SECTION E – SERVICE + REPAIR

Kamco have a full "Service and Repair" facility at its premises in St Albans, and can supply replacement parts for your pump.
When your CF30 was first supplied it was flow and pressure tested to ensure that it would perform to a high standard. However, since supplied, it may have been overheated, physically damaged or partially blocked by non-soluble matter.
If you are concerned that your CF30 may not be producing the same performance as when it left our factory there are a number of steps that you can take to test, and repair, your unit. These are not time consuming, do not require a high level of expertise and will not invalidate the warranty.

HOW TO CHECK THE FLOW / PRESSURE PERFORMANCE

Before you start

1. Take ONE flow /return hose and connect the ends onto the ¾" brass nipples, one on either side of the Clearflow, on which you normally connect both flow and return hoses.
2. This one hose 'short circuits' (loops out) the flow directing it straight back to the unit.
3. Fill the tank ½ full of water.

Pressure test

What you need: Pressure gauge 0-30 psi adapted to ¾ BSP male.

4. With both dump valves closed, and both isolating valves open, switch CF30 on.
5. Facing the flow reverser, point the flow reverser lever to the left.
6. Hold the end of the dump hose away from you to a suitable discharge point.
7. On the right hand side of the pump, open the dump valve and close the isolation valve.
8. You should see a strong jet of water flowing from the dump hose.
9. Switch off the pump, and attach the pressure gauge into the ¾" female brass hose end of the flow/ return hose that you connected to the RHS dump valve. Top up the tank if necessary.
10. Run the motor for 30 seconds, and whilst the motor is running you should see a reading between 17 and 18 psi.

Flow rate test

What you need: Empty 5 litre container (eg Powerflush FX2 container)

11. Set the pump as above, points 1 to 5, in circulation mode with the pump running, and the tank water level close to the maximum mark.
12. On the right hand side of the pump, close the isolation valve and open the dump valve, whilst directing the flow to a suitable discharge point.
13. When you have a steady flow, direct the water into an empty 5 litre container whilst using an assistant to time how long it takes to fill. It should take between 8 and 10 seconds.

Test Results & Inspection

If either the pressure is much less than 17 psi, or the flow rate figure is much greater than 10 seconds, further investigation is required.

1. Remove the 4 polypropylene bolts that attach the pump flange to the tank (two with a 17mm spanner, two with a large flat screwdriver).
2. Lift the complete pump assembly off the tank by pulling upward on black carrying handle.
3. Inspect the rotor cover at the bottom of the pump assembly to ensure:-
   - ♦ It is completely flat when viewed from the side, and not saucer shaped.
   - ♦ That none of the 10mm polypropylene bolts are damaged or missing.
   - ♦ The O-ring seal has not been dislodged.
4. Inspect the inside of the impeller to make sure that there is no debris trapped inside.
5. Check that both hoses are securely connected to the underside of the flow reverser.

Repair

A warped rotor cover, damaged/missing bolts or a distorted o-ring must be replaced. A high temperature resistant rotor cover (fitted as standard since 2005) is available as a replacement.
Rotor covers resistant to high temperatures are now available (fitted as standard to new pumps).
Obstructions can normally be removed from the impeller with a small screwdriver.
If one hose has become disconnected from the flow reverser simply remove it and replace with a new section 1cm longer (use a small piece cut from the end of your dump hose).

If none of the above faults are apparent please call the Kamco Technical Help line on 01727 875020