

TROUBLESHOOTING TIP

One of the most difficult problems for the technician to diagnose is an intermittent RPM loss. The only positive way to be able to pin point the source of the problem is to be able to duplicate it.

Trial and error of swapping out parts usually results in losing the customer. It is important that the problem be duplicated and resolved on the customer's first visit.

An intermittent RPM loss can, in most cases, be attributed to two of the three engine systems: (which are required for the engine to run properly) compression, ignition, or fuel. The ignition system and the fuel system are the systems which must be tested for this condition.

The following is a suggested list of troubleshooting procedures for diagnosing this problem:

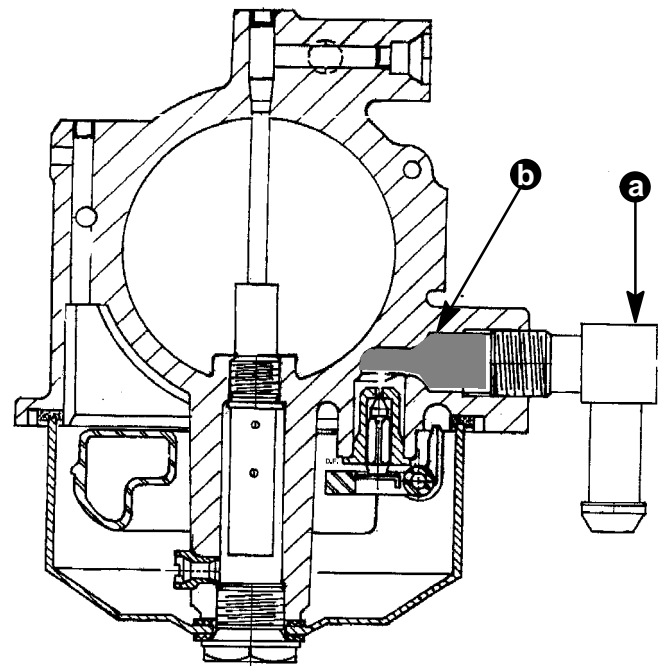
1. Start the engine and duplicate the problem.
2. Using an inductive pick-up timing light, check each spark plug lead for voltage pulse.

NOTE: A voltage pulse through the plug lead will produce a flash on an inductive timing light.

3. If the timing light flashes consistently on each spark plug lead, the ignition system is not at fault.
4. Remove carburetor covers. Run the engine and choke each carburetor, one at a time, by partially blocking the air intake with a suitable object.
5. Observe results: a decrease in RPM indicates normal operation, i.e.: no fuel restriction problem. An increase in RPM or no change in RPM indicates a restriction in the fuel system.
6. Determine which cylinder(s) have a restricted fuel flow.
7. Remove appropriate carburetor(s). Remove fuel inlet fitting (a), and inspect passage (b) for any type of debris.

Debris in the area between the inlet fuel fitting and needle can block the majority of fuel to the fuel bowl. This will cause the carburetor to lean out the cylinder(s) which it supplies. The result of which is loss of RPMs at higher engine speeds. Once the engine is throttled back, the fuel bowl is allowed to fill and the inlet needle would stop the flow. The piece of debris may then be allowed to move away from the opening. If the engine is accelerated again, it will perform properly until the piece of debris moves over the opening.

These troubleshooting procedures are very basic but sometimes overlooked. If this type of problem exists following these procedures may save you time and help get the customer back on the water quicker.



a - Fuel Inlet
b - Fuel Passage