SR 430, 450



2 - 32 Instruction Manual

Contents

1 Guide to Using this Manual....2
2 Safety Precautions and Working Techniques....2
3 Assembling the Unit....8
4 Adjusting the Throttle Cable....11
5 Harness....11
6 Fuel....11
7 Fueling....12
8 Information Before You Start....13
9 Starting / Stopping the Engine....14
10 Operating Instructions....16
11 Calculating Required Quantity of Solution....16
12 Metering Unit....17
13 Dusting and Spreading Mode....20
14 Filling the Container....22
15 Working....23
16 After Finishing Work....24
17 Storing the Machine....24
18 Replacing the Air Filter....24
19 Adjusting the Carburetor....25
20 Spark Plug....26
21 Engine Running Behavior....26
22 Maintenance and Care....27
23 Minimize Wear and Avoid Damage....28
24 Main Parts....29
25 Specifications....29
26 Maintenance and Repairs....31
27 Disposal....31
28 EU conformity....32
29 Addresses....32

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



Mistblowing



Dusting and spreading mode



Solution feed

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 working with the 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.

Original Instruction Manual
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Paper is recyclable.

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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.

Do not pass on or lend the machine to persons who are not familiar with this model and its operation – always include the User Manual.

The use of machines that emit noise may be limited to certain hours of the day as specified by national and/or regional or local regulations.

Do not operate the machine if any of its components are damaged. Pay special attention to the tightness of the container (no leaks).

Operate the power tool only if it is complete and properly assembled.

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 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.

2.2 Applications

This mistblower is suitable for applying fungicides, herbicides and pesticides at ground level. Spraying overhead is possible with mistblowers equipped with a pressure pump. Typical areas of application are in fruit, vegetable, wine and crop growing, plantations, flower growing, grassland and forestry.

Only use plant protection products that are specifically approved for use in portable mistblowers.

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

Additionally on SR 450:

In the dusting and spreading mode, plant protection products can be applied over a wide area in powder form or as dry granulate.

Only use plant protection products that are specifically approved for use in portable spreaders/dusters.

2.3 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.

2.4 Clothing and equipment

Wear proper protective clothing and equipment when using, filling and cleaning the power tool. Follow the chemical manufacturer's user manual with respect to protective equipment.

Immediately change work clothes contaminated with plant control chemicals.



Clothing must be snug-fitting but allow complete freedom of movement.



For some plant control chemicals it is necessary to wear impermeable coveralls.

If you are spraying overhead, wear impermeable head covering.



Avoid any clothing, scarves, neckties, jewelry or anything that could get into the air intake. Tie up and confine long hair above your shoulders so that it cannot be pulled into the machine.



Wear impermeable safety boots with a non-slip sole which are resistant to plant protection products.

Do not wear sandals or go barefoot.

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 a suitable respirator.

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

Breathing plant control chemicals may endanger your health. Always wear a suitable respirator to protect yourself against health risks and allergic reactions. Observe warnings in the user manual of the plant protection product and all applicable local safety regulations, standards and ordinances.



Wear impermeable gloves resistant to plant control chemicals.

2.5 Handling Plant Control Chemicals

Read the user manual supplied with the plant protection chemical prior to use. Follow the instructions with respect to mixing, using, personal protective equipment, storage and disposal.

Observe the legal requirements for handling plant protection products.

Plant protection chemicals may contain substances that are harmful to humans, animals, plants and the environment – **risk of poisoning and risk of serious or fatal injuries!**

Plant protection chemicals may be used only by persons trained in their handling and the appropriate first-aid measures.

Keep the user manual or label of the plant control chemical available at all times in order to inform the doctor about the chemical concerned in an emergency. In an emergency, follow the chemical manufacturer's instructions provided or on the label.

2.5.1 Mixing the Spray Solution

Mix the plant protection product strictly in accordance with the manufacturer's instructions – incorrect mixtures may produce toxic fumes or explosive solutions.

- Never spray liquid plant control chemicals undiluted
- Mix the solution outdoors only or in well-ventilated locations
- Only prepare sufficient solution for the job on hand so that nothing is left over
- Mix different chemicals only in accordance with the manufacturer's instructions – incorrect mixtures may produce toxic fumes or explosive solutions
- Do not mix different plant protection products unless such a mixture is approved by the manufacturer

2.5.2 Filling the Solution Container

- Fill the container with plant protection products outdoors only or in well-ventilated locations
- Stand the power tool securely on a level surface – do not fill the container above the maximum mark
- To **reduce the risk of injury**, do not fill the power tool while wearing it on your back.
- Only fill with sufficient solution for the job on hand so that nothing is left over.
- Before filling up, close the valve lever and, on SR 450 only, the metering lever
- When filling from central water supply, do not immerse the end of the hose in the solution – sudden low pressure in the system may cause the solution to be sucked back into the water supply
- Before filling the container with spray solution, carry out test run with fresh water and check all parts of the sprayer for leaks
- After filling, fit the filler cap and tighten it down firmly

2.5.3 Use

- Work only in the open or in very well ventilated locations, e.g. open greenhouses
- Do not eat, drink or smoke while working with plant protection chemicals
- Never blow through nozzles or other components by mouth
- Avoid contact with plant control chemicals – immediately change clothing contaminated with plant control chemical
- Do not spray in windy conditions

Unfavorable weather conditions may result in an incorrect concentration of the plant protection product. Overdosing may damage plants and the environment. Under-dosing may result in unsuccessful plant treatment.

In order to reduce the risk of damage to the environment and plants, do not operate the sprayer:
– in windy conditions
– at temperatures above 25°C in the shade
– in direct sunlight

In order to reduce the risk of accidents and damage to the power tool, never operate the power tool with:
– flammable liquids
– viscous or sticky liquids
– caustic or corrosive chemicals
– liquids hotter than 50 °C

2.5.4 Bearing

– During work breaks, do not leave the power tool in the hot sun or near any heat source
– Do not store spray solution in the container for longer than one day
– Store and transport plant protection products only in approved containers
– Never store the plant protection products in containers intended for foods, drinks or animal feed
– Do not store plant protection products with foods, drinks or animal feed
– Keep plant protection products out of the reach of children and animals
– Store the power tool empty and clean
– Store plant protection products and power tool in a place secured against unauthorized use
– Store plant protection products and power tool in a dry place protected from frost

2.5.5 Disposal

Never dispose of residual plant protection products or contaminated rinsing solutions in waterways, drains, sewers, street gutters or manholes.
– Dispose of residual chemicals and used containers in accordance with local waste disposal regulations

2.6 Transporting the unit

Always stop the engine.

Transporting in a vehicle:
– Secure the machine against overturning, damage and fuel spillage
– The container must be empty and clean

2.7 Refueling



Gasoline is an extremely flammable fuel. Keep clear of naked flames. Do not spill any fuel – do not smoke.

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 unit only when it is standing securely 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 fuel has been spilled, immediately clean the machine – do not allow your clothes to be splashed with fuel. If that happens, change your clothes at once.



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.

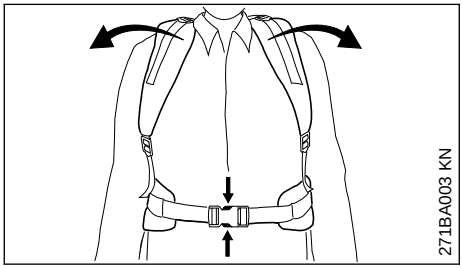
This helps reduce the risk of unit vibrations causing an incorrectly tightened fuel cap to loosen or come off and spill quantities of fuel.

2.8 Before starting

Check that your power tool is properly assembled and in good condition, especially if it has been subjected to unusually high loads for which it was not designed (e.g. heavy impact or a fall).
– 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 setting lever must move easily to **STOP** or **0**
– The throttle trigger must move freely and spring back by itself to the idle position.
– Check that the spark plug boot is secure – a loose boot may cause sparking that could ignite combustible fumes **and cause a fire!**
– Check the fuel system for leaks

– Check the condition and tightness of container, hose and metering unit
– Check condition of harness straps and replace damaged or worn straps

To reduce the risk of accidents and personal injury, do not operate your power tool if it is not properly assembled and in good condition.



For emergencies: Practice quickly opening the fastener on the waist belt (special accessory), loosening the shoulder straps and setting down the unit. To avoid damage, do not throw the unit to the ground when practicing.

2.9 Starting the engine

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

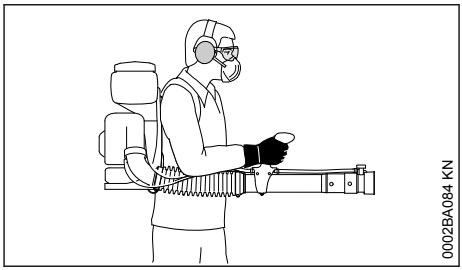
Your power tool is designed to be operated by one person only. Do not allow other persons in the work area – even when starting.

Always proceed as described in the user manual.

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

If an assistant is required to put the power tool on your back, make sure that
– the engine is running at idle speed
– the assistant is not standing in the area of the exhaust outlet and breathing exhaust fumes
– the valve lever and, on SR 450 only, the metering lever is closed
– the assistant is not standing in the area of the outlet nozzle
– The assistant leaves the work area immediately after you have put the power tool on your back

2.10 Holding and guiding the power tool



Carry the power tool on your back with both harness straps – do not hang it over one shoulder. Hold and control the blower tube with your right hand on the control handle – even if you are left-handed.

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

Keep the power tool and container upright. To avoid the risk of chemical leaking from the container and causing injury,**do not bend forwards**.

2.11 Dusting and spreading mode – SR 450 only

In the dusting and spreading mode, plant protection products can be applied in powder form or as dry granulate up to a grain size of 5 mm.

Observe the legal requirements for handling plant protection products.

Observe the directions for use or the label of the plant protection product.

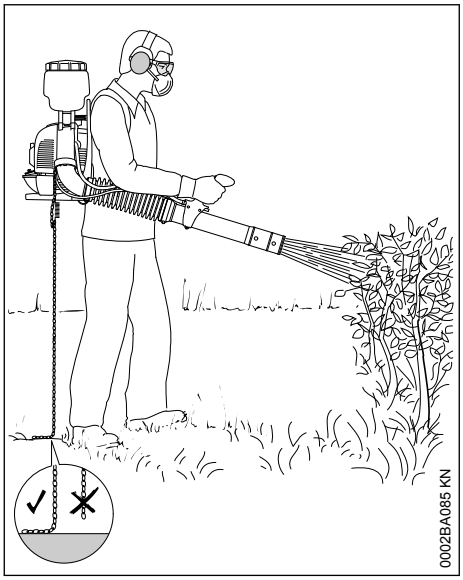
To reduce the risk of accidents and damage to the power tool, never operate it with explosive or combustible materials

Do not apply sulphur or compounds in powder form containing sulphur since they are highly explosive and have a very low ignition point.

Antistatic system

Electrostatic charging with sparking can occur when working with the dusting and spreading attachment.

The risk is greatest
– in extremely dry weather conditions
– When using powdered products, which create a highly concentrated dust cloud



To reduce the risk of sparking, explosion or fire, make sure the discharge system is completely and properly mounted to the machine. It consists of a conductive wire in the spray tube connected to a metal chain. The metal chain must make contact with a conductive surface to dissipate electrostatic charges.

Do not operate your machine on a non-conductive surface (e.g. plastic, asphalt).

Never operate your machine with a missing or damaged discharge system.

2.12 While working



Do not direct the blower tube at bystanders since the air flow can blow small objects at great speed.

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

Never leave a running machine unattended.

Take special care in slippery conditions – **dampness, snow, ice**, on slopes or uneven ground.

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

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

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

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

Do not work on a ladder or in unstable locations.

When working in open ground and gardens take special care to avoid harming small animals.

To reduce the **risk of electrocution**, never operate this power tool in the vicinity of live wires or power cables.

Always clean the spray container and hose system before changing to a different plant protection product.



As soon as the engine starts running, the power tool generates toxic exhaust gas. These gases may be odorless and invisible and may contain unburned hydrocarbons and benzene. Never work with the machine in closed or poorly ventilated rooms.

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!**

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.

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.

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". 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.

2.13 After finishing work

Close the valve lever and, on SR 450 only, the metering lever

Always shut off the engine before taking the power tool off your back.

After finishing work, put the power tool down 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!**

Check all parts of the power tool for leaks.

After finishing work, thoroughly clean the power tool and wash your hands, face and, if necessary, your clothes.

Keep other people and animals away from the areas that have been sprayed and do not walk on them until the plant protection agent has dried.

2.14 Vibrations

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

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

The period of usage is prolonged by:
– Hand protection (wearing warm gloves)
– Work breaks

The period of usage is shortened by:
– Any personal tendency to suffer from poor circulation (symptoms: frequently cold fingers, tingling sensations).
– Low outside temperatures.
– The force with which the handles are held (a tight grip restricts circulation).

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

2.15 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

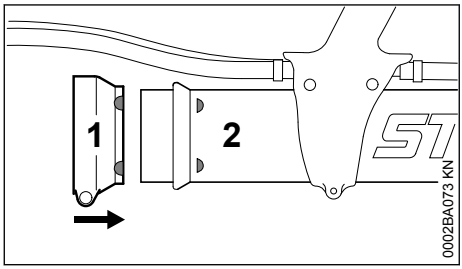
NOTICE

Hose and throttle cable, and the metering unit's operating cable on the SR 450, come connected

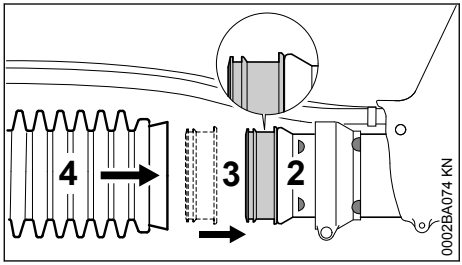
ready for use and must not be kinked while assembling the machine.

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

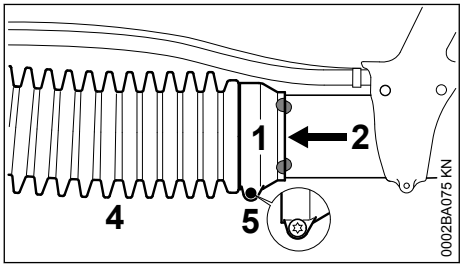
3.1 Fitting the pleated hose on the blower tube



- Push wide hose clamp (1), marks facing right, onto the blower tube (2).

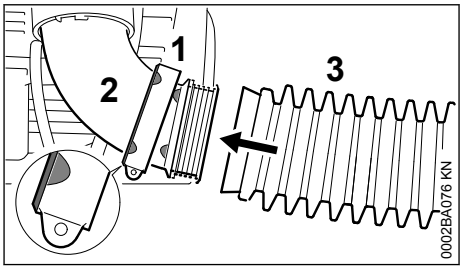


- Push the ring seal (3) (wide lip facing left) onto the stub on the blower tube (2).
- Push the pleated hose (4) over the ring seal (3).

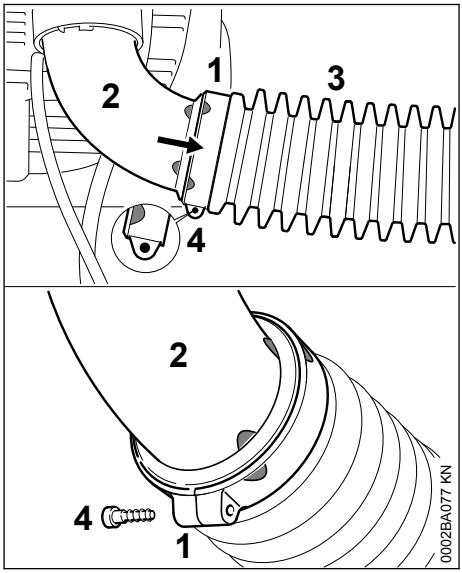


- Push the hose clamp (1) onto the pleated hose (4).
- Line up the marks on the hose clamp (1) and blower tube (2) – as shown.
- Secure the hose clamp (1) with the screw (5) – the blower tube (2) must still rotate.

3.2 Fitting the pleated hose on the elbow – SR 430 only

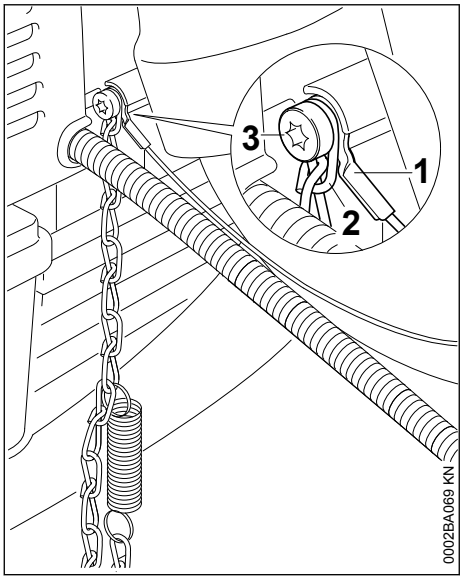


- Push narrow hose clamp (1), marks facing left, onto the elbow (2).
- Push the pleated hose (3) onto the elbow (2).



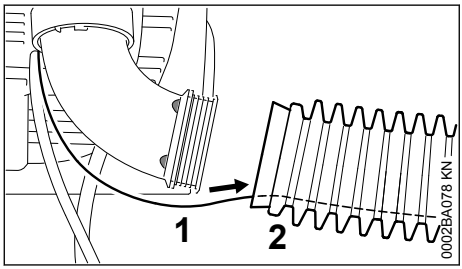
- Push the hose clamp (1) onto the pleated hose (3).
- Line up the marks on the hose clamp (1) and elbow (2) – as shown.
- Secure the hose clamp (1) with the screw (4).

3.3 Fitting the antistatic system – SR 450 only

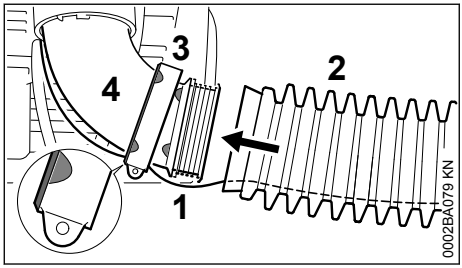


- Attach the antistatic wire (1) and chain (2) to the blower housing with screw (3).

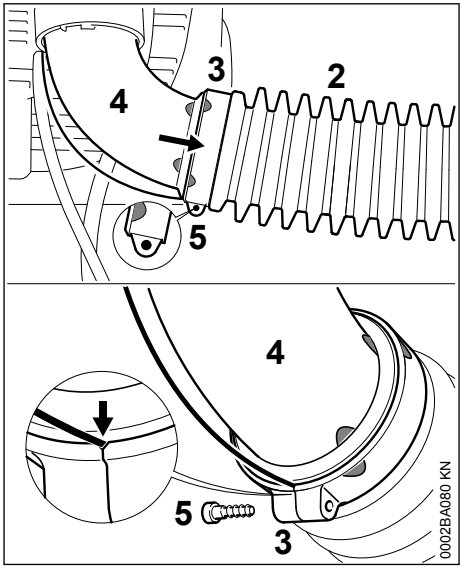
3.4 Fitting the pleated hose on the elbow – SR 450 only



- Push the antistatic wire (1) into the pleated hose (2).



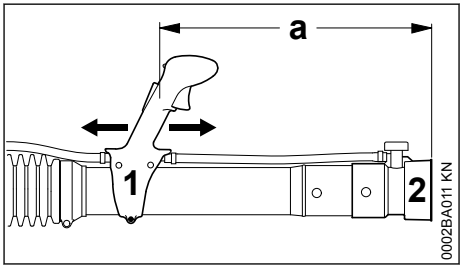
- Push narrow hose clamp (3), marks facing left, onto the elbow (4).
- Route the antistatic wire (1) through the slot in the hose clamp (3).
- Push the pleated hose (2) onto the elbow (4).



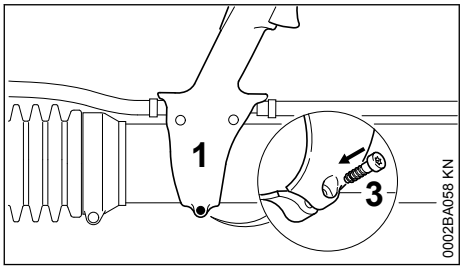
- Push the hose clamp (3) onto the pleated hose (2).
- Line up the marks on the hose clamp (3) and elbow (4) – as shown.
- Secure the hose clamp (3) with the screw (5) – make sure the antistatic wire is located in the notch.

3.5 Adjusting and securing the control handle

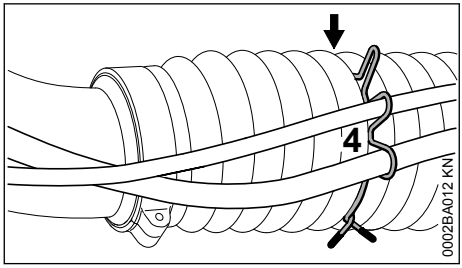
- Put the machine on your back and adjust the harness – see "Harness".



- Slide the control handle (1) along the tube to the most comfortable position – distance between nozzle outlet (2) and the control handle (1) must be at least 500 mm ('a').



- Secure the control handle (1) with the screw (3).

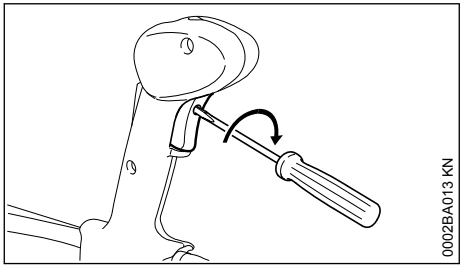


- Use the retainer (4) to secure the hose and throttle cable, and metering unit's operating cable on the SR 450, to the 6th pleat (arrow) on the pleated hose.

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.

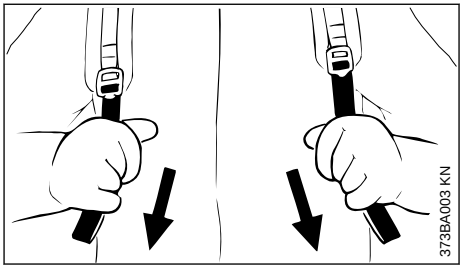
Adjust the throttle cable only when the unit is completely and properly assembled.



- 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.

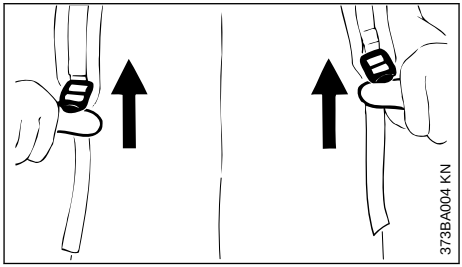
5 Harness

5.1 Adjusting the Harness



- Pull the ends of the straps downwards to tighten the harness.
- Adjust the harness so that the backplate fits snugly and securely against your back.

5.2 Loosening the Harness



- Lift the tabs of the sliding adjusters.

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

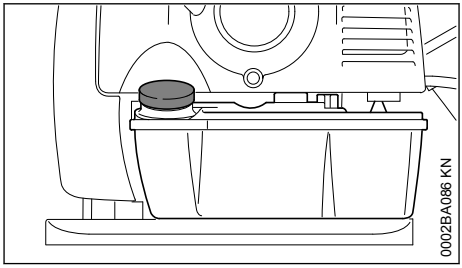
Pressure may have built up in the canister – open it carefully.

- 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!

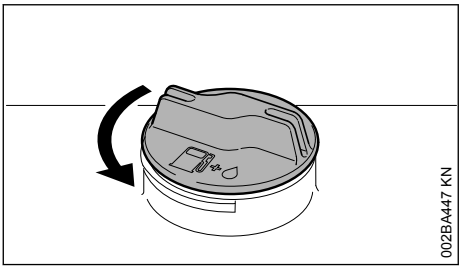
7 Fueling

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

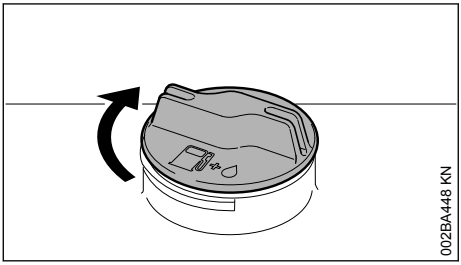


- ► Turn the cap counterclockwise until it can be removed from the tank opening.
- ► Remove the cap.

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



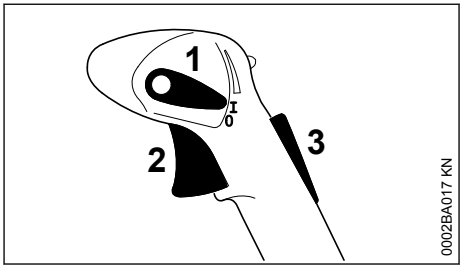
- ► Place the cap in the opening.
- ► Turn the cap clockwise as far as stop and tighten it down as firmly as possible by hand.

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 Control handle



1 Setting lever

2 Throttle trigger

3 Throttle trigger lockout [1)]

8.2 Functions of setting lever

Run position I

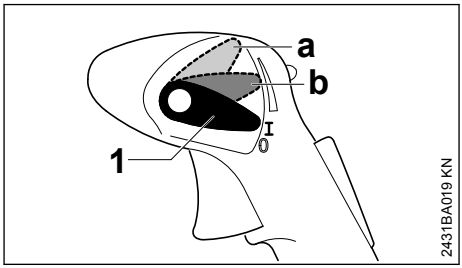
Engine runs or is ready to start. Throttle trigger (2) can be moved to any position.

Stop position 0

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

Throttle trigger limiter position [1)]

Travel of throttle trigger can be limited in two stages:

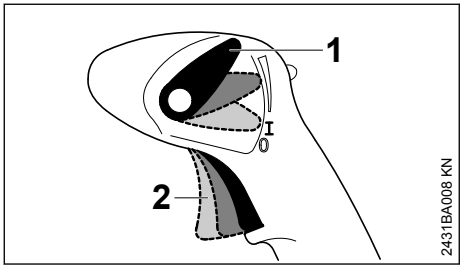


a 1/3 throttle

b 2/3 throttle

To disengage the travel limiter,
- ► Return the setting lever (1) to the run position I.

Throttle lock [1)]

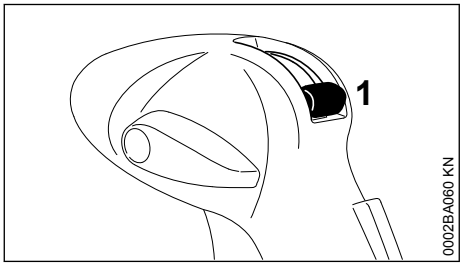


The throttle trigger (2) can be locked in any required position.

To disengage the lock:
- ► Return the setting lever (1) to the run position I.

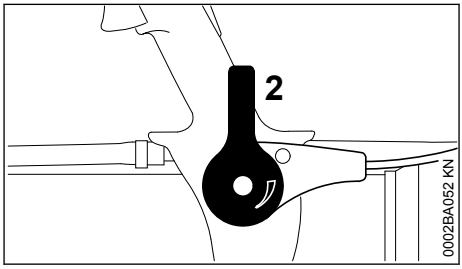
9 Starting / Stopping the Engine

9.1 Before Starting



- ► Close valve lever (1) for solution feed.

9.1.1 Additionally on SR 450:



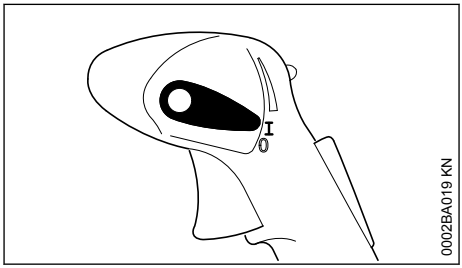
- ► Close the metering lever (2) for dusting and spreading mode.

9.2 Starting the Engine

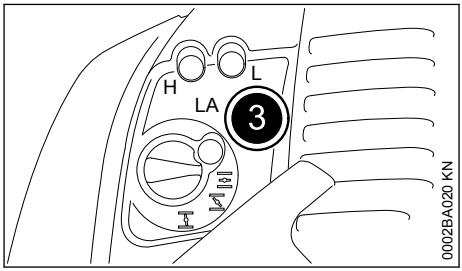
- ► Observe safety precautions.

NOTICE

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



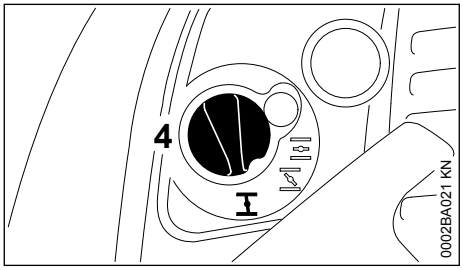
- ► The setting lever must be on I



- ► Press the manual fuel pump bulb (3) at least five times – even if the bulb is filled with fuel.

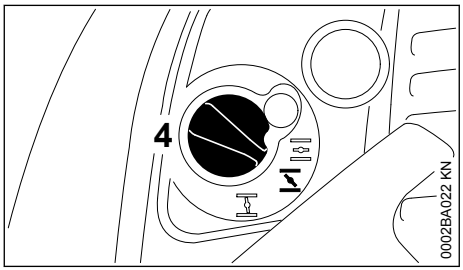
1) Not in all versions, country-specific

9.2.1 Cold engine (cold start)



► Press in the choke knob (4) and turn it to ⊥.

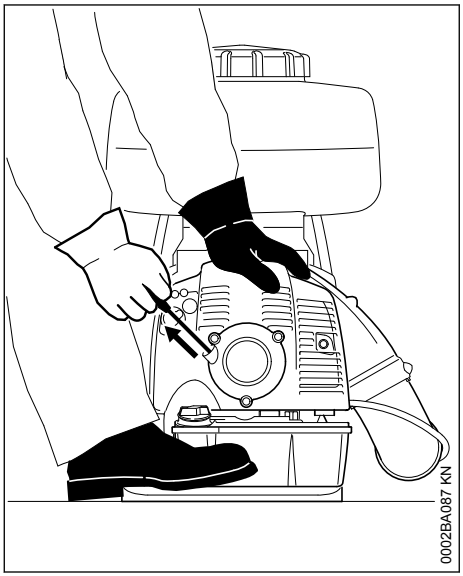
9.2.2 Warm engine (warm start)



► Press in the choke knob (4) and turn it to ⊼.

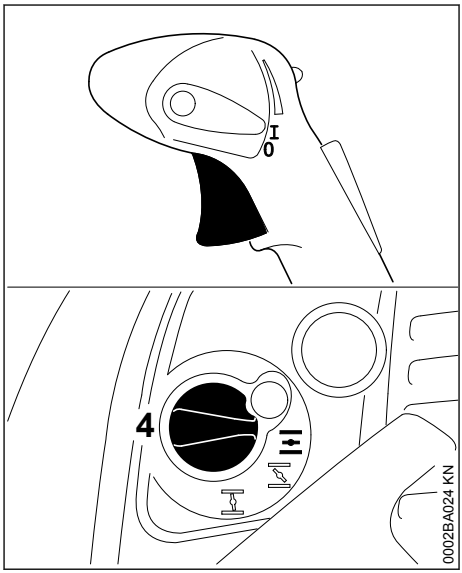
Also use this setting if the engine has been running but is still cold.

9.2.3 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.

9.3 As soon as the engine runs

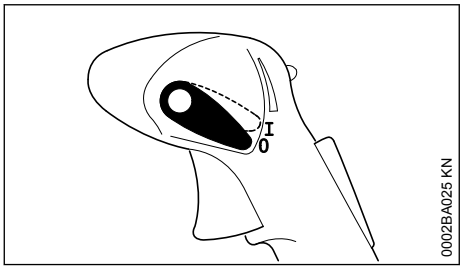


► Pull the throttle trigger – the choke knob (4) automatically returns to the run position (⇄).

9.3.1 At very low outside temperatures

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

9.4 Stopping the Engine



- Move the setting lever in the direction of **0** – the engine stops – the setting lever springs back to the on position.

9.5 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.
- Now 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 Calculating Required Quantity of Solution

11.1 Determining surface area (m^2)

In the case of ground crops, simply multiply the length of the field by its width.

The surface area of high-growing plants is calculated approximately by measuring the length of the rows and the average height of the foliage. The result is multiplied by the number of rows and then by two if both sides have to be treated.

The surface area in hectares is obtained by dividing the number of square meters by 10,000.

Example:

A field 120 meters long and 30 meters wide has to be treated with a pesticide.

Area:

120 m x **30 m** = **3,600 m^2**

3,600 / **10,000** = **0.36 ha**

11.2 Determining quantity of active ingredient

Refer to the instructions supplied with the active ingredient to determine:
– Required quantity of active ingredient for 1 hectare (ha).
– Concentration of active ingredient (mix ratio).

Multiply the required quantity of active ingredient for 1 hectare by the area determined in hectares. The result is the quantity of active ingredient required for the area to be treated.

Example:

According to the maker's instructions, 0.4 liters of active ingredient are required per hectare to obtain a concentration of 0.1%.

Quantity of active ingredient:

0.4 (l/ha) x **0.36 (ha)** = **0.144 l**

11.3 Determining quantity of solution

The quantity of solution required is calculated as follows:

$$\frac{T_W}{K} \times 100 = T_B$$

T_W = Quantity of active ingredient in liters

K K = Concentration in %

T_B = Required quantity of solution in liters

Example:

The calculated quantity of active ingredient is 0.144 liters. According to the maker's instructions, the concentration is 0.1%.

Quantity of solution:

0.144 l	x **100** = **144 l**
0.1 %	

11.4 Determining walking speed

Carry out a trial run with the machine fueled and the container filled with water. Operate the spray tube (swing it back and forth) as for the real run described below. Determine the distance walked in one minute.

Also use the trial run to check the selected working width. The best working width for low-growing crops is 4–5 m. Mark the working width with stakes.

Dividing the distance walked in meters by the time in minutes gives you the walking speed in meters per minute (m/min).

Example:

The distance covered in one minute is 10 meters.

Walking speed:

10 m	= **10 m/min**
1 min	

11.5 Determining discharge rate

The setting of the metering unit is calculated as follows:

V_a**(l)** x v_b**(m/min)** x **b(m)**	= V_c**(l/min)**
A (m²)	

V_a = Quantity of solution

v_b = Walking speed

V_c = Discharge rate

b = Working width

A = Area

Example:

The values determined above and a working width of 4 meters require the following setting on the metering unit:

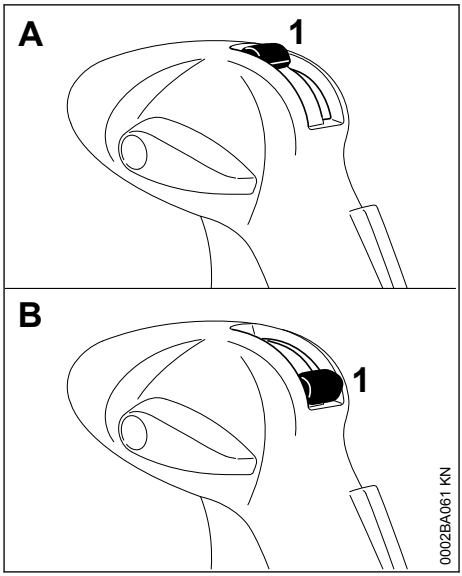
144 l x **10 (m/min)** x **4 m**	= **1.6 l/min**
3600 m²	

Hectares (ha) have to be converted into m² (ha x 10,000 = m²).

To adjust the required discharge rate see "Metering Unit".

12 Metering Unit

12.1 Valve lever

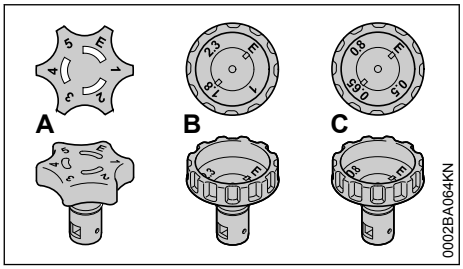


Solution feed is started and stopped with the valve lever (1).

- Position A (valve lever vertical, up) – open
- Position B (valve lever horizontal, down) – closed

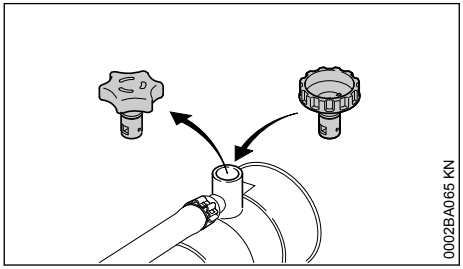
12.2 Dosage pieces

The scope of supply includes dosage pieces which allow a wide range of different discharge rates.



– "Standard" dosage piece (A) with positions 1 to 6
– "Pressure pump" dosage piece [1] (B) with positions 1 to 2.3
– ULV dosage piece [1] (C) with positions 0.5 to 0.8

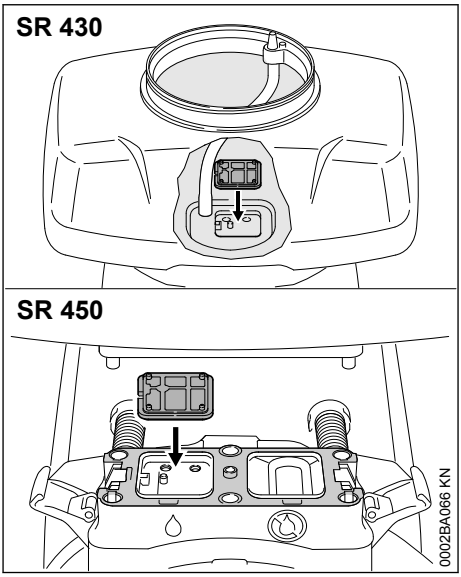
12.3 Changing the dosage piece



► Pull the existing dosage piece up and out of its seat.
► Push the new dosage piece into its seat as far as it will go.

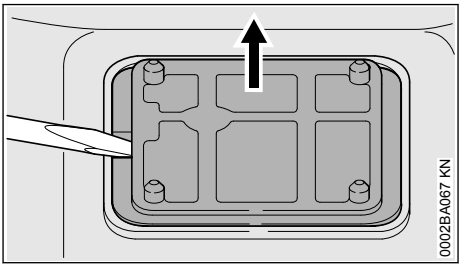
12.4 Fitting the strainer [2]

The strainer supplied must always be installed when the ULV dosage piece is used.



► Push the strainer into its seat until it snaps into place.

Removal

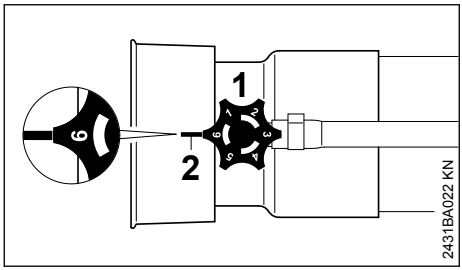


► Pry the strainer out of its seat – as shown.

[1] Included in the scope of supply or available as a special accessory - depending on market

[2] Included with ULV dosage piece

12.5 Dosage piece



► Rotate the dosage piece (1) for infinitely variable discharge rate

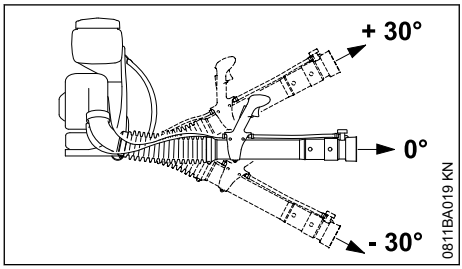
Position **1** = minimum flow rate

Position **6** = maximum flow rate

The numbers on the dosage piece must be lined up with the lug (2) under the dosage piece.

The "E" position on the ULV dosage piece is used for emptying the solution container. Do not use this position for spraying – see "After Finishing Work".

12.6 Discharge rate



12.6.1 Discharge rate (l/min) without pressure pump, with standard dosage piece:

	Spray tube angle		
Dosage piece setting	- 30°	0°	+ 30 °
1	0.12	0.11	0.07
2	0.16	0.14	0.11
3	1.70	1.50	1.25
4	2.48	2.34	1.90
5	3.20	2.66	2.34
6	3.73	3.28	2.83

12.6.2 Discharge rate (l/min) without pressure pump, with ULV nozzle

	Spray tube angle		
Dosage piece setting	- 30°	0°	+ 30 °
0.5	0.05	0.04	0.04
0.65	0.08	0.08	0.07
0.8	0.13	0.12	0.10

12.7 Discharge rate (l/min) with pressure pump (special accessory) and "pressure pump" dosage piece

Spray tube angle -30° to +30°

Dosage piece setting	Discharge rate (l/min)
1.0	1.12
1.8	2.30
2.3	3.86

12.8 Discharge rate (l/min) with pressure pump (special accessory) and ULV dosage piece

Dosage piece setting	Discharge rate (l/min)
0.5	0.32
0.65	0.54
0.8	0.66

12.9 Checking flow rate

► Place the machine on the ground.
► Fill the container with water up to the 10 liter mark.

Machines without pressure pump

► Set the "standard" dosage piece to 6.
► Start the machine.
► Hold the blower tube horizontally, run the engine at full throttle, spray the contents of the container down to the 5 liter mark and note the time taken.

The time required to spray 5 liters fluid should be between 110 and 150 seconds.

In case of deviations

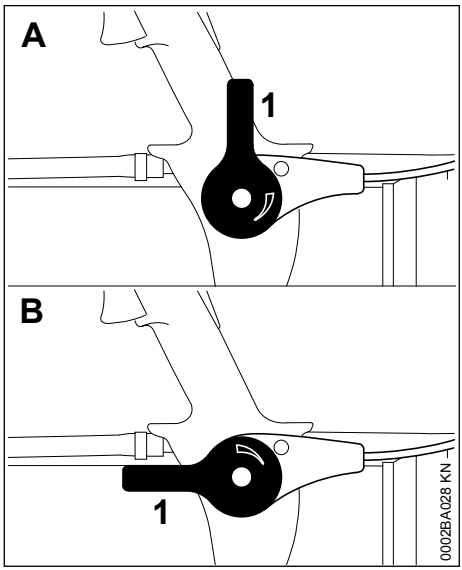
► Check the container, hose system, dosage piece and optional pressure pump for contamination and clean if necessary.
► Check intake port for fan air and clean if necessary
► Check engine setting and correct if necessary.

If there is no improvement, contact your dealer for assistance.

13 Dusting and Spreading Mode

SR 450 only.

13.1 Metering lever



The discharge rate is infinitely variable with the metering lever (1).

- Position A (metering lever vertical) – feed closed
- Position B (metering level parallel to blower tube) – feed open

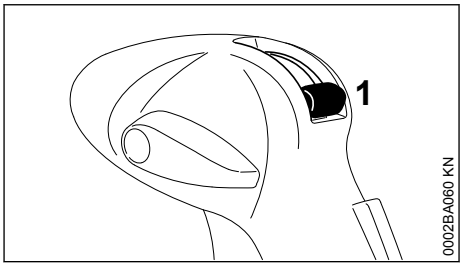
13.2 Discharge rates

The discharge rate is dependent on the density and grain size of the product used.

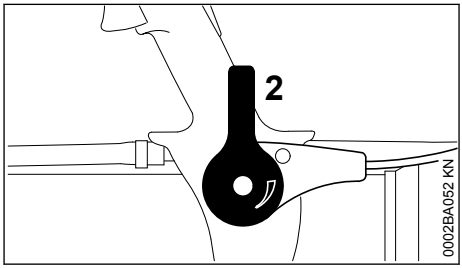
Granulate	0 - 9 kg/min
Powder	0 - 3 kg/min

13.3 Conversion from mistblowing to dusting and spreading mode

- Empty and clean the solution container – see "After Finishing Work".

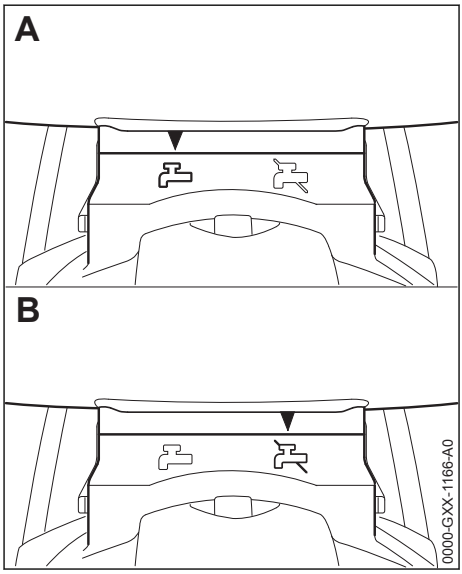


- Close the valve lever (1) for solution feed.



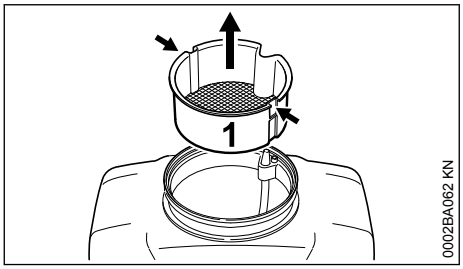
- Close the metering lever (2) for dusting and spreading mode.

Solution container

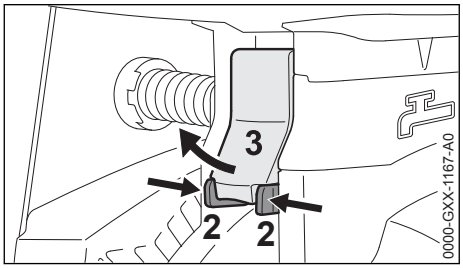


The selected operating mode is indicated by the symbols on the metering unit's housing.

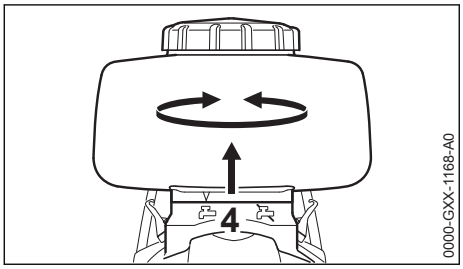
- Position A – Mistblowing mode
- Position B – Dusting and spreading mode



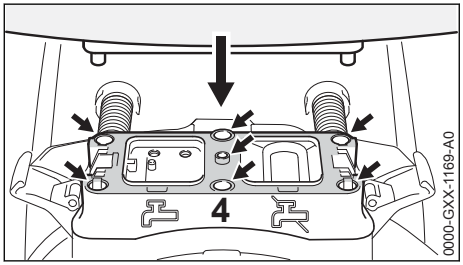
- Insert a suitable tool (e.g. screwdriver) in the two recesses (arrows) to loosen the strainer (1).
- Pull the strainer (1) upward and out of the solution container.



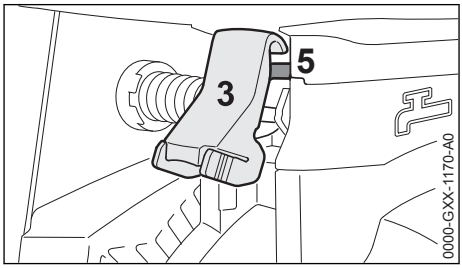
- Squeeze the tabs (2) together and pull the lever (3) outwards.



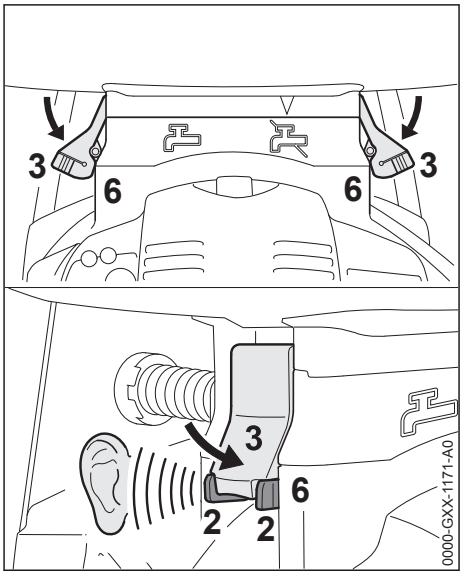
- Remove the solution container from the metering unit's housing (4) and turn it to position B (dusting and spreading mode).



- Thoroughly clean the plastic pins and the sealing face on the solution container – check that there is no residue.
- Thoroughly clean the holes and sealing face on the metering unit (4) – check that there is no residue.
- Fit the solution tank on the metering unit's housing (4).

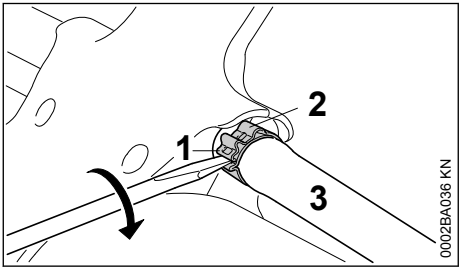


- Hook the lever (3) over the bar (5) on the solution container.

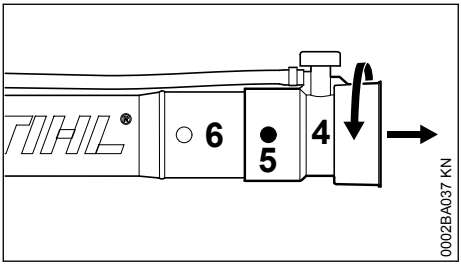


- Press the levers (3) down until the tabs (2) snap into their seats (6) on the housing with a loud click.
- Check that the container is firmly seated.

Blower tube



- Insert a screwdriver into the tab (1) of the hose clamp (2) on the control handle.
- Turn the screwdriver clockwise to loosen the hose clamp (2).
- Pull the hose (3) off the stub.

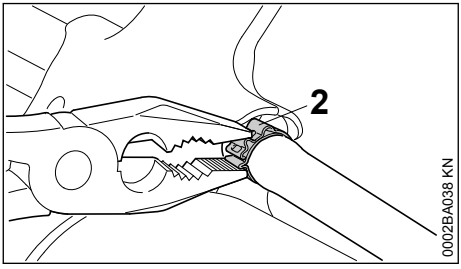


- Rotate the nozzle (4) until the lugs (5) are covered.
- Pull the nozzle (4) off the blower tube (6).

13.4 Converting back to misblowing mode

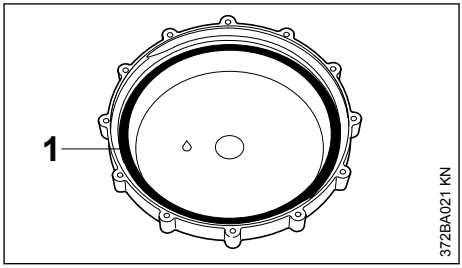
The conversion is carried out in the reverse sequence.

Fitting the hose



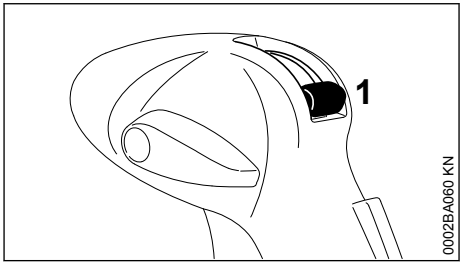
- Push the hose with clamp (2) over the stub on the control handle.
- Use pliers to squeeze the hose clamp together (2) until the retaining strip engages and locks.

14 Filling the Container

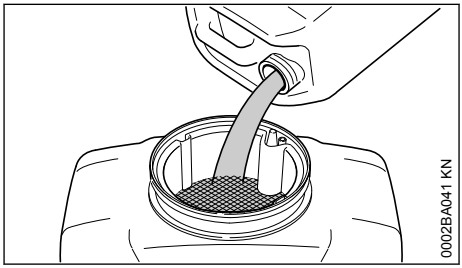


- The gasket (1) in the cap must be in good condition, lubricated with grease and clean.
- Stand the machine on a level surface.

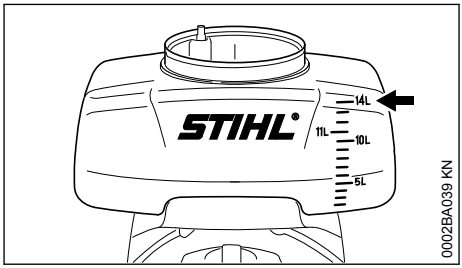
14.1 Mistblowing



- Close valve lever (1) for solution feed.



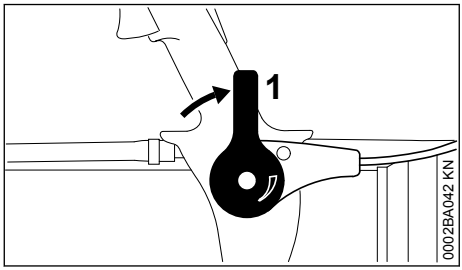
- Pour thoroughly mixed spray solution into the container through the strainer.



Do not exceed maximum fluid level of 14 liters (arrow).

► Fit the cap and tighten it down firmly.

14.2 Dusting and spreading mode – SR 450 only



► Close the metering lever (1).
► Fill solution tank with product – do not exceed maximum weight of 14 kg – use suitable funnel to aid filling if necessary.
► Fit the cap and tighten it down firmly.

15 Working

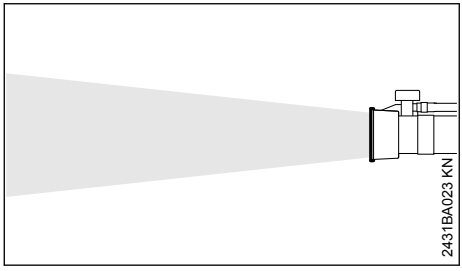
15.1 Mistblowing

The metering lever on the SR 450 must be closed when operating in the mistblowing mode – see dusting and spreading mode.
► Adjust discharge rate with the metering knob – see "Metering Unit".
► Open the valve lever – see "Metering Unit".

15.2 Deflector screen

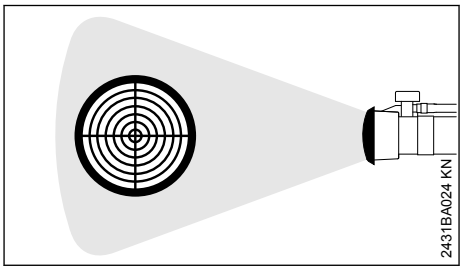
Different baffle screens can be fitted to alter the shape and direction of the spray for accurate application of the solution.

Without deflector screen



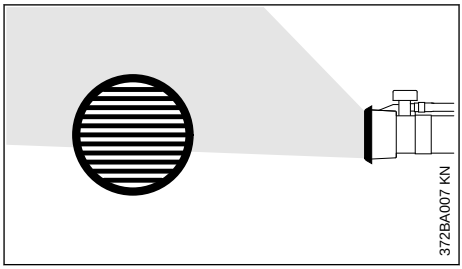
Spray jet for long distances – maximum spraying range.
– for spraying high plants and large areas
– for maximum penetration of foliage

Fan jet baffle screen



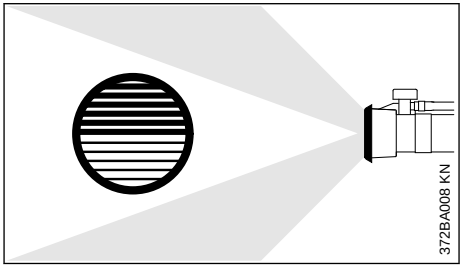
Spray is broadened and softened.
– for treating plants at close range (< 1.5 m)
– reduces damage to plant, especially in sensitive phases of plant growth

45° deflector screen



Diverts spray jet at an angle of 45°
– for under-leaf treatment
– to increase discharge rate when spraying upwards
– for targeted treatment of low-growing crops. Helps reduce problem of spray mist being carried away by the wind when spraying downwards.

Dual deflector screen

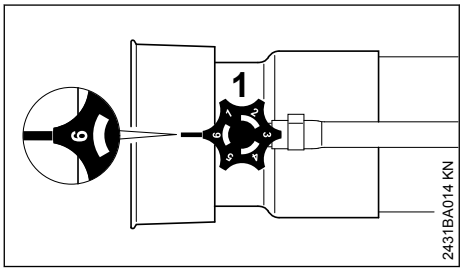


Splits the spray jet in two directions.
– Allows two closely planted rows to be treated simultaneously.

16 After Finishing Work

16.1 Draining the Solution Container

- Close the valve lever
- Shut off the engine – see "Starting / Stopping the Engine"

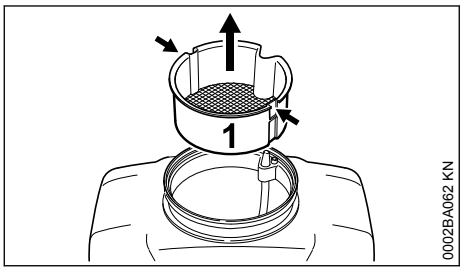


- Turn the dosage piece (1) to position "6" or "E" and collect the remaining solution in a suitable container

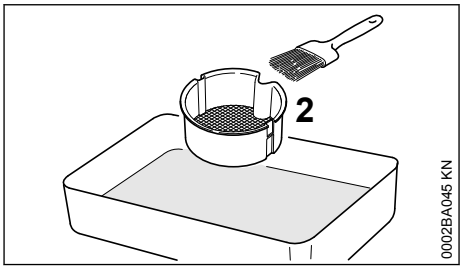
16.2 Cleaning the Solution Container

- Rinse and clean the solution container and hose system with clear water
- Dispose of remaining spray solution and rinsing liquid in accordance with local environmental requirements – follow maker's instructions
- Allow the machine to dry with the cap removed

If strainer is dirty:



- Insert a suitable tool (e.g. screwdriver) in the two recesses (arrows) to loosen the strainer (1)
- Pull the strainer (1) upward and out of the solution container



- Clean the strainer (2) with clear water and a brush

16.3 After Dusting and Spreading – SR 450 only

- Run the unit until the solution container is completely empty
- Close the dosage lever
- Shut off the engine – see "Starting / Stopping the Engine"
- Rinse and clean the solution container with clear water
- Dispose of any residual rinsing solution in accordance with environmental requirements – follow instructions of the chemicals manufacturer
- Allow the machine to dry with the cap removed

17 Storing the Machine

- Store the machine in a dry, frost-free and secure location. Keep out of the reach of children and other unauthorized persons

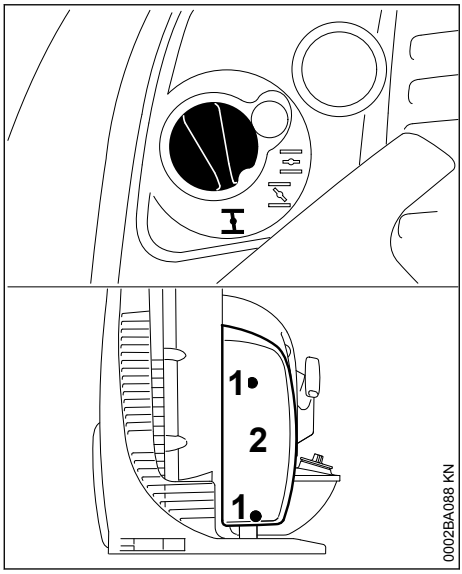
17.1 If not used for periods of about 30 days or longer

- 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
- Do not expose the solution container to direct sunlight for unnecessarily long periods. UV rays can make the container material brittle, which could result in leaks or breakage.

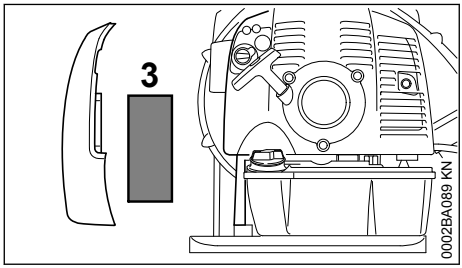
18 Replacing the Air Filter

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

18.1 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.

19 Adjusting the Carburetor

19.1 General Information

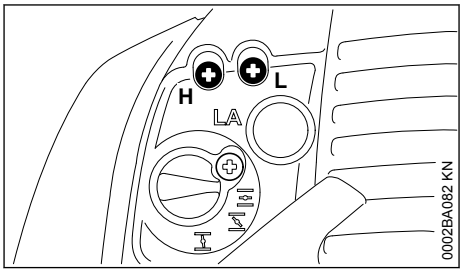
The carburetor comes from the factory with a standard setting.

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

19.2 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".

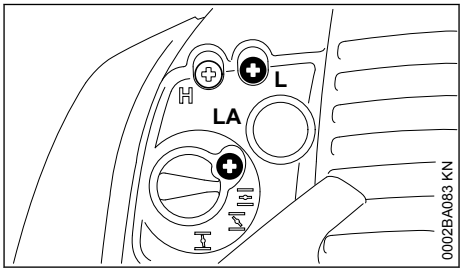
19.3 Standard Setting



- 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.

19.4 Adjusting Idle Speed

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



19.4.1 Engine stops while idling

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

19.4.2 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.

19.4.3 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).

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

NOTICE

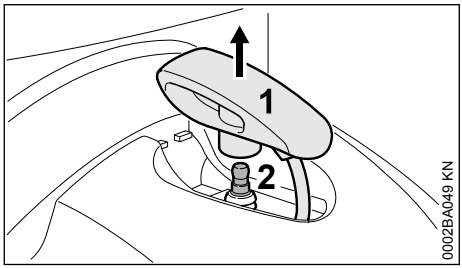
After returning from high altitude, reset the carburetor to the standard setting.

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

20 Spark Plug

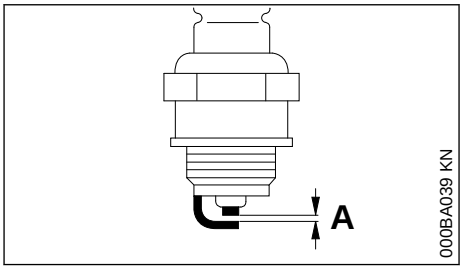
- ► If the engine is down on power, difficult to start or runs poorly at idle speed, first check the spark plug.
- ► Fit a new spark plug after about 100 operating hours – or sooner if the electrodes are badly eroded. Install only suppressed spark plugs of the type approved by STIHL – see "Specifications".

20.1 Removing the spark plug



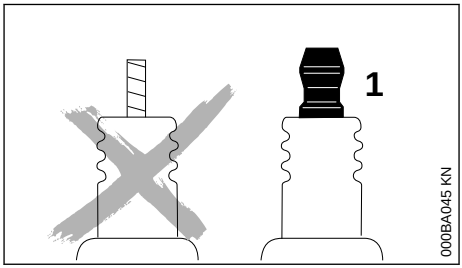
- ► Pull off the spark plug boot (1) vertically.
- ► Unscrew the spark plug (2).

20.2 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.

20.3 Installing the spark plug

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

21 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.

22 Maintenance and Care

The following intervals apply to normal operating conditions only. If your daily working time is longer or operating conditions are difficult (very dusty work area, etc.), shorten the specified intervals accordingly.		**before starting work**	**after finishing work or daily**	**after each refueling stop**	**weekly**	**monthly**	**every 12 months**	**if problem**	**if damaged**	**as required**
Complete machine	Visual inspection (condition, leaks)	X		X						
	Clean		X							
Control handle	Check operation	X		X						
Air filter	Clean							X		
	Replace								X	
Manual fuel pump (if fitted)	Check	X								
	Have repaired by servicing dealer[1)]								X	
Carburetor	Check idle adjustment	X		X						
	Readjust idle									X
Spark plug	Readjust electrode gap							X		
	Replace after every 100 operating hours									
Cooling air inlet	Visual inspection		X							
	Clean									X
All accessible screws and nuts (not adjusting screws)	Retighten									X
Solution container and hose – SR 430	Visual inspection (condition, leaks)	X								
	Clean		X							
Solution container, metering unit and hose – SR 450	Visual inspection (condition, leaks)	X								
	Clean		X							
Strainer in container	Clean or replace								X	X
Metering unit on blower tube	Check					X		X		
Antivibration elements	Check	X						X		X
	Have replaced by servicing dealer [1)]								X	
Blower air intake screen	Check	X		X						
	Clean									X
Antistatic system – SR 450	Check	X								
	Replace								X	

The following intervals apply to normal operating conditions only. If your daily working time is longer or operating conditions are difficult (very dusty work area, etc.), shorten the specified intervals accordingly.		before starting work	after finishing work or daily	after each refueling stop	weekly	monthly	every 12 months	if problem	if damaged	as required
Safety labels	Replace								X	
[1)]STIHL recommends an authorized STIHL servicing dealer.										

23 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.

23.1 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.

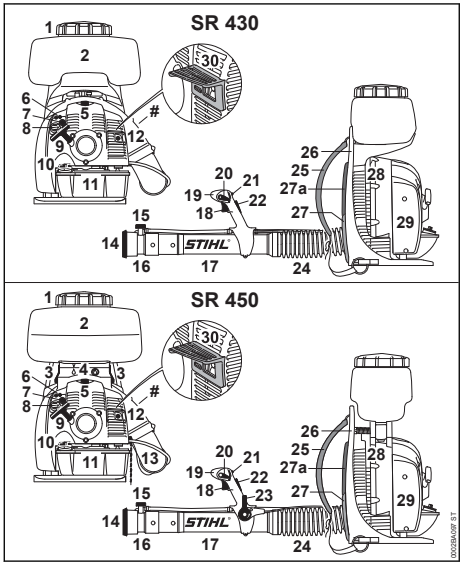
STIHL recommends that you have servicing and repair work carried out exclusively by an authorized STIHL servicing dealer. STIHL dealers are regularly given the opportunity to attend training courses and are supplied with the necessary technical information.

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.

23.2 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

24 Main Parts



1 Container cap
2 Solution container
3 Lever [2]
4 Metering unit [2]
5 Spark plug boot
6 Carburetor adjusting screws
7 Manual fuel pump
8 Choke knob
9 Starter grip
10 Tank cap
11 Fuel tank
12 Muffler
13 Antistatic system [2]
14 Baffle screen
15 Metering knob
16 Nozzle
17 Blower tube
18 Throttle trigger
19 Control handle
20 Setting lever
21 Valve lever for solution feed
22 Throttle trigger lockout [1]
23 Metering lever for dusting and spreading mode [2]
24 Pleated hose
25 Harness
26 Backplate
27 Back padding, short [1]
27 Back padding, long [1]
a
28 Protective screen
29 Air filter
30 Spacer [1]
Serial number

25 Specifications

25.1 Engine

Single-cylinder two-stroke engine

Displacement:	63.3cm^3
Cylinder bore:	48 mm
Piston stroke:	35 mm
Engine power:	2.9 kW (3.9 hp)
Idling speed:	3000 rpm
Engine/fan speed in operation	6800 rpm

25.2 Ignition system

Electronic magneto ignition

Spark plug (suppressed):	NGK BPMR 7 A, STIHL ZK C 14
Electrode gap:	0.5 mm

25.3 Fuel system

All-position diaphragm carburetor with integral fuel pump

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

25.4 Blowing capacity

Air speed:	90 m/s
Max. air flow rate without blower tube:	1300 m^3/h
Air throughput with nozzle:	920 m^3/h

[1] Not in all versions, country-specific

[2] SR 450 only

25.5 Spraying attachment

Tank capacity: 14 l
Quantity left in tank: 50 ml
Size of filler strainer mesh: 1 mm
Spraying distance, horizontal: 14.5 m
Discharge rate (without pressure pump, with standard metering knob): 0.69 – 2.64 rpm
Discharge rate (with pressure pump, with "pressure pump" dosage piece): 1.12 – 3.86 rpm

For other discharge rates with special accessories, see section on "Metering unit"

25.6 Spraying pattern according to ISO 28139:2019

SR 430 Output

Dosage piece setting	Share of horizontally applied medium, which is deposited on the ground after 5 m
1	0.0 %
6	3.9 %
ULV nozzle:	
0.5	0.0 %
0.8	0.1 %

Greater deposit or drift possible due to wind and high temperature.

SR 450 Output

Dosage piece setting	Share of horizontally applied medium, which is deposited on the ground after 5 m
1	0.0 %
6	4.5 %
ULV nozzle:	
0.5	0.0 %
0.8	0.7 %

Greater deposit or drift possible due to wind and high temperature.

SR 430 Drop Size

Dosage piece setting	Dv 0.1 [µm]	Dv 0.5 [µm]	Dv 0.9 [µm]
1	34	86	149
2	39	103	187
3	46	120	231
4	49	125	196
5	50	129	250
6	51	131	256
ULV nozzle:			
0.5	37	92	163
0.65	37	93	167
0.8	38	96	171

SR 450 Drop Size

Dosage piece setting	Dv 0.1 [µm]	Dv 0.5 [µm]	Dv 0.9 [µm]
1	38	97	178
2	41	102	184
3	49	126	246
4	52	132	250
5	55	137	276
6	56	144	286
ULV nozzle:			
0.5	38	97	180
0.65	37	97	177
0.8	38	99	178

SR 430 Air Speed

	Distance to nozzle	
	3 m	6 m
Average air velocity [m/s]	4.5	2.8
Spray cloud radius [mm]	400	412

SR 450 Air Speed

	Distance to nozzle	
	3 m	6 m
Average air velocity [m/s]	4.1	2.8
Spray cloud radius [mm]	361	400

25.7 Weight

unfilled:
SR 430: 12.2 kg
SR 450: 12.8 kg

Max. operating weight (with fuel and filled)
SR 430: 27.5 kg
SR 450: 28.1 kg

Max. weight capacity of tank:
SR 450: 14 kg

25.8 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

25.9 Sound pressure level L_{peq} according to ISO 22868, uncertainty K: 2 dB(A)

SR 430: 99 dB(A)
SR 450: 101 dB(A)

25.10 Sound power level L_{weq} according to ISO 22868, uncertainty K: 2 dB(A)

SR 430: 108 dB(A)
SR 450: 108 dB(A)

25.11 Vibration value $a_{hv,eq}$ according to ISO 22867, uncertainty K_a: 2.0 m/s²

Handle, right

SR 430: 1.2 m/s²
SR 450: 1.7 m/s²

25.12 Vibration value p_F according to EN ISO 5349-3

Handle, right

SR 430: 27 m/s²
SR 450: 40 m/s²

25.13 Uncertainty K_p according to EN ISO 5349-3

SR 430: 6 m/s²
SR 450: 8 m/s²

25.14 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

25.15 Exhaust Emissions

The CO_2 value measured in the EU type approval procedure is specified at

www.stihl.com/co2

in the product-specific technical data.

The measured CO_2 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.

26 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.

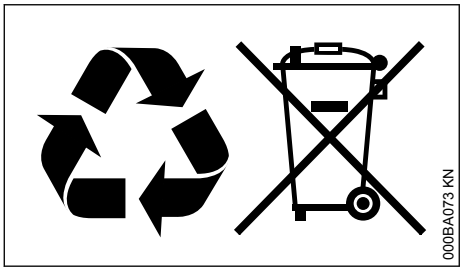
STIHL recommends the use of original STIHL replacement parts.

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).

27 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.

28 EU conformity

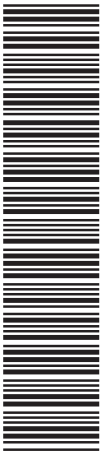
The EU Declaration of Conformity is available at stihl.link/compliance.

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

CE

29 Addresses

www.stihl.com



www.stihl.com



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