



**JIANG DONG**

## The Engine Runs Rough at Idle

Any engine related problem that can be described "runs rough" can have a variety of common causes.

### Common Causes:

- Dirty air filter
- Weak ignition spark
- Worn or fouled spark plug
- Improper carb adjustment
- Valves needing adjustment

If a full tune up (including valve adjustments) has been performed recently and the condition is only noticed when the engine is at idle, the problem is likely to be caused by trash in the carb or an improper adjustment. If equipped, the idle mixture screw is most often located on the side of the carb.

Note that most newer engines will not have an adjustable carb.

### Basic Idle Mixture Adjustment

With the engine warmed up and running at the recommended idle speed, locate the idle mixture screw.

- Step 1. Slowly turn the idle mixture screw in clockwise until the engine just starts to miss and/or the RPM just starts to "fall off".
- Step 2. Turn it back out until the engine again starts to miss, hesitate or "fall off".
- Step 3. Finally, again turn the mixture screw back in clockwise until you reach approximately between both extremes. Make final adjustments by turning the mixture screw no more than 1/4 turn (in or out) to reach the optimum adjustment.

While this may not be a perfect adjustment, it should suffice to solve a rough idle problem. Otherwise, if none of the other potential problems are found, you'll need to clean the carb and fuel system, paying close attention to the idle circuits in the carb.

