Welcome to another edition of the “Grassroots Tech Barn.” This month we will spend our time together to cover the maintenance and cleaning of the Box Stock carburetor. Just like the other carbs used on the other engines, the Box Stock carb is quite simple, but requires specific care to perform its best.

Let’s begin with our weekly maintenance. Once the week’s racing activities have concluded, we need to remove the fuel from the system. This is especially true with the poor quality of gasoline we have today. In years past, it took the better part of a year for gas to lacquer and sour. Today, it seems to do it in a matter of a couple of weeks, especially in small quantities like the contents of the float bowl.

To avoid potential problems from soured fuel, flush the carb with WD-40. This will displace any remaining fuel as well as providing lubrication and a rust preventative for the inside of the steel float bowl.

Close the valve on the fuel tank, and disconnect the fuel line from the fuel pump inlet and drain the fuel from the line. Add a few ounces of liquid WD-40 to another fuel tank or clean container, and connect a line between it and the inlet of the pump. Make sure to use an inline filter, you can never be too careful. Start the engine and allow it to run until it starts to burn the WD-40. Not only will you smell the mixture once it burns, the engine will start to noticeably run different. It may take a constant hand on the throttle to keep the engine running. Allow the engine to run a few seconds to make sure the gasoline is displaced, and disconnect the line from the pump. Run the engine until it runs itself dry.

I prefer to do this on a weekly basis as part of my maintenance program. Racers using the engine weekly may not see the need for the additional work, but changes in plans or a couple of rainouts with gas in the carb can leave you with sour fuel and then the carb must be removed and cleaned.

Detach the carb from the engine by removing the nuts retaining the filter adapter. Slide the adapter and the gasket off the studs, paying close attention to the position of each one. Laying the removed parts out in proper position, as well as using pictures are good ways to prevent errors in reassembly. There is a definite locating position for both parts. The carb will now slide off the studs as well.

Remove the screw holding the float bowl, being careful of any remaining fuel. Remove the main jet and emulsion tube with a flat blade screwdriver, remove the re-
Taining pin, and separate the float and needle from the carb body.

Thoroughly spray the carb with carb cleaner. Use the straw to spray the cleaner into all the holes and openings, then blow dry with compressed air. Inspect each part as you reassemble the carb, looking for dried fuel or other contaminants. This is a good time to replace the float and needle assembly, just lubricate the inlet needle upon assembly. Make certain the O ring to seal the float bowl is properly positioned in its groove, and if necessary, stretch slightly. Spray the inside of the bowl with WD 40 to prevent rust, and position onto the carb and tighten the retaining screw.

Replace the carb onto the engine, reattach the throttle linkage and the filter adapter and everything should be ready for another day at the track. This is also a good time for a new fuel filter and fuel lines.

Keep in mind, proper maintenance lessens the possibility of problems. Just a couple extra minutes can be the difference between a smooth day at the track or a day filled with headaches. After all, you can’t win the race if you aren’t in the race. See you next month!