



Clean Diesels Gaining Consumer Acceptance as 'Engine of Choice'

May 9, 2010

- ▶ In first full year of availability in the U.S., clean diesel engine options featuring Bosch technology rank high and significantly outpace hybrid choice among U.S. consumers
- ▶ Compared to equivalent PFI engines, clean diesel vehicles provide immediate benefits of 30 percent better fuel economy, up to 25 percent reduced emissions, while providing increased performance, including up to 50 percent more torque for towing
- ▶ Clean diesel vehicles have earned the Green Car Journal's Green Car of the Year for two consecutive years and have been hailed by Ward's AutoWorld as among the 10 Best Engines

FARMINGTON HILLS, Mich. – Clean diesel is capturing more attention and acceptance from a significant number of U.S. consumers who, when provided the option, are choosing diesel, which on average has better fuel economy, reduced emissions and greater torque than its port fuel injection gasoline engine counterpart. Additionally, diesel vehicles provide a lower total cost of ownership, thereby delivering real economic value for their owners.

Attendees of the Alternative Fuels & Vehicles National Conference + Expo 2010, being held May 9 through May 12 at The Rio All-Suite Hotel in Las Vegas, will have the opportunity to drive several new diesel vehicles, learn more about the benefits of clean diesel technology and speak to industry experts, including Dr. Johannes-Joerg Rueger, senior vice president of diesel systems engineering. Dr. Rueger will address the conference on Monday, May 10, at 2 p.m., as a member of the "*Greener Pastures: Diesel Developments*" panel. Also on Monday, Simon Baseley, director, engineering studies and applications, Bosch Rexroth, will be a panelist for the "*Hybrid Happenings: Near-Term Medium-and Heavy-Duty Technology Advances*" session from 4 p.m. until 5:30 p.m. In addition, Bosch Rexroth will feature a hydraulic hybrid CNG-powered refuse truck in the ride and drive.

U.S. Consumers Opt for Diesels

Bosch analysis shows that when both diesel and gasoline engine options are offered, diesel-powered cars are the choice for a significant number of drivers in the U.S. Using new car registration data provided by R.L Polk & Co., a respected independent source that analyzes and gathers automotive-related data, Bosch determined that for the 12-month period beginning January 2009, about 30 percent of the registrations had clean diesel engines.

For example, in the following vehicles – when given the choice between gasoline- and clean diesel-powered engines – Bosch’s analysis of Polk data shows the average percentage of registrations for cars with clean diesel engines were:

- Audi A3 TDI – 20 percent
- Audi Q7 TDI – 30 percent
- BMW 335d – 8 percent
- BMW X5 xDrive x35d – 17 percent
- Mercedes-Benz GL 350 BlueTEC – 18 percent
- Mercedes-Benz ML 350 BlueTEC – 13 percent
- Mercedes-Benz R 350 BlueTEC – 12 percent
- VW Jetta TDI (Sedan and Sportwagen) – 49 percent+
- Volkswagen Touareg TDI – 33 percent

Lars Ullrich, director of diesel systems marketing for Robert Bosch LLC, noted that car buyers chose clean diesel vehicles at higher rates than most market watchers expected, and in many cases, higher than hybrid options.

"The advantage of clean diesel’s increased fuel economy and great power characteristics are clearly impacting the marketplace," Ullrich said. "Everything we hear from the marketplace indicates the interest in clean diesel technology is growing, even though several models were just introduced into the U.S. market during the 2009 model year."

These rates compare favorably with the percentage of buyers opting for a hybrid version of a vehicle, he said. For example, using Polk registration data for the same 12-month period as the base, Ullrich noted that 8 percent of Camry buyers chose the Camry Hybrid, which has been on the market for four years, having been introduced in 2006 as a 2007 model. Similarly, the Ford Escape Hybrid introduced in 2004, had a consumer take rate of 10 percent in 2009.

“As we examine this data,” Ullrich said, “we are excited to see that even though clean diesels have been on the market for a shorter timeframe than hybrids, their acceptance by the buying public has accelerated more rapidly than similar hybrid models.”

Clean Diesel Earns Green Awards, Boosts Sales

Clean diesel cars also are gaining media attention in the U.S. due to their fuel economy, road performance attributes and improved tailpipe emissions. Clean diesels have won two consecutive “Green Car of the Year” awards from the *Green Car Journal* (for the 2009 Volkswagen Jetta TDI and 2010 Audi A3 TDI, respectively), and two diesel engines were hailed by Ward's AutoWorld as among the "10 Best" on the market (BMW's 3.0-liter twin-turbo diesel and VW's 2.0-liter turbodiesel).

Clean diesel passenger cars also are contributing important sales to the companies offering them – Audi, BMW, Mercedes-Benz and Volkswagen. Part of their popularity may be attributable to a tax credit available for modern diesels, up to \$1,800 to reward the technology for its ability to save fuel, which results in reduced emissions.

Clean Diesels Deliver Better Fuel Economy and Reduce CO2 Emissions

Vehicles with new clean diesel technology provide an immediate improvement in fuel economy – on average up to 30 percent better fuel economy and up to 25 percent fewer emissions compared to an equivalent port fuel injected gasoline engine. These advantages translate into more miles to the gallon, fewer trips to the pump and an immediate reduction of tailpipe emissions.

“Bosch is investing in a variety of powertrain options from gasoline, diesel, hybrids and electrification, as each technology has its benefits,” Ullrich said. “For those who want to reduce emissions and improve fuel economy, clean diesel is an option that is available today. It provides immediate benefits to consumers, who do not have to change their lifestyle to enjoy them.”

Clean Diesel's Total Cost of Ownership Makes Economic Sense

To provide a real-world example of the beneficial total cost of ownership, Ullrich cites the Jetta TDI:

“If you purchased the Jetta with a diesel in 2004 and sold the vehicle with 68,000 miles in 2009, compared to the gasoline-powered Jetta, the consumer would have saved \$2,200 in fuel costs based on national fuel prices for that time period.

“In 2009, the wholesale residual value on a five-year-old Jetta TDI was 41 percent, as compared to 32 percent for the gasoline-powered Jetta. At trade-in time, this residual value translates into a \$3,900 premium for the owner. Discounting these savings to the 2004-level of new car bank rates of 8.5 percent, the TDI buyer enjoyed premium performance for five years, while saving \$1,500. So, during the five years of ownership, the diesel buyer reduced CO2 emissions and saved money, while enjoying the increased power and performance of the diesel engine.”

Cheryl Kilborn

Robert Bosch LLC

Phone: +248-876-1167

Cheryl.Kilborn@us.bosch.com

The Bosch Group is a leading global supplier of technology and services. In the areas of automotive and industrial technology, consumer goods, and building technology, some 275,000 associates generated sales of \$53 billion (38.2 billion euros) in fiscal 2009. The Bosch Group comprises Robert Bosch GmbH and its more than 300 subsidiaries and regional companies in over 60 countries. If its sales and service partners are included, then Bosch is represented in roughly 150 countries. This worldwide development, manufacturing, and sales network is the foundation for growth. Each year, Bosch spends more than \$5 billion (3.5 billion euros) for research and development, and applies for some 3,800 patents worldwide. With all its products and services, Bosch enhances the quality of life by providing solutions which are both innovative and beneficial.

In the U.S., Canada and Mexico, the Bosch Group manufactures and markets automotive original equipment and aftermarket products, industrial drives and control technology, power tools, security and communication systems, packaging technology, thermotechnology, household appliances, solar energy and healthcare products. Having established a regional presence in 1906, Bosch employs over 20,000 associates in more than 70 locations, with reported sales of \$7.3 billion in fiscal 2009.

For more information, visit www.boschusa.com.

##