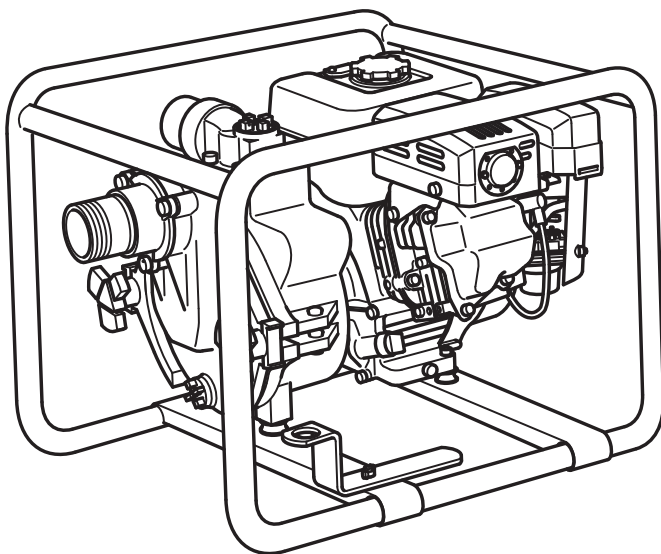


SWT 120 EX




INSTRUCTION FOR USE


EN



Thank you for purchasing a WORMS Entreprises pump. The purpose of this manual is describing both use and maintenance instructions. All information stated in this document are established from the most recent data collected about the product, by the time of printing


Please pay special attention to the notes introduced with the following words:

 ATTENTION Indicates an impending dangerous situation. If this warning is not respected, this situation can cause the death or severe injuries to the user.

 WARNING Indicates a strong possibility of severe personal injury and equipment damage if the instructions are not followed.

NOTE Provides helpful information.

Should a problem arise, or in case of questions related to the pump, please contact an authorised WORMS Entreprises After-Sales Service dealer.

 ATTENTION

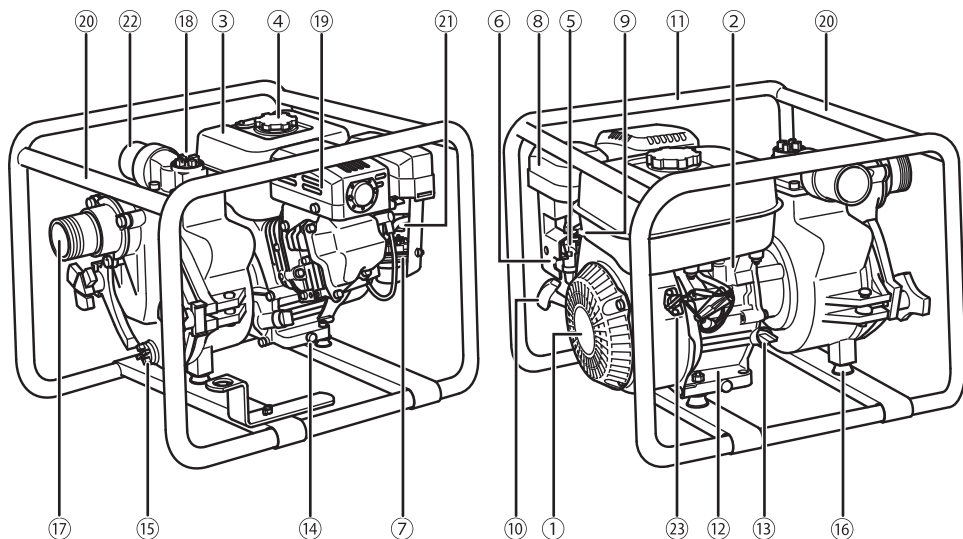
A pump is designed to provide safe and reliable performance, if it is used in accordance with instructions. First carefully read and understand the instructions, then operate the pump. Otherwise, you might be injured or damage the pump.

The pump unit is delivered without oil.

NOTE
For commissioning, please also refer to the EX engine user manual supplied with the pump unit.

SUMMARY

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EN	
①	Recoil starter
②	Gasoline engine
③	Fuel tank
④	Fuel Cap
⑤	CHOKE LEVER
⑥	Fuel cock
⑦	Fuel filter
⑧	Air filter
⑨	Speed control
⑩	Recoil starter knob
⑪	Base frame
⑫	Serial number
⑬	Oil dipstick
⑭	Oil drain plug
⑮	Water drain plug
⑯	Anti vibration mounting
⑰	Suction port
⑱	Filling plug
⑲	Exhaust muffler
⑳	Carrying handle
㉑	Spark plug
㉒	Delivery port
㉓	ON / OFF switch

1. COMPOSITION OF THE ASSEMBLY

The assembly consists of:

- A water pump equipped with a petrol engine providing a flow rate of 120 m³/h for clear water.
- Suction and delivery port diameter: 4", originally supplied with pump-side fittings and a strainer.
- The pump is coupled with a WORMS EX40 engine.

2. SAFETY PRECAUTIONS

Follow all safety instructions and usage precautions.

2.1. WORK ENVIRONMENT

- ⚠ Use your water pump on a stable, flat surface, free of debris or other gravel.
- ⚠ Install your water pump more than one meter away from any building.
- ⚠ Install your water pump away from any flammable materials (waste, lubricants, explosives,...)
- ⚠ In case of freezing risk, drain the pump body.

2.2. FIRE PREVENTION

- ⚠ Turn off the engine before refueling.
- ⚠ Do not overfill the fuel tanks.
- ⚠ If fuel spills, clean it thoroughly and wait for the area to dry before restarting.
- ⚠ Do not operate your water pump while smoking near a flame.












2.3. PRECAUTIONS REGARDING EXHAUST GASES

- ⚠ Never inhale exhaust gases: they contain odorless and colorless carbon monoxide. They are extremely dangerous and can cause serious health damage.
- ⚠ Never use your water pump in a building or in a closed space such as a garage or shelter.
- ⚠ Be very cautious when using it near other people.



2.4. OTHER SAFETY PRECAUTIONS

-  Do not approach rotating parts or hot surfaces while your water pump is operating.
-  Do not allow anyone to use your water pump without specific instructions.
-  First, ensure you fully understand how to perform an emergency stop and all the pre-start inspection procedures.
-  Close the fuel tank cap properly before transporting your water pump.
-  Check the oil level and refill if necessary.
-  Inspect hoses and seals for leaks or absence of fuel.
-  Never disconnect the suction and discharge hoses while the unit is running.
-  Never operate the unit dry, and never open small inspection ports or the pump body while it is running.
-  Never operate the water pump without a suction strainer.

3. SPECIFICATIONS

	SWT 120 EX
Pump Type	Auto-amorçante
Suction Ø Coupling	100 mm
Delivery Ø Coupling	100 mm
Maximum Flow	2000 L/min
Maximum Flow	120 m ³ /h
Pressure	2.3 bar
Maximum Total Head	23 m
Maximum Suction Head	8 m
Solid Size (Ø strainer hole)	31 m
Engine Model	WORMS EX40
Engine Type	4 stoke Gasoline
Fuel	Petrol Ron 95
Fuel Tank Capacity	7 Liters
Autonomy	2 h 30
Oil Capacity	1.2 Liters
Dimensions L x W x H	742 x 494 x 644 mm
Dry weight	71.5 kg

4. PRE-START CHECKS

4.1. CONNECT THE SUCTION HOSE

Use the correct wrench and ensure a secure connection.

⚠ ATTENTION

- If the pump is used for water that may contain impurities, it is essential to connect a strainer to the end of the suction hose. Solid particles can severely damage the pump body.

4.2. CONNECT THE DISCHARGE HOSE

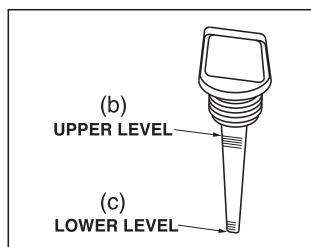
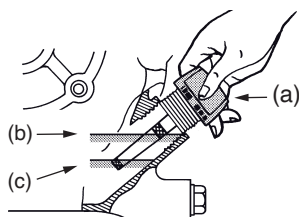
Use the correct wrench and ensure a secure connection.

4.3. CHECK THE ENGINE OIL LEVEL

Before checking or refilling the oil, ensure that the engine is turned off.

Position your water pump horizontally and fill the crankcase up to the upper level of the oil gauge (refer to the engine manual).

- Remove the oil filler cap (a) and check the oil level for the engine.
- If the oil level is below the lower level mark (c), the oil sump must be filled with the appropriate oil (see the chart) up to the mark indicating the upper level (b). Do not screw the oil filler cap back on during the oil level check.

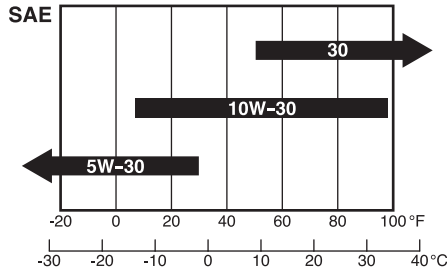


Oil capacity	Upper level
SWT 120 EX	1.2 L

- Replace the oil when it is contaminated (refer to the section on maintenance procedures).

RECOMMENDED ENGINE OIL:

Use SE class oil (API classification) or a higher class oil. **SAE 10W-30** or **10W-40** is recommended for general use in all temperatures. If using monograde oil, choose the appropriate viscosity for the average ambient temperature, depending on the season.



If the operating conditions of the equipment exceed these limits, please contact us for advice on the appropriate oil to use.

ATTENTION

Inferior quality oil or insufficient oil can cause damage or reduce the engine's lifespan.

NOTE

To check the oil level, simply place the dipstick on the thread of the fill hole without screwing it in.

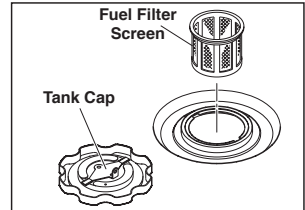
4.4. REFUEL THE ENGINE

- Use Petrol Ron 95.
- The Petrol Ron 95 must be clean and fresh, and stored in clean containers; otherwise, the nozzles may become clogged.
- The tank holds 7 liters of Petrol.
- Thoroughly clean any spills that may have occurred during refueling.
- Always turn off the engine before refueling.

ATTENTION

- Never open the fuel tank cap while the engine is running. Never refuel while smoking or if there is an open flame nearby or any other conditions that could cause a fire.

If the fuel level is too low, it should be topped up with petrol. Do not forget to install a filter on the filler neck before refueling



ATTENTION

- Make sure you have thoroughly reviewed all warnings to prevent any fire risk.
- Do not refuel the tank when the engine is running or hot.
- Close the fuel tank valve before refueling.
- Ensure that dust, dirt, water, or any foreign substances do not enter the fuel.
- Thoroughly clean any spilled fuel before starting the engine.
- The presence of open flames must be excluded.

Thoroughly clean any spills that may have occurred during refueling.
- Always turn off the engine before refueling.

COMPONENT INSPECTION

Before starting the engine, check the following points:

- Fuel leakage from the fuel hose, etc;
- Tightening of bolts and nuts;
- Damage or breakage of parts.

4.5. FILL THE PUMP BODY WITH WATER

Fill the pump body with water through the filling port before starting the engine.

ATTENTION

- Never start the engine before filling the pump body with water, or the pump will overheat. Operating the pump dry will destroy the mechanical seal. If the water pump has been used dry, allow it to cool down before filling the pump body with water to avoid thermal shock.

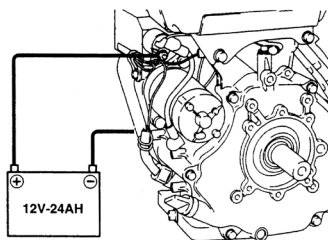
4.6. MODEL WITH ELECTRIC START (OPTIONAL)

The battery is charged and dry, meaning it can be put into service immediately after being filled with acid. However, for the longevity and performance of the battery, it is recommended to subject it to a slow charge.

1. Just before filling, remove the plastic cap and connect the hose to the discharge fitting.
2. Remove the filler caps and fill the electrolyte up to the maximum level indicated on the battery.
3. Allow the battery to rest for a while after filling (about 30 minutes) before charging it. If the electrolyte level has dropped, top it up again.
4. If necessary, recharge the battery. The charging should be done with the filler caps unscrewed.
5. Remove the plugs and wash off any electrolyte that has spilled onto the battery. The battery is then ready for use.

FOR THE WIRING

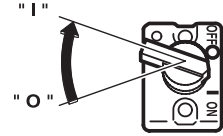
1. Attach the positive cable, which is connected to the starter, to the positive terminal of the battery.
2. Connect the negative cable, which is attached to the engine block, to the negative terminal of the battery.



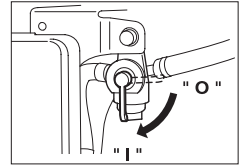
5. USING YOUR WATER PUMP

5.1. STARTING THE WATER PUMP

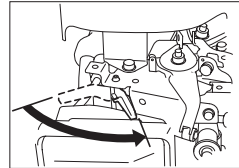
- Set the engine switch to position «I» (ON).



- Open the fuel valve.

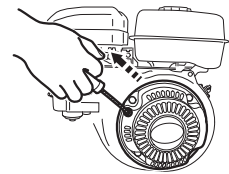


- If the engine is cold, pull the choke lever all the way out.



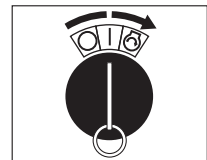
[MODEL WITH AUTOMATIC RETURN RECOIL STARTER]

- Set the throttle lever to the maximum position.
- Pull the recoil starter handle gently, and return it to the original position when you feel resistance.
- Then, pull firmly on the recoil starter with both hands to start the engine, and then gently return the starter handle to its initial position.

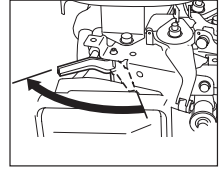


[MODEL WITH ELECTRIC START]

1. Insert the key into the ignition and turn it to the «I» (ON) position. Turn the key to the right (START) to start the engine.



2. After starting the engine, gradually turn the choke lever to open the throttle and keep it in the fully open position. Do not immediately open the choke lever fully when the engine is cold or the ambient temperature is low, as the engine may stall. Allow the engine to warm up for a few minutes without load.

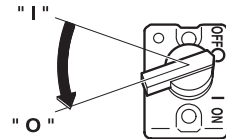


5.2. RUNNING SPEED

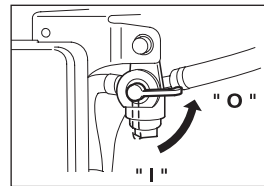
Once the engine is started, set the gear lever to the minimum position and let the engine warm up for a few minutes. Then, gradually move the lever to the desired position. To save fuel and extend the life of your water pump, only use the maximum speed when necessary.

5.3. STOP THE ENGINE

1. Set the engine switch to the «O» (OFF) position.



2. Close the fuel valve.



6. OIL SENSOR SECURITY

- The oil sensor security monitors the decrease in oil level in the sump and automatically stops the engine when the oil level drops below a pre-defined level.
- Si le moteur s'est automatiquement arrêté, le groupe motopompe doit être coupé et le niveau d'huile doit être contrôlé. Remplir d'huile pour moteur jusqu'au niveau maximal et redémarrer le moteur.

NOTE

If the engine does not start using the usual procedure, contact the Robin dealer or the nearest after-sales service.

7. MAINTENANCE PROGRAM


7.1. DAILY INSPECTION

Check the following maintenance points before using your water pump:



- Fuel level
- Vibration or abnormal noises
- Abnormal color of exhaust gases (white or black)
- Clean air filter elements
- Safe environments
- Recent oil level of good quality
- Oil or fuel leaks
- Lost or broken screws or bolts
- Pump body filled with water
- Sufficient grease quantity (grease nipple on the water pump)

7.2. PERIODIC INSPECTION

Following the maintenance program is vital for the efficient and safe use of your water pump. The following maintenance program is based on normal usage of your water pump.

 This symbol indicates that special tools or skills are required. Consult your nearest distributor or qualified personnel.

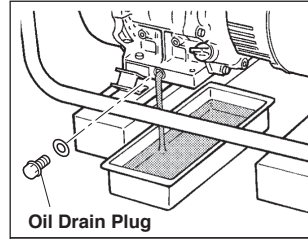
Grease the pump's hydraulic system every 300 hours of operation. The water pump is delivered to you greased. Use NILSXOT56, TOTAL, MULTIS grease or equivalent.

	Every 8 hours or daily	Every 100 h	Every 300 h	Every 500 h	Every 1000 h
Check the oil and fuel levels	<input checked="" type="checkbox"/>				
Check the tightening of nuts and bolts	<input checked="" type="checkbox"/>				
Check the engine oil	<input checked="" type="checkbox"/> Refuel every day				
Drain or replace the engine oil		<input checked="" type="checkbox"/>			
Clean the air filter		<input checked="" type="checkbox"/>			
Open the pump body and clean it		<input checked="" type="checkbox"/>			
Check and adjust the valve clearances					
Clean the fuel filter (remove impurities and water).			<input checked="" type="checkbox"/>		
Replace or clean the oil filter					<input checked="" type="checkbox"/>
Replace or clean the oil filter		<input checked="" type="checkbox"/>			
Check the valve seats					
Vérifier le niveau d'électrolyte de la batterie		<input checked="" type="checkbox"/> Every month			

8. MAINTENANCE PROCEDURES

8.1. ENGINE OIL CHANGE

- Change the engine oil every 100 hours (for a new engine, the oil should be changed for the first time after 20 hours).
1. Allow the oil to drain by removing the drain plug and the oil fill cap while the engine is warm.
 2. Replace the drain plug and fill the engine with oil until the maximum level on the fill cap is reached.



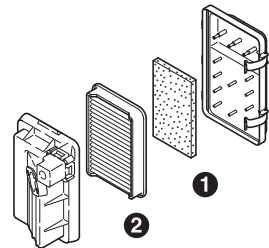
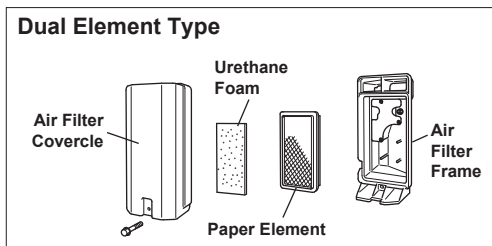
- Use new, high-quality oil up to the specified level. If dirty or low-quality oil is used, or if the engine oil quantity is insufficient, the engine will be damaged and its lifespan significantly reduced.

8.2. AIR FILTER MAINTENANCE

A clogged air filter element can cause difficult starting, power loss, poor engine performance, and particularly premature engine wear. Always ensure the air filter element is kept clean.

DOUBLE FOAM URETHANE TYPE ELEMENT

- **URETHANE FOAM:** Wash and clean the urethane foam using a detergent. After cleaning, dry it. Clean the urethane foam element every 50 hours of use.
- **PAPER ELEMENT:** Gently tap the paper element to remove dirt and dust. It is also possible to wash the paper element with water and dry it. Never use oil. Clean the paper element every 50 hours of operation and replace it every 200 hours.



Clean and replace the air filter elements more frequently if the engine is used in a dusty environment.

⚠ ATTENTION

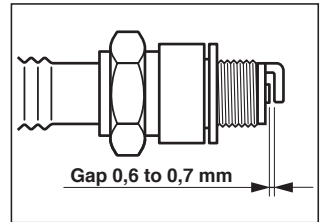
URETHANE FOAM CLEANING : Remove the element, wash and clean the urethane foam in kerosene. Saturate in a mixture of 3 parts kerosene and 1 part engine oil, and then squeeze to remove excess oil and put it back to the air filter

⚠ WARNING

Fire forbidden.

8.3. CLEANING AND ADJUSTING SPARK PLUG

1. If the plug is contaminated with carbon, remove it using a plug cleaner or wire brush.
2. Adjust the electrode gap between 0.6 and 0.7 mm.

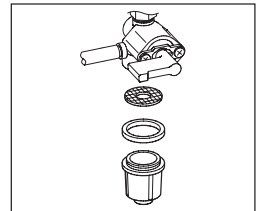


	SPARK PLUG
SWT 120 EX	NGK BR-6HS

8.4. CLEANING FUEL STRAINER

Dirt and water in the fuel are removed by the fuel strainer:

1. Remove the strainer cup and throw away water and dirt.
2. Clean the screen and strainer cup with petrol.
3. Tightly fasten the cup to main body, making sure to avoid fuel leak.



8.5. CHECK BOLTS, NUTS, AND SCREWS

- Tighten any loose bolts and nuts.
- Check for any fuel or oil leaks.
- Replace damaged parts with new ones.
- Keep safety in mind.

8.6. FUEL HOSE REPLACEMENT

- Replace these hoses every two years.
- If the hose leaks, replace it immediately.

9. FIRST-LEVEL TROUBLESHOOTING

NOTE

If you need to contact WORMS ENTREPRISES S.A.S, please specify the engine serial number.

9.1. THE PUMP IS NOT TURNING:

- The engine does not start (see section 4)
- The turbine is stuck: disassemble and clean.

9.2. THE PUMPING VOLUME IS TOO LOW:

- Air intake at the suction: check the connection.
- Engine speed issue: contact WORMS ENTREPRISES S.A.S.
- The rotating seal is broken: contact WORMS ENTREPRISES S.A.S.
- Excessive suction height: reduce it.
- Improperly fitted hoses: use other hoses.
- Water leak in the circuit: repair the leak.
- Turbine blockage by foreign objects: disassemble and clean.
- Turbine wear.
- The strainer is clogged: clean it.
- Engine speed too low: contact WORMS ENTREPRISES S.A.S.

9.3. THE SELF-PRIMING DOES NOT OCCUR:

- Air intake at suction: check the connection.
- Insufficient water in the pump body: fill the pump body.
- The drain plug is not tightened: tighten it fully.
- The engine is not running properly: contact WORMS ENTREPRISES S.A.S.
- Air intake through the mechanical seal: contact WORMS ENTREPRISES S.A.S.

9.4. THE ENGINE DOES NOT START:

- Perform the following checks.

IS THE FUEL TANK FULL?

- Check the unleaded petrol gauge.
- Ensure that the throttle lever is in the START position.
- Verify that the fuel valve is open.
- Purge the fuel supply system.

DOES THE FUEL CONTAIN FOREIGN MATTER?

- Drain the tank and ensure that no solids, water, or other foreign materials are mixed with the fuel.

IS THE COMPRESSION SUFFICIENT?

- Pull the starter handle and feel if there is resistance.
- If there is not enough compression.

Si les symptômes persistent après ces vérifications, consultez WORMS ENTREPRISES S.A.S.

10. PREPARATION FOR STORAGE

10.1. DRAIN THE WATER FROM THE PUMP HOUSING

- Unscrew the drain valve on the front face.

ATTENTION

- Clean the threads of the drain screw thoroughly before reassembling it to avoid damaging them.

10.2. DRAIN THE FUEL

WARNING

- No fire allowed.

If the pump unit is not used for more than a month, drain the fuel to prevent the formation of gum in the fuel system and carburetor.

- Remove the fuel cup, place it on a container, and open the valve to drain the fuel from the tank.
- Remove the drain screw from the constant level tank and drain the fuel.

10.3. LUBRICATE THE ENGINE

- Drain the engine oil and refill with fresh oil.
- Remove the spark plug, pour about 5 cm³ of engine oil into the cylinder, pull the starter handle slowly 2 or 3 times in succession, and replace the spark plug.

10.4. CLEAN AND STORE

- Pull the starter cord until resistance is felt, and leave it in this position.
- Clean the engine thoroughly with an oil-soaked cloth, cover the engine with it, then store the engine in a dry, well-ventilated place.

MU_03GMP_SWT_150EXL12V2_EN



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