

# Spits, Sputters, and Hiccups

Hopefully our previous articles have made life with your Animal a bit easier. This month I want to touch on a couple of issues that sometimes create problems even for the best maintained engines.

As you are well aware by now, unlike the flathead, this engine has a carburetor with a float bowl. The float inside the bowl moves up and down with the fuel level, and when the level in the bowl reaches the set height, it closes the inlet needle and cuts off

the fuel supply until the level drops enough to open the needle again. On some occasions, there is a small hiccup in this procedure, and just a few simple steps will cure the problem.

The problem is sometimes our inlet needle "sticks" partially, only allowing a small amount of fuel into the bowl. This does not give the engine an adequate amount of fuel, and the engine responds by coughing and spitting. This is caused by the dry nature of the alcohol fuel we use, it tends

to dry out and remove any lubrication we have from the needle. One sure way to determine if the needle is sticking and not allowing enough fuel in is to inspect the fuel level when removing the bowl from the carburetor. Normal conditions will have the bowl nearly full of fuel. When the needle sticks, there will only be a small amount of fuel present. To fix the problem, remove the pin holding the float assembly from the carburetor, being careful not to drop the needle. Lay the parts out and inspect the needle. The needle has a rubberlike tip and should be nice and smooth without and rings or ridges. If it is not perfectly smooth, replacement is necessary. Personally, I prefer to replace whenever a problem arises, this tends to cut down on repeats. The needle is Briggs & Stratton part number 555648. Lubricate the needle seat and

the needle with a good spray lubricant and install the needle and the float assembly. Attach the bowl, and this problem should be



eliminated.

You may encounter a problem with the engine dying in the corner, or a hesitation at the end of the straightaway. This is usually the result of a carburetor that is just a tad rich. Changing weather conditions from engines that were dyno tuned in cooler temperatures can sometimes make this happen. There are several ways we can compensate for this at the track, however, check with the engine builder, but a jet change may be necessary. First



thing we want to do to overcome this problem is to take a look at our air jet setting. This carburetor does not have a mixture screw like we are accustomed to on the flathead engine, it has what is

known as an air jet adjustment. This is the small brass screw on the driver's right side of the carburetor, just above the float bowl. This works similar to a mixture screw with one very important difference, it works opposite from a mixture screw. Turning this screw in increases the air speed through the orifice, richening the carburetor, which is completely backwards from a mixture screw. Therefore, if we have a hesitation due to a rich condition, we need to turn the screw out, or in a counterclockwise direction. Depending on the severity of the problem, usually a half to three-quarter turn is enough to fix the problem. But as stated above, contact your engine builder or myself, a jet change may be necessary to completely cure the problem.

The other thing we can do to help this it to try and build a bit more heat in the engine. The added heat sometimes helps the engine burn more fuel. With the Animal, particularly a restricted one, this can be a task. However, taping off the starter hole and a hotter spark plug helps. One more thing to try is to start the engine a little earlier on the grid as this will help the temperature to be higher at the drop of the flag.

Until next month, race hard but be safe.



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Lee Jordan is a self-employed graphic designer of screen printed apparel. He has been racing since the age of seventeen and continues to chase races and big money races all over the southeastern United States. He claims the 2nd Annual Bobby Jasegar Memorial Race to be the biggest win of his career.

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