fuel tank	Have checked by dealer ¹⁾							X		
	Have replaced by servicing dealer ¹⁾						X			X
Fuel tank	Clean						X			
Carburetor	Check idle speed	X		X						
	Readjust idle speed									X
Spark plug	Adjust electrode gap							X		
	Replace after every 100 hours of operation									
Intake port for cooling air	Visual inspection		X							
	Clean									X
All accessible screws, nuts and bolts (not adjusting screws)	Tighten									X
Anti-vibration elements	check	X						X		X
	Have replaced by servicing dealer ¹⁾								X	
Blower air intake shield	check	X		X						
	Clean									X
Throttle cable	set									X
Safety information label	replace								X	

¹⁾STIHL recommends STIHL authorized dealers

17 Minimize Wear and Avoid Damage

Observing the instructions in this manual helps reduce the risk of unnecessary wear and damage to the power tool.

The power tool must be operated, maintained and stored with the due care and attention described in this owner's manual.

The user is responsible for all damage caused by non-observance of the safety precautions, operating and maintenance instructions in this manual. This includes in particular:

- Alterations or modifications to the product not approved by STIHL.
- Using tools or accessories which are neither approved or suitable for the product or are of a poor quality.

- Using the product for purposes for which it was not designed.
- Using the product for sports or competitive events.
- Consequential damage caused by continuing to use the product with defective components.

17.1 Maintenance Work

All the operations described in the "Maintenance Chart" must be performed on a regular basis. If these maintenance operations cannot be performed by the owner, they should be performed by a servicing dealer.

STIHL recommends that you have servicing and repair work carried out exclusively by an authorized STIHL servicing dealer. STIHL dealers are regularly given the opportunity to attend training courses and are supplied with the necessary technical information.

If these maintenance operations are not carried out as specified, the user assumes responsibility for any damage that may occur. Among other parts, this includes:

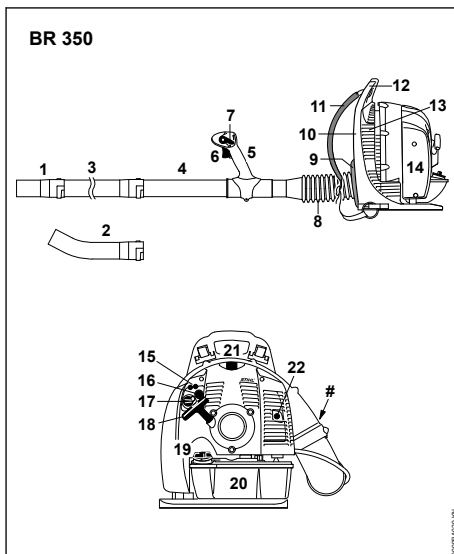
- Damage to the engine due to neglect or deficient maintenance (e.g. air and fuel filters), incorrect carburetor adjustment or inadequate cleaning of cooling air inlets (intake ports, cylinder fins).
- Corrosion and other consequential damage resulting from improper storage.
- Damage to the machine resulting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

17.2 Parts Subject to Wear and Tear

Some parts of the power tool are subject to normal wear and tear even during regular operation in accordance with instructions and, depending on the type and duration of use, have to be replaced in good time. Among other parts, this includes:

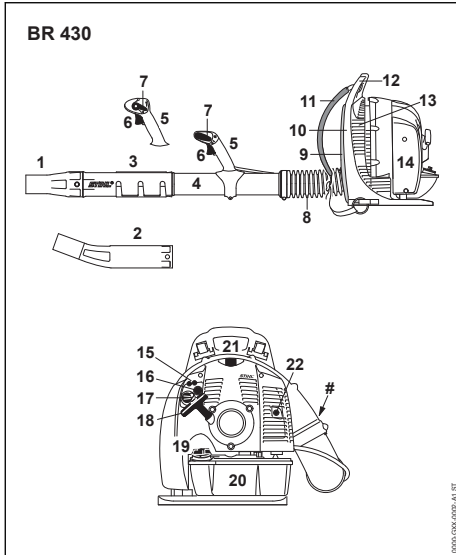
- Filters (air, fuel)
- Rewind starter
- Spark plug
- Damping elements of anti-vibration system

18 Main Parts



- 1 Straight nozzle¹⁾
- 2 Curved nozzle¹⁾
- 3 Blower tube
- 4 Blower tube
- 5 Control handle
- 6 Throttle trigger
- 7 Setting lever
- 8 Pleated hose
- 9 Back padding
- 10 Backplate
- 11 Harness
- 12 Carrying handle
- 13 Intake screen
- 14 Filter cover
- 15 Carburetor adjusting screws
- 16 Manual fuel pump
- 17 Choke knob
- 18 Starter grip
- 19 Tank cap
- 20 Fuel tank
- 21 Spark plug boot
- 22 Muffler

Serial number



- 1 Straight nozzle¹⁾
- 2 Curved nozzle¹⁾
- 3 Blower tube
- 4 Blower tube
- 5 Control handle
- 6 Throttle trigger
- 7 Setting lever
- 8 Pleated hose
- 9 Back padding
- 10 Backplate
- 11 Harness
- 12 Carrying handle
- 13 Intake screen
- 14 Filter cover
- 15 Carburetor adjusting screws
- 16 Manual fuel pump
- 17 Choke knob
- 18 Starter grip
- 19 Tank cap
- 20 Fuel tank

21 Spark plug boot

22 Muffler

Serial number

19 Specifications

19.1 Engine

Single-cylinder two-stroke engine

Displacement:	63.3cm ³
Cylinder bore:	48 mm
Piston stroke:	35 mm
Idle speed:	3000 rpm
Engine power:	
BR 350:	2.1 kW (2.8 hp)
BR 430:	2.9 kW (3.9 hp)

19.2 Ignition system

Electronic magneto ignition

Spark plug (suppressed):	NGK BPMR 7 A, BOSCH WSR 6 F
Electrode gap:	0.5 mm

19.3 Fuel system

All-position diaphragm carburetor with integral fuel pump

Fuel tank capacity:	1700 cm ³ (1.7 l)
---------------------	------------------------------

19.4 Blowing capacity

19.4.1 BR 350

Blowing force	17 N
Air velocity	75 m/s
Air throughput:	740 m ³ /h
Maximum air speed**	90 m/s
Maximum air flow rate without blower tube:	1150 m ³ /h

19.4.2 BR 430

Blowing force	26 N
Air velocity	82 m/s
Air throughput:	850 m ³ /h
Maximum air speed**	98 m/s
Maximum air flow rate without blower tube:	1300 m ³ /h

19.5 Weight

Without fuel:	
BR 350:	10.1 kg
BR 430:	10.3 kg

¹⁾ Not in all versions, country-specific

19.6 Noise and vibration values

When determining sound and vibration levels, idling and the nominal maximum engine speed are taken into account in a ratio of 1:6.

For further details on compliance with Vibration Directive 2002/44/EC, see

www.stihl.com/vib

19.7 Sound pressure level L_{peq} according to DIN EN 15503:2010, uncertainty K: 2 dB(A)

BR 350:	98 dB(A)
BR 430:	101 dB(A)

19.8 Sound power level $L_{w\text{eq}}$ according to DIN EN 15503:2010, uncertainty K: 2 dB(A)

BR 350:	106 dB(A)
	)
BR 430:	108 dB(A)
	)

19.9 Guaranteed sound power level L_{WAd} according to 2000/14/EC

BR 350:	107 dB(A)
BR 430:	109 dB(A)

19.10 Vibration value $a_{hv,eq}$ according to DIN EN 15503:2010, uncertainty K: 2 dB(A)

19.10.1 Standard version

	Handle, right
BR 350:	3.9 m/s ²
BR 430:	2.5 m/s ²

19.10.2 Version with bike handle

	Handle, left	Handle, right
BR 350:	2.5 m/s ²	2.5 m/s ²
BR 430:	2.5 m/s ²	2.5 m/s ²

19.11 Vibration value p_f according to EN ISO 5349-3, uncertainty K_p : 12 m/s²

	Handle, right
BR 430:	60 m/s ²

19.12 REACH

REACH is an EC regulation and stands for the Registration, Evaluation, Authorization and Restriction of Chemical substances.

For information on compliance with the REACH regulation (EC) No. 1907/2006 see

www.stihl.com/reach

19.13 Exhaust Emissions

The CO₂ value measured in the EU type approval procedure is specified at

www.stihl.com/co2

in the product-specific technical data.

The measured CO₂ value was determined on a representative engine in accordance with a standardized test procedure under laboratory conditions and does not represent either an explicit or implied guarantee of the performance of a specific engine.

The applicable exhaust emission requirements are fulfilled by the intended usage and maintenance described in this User Manual. The operating license shall be void if the engine is modified in any way.

20 Maintenance and Repairs

Users of this machine may only carry out the maintenance and service work described in this user manual. All other repairs must be carried out by a servicing dealer.

STIHL recommends that you have servicing and repair work carried out exclusively by an authorized STIHL servicing dealer. STIHL dealers are regularly given the opportunity to attend training courses and are supplied with the necessary technical information.

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

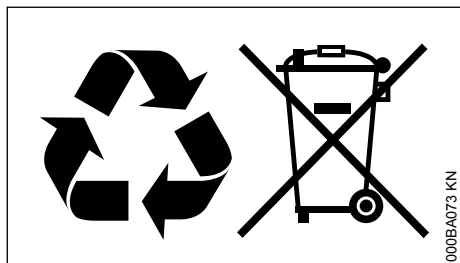
STIHL recommends the use of original STIHL replacement parts.

Original STIHL parts can be identified by the STIHL part number, the **STIHL** logo and the STIHL parts symbol  (the symbol may appear alone on small parts).

21 Disposal

Contact the local authorities or your STIHL servicing dealer for information on disposal.

Improper disposal can be harmful to health and pollute the environment.



- Take STIHL products including packaging to a suitable collection point for recycling in accordance with local regulations.
- Do not dispose with domestic waste.

22 EU conformity

The EU Declaration of Conformity is available at stihl.link/compliance.

Further information and a form for reporting security vulnerabilities are available at vdp.stihl.com.

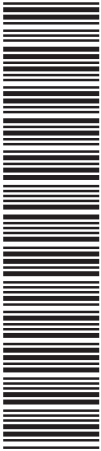
23 Addresses

www.stihl.com

www.stihl.com



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