TECH TIPS: Stopping Diesel Run On

A frequent complaint of diesels is running on, or running away, it can be a really exciting experience if your car runs on its own. You let off the end of the accelerator and your car accelerates faster. You turn your key off, and it continues to go and momentarily you feel powerless to shut it down. What your engine is doing is burning the oil out of the crankcase as fuel. Your car is sucking the oil out of the crankcase and consuming it; it is literally eating it. If your engine is running properly, there is a small amount of fumes coming out of your crankcase and rather than vent these fumes out to the atmosphere, these fumes are dumped into the air cleaner and burned along with the regular air which is pulled in through the air cleaner. Back in the 1950s all cars had a vent pipe, which just vented these fumes straight into the air. Cars ran forever, but sometimes you'd get behind a "smoker." Along came Ralph Nader who said that we were polluting our atmosphere and made the automakers vent this through the air cleaner into the engine and burn it to avoid dumping it out into the air. This system works fine, if everything is working fine, but many VW Diesels have excessive fumes coming from the engine which overloads the engine's ability to burn it and causes all sorts of problems.

When the engine starts to use excessive oil, it can be caused by a number of things:

a. Worn out piston rings (the expensive solution for worn piston rings is new rings.)
b. Plugged filters in the valve cover which act as a positive crankcase ventilation valve. (We had a customer report to us that this filter was so plugged on his car that it caused excessive oil consumption. After he disassembled the filter, by drilling out the welds, cleaned each screen separately, and re-welded the filter, his oil consumption dropped by 95%. We have no other proof that this was the cause.)
c. Stuck oil pressure regulating valve, which makes the engine run with oil pressures of 100-200 PSI. This causes much more oil to be pumped around, which causes excessive oil vapor in the air vented from the system. (We have had 3 or 4 of customers report this problem and the only solution is to replace the oil pump, as the pressure relief valve built into the oil pump.)

The problem is that you have excessive oil in the vapor and you are dumping this oil into the air cleaner. The "oil mist" clogs up the paper element in the air cleaner, which restricts the airflow into the engine and creates negative air pressure in the air cleaner. This negative air pressure sucks even more vapor, which compounds the problem. The quick and dirty solution is to disconnect the rubber line between the crankcase and the air cleaner. If your air cleaner never draws oily vapor, it will never clog the element with oil and will never run on due to

crankcase oil being burned in your engine. Once you have disconnected this line, you basically have a 1950s style engine. It is running oil and oil vapor out onto the road behind it. The car will run like this forever and the engine will never run away, but it will smoke and drip oil. The solution to this dripping oil is to stick the hose into a gallon milk jug and wire the jug into your engine compartment somewhere and let the oil accumulate in the bottom of the jug and the vapor to go out between the neck and the hose. From here you can proceed to a more and more deluxe milk jug. You can take a 5,3 or 1 pound coffee can and place them upside down inside of each other, creating a baffle system. Bolt this somewhere in your engine compartment and put the hose into the innermost can and let the fumes come out through the gap between the biggest and second biggest cans. What you have built is an oil separator. You can buy a deluxe one like they use on INDY cars, made of stainless steel, for about $300.00 from any racecar manufacturer. It will even have a line and a check valve, which will drain the oil back into the crankcase.