

STIHL BR 45

**Instruction Manual
Owner's Manual**



Warning:

Always follow safety precautions in Owner's Manual -
improper use can cause serious injury!

Contents

Guide to Using this Manual	2
Safety Precautions	3
Assembling the Blower	10
Fitting Backpack	13
Fuel	14
Fueling	15
Starting / Stopping the Engine	15
Operating Instructions	18
Using the Blower	19
Cleaning the Air Filter	20
Motor Management	20
Adjusting the Carburetor	21
Catalytic Converter*	22
Checking the Spark Plug	22
Engine Running Behavior	23
Rewind Starter	24
Storing the Machine	24
Maintenance Chart	25
Main Parts and Controls	26
Specifications	28
Maintenance and Repairs	28
STIHL Incorporated Federal and California Emission Control Warranty Statement	29

* see "Guide to Using this Manual"

STIHL[®]

BR 45

Allow only persons who understand this Manual to operate your blower.

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

Contact your STIHL dealer or the STIHL distributor for your area if you do not understand any of the instructions in this Manual.

Warning!

Because a blower is a high-speed tool, some special safety precautions must be observed as with any other power tool to reduce the risk of personal injury.

Careless or improper use may cause serious or even fatal injury.

STIHL's philosophy is to continually improve all of its products. As a result, engineering changes and improvements are made from time-to-time. If the operating characteristics or the appearance of your blower differs from those described in this Manual, please contact your STIHL dealer for informations and assistance.

Guide to Using this Manual

Pictograms

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

The operating and handling instructions are supported by illustrations.

Symbols in text

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

- Step or procedure without direct reference to an illustration.

Description of step or procedure that refers directly to the illustration and contains item numbers that appear in the illustration.

Example:

Loosen the screw **(1)**

Lever **(2)** ...

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



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



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



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



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

* Equipment and features

This instruction manual refers to several models with different features. Components that are not installed in all models and related applications are marked thus *. Such components are available as special accessories from your STIHL dealer.

Engineering improvements

STIHL's philosophy is to continually improve all of its products. As a result, engineering changes and improvements are made from time to time. If the operating characteristics or the appearance of your machine differ from those described in this manual, please contact your STIHL dealer for assistance.

Therefore, we cannot be responsible for changes, modifications or improvements not covered in this manual.

Safety Precautions



Warning!

The use of any blower may be dangerous. It is important that you read, fully understand and

observe the following safety precautions.



Warning!



Reread the owner's manual and the safety instructions periodically.



Warning!

Careless or improper use of the machine may cause serious injury. Have your STIHL Dealer show you how to operate your blower. Observe all applicable local safety regulations, standards and ordinances.



Warning!

Minors should never be allowed to use a blower. Bystanders, especially children, and animals should not be allowed in the area where a machine is in use. Never let the unit run unattended. Do not lend or rent your machine without the owner's manual.

Be sure that anyone using your unit understands the information contained in this manual.

Most of these safety precautions and warnings apply to the use of all STIHL blowers. Different models may have different parts and controls.

See the appropriate section of your owner's manual for a description of the controls and function of the parts of your machine.

Safe use of a blower involves

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

THE OPERATOR

Physical Condition

You must be in good physical condition and mental health and not under the influence of any substance (drugs, alcohol, etc.) which might impair vision, dexterity or judgment. Do not operate a blower when you are fatigued. Be alert - if you get tired while operating your machine, take a break. Tiredness may result in loss of control. Working with any blower can be strenuous. If you have any condition that might be aggravated by strenuous work, check with your doctor before operating the machine.



Warning!

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



Warning!

The STIHL blower is equipped with an antivibration system (AV). The AV system is designed to reduce the transmission of engine vibrations to the operator's hands. An AV system is recommended for those operators who use blowers on a regular or sustained basis.

- Wear gloves and keep your hands warm.
- Keep the AV system well maintained. A blower with loose components or with damaged or worn AV buffers will tend to have higher vibration levels.
- Maintain a firm grip at all times and, take frequent breaks.

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

⚠ Warning!

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

Proper Clothing

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

⚠ Warning!



Avoid loose-fitting jackets, flared or cuffed pants, scarfs, unconfined long hair or anything that could be drawn into the air intake.



Wear overalls or long pants to protect your legs. Do not wear shorts.



Use of gloves when working with the blower is recommended.



Good footing is most important. Wear sturdy shoes with nonslip soles.

⚠ Warning!

To reduce the risk of injury associated with the inhalation of dust, use a face filter mask when using your blower in dusty conditions.

⚠ Warning!

Proper eye protection is a must. Even though the discharge is directed away from the operator, ricochets and bounce backs can occur during blower operations.



Never operate a blower unless wearing goggles or properly fitted safety glasses with adequate top and side protection which comply with ANSI Z 87.1 (or your applicable national standard).

⚠ Warning!

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

THE BLOWER

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

⚠ Warning!

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

THE USE OF THE BLOWER

Transport

Always turn off the engine before putting down blower. When transporting your unit in a vehicle, properly secure it to prevent turnover, fuel spillage and damage to the machine.

Adjust carrying harness to suit your size before starting work.

Warning!

Before starting work, always inspect the rubber buffers which connect the engine to the pack frame. If the buffers are torn or damaged, they should be replaced by your STIHL dealer. Failure of one or more buffers may cause the engine or fuel tank to hit or rub against other parts, and may lead to serious injury from increased vibrations or from fire as the result of fuel leakage.

Fueling

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

Warning!



Gasoline is an extremely flammable fuel. If spilled or ignited by a spark or other ignition source, it can cause fire and serious burn injury or property damage.

Warning!

To reduce the risk of serious injury from burns, never attempt to refuel the unit until it has been completely removed from the operator.

Use extreme caution when handling gasoline or fuel mix. Do not smoke or bring any fire or flame near the fuel.

Fueling instructions

Fuel your machine in well-ventilated areas, outdoors only. Always shut off the engine and allow it to cool before refueling. Relieve fuel tank pressure by loosening fuel cap slowly. Never remove fuel filler cap while engine is running.

Select bare ground for fueling and move at least 10 feet (3 m) from the fueling spot before starting the engine. Avoid spilling of fuel or oil. Wipe off any spilled fuel before starting your blower and check for leakage.

Always tighten fuel filler cap securely after fueling.

Warning!

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

Always store gasoline in a container approved for flammable liquids.

Different models may be equipped with different fuel caps.

Cap with Grip

Warning!

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



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



Fold the grip flush with the top of the cap. If the grip does not lie completely flush with the cap and the detent on the grip does not fit in the

corresponding recess in the filler neck, the cap is not properly seated and tightened and you must repeat the above steps.

Screw Cap



Warning!



Unit vibrations can cause an improperly tightened fuel filler cap to loosen or come off and spill quantities of fuel. In order to reduce the risk of fuel

spillage and fire, tighten the fuel filler cap by hand with as much force as possible.

Before Starting



Warning!


Never operate your machine if it is damaged, improperly adjusted or not completely and securely assembled.

You should always inspect your unit before starting it. Make sure the unit is properly assembled, in good operating condition and the controls and safety devices are working properly.



Warning!

To reduce the risk of injury from thrown parts, check your fanwheel and fan housing for damage (cracks, nicks, chipping). If any damage is found, stop using the unit and contact your STIHL dealer for repair.

- Throttle trigger must move freely and spring back to idle position when released.
- Stop switch must move easily to 
- Tightness of spark plug boot - if boot is loose, sparks may occur and ignite the escaping fuel vapor!

Starting



Warning!

Your blower is a one-person machine. To reduce the risk of eye or other injury from thrown objects, insure that bystanders are at least 50 feet (15m) away during use. Stop the engine immediately if you are approached.

For specific starting instructions, see the appropriate section of your owner's manual. Place the machine on firm ground or other solid surface in an open area. Maintain good balance and secure footing.



Warning!

When you pull the starter grip, don't wrap the starter rope around your hand. Do not allow the grip to snap back, but guide the starter rope slowly back to permit the rope to rewind properly.

Failure to follow this procedure may result in injury to hand or fingers and may damage the starter mechanism.

Catalytic converter



Warning!



Some STIHL blower models are equipped with a catalytic converter, which is designed to reduce the exhaust emissions of the engine

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

⚠ Warning!

Since a muffler with a catalytic converter cools down less rapidly than conventional mufflers, always set your backpack blower down in the upright position and never locate it where the muffler is near dry brush, grass, wood chips or other combustible materials while it is still hot. Let the engine cool down sitting on concrete, metal, bare ground or solid wood (e.g. the trunk of a felled tree) away from any combustible substances.

⚠ Warning!

To reduce the risk of fire or burn injury, let the unit cool down before refueling your blower after use.

⚠ Warning!

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

⚠ Warning!

To reduce the risk of fire or burn injury, keep the area around the muffler clean. Remove all debris such as pine needles, branches or leaves.

⚠ Warning!

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

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

Working instructions

Work carefully.

The assistance of another person may be needed in placing the unit on your back after starting. In order to reduce the risk of injury to the assistant from thrown objects or from contact with fumes, the engine should be kept at idle speed during this brief period, and your assistant should not stand in the area of the outlet nozzle or exhaust. Otherwise, the unit should be started and operated without assistance.

Operate the blower under good visibility and daylight conditions only.

⚠ Warning!

Your blower produces poisonous exhaust fumes as soon as the combustible engine is running. These gases (e.g. carbon monoxide) may be colorless and odorless.

To reduce the risk of serious or fatal injury from breathing toxic fumes, never start or run the blower indoors or in poorly ventilated locations. Ensure proper ventilation when working in trenches or other confined areas.

Keep the space behind and beside the engine clear at all times to allow for the escape of hot and toxic exhaust fumes.

⚠ Warning!

Use of this product can generate dust, mists, and fumes containing chemicals known to cause respiratory disease, cancer, birth defects, or other reproductive harm. If you are unfamiliar with the risks associated with the particular dust, mists or fumes at issue, consult your employer, governmental agencies such as OSHA and NIOSH and other sources on hazardous materials. If the substance being blown or vacuumed is a commercial substance, review the material safety data sheet for that substance and / or consult the material manufacturer / supplier. The state of California and some other authorities, for instance, have published lists of substances known to cause cancer, reproductive toxicity, etc.

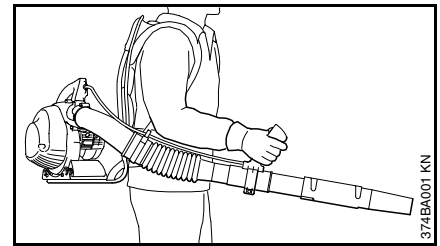
Control dust, mist and fumes at the source where possible. In this regard use good work practices and follow the recommendations of OSHA / NIOSH and occupational and trade associations. When the inhalation of toxic dust, mists and fumes cannot be eliminated, the operator and any bystanders should always wear a respirator approved by NIOSH / MSHA for the substance at issue.

⚠ Warning!

Dust with silica in its composition may contain crystalline silica. Silica is a basic component of sand, quartz, brick, clay, granite and numerous other minerals and rocks, including masonry and concrete products. Repeated and / or substantial inhalation of airborne crystalline silica can cause serious or fatal respiratory disease, including silicosis. In addition, the state of California and some other authorities have listed respirable crystalline silica as a substance known to cause cancer. When encountering such materials, always follow the respiratory precautions mentioned above.

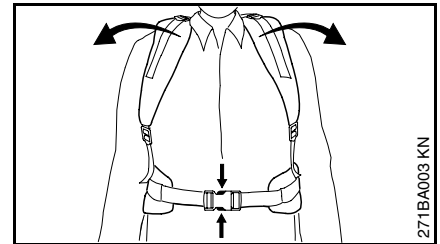
⚠ Warning!

Breathing asbestos dust is dangerous and can cause severe or fatal injury, respiratory illness or cancer. The use and disposal of asbestos containing products have been strictly regulated by OSHA and the Environmental Protection Agency. Do not blow or disturb asbestos or asbestos containing products, such as asbestos insulation. If you have any reason to believe that you might be disturbing asbestos, immediately contact your employer or a local OSHA representative.



Carry the powerhead on your back.

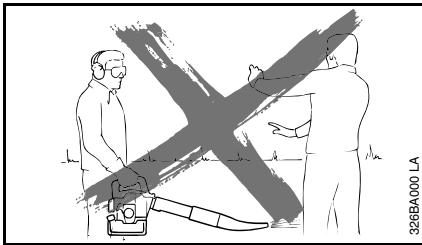
Hold control handle firmly in your hand and always keep the handle to the right side of your body. Make sure you have good balance and secure footing.



In an emergency, throw off the blower by opening the quick-release fastener on the waist strap and slipping out of the shoulder straps.

Before using the blower for the first time, practice opening the quick-release fastener several times so that you know how it works.

When working with the blower, always wrap your fingers tightly around the handle, keeping the control handle cradled between your thumb and forefinger. Keep your hand in this position to have your machine under control at all times. Make sure your control handle is in good condition and free of moisture, pitch, oil or grease.



⚠ Warning!

To reduce the risk of personal injury, do not direct air blast towards bystanders, since the high pressure of the air flow could injure eyes and could blow small objects at great speed. Do not direct air blast towards pets.

⚠ Warning!

Always shut off the engine before cleaning or servicing the unit or replacing parts. Always disconnect the spark plug before performing maintenance or accessing movable parts.

The blower fan between the air intake and output openings rotates whenever the engine is running. In order to reduce the risk of injury from contact with the fan, never operate your unit without a properly mounted intake screen and blower tube. Never insert any foreign object into the air intake or output openings of the machine.

Pay attention to the direction of the wind, i.e., do not work against the wind.

To reduce the risk of stumbling and loss of control, do not walk backward while operating the machine.

MAINTENANCE, REPAIR AND STORING

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

Use only identical STIHL replacement parts for maintenance and repair. Use of parts manufactured by others may cause serious or fatal injury.

Follow the maintenance and repair instructions in the appropriate section of your owner's manual. Refer to the maintenance chart at the last pages of this manual.

⚠ Warning!

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

Check fuel filler cap for leaks at regular intervals. Use the specified spark plug and make sure it and the ignition lead are always in good condition.

⚠ Warning!

A worn or damaged muffler is a fire hazard and may cause loss of hearing. Check to see that the muffler is in good condition. The blower must not be operated if the muffler is not functioning properly or has been removed.

Remember that the risk of forest fires is greater in hot weather. Use the spark arresting muffler supplied with the unit. Never touch a hot muffler or burn will result.

Assembling the Blower

Warning!

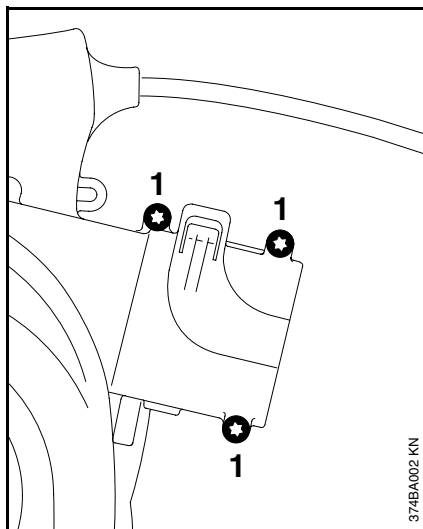
In order to reduce the risk of fire, do not modify or remove any part of the muffler or spark arrestor.

Keep spark plug and wire connection tight and clean. The spark plug electrode gap should be checked with a feeler gauge at least every 50 operating hours and reset if necessary. Fit a new spark plug if the electrodes are badly pitted.

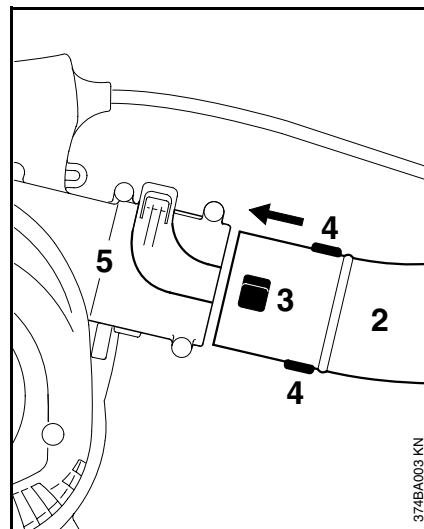
For any maintenance please refer to the maintenance chart **and to the warranty statement** near the end of this manual.

Store blower in a dry, high or locked location place and out of reach of children.

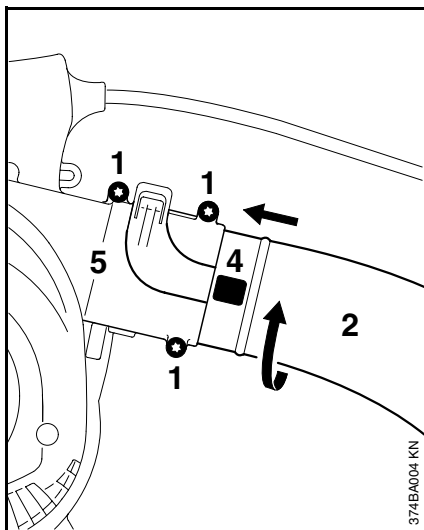
Before storing for longer than a few days, always empty the fuel tank.



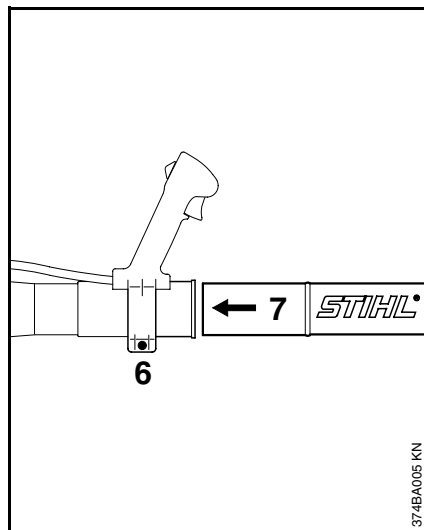
- Loosen the screws (1).



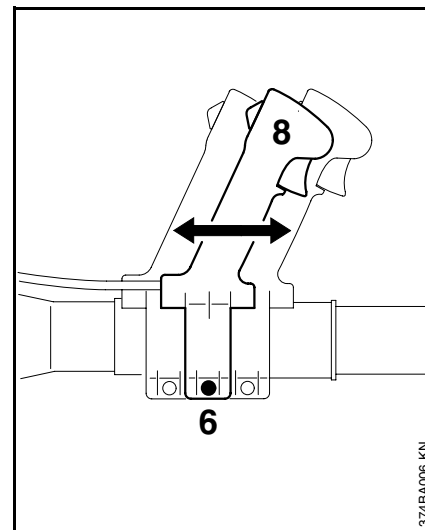
- Push the elbow (2) with lug (3) into the fan housing stub (5) as far as the stops (4).



- Rotate the elbow (2) in the direction of the arrow (clockwise) until the stops (4) line up with the grooves in the fan housing stub (5) and then push it home in the direction of the arrow.
- Tighten the screws (1) firmly.

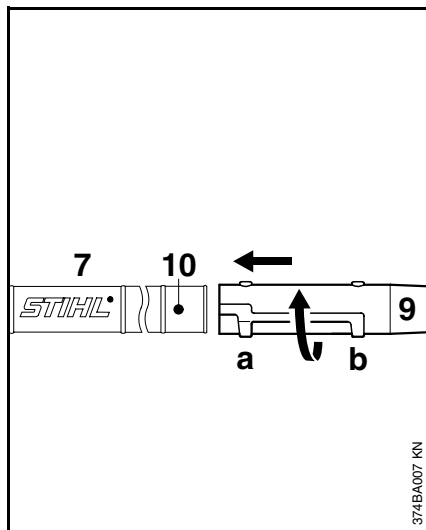


- Loosen the screw (6).
- Push home the blower tube (7) as far as stop.
- Tighten the screw (6) firmly.

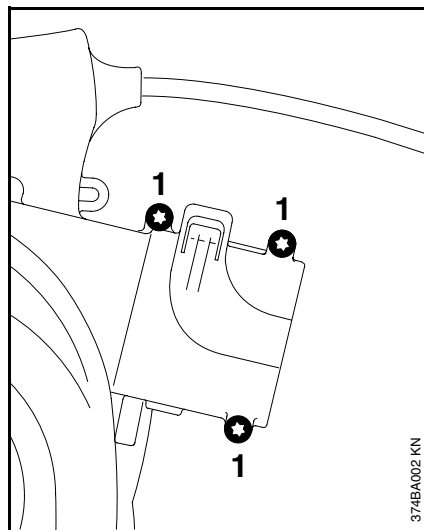


Adjusting the Control Handle

- Put the machine on your back.
- Loosen the clamp screw (6).
- Move the control handle (8) along the tube to the most comfortable position.
- Tighten the clamp screw (6) firmly.

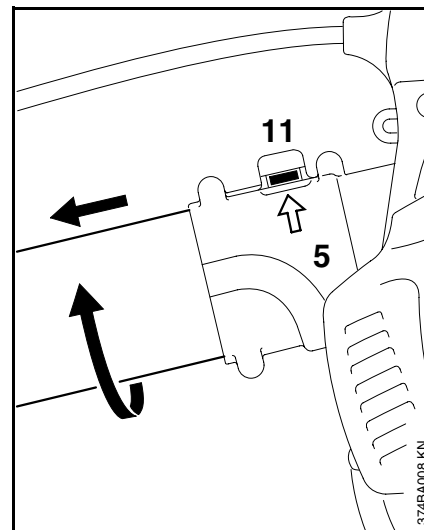


- Push nozzle (9) onto the blower tube (7) as far as pin (10), position **a** (long) or position **b** (short), and rotate it in the direction of the arrow to lock in position.



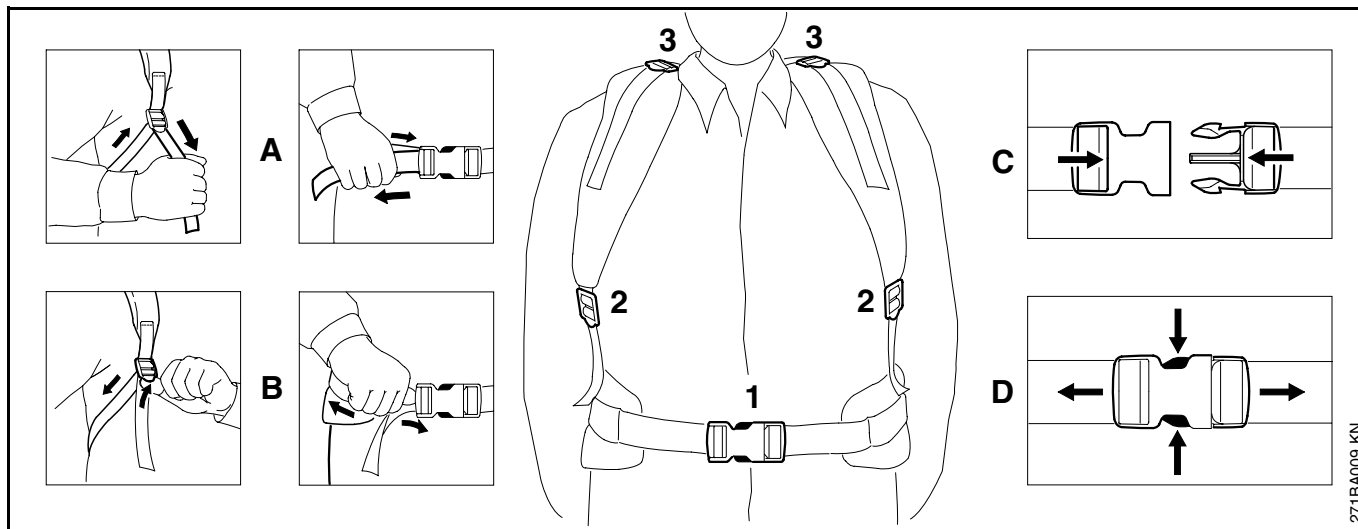
Removing the Elbow

- Loosen the screws (1).



- Use a suitable tool to raise the tab (11) on the fan housing stub (5). Rotate the elbow in the direction of the arrow (counterclockwise) and pull it out.

Fitting Backpack



Adjusting the harness straps

- Pull the ends of the straps (**A**) downward to tighten the harness.
- Lift the tabs of the sliding adjusters (**B**) to slacken the harness straps.
- Close and lock quick-action fastener (**C**) by pushing it together.
- Squeeze the hooks to open the quick-action fastener (**D**).

Adjusting backpack

- Close and lock the hip belt (**1**) and adjust so that it fits snugly against your hip.
- Adjust harness straps (**2**) to correct length.
- Use straps (**3**) to fix position of harness – (adjust to size).
- Back padding must fit firmly and securely against your back.

Removing backpack

- Open quick-action fastener on hip belt and take off the backpack.

Fuel

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

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

Use regular branded unleaded gasoline with a minimum octane rating of 89 RON. If the octane rating of the regular grade gasoline in your area is lower use premium unleaded fuel.

Note: Units with a **catalytic converter** require **unleaded** gasoline. The efficiency of the catalytic converter can drop more than 50 % if several tankfuls of leaded gasoline are used.

Fuel with a lower octane rating may result in preignition (causing "pinging") which is accompanied by an increase in engine temperature. This, in turn, increases the risk of the piston seizure and damage to the engine.

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

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

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

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

Use only **STIHL 50:1 heavy-duty engine oil** or equivalent quality two stroke engine oils for the fuel mix in models with a **catalytic converter**.

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

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

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

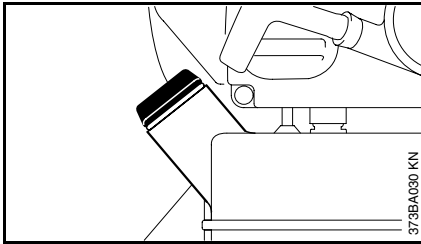
Fuel mix ages

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

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

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

Fueling

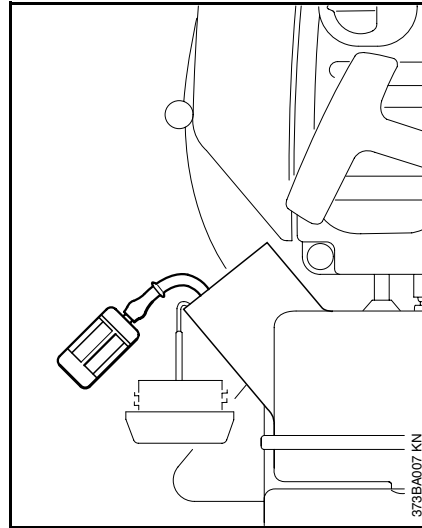


Before fueling, clean the filler cap and the area around it to ensure that no dirt falls into the tank.

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

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

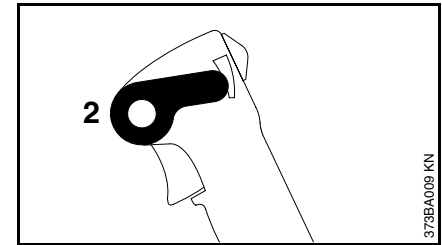
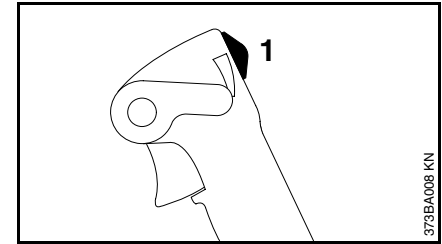
⚠ After fueling, tighten fuel cap **as securely as possible** by hand.



Change the fuel pick up body every year.

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

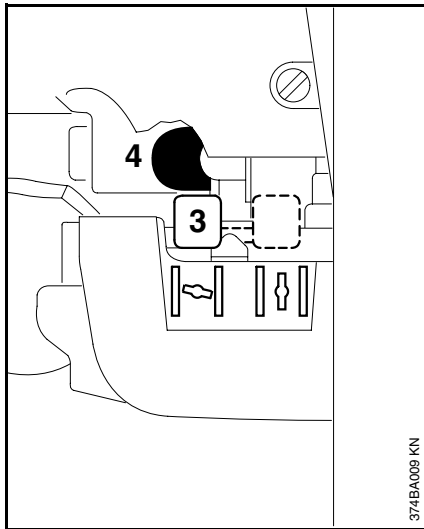
Starting / Stopping the Engine



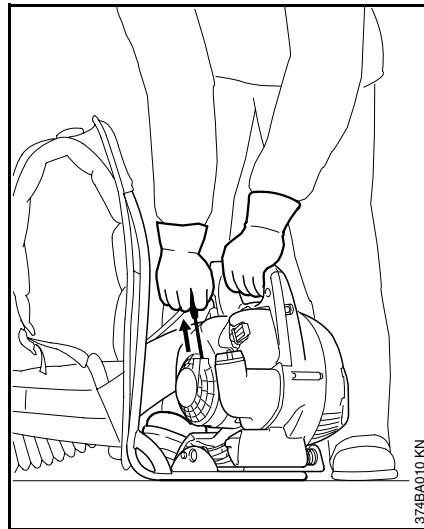
Observe safety precautions – see chapter “Safety Precautions”.

- Slide the stop switch (1) to **I**
- Move the setting lever (2) to the center position – **this is the starting throttle position.**

The setting lever enables you select and hold any throttle position between idle (lower stop) and full throttle (upper stop).

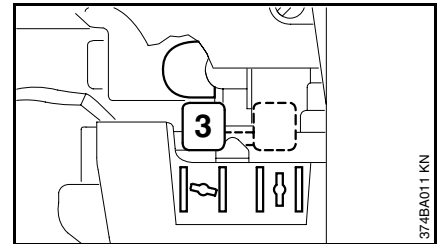


- Set the choke lever (3):
For cold start to \uparrow
For warm start to \downarrow
- Press the fuel pump bulb (4) at least five times.




- Put the machine on the ground. Check that bystanders are well clear of the general work area and the nozzle.
- Make sure you have a firm footing: Hold the machine firmly with your left hand on the handle and put one foot against the base 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 all the way – 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.




If engine is cold:
(choke lever on \uparrow)

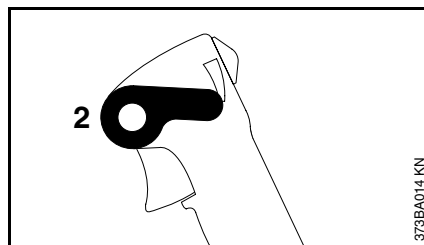
- Pull the starter rope 5 times.
- Move choke lever (3) to \downarrow
- Continue cranking until the engine runs.

💡 If conditions are unfavorable and the engine does not start after 10 pulls of the starter rope with the choke set to  :

Set choke to , pull the starter rope 5 times, move choke lever to  and continue cranking.

If engine is warm:

- Continue cranking until the engine runs (choke lever on ).



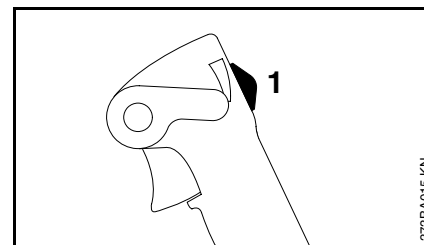
As soon as engine runs:

- Move the setting lever (2) to the lower stop so that the engine settles down to idle speed.

If the engine stops during **warm-up** or under **acceleration**:

- Repeat starting procedure as described under "If engine is cold".

Your machine is now ready for operation.



To stop the engine:

- Move the stop switch (1) to .

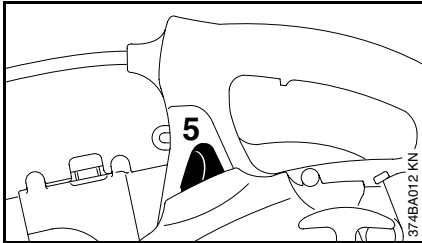
If the engine does not start


- Check that all settings are correct (choke, throttle trigger in starting throttle position, stop switch on I).
- Repeat starting procedure.

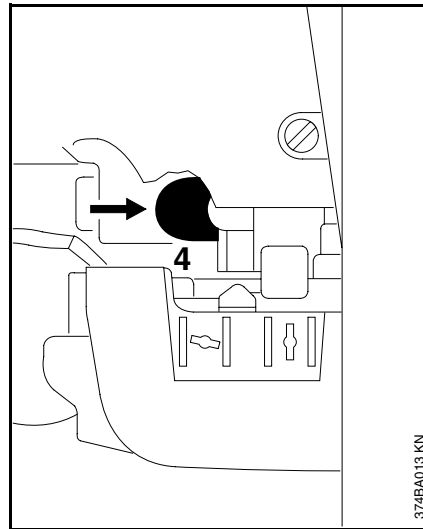
Operating Instructions

If the engine still does not start:

- Move stop switch to **I**



- Pull off the spark plug boot (5).
- Unscrew and dry off the spark plug.
- Open the throttle fully.
- Pull the starter rope several times to clear the combustion chamber.
- Refit the spark plug and connect the spark plug boot – push it down firmly.
- Move stop switch to **I**
- Set choke lever to  – even if the engine is cold.
- Now start the engine.



Fuel tank run until dry

- After refueling, press the fuel pump bulb (4) at least five times – even if the bulb is filled with fuel.
- Now start the engine.

During break-in period

A factory new machine should not be run at high revs (full throttle off load) for the first three tank fillings. This avoids unnecessary high loads during the break-in period.

As all moving parts have to bed in during the break-in period, the frictional resistances in the engine are greater during this period. The engine develops its maximum power after about 5 to 15 tank fillings.

During operation

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

After finishing work

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

Using the Blower



The BR 45 blower is designed for single-handed operation. It is carried as a backpack and operated with the right hand on the control handle.

The powerful ground-level airstream can be aimed highly accurately and effectively.

The blower can be used for clearing leaves, grass, paper, dust and light snow in yards, gardens, sports stadiums, parks, driveways and parking lots. It is also suitable for drying cars and clearing forest paths.

Working techniques

To minimize blowing time, use rakes and brooms to loosen debris before blowing.

Recommended working techniques to minimize airborne debris and pollution:

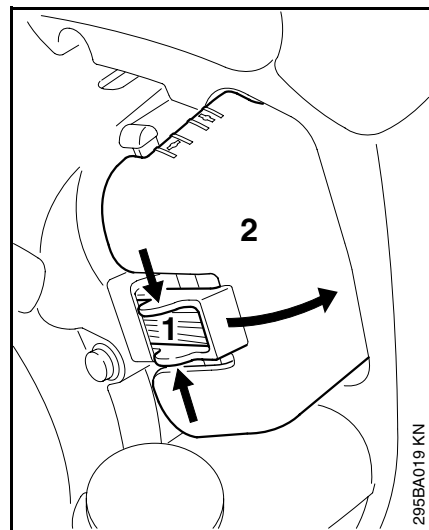
- In dusty conditions, slightly dampen surfaces.
- Use the full blower nozzle extension so the air stream can work close to the ground.
- Do not direct debris at people, children, pets, as open windows or freshly-washed cars. Blow debris safely away.
- After using blowers, **CLEAN UP.** Dispose of debris in trash receptacles. Do not blow debris onto neighbouring properties.

Recommended working techniques to minimize noise:

- Operate power equipment only at reasonable hours - not early in the morning, late at night or during the noon-break when people might be disturbed. Comply with times listed in local ordinances. Usual recommendations are 9:00 a.m. to 12:00 a.m. and 03:00 p.m. to 5:00 p.m. on workdays for professionals. Special considerations should be given to neighbours on weekends.
- Fewer engines mean less noise; therefore use only one piece of power equipment at a time, when possible.
- Operate power blowers at the lowest possible throttle speed to do the job.
- Check your equipment before operation, especially the muffler, air intakes and air filters.

Conserve water by using power blowers instead of hoses for those lawn and garden applications where a blower can be properly used, such as cleaning patios or porches.

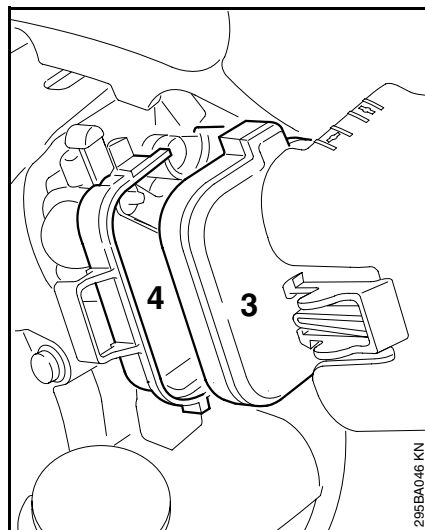
Cleaning the Air Filter



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

If there is a noticeable loss of engine power

- Move choke lever to \overline{I}
- Squeeze the tabs (1) together, swing filter cover (2) open and take it away.
- Clean away loose dirt from around the filter.



- Take the filter (3) out of the housing (4).
- Install a new filter. As a temporary measure you can knock it out on the palm of your hand or blow it out with compressed air – **do not** wash!
- Replace any damaged parts.
- Fit the filter (3) in the housing (4).
- Fit the filter cover (2) so that it snaps into position.

Motor Management

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

Adjusting the Carburetor

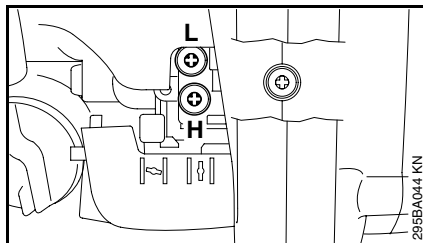
General Information

The carburetor comes from the factory with a standard setting.

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

With this carburetor it is only possible to correct the adjustment of the high speed screw within fine limits.

Standard Setting



- Shut off the engine.
- Turn high speed screw (**H**) counter-clockwise as far as stop (max. $\frac{3}{4}$ turn).
- Open the low speed screw (**L**) one full turn.

Fine Tuning for Operation at High Altitude or at Sea Level

A slight correction of the setting may be necessary if engine power is not satisfactory when operating at high altitude or at sea level:

- Check air filter and clean if necessary.
- Warm up the engine.

At high altitude

- Turn high speed screw (**H**) clockwise (leaner) no further than stop.

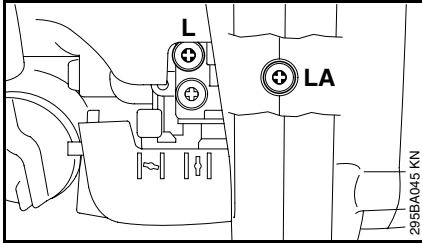
At sea level

- Turn high speed screw (**H**) counter-clockwise (richer) no further than stop.

Catalytic Converter*

Checking the Spark Plug

Adjusting Idle Speed



Engine stops while idling

- Open the low speed screw (L) one full turn.
- Turn idle speed screw (LA) clockwise until the engine runs smoothly – then turn it back about $\frac{1}{4}$ turn from that position.

Erratic idling behavior, poor acceleration

(although low speed screw is one full turn open)

Idle setting too lean:

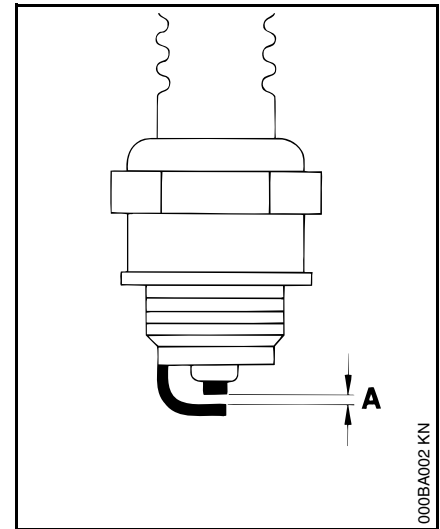
- Turn low speed screw (L) counterclockwise until the engine runs and accelerates smoothly.

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

Units with a catalytic converter* may only be operated with **unleaded gasoline** and **STIHL two cycle engine oil** or equivalent quality two cycle engine oils in a mix ratio of 50:1 (see chapter “Fuel”).

The catalytic converter in the muffler reduces noxious emissions in the exhaust gas.

Correct adjustment of the carburetor (if adjustable) and observance of the specified mix ratio of gasoline and two cycle engine oil are essential to minimize harmful exhaust emissions and ensure a long catalyst service life.



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

* see “Guide to Using this Manual”

Engine Running Behavior

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

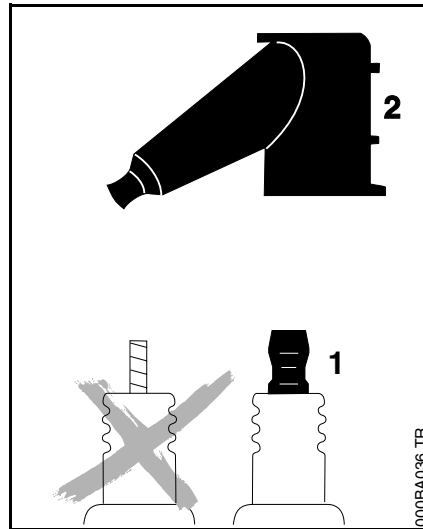
- Remove spark plug - see "Starting / Stopping the Engine".
- Clean dirty spark plug.
- Check electrode gap **(A)** and readjust if necessary – see "Specifications".
- Use only resistor type spark plugs of the approved range.

Rectify problems which have caused fouling of spark plug:

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

Fit a new spark plug after approx. 100 operating hours

or earlier if the electrodes are badly eroded.



! To reduce the risk of fire and burn injury, use only spark plugs authorized by STIHL. Always press spark plug boot **(2)** snugly onto spark plug boot **(1)** of the proper size. (Note: If boot has detachable SAE adapter nut, it must be attached.)

A loose connection between spark plug boot and ignition wire connector in the boot may create arcing that could ignite combustible fumes and cause a fire.

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

Have the muffler checked for contamination (coking) by a STIHL dealer.

Rewind Starter

To help prolong the wear life of the starter rope, observe the following points:

- Pull the starter rope only in the direction specified.
- Do not pull the rope over the edge of the guide bush.
- Do not pull out the rope more than specified since it might break.
- Do not let the starter grip snap back, guide it slowly into the housing. See also chapter “Starting / Stopping the Engine”!

Replace a damaged starter rope in good time or have it replaced by your STIHL dealer!

Storing the Machine

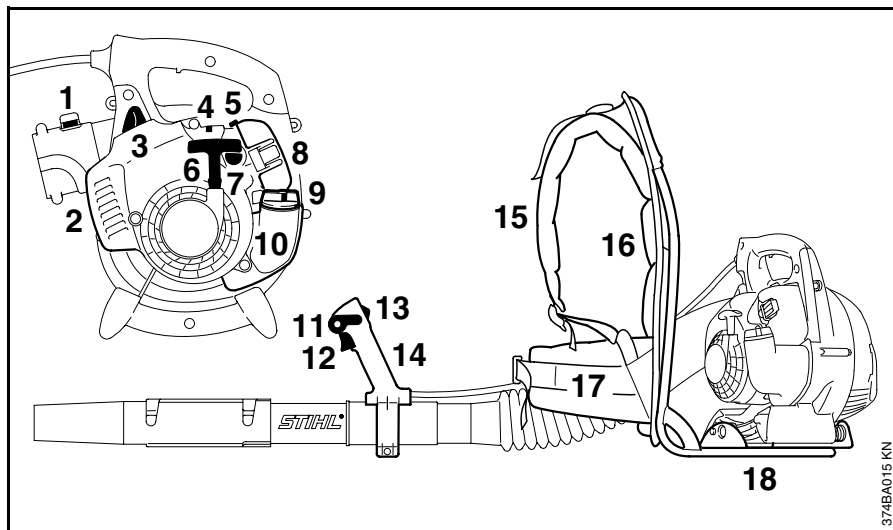
For periods of about 3 months or longer

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

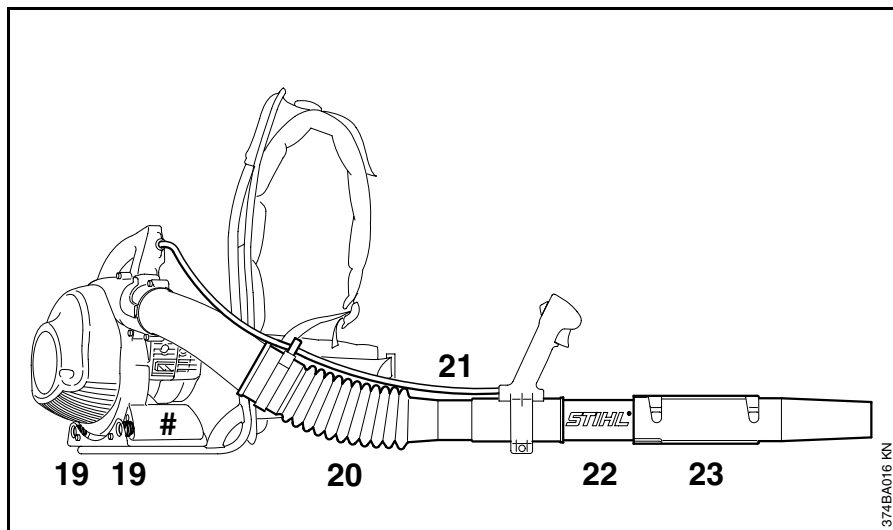
Maintenance Chart

Please note that the following maintenance intervals apply for normal operating conditions. If your daily working time is longer than normal or working 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	yearly	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	
Filter in fuel tank	Check							x		
	Replace						x			x
Fuel tank	Clean					x				
Carburetor	Check idle adjustment	x		x						
	Readjust idle									x
Spark plug	Readjust electrode gap							x		
Cooling inlets	Clean				x					
Spark arresting screen in muffler	Check									x
	Clean or replace							x		
Accessible screws and nuts (not adjusting screws)	Retighten									x
Anti-vibration elements	Visual inspection	x								
	Have replaced by STIHL dealer							x	x	

Main Parts and Controls



- 1 Tab
 - 2 Muffler (with spark arresting screen)*
 - 3 Spark plug boot
 - 4 Carburetor adjusting screws
 - 5 Choke lever
 - 6 Starter grip
 - 7 Fuel pump
 - 8 Filter housing
 - 9 Fuel filler cap
 - 10 Fuel tank
 - 11 Setting lever
 - 12 Throttle trigger
 - 13 Stop switch
 - 14 Control handle
 - 15 Shoulder strap
 - 16 Back padding
 - 17 Waist strap
 - 18 Support frame
 - 19 Anti-vibration elements
 - 20 Pleated hose
 - 21 Throttle cable
 - 22 Blower tube
 - 23 Nozzle
- # Serial number



* see "Guide to Using this Manual"

Definitions

- 1. Tab**
For attaching blower tube to fan housing.
- 2. Muffler (with spark arresting screen)**
Reduces exhaust noises and diverts exhaust gases away from operator. Spark arresting screen is designed to help reduce risk of fire.
- 3. Spark Plug Boot**
Connects the spark plug to the ignition lead.
- 4. Carburetor Adjusting Screws**
For tuning the carburetor.
- 5. Choke Lever**
Eases engine starting by enriching mixture.
- 6. Starter Grip**
The grip of the pull starter, which is the device to start the engine.
- 7. Fuel Pump**
Provides additional fuel feed for a cold start.
- 8. Filter Housing**
Encloses and protects the air filter.
- 9. Fuel Filler Cap**
For closing the fuel tank.
- 10. Fuel Tank**
For fuel mixture consisting of gasoline and oil.
- 11. Setting Lever**
Holds throttle in different positions.
- 12. Throttle Trigger**
Controls the speed of the engine.
- 13. Stop Switch**
Stops the engine.
- 14. Control Handle**
Handle for holding and directing blower tube in the required direction.
- 15. Shoulder Strap**
For carrying the machine.
- 16. Back Padding**
Improves carrying comfort.
- 17. Waist Strap**
Helps support and distribute load.
- 18. Support Frame**
Accommodates powerhead and is carried on user's back.
- 19. Anti-vibration Elements**
Designed to help reduce transmission of engine vibrations to user's back.
- 20. Pleated Hose**
For spraying, distributing or spreading in the required direction.
- 21. Throttle Cable**
Connects the control handle to the powerhead.
- 22. Blower Tube**
Directs spray or airstream.
- 23. Nozzle**
Aims and widens the spray or airstream.

Specifications

EPA:

The Emission Compliance Period referred to on the Emissions Compliance Label indicates the number of operating hours for which the engine has been shown to meet Federal emission requirements.

Category A = 300 hours, B = 125 hours, C = 50 hours

CARB:

The Emission Compliance Period used on the CARB Air Index Label indicates the terms:

Extended = 300 hours

Intermediate = 125 hours

Moderate = 50 hours

Engine

Single cylinder two-stroke engine

Displacement: 1.66 ci (27.2 cc)

Bore: 1.34 in (34 mm)

Stroke: 1.18 in (30 mm)

Idle speed: 2,800 RPM

Engine power: 0.88 HP
(0.65 kW)

Sound level according to ANSI B 175.2-1999

65 dB(A)

Air flow rate

390 CFM (665 m³/h)

Air velocity

116 MPH (52 m/s)

Ignition System

Type

Electronic magneto ignition

Spark plug (resistor type)

Bosch WSR 6 F, NGK BPMR 7 A or Champion RCJ 6Y

Electrode gap

0.02 in (0.5 mm)

Spark plug thread

M 14x1.25; 0.37 in (9.5 mm) long

Fuel System

Carburetor

All position diaphragm carburetor with integral fuel pump

Air filter

Felt mat

Fuel tank capacity

13.5 fl.oz (0.40 L)


Fuel mix

see chapter "Fuel"

Maintenance and Repairs

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

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

STIHL Incorporated Federal and California Emission Control Warranty Statement

Your Warranty Rights and Obligations

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

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

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

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

Manufacturer's Warranty Coverage:

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

Owner's Warranty Responsibilities:

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

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

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

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

Coverage by STIHL Incorporated

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

Warranty Period

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

Diagnosis

You, as the owner, shall not be charged for diagnostic labor which leads to the determination that a warranted part is defective. However, if you claim warranty for a component and the machine is tested as non-defective, STIHL Incorporated will charge you for the cost of the emission test. Mechanical diagnostic work will be performed at an authorized STIHL servicing dealer. Emission test may be performed either at STIHL Incorporated or at any independent test laboratory.

Warranty Work

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

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

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

Where to make a claim for Warranty Service

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

Maintenance Requirements

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

Limitations

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

- repair or replacement required because of misuse, neglect or lack of required maintenance,
 - repairs improperly performed or replacements not conforming to STIHL Incorporated specifications that adversely affect performance and/or durability, and alterations or modifications not recommended or approved in writing by STIHL Incorporated,
- and
- replacement of parts and other services and adjustments necessary for required maintenance at and after the first scheduled replacement point.

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