operating manual

fresh water pump

FWP 50

FWP 80

FWP 50

imprint

product identification

fresh water pump	item number
FWP 50	7500050
FWP 80	7500080

Manufacturer

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Information on the operating instructions

Original operating instructions

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Author: FL/MS

copyright

contents

1. Introduction

You have made a good choice with the purchase of the CLEANCRAFT water pump.

Read the operating instructions carefully before starting up.

This provides information about proper commissioning, intended use and safe and efficient operation and maintenance of the Was

water pump.

The operating instructions are part of the water pump.
It must always be kept at the place where the water pump is used.
In addition, the local accident prevention regulations and general safety regulations for the area of application of the water pump apply.

Illustrations in these operating instructions are for basic understanding and may deviate from the actual design.

1.1 Copyright

The contents of these instructions are protected by copyright.
Their use is permitted within the scope of using the water pump.
Any other use is not permitted without the written consent of the manufacturer.

We register trademark, patent and design rights to protect our products, provided this is possible in individual cases. We strongly oppose any infringement of our intellectual property.

1.2 Customer Service

If you have any questions about your water pump or require technical information, please contact your specialist dealer.
They will be happy to help you with expert advice and information.

Germany:
Stürmer Maschinen GmbH Dr.-
Robert-Pfleger-Str. 26 D-96103
Hallstadt

Repair service:
Fax: 0049 (0) 951 96555-111
E-mail: service@stuermer-maschinen.de
Internet: www.cleancraft.de

Spare parts order:
Fax: 0049 (0) 951 96555-119 Email:
ersatzteile@stuermer-maschinen.de

We are always interested in information and experiences that result from the application and can be valuable for improving our products.

1.3 Limitation of Liability

All information and instructions in the operating instructions have been compiled taking into account the applicable standards and regulations, the state of the art and our many years of knowledge and experience.

The manufacturer accepts no liability for damage in the following cases:

- non-observance of the operating instructions,
- Improper use,
- Use of untrained personnel,
- unauthorized conversions,
- technical changes,
- Use of unapproved spare parts.

The actual scope of delivery may deviate from the explanations and illustrations described here in the case of special versions, when using additional order options or due to the latest technical changes.

The obligations agreed in the delivery contract, the general terms and conditions as well as the delivery conditions of the manufacturer and the legal regulations valid at the time the contract was concluded apply.

2 security

This section gives an overview of all important safety packages for the protection of people and for safe and trouble-free operation. Additional task-related safety instructions are included in the individual chapters.

2.1 Explanation of symbols

safety instructions

Safety instructions are identified by symbols in these operating instructions. The safety instructions are introduced by signal words that express the extent of the hazard.

DANGER!

This combination of symbol and signal word indicates an imminently dangerous situation which, if not avoided, will result in death or serious injury.

WARNING!

This combination of symbol and signal word indicates a potentially dangerous situation which, if not avoided, will result in death or serious injury.

ATTENTION!

This combination of symbol and signal word indicates a possibly dangerous situation that can lead to minor or light injuries if not avoided.

ATTENTION!

This combination of symbol and signal word indicates a potentially dangerous situation that can lead to damage to property and the environment if not avoided.

A NOTICE!

This combination of symbol and signal word indicates a potentially dangerous situation that can lead to damage to property and the environment if not avoided.

tips and recommendations

tips and recommendations

This symbol highlights useful tips and recommendations as well as information for efficient and trouble-free operation.

To reduce the risk of personal injury and property damage and to avoid dangerous situations, the safety instructions given in these operating instructions must be observed.

2.2 Responsibility of the operator

The operator is the person who operates the machine himself for commercial or economic purposes or lets a third party use it and bears the legal product responsibility for the protection of the user, the staff or third parties during operation.

Obligations of the operator:

If the machine is used in the commercial sector, the operator of the machine is subject to statutory occupational safety obligations. For this reason, the safety instructions in these operating instructions as well as the safety, accident prevention and environmental protection regulations applicable to the area in which the machine is used must be observed. The following applies in particular:

- The operator must be aware of the applicable Art
  Inform yourself about occupational health and safety regulations and, in a risk assessment, identify additional hazards that result from the special working conditions at the place where the machine is used.
  He must implement these in the form of operating instructions for operating the machine.
- During the entire service life of the machine, the operator must check whether the operating instructions he has drawn up correspond to the current status of the regulations and, if necessary, adapt them.
- The operator must clearly regulate and define the responsibilities for installation, operation, troubleshooting, maintenance and cleaning.
- The operator must ensure that all persons who work with the machine have read and understood these instructions. In addition, he must train the staff at regular intervals and inform them about the dangers.

Furthermore, the operator is responsible for ensuring that the machine is always in perfect technical condition.

Therefore the following applies:

- The operator must ensure that the maintenance intervals described in these instructions are observed.
- The operator must have all safety devices checked regularly for functionality and completeness.

2.3 Personnel Qualifications

The various tasks described in these instructions place different demands on the qualifications of the people who are entrusted with these tasks.

WARNING!

Danger if people are not sufficiently qualified!

Insufficiently qualified persons cannot assess the risks involved in handling the machine and expose themselves and others to the risk of serious injury.

- All work only by qualified persons have it carried out.
- Insufficiently qualified people and children out keep away from the work area.

Only persons who can be expected to carry out this work reliably are permitted to carry out any work. People whose ability to react e.g. B. is influenced by drugs, alcohol or medication are not allowed.

In these operating instructions, the qualifications of the people for the various tasks listed below are named:

Operator:

The operator has been instructed by the operator about the tasks assigned to him and the possible dangers of improper behavior. The operator may only carry out tasks that go beyond normal operation if this is specified in these operating instructions and the operator has expressly entrusted him with this.

Electrician:

Due to their professional training, knowledge and experience as well as knowledge of the relevant standards and regulations, the electrician is able to carry out work on electrical systems and to recognize and avoid possible dangers independently.

Specialists:

Due to their technical training, knowledge and experience as well as their knowledge of the relevant standards and regulations, the specialist staff is able to carry out the work assigned to them and to independently recognize possible dangers and avoid dangers.

Manufacturer:

Certain work may only be carried out by the manufacturer's specialist staff. Other personnel are not authorized to carry out this work. Contact our customer service to carry out the necessary work.

2.4 Personal Protective Equipment

Personal protective equipment is used to protect people from impairments to safety and health at work. During the various works on and with the water pump, the personnel must wear personal protective equipment, which is referred to separately in the individual sections of these instructions.

Personal protective equipment is explained in the following section:

safety goggles

The safety goggles are used to protect the eyes from flying parts.

protective gloves

The protective gloves protect the hands from sharp-edged components, as well as from friction, abrasions or deeper injuries.

safety shoes

The safety shoes protect the feet from bruises, falling parts and slipping on slippery surfaces.

protective clothing

Protective work clothing is close-fitting clothing that is not very tear-resistant.

2.5 General safety instructions

The following should be noted:

- Use the guards and fasten them securely. Never work without protective devices and keep them functional.
- Always keep the water pump and its working environment clean. Make sure there is sufficient lighting.
- The design of the water pump must not be modified and it must not be used for purposes other than those intended by the manufacturer.

- Never work under the influence of illnesses that affect concentration, overtiredness, drugs, alcohol or medication.
- Never run the water pump in closed rooms that do not have adequate ventilation. The engine produces carbon monoxide and other harmful gases that are harmful to the health of those who come into contact with them. For this reason, sufficient ventilation should be ensured. Lead the combustion exhaust gases out of the machine room or from the work area of the personnel via pipes and extraction systems. Install a CO alarm device!

- Keep children and do not use the water pump familiar people away from their work environment.
- Do not pull the power cord to unplug the plug to be pulled out of the socket. Protect the cable from heat, oil and sharp edges.
- Eliminate faults that impair safety immediately.

- Before each use, make sure that the water pump no parts are damaged. Damaged parts must be replaced immediately to avoid sources of danger.
- Do not overload the water pump! You work better and safer in the specified performance range.

- Refueling and topping up with oil must be done with the engine off.

- Only use original spare parts and accessories to avoid possible dangers and accident risks

- Should it be necessary to work next to the machine, the use of hearing protection (headphones, earmuffs, etc.) is required.

ATTENTION!

Never put the suction opening on sensitive parts of the body of humans as of animals - such as eyes, ears, mouth ect. judge.

ATTENTION!

Store the device taking its weight into account, ie store it on a firm, level surface and only in a closed, moisture-free room.

ATTENTION!

Do not use outdoors at low temperatures!

ATTENTION!

Avoid direct body contact with fuel and engine oil.
In case of skin contact with what
Wash with soap and water and rinse well: do not use organic solvents. In case of eye contact, wash with soap and water and rinse well. If these liquids are inhaled or swallowed, consult a doctor.

ATTENTION!

Never leave the running water pump unattended. Always turn off the water pump when you leave the workplace. Keep the water pump out of the reach of children or unauthorized persons.

ATTENTION!

In the event of a liquid spill, immediately switch off.

In the event of a tipping over, it is recommended that the device set up again before switching off.

ATTENTION!

Check that the power tool supply voltage matches the water pump specification label. Failure to follow these rules can result in fire and injury, including death, to the user.

ATTENTION!

Do not misuse the water pump for other purposes such as: sucking up flammable materials, oil or gas. risk of explosion.

ATTENTION!

Gasoline is extremely flammable and can explode. Smoking and open fire are prohibited.

2.6 Safety marking on the water pump

Safety markings and instructions are attached to the water pump (Fig. 1), which must be observed and followed.

Fig. 1: Security signs

Damaged or missing safety symbols on the water pump can lead to incorrect actions resulting in personal injury and damage to property. The ones on the machine

Safety symbols provided may not be removed. Damaged safety symbols must be replaced immediately. From the point at which the signs are not immediately recognizable and understandable at first glance, the machine must be taken out of service until the new signs can be attached.

3 Intended use

The water pump is used exclusively for pumping fresh water from water reservoirs and wells, such as watering flower beds or sprinkling green areas. The water pump must not be operated in potentially explosive environments. Intended use also includes compliance with all information in these instructions.

Stürmer Maschinen GmbH assumes no liability for design and technical changes to the water pump. Claims of any kind for damage due to improper use are excluded.

ATTENTION!

Any modification of the device is prohibited. In addition to voiding the warranty, the modification may result in fire and injury, including death, to the user.
The manufacturer accepts no liability for damage caused to property or persons as a result of non-observance of these instructions or misuse of the device.

3.1 Misuse

WARNING!

Danger in case of misuse!

Misuse of the water pump can lead to dangerous situations.

- Operate the water pump only in the performance range that is listed in the technical data.
- Never bypass the safety devices or override.
- The water pump only in technically perfect condition operate state.
- Never run the water pump without oil or fuel to drive.

ATTENTION!

The water pump is not suitable for sucking up dangerous substances. Never vacuum up glowing, flammable, explosive or toxic substances. The maximum permissible operating temperature is 5°C / 40 °C.

- Do not vacuum up any aggressive cleaning agents, as these could damage the device.
- Do not vacuum up any materials that could damage the filter elements (e.g. glass splinters, metal, etc.).

3.2 Residual Risks

Even if all safety regulations are observed and the water pump is used properly, there are still residual risks, which are listed below:

- There is a risk of injury to the upper limbs (eg hands, fingers).
- Heat development on components can lead to burns and other injuries from possible contact.
- Dangers from contact or inhalation of noxious liquids, gases or smoke.
- Risk of fire and explosion associated with fuel.
- Electrical hazard from touching parts and high voltage (direct contact) or with parts that are under high voltage due to a defect in the device (indirect contact).
- Danger from an unintentional start-up or a Engine overspeed due to controller fault or failure.

4 Specifications

4.1 Table

model	FWP 50	FWP 80
length	470mm	500mm
Width depth	386mm	400
Height	450mm	480
weight	23kg	26
main engine	4.0kW	4.5kW
Type	fresh water	fresh water
max. head 30 meters		30 meters
flow rate	566 l/min	803 litres/min
rotational speed	3600 rpm	3600 rpm
Ø Inlet / outlet	50.8mm / 2 "	76.2mm / 3rd "
suction height	7 meters	7 meters
maximum grain size	7mm	7mm
fuel	petrol	petrol
displacement	196cc	223cc
cooling	Air	Air
Starter	hand launch	hand launch
tank capacity	3.6 liters	3.6 liters
runtime at 75% load	2.5 hours	2.5 hours
engine oil volume	0.6 liters	0.6 liters
Sound pressure at 7m 77 db(A)		77db(A)
Sound power level LWA	99db(A)	99db(A)
discharge pressure	3 bar	3 bar

4.2 Nameplate

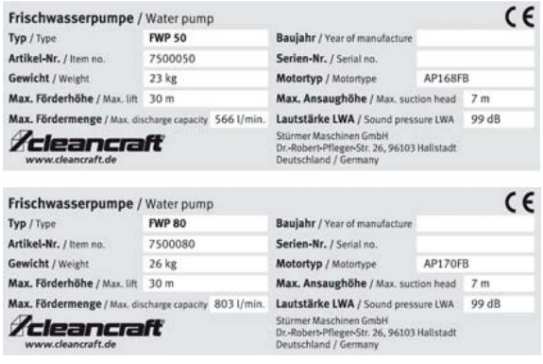

Fig. 2: Type plates FWP 50 and FWP 80

5 Transport, packaging, storage

5.1 Delivery

After delivery, check the water pump for visible transport damage. If you discover damage to the water pump, report this immediately to the transport company or dealer.

5.2 Transportation

ATTENTION!

Risk of injury from devices falling over and down from forklifts, pallet trucks or transport vehicles.

Only use means of transport and load attachment devices that can take the total weight.

Improper transport of individual devices, packaged or unpackaged unsecured devices that are stacked on top of each other or next to each other is prone to accidents and can cause damage or malfunctions for which we assume no liability or guarantee.

Transport the scope of delivery to the installation site with a sufficiently dimensioned industrial truck, secured against shifting or tipping.

General dangers when working in-house transport

CAUTION: TIPPING HAZARD

The device may be raised unsecured by a maximum of 2 cm.

Employees must be outside the danger zone, the reach of the load.
Warn employees and inform employees of the hazard.

Transport may only be carried out by authorized and qualified persons. Act responsibly when transporting and always consider the consequences. Refrain from daring and risky actions

senior

Uphill and downhill stretches (e.g. driveways, ramps and the like) are particularly dangerous. If driving through such passages is unavoidable, special caution is required.

Before starting the transport, check the transport route for potential hazards, unevenness and imperfections as well as for sufficient strength and load-bearing capacity.

Danger points, bumps and imperfections must be inspected prior to transport. The removal of hazardous areas, bumps and disruptive areas by other employees at the time of transport leads to considerable risks.

Careful planning of internal transport is therefore essential.

ATTENTION!

Allow the water pump to cool down for transport. Make sure that no fuel can be spilled. Check the tank

cap and place the fuel tap on the "OFF" position. (petrol tap closed)

Allow the water pump to cool completely (15 minutes). The water pump may only be transported in an upright position.

During transport, the pump must be well secured so that it cannot tip over; drain the fuel and make sure to prevent spillage. Never start the water pump inside vehicles.

tips and recommendations

For longer transports, make sure that the corrosion protection is intact or, if necessary, renewed.

5.3 Packaging

All packaging materials and packaging aids used for the water pump are recyclable and must always be recycled.

Dispose of shredded cardboard packaging components for waste paper collection.

The foils are made of polyethylene (PE) and the upholstery parts are made of polystyrene (PS). Hand these materials over to a recycling center or to the disposal company responsible for you.

5.4 Storage

Store the water pump thoroughly cleaned in a dry, clean and frost-free environment. Water pumps must not be stacked on top of each other.

No other objects may be placed on them either.

ATTENTION!

The water pump should be started at least every seven days and run for about 30 minutes.
If this is not possible and the water pump is out of service for more than 30 days, appropriate measures should be taken to ensure proper storage.

ATTENTION!

It is important to prevent deposits in the fuel system (carburetor, fuel hose or tank) during storage. Fuels containing alcohol (ethanol or methanol) can absorb moisture, which leads to acid formation during storage. Acidic gases can damage the fuel system and should be purged before storage for 30 days or longer. Never use engine or carburetor cleaners in the fuel tank, permanent damage could result.

If the water pump is to be left unused for a period of more than 30 days, it is advisable to drain the fuel tank completely. With petrol engines, it is important to empty the carburetor pan: old petrol deposits damage the parts that come into contact with them.

ATTENTION!

Gasoline is highly flammable and explosive under certain conditions. Do not smoke or generate sparks in the vicinity.

Step 1: Thoroughly clean the water pump with water. Be careful not to let water get into the air filter or muffler.

Step 2: Wipe down all accessible surfaces and allow the water pump to dry.

Step 3: Fill the pump chamber with clean, fresh water and start the water pump outdoors. Run the pump until normal operating temperature is reached.

ATTENTION!

Make sure the water chamber of the pump is always filled with water before starting the engine. Running dry can damage the pump.

Step 4: Stop the water pump and release they cool down.

Step 5: Remove the drain plug and flush Flush the pump with clean, fresh water. As soon as all the water has drained sen, reinstall the drain plug. (Fig.3)

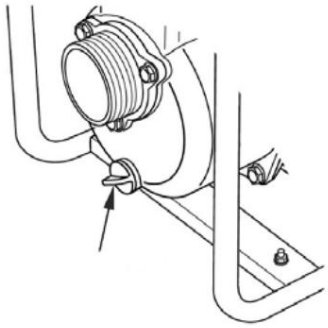

Fig. 3: Drain plug

Step 6: Clean the water pump surfaces and check that the cooling fins are clean and free. Cover the cooled water pump and protect it from moisture.

5.4.1Adding fuel stabilizer to prolong fuel life

When adding a fuel stabilizer, fill the fuel tank with fresh gasoline. If the tank is only partially full, the air in the tank will promote fuel deterioration during storage. If you keep a container of gasoline for fuel, make sure it only contains fresh gasoline.

Step 1: Fuel stabilizer according to the instructions add the manufacturer.

Step 2: After adding the stabilizer, run the engine outdoors for 10 minutes to ensure the processed gasoline has replaced the untreated gasoline in the carburetor.

Step 3: Stop the engine and move the fuel cock to the "OFF" position.

6 Description

Fig. 4: Description of the FWP 50

1 suction port
2 water drain plug
3 pressure port
4 oil filler and dipstick
5 Oil drain plug (rear)
6 ignition switch
7 recoil starter
8 fuel caps
9 air filters
10 silencers
11 water filler neck

7 Scope of Delivery

The water pump is delivered with:

- 2x hose clamps
- 2x hose coupling
- 2x union nut
- 2x rubber seal
- 1x strainer
- 4x rubber feet
- 1x set of assembly tools

Accesories:

1 suction hose 3.7 m for FWP 50 article no.: 7510000
2 Pressure hose 6.1 m for FWP 50 article no.: 7510001
3 Suction hose 3.7 m for FWP 80 article no.: 7510005
4 Pressure hose 6.1 m for FWP 80 article no.: 7510006

8 controls and functio to

Fuel valve

The fuel valve opens and closes the passage between the fuel tank and the carburetor. The valve lever must be in the "ON" position since the engine is running. When the engine is not running, leave the valve lever in the "OFF" position to prevent contamination and reduce the possibility of fuel loss.

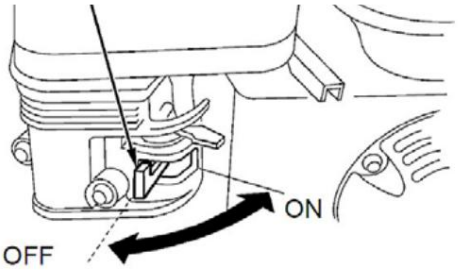

Fig. 5: Fuel valve

ignition switch

The ignition switch controls the ignition of the engine. The ignition switch must be in the "ON" position for the , engine to start. When the ignition switch is set to the "OFF" position, the engine stops.

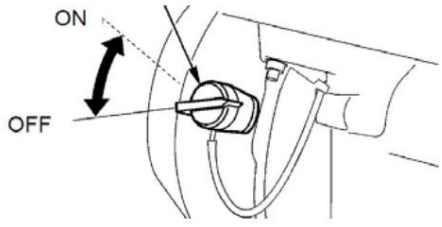

Fig. 6: Ignition switch

choke

The choke opens and closes the throttle valve in the carburetor. The closed position of the choke enriches the fuel mixture for starting a cold engine.
The open position of the choke provides the correct fuel mixture for operation after starting and for restarting a warm engine.

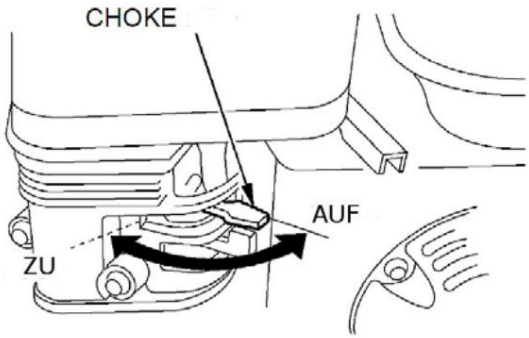

Fig. 7: Choke

throttle

The throttle controls the engine speed. Moving the throttle stick in the directions shown (Fig.8) will make the engine run faster or slower.
Pump performance is controlled by adjusting the throttle lever. When the lever is in the maximum position, the pump delivers the highest power output. As soon as you move the throttle lever to the idle position, the output power of the pump decreases.

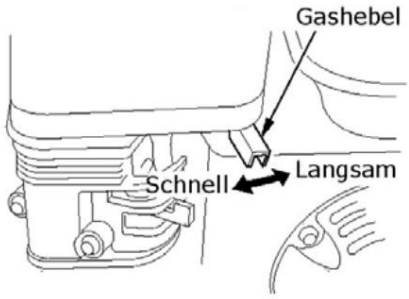

Fig. 8: Throttle lever

recoil starter

Pulling the recoil starter will turn the engine started.

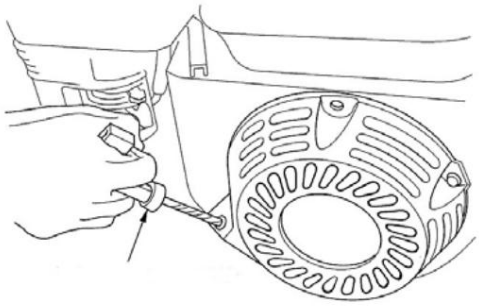

Fig. 9: Pull starter

9 Commissioning

WARNING!

Risk of death!

There is danger to life if you do not follow these rules.

- Never operate the water pump when you are under the influence of alcohol, drugs or medication and/or when you are overtired
  are or suffer from a concentration-disturbing illness
  suffer.
- The pump may only be operated by one person. Other people must register during the
  Keep operator away from pump.

ATTENTION!

Starting the engine with insufficient oil level can cause severe damage!
Check the fuel level: only use clean and water-free fuel.

The fuel is highly flammable and explosive under certain conditions. Refuel in a well-ventilated area and with the engine off.
Do not smoke or use an open flame while refueling.

Never work on the water pump before the air filter has been installed, otherwise the service life of the engine and the pump will be reduced.

ATTENTION!

Make sure that the water pump can only pump fresh water. Using the water pump for other liquids will damage the pump.

ATTENTION!

To avoid fire hazards, keep the pump at least 1 meter away from building walls and other equipment during operation. Do not place flammable objects near the engine.

Wear protective clothing!

Wear safety shoes!

Wear safety glasses!

ATTENTION!

Check the general condition of the hoses. Make sure the hoses are not damaged before connecting them to the pump. Remember that the suction hose needs to be reinforced to avoid hose collapse.

ATTENTION!

Do not fill the tank in closed rooms.
Never fill the tank while the machine is running or hot.

Do not overfill the tank (do not fill up to the top of the filler cap), fuel may leak out due to engine vibration.

Be careful not to spill petrol on the ground while refueling.

Make sure the fuel cap is properly closed after filling. Should gasoline on the
floor, make sure the surrounding area is dry before starting the engine.
Avoid direct bodily contact with the fuel and do not inhale any fumes; Keep out of reach of children.

Gasoline vapors are flammable. Never light or smoke cigarettes while refueling. Avoid open flames at all costs.

Check engine oil level

Check the engine oil level with the engine stopped and in a level position.

Step 1: Remove the oil filler cap/dipstick and
to clean

Step 2: Insert the dipstick into the filler neck
and take it off again without going into the socket
screw in. Check the oil level on the
read rod.

Step 3: If the oil level is low, add oil to the filler
refill nozzle.

Step 4: Tighten the oil filler cap and dipstick
screw.

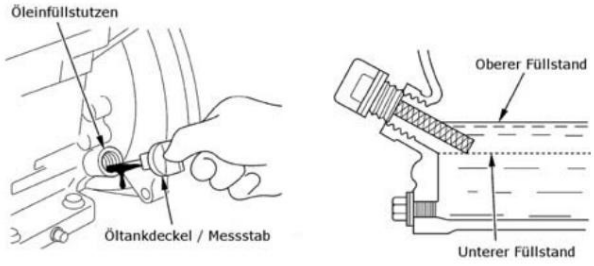

Fig. 10: Check the oil level

ATTENTION!

Never run the engine with a low oil level, as this can lead to engine damage.

Engine Oil Capacities:

Type	Crowd
FWP50 and FWP80	0.6L

Check air filter

A dirty air filter restricts airflow to the carburetor, reducing engine and pump performance.

Remove the air filter cover and check the filter. Clean or replace dirty filter elements. Always replace damaged filters. If the water pump is equipped with an oil bath filter, always check the oil level.

Reinstall the air filter and air filter cover. Check that all the parts listed below (Fig.11) are present. Tighten the wing nut firmly.

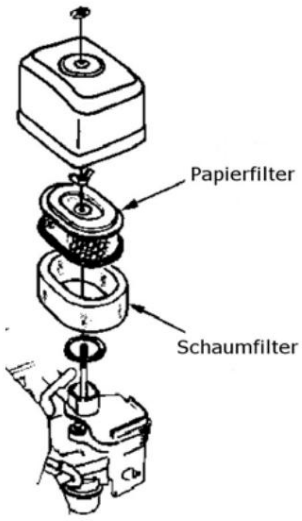

Fig. 11: Check filter

ATTENTION!

Operating the engine without an air filter or with a damaged air filter allows dirt to enter the engine and cause rapid engine wear.

Check and top up fuel level

When the engine is stopped and cool, place it on a level surface and slowly open the fuel cap to check the fuel level. Fill the tank in a well-ventilated area as soon as the level is low. After refueling, tighten the tank cap again. (Fig.12)

ATTENTION!

Gasoline is highly flammable and explosive. Serious burns and injuries can occur when handling fuel.

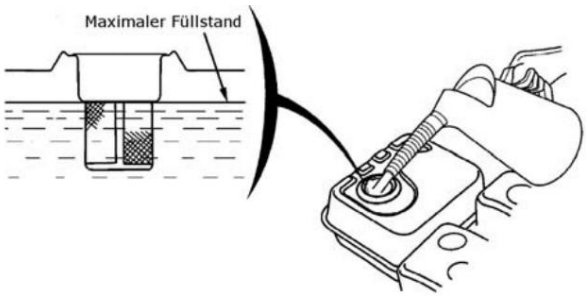

Fig. 12: Check and top up the fuel level

ATTENTION!

Do not fill more than the maximum fuel stood up. (Approx. 3 cm below the fuel strainer)

ATTENTION!

Be careful not to spill gasoline.
Gasoline spills and vapors are extremely flammable.
Spilled petrol must be wiped up immediately.

Tank capacity: FWP 50 and 80: 3.6 liters

fuel recommendations

Use unleaded gasoline with an octane rating of 86 or higher. These engines are certified to to work on unleaded gasoline.Unleaded

Gasoline produces less engine and spark plug deposits and increases pump life.

Never use stale or contaminated gasoline or an oil/ gasoline mixture. Also, avoid dirt or water in the fuel tank.

A NOTICE!

Running the engine with persistent spark knocking or pinging can cause engine damage.

9.1 Operation

WARNING!

Before starting the engine, the pump must be completely filled with water.

DANGER!

Danger to life from electric shock!

There is a risk of fatal injury if you come into contact with live components. Electrical components that are switched on can perform uncontrolled movements and lead to very serious injuries.

- Pull out the mains plug before making any adjustments to the water pump.

ATTENTION!

The device must be assembled correctly before use. It is also necessary to check that the filter elements are installed correctly and are efficient.

The device should only be operated, installed, repaired and transported on a firm, level surface.

Make sure that the electrical data marked on the engine block matches that of the mains to which the water pump is to be connected and that the water pump's mains plug fits the socket.

ATTENTION!

Always pull the mains plug out of the socket before handling the switched off water pump.

Always check the supply cable for damage such as cracks or signs of age. If necessary, replace the cable before further use.

Replacing a defective power cable must be carried out by technical service or qualified personnel.

When using an extension cable, make sure that it has the same cable dimensions as the pump's supply cable and avoid contact of the cable with liquids or conductive surfaces.

WARNING!

Before starting up the device, make sure that the voltage specified on the rating plate corresponds to the mains voltage

WARNING!

The pump must not be operated without oil.

ATTENTION!

Be careful not to let the star grip puller wind up at high speed.

To prevent damage to the starter, slowly return the starter grip puller.

9.2 Placement of the pump

In order to achieve the maximum payload, the pump should be close to the water surface and the

Hoses should not be longer than necessary. This enables the largest possible flow rate.

With increasing height and length of the suction line, the required pump power increases proportionally.

The length, type and size of the suction and pressure hoses can have a significant impact on the pump performance required.

The maximum possible delivery height is always greater than the maximum possible suction height. It is therefore important that the suction height is always kept as small as possible. (Fig.13)

Minimizing the suction height (pump as close as possible to the water surface) is very important in order to reduce the required suction power of the pump and the suction time.

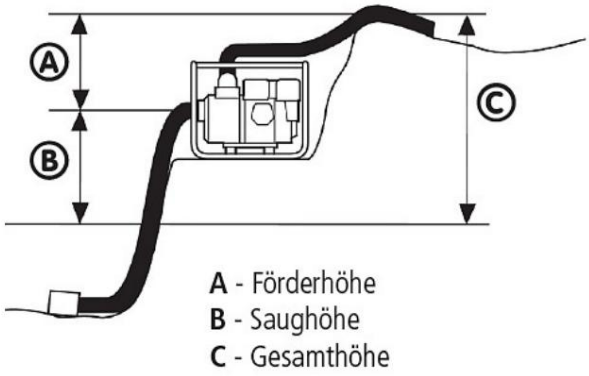

Fig. 13: Placement of the pump

ATTENTION!

Make sure the pump is properly placed and ready for use. Check that all hose connections are tight and undamaged.

9.3 Installation of the suction hose

ATTENTION!

The suction hose must be reinforced with a non-collapsible wire construction and also be rated for vacuum service. Normal hoses deform during operation and thus impede the suction power.

Use a commercially available hose connection with the associated hose clamp to mount the suction hose. Do not use tubing smaller than the suction port size of the pump.

Minimum hose size: FWP 50 : 50 mm
FWP 80: 80mm

The suction hose should not be longer than necessary. Pump performance is best when the pump is placed near the water level. The suction time and the required pump performance increase proportionally to the hose length.

Step 1: Use the hose clamp around the
Hose connector securely attaches to the suction hose to prevent air leakage and suction loss.

Step 2: Check , that the hose connector seal is in good condition.

Step 3: Put the suction screen at the end of the
Insert the suction line and fasten it with help a hose clamp. The sieve becomes one of them help to ensure that the pump is not contaminated or damaged by debris.

Step 4: Tighten all hose connections securely.

ATTENTION!

The suction strainer must always be installed before starting the pump. It prevents foreign objects from being sucked in, which can damage the hose or the pump.

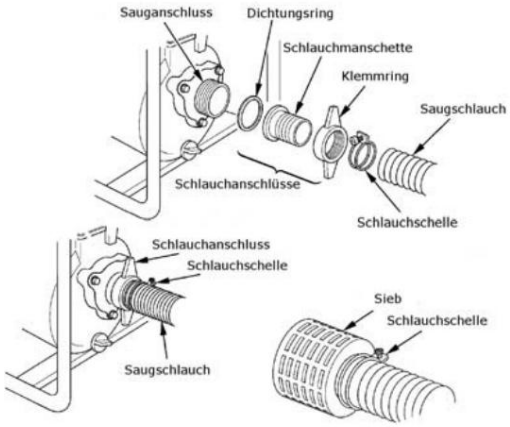

Fig. 14: Mount the suction hose

9.4 Installation of drain hose

Connecting the drain hose is the same procedure as connecting the suction line.

It is recommended to use a short, large diameter hose as this reduces fluid friction and improves pump performance. A long hose or small diameter increases fluid friction and reduces pump performance.

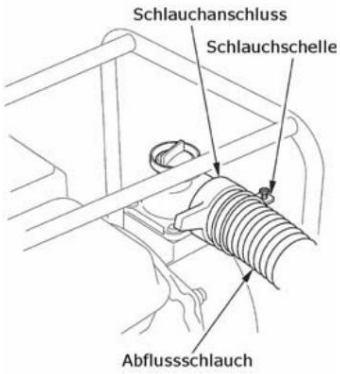

Fig. 15: Connect drain hose

9.5 Fill the pump with water

ATTENTION!

Before starting the engine, the pump must be completely filled with water. Dry starting the engine can cause serious damage.

Before starting the engine, the pump and the suction line must be completely filled with water. The only way to prevent the pump from overheating is to completely fill the pump with water.
If the pump is operated without water filling, it will overheat, which will damage the pump seals and thus cause leakage or even water ingress into the motor and damage the motor. If the pump is not pumping water, the motor must be switched off immediately and the pump must be allowed to cool down before it can be filled with water and restarted. The manufacturer is not responsible for damage to the seals and the resulting consequential damage caused by overheating. A Simmering (sealing ring on a rotating shaft) is a wear part and is therefore excluded from the warranty.

Step 1: Remove the locking screw

water filler neck and pour in clean water until the water comes out of the opening.

Step 2: Close the water filler neck

again with the locking screw.

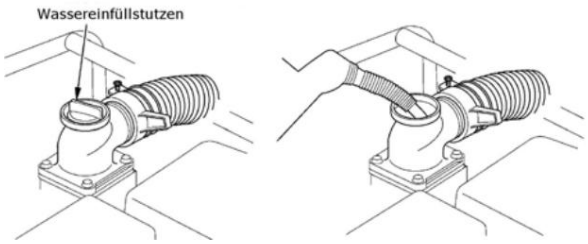

Fig. 16: Fill in water

9.6 Starting the engine

ATTENTION!

Make sure the pump is properly placed and ready for use. Check that all hose connections are tight.

ATTENTION!

The pump was designed for water and is therefore not capable of pumping heavily polluted water or other substances. For safety reasons, never use the pump for flammable and corrosive liquids such as petrol or acid. To avoid corrosion, do not pump seawater, chemicals, or other aggressive substances.

Step 1: Connect all hoses to the water

pump, fill the pump with clean water and check the oil or petrol level. A start of the water

pump without filled oil or fuel is not possible.

Step 2: Set the fuel tap to "ON"

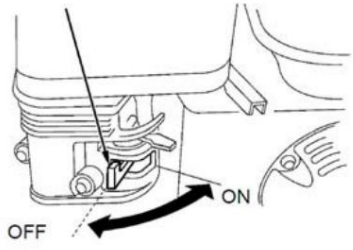

Fig. 17: Open the fuel tap

Step 3: When the engine is cold adjust the choke

to the "UP" position. If the engine has already warmed up, set the choke to "CLOSED".

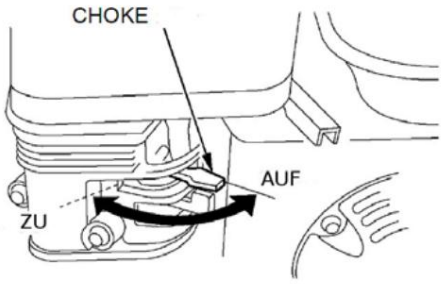

Fig. 18: Switch on the choke

Step 4: Move the throttle roughly

1/3 left slowly (Fast).

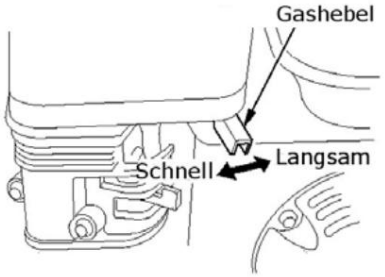

Fig. 19: Turn on the throttle

Step 5: Turn the ignition switch to the "ON" position.

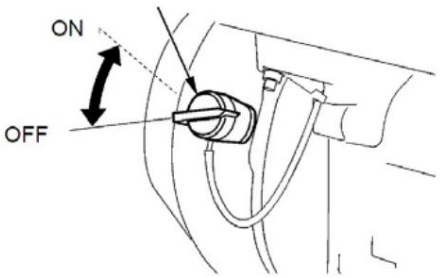

Fig. 20: Turn on the ignition switch

Step 6: To start with the pull starter, the

Slowly pull the cable out by the handle until you feel resistance, then pull sharply.

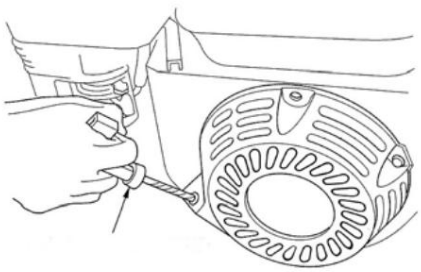

Fig. 21: Actuate the pull starter

ATTENTION!

Always pull the rope slowly until you feel resistance and then quickly.
Otherwise, damage to the starter set and engine coming.

Step 7: Allow the engine to warm up briefly and set the choke to the "OFF" position.

Step 8: After starting the engine, hit the throttle into the quick position to turn the pump to check suction.

A NOTICE!

The pump output is controlled by the engine speed setting. Moving the throttle in the “FAST” direction increases pump output, and moving the throttle in the “SLOW” direction decreases pump output.

9.7 Stopping the engine

emergency shutdown:

To stop the engine in an emergency, simply turn the ignition switch (Fig.20) to the "OFF" position.

Step 1: Fully adjust the throttle (Fig. 19). right to "SLOW"

Step 2: Now turn on the ignition switch of the engine (Fig.20) to "OFF".

Step 3: Close the fuel cock (Fig.17).

Step 4: After pumping, loosen the water drain plug and drain the water.

Step 5: Open the water filler neck and flush the pump with clean water.

Step 6: After flushing the pump, reseal the opening.

10 Care, maintenance and repairs

ATTENTION!

- All cleaning, care, maintenance and repair work may only be carried out when the water pump is switched off.
- Always remove the spark plug connector from the spark plug draw.
- You must wait until the hot parts have cooled down.
- Never use the machine with flammable products to clean!
- Before restarting the water pump, it should be ensured that it is completely dry.

A NOTICE!

The warranty does not cover those parts of the pump that have been misused or neglected by the operator. For full warranty coverage, the operator must operate the water pump as described in the instructions.

Periodic adjustments must be made to ensure proper operation of the water pump. Follow the instructions in the "Maintenance Schedule".

10.1 Care through cleaning

The water pump must always be kept clean.

ATTENTION!

Never use solvents to clean plastic parts or painted surfaces. A dissolving of the surface and consequential damage resulting from this can occur.

Wearing safety gloves!

A NOTICE!

Never use harsh cleaning agents for any cleaning work. This can damage or destroy the device.

All plastic parts and painted surfaces should be cleaned with a soft, damp cloth and a little neutral detergent.

Wipe off excess grease or spilled oil with a dry, lint-free cloth.

Always keep the cooling fins clean and free.

10.2 Maintenance and repairs

ATTENTION!

Maintenance and repairs must always be carried out by skilled personnel are executed; any damaged parts are only to be replaced with original spare parts
Zen.

Maintenance and repair work may only be carried out by qualified personnel.

If the water pump does not work properly, contact a specialist dealer or
our customer service. The contact details can be found in Chapter 1.2 Customer Service.

All protective and safety devices must be reassembled immediately after the repair and maintenance work has been completed.

Make sure the engine is off before attempting any maintenance or repairs. This eliminates several potential hazards:

- Carbon monoxide poisoning from engine exhaust
- Burns from hot parts
- Injuries from moving parts

A NOTICE!

Should the water pump be used at high altitude or high temperature, the ratio of air, fuel mixture may be excessively rich; this leads to greater consumption and lower performance. Check the actual performance of the pump using the following correction factors:

TEMPERATURE: the performance decreases by an average of 2% for every 5 degrees Celsius at temperatures above 20 degrees Celsius.

ALTITUDE: the performance decreases by an average of 1% per 100 m compared to sea level. Used for operation at an altitude of 2000 m above sea level
exceeded, the engine manufacturer's service center should be consulted for any fuel mixture adjustments.

10.3 Maintenance intervals

Wartungsarbeiten müssen nach vorgeschriebenem Betriebsstunden- und Monatsintervall durchgeführt werden. Je nachdem was zuerst eintritt		vor jedem Gebrauch	nach 1 Monat oder 20 Stunden	nach 3 Monaten oder 50 Stunden	nach 6 Monaten oder 100 Stunden	nach 1 Jahr oder 200 Stunden
Motoröl	Kontrolle	•				
	Wechsel		•		•	
Luftfilter	Kontrolle	•				
	Reinigung			• (2)		
	Wechsel					•
Vergaserdüse und Schwimmernadel	Reinigung				•	
Zündabschaltung	Kontrolle Reinigen	ggf. ersetzen (3)				
Zündkerze	Kontrolle- Einstellung				•	
	Wechsel					•
Vergasereinstellung Gemischeinstellung	Kontrolle Einstellung					• (3)
Brennraum	Reinigen					• (3)
Tank und Kraftstofffilter	Reinigen				• (3)	
Ventilspiel	Kontrolle Einstellung					• (3)
Kraftstoffleitung	Reinigung	ggf. alle 2 Jahre ersetzen (3)				
Schwungscheibe	Kontrolle					• (3)
Pumpengehäuse	Kontrolle	•				• (3)
Pumpengehäusedichtungen	Kontrolle	•	ggf. ersetzen			

(1) Bei Einsatz in staubigen Bereichen muss der Wartungsintervall drastisch verkürzt werden.
(2) Bei Betrieb des Motors unter hoher Last oder hohen Temperaturen muss der Wechselintervall stark verkürzt werden (25 Betriebsstunden).
(3) Diese Wartungsarbeiten sollten von einer qualifizierten Servicewerkstatt durchgeführt werden

Fig. 22: Maintenance intervals

10.4 Oil change

ATTENTION!

Before doing any work on the water pump, switch off the engine and pull off the spark plug connector!

Drain the engine oil while the engine is still warm. Warm oil is thinner and runs faster and completely out of the engine.

Step 1: The area around the oil filler hole and the Clean the oil drain hole.

Step 2: The cap from the filler opening remove, loosen the oil drain screw and drain the used oil into a suitable container senior

Step 3: When the oil is completely drained, the oil Screw the drain screw back on and tighten.

Step 4: Slowly pour the new oil into the engine through the oil filter until the level is reached. Check the fill level several times in the meantime troll. Never exceed the max. level step!

Step 5: The filler hole with the sealing cap well close.

Step 6: Wipe up spilled oil. Always check the oil level before starting the engine!

Step 7: Properly dispose of the used oil.

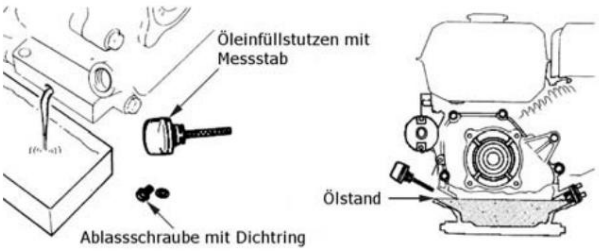

Fig. 23: Oil change

ATTENTION!

- Hot oil can cause burns.
  Allow the pump to cool down before changing the oil.
- Avoid skin contact with the used oil.

ATTENTION!

Starting the engine when the oil level is too low can damage the engine.

Motor oil recommendations

Oil is an important factor in engine performance and durability.
Only use 4-stroke oil.

We recommend SAE 10W-30 for general use. Other viscosities shown in the table (Fig.23) can be used if the average temperature in your area is within the recommended range.

The recommended operating range of the pump is -5°C to 40°C.

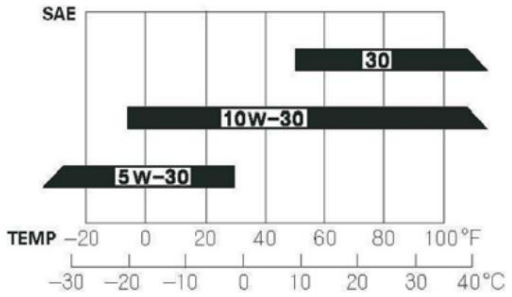

Fig. 24: Engine oil as a function of temperature

10.5 Clean the air filter

A dirty air filter restricts airflow to the carburetor and reduces engine performance. If you operate the pump in very dusty areas, clean the air filter more frequently than the MAINTENANCE SCHEDULE (see page 19).

ATTENTION!

Starting the engine without an air filter or with a defective or dirty air filter gets dirt into the engine and leads to increased wear and, in the worst case, to engine damage.

ATTENTION!

Replace the filter when it is frayed, torn, damaged, or becomes difficult to clean.

Step 1: Unscrew the filter cover screws and remove the cover.

Step 2: Remove the filter element and check for damage.

Step 3: Clean the filter with soapy water and let it dry off.

Step 4: Submerge the air filter in clean air filter teroil. Squeeze out excess oil.

Step 5: Put the cleaned or new one
Put the air filter back in and mount it
Air filter cover properly.

ATTENTION!

Make sure that no dirt gets into the air duct leading to the carburettor.

ATTENTION!

Never clean the air filter with petrol or other highly flammable substances. These can cause a fire or an explosion.

10.6 Change spark plug

Recommended spark plugs: F7RTC

Change the spark plug annually. The water pump then starts more easily and runs better.

Step 1: Turn off the water pump and let it cool down.

Step 2: Pull off the spark plug connector.

Step 3: Clean the area around the spark plug and unscrew the spark plug from the cylinder head.

Step 4: Set the spark plug gap to 0.70mm to 0.80mm.

Step 5: Screw and tighten the new spark plug into the cylinder head and tighten the spark plug cap.

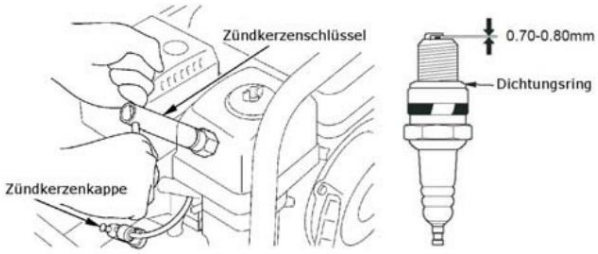

Fig. 25: Screw in the spark plug

ATTENTION!

A loose spark plug can overheat and damage the engine. When tightening the spark plug, the thread in the cylinder head can be damaged.

10.7 Spark Arrester (Optional)

The water pump motor is NOT factory equipped with a spark arrestor. In some areas it is illegal to operate an engine without a spark arrester. Check local laws and regulations before operating.

A spark arrestor is available from authorized dealers.

The spark arrestor must be serviced every 100 hours to remain functional. When the engine is running, the muffler becomes very hot. Allow muffler to cool before operating spark arrestor.

Step 1: Loosen the two 8mm nuts on the Ge
housing and remove the muffler.

Step 2: The housing by loosening the 5 mm screw
loosen and remove.

Step 3: Loosen the 4mm screw to remove the spark arrester.

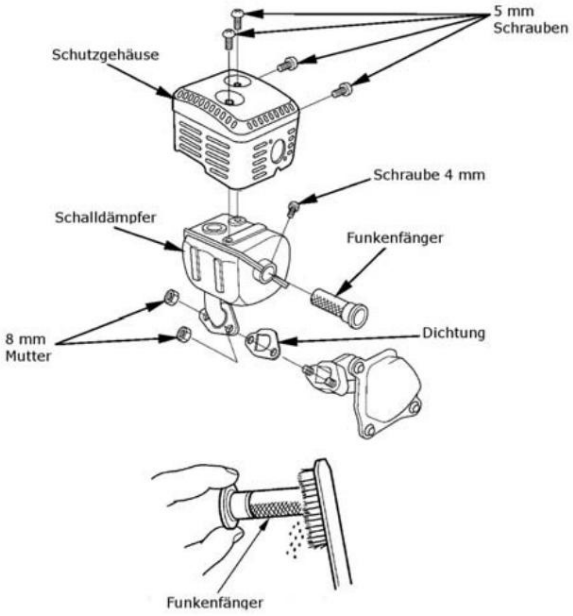

Fig. 26: Removing the spark arrester

Step 4: Use a brush around the coals
to remove material deposits from the spark arrestor. Be careful not to damage the spark arrestor.

Step 5: Install the spark arrestor, muffler
damper and the housing in the reverse order of disassembly.

10.8 Draining the fuel tank and carburetor

Step 1: Place a suitable container under the carburetor drain plug. If necessary, use a funnel.

Step 2: Open the carburetor drain plug and turn the fuel cock to the "ON" position.

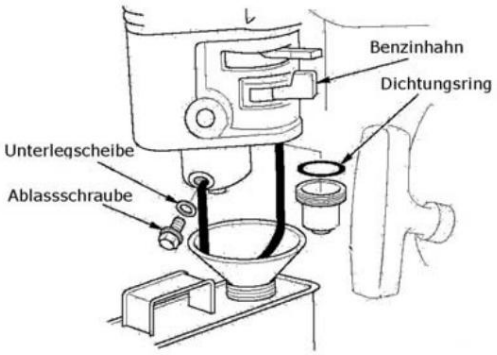

Fig. 27: Empty the carburettor/tank

Step 3: After all the fuel is out of the Carburetor and the tank has been drained install the drain plug and tighten these tightly.

ATTENTION!

Avoid repeated or prolonged skin contact and inhalation of gasoline fumes.

ATTENTION!

Gasoline is extremely flammable and can explode. Improper handling can result in serious injury or burns.

ATTENTION!

If petrol is spilled, do not start the engine! Clean up the gasoline immediately and move from the area of the spill. Be careful not to cause a fire and wait until the petrol vapor has dissipated.

11 Disposal, recycling of old devices

In your own interest and that of the environment, please ensure that all components of the machine are only disposed of in the intended and approved ways.

11.1 Decommissioning

Disused devices must be professionally decommissioned immediately in order to avoid later misuse and endangerment of the environment or people.

- Remove all environmentally hazardous operating materials from the old device.
- If necessary, dismantle the machine into manageable and recyclable assemblies and components.
- Guide the machine components and operating materials to the designated disposal routes.

11.2 Disposal of electrical equipment ten

Please note that electrical equipment contains a large number of recyclable materials as well as components that are harmful to the environment.

Help ensure that these components are separated and disposed of properly. If in doubt, please contact your municipal waste disposal service.

If necessary, the help of a specialized disposal company should be used for processing.

11.3 Disposal of lubricants

Please ensure that the coolants and lubricants used are disposed of in an environmentally friendly manner. Observe the disposal instructions of your municipal waste disposal company. The lubricant manufacturer provides the disposal instructions for the lubricants used. If necessary, ask for the product-specific data sheets.

12 Malfunctions, possible causes and measures

ATTENTION!

If one of the following errors occurs, stop working with the water pump immediately. Before you begin troubleshooting, turn off the water pump and unplug the power cord.

Otherwise serious injuries could result. All repairs or replacement work may only be carried out by qualified and trained specialist personnel.

A NOTICE!

If you are unable to rectify the problems with your water pump yourself, please contact your nearest CLEANCRAFT dealer.

Before doing so, please write down the following information from the water pump or the operating instructions so that you can get the best possible help with your problem.

- Model designation of the device
- Serial number of the device
- Year of construction - exact error description

Disturbance	Possible Cause	remedy
Engine will not start	1. Fuel tap closed. 2. Choke open. 3. Ignition switch off 4. Tank empty 5. Old gasoline in the tank 6.Spark plug defective, dirty 7. Wet spark plug 8. Filter clogged 9. No oil filled	1. Open the fuel cock. 2. Close the choke as soon as the engine is warm 3. Turn on the ignition switch. 4. Fill tank. 5. Drain gasoline and refill with fresh gasoline 6. Clean or replace spark plug. 7. Dry and reinstall the spark plug (Start the engine with the throttle in the fast position. 8. Clean or replace filter 9. Fill in oil
Engine loses power 1. Dirty air filter	2. Old petrol in the tank	1. Replace or clean air filter 2. Drain gasoline and refill with fresh gasoline
Pumping process does not start	1. Defective hose 2. Too little water filled 3. Hose clogged 4. Check engine 5. No oil filled	1. Replace hose 2. Top up with water 3. Clean hose 4. Repair / replace motor 5. Fill in oil
Low pump power	1. Defective hose 2. Hose clogged	1. Replace hose 2. Clean hose
Suction power decreases.	Blockages in the suction nozzle, suction pipe, suction hose or filter.	1.Remove blockages. 2. Clean or change filter. 3. Snap in the filter cover correctly. 4. Check that the filter is installed in the correct position.

13 spare parts

DANGER!

Risk of injury through the use of incorrect spare parts!

The use of incorrect or faulty spare parts can endanger the operator and cause damage and malfunctions.

- Only original spare parts from Her manufacturer or manufacturer-approved spare parts.

- If anything is unclear, always contact the manufacturer animals.

loss of warranty

The use of unapproved spare parts will void the manufacturer's warranty.

13.1 Ordering spare parts

The spare parts can be obtained from the authorized dealer or directly from the manufacturer. The contact details are in Chapter 1.2 Customer Service.

Specify the following key data when ordering spare parts:

- device type
- Serial number
- Crowd
- Designation
- Desired shipping method (post, freight, sea, air, Express)
- Delivery address

Spare parts orders without the above information cannot be considered. If there is no information about the type of shipping, shipping will be at the discretion of the supplier.

Information on the device type, article number and year of manufacture can be found on the type plate attached to the device.

example

The bearing for the FWP 50 fresh water pump must be ordered. The bearing has the number 51 in the spare parts drawing 1.

When ordering spare parts, send a copy of the spare parts drawing (1) with marked component (bearing) and item number (51) to the authorized dealer or to the spare parts department and provide the following information:

- Device type: **Fresh water pump FWP 50**
- Article number: **7500050**
- Drawing number: **1**
- Position number: **51**

The article number of your machine:

Fresh water pump FWP 50: 7500050

Fresh water pump FWP 80: 7500080

13.2 Spare parts drawings FWP 50 and 80

The following drawings are intended to help you to identify the necessary spare parts in the event of service. If necessary, send a copy of the parts drawing with the components marked to your authorized dealer.

13.2.1 Spare parts drawings FWP 50

Spare parts drawing 1

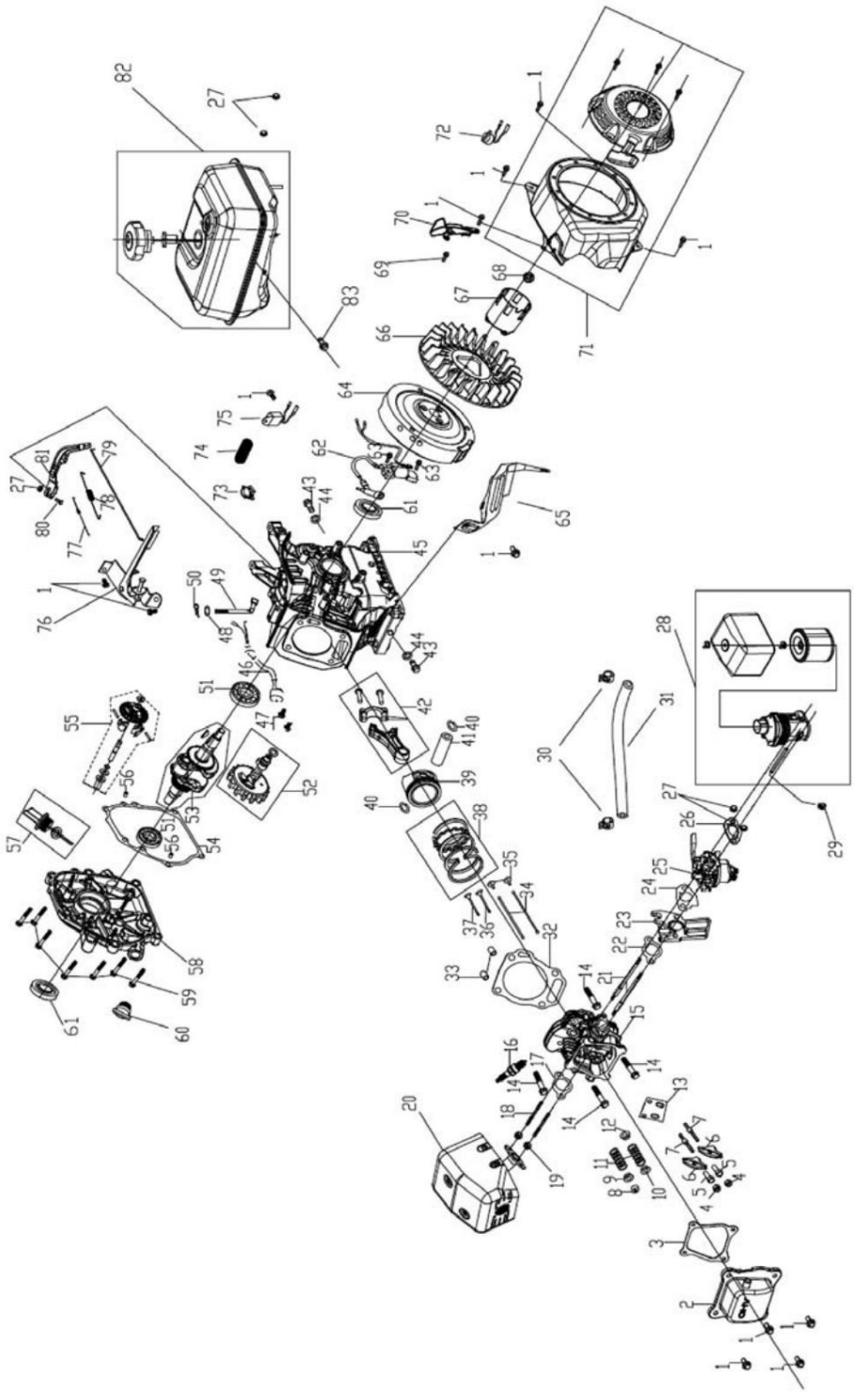

Fig. 28: Spare parts drawing 1 FWP 50

Spare parts drawing 2

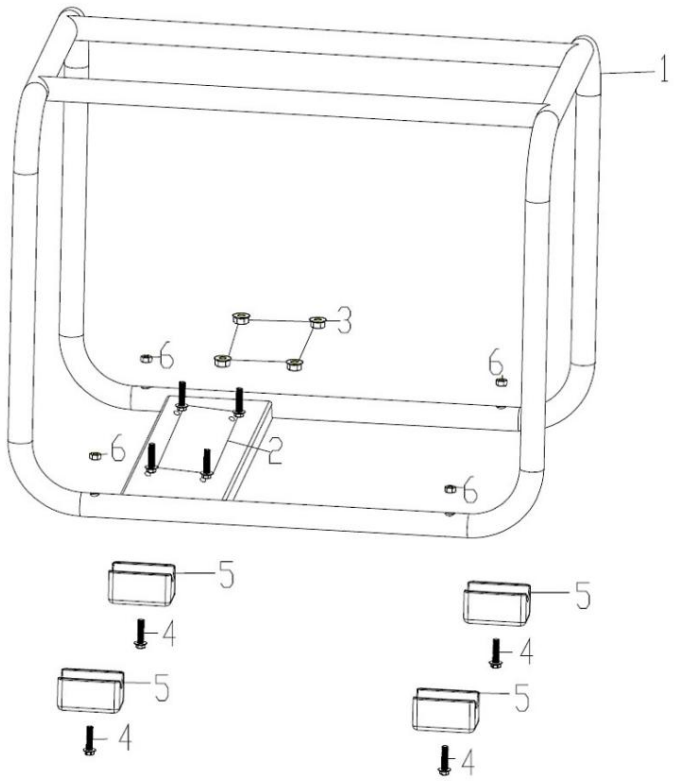

Fig. 29: Spare parts drawing 2 FWP 50

Spare parts drawing 3

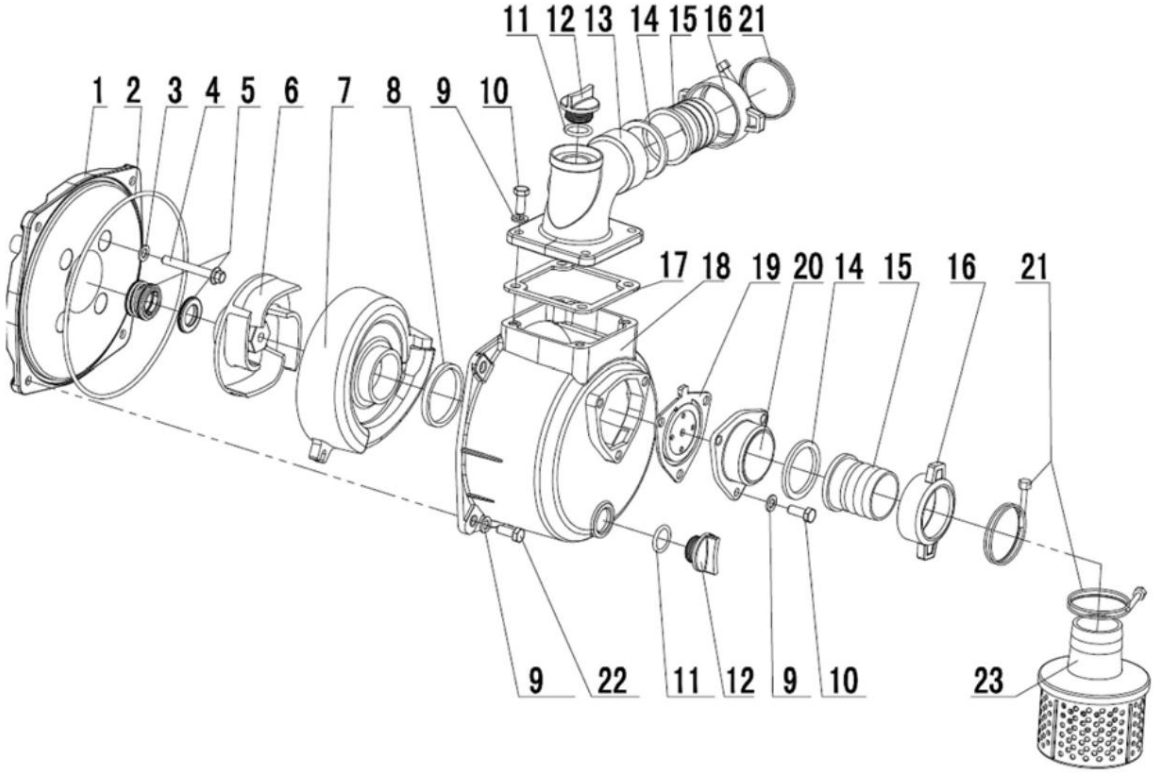

Fig. 30: Spare parts drawing 3 FWP 50

Spare parts drawing 4

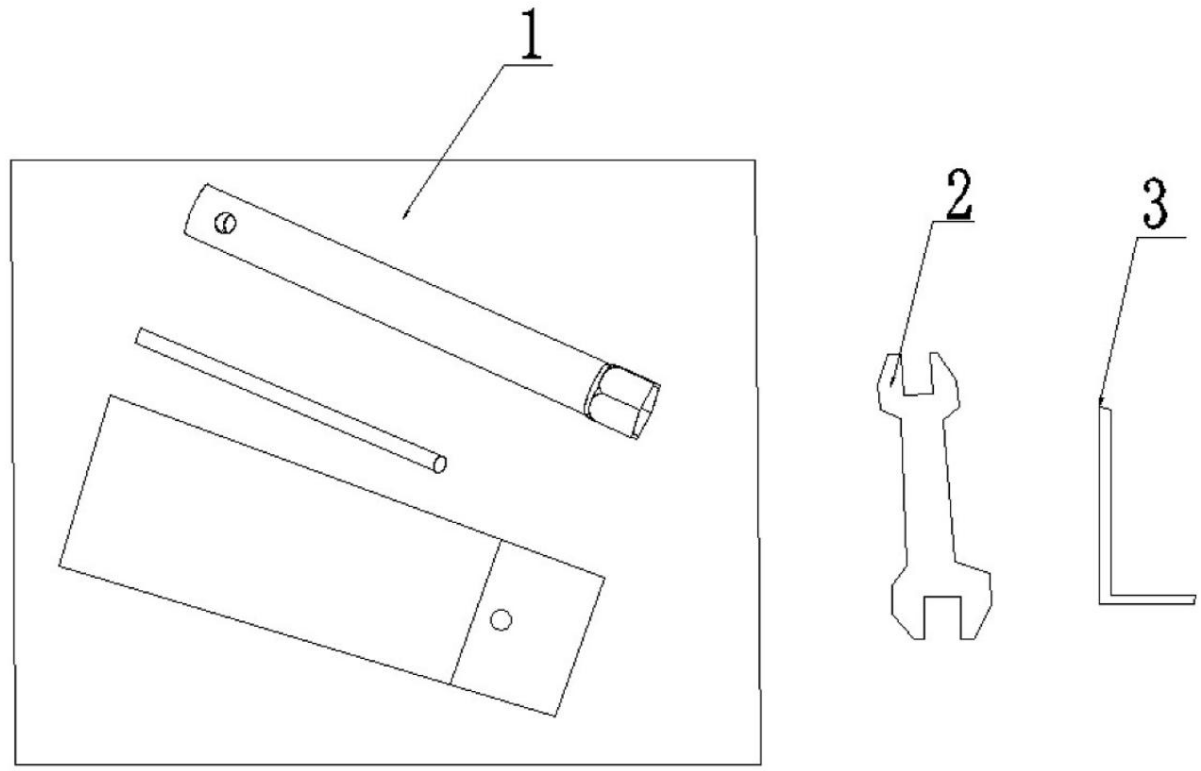

Fig. 31: Spare parts drawing 4 FWP 50

13.3 Spare parts drawings FWP 80

Spare parts drawing 1

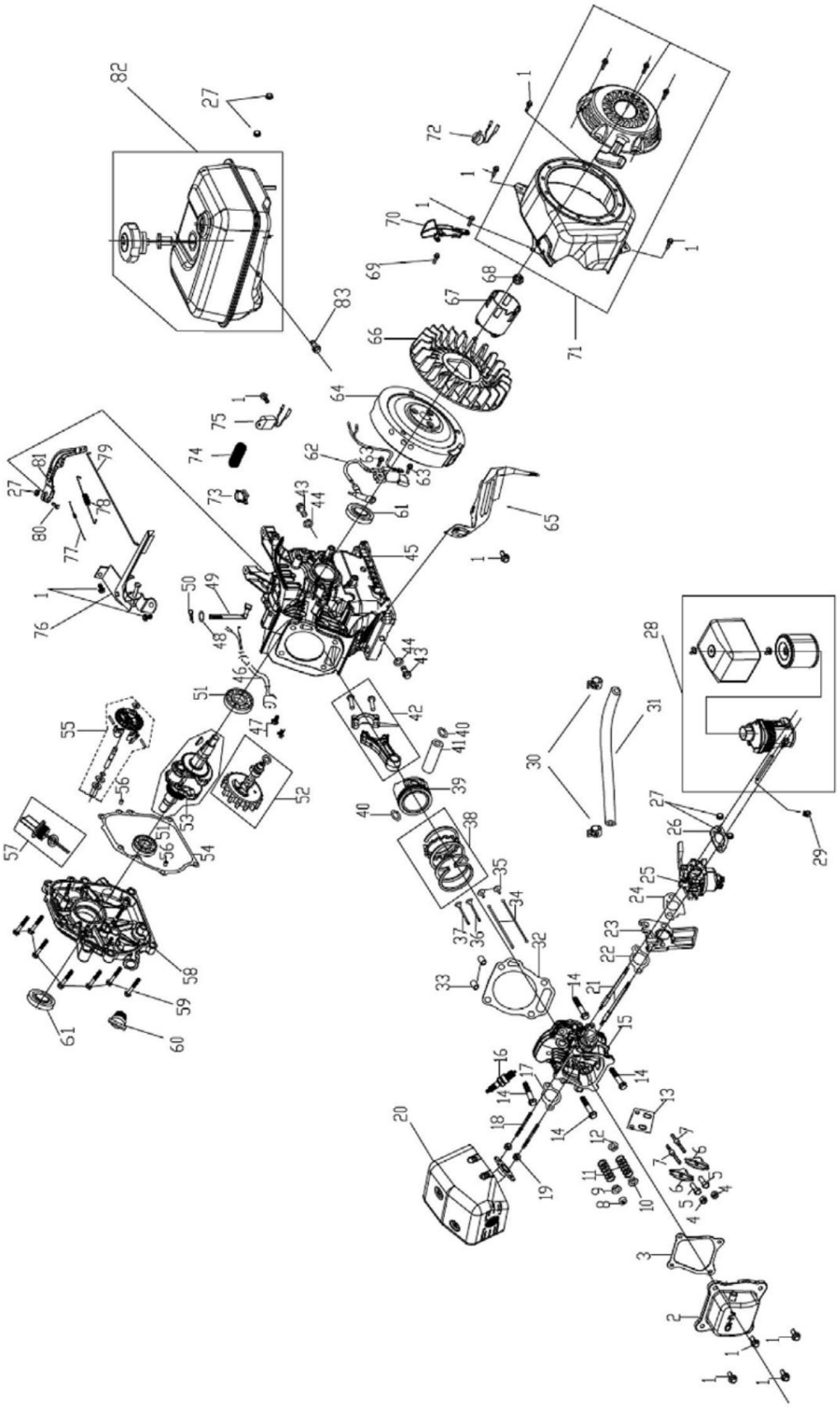

Fig. 32: Spare parts drawing 1 FWP 80

Spare parts drawing 2

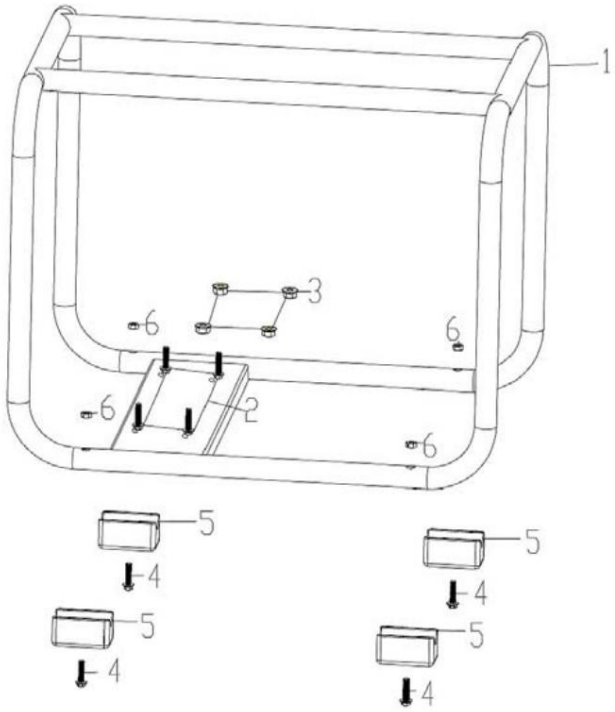

Fig. 33: Spare parts drawing 2 FWP 80

Spare parts drawing 3

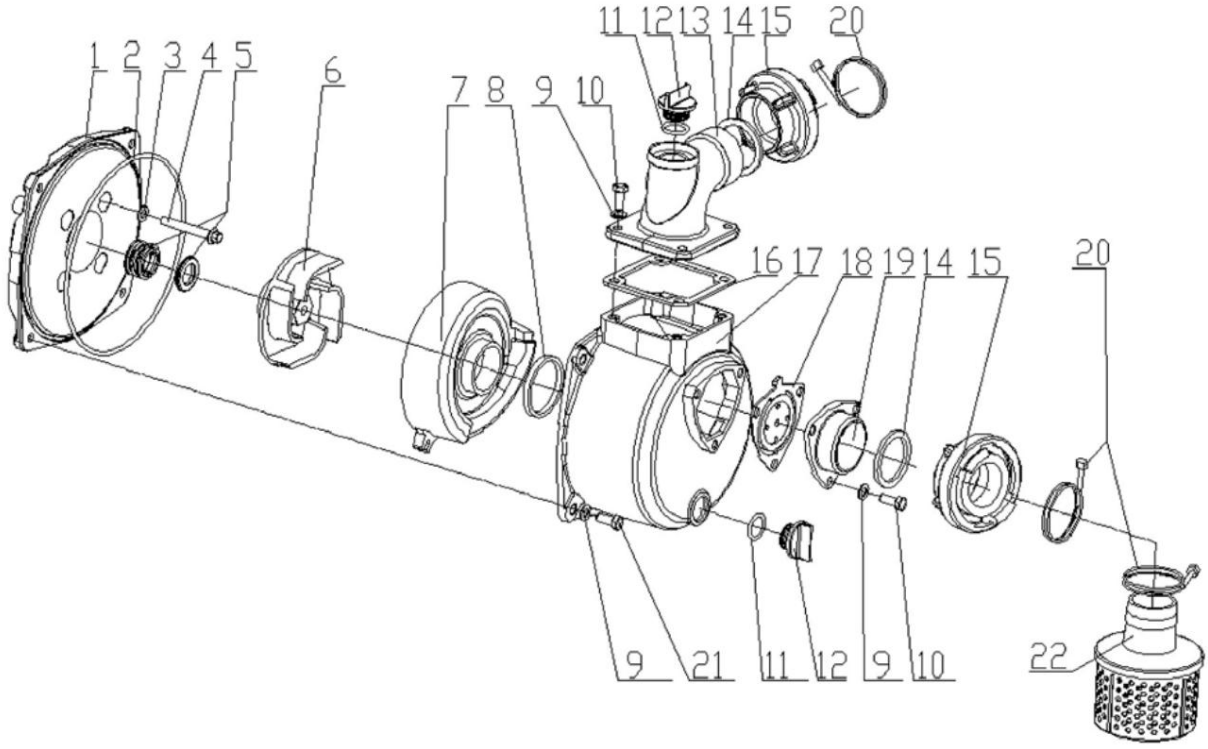

Fig. 34: Spare parts drawing 3 FWP 80

Spare parts drawing 4

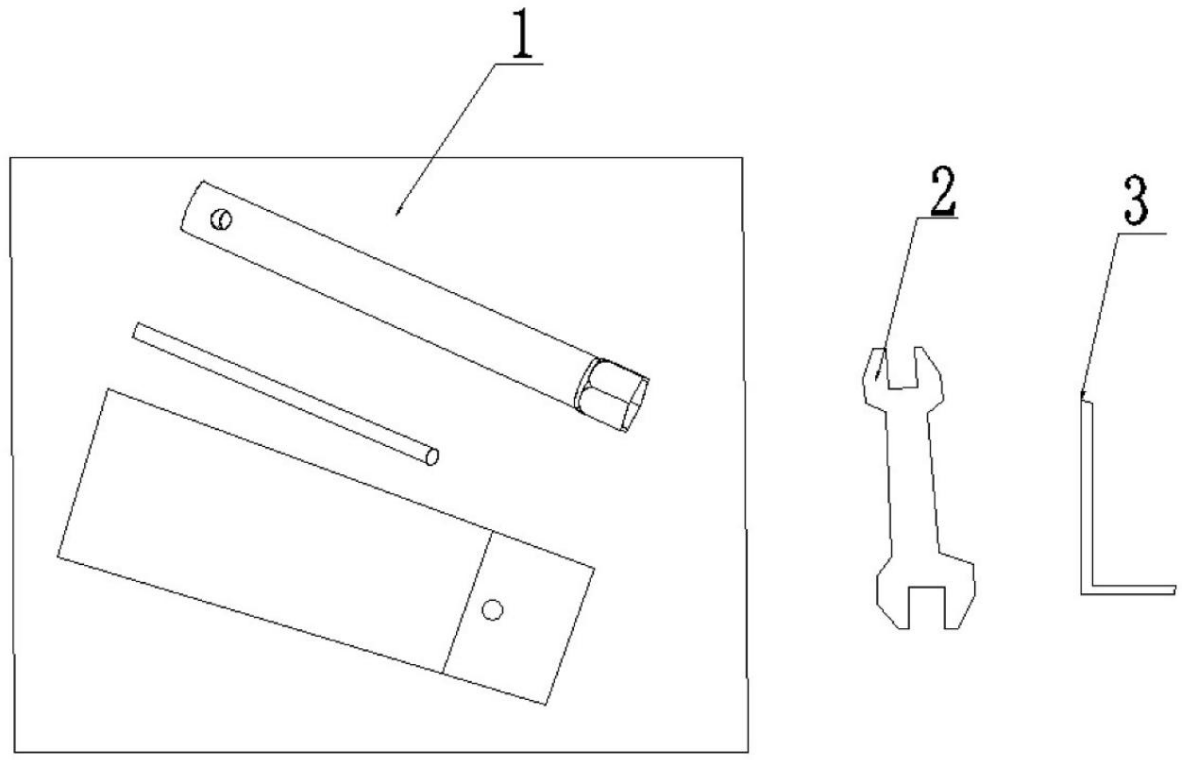

Fig. 35: Spare parts drawing 4 FWP 80

14 EU Declaration of Conformity

According to Machinery Directive 2006/42/EG Appendix II 1.A

Manufacturer/distributor: Striker Machines GmbH
Dr.-Robert-Pfleger-Str. 26
D-96103 Hallstadt

hereby declares that the following product

Product group: Cleancraft® cleaning technology

Machine type: fresh water pump

Designation of the water pump *: ☐ FWP 50 ☐ FWP 80

Article number *: ☒ 7500050 ☐ 7500080

Serial number*: _____

Construction year*: 20_____

* fill in these fields based on the information on the nameplate

complies with all relevant provisions of the above-mentioned directive and the other directives applied (below) – including any changes applicable at the time of the declaration.

Relevant EU directives: 2014/30/EU EMC Directive

The following harmonized standards were applied:

DIN EN ISO 14982:2009-12	Agricultural and forestry machines - Electromagnetic Compatibility - test methods and evaluation criteria
DIN EN 809:2012-10	Pumps and pump units for liquids - General safety requirements

Responsible for documentation: Kilian Stürmer, Stürmer Maschinen GmbH,
Dr.-Robert-Pfleger-Str. 26, D-96103 Hallstadt

Hallstadt, September 19, 2017

Killian Striker
Managing Director

CE