

Propane Valve Boosts MPG, HP

By injecting a little propane into diesel engines you get faster speeds, more power, and a cleaner burn, says Craig Ridgeway, RMR Pro-Diesel Technology. Ridgeway says his Propane Enhancer, a patented progressive fuel valve, is catching on fast. He's installed the system on turbo-powered semis, field tractors and even pickups.

"The secret to using propane is to deliver the right amount at the right time," says Ridgeway, who has been burning propane in diesel engines since he was a kid on the family farm. "If you deliver too much or not enough, you lose fuel efficiency."

Ridgeway's valves are activated by the engine's turbo boost pressure. As the boost pressure increases, more vapor propane is fed into the air intake, giving the engine only the amount of propane needed to maximize efficiency.

Each installation of the valve is specific to that particular engine.

"We have an advanced dynamometer in our shop that gives us an accurate reading of engine usage and exact settings for our system," explains Ridgeway. "If you can't come to us, we provide a suggested setting based on our records of installation on the same engine in a similar situation. Once installed, it can be fine tuned to get the optimum flow."

Ridgeway has installed propane valve on more than 700 engines over the past

four years with zero engine failures due to propane. RMR promotes an increase of one to three miles per gallon on over the road diesels. Ridgeway says he likes to be conservative in promises. His results, as well as customer reported results, point to much higher returns.

"I've raised my mileage pulling trailers by 6 mpg," he says. "Overall, my Duramax has gone from 14 to 16 mpg to 25 to 32 mpg."

Ridgeway has also installed his propane units on field tractors and bulldozers. He reports his 8640 Deere burned 16 gph pulling his 30-ft. chisel plow. Injecting only 1 1/2 to 2 gal. of propane per hour dropped diesel use to 9.2 gph. The increased power also let him double ground speed.

Ridgeway says he can literally see the difference on his 8640 Deere. "When I am burning straight diesel, I can see the shadow of the exhaust on the ground," he says. "When I turn on the propane, the shadow goes away."

"I put a system on a D4 Cat, and it boosted output from its rated 57 horsepower to 120 when using propane," says Ridgeway. "I've put mega hours on it pushing twice as much dirt as it used to do on diesel alone."

He says the propane simply helps burn diesel fuel more efficiently. Typically, he explains, only about 75 percent of diesel used is burned. With the propane injected, efficiency jumps to 98 percent.



Propane Enhancer injects a little propane into diesel engines for faster speeds, more power, and a cleaner burn in tractors and trucks.

"That's where we get our increased power," says Ridgeway. "We turn that wasted fuel into energy."

Burning the diesel more completely reduces carbon buildup in an engine for longer engine life. It also cleans up the exhaust.

Ridgeway says, "When you put a pencil to it, you'll be surprised how quickly it pays for itself in fuel savings and extra power."

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Reader Inquiry No. 68

Carbide-Tipped Chain Saw Chains

Equip your chain saw with a carbide-tipped chain and it'll stay sharp up to 15 to 25 times longer than a conventional chain in tough cutting conditions, says Rick Fowler, Rapco Industries, Inc., Vancouver, Wash.

Rapco is a leading manufacturer and supplier of carbide chainsaw chains for specialty cutting applications.

The carbide-tipped chains are available in nearly all pitches and gauges to fit most chain saws, and can be customized to specific cutting requirements.

"Carbide-tipped chains aren't new - we've been selling them for more than 29 years. Our main customers are fire departments, construction crews, and anyone who does demolition work," says Fowler. "However, farmers and ranchers can benefit from them, too. They work great for cutting abrasive wood such as fallen trees, removing tree stumps and roots, railroad ties, and so forth. They also work great for cutting firewood. When a conventional chain accidentally contacts the ground, you'll get a dull chain right away. That won't happen with a carbide



Carbide-tipped saw chains stay sharp much longer than conventional chains, and don't have to be replaced as often.

chain. They also work great when cutting along fence rows, where trees have grown into the fences and you might run into nails or wire.

"One customer told us he uses his carbide-tipped chain to cut cedar trees growing out of rocks, where it was impossible for him to keep from catching the chain on a rock now and then. They also work great for cutting

through plastics, fiber and railroad ties."

Carbide-tipped chains cost about six times more than standard steel chains, says Fowler. "We sell the chains for \$2.00 per drive link, which typically works out to about \$144.00 per chain. A conventional chain sells for about 35 cents per drive link, which works out to about \$20 to \$25 per chain. However, to many people the labor saved in not having to sharpen chains all the time and not having to replace them as often is worth the extra cost."

The company offers two types of carbide-tipped chains. Fowler recommends either the Camfer or Chisel style for farmers and ranchers.

The chains are resharpenable, but you have to use a diamond sharpener which the company sells for \$5.45 plus S&H.

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