

Service Section

5.1 Engine Electrical Troubleshooting Guide

ENGINE RUNS ONLY WHEN OVERRIDE BUTTON IS DEPRESSED

Make sure the PTO is disengaged.

1. Take a look at the limit switch located at the inspection door of the blower housing. Check to be sure that the inspection door closes completely and that the door presses in the limit switch. The limit switch is extremely sensitive and only needs to open 1/64" to shut the engine off.
2. If the inspection door closes properly and presses in the limit switch properly, then disconnect the two wires from the back of the limit switch.
3. Start the engine using the normal procedure then release the shut off button. If the engines continues to run then the problem lies in the limit switch or the limit switch wiring. If the engine still cuts off then the limit switch is not the cause, go to Testing the shut off switch.

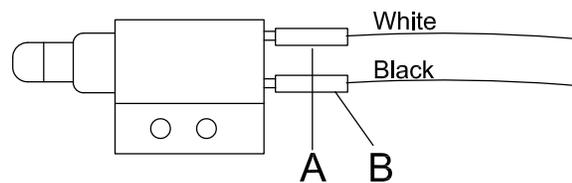
TO TEST THE LIMIT SWITCH:

4. With an ohm meter check the resistance of the terminals A & B (Fig. 1) while the button is not depressed. There should be no resistance or continuity. With the button depressed there should be full continuity or infinite resistance, if not the switch is bad and should be replaced.

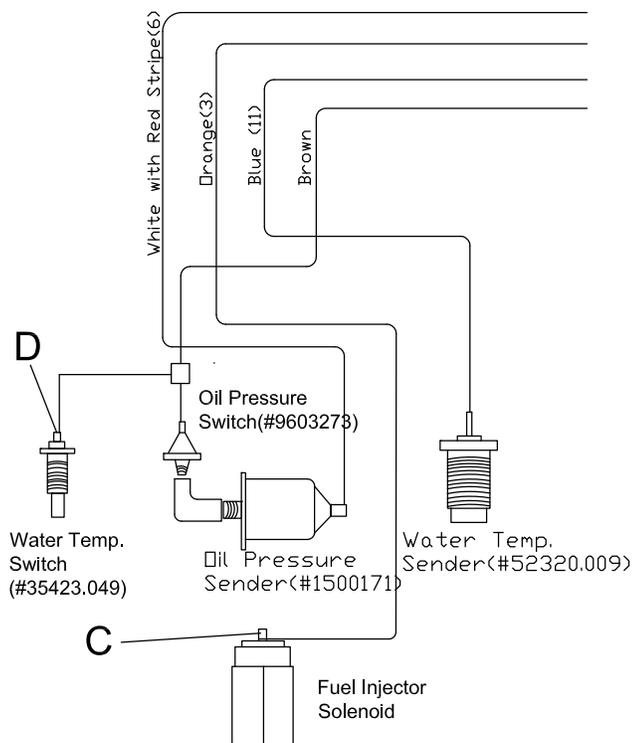
TESTING THE SHUT OFF (MURPHY) SWITCH:

5. Turn the ignition switch to the first position.
6. Put a test light to terminal B (Fig. 3) to test for current. If there is no current at B, power is not getting to the shut off switch. Then the problem is not the shut off switch.
7. If there is current at terminal B, put a test light on the fuse at location Z (Fig. 3). If there is no current there the fuse is blown. Replace fuse.
8. If there is current at B and Z, push the override button (letter X, Fig. 3) in on the shut off switch. While the button is depressed place the test light on terminal C (Fig. 3). If there is current at terminal C then the shut off switch is functioning properly and the problem lies elsewhere. If there is no current at terminal C then the shut off switch is defective and needs to be replaced.
9. Next locate the fuel solenoid valve located on the fuel injector pump (Letter C, Fig. 2). It has an orange wire running to it. Pull the ignition switch to the first position. Put a test light on the terminal of the fuel solenoid where the wire is attached. Test light should light up showing current, if not shut off switch is bad. Replace.
10. If engine still cuts off after shut off button is released then test the water temperature switch (located on the engine block, Letter D, fig. 2) by removing the brown wire attached to the temperature switch. Start the engine using the normal procedure then release the shut off button. If the engine continues to run then the water temperature switch is defective. Replace the switch. If the engine shuts off, do the same test on the oil pressure switch. If the engine continues to shut off after this test call ODB for additional service procedures.

Limit Switch (Fig. 1)



Typical Wiring (Fig. 2)



Murphy Switch (Fig. 3)

