## How Switching Off Four Cylinders Works, Saves on Fuel

DETROIT - Full-size pickups when the driver doesn't need full are unique, both in the jobs their owners ask of them and how long customers expect them to last.

So for the Chevrolet Silverado and other full-size trucks, General Motors improves the fuel efficiency of its mainstream 5.3-liter V8 engine by switching off four of the cylinders when they aren't needed

More than 85 percent of Silverado customers use their pickups to tow or haul. Some truly put their trucks to the test moving large trailers over long distances. These customers expect their trucks to be economical and they expect them to last.

More than half of all full-size Chevy pickups sold 20 years ago are still on the road, Chevrolet officials say.

Engineers developing the current Silverado sought the most intelligent solution for improving the fuel economy while preserving performance and durability, according to Chevy officials.

"Rather than adding turbochargers or multi-valve cylinder heads to increase the power of smaller engines, we chose to keep the proven capability of our larger V8 truck engines, and save fuel by switching off half of the cylinders when they aren't needed," said Jordan Lee, global chief engineer for small block engines.

A combination of simple hydraulic valves and sophisticated software switch off the cylinders power. When more power is needed, the system, called Active Fuel Management, seamlessly reengages the additional cylinders.

"With recent increases in computing power, we can combine sophisticated digital design, powerful control strategies, and simple, robust mechanical systems to bring real benefits with no added cost to our customers," said Lee. "Think of the difference between a cassette recorder and an iPod MP3 player - more moving parts are not always better."

By giving customers V8 power and capability when they need it, with enhanced fuel efficiency when they don't, Silverado offers the best EPA fuel economy estimates of any V8 pickup, said Lee. "In fact, our 5.3-liter V8 delivers EPA fuel economy estimates comparable to some competitors' V6 engines."

The mainstream 2013 Silverado 1500 4WD with the available 5.3-liter V8 has an EPA highway estimate of 21 mpg, matching the estimates for a leading competitor's 4WD model with a more complex, less-proven boosted V6.

For customers looking for even better fuel economy, the 2013 Silverado XFE model with the 5.3liter V8 has an EPA highway estimate of 22 mpg, retaining all the capability and dependability of other Chevy V8s.



Jim Michels

## **Eaton Vehicles Appoints Michels**

SOUTHFIELD - Jim Michels has been appointed business communications manager for the Eaton Corporation's Vehicle Group.

He will be located in Southfield and report to Tom Nellenbach, director of marketing and communications for the Vehicle Group.

Michels is responsible for leading the strategic planning, deployment and measurement of the Vehicle Group's communications efforts worldwide, including overseeing media and community relations, executive out-

**EPA** Certifies Icom on 17 Aftermarket **GM Vehicles** NEW HUDSON, Mich. - Icom North America, a developer and manufacturer of liquid-injection propane (autogas) systems for

commercial and consumer vehicles, has received 17 new U.S. Environmental Protection Agency (EPA) certifications for its patented JTG II Propane Liquid Injection bi-fuel systems.

The new certifications cover approximately 200 2010-2012 General Motors Chevrolet- and GMC-brand light-duty trucks and SUV platforms with 4.8- and 5.3liter engines. The EPA certifications allow Icom to convert these popular fleet vehicles in the U.S. market for propane/autogas bi-fuel use.

The Chevrolet-brand vehicles include Silverado, Tahoe, Express vans, Avalanche and Suburban. The GMC-brand vehicles include Sierra, Yukon and Savana vans.

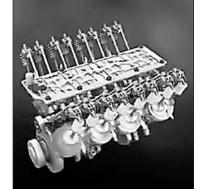
Icom's JTG II system is now available for over 400 vehicle platforms, the most of any liquid-injection system in the U.S. market. Icom's total number of EPA certifications now stands at

"For each vehicle program, our task is to choose the best technology for each vehicle and its customers," said Lee. "For millions of people who depend on their trucks and expect them to last, we believe our V8 engines with Active Fuel Management are an excellent solution.

Since 2004, approximately 4.6 million of these V8 engines have employed Active Fuel Management.

"As GM develops future vehicles - including our next-generation full-size trucks and our new midsize Chevy pickup - we will continue to draw on our company's unsurpassed global powertrain portfolio, which includes direct injection, clean diesels, vehicle electrification, turbocharging, supercharging, and other technologies," said Lee.

"But as with our current V8 engines with Active Fuel Management, the starting point is always what's the right solution for the customer and the way they use the vehicle." Chevrolet backs Silverado with a 100,000-mile/fiveyear powertrain warranty.



Chevrolet has a unique take on shutting down four cylinders to improve EPA fuel efficiency on the truck's 5.3L, V8 engine.



reach, internal programs and crisis communications in support of Eaton's product brands and the company's reputation and leadership.

"Jim is a great addition to our team and has a wealth of experience," said Nellenbach. "He has successfully worked in all facets of communications, including leadership positions with global vehicle suppliers, technology companies, advertising agencies, public relations firms and universities."

Before joining Eaton, Michels led the marketing and communications efforts for the University of Michigan's facilities and operations.

He previously worked for ANXeBusiness, Visteon, Young & Rubicam, and Hedge & Company in the communications field.

As director of global marketing, he helped develop and implement the communications plan to launch Visteon as a public company.

40

Icom's EPA certifications now cover approximately three million vehicles, primarily Ford and GM fleet vehicles. The company soon expects to receive additional certifications for Ford, GM and Dodge vehicles.

Albert Venezio, chairman of Icom North America, said: "Icom JTG II Systems are installed at quality vehicle up-fitters and installation centers nationally through the Icom Distribution Network partners.'

"We are continually adding qualified installation centers through our distribution network. Further, Icom works closely with propane fuel supply partners for propane fueling and infrastructure for fleets. Fleets across the country are moving to domestic- and green-propane autogas."

Venezio added that Jasper Engines and Transmissions Alternative Fuels Division provided Icom with the GM vehicles.

See dealer for details. All payments are based on GM Employee pricing except where otherwise noted. 2012 Cruze and 2012 Equinox lease payments require 800+ credit score, and assume you have a NON-GM lease in the household. Other payments slightly higher. Down payment, first payment, tax, title, and plate due at signing. Offer expires 08/31/2012

