

# **The Engine Surges**

Engine surging can best be described as the condition where the engine RPM fluctuates repeatedly from high to low during operation. More often than not, this type of problem will be caused by a dirty fuel system or intermittent ignition spark.

Here are some general guidelines that may help in the troubleshooting process:

## **Engine Surges at ALL Speed Ranges**

#### **Common Causes:**

- Dirty air filter.
- Water or trash in the fuel system.
- Breaks in the spark plug wire, loose or corroded terminal connections causing an intermittent failure. (Very common for twin cylinder engines.)
- Misadjusted or malfunctioning governor. (see note below)

#### **Engine Surges at Idle Speeds or Top No Load Speeds**

A common cause for this situation is an incorrect fuel mixture or blockage affecting the idle circuit of the carb. Most carburetors on small engines operate on the idle circuit of the carb at all speed ranges except when the engine is under a work load so you might try adjusting the idle mixture screw on the carb as a possible solution.

#### **Engine Surges Only While Under A Work Load:**

A common cause for this situation is an incorrect fuel mixture or blockage affecting the main circuit of the carb. The main circuit of the carb is used primarily when the engine is under a work load, so if you have an adjustable carb, you might try adjusting the main mixture screw as a possible solution.

### **CAUTION:**

Tampering with or making improper adjustments to governor controls can lead to major engine damage in just a matter of a few seconds.





