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# Fuel for Thought

The future of automotive propulsion may already be here, waiting at your local truck stop. **BY JAY LENO**



**OIL POWER:** Leno checks out one of dieselmeister Gale Banks's hot-rod-diesel truck engines as Banks explains the finer points of making mind-blowing power.

**T** If you happen to have been in a cave for the past 20 years or so and haven't seen a computer since 1983, you would be shocked at what the modern PC is like. Guess what? Same for diesel engines. I haven't been out of society for the past couple of decades, but I still thought that diesels were the dirty, smoky, smelly

beasts they'd always been, meant for serious, heavy-duty jobs.

I really felt that diesels equal truck stops: you know, slipping in that puddle of oil near the pump, getting your hands greasy—and still not being allowed to sit at the lunch counter with the real truckers. A drag.

But that was then. Things are very different now. I recently visited my pal Gale Banks, who helped update

me on the state of the modern diesel. Banks is a veteran hot rodder who has several land speed records to his credit. He intends to go after another one with a diesel-powered truck. He explained that the problem with diesels has always been imprecise fuel metering. Oh, the fuel would shoot in there pretty good, but not good enough to keep that cap on top of the stack from popping up and down, with the engine clattering and blowing smoke. But that's all changed in the past five years, thanks to tremendous breakthroughs in electronic engine management and turbochargers. It's safe to say diesels have changed more in the past 10 years than they did from Rudolph Diesel's era in the late 1800s up until the 1990s. That's another thing: How many inventions still bear the name of their creator? Was there a Bob Hamburger or Larry Kleenex?

I recently drove a diesel-engine demonstrator from the Robert Bosch Corp. It's an early Corvette-bodied chassis built to showcase Bosch's common-rail diesel. At first, I didn't even know the engine was a diesel. I started it, and once I really listened, I realized. But it was pretty quiet. Fuel

is injected into the engine at 26,000 psi—compared to the, say, 6 psi of a carbureted gasoline engine. So you get a very fine mist that burns much easier. If you're like me and want high performance, it doesn't get much higher than 26,000 psi. Combine that technology with

the new diesel fuels coming in 2006 and 2007, and I'll be able to get the equivalent of super high-test gas at my local filling station. Those new diesel fuels, which are already used in Europe, contain much less sulfur than the diesel fuel we have in this country. They are one of the keys to improved diesel performance.

I'm one of those guys who has a 55-gal. drum of racing gas delivered once a month. Siphon off 4 to 5 gal. into the old Hemi and I'm ready to drive. But if I ran a diesel instead of a gas engine, I'd just pull into a local truck stop and fill it up. Just think about that for a minute: Cetane trumps octane.

It's hard to get lots of people to appreciate the modern diesel. If we could, attitudes might be different. I think we'd have to change its name to get people interested. I'm open to suggestions. Look what they did with that fish in Boston. It's really boring old codfish, but when they call it "scrod," people associate it with baby cod, so it sounds more appealing. It's like



**GET SOME GO:** Leno likes the idea of a twin-turbo diesel pickup with about 1000 lb.-ft. of torque. Banks just smiles.

when you say "hydrogen-powered car." People who aren't really car knowledgeable respond, "Oh, like the Hindenburg! I don't want to drive that thing. It might blow up. It will be Lakehurst, N.J., all over again. I don't want to be scattered across the highway."

Perhaps the biggest obstacle for diesel is price: A diesel-

powered vehicle is usually \$4500 to \$6000 more than a comparable gas-powered one. Since diesels run at much higher compression ratios than gas engines, they have to be stronger, so they cost more to manufac-

ture. If a regular car had a compression ratio of 18:1 like some diesels, it would have the highest performance of any vehicle I've ever seen. And remember: Diesels have a longevity factor of over two to three times that of a gas engine. It's not unusual for people to get 300,000 to 400,000 miles on a diesel-powered car or truck. We all see those 1970s and '80s 300SD Mercedes-Benzes

still tooling around. That's a big selling point to a lot of people.

Also, since diesels get better fuel economy, we'd be helping the environment, and our economy, if more people drove them. About half the cars sold in Europe are diesels. They have things like a Volkswagen three-cylinder diesel that gets 80 mpg. We can actually grow a fuel called biodiesel. Take that, you in your Toyota Prius.

It might be unusual to think of diesel as an alternative fuel, but in America it really is because only 3.9 percent of our road vehicles use diesel. It wouldn't be hard to switch over: Change some pumps. Mercedes-Benz even gives you a little book that tells you where diesel filling stations are located. It's like if someone is gay, he knows where

the gay bars are. Most people don't, but he does. When a gay friend points out a gay bar, you say, "It is? I never knew that."

I'm really a performance guy at heart. And I love the idea of all the

based subculture. And probably the king of that culture is Gale Banks.

When I was at his shop, I realized that he's so immersed in diesel technology he could be Dr. Diesel. He showed me high-performance alu-

**"IT'S HARD TO GET LOTS OF PEOPLE TO APPRECIATE THE MODERN DIESEL. I THINK WE'D HAVE TO CHANGE ITS NAME."**

performance without octane boosters or racing fuel. So I'm thinking a 6.6-liter Duramax with twin turbochargers, 1000 lb.-ft. of torque, four-wheel drive and all in a Deuce. For people like me, diesel cars have always been sort of the redheaded stepchild. Their owners make up their own little compression-ignition-

minum cylinder heads. He feels the aluminum diesel engine is coming.

Yes, that engine will be a bit heavier than an equivalent gas one but when you consider its huge torque output, it will more than make it up. And, as Banks likes to point out, that's almost guiltfree performance.

Now I'm a believer.