

INSTRUCTION MANUAL

12V HIGH FLOW DIESEL FUEL PUMP KIT

L-HFFPM12V (MANUAL NOZZLE) / L-HFFPA12V (AUTOMATIC NOZZLE)



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DESCRIPTION

The 12 volt electric diesel pumps are self priming rotary vane with IP55 protection and a built in by-pass valve.

TECHNICAL INFORMATION

Current - 35A

Voltage - 12V DC

Flow rate - 56LPM (free flow)

Temperature - - 20°C / + 60°C

Relative Humidity - Max 90%

Duty cycle - 30 minutes

Inlet / Outlet - 1"

Motor speed 2800RPM

Maximum acceptable voltage variation is +/- 5%



IMPORTANT

THIS PUMP SHOULD BE USED WITH DIESEL ONLY

THE PUMP MOTOR IS NOT AN ANTI-EXPLOSIVE TYPE.

Do not install pump where flammable vapours are present.

DO NOT use this pump with gasoline, water, food liquids, chemicals or solvents

NOTE:

1. This pump has a 30 minute duty cycle. (30 minute working cycle should always be followed by a 30 minute cooling cycle)
2. Maximum by-pass time is 2 minutes.
3. Do not allow the pump to run dry for more than 30 seconds.

PRELIMINARY INSPECTION

1. Open carton and check the pump for any signs of damage.
2. Clean the inlet and outlet openings with care, removing any dust or packing residue.
3. Make sure that the motor shaft turns freely.
4. Check that the electrical information corresponds with what is shown on the label.

INSTALLATION

The pump can be installed in any position (pump axis vertical or horizontal)

1. Attach the pump to the required location using the correct size screws to suit the holes provided in the base of the pump.
2. Make sure the pump, hoses and fittings are all clean and free of dirt before assembly.

Suction hose:

- Minimum diameter - 1" I/D (suction type hose)
- Maximum length - 2m
- Nominal pressure: 10bar/145PSI

Delivery hose:

- Minimum diameter: 1" I/D
- Nominal pressure: 10bar/145PSI

PRIMING PUMP

It is important to point out that the priming time can be as long as one minute using an automatic nozzle due to the air not escaping through the nozzle. If this happens, it is advisable to prime the pump without the automatic nozzle attached.

If the suction height is above 2m but below 3m it may will be necessary to install a foot valve to aid priming.

ATTENTION

In the case that the suction tank is higher than the pump, it is advisable to install an anti-siphon valve to prevent accidental fuel leakage.

NOTE: The pump runs below 7PSI. If the pressure increases above 7PSI the by-pass valve will open and cavitation can begin. This is normally indicated by an increase in pump noise. If this happens check system for any blockages or restrictions. Reducing the length of the suction hose can also help.

INITIAL START UP

NOTE: Tanks or barrels should be anchored to prevent tipping in both the full and empty conditions.

Connect the battery clips on the motor power cord to a suitable 12 volt battery or reliable 12 volt supply, capable of delivering the necessary voltage and current.

- a) Attach the RED clip to the positive (+) battery terminal.
- b) Attach the BLACK clip to the negative (-) battery terminal or to the vehicle frame.

1. Before use, wipe off any dirt or moisture that may have accumulated on the nozzle or hoses.
2. Insert nozzle into the container to be filled. Insert suction hose (if applicable) into the diesel storage tank.
3. Switch the motor on.
4. Operate the nozzle lever to dispense fluid.
5. When the desired amount of fluid has been dispensed, release nozzle lever to stop flow.
6. Immediately switch motor off.
7. Nozzle and hoses should be kept clean and dry when not in use.

DO NOT let the pump run dry for more than 30 seconds or damage may occur.

MAINTENANCE

The pumps designed and constructed to require a minimum of maintenance.

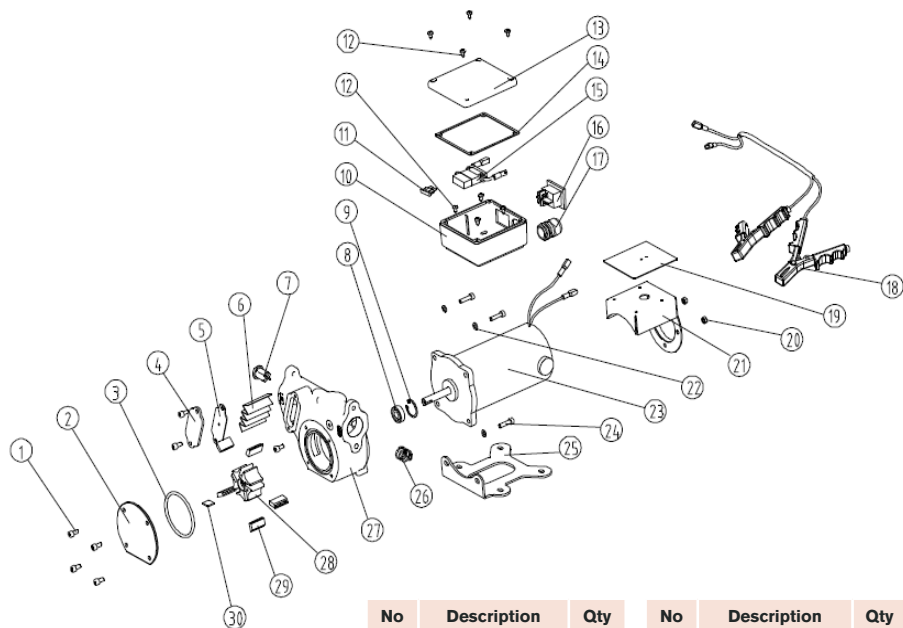
The following maintenance checks are recommend:

- On a weekly basis, check that all joints and connections are tight an leak free.
- On a monthly basis, check the pump body fittings and accessories for signs of damage or wear and replace if required.
- On a weekly basis, check and keep clean the pump filter.
- On a monthly basis, check the electric cables are in good condition.
- Check on a monthly basis and keep the suction filters clean.

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PARTS DIAGRAM



No	Description	Qty	No	Description	Qty
1	Screw M5x10	7	16	Switch	1
2	Front cover	1	17	Compression nut	1
3	O'ring	1	18	Line cord	1
4	Filter cover	1	19	Gasket	1
5	Cover	1	20	Nut M5	2
6	Filter	1	21	Bracket	1
7	By-pass valve	1	22	Spring washer	4
8	Seal	1	23	Motor	1
9	Spring collar	1	24	Screw m6x25	4
10	Terminal board	1	25	Base	1
11	Fuse	1	26	By-pass spring	1
12	Screw M4.2x9.5	1	27	Pump body	1
13	Terminal cover	1	28	Rotor	1
14	Gasket	1	29	Vane	5
15	Fuse holder	1	30	Key	1

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TROUBLESHOOTING GUIDE

PROBLEM	CAUSE	SOLUTION
The motor is not turning	No power	Check power supply and connections
	Rotor jammed	Clear blockage - replace if damaged
	Motor problem	Replace pump
Motor turns slowly when starting	Low voltage	Increase power supply to correct voltage
Low or no flow	Low or no diesel in tank	Re-fill tank
	Foot valve blocked	Clear blockage
	Excessive suction pressure	Lower pump to tank level or increase suction hose diameter
	By-pass valve partially open	Check by-pass valve for correct operation
	By-pass valve blocked	Clean as required
	Suction hose collapsing	Replace suction hose
	Slow pump rotation	Check and adjust to correct voltage
	Suction tube sitting on the bottom of the tank	Raise tube off the bottom of the tank
Increase pump noise	Cavitation present	Reduce suction pressure
	By-pass poppet open	Check by-pass valve and purge air from the system
	Air present in diesel fuel	Check and reseal suction tube connection
Leaking from pump	Damaged seal	Replace seal