

# PERFORMANCE CORNER



by Ken Freund



## NEW MPG-MAX SYSTEM FOR DIESELS

Many aftermarket diesel performance enhancements significantly increase combustion heat to dangerous levels, which can be observed via high exhaust gas temperatures (EGT). Towing heavy trailers, combined with these higher temps, can seriously shorten engine life.

I recently attended the SEMA Motorsports Parts Manufacturers Council annual Media Trade Conference, where I met with Matt Snow, president of Snow Performance. To address this heating problem, the company offers the MPG-MAX Boost Cooler kit. Designed for turbo-diesel applications, it uses an electronic microprocessor to control a small injection of water/methanol under high pressure into the engine's intake airstream. This can all be accomplished with windshield washer fluid that often costs less than \$1 a gallon, or you can use the optional Boost Juice.

This intercooling effect provides denser air to make additional power without more diesel fuel. The Boost Cooler is one of the only power boosters giving power increases and cooler EGTs, and it conditions combustion so more fuel and boost can be utilized safely if desired. The key is atomization, by injecting the fluid at high pressure through a pair of independently controlled nozzles for different boost levels.

Special 2D mapping in the digital controller is designed to decrease EGTs and harmful exhaust emissions while improving mileage, horsepower and torque, by improving combustion efficiency. Methanol acts as an additional fuel source and the water cools combustion, as evidenced by lower EGTs. The optional Stage 3 controller senses not only manifold boost pressure, but also EGT. Using two inputs keeps temperatures as low as possible and if heat begins to climb, it will inject more water-methanol mix.

Snow reports EGT reductions of 250° F, typical fuel economy increases of 9 to 20 percent, with power gains of 70+ hp and 150+ lb-ft torque. He also says it significantly reduces NOx and particulate emissions and will not adversely affect the particulate filters on late-model trucks. The product is currently undergoing tests to get a California Air Resources Board (C.A.R.B.) executive order (E.O.) number, which will allow it to pass the new diesel smog checks in California. It also doesn't leave a "signature" on the vehicle's computer, so warranty isn't jeopardized, according to the manufacturer.



The system has an LCD screen that displays turbo boost pressure, EGT and injection pump output, so you don't have to buy these gauges separately. Snow added that his system increases fuel economy while towing or solo; it does not require a high load to provide mileage gains. Just as importantly, with lower EGTs, full power can be utilized for extended periods of time, such as towing up long grades.

Snow Performance has been designing and producing injection kits for more than six years with hundreds of hours of dyno time and data logged.

Kits are available for 2004-2010 6.0- and 6.4-liters and earlier 7.3-liter Ford Power Strokes, 1996-2010 Dodge Cummins, and 2001-2010 GM Duramax applications. Prices range from about \$499 to \$999. Snow Performance, (866) 365-2762, [www.snowperformance.net](http://www.snowperformance.net).

### GOT TORQUE?

Jeep is introducing a new 4.7-liter inline-6 stroker long block that's a powerful upgrade for the 4.0-liter I-6 in Jeep vehicles built from 1991-2006. The replacement engine, which is rated 265 hp and 290 lb-ft of torque, will seriously boost towing performance of 4.0-liter Cherokees, Grand Cherokees and Wranglers.

### LEGISLATIVE NEWS

The U.S. Environmental Protection Agency (EPA) has postponed a decision until mid-2010 on whether to permit ethanol content in gasoline to increase to 15 percent from the present 10 percent limit. The EPA stated it needed additional time for durability testing on vehicle components and emissions controls. Higher percentages of ethanol cause engines to run leaner and get lower fuel economy.

The EPA might limit use only to vehicles of 2001 and newer model years, because initial testing suggests that newer vehicles may better handle the fuel blend. The EPA is likely to approve the new level, if testing confirms that the higher blend won't damage vehicles. If the blend is limited to model year 2001 and newer cars, fuel retailers would have to supply separate blends and pumps. Drivers of older vehicles would also have to avoid using the wrong fuel. 🚗