

SEALEY

INSTRUCTIONS FOR

PRESSURE WASHER 130BAR 420LTR/HR 2.4HP PETROL

MODEL NO: **PWM1300**

Thank you for purchasing a Sealey product. Manufactured to a high standard, this product will, if used according to these instructions, and properly maintained, give you years of trouble free performance.

IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS & CAUTIONS. USE THE PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY. KEEP THESE INSTRUCTIONS SAFE FOR FUTURE USE.



Refer to instruction manual



Wear eye protection



Wear ear protection



Wear protective clothing

1. SAFETY

1.1. GENERAL SAFETY

- WARNING! RISK OF FLUID INJECTION.** This washer operates at fluid pressures and velocities high enough to penetrate human and animal flesh. If there is an occurrence of fluid injection seek medical help immediately.
- WARNING!** Stop the engine and disconnect the mains water supply before changing accessories or performing any maintenance.
- WARNING! DO NOT operate** the washer if damaged. Replace or repair using recommended parts only. Unauthorised parts may be dangerous and will invalidate your warranty. Use authorised Service agent only.
- ✓ Keep the washer in good condition. Regular maintenance will give the best and safest performance.
- ✓ Ensure you comply with the water supply company regulations before connecting to the mains. If you are connecting to the mains drinking water supply ensure you have a back flow preventer valve installed.
- ✓ The water supply hose must be reinforced and have an internal diameter of 13mm (1/2"). The minimum water supply rate must be at least equal to the cleaner capacity. The water temperature must not exceed 50°C, and the pressure must not exceed 10bar.
- WARNING! DO NOT operate** the washer without the water supply connected. To do so will damage the machine.
- ✓ Position the washer as near as possible to the mains water supply.
- ✓ Only use recommended washing detergents. Failure to do so may cause corrosion to equipment and hoses.
- WARNING!** Use the washer on a flat, level surface, in a horizontal position. Failure to do so will invalidate your warranty.
- ✓ Wear safety goggles and adequate protective clothing, and anti-slip rubber soled footwear.
- WARNING!** The high pressure jet must be used with caution. Ensure you aim the lance correctly at the work surface. Failure to do so may scatter loose particles at the same force as the water pressure, resulting in possible damage or personal injury.
- ✓ Keep all persons and animals at a safe distance from the hose working area. It is difficult to give an exact safe distance as it will depend upon your circumstances. We recommend at least 15 metres (16 yards). Also ensure other persons are aware before you start to depress the washer trigger.
- ✓ Hold the gun firmly for it will tend to "kick" backwards when you first pull the trigger.
- ✗ **DO NOT** allow children or untrained persons to operate the washer.
- ✗ **DO NOT** connect other appliances to the washer inlet or outlet. Only use the supplied or recommended outlet nozzle.
- ✗ **DO NOT** use the washer if the water supply hose is damaged. Also check that the hose is laid out straight and safely.
- ✗ **DO NOT** jam the operating trigger in the operating position and **DO NOT** pull the trigger without holding and aiming the gun correctly.
- WARNING! DO NOT attempt** to alter the pressure regulating valve as this may cause serious damage.
- ✗ **DO NOT** move the washer by pulling on the high pressure hose or the mains water supply hose. Use the machine handle.
- ✗ **DO NOT** direct jet against yourself, other persons or animals, electrical equipment or the machine itself.
- WARNING! DO NOT leave** the engine running for more than 2 minutes without operating the trigger, as temperature/pressure increase may damage the sealing system.
- ✗ **DO NOT** use the washer if you are tired or under the influence of alcohol, drugs or intoxicating medication.
- ✓ Ensure that the hose pressure is discharged before disconnecting the mains water hose.
- ✓ When not in use, disconnect from the water supply. Clean and dry the washer and store in a safe, dry, childproof area.
- ✗ **DO NOT** allow the machine to become frozen.

1.2. ENGINE SAFETY

- WARNING! Check the engine oil level before each startup.** Only use an approved oil and never operate the engine with insufficient oil.
- WARNING! DO NOT touch spark plug or plug lead whilst the engine is running; severe, potentially fatal, electric shock may result.**
- ✓ Ensure that only the correct fuel type and grade is used.
- ✗ **DO NOT** check ignition system by removing the spark plug or spark plug lead. Use specific tester or contact service agent.
- ✗ **DO NOT** operate the washer in an enclosed area as the motor exhaust fumes are a health hazard.
- ✗ **DO NOT** use the washer with flammable, toxic or corrosive liquids.
- ✗ **DO NOT** leave the washer unattended whilst operating, and **DO NOT** remove the fuel cap whilst the engine is running.
- ✗ **DO NOT** refuel the engine whilst it is running. Stop the engine and allow it to cool for two minutes before attempting to refuel.
- ✗ **DO NOT** refuel in a closed or poorly ventilated environment as there is a danger of explosion or fire. Refuel out doors.
- ✗ **DO NOT** smoke or place the washer near any naked flames whilst re-fuelling.
- ✗ **DO NOT** operate washer if there is a fuel leak. Move the unit and avoid using until the leak has been fixed and the machine is dry.
- ✗ **DO NOT** start the engine if there are any flammable materials near the exhaust system or in the path of the exhaust gases.
- ✗ **DO NOT** block the engine ventilation grilles.

- * Ensure engine fuel is stored in an approved container.
- ✓ For long term storage ensure the fuel is drained and that the washer is adequately protected against frost.
- * **DO NOT** operate the engine with either the silencer or air filter removed.
- * **DO NOT** touch the engine during or after use. To avoid burns allow it to cool before handling.

2. INTRODUCTION

Petrol powered pressure washer with recoil starting. Suitable for commercial and domestic applications with 5mtr pressure hose, gun, lance and adjustable nozzle. Low-pressure liquid detergent injection system. Safety latch on trigger and automatic low-oil engine shut down reduce risk of miss-use and equipment damage. Unit stands on four sucker feet to prevent movement and has integral handle. Supplied with tools and full instructions.

3. SPECIFICATION

| | |
|------------------------------|----------------------------------|
| Model no: | PWM1300 |
| Manifold pressure:..... | 90bar (1305psi) |
| Maximum pressure:..... | 130bar/1885psi |
| Flow rate:..... | 7ltr/min |
| Hose length:..... | 5mtr |
| Nozzle:..... | adjustable nozzle |
| Maximum inlet pressure:..... | 50° |
| Engine type:..... | 4 stroke, single cylinder petrol |
| Engine capacity:..... | 87cc |
| Engine power:..... | 2.4hp |
| Starting: | recoil |
| Fuel tank:..... | 1.6ltr |
| Fuel consumption:..... | 0.8-1ltr/hr |
| Noise level: | 102dB(A) |
| Weight:..... | 20kg |

4. ASSEMBLY

Unpack contents and check to ensure all parts are in good condition.

4.1. ASSEMBLY.

- 4.1.1. Screw together the two halves of the lance as shown in fig.5.
- 4.1.2. Slide the rubber cover over the connector nut.
- 4.1.3. Attach the high pressure hose to the water inlet on the gun handle as shown in fig.3A and B.
- 4.1.4. Attach the other end of the high pressure hose to the pump outlet as shown in fig.2.
- 4.1.5. Connect the mains water supply hose to the pump inlet as shown in fig.2.

Note: The water supply hose must be reinforced and have an internal diameter of 13mm (1/2"). The minimum water supply rate must be at least equal to the washer flow rate.

4.2. DETERGENT DELIVERY.

- 4.2.1. On the side of the pump outlet is a brass siphon injection fitting.
- 4.2.2. Push the detergent delivery pipe onto the fitting and place the filter on the other end into a container of detergent (fig.2).
- 4.2.3. When the nozzle on the lance is set to low pressure, detergent will be drawn from the container by siphonic action and will mix automatically with the water from the pump. Use Sealey General Purpose Detergent, **AK130 (25ltr)** or **AK131 (5ltr)**. Traffic Film Remover is also available, **AK132 (25ltr)** or **AK133 (5ltr)**.

4.3. NOZZLE CONTROL.

- 4.3.1. **PRESSURE.** To change from high pressure to low pressure the whole nozzle moves backwards and forwards by about 6mm on the end of the lance. Pull the nozzle back towards the handle for high pressure and push it away from the handle for low pressure (see fig.5).
- 4.3.2. **SPRAY PATTERN.** To change the spray pattern from a pencil jet to a fan jet rotate the nozzle as shown in fig.4

4.4. ENGINE LUBRICATION.

- 4.4.1. The pressure washer engine is shipped from the factory without oil. **DO NOT** attempt to start the engine before the sump has been filled with the correct amount of oil. Refer to the section 8.2.

4.5. FUEL.

Fill the petrol tank with fresh unleaded petrol.

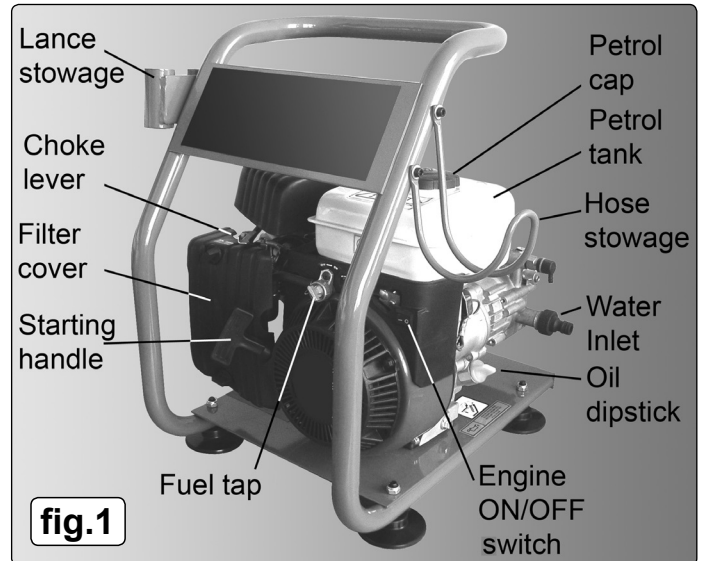


fig.1

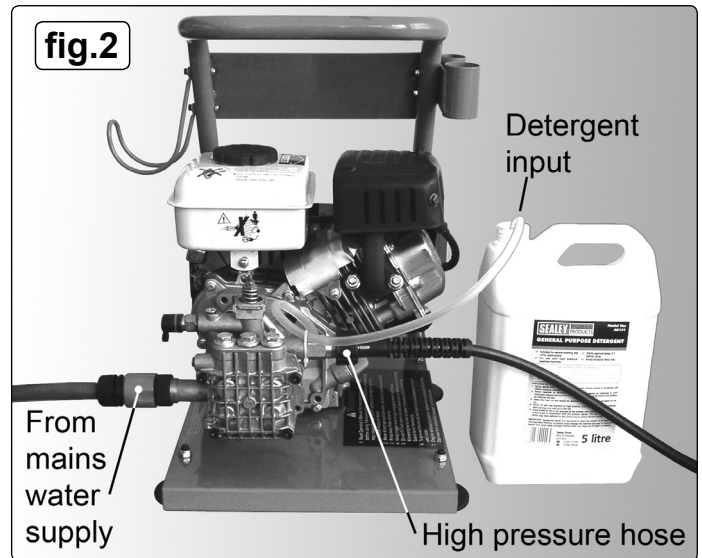
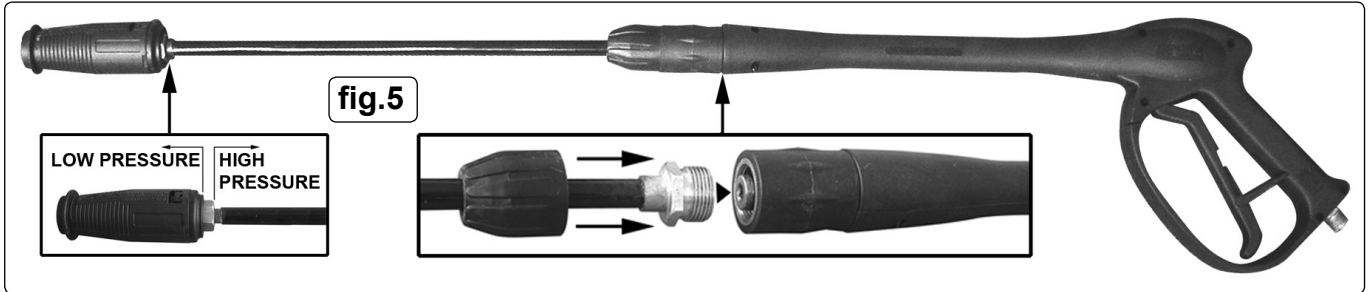
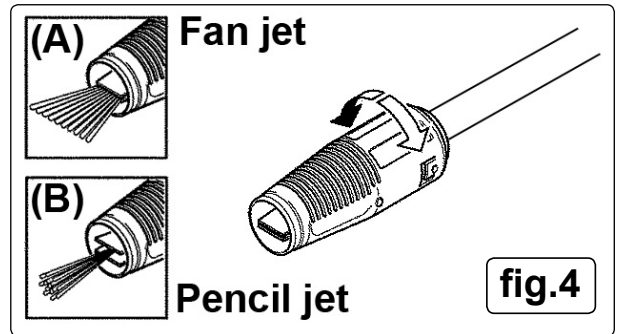
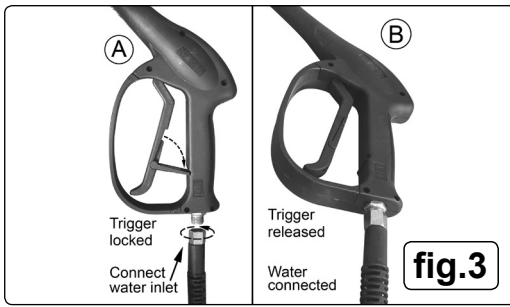


fig.2



5. SAFETY FEATURES

5.1. THERMAL RELIEF VALVE

5.1.1. A thermal relief valve is fitted to protect the machine from overheating if the gun remains closed for an extended period of time or if the nozzle becomes blocked. To prolong the life of the washer every effort should be made to avoid overheating. It is recommended that if the unit is not to be used for two minutes or more it should be switched off.

5.2. TRIGGER LOCK.

5.2.1. To prevent accidental starting of the pressure washer the trigger can be locked as shown in fig.3.A by hinging out the lever built into the back of the trigger and pressing it until it snaps into an indent in the handle. To release the locking lever flex the trigger handle forwards and flip the lever out of the indent and fold it back into the trigger. The trigger should be locked whenever the washer is not in use.

5.3. LOW OIL SHUT DOWN.

5.3.1. The engine on this washer is equipped with a low oil shut down feature which stops the engine if the oil drops below the specified level. Should the engine cut out, first check that it is standing on a level surface. If the oil level is still low top it up as described in Section 8.2.

6. OPERATION

- WARNING!** Ensure you read, understand and apply Section 1 safety instructions.
- WARNING!** Dry running can seriously damage the unit.
- WARNING! DO NOT** leave motor running for more than 2 minutes without operating the trigger, as temperature/pressure increase may damage sealing system.

6.1. STARTING PROCEDURE.

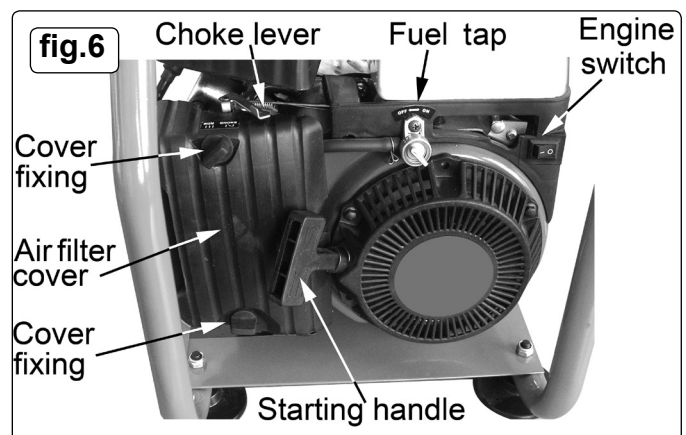
- 6.1.1. Check engine oil level before each use.
- 6.1.2. Check that the mains water feed hose is laid straight and then fully open the water tap. Check to ensure there are no leaks from hoses or connections.
- 6.1.3. Place the detergent input tube into the detergent container (fig.2.) Ensure that the filter goes to the bottom of the container.
- 6.1.4. Release gun trigger safety catch and depress trigger to allow any air left in the system to escape, hold for 10 seconds and release.
- 6.1.5. Switch the engine switch to the ON position (press left hand side of switch with "I" symbol). See fig.6.
- 6.1.6. Turn the fuel tap clockwise to the ON position. See fig.6.
- 6.1.7. If starting the engine from cold move the choke lever fully to the right. See fig.6.
- 6.1.8. To start the engine give a steady pull on the starting handle. (The engine will be a little easier to start if the trigger is pressed during starting. This must be done by a second person who can control the initial kickback as the water is expelled).
- 6.1.9. As the engine warms up move the choke lever left into the 'run' position.

6.2. NOZZLE SPRAY ADJUSTING (fig 6).

6.2.1. Adjust the nozzle pressure and spray pattern as described in section 4.3.

CAUTIONS!

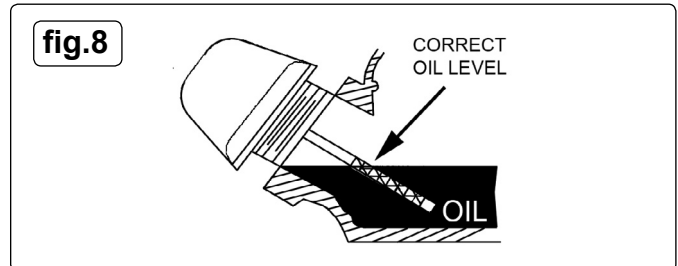
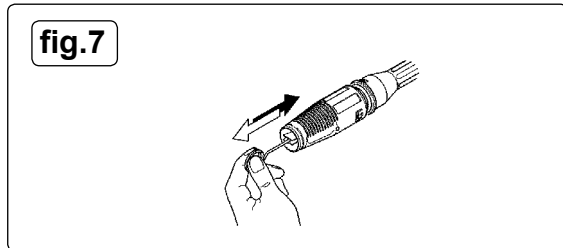
- a) Avoid sudden bursts of water as this will cause the water pressure to drop and put extreme pressure on the hoses
- b) If another person is using water from the same supply as the washer, the water pressure will drop and the washer will not operate correctly. Switch the engine off immediately and wait until the pressure is restored.



6.3. CLEANING

- 6.3.1. Push nozzle forward - **LOW PRESSURE** - and rotate to fan jet. Only apply detergent at the low pressure rate.
 - 6.3.2. Depress the trigger to apply the detergent to the *dry surface* of the item which is to be cleaned. Vertical surfaces must be cleaned from the bottom upwards.
 - 6.3.3. When detergent application is complete remove the syphon tube from the detergent container and place it in a container of clean water. Run the washer at low pressure to purge the gun of detergent.
 - 6.3.4. Leave the detergent to act for 1-2 minutes, but **do not** allow the surface to dry.
 - 6.3.5. Pull nozzle back - **HIGH PRESSURE** - and use fan or pencil jet for washing.
 - 6.3.6. Hold nozzle firmly at least 300mm (12") from the surface and commence washing with high pressure clean water. Work from the bottom upwards, and avoid the water running on to unwashed surfaces.
- 6.4. **SHUT DOWN PROCEDURE**
- 6.4.1. When you have finished washing, turn off the engine switch and close the fuel tap. Turn off the mains water supply.
 - 6.4.2. Discharge residual pressure from the washer by pressing the trigger until no more water comes out of the nozzle.
 - 6.4.3. Engage the trigger safety catch, wipe the washer and store in a dry, safe, childproof area.

7. MAINTENANCE WASHER



- ❑ **WARNING! Maintenance should only be performed with the engine turned off and the unit disconnected from the mains water supply.**

- 7.1. Clean gun nozzle with a suitable rigid piece of wire (fig 7). Detach lance from gun, remove any dirt from the nozzle head and rinse with clean water. If this does not improve the flow from the nozzle it should be replaced.
- 7.2. Check and clean the water inlet filter every 50 operating hours. Remove the plastic connector from the water inlet on the pump and remove the internal filter and clean it. If the filter is damaged in any way it should be replaced.
- 7.3. Check and clean the detergent filter at the end of the detergent input tube on a regular basis.
- 7.4. **WINTER STORAGE:** Fill the pump with an anti-freeze mixture before storing in a frost free, safe, dry area for the winter. Introduce the antifreeze by the following method.
 - 7.4.1. Shut off the water supply and disconnect the supply hose. Relieve pressure within the pump by squeezing the gun trigger. Leave the high pressure hose connected.
 - 7.4.2. Tip the unit on its side with the water inlet facing upwards and insert a small funnel into the inlet. Pour in some antifreeze mixture.
 - 7.4.3. Disconnect the ignition lead from the spark plug.
 - 7.4.4. Pull the recoil starter several times to circulate the antifreeze throughout the pump. Continue to add antifreeze and pull the recoil until antifreeze is expelled when the trigger is pulled.

8. MAINTENANCE ENGINE

- 8.1. Change engine oil after the first 8 hours of operation. Thereafter, change oil monthly or every 50 hours of operation. Change oil more often if engine is operated under heavy load, or in high ambient air temperatures. During normal operation, partially burned fuel, small particles of metal from the cylinder walls, pistons, bearings and combustion deposits will gradually contaminate the oil. If the oil is not changed regularly, these foreign particles can cause increased friction and a grinding action which shortens the life of the engine. Fresh oil also assists in cooling. Old oil gradually becomes thick and loses its cooling ability as well as its lubricating qualities.
- 8.2. **CHECKING THE OIL LEVEL** Ensure the unit is on a level surface.
 - 8.2.1. Unscrew the dipstick and wipe it clean of oil. Note that the lower textured portion of the dipstick indicates the area that should be immersed in oil. If the oil encroaches onto the smooth upper part of the dipstick the oil level is too high.
 - 8.2.2. Check the oil level by seating the dipstick into the hole without screwing it in. See fig.8 above.
 - 8.2.3. Top up oil if necessary and recheck level.
 - 8.2.4. Screw dipstick fully home to seal oil fill hole.

Note: The engine is fitted with a low oil sensor which will automatically shut the engine down in a low oil situation. The sensor may also operate if the unit is not on a level surface.
- 8.3. **ENGINE STORAGE** If the unit is not to be used for more than one month the following procedure should be followed.
 - 8.3.1. Top-up engine oil to maximum.
 - 8.3.2. Drain petrol from the fuel tank, fuel line, fuel tap and carburettor.
 - 8.3.3. Pour one teaspoon of engine oil through the spark plug hole, pull the recoil starter several times and replace the spark plug. Then pull the starter slowly until an increase in pressure is felt indicating that the piston has commenced its compression stroke and leave it in this position. This closes both the intake and exhaust valves and prevents the inside of the cylinder from rusting.
 - 8.3.4. Cover the unit and store it in a clean dry place that is well ventilated and away from open flame or sparks.
- 8.4. **AIR CLEANER** To access the air cleaner element unscrew the two plastic fixings seen in fig.6 and remove the black cover. Take out the foam element and soak it in petrol to clean out dirty oil deposits. Squeeze out any excess petrol and allow the element to air dry (do not use any source of heat to dry it). When the element is thoroughly dry soak it in clean engine oil. Squeeze out any excess oil and place the element back into the housing and replace the cover.

8.5. MAINTENANCE SCHEDULE

Note: When the engine is new it will not reach its peak performance until it has been used for several hours. No special running in conditions are required.

Before each use.

Check engine oil level.

Inspect the unit for evidence of oil and fuel leaks.

After the first 8 hours only.

Change the engine oil.

Check the valve clearances.

Every 50 hours.

Change the engine oil.

Check valve clearances

Inspect and clean air filter.

Clean spark plug and check gap.

9. TROUBLESHOOTING

| PROBLEM | POSSIBLE CAUSES | REMEDY |
|---|--|---|
| Engine will not start | Low oil sensor has shut down engine | Top-up oil to correct level |
| | Engine switch not in the ON position | Turn switch ON |
| | Pressure build-up in pump | Operate trigger |
| Engine is overloaded | Nozzle partially blocked | Clean nozzle |
| | Excessive pressure build-up | Return to dealer to have reflux valve adjusted. |
| Engine running but pump not building maximum pressure or has irregular pressure | Mains water turned off | Turn on mains water |
| | Unit has been stored in freezing temperatures | Thaw out completely including hose, gun and wand. |
| | Inadequate water supply | Minimum required is 7ltr/min at 20psi. |
| | Water inlet filter clogged | Clean filter |
| | Kink in water supply hose | Straighten hose |
| | Wand nozzle worn or damaged | Replace nozzle |
| | Air in pump | Run unit with gun open and wand removed until air is purged |
| | Suction or discharge valve clogged or worn out | Clean suction or discharge valves |
| | Bypass valve not operating effectively | Clean bypass valve |
| No intake of chemicals | Injection tube not properly attached to unit | Push tube firmly onto siphon nozzle |
| | Tube cracked or split | Replace tubing |
| | Nozzle set to high pressure | Move nozzle to low pressure position |
| | Siphon nozzle blocked | Clean nozzle |
| Trigger will not move | Trigger lock engaged | Release trigger lock |
| Water in crankcase | High humidity | Change oil more frequently |
| Noisy operation | Worn seals | Return to Sealey dealer for seal replacement |
| | Worn bearings | Return to Sealey dealer for bearing replacement |
| Rough/pulsating operation with pressure drop | Air mixed with water | Check inlet line for correct size or restriction |
| | Inlet restriction | Check for incorrectly sized plumbing, air leaks, or blockages |
| | Air mixed with water | Check inlet line for correct size or restriction |
| High crankcase temperature | Wrong grade of oil | Use recommended oil |
| | Oil too high/low | Adjust oil level to recommended. |



WEEE REGULATIONS

Dispose of this product at the end of its working life in compliance with the EU Directive on Waste Electrical and Electronic Equipment (WEEE). When the product is no longer required, it must be disposed of in an environmentally protective way. Contact your local solid waste authority for recycling information.



ENVIRONMENT PROTECTION

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment. When the product becomes completely unserviceable and requires disposal, drain any fluids (if applicable) into approved containers and dispose of the product and fluids according to local regulations.

Note: It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice.

Important: No Liability is accepted for incorrect use of this product.

Warranty: Guarantee is 12 months from purchase date, proof of which is required for any claim.

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