TROUBLE SHOOTING YOUR OIL FIRED BURNER

All Largo Hot Water Pressure Washer use Beckett Oil Burners. They are 12Volt DC, 115 Volt AC or 22Volt AC. This Instruction is for the 115/230-Volt Burners.

The Burner consist of:
Electric Blower Motor
Flexible Coupler
Blower/Fan
Fuel Pump
Fuel Pump Solenoid
Gun Jet Assemble, Electrodes, Fuel Nozzle, and Burner Head

To operate the burner must have electricity: With the Cam Switch in the Burner Position and the Trigger Gun closed, the fan should be blowing and air should be felt over the top of the coil outlet and you should be able to hear the Igniter/Transformer arcing.

If the Blower fan is not operating, 1st check the reset button on the motor. If it is pushed and stays in and the motor does not operate and you are positive the Cam Switch is good, replace the motor. If the motor attempts to run and then pops the reset, it indicates a bad fuel pump or one that is locked up and must be replaced.

If the Igniter/Transformer is not arcing, (With the Igniter opened and the springs on it exposed, it should arc 1/4 inch, Using an insulated screwdriver, from 1 contact to the other with power on. If it does not arc, replace.

The flexible coupler sits between the blower motor and the fuel pump. If the motor is operating and the fuel pump is not, It may be the couple is defective.

The fuel pump must operate at a minimum of 100 psi. If not replace. The fuel pump, but 1st make absolutely sure the fuel filter is good and sufficient fuel is available.

Water is the #1 reason for fuel pump failure. Dirty fuel, contaminated with any foreign matter is the 2nd. It doesn't do any good to replace the pump if you do not resolve the fuel problem.
Now for the most complicated part of troubleshooting a troublesome burner.

Each Oil Fired Pressure Washer has:

(A.) A Hi-Limit Switch or Thermostat - Connected where the Pressure Hose is connected and wired into the Cam Switch (Off-Pump-Burner Switch)

(B.) A Vac-Switch, Pressure Switch or Flow Switch. This device is located on or adjacent to the unloader valve on the pump.

When the Cam Switch is in the Burner Position, electricity is sent to the blower motor and Igniter/transformer as previously described. Power is also directed to the Fuel Oil Valve via the in line switches A & B above.

With the Unit in the Burner Position, running under pressure, voltage should available to the Coil on the Fuel Valve. To verify this, unplug the cord going to the Coil and test for voltage. If voltage is there and the valve does not open and let fuel into the burner, replace the coil. If there is no voltage then either the Switch described in (A) or (B) above is defective.

Diagram:

For more assistance on identifying your burner, look on the very bottom of the burner housing and locate the identification tag. It will indicate the style, AFG or SM, and show the Model Number: UCL 101, 102, 103, 104, 201 or 701. It will also describe the Fuel Nozzle i.e. 150 80-degree B, 185 80-degree B or 250 80-degree B.

Included with information is a breakdown of your Beckett Burner.