

### **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 CF190 / 230 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**

##### **Test 1 - Pressure test**

**What you need:** Pressure gauge 0-30 psi adapted to 1” BSP male.

1. Fill the tank 3/4 full of water.
2. Point the flow reverser lever to the left.
3. Close the dump valve on the left hand side and the isolation valve on the right hand side.
4. Open the dump valve on the right hand side.
5. Attach one supply/return hose to the horizontal 1” BSP nipples. (short circuiting the flow)
6. Attach the double dump hose as normal.
7. Holding the end of the dump hose away from you to a suitable discharge point, switch on the motor for five seconds. You should see a strong jet of water.
8. Attach the pressure gauge into the hose end and turn the motor on for 30 seconds.  
While the motor is running you should get a reading of 24-27 PSI.

##### **Test 2 - Flow rate test**

**What you need:** Empty 25 litre container.

1. Repeat steps 1-7 of test 1
2. Hold the supply/return hose so that it will discharge water into the empty container.
3. When ready use an assistant to time how long it takes to fill the container.  
You should get a reading of between 16 and 18 seconds.

##### **Trouble shooting**

If either the pressure is much less than 24 psi, or the flow rate takes much longer than 19 seconds, further investigation is required.

##### **Inspection**

1. Remove the 4 bolts from flange that attach the pump to the tank (two with a 17mm spanner, two with a large flat screwdriver).
2. Withdraw the pump assembly from tank.
3. Inspect the rotor cover at the bottom of the unit to ensure:  
It is flat  
There are no bolts damaged/missing  
The O-ring has not been pushed out.
4. Inspect the inside of the impeller to make sure that there is no debris inside.
5. Check that there are 2 hoses 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. 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***