

solo[®]

160 /161

*Instruction manual
Original instructions*

*Motorised hedge
trimmer*


Important!

Read this instruction manual carefully before first operation and strictly observe the safety regulations!



Instruction manual

Original instructions

 **Caution!** Prior to operating the unit, please read the owner's manual carefully, and most importantly, observe all safety rules.

Observe the maintenance guidelines closely to ensure the long service life of your equipment.

Your dealer will be glad to assist you with any questions.

EC declaration of conformity → The EC declaration of conformity on a separate piece of paper forms part of these operating instructions.

Packaging and disposal

Please keep the original packaging in order to protect the equipment against transport damage in case you ever need to ship it or transport it. If the packaging materials are no longer required then they must be disposed of properly in accordance with applicable local regulations. Cardboard packaging materials are raw materials which can be recycled or reused.

At the end of the equipment's service life, please make sure that you dispose of it properly, in accordance with the official directives and regulations that apply in your area

In the best interest of continued technological progress we reserve the right to change the design and configuration of any product without prior notice.

For that reason, no claims can be accepted with reference to text and illustrations in this manual

Type plate



a: Type designation

b: Serial number

c: Build year (08 → 2008)

Symbols

The following symbols are used in this manual and on the product:



Thoroughly read these operating instructions before undertaking any maintenance, installation and cleaning steps



Wear ear defenders and a face shield before starting the engine



Switching off the engine, stop switch on "STOP"



Wear protective gloves when handling and working with the equipment



Wear solid shoes, preferably safety shoes with a good tread



Danger! Failure to comply with the instructions could cause accidents with potentially **life-threatening injuries**.



Never smoke near the power tool or where the equipment is refuelled!



Keep open flames away from the power tool and the fuel can



- This equipment produces exhaust fumes and
- fuel vapours are poisonous;
never start or refuel in enclosed spaces

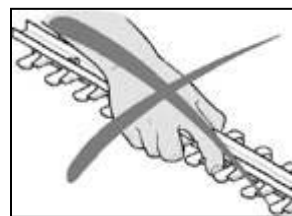


Choke open
Warm start and operating setting



Choke closed
Cold start setting

Most importantly:



In order to achieve an exceptionally high quality cut, the cutting blades are extremely sharp.

→ **Never allow the cutting blades to come into contact with an unprotected part of the body – not even when the cutting blades are stationary!**

	Page
1. Safety regulations	4
1.1 <i>Correct use / General safety instructions</i>	4
1.2 <i>Working clothes</i>	5
1.3 <i>Fuelling</i>	5
1.4 <i>When transporting the equipment</i>	5
1.5 <i>Preparing the equipment for starting</i>	6
1.6 <i>Starting</i>	6
1.7 <i>Maintenance and repairs</i>	6
1.8 <i>Working with the machine</i>	6
2. Standard delivery	8
3. Control and function elements	8
4. Fuelling and gear lubrication	9
4.1 <i>Fuel information</i>	9
4.2 <i>Fuelling</i>	9
4.3 <i>Gear lubrication</i>	9
5. Starting / Stopping the engine	10
5.1 <i>Preparing for starting, start settings</i>	10
5.2 <i>Starting</i>	10
5.3 <i>Engine will not start:</i>	11
5.4 <i>Turning off the engine:</i>	11
5.5 <i>Additional notes on correct handling of the starter</i>	11
6. Using your power hedge trimmer	12
6.1 <i>Scope of Application</i>	12
6.2 <i>Correct operation of your power hedge trimmer</i>	12
6.3 <i>Decorative cutting</i>	13
7. Operating and maintenance instructions	14
7.1 <i>Blade</i>	14
7.2 <i>Checking the function of the cutter brake</i>	14
7.3 <i>Gearbox maintenance</i>	14
7.4 <i>Air Filter Maintenance</i>	15
7.5 <i>Carburettor adjustment</i>	15
7.6 <i>Information about the spark plug</i>	16
7.7 <i>Replacing the fuel filter</i>	16
7.8 <i>Shutdown and storage</i>	16
7.9 <i>Scheduled maintenance</i>	17
8. Specification	18
9. Accessories	19
10. Parts subject to wear and tear	19
11. Guarantee.....	19
* For USA only: Emissions Control Warranty Statement / Manufacturers Warranty Coverage	19

1. Safety regulations

1.1 Correct use / General safety instructions

Only use the motorised hedge trimmer to trim hedges, shrubs and bushes. Never use the hedge trimmer for any other purpose. (section 6.1 "Scope of Application")



Read the operating instructions carefully before placing in service and keep them in a safe place.

Use this power tool with particular caution.

Non-observance of safety instructions can lead to a risk to life. Also observe any regulations from your professional body. These operating instructions must always be available at the place of work. All individuals instructed to work with the equipment (including maintenance, care and repair), should read these instructions.

- When operating in highly flammable vegetation and in areas affected by drought, keep a fire extinguisher handy (risk of fire).
- You should request and receive instructions from the vendor on the safe operation if you are using this type of product for the first time.
- Children and young people under 18 years may not work with this power tool, with the exception of young people over 16 years of age who are being trained under supervision.
- The power tool can be operated easily - even on start-up - by one person. Keep bystanders and animals away from the working area. Maintain a minimum distance of 15 m. When working near thickets, be aware that children and animals may be hidden there. Immediately stop the machine and the cutter if any person or animal comes close to the working area. The operator is responsible for any accidents or damage caused to parties or property.
- This machine may only be passed on or lent to third parties if they are familiar with the safe use of this product and with these instructions. Always supply the manual with the machine.
- Ensure you are rested and in good health when using this machine.
- Persons under the influence of alcohol or drugs, including prescription drugs, are not allowed to use this machine, as their ability to quickly react to potential danger may be impaired.
- Never alter, change or modify any safety equipment or functional assemblies on this machine.
- Only use this machine if it is in good, safe condition. Always check the machine prior to use. **Risk of accident!**
- Only use those accessories and attachments that have been supplied by the manufacturer and that are expressly approved for attachment.
- The reliability and safe operation of your machine depend on the quality of parts used with the machine. Only use original spare parts. Original spare parts are identical with genuine production parts and guarantee best quality in material, dimensions, function and safety. Original parts and accessories are available from your specialist dealer. Your dealer has been supplied with appropriate documentation to determine the correct parts. Your dealer is frequently supplied with updates about improvements to the equipment. Please note that the use of non-original parts will void your warranty.
- Always store the machine in a safe place and in such a way that it will not pose any danger. Stop the engine when the machine is not used.

Persons who disregard safety instructions, operating or maintenance instructions may be liable for any damage or consequential losses.

1.2 Working clothes

To prevent injuries, always wear suitable clothing and safety equipment when working with this power tool. This clothing should be practically oriented to the application (for example a tight fitting work suit), but should not be confining.

We recommend:

SOLO forest and countryside work jacket EN 340 Part no: 99303000 + size (2[s] - 6[xxl])

SOLO Outdoor Knee-breeches Part no: 9902095 + size

or **SOLO Outdoor dungarees** Part no: 9902094 + size

Never wear scarves, ties, jewellery or other items of clothing, which might get caught in the equipment, in brush or on branches. Safely tie back long hair (use a cap, helmet or similar).



Wear sturdy shoes with a good tread - ideally safety shoes.

We recommend: **SOLO leather forest boots** Part no: 9930510 + size (36 - 48)



Wear protective gloves with non-slip palms.

We recommend: **SOLO Fit** Part no: 9939012 + size.



Use ear defenders and/or a visor for protection against flying objects or objects caught up in the turbulence (protective goggles for example).

We recommend: **SOLO face/ear protection pack** Part no: 993901002 (one size)

1.3 Fuelling



Petrol is very light and highly flammable. Keep away from open flames and never spill fuel. Do not smoke at the operating site or at and near the refuelling site!

- Stop the engine prior to refuelling.
- Let the engine cool down before refuelling - fire risk!
- Open the tank lid slowly to allow any excess pressure in the tank to be reduced without the risk of petrol spraying out.
- Fuel may contain substances similar to solvents. Prevent products made from mineral oil coming into contact with skin and eyes. Wear protective gloves during filling with fuel. Frequently change and clean protective clothing.
- Avoid breathing in fuel vapour.
- The refuelling site should be well ventilated.
- Avoid any soil spillage of fuel or oil (protection of the environment). Use a suitable mat.
- Immediately clean any spilled fuel on the machine. Change contaminated clothing without delay.
- Firmly tighten all tank lids. This will reduce the risk of spillage from lids, which have become loose from engine vibrations.
- Check for petrol leaks. Do not start the machine or work with the machine if there is a petrol leak. Life threatening risk from burns!
- Store fuel and oil in approved and correctly labelled containers.

1.4 When transporting the equipment

- Always turn off the engine when transporting the machine.
- Never carry or transport this device with the engine running.
- Always ensure that the blade is secured before transporting the tool over longer distances.
- To prevent fuel running out and associated damages, secure the equipment against tipping over during vehicle transportation. Check the tank for leaks. It is advisable to drain the tank before transportation.
- Drain the tank before despatching the equipment.

1.5 Preparing the equipment for starting

Check the complete machine for operational safety. In **addition** to the information in the operating and maintenance instructions (chapter 7), implement the following checks:

- The ON/OFF switch must have an easy action.
- The throttle must have freedom of movement and return to the idle position on its own accord.
- The cutters and contact protection must be tightly secured and in perfect condition.
- Ensure the spark plug cap and the ignition cable are connected firmly. A loose connection may cause a spark, which can ignite any existing fuel:air mixture - fire hazard!

Should the check reveal any irregularities or recognisable damage (also to the frame), incorrect adjustments or reduced efficiency of the machine, do not commence work. Take the power tool to a specialised workshop and have it checked.

1.6 Starting

- Start the machine no less than 3 metres from the refuelling location. Never start the machine in an enclosed space.
- Ensure that you are standing firmly on the ground when starting. Always start on even ground, with a firm grip on the power tool.
- Continue with the starting procedure as described in section 5 "Starting/Stopping the engine".
- Check the idle speed setting after starting. The cutter must not move at idle speed.
- Check the blade brake. The blade must come to a halt as soon as you release the throttle safety catch. When the throttle control lock is released, no drive must be delivered to the cutting blades even in part throttle operation.
Do not use the power tool In the event of a malfunction → consult a specialist workshop.

1.7 Maintenance and repairs

Regularly service this machine. Only carry out those maintenance jobs and repairs, which are described in this manual. A specialised service centre will carry out all other jobs.

- Do not maintain, repair or store the machine near an open flame.
- Before cleaning, maintenance and repair work, always stop the engine first and pull the spark plug cap. Exceptions: carburettor and idle adjustments.
- For any repairs only use original parts from the manufacturer.
- Do not modify, alter or change the machine as this may impact on the safe operation of the machine and may lead to accidents and injuries!

1.8 Working with the machine

- Environmental protection:
 - Avoid excessive noise and exhaust fumes when operating this power tool, and never run the engine unnecessarily. Ensure compliance with any local noise regulations.
 - Ensure compliance with any local regulations concerning the cutting of hedges or periods where such work is prohibited.
 - Before commencing such work, ensure that no birds are nesting in your hedges. If you do discover nesting birds, postpone the work or avoid this area when trimming your hedges.
 - To avoid harming any other animals you may find in your hedges, check under all hedges before trimming and scare any animals away.
 - Dispose of any cuttings in an environmentally responsible manner (for example, by composting).
- Only use this power tool when it is complete and in a safe condition.



As soon as the engine is running, the power tool generates toxic gases, which may be invisible and odourless. Never work with the power tool in enclosed spaces. In confined conditions such as pits or excavations, ensure adequate air changes during work.



Do not smoke at the work site and in the immediate vicinity of the power tool. There is an increased fire hazard!

- Work conscientiously, thoughtfully and calmly, and do not endanger third parties.
 - Pay attention to good visibility and lighting conditions.
 - Always remain within earshot of other people who can provide help in case of emergency.
 - Plan for timely work breaks.
 - Pay attention to possible hazards and take appropriate precautions. Be aware that wearing ear defenders reduces the ability to perceive noise. This includes sounds alerting to danger such as signals, shouts, etc. that can go unnoticed.
 - Exercise caution when the ground is wet or covered in ice and snow, on overhangs, or uneven terrain. There is an increased risk of slipping!
 - Pay attention to the risk of stumbling and obstacles, such as tree roots and stumps, edges, etc. Pay particular attention to safety when working on slopes.
 - Before commencing work, check the working area for stones, broken glass, nails, wire or other solid objects and remove such debris to prevent them being picked up and thrown out by the cutters.
 - Always hold this power tool firmly in both hands, and ensure your safe and solid foothold.
 - Keep all body parts away from the blades. Always cut away from your body.
 - Always cut in an efficient and correct manner (see chapter 6.2 "Correct operation of your motorised hedge trimmer").
 - Never cut above shoulder height, at a distance from your body or while standing on a ladder. If cutting at height is required, use a hydraulically operated cabin lift.
 - Never touch the ground with your running hedge trimmer.
 - Never use the hedge trimmer to lift away or move pieces of wood or similar materials.
 - Only use the device with sharp and undamaged blades and avoid damaging the blade on foreign objects.
- Switch the engine off if the device behaves in any way unusually.
- The cutter will run on for a short time when the throttle safety catch is held despite the throttle being released and the engine being switched off. Ensure that the cutters have stopped completely before putting the machine down.
- Before touching the hedge trimmer, even if the blades have jammed or seized up, **switch off the engine** and wait until the **cutters have stopped moving**. The cutting blades should only be handled for cleaning purposes. Make sure that the engine is switched off and protective safety gloves are worn.
- Never touch the silencer when it is still hot as this can lead to a risk of burning! Never place the hot machine on dry grass or on flammable materials. The silencer emits tremendous heat (risk of fire).
- Never work with a faulty silencer or without the silencer. This would create a danger to hearing and a risk of burning.

First Aid

A first aid box should always be available on-site. Immediately replace any materials you have used:

Note:

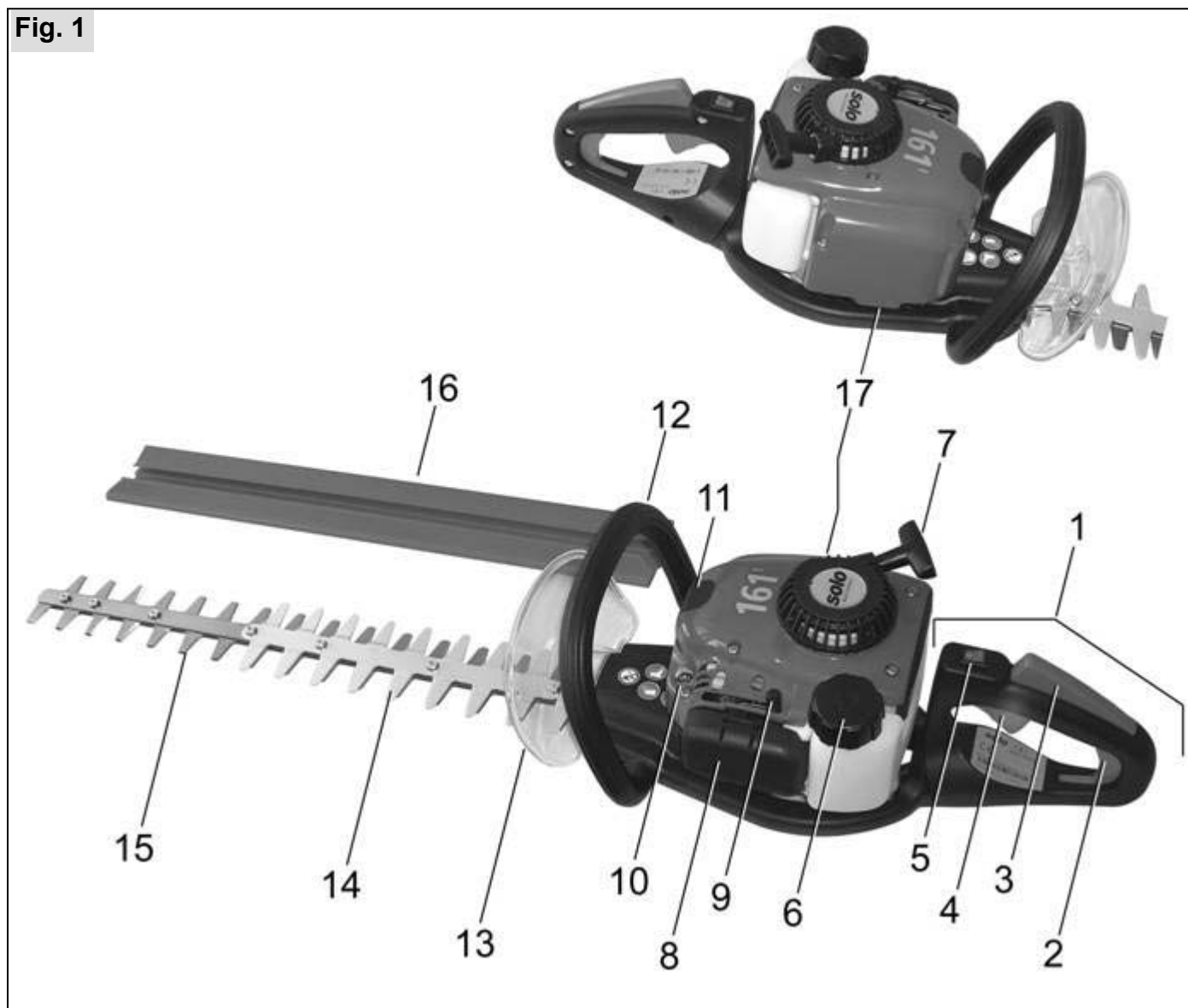
Over exposing persons with circulatory problems to vibrations can lead to damage to their nervous system or blood vessels. The following systems may occur from vibrations to fingers, hands or the wrists: Numbness, itching, pain, twinges, changes to the colour of the skin or the skin itself. Seek medical advice if you experience any of these symptoms.

2. Standard delivery

- **Motorised hedge trimmer**
- **Cutting blade protector**
- **Tools:** combination spanner (sparkplug, T25), T27
- 50 g SOLO **gear grease** for hedge trimmer (part no. 00 83 190)
- **Instruction manual**, the **EC declaration of conformity** on a separate piece of paper

3. Control and function elements

Fig. 1




- | | |
|--|-----------------------------|
| 1. Rear handle | 10. Primer |
| 2. Locking lever (for handle adjustment) | 11. Sparkplug cap |
| 3. Throttle lock | 12. Front handle |
| 4. Throttle lever | 13. Hand guard |
| 5. ON/OFF switch (I / 0) | 14. Hand protection |
| 6. Fuel cap | 15. Blade |
| 7. Starter grip | 16. Cutting blade protector |
| 8. Air filter cover | 17. Muffler |
| 9. Choke lever | |

4. Fuelling and gear lubrication



4.1 Fuel information

 A high performance two-stroke engine operated with a petrol:oil mixture (petrol + oil = fuel mixture) or with a special fuel mixture for two-stroke engines available from specialists powers this machine.

We recommend the proprietary “**Aspen 2-takt**” special fuel mixture. Please observe the special fuel manufacturer’s instructions.

Information on individual mixing of the fuel mixture

Normal or super unleaded petrol can be used for individual mixing purposes (**minimum octane number 92 RON**).

When using a particularly high quality proprietary 2-stroke engine oil such as the “**SOLO Profi 2T-Motoröl**” which we supply, we recommend an oil:petrol mixing ratio of **1:50 (2%)**.

When using **other brands of 2-stroke oil** we recommend a mixing ratio of 1:25 (4%).

Only use **proprietary 2-stroke engine oil!**

Never store fuel mixture longer than 3 - 4 weeks.

Fuel mixture table

Petrol in litres	Oil in litres	
	SOLO 2T engine oil 2% (50 : 1)	Other two-stroke oils 4% (25 : 1)
1	0.020	0.040
5	0.100	0.200
10	0.200	0.400


Unsuitable petrol or deviations in the mixing ratio may lead to serious engine damage!



Avoid direct skin contact with petrol and avoid inhaling petrol fumes - health hazard!

4.2 Fuelling

While fuelling always follow all safety instructions and take all safety precautions.

 Handle fuel only with the engine turned off. Carefully clean the area around the filler inlet. Place the machine with the fuel inlet pointing upwards. Unscrew the tank lid and fill the fuel mixture up to the lower edge of the filler neck. Use a funnel with filter to prevent tank contamination. After filling the tank replace the tank lid and tighten firmly.

4.3 Gear lubrication

On delivery the gearbox of your hedge trimmer is already filled with gear grease. Top up with grease every 10 - 20 hours. We recommend the use of the SOLO gear grease for hedge trimmer (part no. 00 83 190).



Place the power tool on its side. Unscrew the filler screw (18a) from the gearbox housing on the underside and press around 10 - 20g (approximately $\frac{1}{3}$ of the content of a 50g tube) through the opening into the gearbox.

If a suitable grease gun is available (SOLO accessory, order no. 00 80 432) then we recommend adding the gear grease as follows:

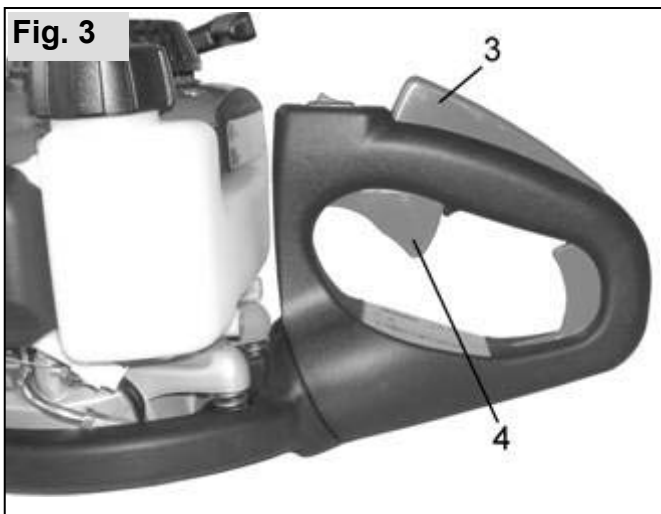


Apply 10 - 20 g of grease to the grease nipple (18b) using a grease gun (part no. 00 80 432). (2-4 shots).

5. Starting / Stopping the engine



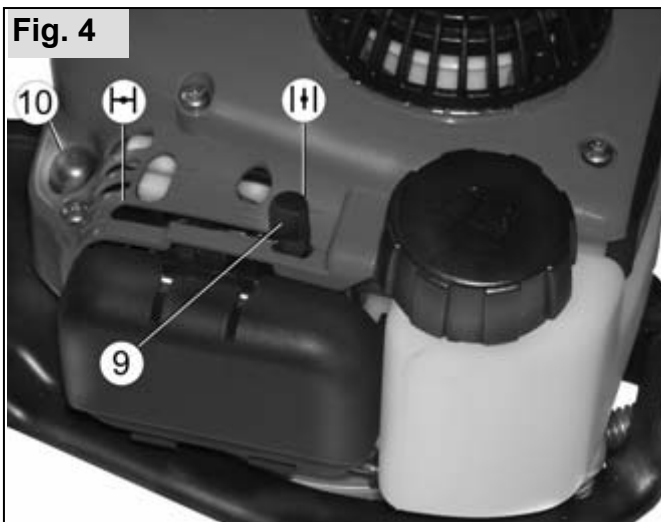
5.1 Preparing for starting, start settings



Notes regarding the throttle safety catch

For safety reasons, the throttle (4) can only be operated when the throttle safety catch (3) is released. Grasp the rear handle to press the throttle; the throttle safety catch will be activated by the palm of your hand, which will release the throttle.

The throttle safety catch simultaneously blocks the cutter drive. If the throttle safety catch is in place the cutter will not move even if the engine is in the half throttle setting.



Notes regarding the half throttle catch:

The half throttle setting will be locked if the **choke lever (9)** is in the closed position H . The half throttle setting will remain even if the choke lever is reset into the open position I . To release the half throttle catch, completely depress the throttle briefly when the choke lever has been reset I .

Pos. 10: **primer**

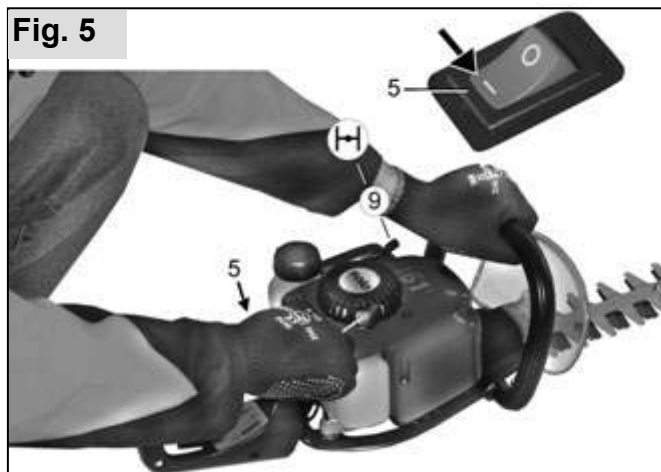
Adjust choke (9) as follows:

- Set the **choke lever (9)** to the closed position H when the engine is cold.
- Set the **choke lever (9)** to the open position I when the engine is already warm.

When first starting or if the fuel tank has been completely drained and has been refilled, press **primer (10)** several times (at least 5x) until the fuel is visible in the plastic bulb.

5.2 Starting

Observe the safety instructions when starting.



Take off the blade guard.

Lay the power tool flat on a clear, level surface and ensure that the cutter is not touching any other object.

Set the ON/OFF switch (5) to "I"; do not press the throttle lever catch.

Position yourself securely behind the power tool, and securely hold the front handle of the equipment with your left hand

If the engine is cold:

With the choke lever in position H , pull the starter handle in a straight line to start the engine, until it audibly and temporarily starts (fires).

Immediately set the choke lever to position I .

Continue to start until the engine runs.

If the engine is warm:

To set a part throttle stop, set the choke lever to H and then turn it back to I . → A part throttle stop has been set.

With the choke lever in position I , pull the starter handle in a straight line, until the engine runs.

Note: Under good conditions, the engine will already start under idling throttle if it is at operating temperature. To do this, do not adjust the choke lever before starting the engine – leave it in the I position.






If the engine will not start under idling throttle, set a part throttle stop in the way described above.

When the engine is running, first lift up the hedge trimmer from the floor, then release the throttle safety catch and briefly press the throttle to cancel the half throttle catch.

Please note: When the throttle safety catch is pressed, the cutter will be moving in the half throttle setting!

Release the throttle lever again to allow the engine to run at idle speed. Now you can commence working.



Summary of the key points in the startup process:

- Take off the **blade guard**,
- *position the engine safely on level ground*,
- *if necessary press the primer several times*,
- *set the ON / OFF switch to "I"*.
- **Cold start:**
 - *Set the choke lever to *,
 - *turn the engine until it fires for the first time*,
 - *then set the choke lever to *,
 - *keep starting until the engine starts to run*.
- **Warm start:**
 - *If necessary, set a part throttle stop with the choke lever. → turn the choke lever to  and then back to *,
 - *then start the engine with the choke lever set to  until the engine starts to run*.
- When the engine is running, first lift up the hedge trimmer from the floor, then release the throttle safety catch and briefly press the throttle to cancel the half throttle catch.

5.3 Engine will not start:

Check that all previously described adjustments are correct, if the engine does not start after repeated attempts, in particular that the ON/OFF switch is not set to position "0". Try starting once again. The combustion chamber will be flooded, if the engine still fails to start.


In that case we recommend you proceed as follows:

- Remove the spark plug cover.
- Pull the spark plug cap off the spark plug.
- Remove the spark plug and dry fuel mixture from the electrodes.
- Move the throttle lever up to full throttle. Pull the starter handle several times (with removed spark plug) to clear the combustion chamber.
- Refit the spark plug, the plug cap and the plug cover.
- To set a part throttle stop, set the choke lever to  and then turn it back to . → Start the engine with the throttle in this **part throttle setting** and the **ON / OFF switch** set to "I".

5.4 Turning off the engine:

Release the throttle and set the ON/OFF switch to position "0".

Please note: The cutter will run on for a short time when the throttle safety catch is held despite the throttle being released and the engine being switched off. Ensure that the cutters have stopped completely before putting the machine down.

Emergency stop Should the engine – due to a faulty ON / OFF switch – fail to stop, it can also be stopped by closing the choke (choke lever in position ). **After such an event, do not restart the engine, but have the equipment checked by an authorised service shop.**

5.5 Additional notes on correct handling of the starter

The following instructions are aimed at increasing the service life of the starter rope and of the starter mechanism:

- Pull the starter cord out, until you can feel a definite resistance; then pull it through quickly and firmly.
- Always pull the rope out in a straight line, do not let the rope drag across the edge of the rope eyelet.
- Do not pull rope all the way out - risk of the rope breaking.
- Always manually guide the rope back into its start position with your hand on the starter grip - do not let it retract on its own.

A specialist can replace a damaged starter rope.

Note:

When starting the hedge trimmer under part throttle, the cutting blade is blocked when the throttle control lock is released (cutting blade brake). Do not use the power tool if drive is still being delivered to the cutting blade under part throttle even though the throttle control lock is not pressed. In this case you should immediately have the unit checked by a specialist workshop.

6. Using your power hedge trimmer



Before using your hedge trimmer, familiarise yourself with the operating and maintenance instructions, in particular regarding the cutter (chapter 7.1) and gear lubrication (chapter 7.3 / chapter 4.3).

6.1 Scope of Application

Only use the motorised hedge trimmer to trim hedges, shrubs and bushes.

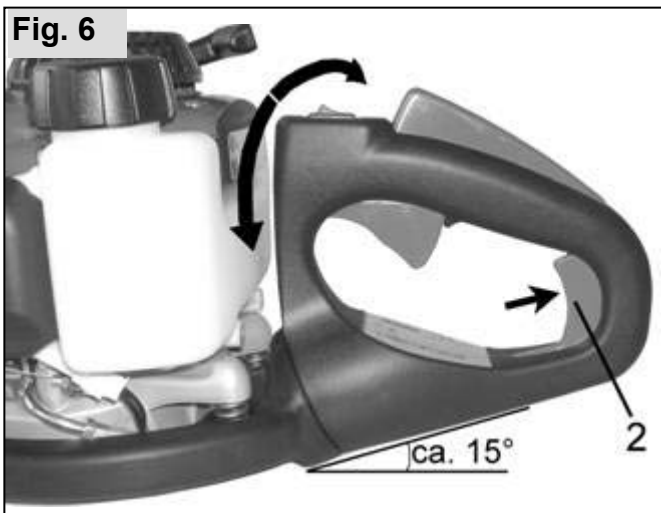
Never use the hedge trimmer for any other purpose.

The maximum thickness of twigs and branches, which can be cut by this hedge trimmer, depends on the type of wood, its age, its moisture content and density.

Thicker twigs and branches can be trimmed to the required length with pruning shears before cutting with the hedge trimmer.

6.2 Correct operation of your power hedge trimmer

Observe all safety regulations when using this power tool.



Ergonomic handle position

To hold the rear handle ergonomically, press the locking lever (2) when the **engine is switched off** to adjust and turn the rear handle to the required position. The rear handle may be positioned in any one of seven different positions. Ensure that the handle is surely locked into place before recommencing work.

In every position the handle is angled approximately 15° towards the cutting axis. This ensures that the device can be used directly on the hedge and can still be held at a short distance from the hedge

Fig. 7



Always hold the hedge trimmer carefully with both hands and firmly grip the handle with your thumbs. Hold the rear handle (1) with your right hand and the front handle (12) with your left hand.

Approach the hedge with the power tool in the idle setting and press the throttle before using the cutter. Never raise the engine speed without load. Always commence trimming with the cutters moving. Do not "stab" into the hedge with the tip of the cutter.

Never operate in the slipping range of the clutch. Damage through overload or overheating is excluded from our warranty.

Take particular care when working near wire fences and never touch the wire with the cutter.

Switch off the engine immediately the tool behaves in an unusual way or if cuttings have become entangled in the blade. Wait until the blade has stopped. When the **engine is switched off**, remove the entangled cuttings, undergrowth etc. Before starting up the tool again, check the entire power tool for safety.

Trimming procedures

Cut the hedge in several stages, if the hedge needs to be cut back a great deal. Between the passes, cut back thicker branches and twigs with pruning shears.



Cutting the top of the hedge

Holding the shears at an angle (max. 15°) at the top of the hedge, cut the hedge across to the opposite edge to allow the cuttings to fall to the floor.



Cutting the side of the hedge

Move the shears forwards and backwards vertically to cut in arched movements, slowly advancing across the hedge.

Cutting branches and twigs

Thicker branches and twigs, which can be cut with the power trimmer, can be cut near the hand protection, to minimise flying cuttings. Cut thicker branches and twigs beforehand with pruning shears.

6.3 *Decorative cutting*

The trapezoidal cutting pattern shown prevents the lower hedge area from losing its foliage due to lack of light.

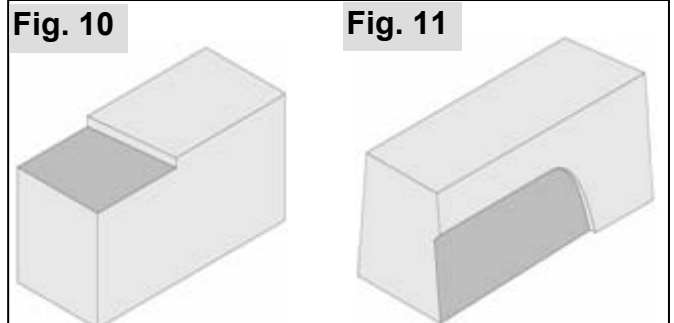
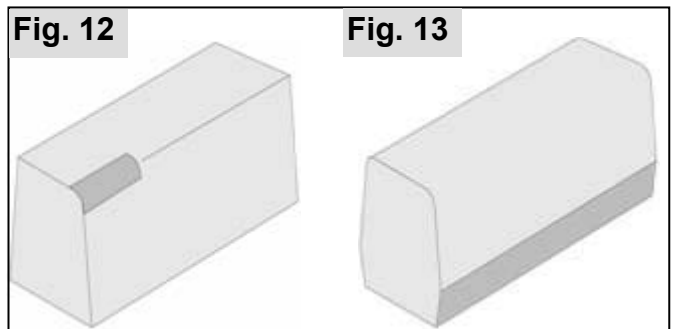


Fig.10:

Firstly, cut the hedge to the desired height. Cuttings can be freed from the hedge by a slight pendulum action. To achieve a straight cut, a taut piece of string is positioned in the hedge at cutting height.

Fig.11:

Cut the hedge from below upwards into a trapezoidal shape (to 1 m height, narrowed at the top by approximately 10 cm). This prevents cuttings falling onto that part of the hedge that has not yet been cut, which may disrupt further cutting.



Slightly bevel the top edge of the hedge; then cut back the bottom of the hedge near the ground.

The correct time for cutting hedges is:

Leaves:	June and October
Needles:	April and August
Fast growing hedges:	approx. every 6 weeks from May onwards.

7. Operating and maintenance instructions

The maintenance and the repair of modern machines as well as their safety-relevant assemblies require qualified specialised training and a workshop equipped with special tools and test equipment. Consequently the manufacturer recommends that all tasks not described in these operating instructions be carried out by a specialised workshop. That specialist has the required training, experience, and equipment at his disposal, to provide you with the most cost-effective solution for such work. He will provide additional help in word and deed.

After a running-in time of app. 5 hours, all accessible screws and nuts (except the carburettor adjusting screws) must be checked for tightness and they must be retightened, if required.

7.1 Blade



Before hedge trimming and after cleaning, treat the clean blade with maintenance and treatment oil. We recommend the "Solo maintenance and treatment oil" (Part no: 00 83 163).

Please note: Never use grease.

To clean the blade after hedge trimming, we recommend the use of "SOLO Universal-Reiniger (Cleaner)" (Part no: 00 83 116). After a short period of soaking in, the ingrained remains of cuttings on the blade are soft and solvent. They can then be removed easily with a cloth.

Check the blade at regular intervals and when cutters operate unusually or if the blades are jammed. For this, the engine must be switched off and the blade must be stopped. Clean all clippings, brush, etc. from the cutter. Ask your local service shop immediately to sharpen or replace the blade if it is blunt or damaged, even if it shows only slight cracks.

Let your service shop sharpen the blade regularly. During this service, always clean the guide nuts after removing the blade.

7.2 Checking the function of the cutter brake



Pressing the throttle safety catch releases the throttle and the blade brake. Releasing the throttle safety catch applies the blade brake again. Check the function of the blade brake before commencing work.

To do this, start up the power tool in the normal way under part throttle. When the throttle control lock is not pressed, the cutting blades are blocked even under part throttle (cutting blade brake).

You should also check that the cutting blade brake engages properly when the cutting blades are being driven. To do this, briefly apply the throttle while the tool is running, then open your right hand to release the throttle control lock. Make sure that you keep a firm grip on the power tool while doing this. The cutting blades must come to a standstill.

The power tool must not be used if the cutting blade brake (via the throttle control lock) does not operate properly. In this case you should immediately have the unit checked by a specialist workshop.

7.3 Gearbox maintenance



We recommend the use of the SOLO gear grease for hedge trimmer (part no. 00 83 190). Top up with grease every 10 - 20 hours (filler screw 18a or grease nipple 18b by using a grease gun -part no. 00 80 432).



Refer also to chapter 4.3 "Gearbox lubrication"


7.4 Air Filter Maintenance

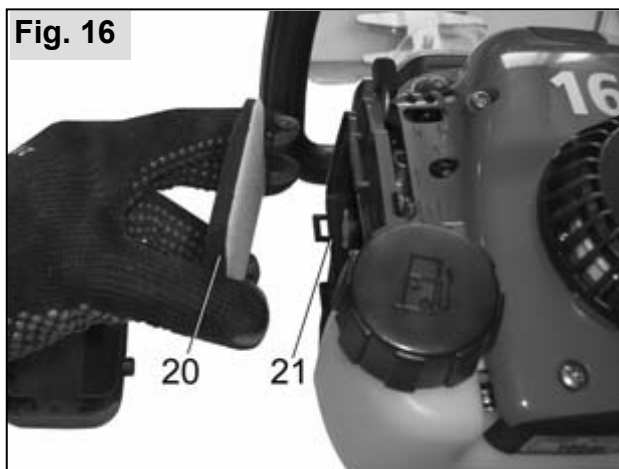


Dirty air filters cause a reduction in engine performance and increase fuel consumption with more pollutants in the exhaust gas. Engines are less likely to start readily with a dirty and soiled air filter.

The following maintenance jobs should be carried out frequently.



Before opening the air filter, close the choke  to prevent dirt entering the carburettor. Press clip (19), tilt and remove the filter cover (8). Clean around the filter.



Remove the assembled filter element (20) from the filter retainer (21). **Please note: Never separate the filter element**

Please note: Never separate the filter element. Clean the filter more often in extreme dust conditions. For daily cleaning jobs simply tap the filters against a hard object or use compressed air. Damaged air filters should be replaced immediately. Warranty does not apply to engine damage caused by the lack of or improper maintenance.

Insert the new or cleaned filter element in accordance with Fig. 16 into the filter retainer. Then close the filter cover and secure it by clicking it into position.

Never insert moist or wet filter elements!


7.5 Carburettor adjustment



The carburettor is adjusted at the factory for optimum performance. Subject to the place of use (mountains, low-lying areas), the average idling speed given in the specification can be adjusted as follows, via the idling end-stop screw "T" (the use of a rev counter is recommended):



- If the idling speed is too high, turn the idling end-stop screw "T" anti-clockwise.
- If the idling speed is too low (engine stops) turn the idling end-stop screw "T" clockwise until the engine runs smoothly.

 Under no circumstances must the cutter be driven at idle speed.

If the idling speed cannot be set correctly with the idling end-stop screw "T", request an authorised service centre to tune the carburettor.

The adjusting screws for the idling mixture "L" and the full-load mixture "H" must only be adjusted by an authorised workshop.

The following instructions are for authorised service shops

Use the D-CUT carburettor key to adjust the idle mixture screw "L" and the full load mixture screw "H".

Ask the specialist workshop that is part of our customer service about standard settings, or visit our internet portal for dealers at www.part-and-more.org.

Clean the air filter before adjusting the low speed screw!

Let the engine run warm before adjusting the engine speed.

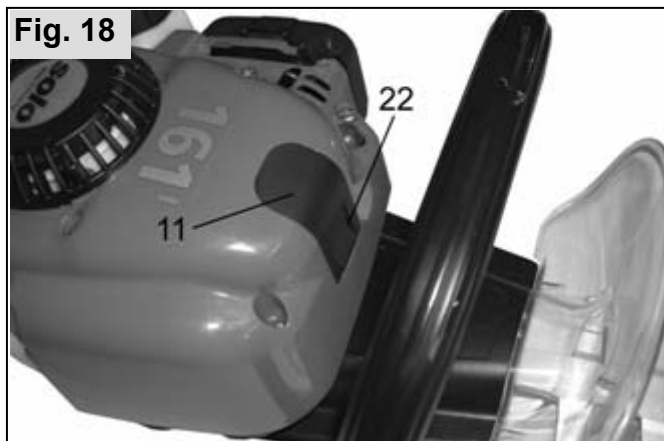
The carburettor is tuned for optimum engine performance. Use a rev counter to tune the carburettor correctly!

Do not adjust the engine to a higher speed. Excessive engine speed can lead to major engine damage!

7.6 Information about the spark plug



Check the spark plug regularly after 50 hours of operation.



Removing the spark plug:

- Press the tab (22) of the spark plug cover (11) and push the cover upwards.
- Disconnect the spark plug cap.
- Unscrew the spark plug and dry the electrodes.

When the spark plug has been removed or the ignition cable has been pulled out of the plug cap, the engine must not be moved. There is a risk of fire through sparks.

Checking the spark plug:

- Clean spark plug with a dry cloth and check electrodes. There must not be any dirt between the electrodes. Brush dirt out with a thin paintbrush if necessary.
- If the electrodes have been heavily worn away, replace the spark plug immediately – otherwise after 100 hours run.
- The correct electrode gap is 0.5 mm. If the electrodes are bent and the electrode gap is incorrect, replace the spark plug.
- Before starting work, check ignition cable for perfect connection and insulation.

Spark plugs with resistor (thermal value 200) are available in different brands under the following description:

BOSCH WSR6F
 CHAMPION RCJ-6Y or comparable.

Fitting the spark plug:

- Refit the spark plug and tighten using the combination spanner (recommended torque if using a torque spanner → 22 Nm - 25 Nm).
- Push the spark plug cap firmly over the spark plug.
- Place the spark plug cover on the casing, push it downwards and snap it into place.

7.7 Replacing the fuel filter



We recommend having the fuel filter (34) changed annually by a specialised service centre.



(schematic diagram)

A trained mechanic can carefully remove the fuel filter via a wire loop through the fuel tank filler. Ensure that the thicker part of the fuel hose on the tank wall is not drawn into the fuel tank.

7.8 Shutdown and storage



Clean the power tool after use.

- Never use aggressive cleaning solutions or those containing solvents to clean any part of the engine. Never hose down the engine. For best results, simply wipe down the entire engine with a dry or slightly damp cloth.
- Clean and maintain the cutter.
 We recommend: clean with "SOLO Universal-Reiniger (Cleaner)" (Part no: 00 83 116) and treat with "SOLO maintenance and care oil" (Part no: 00 83 163). Never use grease.

Store the device in a dry, safe location inside a building (garage, basement, ...). There must not be any open fires or similar nearby. Ensure that the device cannot be used by unauthorised persons, especially children.

If not in use for more than four weeks, drain the fuel tank in a well ventilated location before storing. Start the engine with an empty fuel tank and drain the carburettor until the engine stops. Oil residues from the fuel mixture could otherwise clog the carburettor jets and make it difficult to start the device later.

7.9 Scheduled maintenance



The following information is based on standard operating conditions. For special conditions, such as prolonged daily use, the recommended maintenance intervals should be reduced accordingly.

Implement all maintenance jobs regularly. If required, authorise a specialist service centre to maintain the machine for you. The owner of the machine is responsible for:

- Any damage caused by a lack of maintenance, incorrect or late maintenance and repairs
- Consequential losses - including corrosion - from incorrect storage

after the first 5 hours
 Daily, before and/or after work and also in between
 after every 10 - 20 hours
 after every 50 hours
 after every 100 hours
 as required
 annually

		after the first 5 hours	Daily, before and/or after work and also in between	after every 10 - 20 hours	after every 50 hours	after every 100 hours	as required	annually
Carburettor	Check idling speed		X					
	Adjust idling speed						X	
Air filter	Clean		X					
	Replace						X	
Spark plug	Check electrode gap and replace spark plug if required				X			X
	Replace					X	X	
Gearbox lubricant	Top up			X			X	X
Blade	Check		X					
	Clean and maintain		X				X	X
	Replace						X	
All accessible screws (except for adjusting screws)	Retighten	X					X	X
Controls (ON/OFF switch, throttle, throttle safety catch-blade brake, half throttle catch, starter)	Check function		X					
Silencer	Visual inspection		X					
Complete machine	Visual inspection		X					
	Clean			X			X	X

Furthermore, as part of the annual service at an authorised dealer, request the following services:

- Complete check of the entire machine
- Professional cleaning of the engine (fuel tank, cylinder head fins, ...)
- Check and, if necessary, replace wearing parts, particularly the annual fuel filter change
- Optimum setting of the carburettor

8. Specification

Motorised hedge trimmer		160		161		
		160-01	160-02	161-01	161-02	161-03
Engine type		SOLO single cylinder two-stroke engine				
Engine capacity	cm ³	25		29		
Bore / stroke	mm	33 / 30		35 / 30		
Engine power	kW	0,7		0,85		
Max. permissible speed no load with cutter	rpm	8400				
Medium idling speed	rpm	2700				
Fuel tank capacity	l	0,45				
Fuel mix ratio: with " SOLO 2T engine oil " with other two-stroke oils		1:50 (2%) 1:25 (4%)				
Carburettor		All-position diaphragm carburettor with primer and integrated fuel pump				
Air filter		Foam filter				
Ignition		Electronically controlled magneto ignition, maintenance free				
Gear reduction		60:11				
Nominal cutting length	cm	45	55	50	60	75
Blade drive system		Cam		Piston cam with needle bearing		
Blade thickness	mm	2		2,2		
Blade aperture	mm	25		31		
Gearbox casing		Aluminium		Magnesium		
Weighted effective acceleration (EN 774/A3) Rear handle - idling / max Front handle - idling / max	m/s ²	2,3 / 4,5 2,6 / 3,4				
Sound pressure level LP _{eg} (EN 774/A3)	dB(A)	95,9				
Sound power level L _{Weg} to (EN 774/A3) dB(A)		103,5				
Dimensions	mm					
Height		210	210	210	210	210
Width		250	250	250	250	250
Length		1010	1110	1060	1160	1310
Weight ready to operate (tank empty)	kg	5,5	5,7	5,55	5,7	5,9

9. Accessories

Accessories	Part no.
SOLO 2T engine oil 100 ml	00 83 103
SOLO 2T engine oil 1 l	00 83 104
SOLO 2T engine oil In a metering bottle 1 l	00 83 105
“SOLO Universal-Reiniger” 500 ml	00 83 116
SOLO maintenance and treatment oil spray can 300 ml	00 83 163
SOLO gear grease for hedge trimmer	00 83 190
Grease gun	00 80 432
Blade impact guard	69 00 460
Gloves SOLO Fit	99 390 12 + size
SOLO leather forest boots	99 305 00 + size (36 - 48)
SOLO face/ear protection pack	99 390 1001
SOLO forest and countryside work jacket EN 340	99 303 000 + size (2[s] - 6[xxl])
SOLO Outdoor Knee-breeches	99 020 95 + size
SOLO Outdoor dungarees	99 020 94 + size

10. Parts subject to wear and tear

Various parts are subject to application-specific or normal wear and must be replaced in good time, when required. The following parts are subject to normal wear and are not covered by the manufacturer's guarantee:

- Air filter
- Fuel filter
- All rubber parts which come into contact with fuel
- Clutch
- Spark plug
- Starter
- Cutting tools

11. Guarantee

The manufacturer guarantees trouble-free quality and will cover the cost of replacing parts which are found to be faulty in material or workmanship within the prescribed guarantee period after the date of purchase. Please note that specific guarantee conditions may vary from country to country. If in doubt, ask your equipment vendor. He is responsible for guarantee matters.

We hope you will understand that we cannot be liable for damage resulting from the following causes:

- Non-compliance with the operating instructions.
- Neglecting essential maintenance and repair work.
- Damage caused by incorrect carburettor adjustment.
- Wear in normal use.
- Obvious overload by continuously exceeding the maximum performance limit of the product.
- Using non-authorized tools.
- Use of force, incorrect treatment, misuse and accidents.
- Damage from excessive heat due to dirt build-up around the cooling fan housing.
- Attempted adjustments and repairs by unqualified persons.
- Use of unsuitable spare parts or third party parts, if these are the cause of the defect.
- Use of unsuitable or stale fuel.
- Damage caused by using the product in the hire or rental industry.

Normal cleaning, adjustments or maintenance work fall outside the guarantee provisions.

A service centre authorised by the manufacturer must carry out all guarantee work.



For **USA** only:

Emissions Control Warranty Statement

The Environmental Protection Agency and Solo are pleased to explain the emission control system on your small non-road power equipment engine. In the US new small non- road engines must be designed, built, and equipped to meet the Environmental Protection Agency's standards. Solo must warrant the emission control system on your small non- road engine for the period of time listed below provided there has been no abuse, neglect, or improper maintenance of your small non-road engine.

Your emission control system includes parts such as the carburetor, the ignition system, and the exhaust system. Where a warrantable condition exists, Solo will repair your small non-road power equipment engine at no cost to you including diagnosis, parts, and labor.

Manufacturer's Warranty Coverage

Solo's small non-road power equipment engines are warranted for a period of two years. If any emission control related part on your engine is defective, the part will be repaired or replaced by Solo.

[Contact Information for Authorized Service Center Locations, Replacement Parts, Warranty and Technical Information](#)

Warranty repairs **must** be completed by a SOLO Authorized Service Center.

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Newport News, VA 23605

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