Operating instructions

Petrol Water Pump

64770

Illustration similar, may vary depending on model

Please read and follow the operating instructions and safety information prior to initial operation.

Technical changes reserved!
Illustrations, functional steps, and technical data may deviate insignificantly due to continuous further developments.

WilTec Wildanger Technik GmbH cannot be held liable for any possible mistakes in this operating manual, nor in the diagrams and illustrations shown.
Although WilTec Wildanger Technik GmbH has made every possible effort to ensure that this operating manual is complete, accurate, and up-to-date, errors cannot be ruled out entirely.
If you have found an error or wish to suggest an improvement, we look forward to hearing from you.
Send us an e-mail to:

service@wiltec.info

or use our contact form:

https://www.wiltec.de/contacts/

The most recent version of this manual in several languages can be found in our online shop:

https://www.wiltec.de/docsearch

Our postal address is:

WilTec Wildanger Technik GmbH
Königsbenden 12
52249 Eschweiler – Germany
To return your goods for exchange, repair, or other purposes, please use the following address. Attention! To allow for a trouble-free complaint or return, it is important to contact our customer service team before returning your goods.

Retourenabteilung
WilTec Wildanger Technik GmbH
Königsbenden 28
52249 Eschweiler – Germany

E-mail: **service@wiltec.info**
Tel: +49 2403 55592–0
Fax: +49 2403 55592–15

Introduction

Thank you for choosing to purchase this quality product. To minimise the risk of injury, we ask you to always take some basic safety precautions when using this product. Please read this operating manual carefully and make sure that you understand it.
Keep these operation instructions in a safe place.

Safety instructions

- The motor pump is used to pump water and neutral liquids under ambient temperature. Any other use is to be considered as improper and might provoke damages.
- The pump is designed for private use in the house and garden; it is not suitable for commercial, artisan, or industrial use.
- Do not use the pump to fill containers that might explode under overpressure.
- Only use the pump within its intended performance range. Any overcharge of the pump might provoke damages.
- Keep children and animals away from the area of use of the pump when using the pump.
- Never allow children or other persons not familiar with the use of the pump and safety instructions to use the pump.
- This device is not intended for use by persons (including children) with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Keep your working area clean and well illuminated. A cluttered and poorly lit workplace increases the risk of accidents.
- Check the pump (especially its motor) before every use to detect damages. Should the pump not work properly, it must not be used any longer. Ask a qualified person to repair the damages before re-starting the pump.
- Before starting the pump, make sure that all installed parts have been installed and are able to work properly.
- Always place the pump onto a level and firm surface to avoid that it slips off or falls over. If possible, fix the pump to the ground.
- **Attention!** The pump and suction line must be filled with water before every start to avoid that the pump overheats. Any overheating of the pump can damage the gaskets and provoke an intrusion of water into the motor.
- Never let the pump run dry. Immediately switch off the pump when it does not pump water any longer. Wait for the pump to cool down and re-fill it with water before re-starting it.
- **Attention! Burning hazard!** While the pump works, the motor and the parts installed to it (e.g., the exhaust pipe) can become very hot. After switching off the pump, do not forget to wait for all the parts to cool down before maintaining, cleaning, or storing the pump.
- Make sure that the motor is sufficiently ventilated and respect a safety distance of at least 1 m between the pump and other objects or buildings.
- Do not use the pump near flammable liquids, gases, or dust. The heat of the motor or possible sparks might inflame them.
- Never clean the pump with flammable substances.
- Before commissioning the pump, fuel the motor. Never remove the tank cap when the motor works or when it is still hot.
- Do not overfill the tank. Only fill the tank up to 3 cm beneath the filler.
- Make sure that the tank is properly closed.
- Should petrol be spilt, do not start the motor. Remove the pump from the place where petrol has been spilt and avoid any source of ignition. Immediately remove the spilt petrol and wait for the fuel dusts to have completely dissipated before bringing the pump to the place again and to start it.
- **Attention! Danger of suffocation!** The motor must not work in a closed room. There is the risk of a carbon monoxide poisoning!

- **Attention! Fire hazard!** During operation of the motor, never place objects on it and do not cover it. Make sure that the motor is sufficiently ventilated and keep the cooling fins free from contaminations and objects.
- During work, wear appropriate protective equipment (respiratory mask, non-skid work shoes, ear protection, eye protection, etc.). Do not wear loose clothing or jewellery. Long hair must be tied back.
- **Attention! Risk of injuries!** Keep your hands, feet, hair, and clothes away from the rotating parts of the machine; they could get caught by them, provoking severe injuries.
- Do not use the pump when being tired or under the influence of alcohol, drugs, or medicine. A small moment of inattention might already provoke a loss of control of the device and severe injuries.
- Do not overestimate yourself. Ensure a safe stand and keep your balance.
- Only transport the pump with the tank being empty and the fuel cock being closed.

Parts

№	Name	№	Name
1	Handle	**6**	Silencer
2	Self-priming plug	**7**	Outlet port
3	Throttle control lever	**8**	Petrol tank
4	Inlet port	**9**	Tank cap
5	Drain screw		

Preparing the commissioning

- Check all parts such as tank cap, spark plug, etc. to make sure that they are not loose or have come loose.
- Make sure that the inlet and outlet for cool air are not clogged by dirt and dust. An air line that has been clogged provokes an overhitting of an air-cooled motor during operation.
- Visually examine the air filter, too. A dirty air filter provokes an irregular operation, causing the fuel consumption to raise.
- Check the spark plug. If it is dirty, it must be cleaned completely and the gap adjusted properly (a proper gap is 0.6–0.7 mm).

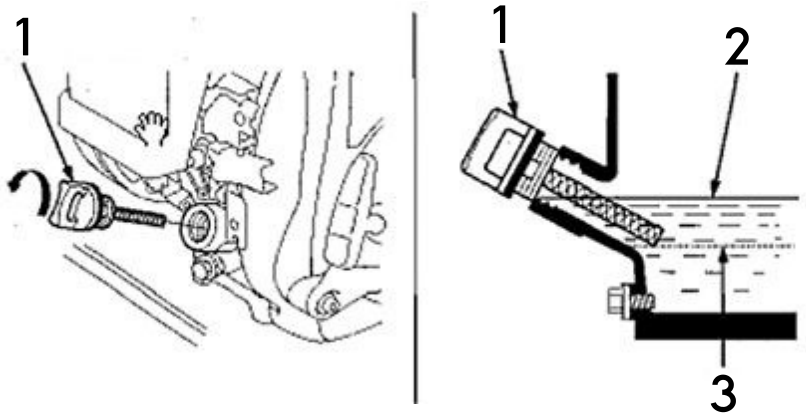
Installing the pump

1. Install the pump on a horizontal spot near the water source.
2. Remove the self-priming plug and fill the pump with water until the water flows over. Then close the plug firmly again.

Attention! **Always** close the self-priming plug, suction hose, and other connexions tight. If one of them is loose, air can penetrate into the pump, preventing the self-priming.

Motor-oil level

1. Place the motor on a level surface and with the fuel tank pointing downwards.
2. Remove the oil cap and check the oil level: It must reach to the upper edge of the oil-filler neck.
3. With the oil level being low, fill in appropriate oil up to the upper edge of the oil-filler neck.



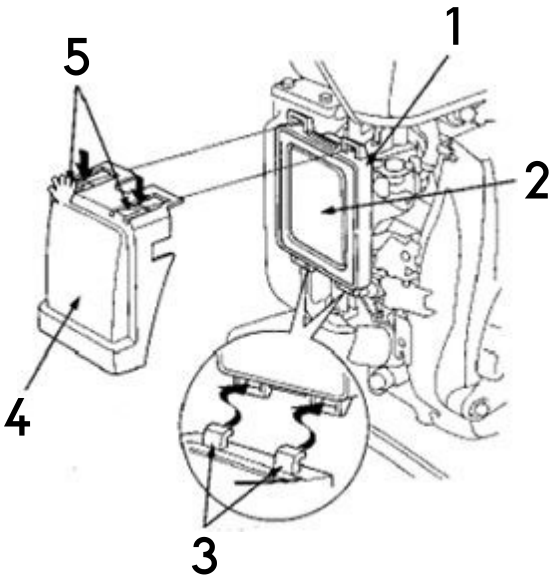
№	Name	№	Name
1	Oil cap/gauge	**3**	Lower limit
2	Upper limit		

- Check the oil level every 10 hours and top up with oil up to the upper edge of the oil-filler neck when the motor is working more than 10 hours without interruption.
- Use a highly cleaning, high-quality engine oil that meets the automotive manufacturers' requirements for service classification SG, SF, SAE 10 W-30 and is recommended for general use at all temperatures.

Attention! The use of non-purifying oil or 2-stroke engine oil can shorten the life of the engine.

Air filter

Check filter for dirt or clogging.

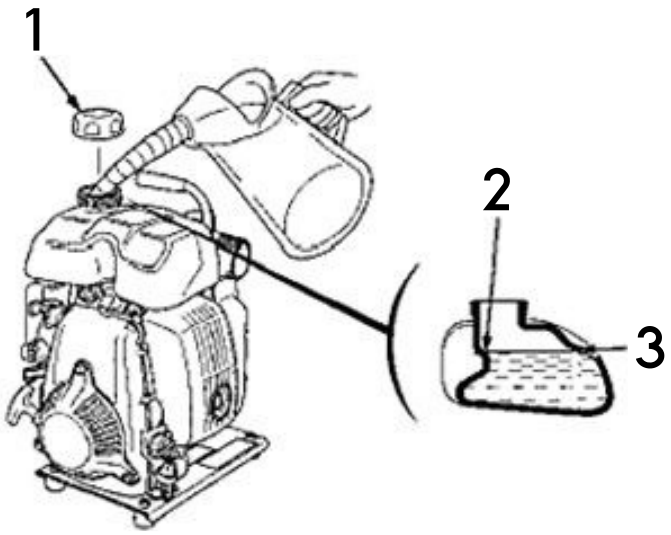


№	Name	№	Name
1	Air filter housing	4	Air filter cover
2	Air filter	5	Locking tabs
3	Lower tabs		

Attention! Never let the motor run without air filter. Rapid wear would otherwise be the result.

Fuel

- Use automotive petrol (unleaded or leaded to minimise deposits in the combustion chamber).
- Never use an oil-petrol mixture or dirty petrol. Avoid that dirt, dust, or water get into the fuel tank.



№	Name	№	Name
1	Fuel-tank cap	3	Max. fuel level
2	Fuel-level mark		

Warning!

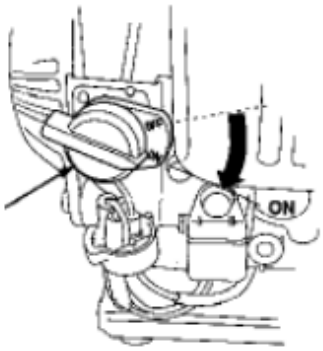
- Petrol is highly flammable and can explode under certain conditions.
- Refuel in a well-ventilated area with the engine off. Do not smoke, do not allow flames or sparks in the area where the motor is fuelled or stored.
- Do not overfill the tank (no fuel should be in the filler). The fuel-tank capacity is 1.2 litres.
- After re-fuelling, make sure that the tank cap is correctly and safely closed.
- Make sure that no fuel is spilt during re-fuelling. Spilt fuel or fuel vapours might ignite. If fuel has been spilt, make sure that the spot has dried before starting the motor.
- Avoid repeated or long contact between fuel and your skin, do not inhale fuel vapours.

Attention! Using alcoholic fuels (ethanol fuels) may provoke damages of the fuel system or output losses of the motor.

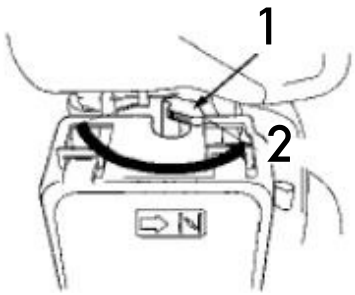
Operation

Starting

1. Set the motor switch to the “ON” position.



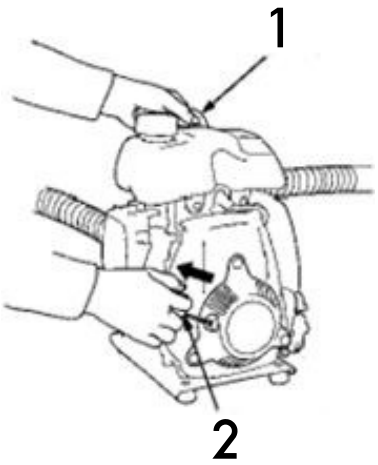
2. Set the choke lever to the “OFF” position.



№	Name	№	Name
1	Choke lever	2	Closed

Attention! Do not use the choke when the motor is warm.

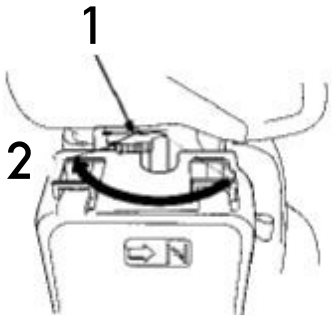
3. Apply the primer pump several times until you see that fuel flows through the fuel return pipe.
4. First slightly pull the starter handle until you feel a resistance. As soon as you feel the resistance, pull the starter handle vigorously.



№	Name	№	Name
1	Handle	2	Starter handle

Attention! If you do not pull the handle speedy, the sparks cannot jump over the electrodes of the spark plug, and the motor will not start.

5. Gradually set the choke lever to the “ON” position. Wait for the motor to become warm and to run smoothly.



№	Name	№	Name
1	Choke lever	2	Open

6. Adjust the throttle lever to the desired engine speed.
7. If water should lack during operation, the engine must be stopped immediately.

Attention!

- If you let your pump run without water, the service life of the motor and pump will be considerably shortened. Never operate the pump without water.
- Do not refuel the pump without completely stopping the motor.
- Refuelling the motor during operation might cause a fire.
- Neither smoke nor start a fire near the petrol pump.
- The idle speed is set at the factory – adjust it if necessary.
- Turn the idle-speed adjusting screw. When the screw is turned clockwise, the speed is increased, when the screw is turned anti-clockwise, the speed is lowered.
- The idle should be set 5 min after starting the motor.

Stopping the motor

To perform en emergency switch-off, turn the motor switch to “OFF” (on the device side). For normal switch-off, proceed as follows:

1. Set the throttle lever all the way down (on the device side).
2. Turn the engine switch to the “OFF” position (on the device side).

Attention! Suddenly stopping the engine during high-speed operation may cause engine damage; therefore, this should only be done in emergencies.

Maintenance

Maintaining the water pump

The service life of the water pump depends on the quality of maintenance. It is recommended to check the pump before and after use.

Maintenance after operation

1. After operation, completely remove dust and dirt from the motor.
2. Check the motor to be sure that no fuel leaks.
3. Check all screwed components to find out if they have got loose.
4. If water mixed with dirt and sand has been pumped, let fresh water run through the pump to clean the inner parts of the pump (suction and pressure lines, etc.).

Attention! In extreme cold, the pump can be damaged by the water freezing in the pump housing. Make sure that the water in the housing and in the hose is drained after finishing the work.

Maintenance of the motor

Regular inspection and adjustment of the motor are essential for the motor to keep its performance. Moreover, regular maintenance ensures a long service life. The required maintenance intervals and the type of maintenance jobs to do are described in the following chart.

Maintenance schedule	**Easy use**	**First month or 10 hours**	**Every 3 months or 15 hours**	**Every 5 months or 50 hours**	**Every year or 100 hours**
Motor oil	Check.	Change.		Change.	
Air filter	Check.		Clean.		
All screws and nuts	Retighten if necessary.				
Cooling fins for the motor				Check.	
Spark plug				Clean. Adjust.	
Spark catcher					Clean.
Play of valves	Every 2 years or after 200 hours (*)				
Coupling jaw				Check.	
Fuel-tank filter					Check.
Fuel tank					Clean.
Fuel line	Every 2 years (*)				

- Clean more often if the pump is used in dirty areas.

(*) A qualified person should perform this maintenance type.

Warning!

- Stop the motor before any maintenance.
- To prevent accidental starting, switch off the engine and remove the spark-plug connector.
- The motor should only be maintained by a specialist.

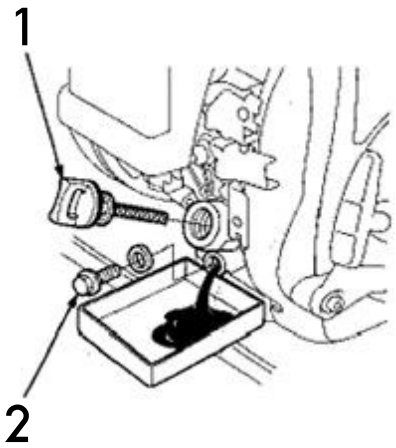
Attention! Only use original spare parts or equivalent parts. Using parts that are not equivalent might lead to a damage of the motor.

Oil change

Drain the oil when the motor is warm to ensure complete and quick draining.

- Check if the tank cap is well-tightened.
- Remove the oil cap and drain the oil into an appropriate container by canting over the motor in the direction of the oil filler.
- Refuel the oil tank with the recommended oil and check the oil level.
- Wash your hands with water and soap after handling used oil.

Attention! Please dispose of used motor oil in an environmentally responsible way. We recommend you disposing of it in closed container at your local collection station.



№	Name	№	Name
1	Oil cap/gauge	2	Drain screw

Maintaining the air filter

A dirty air filter obstructs the air flow to the carburettor. To avoid malfunctions of the carburettor, the air filter needs to be cleaned on a regular basis. Maintain it more often when you operate the device in very dusty areas.

Warning! For cleaning the air-filter element, never use petrol or solvent that has a low flash point. A fire or an explosion might occur.

Attention! Never let the motor run without air filter. Rapid wear would otherwise be the result.

1. Close the choke lever.
2. Remove the air-filter cap by unhooking the upper flap of the upper side of the air-filter cover and the two lower flaps.
3. Wash the element in a non-inflammable or high-flash-point solvent and dry it thoroughly.
4. Soak the element in clean motor oil and squeeze the surplus oil out.
5. Replace the air-filter insert.
6. Re-attach the air-filter cover by setting in the two lower flaps and by then inserting the upper flap.

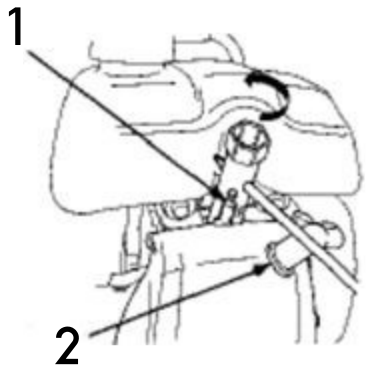
Maintaining the spark plugs

Recommended spark plug: Torch A5RTC

Caution! Never use a spark plug that has a wrong thermal range.

To ensure a correct operation of the motor, the spark plugs need to have a correct gap and to be free from deposits.

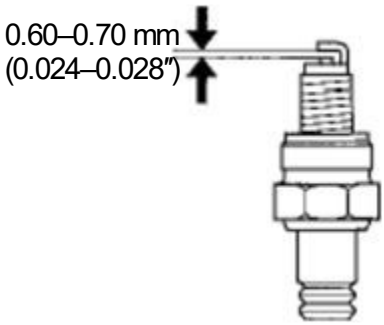
1. Remove the spark-plug protection cap and use a spark-plug wrench of the correct size to remove the spark plug.



№	Name	№	Name
1	Spark plug	2	Spark-plug protection cap

Warning! When the motor has run, the silencer is very hot. Make sure not to touch the silencer.

2. Perform a visual inspection of the spark plug. Dispose of the spark plug if this is obviously used or if the isolator is cracked or broken. Use a wire brush to clean the spark plug if you wish to use it again.
3. Measure the spark-plug gap using a feeler gauge. If necessary, adjust it by bending the side electrode.



The spark-plug gap should be 0.6–0.7 mm.

4. Check the washer of the spark plug to know if it is in good condition; then, screw the spark plug in by hand to avoid overwinding.
5. After setting in the spark plug, tighten it using a spark-plug wrench to press the washer together.

Attention! When installing a new spark plug, tighten it by a ½ rotation when the spark plug is correctly fitted to press the washer together. When installing a used spark plug, tighten it by a ⅛–¼ rotation when the spark plug is correctly fitted to press the washer together.

Caution! The spark plug needs to be firmly tightened. A wrongly tightened spark plug can become very hot and might damage the motor.

Maintaining the fuel tank

Attention! Petrol is highly flammable and can explode under certain conditions. Do not smoke; do not allow flames or sparks near.

- Check if the oil cap is well-tightened.
- Remove the tank cap and drain the petrol in an appropriate container by canting over the motor in the direction of the filler.
- Using a wire, pull out the filler plug out of the filler.
- Check the fuel filler plug for dirt. If the fuel filler plug is dirty, carefully clean it with a non-flammable high-flash-point solvent. If the fuel filler plug is excessively dirty, replace it.
- Replace the fuel filler plug into the tank, then firmly close the tank cap again.

Maintaining the cooling fins

Visually examine the cooling fins through the cover. If they are clogged with dry grass, leaves, and mud, ask a qualified person to clean them.

Storage

Before storing the water pump over a longer period,

- drain the water remaining in the pump by cleaning the pressure lines;
- drain the fuel remaining in the tank and float chambers of the carburettor.

After draining the water and fuel,

- store the device in a dry spot, away from dust;
- check if the oil cap is well-tightened.

Warning! Petrol is highly flammable and can explode under certain conditions. Do not smoke; do not allow flames or sparks near.

Troubleshooting charts

Motor cannot be started

Problem		Possible cause	Proposed solution
Spark plug does not fire	Spark plug	Firing system damp	Dry.
		Spark plug contaminated with carbon	Remove carbon.
		Spark plug has a too large or too small gap	Adjust gap (0.6–0.7 mm).
		Poles of spark plug burned	Replace.
		Insulation damaged	Replace.
	Magneto	Interface of wire interrupted or damaged	Adjust or replace.
		Wrong insulation of the coil	Replace.
		Gap between stator and rotor too large	Adjust gap (0.4 mm).
Spark plug works normally	Compression ratio OK, fuel supply normal	Excessive fuel consumption	Adjust fuel consumption.
		Fuel quality poor, fuel contaminated by water and dirt	Replace fuel.
	Good fuel delivery, but poor compression ratio	Worn or cracked cylinder and piston ring	Replace.
	Carburettor without fuel supply	No fuel in tank	Fill in fresh fuel.
		Fuel cock not open	Open fuel cock.
		Tank air hole clogged	Clean air hole.

Motor stops during operation

Problem	Possible cause	Proposed solution
Engine stops suddenly	Piston damaged (piston seizure)	Replace piston or have it repaired.
	Carbon layer on the spark plug leads to short circuit	Remove carbon layer.
	Magneto does not work correctly	Check and repair.
Engine stops slowly	Low fuel level	Fill in fresh fuel.
	Carburettor clogged	Clean carburettor
	Water in fuel	Fill in fresh fuel.

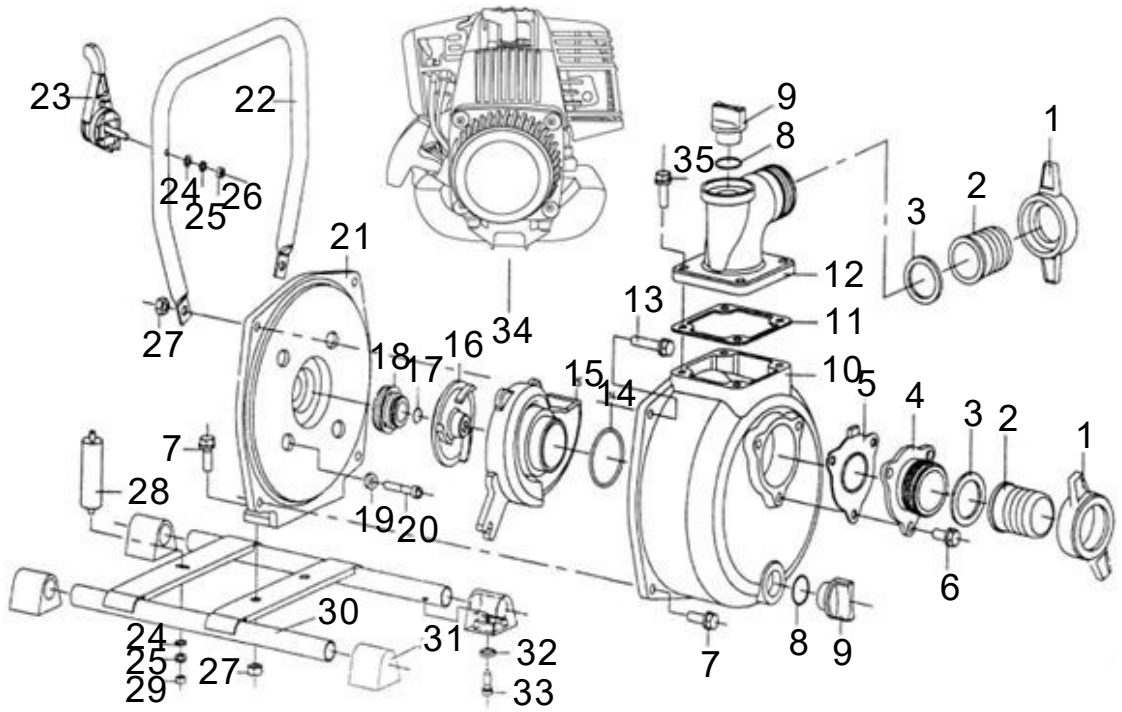
Engine hard to be stopped

Problem	Possible cause	Proposed solution
Motor	Overheating of the cylinder and piston leads to self-ignition	Remove carbon residues.
Reciprocal circuit	Plug pole overheated	Clean plug pole and check distance.
	Stop switch defective	Check and repair.

Malfunctions of the pump and remedy

Problem	Possible cause	Proposed solution
Cannot prime itself	No or very little water in the pump	Refill water.
	Joint seal damaged or loose, causing intake hose to draw in air	Replace or retighten.
	Suction hose torn, intake of air	Replace.
	Valve of pressure side closed or reversed	Check and repair.
	Gap between impeller and spiral casing not correct	Adjust.
	Pump clogged by foreign bodies	Clean.
Water outlet insufficient, pressure too low	Filter of suction line clogged	Clean.
	Suction hose twisted or clogged	Clean.
	Pump clogged by foreign bodies	Clean.
	Impeller and spiral casing worn	Replace.
	Position of outlet opening too high	Adapt installation of pump.
Starter cannot be pulled	Rust formation on impeller and spiral casing	Clean.
	Pump clogged	Clean.
Water leak	Mechanical seal worn out	Replace.
	O-ring of pump shaft damaged	Replace.

Exploded view and parts list



№	Name	Qty.	№	Name	Qty.
1	Hose connection	2	**19**	Seal pack	4
2	Hose coupling	2	**20**	Screw M6×40	4
3	Pack (plug)	2	**21**	Casing cap	1
4	Valve housing	1	**22**	Handle	1
5	Check valve	1	**23**	Throttle lever	1
6	Screw M6×20	3	**24**	Washer	2
7	Screw M8×20	4	**25**	Spring washer	2
8	O-ring	2	**26**	Nut M5	1
9	Plug	2	**27**	Nut M8	4
10	Pump housing	1	**28**	Rubber rest	1
11	Pack	1	**29**	Nut M5	1
12	Elbow	12	**30**	Base	1
13	Screw M8×30	1	**31**	Anti-vibration stand	4
14	O ring	1	**32**	Washer	4
15	Spiral casing	1	**33**	Screw 2×13	4
16	Rotor	1	**34**	Petrol engine	1
17	O ring	1	**35**	Screw M6×2	4
18	Mechanical seal	1			

Important note: