

2011 Edge Powertrain

2011 FORD EDGE POWERTRAIN: MORE BITE, LESS HUNGER

- 2011 Ford Edge midsize crossover boasts best-in-class horsepower and unsurpassed fuel economy
- Both the 3.5-liter V6 in the Edge and the 3.7-liter V6 in the Edge Sport employ several fuel-efficiency strategies that also improve performance, including twin independent variable camshaft timing (Ti-VCT), aggressive deceleration fuel shutoff and battery management
- 2011 Ford Edge V6 rated at unbeatable 19 mpg city, 27 mpg highway (front-wheel drive, SEL and Limited)

The 2011 Ford Edge is a high-tech showcase – inside, outside and under the hood. Both the 3.5-liter V6 in the Edge and the 3.7-liter V6 in the Edge Sport employ advanced technology and clever control strategies to increase horsepower and torque to best-in-class levels while delivering unsurpassed fuel economy.

“Hallmarks of the Ford Edge have always been its style, technology and capability – all with a no-compromises package,” said Greg Johnson, Edge powertrain manager. “The 2011 Ford Edge adds to this two powertrain offerings that will provide more power than ever before, along with best-in-class horsepower with unsurpassed fuel economy.”

The 3.5-liter V6 is rated at an unbeatable 19 mpg city and 27 mpg highway (front-wheel drive, SEL and Limited) while the 3.7-liter V6 maintains ratings of 18 mpg city and 25 mpg highway with 40 more horsepower. Each takes advantage of advanced engine valvetrain technology (twin independent variable camshaft timing, or Ti-VCT) to beat the competition.

The 3.5-liter V6 produces 285 horsepower and 253 lb.-ft. of torque, topping all standard V6 competitors, while the 3.7-liter V6 delivers best-in-class 305 horsepower and 280 lb.-ft. of torque. Edge’s unsurpassed fuel economy is not at the expense of power and performance. For example, the 3.5-liter V6 delivers highway fuel economy that is 15 percent better than the Nissan Murano, while producing 20 more horsepower.

Both engines are mated to a six-speed automatic transmission. The SelectShift Automatic™ transmission is standard on the 2011 Edge SEL and Limited series, with paddle activation of the SelectShift standard on the 2011 Edge Sport.

Sports car-inspired paddle shifters

For 2011, the paddle shift activation for the Edge Sport is “live in drive,” which means the customer doesn’t have to shift to “M” or manual mode. Instead, while in Drive, the driver can pull the “+” paddle on the right side of the steering wheel or “-” paddle on the left side of the steering wheel to shift up or down gears.

This execution, available on the 2011 Edge Sport only, allows the driver to shift gears quickly while keeping both hands on the steering wheel. The transmission reverts to automatic mode and upshifts or downshifts as needed when driven at a steady speed.

Here’s a quick look at some of the key reasons why the 2011 Edge delivers class-leading power and fuel economy:

- **Advanced technology:** New for 2011 is Ti-VCT, which allows on-the-fly adjustment to the engine’s airflow for maximum efficiency. This leads to better fuel economy – approximately a 3 to 4 percent improvement from this strategy alone.

- **New engine hardware:** The 2011 Edge adds piston-cooling jets and polished valvetrain buckets and combines them with an improved intake manifold and cylinder head with increased port flow to optimize the system as a whole. The piston-cooling jets spray oil on the underside of the pistons and enable faster oil warm-up and a higher compression ratio. The polished valvetrain buckets reduce friction, which in turn aids fuel economy and also improves durability (wear) of the cam and bucket tappet. The improved intake manifold and cylinder head optimizes engine airflow.
- **Lower idle speed:** Engine idle speed was reduced from 620 to 600 rpm to save fuel.
- **Aerodynamic optimizations:** Underbody shielding and tire spoilers were added to help create a more efficient aerodynamic shape. Also, the grille openings were optimized to reduce excess airflow to the engine compartment, thus reducing drag.
- **Fuel shutoff:** Aggressive deceleration fuel shutoff control system shuts off the engine when the customer doesn't command engine torque – such as decelerating at freeway speeds.
- **Variable-displacement steering pump:** Unlike a conventional hydraulic pump, which draws constant power from the engine whenever it is running, this system varies the amount of steering assist based on engine speed, anticipating the driver's need for steering assist.
- **Battery management system:** The new Edge also uses smart charging. Normally the alternator continuously charges the battery, which wastes energy. Smart charging increases the alternator output when braking or decelerating, converting the vehicle's motion energy into electric energy without using additional fuel. The recovered energy then goes to recharge the battery so that it can be used later.
- **Electrical load shedding:** This new feature shuts off devices if they are left on with the key in the accessory position. This saves battery life and keeps the battery from going dead, aiding reliable starts.
- **Reliable starts:** The one-touch starting in the 2011 Edge enables starts of around seven-tenths of a second with precise fuel delivery for maximum fuel economy and minimal emissions.
- **New tires:** Both the 2011 Edge SEL and Edge Limited add next-generation 18-inch tires. Just as the new powertrain produces increased power and better fuel economy, the new tires have been engineered to provide better performance and grip while also increasing fuel economy through improved construction and compound.

“The key to the performance gains and fuel economy with the 2011 Ford Edge is that we don't look at power and fuel economy as being mutually exclusive,” said Mazen Hammoud, Edge powertrain calibrations manager. “Instead, we focus on optimizing every component, every system and every control in the powertrain for greater efficiency overall, which enables increased power, better performance and response, and helps to maintain the fuel economy found in smaller-displacement engines.”

On the horizon: EcoBoost technology

In the coming months the new 2.0-liter EcoBoost™ I-4 engine will join the Edge lineup, giving customers still more choice. Fuel economy benefits are projected to be at least 10 percent better than a comparable V6 but with class-leading power and torque for an I-4.

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