

PETROL
WATER PUMP

64065



1. Preface

These are the original product instructions. This document is part of the product; retain it for the life of the product, passing it on to subsequent holders. Read this manual in full before attempting to assemble, operate, or maintain this product.

This Draper Tools manual describes the purpose of the product and contains all the necessary information to ensure its correct and safe use. Following all the instructions and guidance in this manual will ensure the safety of both the product and the operator and increase the lifespan of the product.

All photographs and drawings within this manual are supplied by Draper Tools to help illustrate correct operation of the product.

Every effort has been made to ensure the information contained in this manual is accurate. However, Draper Tools reserves the right to amend this document without prior warning. Always use the latest version of the product manual.

1.1 Product Reference

User Manual for: Petrol Water Pump

Stock No: 64065

Part No: PWP52

1.2 Revisions

Version 1: December 2016
First release

Version 2: February 2025

As our manuals are continually updated, always ensure that the latest version is used.

Download the latest version from:
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1.3 Understanding the Safety Content of This Manual



WARNING! – Situations or actions that may result in personal injury or death.



CAUTION! – Situations or actions that may result in damage to the product or surroundings.

ATTENTION – Situations or actions that may result in damage to the product or surroundings.

Important: – Information or instructions of particular importance.

1.4 Copyright © Notice

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3. Product Introduction

3.1 Intended Use

This product is designed for the transfer of clean water in environments in which access to mains power is limited. Any other application beyond the conditions established for use will be considered misuse. Draper Tools accepts no responsibility for improper use of this product.

Clear water pumps are suitable for use in pumping clear water from pools and garden ponds where the water is not muddied by sediment or algae and contains no visible particles.

3.2 Specification

Stock No.:	64065
Part No.:	PWP52
Engine Capacity:	196cc/4.8HP 4 stroke overhead valve
Fuel:	
Type:	E10* (95 RON) Unleaded
Capacity:	3.6L
Oil:	
Type:	SAE 10W-30
Capacity:	0.6L
Suction aperture:	50mm (2")
Output aperture:	50mm (2")
Max. flow:	500L/min
Max. head height:	25m
Max. suction head height:	8m
Noise emissions:	
Sound power level (LWA):	108dB (A) at 4M
Application:	Clean water
Net weight:	24kg

*Draper Tools recommends using an additive or stabiliser with E10 petrol so the fuel can be safely stored in the fuel tank for longer.

Important: The declared noise emissions values have been measured in accordance with a standard test method and may be used for comparing one tool with another. These values may also be used in a preliminary assessment of exposure.

 **WARNING!** The noise emissions during actual use of the product can differ from the declared values depending on the circumstances in which it is used. Before each use, estimate the likely exposure resulting from the actual conditions of use. Take into account all parts of the operation cycle in order to identify any safety measures required to protect the operator.

Important: Read all the Health and Safety instructions before attempting to operate, maintain or repair this product. Failure to follow these instructions may result in injury or damage to the user or the product.

4.1 General Health and Safety Precautions

Training and Inspection

- Only personnel who have read and understood this manual in full and are familiar with the operation, safe working techniques and safety features of this machine may operate, adjust or maintain this product.
 - **DO NOT** allow anyone who is unfamiliar with this product or unqualified in its use to operate this machine.
 - This machine is not intended for use by children or persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge unless they have been given supervision or instruction in its use by a person responsible for their safety.
- Observe all standard safety precautions and good practices when working with petrol engines and liquids.
- Before every use, inspect the product and all accessories for broken, cracked, loose or corroded parts and leakages.
- **Important: DO NOT** use this product if it is leaking or damaged in any way. Contact Draper Tools to discuss repair and replacement options.
- **DO NOT** allow familiarity or experience with this product to allow you to become complacent; remain alert at all times and **ALWAYS** adhere to the safety instructions listed in this manual.

Preparation and Intended Use

- Ensure that the surface onto which the machine is installed is flat, level, stable and capable of permanently supporting the weight of the machine.
- Ensure that the product is fully assembled, tightened and secure before use.
- **DO NOT** modify this product in any way and **ONLY** use spare parts supplied by Draper Tools.
- Use this product only in the manner described in this manual.
- **NEVER** step, stand or sit on this product.

- **DO NOT** leave the machine running unattended under any circumstances; **ALWAYS** switch the machine off, allow it to cool for at least 30 minutes and disconnect **BOTH** hoses before walking away.
- **DO NOT** exceed the maximum working capacities of this machine.

ATTENTION

This product is not weatherproof and MUST NOT be exposed to direct sunlight, high ambient temperatures, rain, frost or damp, wet and high-humidity environments.

Work Area Safety

- Keep your work environment clear and well-lit, with bystanders at a safe distance.
- Work only in daylight or in good artificial light.
- **DO NOT** use this product near open flames or sources of heat or ignition, or in any environment where explosive substances are present.
- **NEVER** operate the engine indoors or in any confined space where dangerous carbon monoxide fumes can collect; carbon monoxide is dangerous and can cause serious injury or death in a matter of minutes.
- **DO NOT** change the engine governor settings or overspeed the engine.
- **NEVER** transport the machine while the engine is running.
- Allow adequate space for the pump and hoses during use.

Personal Safety

- Wear suitable personal protective equipment, including ear defenders and protective gloves.
- Keep your hands, face and body away from heated and moving parts while the pump is in use.
- Keep long hair and loose clothing tied back to prevent it from catching in moving parts.
- Ensure that the pump is switched off and has completely cooled before fuelling, maintaining or making any adjustment to the product.
- **DO NOT** operate this machine if you are tired or under the influence of alcohol, drugs or other medication.

4. Health and Safety Information

Electrical Safety



WARNING!

Risk of electric shock.

- This product produces enough electrical power to cause a serious shock or electrocution if it is misused.
- **NEVER** handle or operate this machine with wet hands.
- **NEVER** expose this machine to wet conditions or frost; **ONLY** the connected hoses and internal pumping system should come into contact with liquids.

Maintenance

- Maintain the machine appropriately and correctly to prevent damage to moving parts and mechanisms.
- Have the machine serviced **ONLY** by authorised and suitably qualified personnel.
- Remove all adjustment tools before use.
- **ALWAYS** switch off the product and allow it to completely stop and cool before attempting to refuel or perform any adjustment, maintenance or other inspection.
- **NEVER** store the equipment with petrol in the tank inside a building where fumes can reach an open flame or spark.
- Allow the engine to cool before storing it in any enclosure.
- To reduce the risk of fire, keep the engine, muffler and petrol storage area free of vegetative material and excessive grease.
- Replace worn or damaged parts for safety.
- If the fuel tank has to be drained, it must be done outdoors.

4.2 Additional Health and Safety Instructions for this Water Pump

ATTENTION

This product is NOT shipped with engine oil. ALWAYS check and top up the engine oil before every use.

- The engine speed has been set at the factory to ensure safe operation.
 - **DO NOT** adjust the engine speed.

- **NEVER** use the pump if the stop switch is faulty, unusable, or missing.
- Ensure that the suction and discharge hoses are laid out flat and safely and **DO NOT** create a trip hazard.
- **NEVER** operate the pump without first correctly pre-filling it.

ATTENTION

- **NEVER operate the pump without water passing through it.**

- **NEVER** obstruct the discharge outlet or hose as this may severely damage the product.
- **NEVER** allow the pump or its contents to freeze.
- **NEVER** use this product to pump corrosive or toxic materials.
- **DO NOT** cover or obstruct any ventilation points or grilles.
- **DO NOT** drop or strike the pump.
 - If sudden force is applied to the pump, **IMMEDIATELY** switch it off and inspect it for damage.



WARNING! DO NOT continue to use the pump if it has sustained any damage.

- Transport the tool using the designated handle; **DO NOT** attempt to move the pump by pulling on or lifting the hosing.



WARNING! This product is heavy. Use appropriate lifting equipment and ask for assistance if required.

- Ensure all appropriate safety precautions are observed when transporting the machine:
 - **ALWAYS** ensure that the machine is switched off and the spark plug cover is disconnected during transportation.
 - Drain all fuel and oil from the product before transporting it and ensure that all reservoir caps are tightly sealed.

Important: If transporting it in a vehicle, keep the transportation unit well-ventilated.

- When transporting the product by hand, maintain a firm grip on both handles and keep the machine level.
- When transporting the product in a vehicle, ensure it is kept level and strapped securely in place.

- Keep the pump upright at all times.
- Keep the pump out of direct sunlight during transportation.
- Remove the pump from the vehicle immediately upon arrival at your destination.

4.3 Health and Safety Information for Machines With a Petrol Engine



WARNING! During use, parts of this product become hot enough to ignite some materials.

- **DO NOT** touch the engine or exhaust during or immediately after use and allow it to cool before refuelling.
- **NEVER** remove the fuel cap while the engine is running or immediately after use.
 - Take care when opening the fuel cap after use as hot vapour may be released from the opening.
- **NEVER** place objects on the engine while it is in use and keep all air vents clear of dust, dirt and other obstructions.
- Faulty mufflers must be replaced.
- **NEVER** store the machine with fuel in the tank inside any structure where petrol fumes could reach an open flame or spark.



WARNING! Petrol is highly flammable:

- Store fuel in containers specifically designed for this purpose.
- **NEVER** use this product in environments where there is a risk of explosion.
- **NEVER** smoke in the vicinity of the machine.
- Refuel outdoors only and **DO NOT** smoke while refuelling.
- Add fuel before starting the engine; **NEVER** remove the cap of the fuel tank or add petrol while the engine is running or when the engine is hot.
- **NEVER** start the engine if you can smell petrol vapour in the air.
- If petrol is spilled, **DO NOT** attempt to start the engine but move the machine away from the area of spillage and avoid creating any source of ignition until petrol vapours have dissipated.
- Replace all fuel tank and container caps securely.

Important: E10 petrol is hygroscopic and attracts moisture. Read all the preparation and maintenance information relating to E10 fuel before using it in this machine. Draper Tools recommends using an additive or stabiliser with E10 petrol to extend the period that it can be safely stored in the fuel tank. **ALWAYS** read the label of any additive or stabiliser applied.



WARNING! The machine exhaust emits toxic carbon monoxide: a colourless, odourless gas.

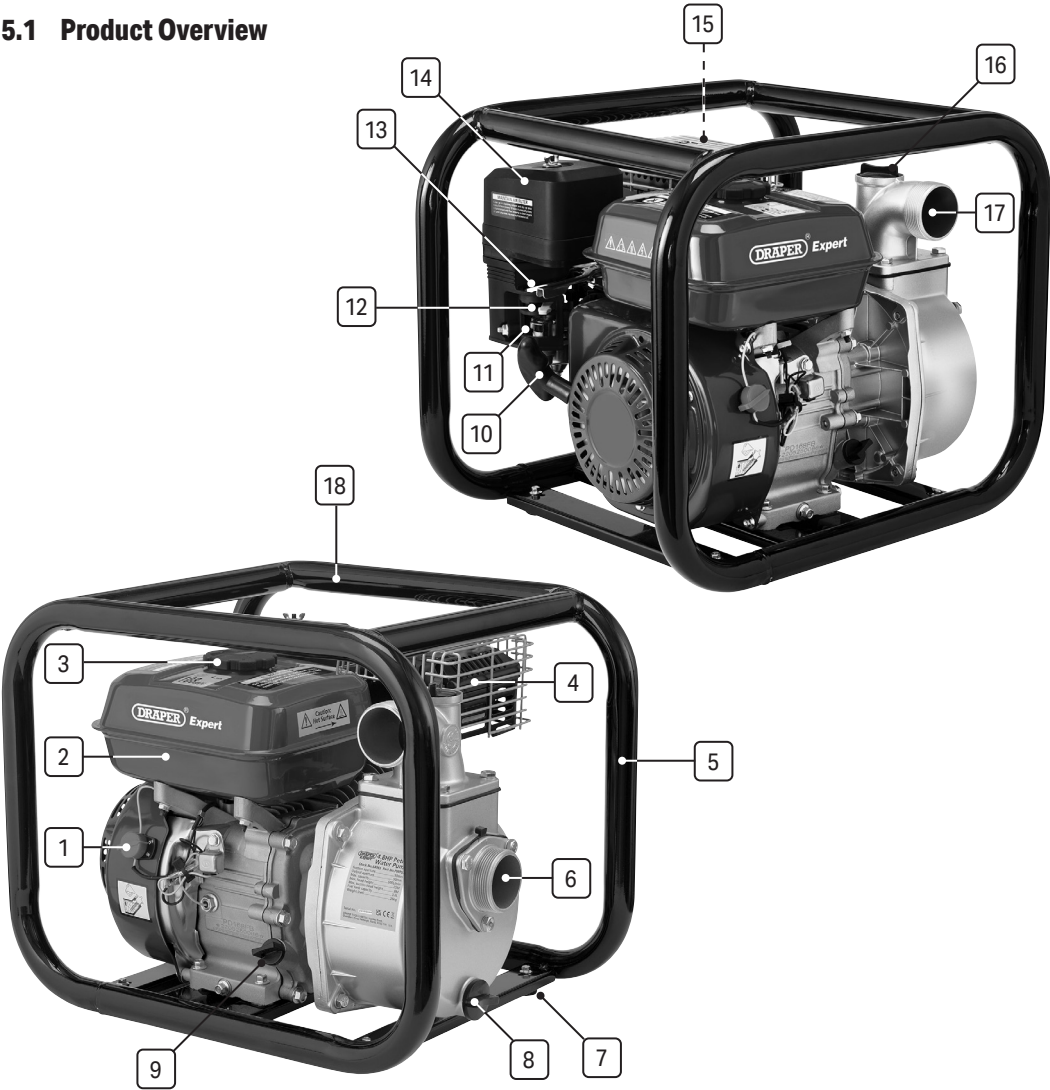
Breathing exhaust fumes can cause loss of consciousness, permanent respiratory damage and eventually death. **ONLY** operate this machine in a well-ventilated outdoor environment, well away from windows and doors. If you inhale carbon monoxide, move to a ventilated area and seek immediate medical attention.

4.4 Residual Risk

The safety instructions in this manual cannot account for all possible conditions and situations that may occur. Exercise common sense and caution when using this product and protect against any additional conceivable risks.

5. Identification and Unpacking

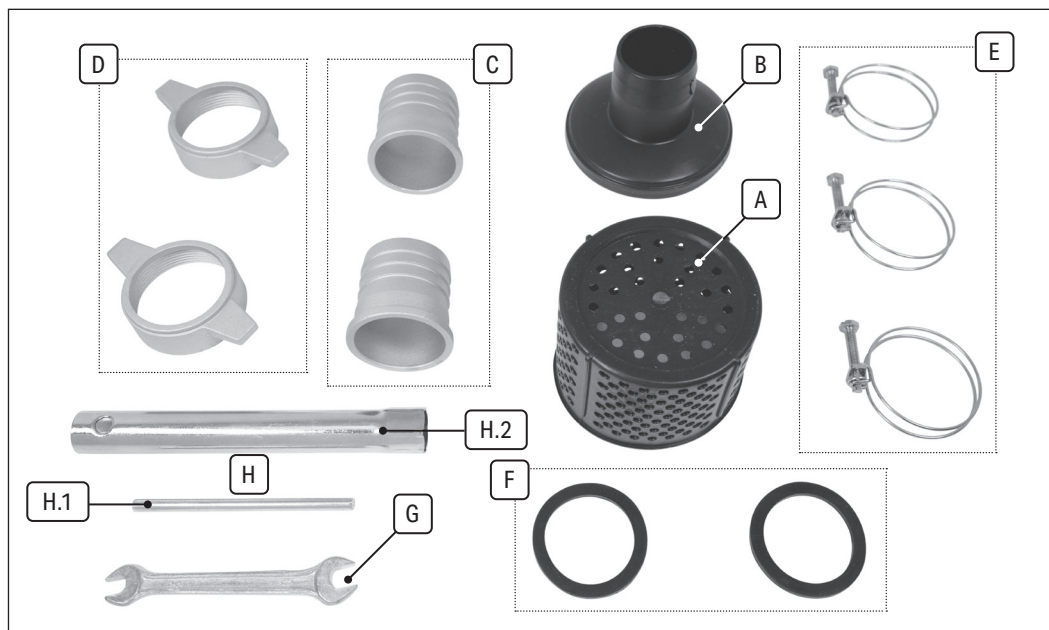
5.1 Product Overview



- | | | | | | |
|---|---------------------|----|-----------------------------|----|------------------|
| 1 | Engine power switch | 8 | Water drain | 15 | Spark plug cover |
| 2 | Fuel tank | 9 | Oil filter cap and dipstick | 16 | Priming cap |
| 3 | Fuel tank cap | 10 | Recoil starter | 17 | Outlet |
| 4 | Exhaust and muffler | 11 | Fuel lever | 18 | Transport handle |
| 5 | Base frame | 12 | Choke lever | | |
| 6 | Inlet (suction) | 13 | Throttle lever | | |
| 7 | Feet | 14 | Air filter housing | | |
| | | | | | |

5.2 What's in the Box?

Carefully remove the product from the packaging and examine it for any signs of damage that may have occurred during shipment. If any part is damaged or missing, **DO NOT** attempt to use the product. Please contact the Draper Helpline; contact details can be found at the back of this manual.



- | | |
|----------------------------------|---|
| A 1 × Strain filter | F 2 × O-ring seals |
| B 1 × Filter cap | G 1 × Combination spanner (M5 8mm/M6 10mm) |
| C 2 × Hose barbs | H Spark plug spanner |
| D 2 × Hose barb couplings | H.1 1 × body |
| E 3 × Hose clamps | H.2 1 × Spark plug spanner handle |

5.3 Packaging

Keep the product packaging for the duration of the warranty period for reference should the product need to be returned for repair.

WARNING! Keep packaging materials out of reach of children. Dispose of packaging correctly and responsibly and in accordance with local regulations.

Please visit drapertools.com for our full range of accessories and consumables.

6. Preparing the Pump

Important: The pump must be correctly prepared before use. Read this section in full before attempting to use this product.

6.1 Hose Connection

Use a solid wall (reinforced) hose to stop the hose from collapsing on the suction side of the pump. Please check drapertools.com for the recommended suction hose.

1. Pass a hose barb **C** through the threaded side of the hose barb coupling **D** so that the thread sits away from the hose barb.
2. Place an O-ring seal **F** inside the hose barb coupling so that it rests against the hose barb.

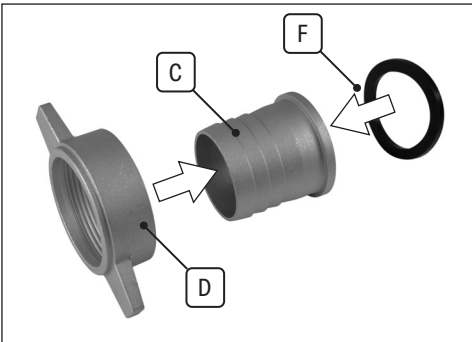


Fig. 1

3. Screw the hose barb assembly onto the pump inlet **6**.

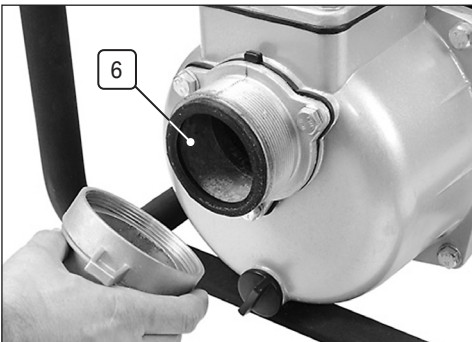


Fig. 2

4. Slide a hose clamp **E** over one end of the solid wall hose (not supplied) and push that end of the hose as far as possible onto the hose barb.
5. Move the hose clamp so that it sits centrally on the covered hose barb **C** and tighten the clamp screw until the hose is held securely in place.

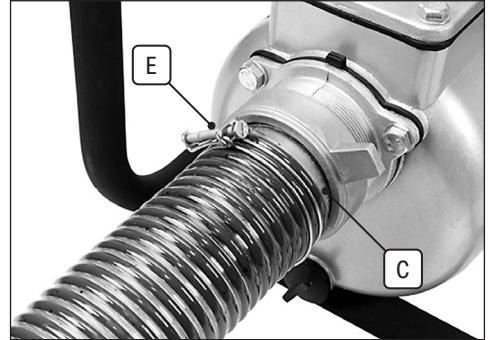


Fig. 3

6. Push the filter cap **B** onto the open end of the strain filter **A**.

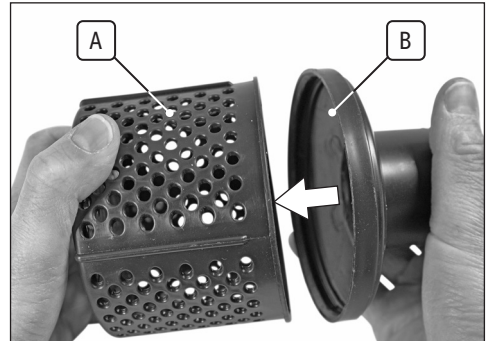


Fig. 4

6. Preparing the Pump

EN

- Slide a hose clamp onto the other end of the solid wall hose and push the hose onto the filter cap barb as far as possible.
- Place the hose clamp centrally on the filter cap barb and tighten until secure.

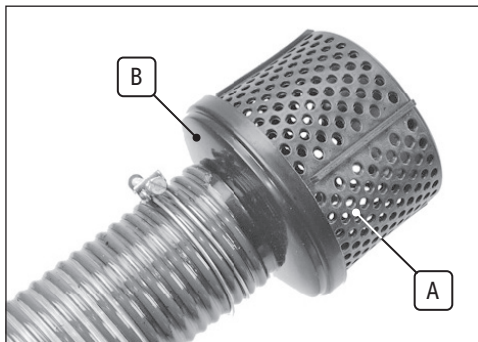


Fig. 5

- Repeat steps 1–6 for the discharge hose (not supplied) if required and connect the discharge hose to the pump outlet **17**.
- It is recommended to install a non-return valve into the suction line to prevent the pump from losing its prime.

6.2 Fuelling the Pump

ATTENTION

This machine is shipped WITHOUT fuel. Check the fuel level before EVERY use and top up as appropriate. NEVER attempt to run the engine on an empty fuel tank.

ATTENTION

E10 petrol is hygroscopic and attracts moisture, which may damage the fuel system if stored in the product for more than four weeks. Refer to Page.12 for guidance on using E10 petrol.

WARNING! ALWAYS fuel the machine in a well-ventilated area away from sources of ignition. Store fuel only for short periods, away from direct sunlight and heat sources, and only in containers specifically designed for that purpose. Avoid prolonged contact with the skin and inhalation of petrol vapour.

To fuel the machine:

- Disconnect the spark plug cover **15** – refer to **section 8.6 spark plug care**.
- Remove the fuel tank cap **3**.



Fig. 6

WARNING! If the Pump unit has been recently used, hot steam may vent from the fuel tank outlet. Take care when opening the fuel tank.

- Ensure that the fuel filter **3.1** is in place.

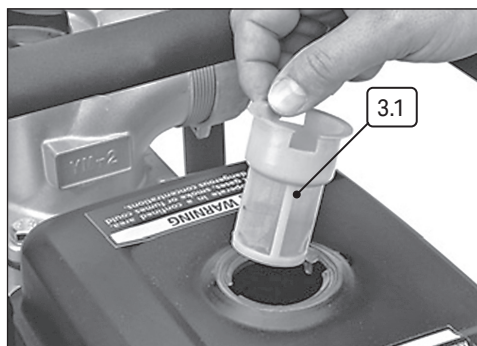


Fig. 7

Important: DO NOT add fuel to the tank if the fuel filter is missing or damaged.

6. Preparing the Pump

4. Carefully pour fuel into the tank until the level reaches the red marker inside the fuel filter.



Fig. 8

ATTENTION

DO NOT overfill the fuel tank; always leave an air gap above the fuel level. NEVER allow dust, dirt, water or dirty fuel to enter the fuel tank. Clean up any spillages IMMEDIATELY.

5. Refit the fuel tank cap, ensuring it is properly fitted and securely tightened.
- **Important:** Ensure that the notches in the fuel filter lip are correctly aligned before attaching the fuel tank cap.
6. Reconnect the spark plug cover when the machine is ready for use.

Important: Move the pump at least 4m (12') away from the fuelling area before starting the engine.

Using E10 Petrol

E10 petrol is hygroscopic: this means that it attracts and mixes with water from the air, which accumulates in the engine and the petrol deteriorates more quickly. If E10 petrol is stored in a machine's fuel tank for extended periods, this build-up of water can form a corrosive gum that rusts the fuel system from the inside.

The use of petrol additives or stabilisers are recommended when using E10 petrol. Additives and stabilisers are widely available and can extend the length of time that E10 petrol can be safely stored in a product fuel tank.

Even where additives or stabilisers are used, Draper Tools recommends that E10 fuel is drained from the fuel tank every three to four weeks to reduce the risk of damage to the product. The fuel must be drained from the fuel tank within the time limit specified by any additives or stabilisers added to the fuel. If the machine will not be used for longer than this time, drain it before putting it into storage.

After draining the fuel tank, always run the engine until the last of the fuel in the system is spent and drain the float bowl when the engine is cool.

E10 petrol should be used within 30 days of purchase.

Some petrol brands contain other quantities of ethanol. **DO NOT** use fuels with more than 10% ethanol.

Always store and dispose of fuels responsibly and in accordance with local regulations.

6.3 Checking and Topping Up the Engine Oil

ATTENTION

This machine is NOT supplied with engine oil. Check the engine oil level before every use. Running the machine with a low oil level oil may cause serious damage to the engine and is not covered by your warranty.

Important: Use SAE 10W-30 oil with this machine.

1. Ensure that the pump is switched off and has completely cooled, then place it on a stable and level surface.
2. Rotate the oil filler cap (9) anticlockwise to remove it from the reservoir and clean it.
Insert the oil filler cap back into the reservoir and remove it again.

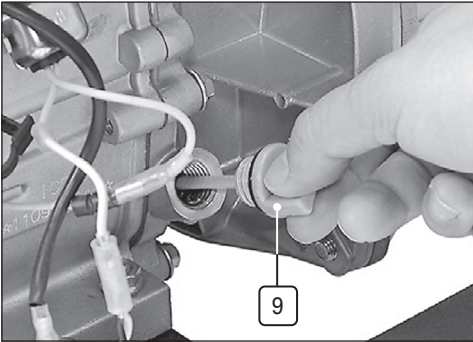


Fig. 9

Important: **DO NOT** screw the filler cap into place when checking the oil level; insert the cap into the reservoir and remove it again.

3. Inspect the oil level on the oil filler cap against the MIN and MAX level markings:
 - a. If the oil is below the MIN level marking, top up with SAE 10W-30 oil until the MAX marking is reached.
 - b. If the oil has become contaminated or discoloured, drain and replace the oil; **see 8.4 Draining the Engine Oil.**

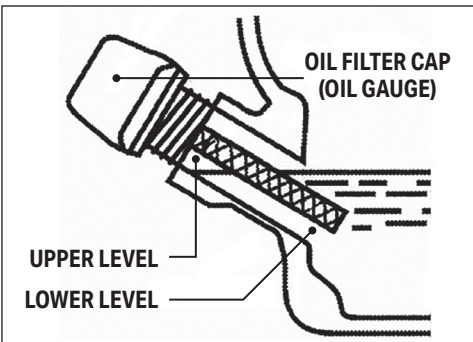


Fig. 10

Important: The motor on this engine is fitted with a low oil sensor. If the oil level drops too low, the engine will stop and cannot be started until the oil level is topped up. Attempting to start the engine with low oil levels may still cause significant damage to the engine components due to insufficient lubrication.

6.4 Priming/Pre-Filling the Pump

ATTENTION

NEVER run the pump dry.

Before the pump is run, it must be filled with water to create a low-pressure vacuum that draws fluid into the impeller.

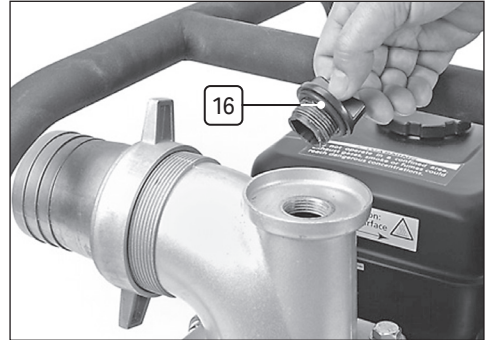


Fig. 11

1. Fill the suction hose with water and ensure it remains submerged in the source reservoir.
 - A non-return valve (not supplied) is recommended to prevent water from leaving the hose.
2. Unscrew the priming cap (16) and pour in clean water, leaving no air gap at the top of the impeller housing.
3. Replace the cap and ensure that the hoses are tight and secure.

Important: The pump may take several minutes to begin pumping water once it is switched on. The length of time is subject to the length of the suction hose and may take up to 10 minutes if the pump is a significant distance from the source. Always position the pump as close to the source of water to be pumped as possible and ensure that all connections are airtight.

Important: The housing must be refilled if the pump is drained or water is lost from the suction hose.

7. Basic Pump Operation

Important: Before operating this product, read and understand all the safety instructions listed in this manual. Ensure that the pump is correctly prepared before use; **see 6. Preparing the Pump.**

Important: Place the pump on a firm and level surface during use. Keep in mind that the length of the hoses and the difference in elevation between the pump and the source and delivery reservoirs may impact the flow rate.

7.1 Starting the Pump

ATTENTION

This machine is NOT shipped with fuel or oil. DO NOT attempt to start the engine until both the fuel tank and engine oil have been checked and topped up accordingly.

Important: **DO NOT** start the pump until it is in its operating position. **NEVER** transport the machine while switched on.

1. Pre-fill the pump with water; **see 6.4 Priming/ Pre-Filling the Pump.**
2. Ensure that the spark plug cover (15) is connected.
3. Slide the fuel lever (11) to the right to open the fuel supply.
4. Slide the throttle lever (13) a little to the left to open the throttle slightly.
5. Move the choke lever (12) to the appropriate position:
 - **Cold start:** Closed (left) position
 - **Warm start:** Open (right) position

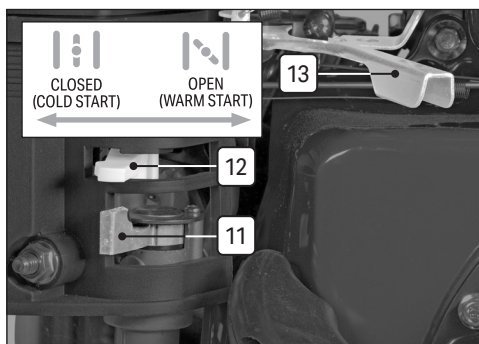


Fig. 12

6. Turn the engine power switch (1) to the 'ON' position.

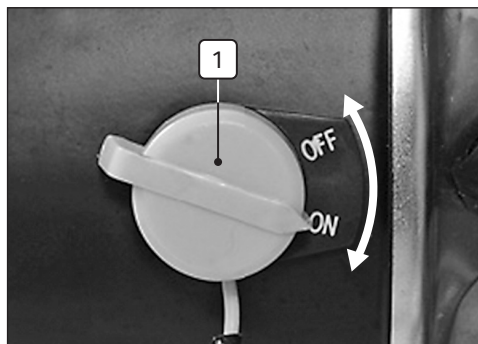


Fig. 13

7. Slowly pull on the recoil starter (10) until resistance is felt, then pull it out rapidly to start the engine.

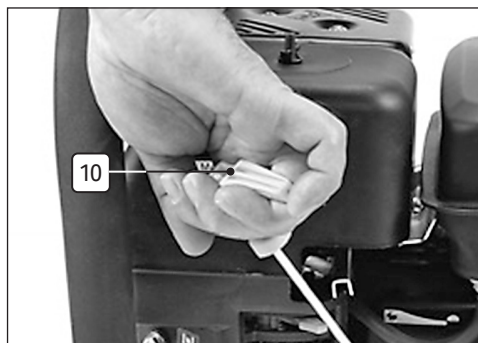


Fig. 14

Important: You may need to do this several times.

ATTENTION

DO NOT attempt to start the engine when the recoil starter is fully retracted. DO NOT allow the recoil starter to snap back against the engine. Return it gently to prevent damage to the starter.

8. If you are performing a cold start:
 - a. Allow the engine to run with no load for a few minutes to allow it to warm up.
 - b. Move the choke lever to the open (right) position.
9. Increase the throttle speed to begin pumping.

Important: When the pump is not in use, lower the throttle to idle (up position) or switch off the engine. **NEVER** leave the pump running unattended.

7.2 Stopping the Pump

Important: Before stopping the engine, lower the throttle to idle and allow the engine to run for a few minutes.

- If the pump is being stopped temporarily, slide the fuel lever **11** to the off position and turn the engine power switch **1** to the **'OFF'** position.
- If the pump is being stopped and then stored, slide the fuel lever to the **'OFF'** position and wait for the engine to cut out before turning the engine power switch to the **'OFF'** position. Open the water drain **8** to allow any residual water in the impeller housing to leave the pump.
- In the event of an emergency, turn the engine power switch to the **'OFF'** position immediately.

8. Maintenance and Troubleshooting

Important: Maintenance and repairs should be carried out **ONLY** by authorised and suitably qualified personnel.

WARNING! ALWAYS turn off the engine and allow it to cool before maintaining or storing this product. If the engine must be run for testing, ensure that this is carried out in a well-ventilated environment that allows carbon monoxide from the exhaust to dissipate quickly.

- For optimal performance and a longer lifespan, maintain the pump according to the schedule outlined in this section. If the pump is used in abnormally hot or dusty environments, increase the frequency of each aspect of the maintenance schedule.

8.1 General Maintenance

- Keep all air vents clean and free from obstructions at all times.
- Protect the pump and its components from adverse environmental and weather conditions, both during use and when stored.
- Clean the engine unit with a damp cloth **ONLY**.

Important: DO NOT use solvents as this may damage any plastic or uninsulated parts.

- Use **ONLY** spare parts supplied by Draper Tools.

8.2 Cleaning Out Blockages

WARNING! ALWAYS ensure that the pump is switched off and has completely stopped before opening the impeller housing.

- Detach the strain filter **A** from the suction hose.
- Remove the strain filter cap **B** and clean all parts of the filter with warm soapy water and a soft brush.

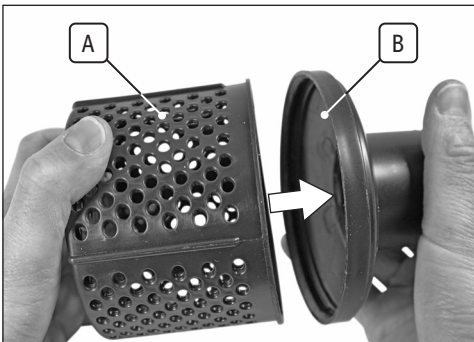


Fig. 15

- Reassemble the strain filter and attach it correctly to the suction hose; see 6.1 Hose Connection.
- Remove the four bolts securing the impeller housing in place.

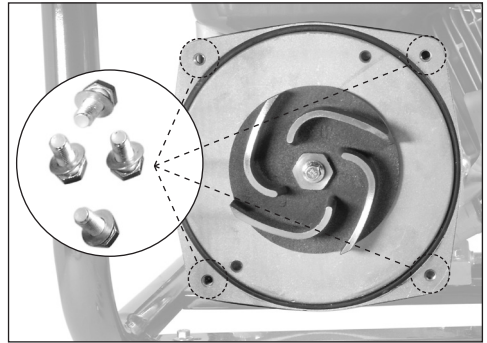


Fig. 16

- Clean inside the housing and around the impeller.
- Screw the cover back into place, ensuring a tight fit.

8.3 Draining the Fuel

Important: Fuel should be stored in the tank for no more than four weeks. Drain the fuel from the pump before storage, particularly if it will be stored for long periods.

Important: Read all the Health and Safety guidance for the use of petrol as a fuel before filling or draining this product.

WARNING! NEVER drain the fuel tank indoors.

To drain the fuel:

- Turn the fuel lever **11** to the closed position.
- Use a siphon (not supplied) to extract the fuel into a suitable container.



Fig. 17

- Identify the fuel line to the carburettor and detach it.
 - Important:** The fuel line may leak when detached. Catch any discharged fuel in a suitable container.
- Position a funnel (not supplied) to direct the fuel into a suitable container.
- Open the fuel lever **[11]** and allow the remaining fuel to drain from the fuel tank.
- When the fuel is drained, close the fuel lever.
- Loosen the float bowl drain bolt and allow the fuel to drain into a suitable container.
- Move the fuel lever to the open position and allow the fuel to drain from the tank.
- When the fuel has drained, tighten the float bowl drain bolt and wipe up any spillages.
- Start the engine and allow it to run until it exhausts the residual fuel in the system.

Important: **ALWAYS** dispose of waste fuel responsibly and in accordance with local regulations.

8.4 Draining the Engine Oil

Important: The engine oil level and condition should be inspected before every use and replaced every three months or after 50 hours of use. It should additionally be replaced after the first month or 20 hours of use, and if it becomes contaminated with water or debris.

Drain the oil before the engine has completely cooled to allow faster and more thorough drainage.

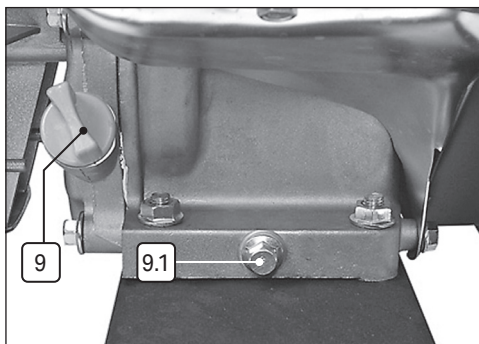


Fig. 18

WARNING! **ALWAYS** wear protective gloves when draining the oil as the oil take care as the reservoir will be hot.

- Position the pump on level ground and start the engine normally.

- Allow a few minutes for the engine to warm up, then switch off the pump.
- Remove the oil filler cap **[9]**.

WARNING! Be mindful of hot vapours escaping from the oil reservoir when the filler cap is removed.

- Open the oil drain bolt **[9.1]** and allow the oil to drain into a suitable container.
- Refit the drain bolt, then refill the oil and check the level (see **6.3 Checking and Topping Up the Engine Oil**).
- Tighten the oil filler cap securely in place.

Important: **ALWAYS** dispose of waste oil responsibly and in accordance with local regulations.

8.5 Air Filter Care

Clean the air filter chamber and element at least after every 50 hours of use or every three months to ensure consistent airflow into the carburettor. Increase the frequency of cleaning when working in dusty environments.

WARNING! **NEVER** use petrol or solvents to clean the air filter elements as they may damage the filter or result in a fire when the machine is next used.

ATTENTION

NEVER run the machine without the air filter element in place as this may cause the engine to degrade rapidly.

8. Maintenance and Troubleshooting

1. Ensure that the choke lever **12** is in the closed (left) position to prevent any debris from entering the carburettor.
2. Loosen the wingnut on the top of the air filter housing **14** and lift the housing away.

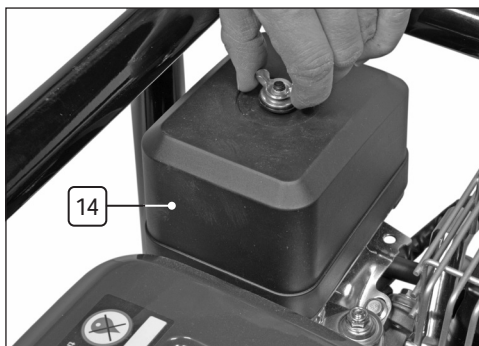


Fig. 19

3. Remove the next wingnut and lift the filter element **14.1** off the bolt.

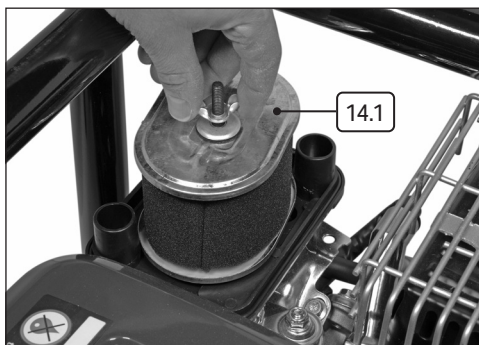


Fig. 20

4. Inspect the filter element **14.1** for holes, tears and obstructions.

Important: If the filter element is damaged, replace it with a new one. **DO NOT** use the unit if the air filter is damaged.

5. Wash the element in warm soapy water and allow it to dry thoroughly.

Important: **DO NOT** use solvents to clean the element.

6. Clean the compartment and covers of any dust, dirt or other obstructions.

7. Reassemble the air filter and screw the element and housing securely in place.

8.6 Spark Plug Care

Ensure that the spark plug is clean and correctly gapped. The spark plug may become contaminated over time if the machine is run with part-throttle for prolonged periods.

Important: Replace the spark plug after every 50 hours of use or every three months.

1. Remove the spark plug cover **15**.

Pass the spark plug spanner handle **H.2** through the holes across the spark plug spanner body **H.1** and use the assembled spanner to remove the spark plug

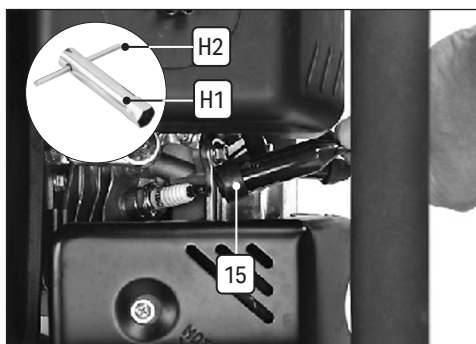


Fig. 21

2. Visually inspect the spark plug and replace it if the ceramic insulator is cracked or chipped.
3. Measure the spark plug gap using a feeler gauge (not supplied) and correct as appropriate by gently bending the electrode into position.

Important: The gap should be **0.7–0.8mm**.

4. Screw the spark plug into place using 20Nm (2mkg, 14ftlb) of torque and replace the spark plug cover securely.

ATTENTION

The spark plug MUST be correctly tightened. Loose spark plugs can become very hot and cause damage to the engine. NEVER use a spark plug with a heat range that is not appropriate for the machine in which it is used.

8.7 Fuel Filter Care

The fuel filter **3.1** sits inside the fuel tank opening and ensures that the fuel remains clean. It must be checked regularly and replaced when it becomes clogged.

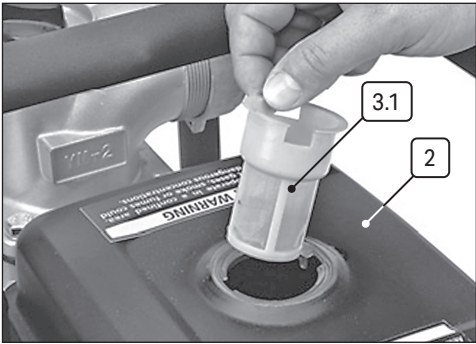


Fig. 22

Important: Wear protective gloves to protect your hands from the fuel.

1. Disconnect the spark plug cover **15**.
2. Drain the fuel from the tank; **see 8.3 Draining the Fuel**.
3. Remove the fuel tank cap **3** and extract the fuel filter **3.1**.
4. Inspect the filter for damage and clean or replace it as necessary:
 - Thoroughly clean the filter using warm soapy water and allow it to dry completely.
Important: DO NOT use solvents to clean the element.
 - Replace the filter if it is damaged or clogged.
5. Insert the fuel filter back into the opening and replace the fuel tank cap securely.

8.8 Maintenance Schedule

Item	Remarks	Pre-operation check (daily)	Initial 1 month or 20Hrs	Every 3 months or 50Hrs	Every 6 months or 100Hrs	Every 12 months or 300Hrs
Spark plug	Check condition, adjust gap and clean. Replace if necessary			•		
Engine oil	Check oil level	•				
	Replace		•		•	
Air filter	Clean. Replace if necessary			•		
Fuel filter	Clean fuel drain filter. Replace if necessary				•	
Valve clearance	Check and adjust when engine is cold					•
Fuel line	Check fuel hose for crack or damage. Replace if necessary	•				
Exhaust system	Check for leakage. Retighten or replace gasket if necessary	•				
	Check muffler screen. Check/replace if necessary				•	
Carburettor	Check choke operation	•				
Starting system	Check key start ignition operation	•				
Decarbonisation	More frequently if necessary					•
Fittings/fasteners	Check all fittings and fasteners correct if necessary				•	

8. Maintenance and Troubleshooting

8.9 Storing the Product

Important: **ALWAYS** ensure that the engine has completely cooled before storing the machine.

- Prepare the machine correctly for storage:
 - Ensure that the engine power switch **1** is in the **'OFF'** position.
 - Disconnect the spark plug cover **15**.
 - Drain the fuel from the tank and carburettor.
 - Tighten all reservoir caps and leakage points.
 - Cover the machine with a plastic sheet to protect it against dust and moisture.
- Store the machine and attachments in a dry and dust-free environment, out of reach of children.
- Store the machine at a temperature of 0–30°C.
- Start the engine at periodic intervals and allow it to run for several minutes to prevent seizure within the engine.
- If the machine is to be stored for a prolonged period, ensure that the engine cylinder is sufficiently lubricated to prevent it from seizing:

1. Remove the spark plug; see **8.6 Spark Plug Care**.
2. Pour a few drops of SAE 5W-30 oil into the socket.
3. Pull the recoil starter **10** slowly to distribute the oil.
4. Return the spark plug securely to the socket.
5. When restarting after storage:
 - a. Remove the spark plug.
 - b. Hold a cloth around the spark plug socket opening.

Important: **DO NOT** smother or completely cover the opening.
 - c. Pull on the recoil starter several times and catch any ejected oil using the cloth.

Do this until no more oil is ejected from the opening.
 - d. Return the spark plug securely to the socket
 - e. Start the engine in the usual way; see **7.1 Starting the Pump**.

8.10 Troubleshooting

Problem	Possible cause	Remedy
The engine will not start.	The engine power switch is in the 'OFF' position.	Press the engine power switch to the 'ON' position.
	The fuel or oil level is too low.	Check and top up the fuel and oil levels as appropriate (see 6.2 and 6.3).
	The fuel lever is in the closed position.	Move the fuel lever to the open position.
	The spark plug electrode has been fouled or the gap is set incorrectly.	Repair or replace the spark plug.
	The spark plug H.T. lead is not connected correctly.	Press the spark plug cover on firmly and ensure that the housing is not interfering with the connection.
	The choke is set incorrectly for the starting conditions.	Ensure that the choke lever is set in the open position for a warm start or closed for a cold start.
	The air filter is clogged.	Clean or replace the air filter (see 8.5).
	The fuel filter is clogged.	Replace the fuel filter (see 8.7).

Problem	Possible cause	Remedy
The engine stutters or runs roughly after starting.	The choke lever is set in the closed position.	Move the choke lever to the open position and retry.
	Parts of the engine require maintenance.	Clean or replace the air filter, fuel filter and spark plug (see 8.6 and 8.7).
	The fuel has been stored for too long and has deteriorated.	Drain the fuel (see 8.3) and clean the fuel filter (see 8.7), then refuel the pump (see 6.2).
The engine fails during use.	The fuel level has dropped too low.	Check and top up the fuel tank (see 6.2).
	The internal water level is low.	Check the pump housing water and top it up if necessary; (see 6.4).
	The strainer filter is clogged.	Remove the strainer filter from the suction hose and clean if blocked.
	The hoses are not airtight.	Ensure that the hose clamps are securely fastened and check the hoses for damage and splits.
	The suction hose is blocked.	Check that the end of the suction hose is not submerged in solid or viscous matter and ensure that the hose is not bent or crushed.
	The impeller is blocked or damaged.	Clean or replace the impeller; (see 8.2)
The engine runs with low power.	Parts of the engine require maintenance.	Clean or replace the air filter, fuel filter and spark plug.
	The choke is closed.	Open the choke after the engine has run for a few seconds.
The pump is leaking oil.	An O-ring seal is damaged or failing.	Replace the faulty part; contact Draper Tools for advice.
	There are loose bolts in the engine.	Tighten all bolts and fittings.

9. Spares, Returns and Disposal

For spare parts, servicing, and repair and replacement options, please contact the Draper Tools Product Helpline for details of your nearest authorised agent.

Draper Tools will endeavour to hold any spare parts, if applicable, for seven years from the date that it sells the final matching stock item.

Any servicing or repairs carried out by unauthorised personnel or installation of spare parts not supplied by Draper Tools will invalidate your warranty.

At the end of its working life, dispose of the product responsibly and in line with local regulations. Recycle where possible.

Dispose of oil and fuel separately and in accordance with local regulations; **DO NOT** abandon them in the environment.



DO NOT dispose of this product with domestic waste; most local authorities provide appropriate recycling facilities.

10.1 Risk of Fire

Hazard	What could happen	How to prevent it
Attempting to fill the fuel tank while the engine is running.	Fuel and fuel vapours can become ignited if they come into contact with hot components such as the muffler, exhaust gases or an electrical spark.	Turn the engine off and allow it to cool completely before adding fuel to the tank. Ensure that a fire extinguisher suitable for petrol fires is located within the working area.
Sparks, fire and hot objects.	Cigarettes, sparks, fires and other hot objects can cause fuel or fuel vapours to ignite.	Add fuel to the tank in a well-ventilated area. Always ensure that sources of heat and ignition are kept well away from the pump.
Improper storage of fuel.	Fuel stored improperly may result in accidental ignition or may be accessible to children and unauthorised personnel.	Store fuel in an approved container designed to hold fuel, and in a secure location away from flammable materials and sources of heat and ignition.
Tampering with the factory-set engine speed settings.	The engine speed has been set at the factory to provide safe operation of the machine. Tampering with the engine speed adjustment could result in overheating and cause a fire.	NEVER attempt to speed up the engine to improve performance. This will impact both the output voltage and output frequency.
Inadequate ventilation of the pump.	Materials placed on, against or near to the pump, or operation of the pump in areas where the ambient temperature exceeds 40°C, may interfere with the proper ventilation of the machine and cause overheating, which may result in the ignition of those materials.	Operate the pump in a clean, dry and well-ventilated area. DO NOT operate the pump indoors or in any confined area. NEVER cover or place objects onto the pump.
Overfilling of the fuel tank.	Spilled fuel and its vapours can become ignited by hot surfaces or sparks.	Exercise extreme caution when filling the fuel tank to avoid spillages. Ensure that the fuel tank cap is securely tightened and check the engine for fuel leaks before switching on the machine. Allow for fuel expansion. NEVER refuel with the engine running.

10. Associated Risks and Preventative Measures

10.2 Risk of Injury and Property Damage When Transporting the Pump

Hazard	What could happen	How to prevent it
Fire, inhalation and damage to vehicle surfaces.	Fuel and oil can leak or spill and may result in a fire or breathing hazard and cause serious injury or death. Fuel and oil leaks can damage carpet, paint and other surfaces in vehicles and trailers.	Ensure that the fuel tap is set to the closed position before transporting the pump to avoid fuel leaks. Transport fuel only in a suitable container designed for that purpose. Always place the pump on a protective mat when transporting to protect vehicles from damage caused by leaks. Remove the pump from the vehicle immediately upon arrival at the destination.

10.3 Risk of Inhalation of Toxic Substances

Hazard	What could happen	How to prevent it
Petrol engines produce toxic carbon monoxide exhaust fumes.	Breathing exhaust fumes may cause serious injury or death.	Operate the pump in a clean, dry and well-ventilated area. NEVER operate the machine in enclosed areas such as garages, basements and sheds, or in any location inhabited by humans or animals. Keep children, pets and unauthorised personnel away from the machine at all times.

10.4 Risk of Unsafe Operation

Hazard	What could happen	How to prevent it
Operation of the pump in a careless manner.	All sources of energy carry the potential for injury. Unsafe operation or maintenance of the pump may lead to serious injury or death to you or others.	Review and understand all of the safety and operation instructions in this manual. Become familiar with the operation and controls of this machine, particularly how to switch it off quickly. Ensure that a fire extinguisher suitable for petrol fires is located within the working area. Keep children, pets and unauthorised personnel away from the machine at all times.
Operation of the pump in a suspended or uneven position.	The pump will not operate properly and may become damaged if it is not orientated correctly and may cause serious injury if it is not stable or secure.	NEVER operate the pump in a suspended or uneven position. Always place it on a flat, level and stable surface.

10. Associated Risks and Preventative Measures

10.5 Risk of Hot Surfaces

Hazard	What could happen	How to prevent it
Contact with hot parts of the engine and other components.	Contact with hot surfaces, such as the engine exhaust components, may result in serious burns.	During operation, handle only the dedicated control and gripping surfaces of the pump. Keep children, pets and unauthorised personnel away from the pump at all times as they may be unable to identify the hazardous areas of the product.

10.6 Risk of Injury from Moving Parts

Hazard	What could happen	How to prevent it
Contact with moving parts may result in serious injury.	The pump contains parts which rotate at high speed during operation.	These parts are covered by guarding to prevent injury. Never operate the pump without this complete guarding in place. Avoid wearing loose-fitting clothing and jewellery that could become caught in moving parts.

10.7 Risk of Injury During Lifting

Hazard	What could happen	How to prevent it
The pump is very heavy.	Attempting to lift an item unsafely or that is too heavy for your capability may result in serious injury.	When lifting, always keep the object near the vertical axis of your body. DO NOT use your back to lift heavy loads. This product should be carried by two people. Both people should crouch down, bending at the knees, and grip the underside of the unit. Using your legs to bear the weight, keep the item as close to your body's centre of gravity as possible. Avoid twisting your body when carrying the unit and instead turn your whole body using your feet.

11. Warranty

Draper Tools products are carefully tested and inspected before shipment and are guaranteed to be free from defective materials and workmanship.

Should the tool develop a fault, return the complete tool to your nearest distributor or contact Draper Tools directly. Contact information can be found at the back of this manual.

Proof of purchase must be provided.

If, upon inspection, it is found that the fault occurring is due to defective materials or workmanship, repairs will be carried out free of charge. This warranty period covers parts and labour for 12 months from the date of purchase. Where tools have been hired out, the warranty period covers 90 days from the date of purchase.

This warranty does not apply to any consumable parts, batteries or normal wear and tear, nor does it cover any damage caused by misuse, careless or unsafe handling, alterations, accidents, or repairs attempted or made by any personnel other than the authorised Draper Tools repair agent.

In all cases, to make a claim for faulty workmanship or materials within the standard warranty period, please contact or return the product to the place of purchase. Proof of purchase may be required.

If the place of purchase is no longer trading or if you experience any difficulties with your warranty, please contact Customer Services with the product details and your proof of purchase. Contact details can be found at the back of this manual.

If the tool is not covered by the terms of this warranty, repairs and carriage charges will be quoted and charged accordingly.

This warranty supersedes any other guarantees expressed or implied and variations of its terms are not authorised.

Your Draper Tools guarantee is not effective until you can produce, upon request, a dated receipt or invoice to verify your purchase within the guarantee period.

Please note that this warranty is an additional benefit and does not affect your statutory rights.

Draper Tools Limited



Read the instruction manual .



Wear ear defenders.



Mandatory action required .



Warning!



Warning! Hazardous material



Warning! Hot surface



Warning! Risk of electric shock



Warning! Risk of fire



Warning! Heavy object



Lift by two persons



DO NOT use in wet conditions



Literage per minute .



European conformity.



UK Conformity Assessed.

Contact Details

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Please contact the Draper Tools Product Helpline for repair and servicing enquiries.