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## Fuel Additives and Combustion System Cleaners

We get many inquiries on our Tech Line about performance related products. One of the most common and one that I get quite often at my Diagnostic Training seminars concerns products that claim to “clean the catalytic converter”. Now I am not an “additive kind of guy” but I will do my best to put a positive spin on this subject.

For this discussion we will concentrate on products that clean the Intake, combustion chamber and exhaust systems. They might be in liquid form or aerosol. The instructions may be to add them to a full or partial tank of fuel, spray the throttle plate or pressurize them and run the mixture through the intake. No matter what product we use, careful evaluation of the engine must be our first step.

Let’s see how each product achieves its intended purpose. The additive that goes in the tank is fairly harmless. It will mix with the fuel, work its way through the system, pump, lines, filter and rail till it gets to the injectors. Hopefully it gets to the injectors without incident and keeps them flowing properly. Occasionally we may end up with a clogged injector or screen but this can be remedied easily by manually cleaning it.

The next two processes are a little more invasive. A common practice for years is cleaning of the throttle plate. It is necessary to keep the throttle body clean to maintain idle control and prevent other drivability issues such as stalling and hesitation. Generally speaking this is a simple process and very seldom does it create any problems. I have seen however, the occasional spark plug get fouled due to either a very dirty intake or an over-zealous tech.

The third part of the cleaning process is where we should be the most cautious. Cleaning of the Intake, valves and combustion chamber can have the biggest impact but also the largest negative consequence. Taking a little extra time here can result in fewer headaches later. If the vehicle is showing signs of poor maintenance such as a filthy throttle plate, sludge under oil filler cap or on the dip stick this may be one we want to pass on. It is better sometimes to turn away a little profit in order to avoid a big loss due to circumstances that are out of our control.

If all looks good and we are ready to proceed then there are a few steps that will increase our chances of success. Take care to follow the products instructions. If using something that calls for adding it through a vacuum port then we must be sure to pick one as close to the back of the throttle plate as we can get. This insures that we will affectively hit all the cylinders with the cleaner. The engine should be warm and we should meter the cleaner in slowly keeping the engine running through the process. When we are nearing the end, run the last bit in quickly, flooding the engine hopefully to a stall. Allow the engine then to heat-soak (preferably overnight). Upon start up, let the engine gradually warm-up, avoiding any hard snap throttle actions. Once fully warmed up run engine at 2500 rpm, no load for about a minute, then change the oil before driving.

Now for the \$64K question; Won’t all that junk end up in the converter? That is why we do a thorough evaluation of the engine initially. Under normal use what is cleaned out of the engine will burn up without clogging the converter.

So the one question that remains is, can these products be effective? YES. When used properly on a well maintained engine there is benefit. However, there are no “Silver Bullets” and fuel additives and cleaners are no exception. There is no substitute for regular maintenance using quality products.

Cleaning up the environment...one converter at a time

Gary

