INSTRUCTIONS FOR:

PORTABLE DIESEL/FLUID TRANSFER PUMP AND FLOW METER

MODELS No's: **TP91224, TP91300**

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 AND CAUTIONS. USE THIS PRODUCT CORRECTLY AND ONLY FOR ITS INTENDED PURPOSE. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY. RETAIN THESE INSTRUCTIONS FOR FUTURE USE.

1. SAFETY INSTRUCTIONS

- Maintain the pump and meter in good condition (use an authorised service agent).
- Replace or repair damaged parts. Use recommended parts only. Unauthorised parts may be dangerous and will invalidate the warranty.
- Keep the pump and meter clean for the safest and best performance.
- Ensure the power supply (vehicle battery) corresponds with the requirements of the pump, 12V or 24V DC.
- ✓ Ensure that there is more liquid in the suction tank than needs to be pumped.
- Ensure that the capacity of the receiving tank is sufficient to hold the pumped fuel.
- Ensure that the fuel filter is securely attached to the pick up pipe at all times so that unfiltered fuel is not taken through the pump or meter.
- Wear safety goggles, gloves and protective clothing when working around fuel. A full range of personal safety equipment is available from your local Sealey dealer.
- Use the pump and meter in a suitable work area. Keep area clean and tidy and free from unrelated materials and ensure there is adequate lighting.
- Maintain correct balance and footing. Ensure the floor is not slippery and wear non-slip shoes.
- Keep children and unauthorised persons away from the work area.
- Disconnect from power source when not in use.
- X DO NOT 'dry run' the pump without fuel. This will damage internal components and will invalidate your warranty.
- X DO NOT run the pump for more than 2 minutes with the delivery nozzle closed.
- DO NOT start or stop the pump by connecting or disconnecting the battery clamps.
- **X** DO NOT operate the pump with wet hands.
- X DO NOT use the pump where explosive or flammable vapours may be present.
- **X** DO NOT tamper with the pump connections.
- ✗ DO NOT leave the unit working unsupervised as there is the potential for spillage.
- WARNING! DO NOT use the unit to pump the following fluids: Petrol, flammable liquids with Flashpoint <55°C, water, liquids with viscosity >20 cSt, corrosive chemicals and solvents.

2. INTRODUCTION AND CONTENTS

Electric, dual voltage, 12/24 Volt pump kit with battery clips. High flow pump unit with bypass valve, suitable for filling diesel vehicles on site. Includes integrated On/Off switch, delivery hose with manual delivery nozzle, suction hose and filter.



	TP91224 Accessories		
	Filling Nozzle		
Α	Meter Outlet Connector		
В	Fuel Filter		
С	Inlet / Outlet Connector (2)		
D	Jubilee Clips (4)		
	3 Metre Hose (not shown)		

3. PREPARATION AND ASSEMBLY

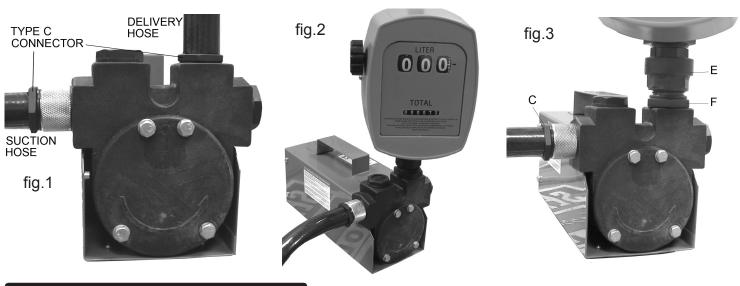
- Before using the pump, unpack all materials and inspect the pump unit for damage.
- Connect the unit to appropriate voltage battery and ensure the motor will run up freely for a few seconds, this can be done before connecting hoses.
- 3.3 Attach the two C connectors supplied, to the inlet and outlet ports of the pump making sure that the O rings seat properly into each port (see fig.1 overleaf)
- The hose is supplied in one 3 Metre length for both inlet and outlet purposes. Cut the hose to desired length, 1 Metre length for suction and 2 Metre length for delivery is standard.
- Fit suction hose to the C connector securing with jubilee clip supplied. Before the delivery hose can be attached to the outlet port, the pump must be partially filled with diesel fuel to aid the priming process (see 4.3 overleaf).
- Attach the filter to the other end of the suction hose and secure
- Attach the delivery nozzle to the other end of the delivery hose and secure.



	TP91300 Accessories
Α	Meter Outlet Connector
Е	Fuel Filter
F	Inlet / Outlet Connector (2)

If Flow Meter TP91300 (optional extra) is being used in conjunction with this pump it should be attached to the outlet port (see fig.2) using the supplied connectors as follows.

- 3.8 Attach a C connector to the inlet port and connect suction hose using a jubilee clip.
- 3.9 Attach the F connector to the outlet port and then connect E connector onto the F connector.(see fig.3)
- 3.10 The flow meter screws directly onto the E connector.
- 3.11 Fit the A connector into the outlet port of the flow meter (not shown), and then the delivery hose should be attached to this, securing it with a jubilee clip. Make sure all O rings have seated correctly and all joints are secure, but do not overtighten.



4. USING THE PUMP

4.1 Before each use, clean the inlet and outlet ports. Remove any dust or packing material that may have collected during transport or between uses.

4.2 PRIMING THE PUMP.

- 4.2.1 Lower the suction hose (with filter attached) into the fuel storage tank. Ensure the pump is no more than 2mtr higher than the end of the suction hose during the priming phase. During normal running, this distance may be increased to a maximum of 3mtr.
- 4.2.2 Before first use partially fill the pump body with diesel fuel to aid the priming process, then connect the delivery hose.
- 4.2.3 If using an automatic delivery nozzle, it is recommended that you remove this while the pump is priming.
- 4.2.4 Connect the **black** clamp to the **negative (-)** terminal of battery, and the **red** battery clamp to the **positive (+)** terminal. Note that pump will run on 12 or 24 Volt battery supply without any adjustment.
- 4.2.5 The priming phase may last from several seconds to a few minutes, depending on conditions. Should this phase appear to be prolonged, stop the pump and check the points listed in section 6.2.
- Note: The foot valve incorporated in the suction filter ensures that the suction hose does not empty back into the tank and therefore eliminates the need to repeat the priming of the pump each time it is used. However, should the suction hose be allowed to empty, it will again be necessary to prime the pump before use. Failure to do so could cause damage to the pump.

4.3. NORMAL USE.

- 4.3.1 Place the delivery nozzle in the fuel tank of the vehicle.
- 4.3.2 Attach the black clamp to the negative (-) terminal of the vehicle's battery, and the red battery clamp to the positive (+) terminal.
- 4.3.3 Before turning the pump on, be sure that the delivery nozzle is in the 'OFF' position.
- 4.3.4 Move the switch lever to the 'ON' position. The pump is capable of operating in bypass mode with the delivery nozzle closed for only 2-3 minutes maximum.
- ☐ IMPORTANT: do not leave the pump in bypass mode longer than 2 minutes otherwise it will overheat and damage the pump.
- 4.3.5 Grip the nozzle firmly and squeeze the trigger to begin transferring fuel. The nozzle has a locking device so that the user can let go of the trigger during pumping, but the unit should never be left to run unsupervised as there is the danger of fuel spillage.
- 4.3.6 Release the trigger to stop the fuel flow when the transfer is complete, (with an automatic delivery nozzle, simply turn the pump switch to 'Off').
- 4.3.7 Turn the pump switch 'Off'.

The fuel pump may switch off automatically if there is insufficient voltage or a fault in the electrical connection. If this happens, release the trigger handle, keeping the nozzle in place, and turn the pump switch 'Off'. Investigate the cause of the interruption.

5. PERFORMANCE

 Model: TP91224
 12V
 24V

 Speed:
 1400rpm
 2400rpm

 Current:
 15A
 17A

 Power:
 180W
 400W

 Duty Cycle:
 20min/hr
 20min/hr

 Flow Rate:
 40ltr/min
 60ltr/min

□ IMPORTANT: This pump is fitted with a thermal fuse to protect it from overheating and burning out. The fuse will cut in after 15-20 minutes continued operation. After a period of approx. 5 minutes the unit will cool down and the fuse will automatically re-set itself.

Environmental conditions:

Temperature: -20°C / +40°C Max Relative Humidity: 90%

6. TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
The motor is not turning (See note on page 2, ref. thermal fuse)	Lack of electrical power	Check all electrical connections and battery's state of charge. Check internal fuse (behind end cover)
	Rotor jammed	Check for possible damage or obstruction of the rotating components
	Motor problems	Contact your authorised Sealey dealer
The motor turns slowly when starting	Power supply is of insufficient voltage	Increase voltage
Low or no flow rate	Low level in source tank	Refill the tank
	Foot valve blocked	Clean and or replace the valve
	Filter clogged	Clean the filter
	Excessive suction pressure	Lower the pump with respect to the level of fluid in the tank, or increase the bore of the tubing
	High loss of head in the delivery circuit (working with the bypass open)	Use shorter tubing or increase the bore.
	Bypass valve blocked	Dismantle the valve and clean or replace it
	Air entering the pump or the suction hose	Check seals and connections
	A narrowing in the suction tubing	Use tubing suited to the pressures involved
	Low rotation speed	Check the voltage at the pump. Adjust voltage and/or use cable of greater cross section
	The suction tubing is resting at the bottom of the tank	Raise the tubing
Increased pump noise	Cavitation occurring	Reduce suction pressure
	Irregular functioning of the bypass	Dispense fuel until the air is purged from the bypass system
	Air present in the diesel fuel	Verify the suction connections
Leakage from the pump body	Seal damaged	Check and replace the offending seal

6.2 The priming phase may last from several seconds to a few minutes, dependant on conditions. Should this phase appear to be prolonged, stop the pump and check the following:

That the pump is not running completely dry (see section 4.2 on priming the pump)

That the suction hose is not allowing air in

That the filter is not clogged

That the difference in height between the pump and the end of the suction hose is not more than 2 metres

That the delivery hose is allowing the evacuation of air

6.3 When priming has occurred, ensure that the pump is operating as anticipated.

7. MAINTENANCE

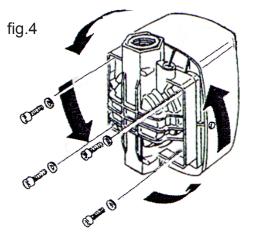
- 7.1 Check the pump casing, suction and delivery hoses regularly for leaks.
- **7.2** Keep the pump clean for easy detection of leaks.
- 7.3 Remove and clean the filter every 10 hours of operation or sooner if the transfer flow begins to decrease.
- 7.4 Dispose of environmentally hazardous parts in the proper manner.

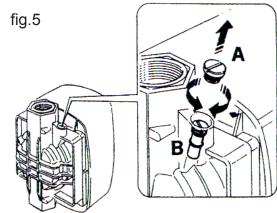
8. P91300 DETAILS

Volumetric oscillating disc meter with three digit resettable display and six digit total display. Unique filter and flange assembly allows meter to be positioned in four configurations. Suitable for use with TP91224 and TP955.

Specifications

Working pressure: . 0.1 - 3.5 Bar Operating Temp: . . . -10 to +50°C Precision: +/- 1% Flow Rate: 20 - 80 ltr/min Partial Indicator: . . . max 999 Itr Total indicator: max 999999 Itr Resolution: 0.1 ltr Weight: 1.5kg





8.1 INSTALLATION

See Section 3 for connecting directly to TP91224 pump.

The two directional arrows on the rear of the meter indicate the direction the flow of liquid must follow. If required the inlet/outlet can be rotated.

- 8.1.1 Slide the reset knob from its shaft.
- 8.1.2 Undo both small crosshead screws at the sides of the plastic body.
- 8.1.3 Undo the four allen headed bolts at the back of the meter (fig.4) prise off the back of the meter and rotate through 180°.
- 8.1.4 Reassemble in the reverse order of the above.

The meter can be used in both gravitational systems and circuits with motor pumps or manual circuits equipped with a by-pass. Following installation and setting, the meter is ready for use. To reset the partial counter to zero, rotate the reset knob clockwise.

Constructed for operation at a maximum pressure of 3.5 bar (50 PSI), the meter must be mounted in such way that no unfiltered liquid or air is pumped through it. In the case of gravitational systems (without pumps), there must be a difference in height of at least 1 metre between the outlet of the tank and the delivery gun to ensure optimum operation.

8.2 RESETTING

The meter has been set at the factory to a pressure of 1.5 bar (21 PSI) whilst transferring Diesel oil. As the operating pressure is a fundamental factor for the measurement mechanism, it is recommended that the meter is reset every time different pressures and/or liquids are used. The meter must also be reset every time it is disassembled for maintenance.

- 8.2.1 Unscrew the setting plug (screw A in 5ig.2).
- 8.2.2 Start the pump by connecting to a battery then stop the flow of liquid by closing the delivery gun without stopping the pump.
- 8.2.3 Set the partial indicator to zero.
- 8.2.4 Perform the delivery at the flow rate for which the precision is required by transferring it into a container calibrated for no less than 20 litres.
- 8.2.5 Compare the value indicated on the partial/total counter with the volume in the container (the real value).
- 8.2.6 Turn the adjustment screw (B in fig.5) clockwise if the value is lower and counter-clockwise if the value is higher.
- 8.2.7 Repeat operation 4 until the measurement is satisfactory.
- 8.2.8 Screw the setting plug (screw A) back into place.

PROBLEM	POSSIBLE CAUSE	SOLUTION
Unsatisfactory precision	Incorrect setting	Reset (see above)
	Measurement chamber dirty or clogged	Clean measurement chamber
	Presence of air in liquid	Identify and eliminate leaks in suction lines or add foot valve
Low flow	Measurement chamber dirty or clogged	Clean measurement chamber
	Filter dirty or clogged	Clean filter

9. DECLARATION OF CONFORMITY

Declaration of Conformity We, the sole importer into the UK, declare that the products listed below are in conformity with the following standards and directives

Diesel/Fluid Transfer Pump - Model No: TP91224 2006/95/EC Low Voltage Directive 2004/108/EC EMC Directive 93/68/EEC CE Marking Directive

> Flow Meter - Model No: TP91300 2006/42/EC Machinery Directive

93/68/EEC CE Marking Directive

The construction files for these products are held by the Manufacturer and may be inspected on request by contacting Jack Sealey Ltd.

Signed by Mark Sweetman



17th August 2009

For Jack Sealey Ltd. Sole importer into the UK of Sealey Power Products.

Parts support is available for this product.

To obtain a parts listing and/or diagram, please log on to www.sealey.co.uk, email sales@sealey.co.uk or phone 01284 757500.

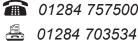
NOTE: It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice. IMPORTANT: No liability is accepted for incorrect use of this product.

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

INFORMATION: For a copy of our catalogue and latest promotions call us on 01284 757525 and leave your full name, address and postcode.



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