

EN

Original Instructions
Version 1

DRAPER[®]

12/24V

DIESEL TRANSFER PUMP

22108



**UK
CA** **CE**

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: 12V/24V Diesel Fluid Transfer Pump

Stock No: 22108

Part No: FP1B

1.2 Revisions

Version 1: June 2022

First release

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

Download the latest version from:
drapertools.com/manuals

1.3 Understanding the Safety Content

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.

Important: – Information or instructions of particular importance.

1.4 Copyright © Notice

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In all cases, this copyright notice must remain intact.

1. Preface	2
1.1 Product Reference	2
1.2 Revisions	2
1.3 Understanding the Safety Content	2
1.4 Copyright © Notice	2
2. Contents	3
3. Warranty	4
4. Product Introduction	5
4.1 Scope	5
4.2 Specification	5
4.3 Permitted Liquids	5
4.4 Performance	6
5. Health and Safety Information	7
6. Identification and Unpacking	8
6.1 Product Overview	8
6.2 What's in The Box?	9
6.3 Packaging	9
7. Preparation and Assembly	10
8. Operating Instructions	12
9. Maintenance & Troubleshooting	13
9.1 General Maintenance and Storage	13
9.2 Internal Filter Care	13
9.3 Replacing the Fuse	14
9.4 Troubleshooting	15
10. Disposal	16
11. Explanation of Symbols	17

3. 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

4. Product Introduction

4.1 Scope

This product has been designed for the transfer of diesel fluid **ONLY** from one reservoir, tank or drum to another or into a vehicle. It is suitable for regular use by enthusiasts and tradespersons alike. Any other application beyond the conditions established for use will be considered misuse. Draper Tools accepts no responsibility for improper use of this product.

WARNING! This product is not a toy and must be respected.

Read this manual in full before attempting to assemble, operate or maintain the product, and retain it for later use.

4.2 Specification

Stock No.	22108
Part No.	FP1B
Rated voltage:	12V
Rated current:	16A
Pump speed:	1,800rpm
Flow rate:	35L/min
Rated voltage:	24V
Rated current:	25A
Pump speed:	3,500rpm
Flow rate:	70L/min
Inlet hose:	
Inlet inner diameter:	25mm
Inlet outer diameter:	28mm
Supplied hose length:	2.0m
Outlet hose:	
Outlet inner diameter:	19mm
Outlet outer diameter:	28mm
Supplied hose length:	4.0m
Sound pressure level (LPA):	> 70dB(A) at 1m from pump
Duty cycle:	30min on, 30min off
Fuse:	30A standard blade
Operating temperature range:	-20 to +60°C
Net weight:	6.5kg
Pump IP Rating:	IP55

4.3 Permitted Liquids

WARNING! This pump may ONLY be used for the transfer of diesel fluids with a viscosity of 2–5.35cSt at 37.8°C and a minimum flashpoint of 55°C.

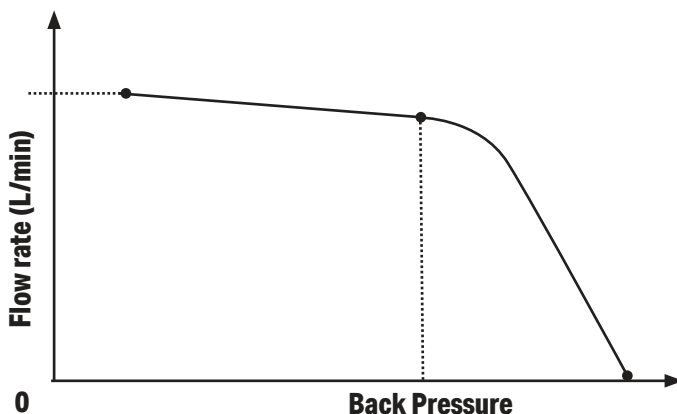
Use of other fluids may result in fire, explosion, overload, oxidation, contamination, corrosion and other hazards.

4. Product Introduction

4.4 Performance

The performance of the pump is subject to the distance above the source tank that the pump body is positioned.

	Input voltage (V)	Flow rate (L/min)	Absorption (AU)	Pressure (bar)
Position A (maximum flow rate)	12	35	8	0.5
	24	72	15	0.5
Position B (rated conditions)	12	33	11	1
	24	66	19	1.2
Position C (Bypass mode)	12	0	16	2
	24	0	25	2.6



These values are achieved in the following operating conditions:

- **Ambient temperature:** 20°C
- **Pump position:** The hose length and position of the pump relative to the fluid level creates a pressure of 0.3bar at the nozzle.

Changing these conditions may result in higher pressure at the nozzle or reduced flow rate while maintaining the same backpressure values.

For optimal performance, the loss of suction pressure should be reduced as much as possible. This can be achieved using the following methods:

- Shorten the hose as much as possible.
- Avoid the use of elbows and throttling in the hoses.
- Keep the pickup filter clean.
- Use hoses with as large a diameter as possible.

Important: The burst pressure of the pump is 20bar.

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

- **ALWAYS** assess the conditions of each specific fluid transfer and ensure that the pump and power source are appropriate for each operation.
 - Consider the length and diameter of hosing, the position of the pump and the resulting backpressure, as well as the combined effect on the flow rate when assessing the requirements of each operation.

- Observe all standard safety precautions and good practices when working with electrical equipment.

- Keep your work environment clear and well-lit, with bystanders at a safe distance.

- Keep out of reach of children.

- Before every use, inspect the pump for missing, broken, loose or corroded parts.

Important: DO NOT use this product if it is damaged in any way. Contact Draper Tools to discuss repair and replacement options.

- Use the product only in the manner instructed in this manual.

- **ONLY** use this pump to transfer diesel fluids
- **DO NOT** attempt to pump petrol; alimentary liquids; explosive, corrosive or flammable liquids; or any other substance using this product.

- **DO NOT** modify this product in any way.

- Use this pump **ONLY** in well-ventilated areas to prevent the build-up of diesel fumes.

- **DO NOT** operate this pump in explosive atmospheres or in close proximity to flammable materials or vapours.

- **ONLY** operate this pump in ambient temperatures between -10 and +60°C.

- **DO NOT** expose the pump to direct sunlight for prolonged periods.

- **ALWAYS** wear oil-resistant gloves while using this product and wash your hands thoroughly with soapy water after use.

- **DO NOT** operate the pump with wet hands.

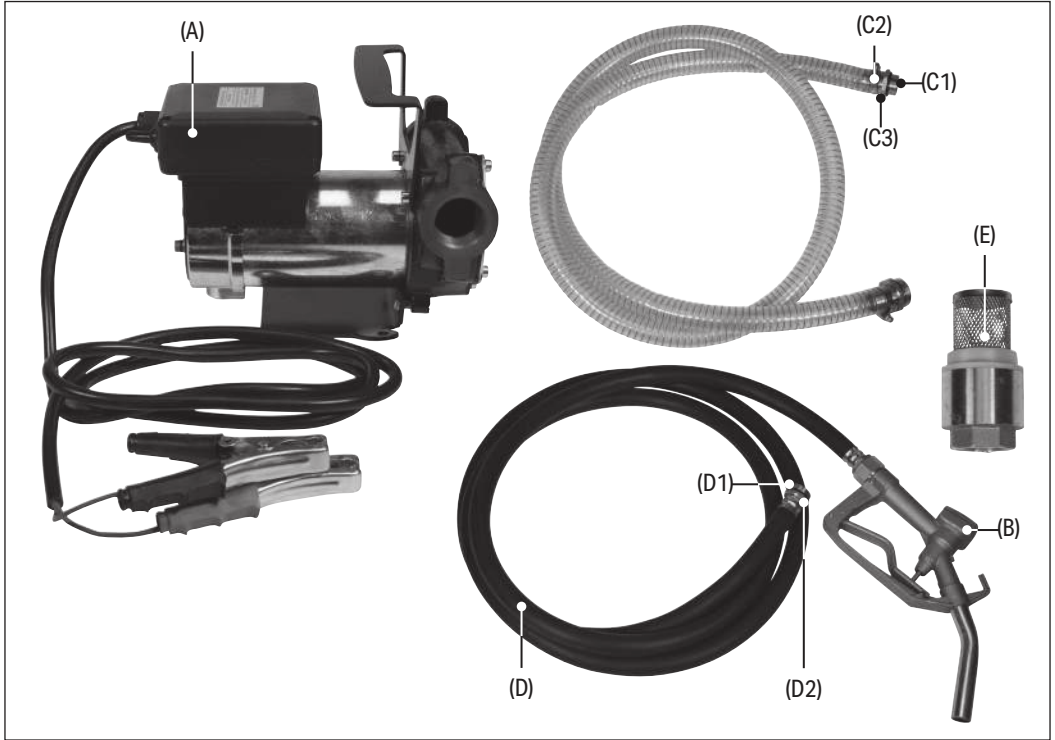
- **ALWAYS** wear suitable eye protection when using this product.
- **NEVER** connect the pump to a battery charger or current generator.
- **ONLY** connect the pump to a power supply matching the rated voltage of the product.
- **NEVER** reverse the polarity of the battery connectors.
- **ALWAYS** position the pump on a firm and level surface close to the source tank.
- **NEVER** run the pump if there is no fluid to be transferred.
- **NEVER** leave the pump running unattended.
- **NEVER** attempt to move the pump or loosen or adjust the hose connections during operation.
- **NEVER** exceed the pump's maximum duty time.
 - For every 30 minutes of use, the pump **MUST** be switched off for at least 30 minutes.
- **NEVER** switch the pump on or off by connecting or disconnecting the power supply.
 - **ALWAYS** ensure that the on/off switch is in the "off" position when connecting or disconnecting the power supply.
- Clean diesel spillages **IMMEDIATELY** to prevent slips and pollution.
- **NEVER** attempt to extinguish a diesel fire using water.
 - Use a foam, CO₂ or dry powder extinguisher to tackle diesel fire.
- **NEVER** smoke in the vicinity of this product or expose it to sources of heat or open flames.
- If diesel comes into contact with your eyes, rinse them immediately with a copious amount of cool, running water and seek medical attention at the earliest opportunity.
- If diesel is swallowed, seek medical attention immediately.

6. Identification and Unpacking

6.2 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.

Before assembling the product, lay the contents out and check them against the parts shown below. 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 x Main pump unit with terminal cables
- (B) 1 x Nozzle assembly

- (C) 1 x Inlet hose (2m)
C1. 2 x Hose couplings
C2. 2 x Hose clamps
C3. 2 x O-rings

- (D) 1 x Outlet hose (4m)
D1. 2 x Hose couplings
D2. 1 x O-ring
- (E) 1 x Pickup filter

6.3 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.

7. Preparation and Assembly

Important: Read and understand all the safety instructions listed in this manual before attempting to assemble, operate or maintain this product. **ALWAYS** ensure that all hose attachments are tightly secured to prevent diesel leakage.

1. Attach the inlet hose

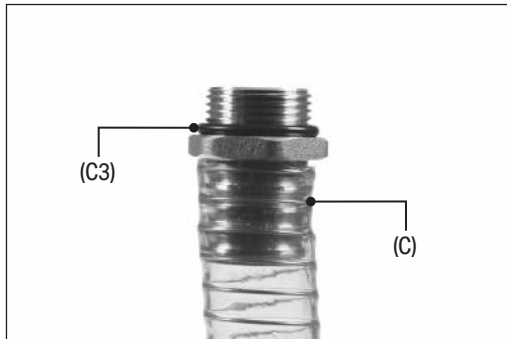


Fig. 1

a. Ensure that each end of the inlet hose (C) is clean and fitted with an O-ring (C3) seal (Fig. 1).

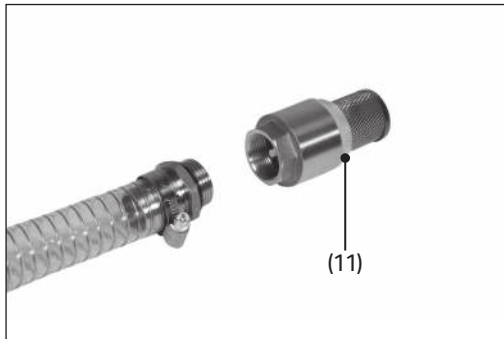


Fig. 3

c. Attach the other end of the hose to the pickup filter (11) (Fig. 3).

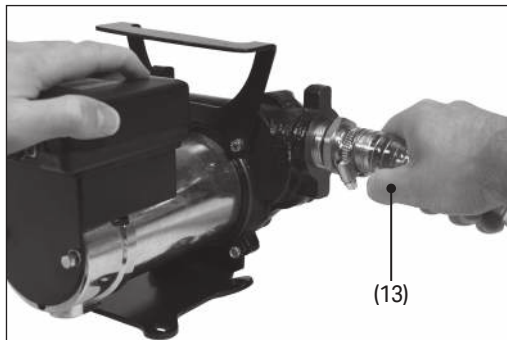


Fig. 2

b. Attach one end of the inlet hose to the pump inlet (13), marked with **IN** around the opening on the pump (Fig. 2).

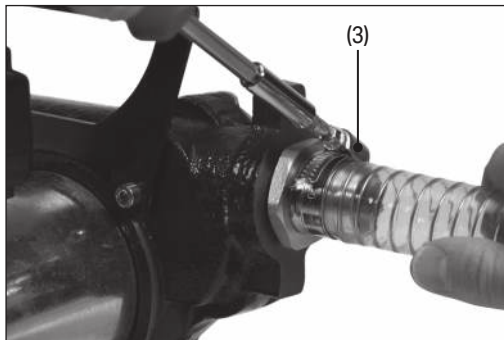


Fig. 4

d. Ensure that the hose clamps (3) at both ends of the inlet hose are tightly secured; turn the clamp screws clockwise to tighten if necessary (Fig. 4).

2. Attach the outlet hose:
 - a. Ensure that each end of the outlet hose (D) is clean and fitted with an O-ring (D2) seal.



Fig. 5

- b. Attach one end of the outlet hose to the pump outlet (15), marked with **OUT** around the opening on the pump (Fig. 5).
 - c. Attach the other end of the hose to the nozzle assembly (B).
 3. Connect the pump to the power supply
 - a. Ensure that the on/off switch (9) is in the "off" position and that the pump is positioned in a well-ventilated location.
 - b. Connect the negative (-) battery connector (7) to the negative terminal of the battery.
 - c. Connect the positive (+) battery connector (12) to the positive terminal of the battery.

WARNING! Once connected to the battery, DO NOT allow the connectors to come into contact with either the terminal or connector of the opposite polarity.

Important: The battery power source must be 40Ah or larger to power the pump sufficiently and consistently. For best results, use a fully charged battery.

8. Operating Instructions

Important: Read and understand all the safety instructions listed in this manual before attempting to assemble, operate or maintain this product.

ALWAYS ensure that all hose attachments are tightly secured to prevent diesel leakage.

1. Place the pump on a firm, level surface and ensure that the pickup filter is fully submerged in the source tank.

The pump can be installed horizontally or vertically and can be permanently fixed to the surface by screwing through the mounting holes (6) (fixings not supplied).

Important: For optimal performance, keep the pump as low as possible. The pump body should not be positioned more than 2m above the source tank.

Where the pump is positioned below the source tank, Draper Tools recommends using an anti-siphon valve (not supplied) on the outlet hose.

2. If necessary, remove the cap of the recipient tank and ensure that the trigger (17) is not depressed or locked in an "on" position.

3. Push the on/off switch (9) upwards into the "on" position.

Important: The pump is self-priming; this may take up to one minute. The maximum running time for the pump when connected to a 24V source is ten minutes. Take care not to exhaust the battery supply.

4. Insert the nozzle (8) into the recipient tank and squeeze the trigger to begin pumping.

Important: DO NOT depress the trigger until the nozzle is fully inserted into the recipient tank.

5. The nozzle has two speeds, and the trigger can be locked at either speed position:

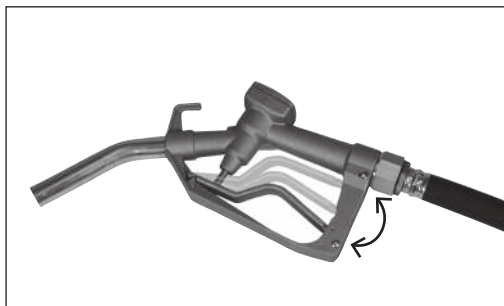


Fig. 6

- a. Squeeze the trigger to the appropriate position and hold it in place (Fig. 6).

For slower speeds, squeeze the trigger roughly halfway; for faster speeds, squeeze the trigger fully.

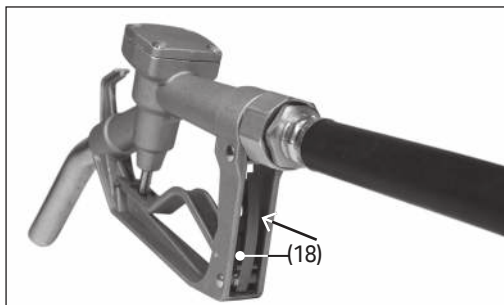


Fig. 7

- b. Press the trigger lock button (18) inwards and allow the trigger to rest in one of the catches (Fig. 7).

- c. To disengage the trigger lock, squeeze the trigger slightly, releasing the trigger lock button, and then release the trigger.

6. When the recipient tank is full, release the trigger, allow the flow to stop and remove the nozzle from the recipient tank.

7. Press the on/off switch downwards to switch off the pump as soon as the liquid stops flowing.

CAUTION! If the pressure grows too high, the pump will enter bypass mode and will no longer pump any fluid. **DO NOT** allow the pump to operate in bypass mode for more than two minutes.

Important: Read and understand all the safety instructions listed in this manual before attempting to maintain this product. All maintenance should be carried out by authorised and suitably qualified personnel.

Important: ALWAYS drain the pump and hoses into suitable containers before sending the pump to Draper Tools or its agents for repair or replacement.

WARNING! ALWAYS ensure that the trigger is released, the pump is switched off and the power supply is disconnected before carrying out maintenance on this product. **ALWAYS** wear protective gloves.

9.1 General Maintenance and Storage

Important: Before carrying out any maintenance on this machine, remove the inlet and outlet hoses from their relevant tanks and drain them into suitable containers. Ensure that the pump is completely disconnected from the power supply.

- Before every use:
 - Check that the hoses and their connections are secure and not damaged.
 - Check that the electrical connectors are not damaged.
 - Replace any damaged connections before using the product.
- Keep the main pump body clean and dry.
 - The pump body may be cleaned using a dry cloth **ONLY**.
 - Use steel wool to clean the battery connectors
 - **NEVER** use aggressive chemicals to clean any part of this product.
- Disconnect and drain the inlet and outlet hoses before storing the pump for extended periods.
 - **ALWAYS** ensure that diesel is drained into appropriate containers and correctly stored or disposed of in accordance with local regulations.
- Store in a clean and dry location, away from direct sunlight and out of reach of children.

9.2 Internal Filter Care

The internal pump filter should be cleared of debris periodically. To clean the internal filter:

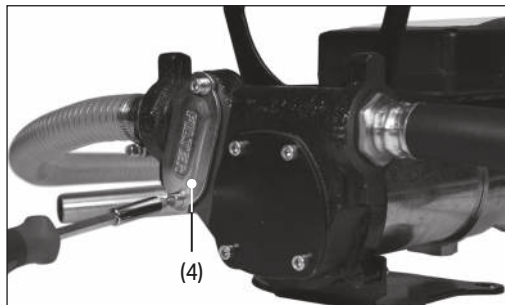


Fig. 8

1. Unscrew and remove the filter access plate (4) (Fig. 8).

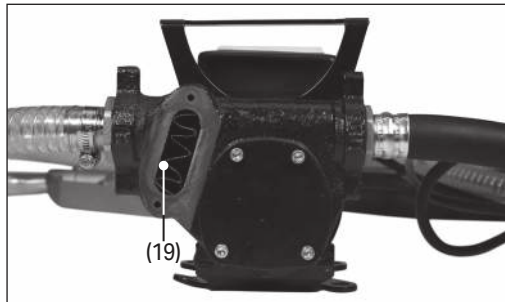


Fig. 9

2. Peel the rubber seal away from the opening and remove the filter (19) from the cavity (Fig. 9).
3. Clean the filter using compressed air **ONLY**. **CAUTION! DO NOT** use solvents or other aggressive chemicals to clean the internal filter as they may damage the gauze.
4. Insert the filter back into the cavity and place the rubber seal over the opening.
5. Screw the filter access plate back into place.

9. Maintenance and Troubleshooting

9.3 Replacing the Fuse

The pump is fitted with a 30A standard blade fuse.

To replace the fuse:

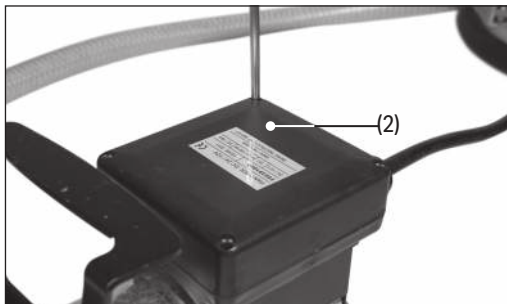


Fig. 10

1. Unscrew and remove the fuse access cover (2) (Fig. 10).

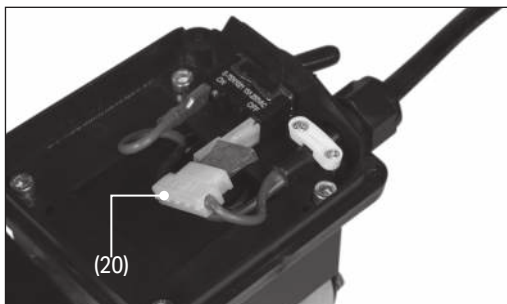


Fig. 11

2. Carefully remove the fuse (20) from the holder (Fig. 11).
3. Carefully insert a new 30A blade fuse into the holder and replace the access cover.

9.4 Troubleshooting

Problem	Possible Cause	Remedy
The motor does not operate.	There is no power to the motor.	Check the pump connections to the battery and ensure that the battery is suitably charged.
	The fuse has blown.	Check the pump exterior for signs of damage or penetration. Remove the rotor access plate (16) and examine the rotor. DO NOT use the product if it is damaged.
	The motor is faulty.	Contact Draper Tools to discuss repair and replacement options.
The motor turns slowly when switched on.	There is low voltage across the power connection.	Check the pump connections to the battery and ensure that the battery is suitably charged.
The pump will not prime.	The pump is running dry.	Ensure that the pickup filter is submerged in the source tank.
	The pickup filter is clogged.	Clean or replace the pickup filter as necessary.
	The pump is positioned too high above the source tank.	Reposition the pump closer to the source tank to reduce the back pressure in the inlet hose.
	The outlet hose is blocked or stopping the release of air from the pump.	Check, clean and replace the outlet hose as necessary.
The flow rate is significantly reduced.	The source tank is nearly empty.	Refill the source tank if necessary.
	The pickup filter is clogged.	Clean the internal filter; see 9.2 .
	The internal filter is clogged.	Lower the position of the pump so that less pressure is required to move the liquid.
	The suction pressure is too high.	Ensure that the pickup filter is fully submerged. Check the inlet hose for punctures and splits. If necessary, switch off and drain the hoses into suitable containers before continuing.
	There is air in the inlet hose.	Check the hoses for punctures and splits. Check the hose connections for damaged seals. Observe the pump body for internal leakage. Replace any damaged parts or contact Draper Tools to discuss repair and replacement options.
	Fluid is leaking from the hoses or pump body.	Check, clean and replace the outlet hose as necessary.
The pump is unusually noisy.	There is air in the hoses.	Ensure that the pickup filter is fully submerged. Check the inlet hose for punctures and splits. If necessary, switch off and drain the hoses into suitable containers before continuing.

10. Disposal



At the end of its working life, or when it can no longer be repaired, drain and dispose of the pump according to local regulations.

Contact your local authority for details of collection schemes in your area.

In all circumstances:

- **DO NOT** dispose of this product with domestic waste.
- **DO NOT** dispose of this product with unsorted municipal waste.
- **DO NOT** incinerate.
- **DO NOT** abandon in the environment.
- **ALWAYS** drain the product before disposal.
 - Drain the diesel fluid into containers specifically designed for that purpose.
 - **DO NOT** abandon diesel fluid in the environment or dispose of it with domestic or unsorted municipal waste.
 - Dispose of diesel fluid according to local regulations.

11. Explanation of Symbols



Read the instruction manual



Warning!



Do not incinerate or throw onto fire



Do not abandon in the environment



Wear suitable eye protection



Wear protective gloves



Keep out of reach of children



For use with diesel fluid only



BS EN IEC 61000-6-1:2019 compliant



BS EN IEC 61000-6-3:2021 compliant



UK Conformity Assessed



European Conformity



WEEE – Waste Electrical & Electronic Equipment

Do not dispose of Waste Electrical & Electronic Equipment in with domestic rubbish

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Service / Warranty Repair Agents

For aftersales servicing or warranty repairs, please contact the Draper Tools Product Helpline for details of an agent in your area.