

# BorgWarner Demonstrates AWD Expertise During Arctic Drive Event

Neither snow nor ice nor true arctic conditions deterred BorgWarner from a successful demonstration of its most advanced all-wheel-drive technologies at a recent winter drive event in Arjeplog, Sweden, near the Arctic Circle.

Battling icy lakes and the most frigid temperatures, the BorgWarner advanced AWD technologies, including its Generation 5 (GenV) coupling and electronically driven all-wheel-drive (eAWD) system were up to the challenge.

BorgWarner's GenV coupling automatically distributes power between front and rear wheels using a new low-weight, compact design.

The eAWD system provided better vehicle stability and dy-

namics and improved fuel economy of up to 20 percent over a mechanical AWD vehicle.

"Our latest advancements in the field of AWD technologies meet today's demands for increased traction and vehicle stability on all ter-

rains with the added benefits of reduced weight and parasitic losses for improved fuel economy," said Dr. Stefan Demmerle, president and general manager of BorgWarner TorqTransfer Systems in Auburn Hills.

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## Powertrain's Done It Again

### Cadillac Plans Unveiling Of Twin-Turbo V6 in N.Y.

A new Twin-Turbo V6 engine and eight-speed transmission – firsts for the brand – and signature features of the 2014 Cadillac CTS midsize luxury sedan debuts this week at the New York Auto Show.

Cadillac officials say the Cadillac Twin-Turbo V6 is the most power-dense six-cylinder engine in the midsize luxury segment – a 3.6L with 118 horsepower per liter – and the eight-speed automatic enhances fuel economy and acceleration over a six-speed automatic.

"The new Cadillac Twin-Turbo brings a new dimension of technologically advanced performance to the all-new 2014 Cadillac CTS sedan," said David Leone, executive chief engineer. "Delivering power and sophistication, it marks another large step forward in the product-driven expansion of Cadillac."

Rated at an SAE-certified 420 horsepower and 430 lb.-ft. of torque, GM officials say it is the most powerful V6 ever from General Motors. They say it also has 15 percent greater power density than BMW 535i's turbocharged 3.0L six, which is rated at 300 horsepower, for a ratio of 100 horsepower per liter – and even the BMW 550i's TwinPower 4.4L V8, rated at 400 horsepower (298 kW), or 91 horsepower per liter.

A pair of smaller turbochargers and an efficient charge air cooler, say GM officials, help provide more immediate power delivery. Additionally, they say that approximately 90 percent of the 3.6L Twin-Turbo's peak torque is available from 2,500 rpm to 5,500 rpm, giving the engine a broad torque curve that aids in almost all driving conditions, such as accelerating or overtaking traffic on the highway.

Those features help the new CTS sedan reach 60 mph from a standstill in an estimated 4.6 seconds and achieve an estimated top speed of 170 mph.

The new Cadillac Twin-Turbo, say GM officials, will expand the performance envelope of the upcoming 2014 CTS midsize luxury sedan, which will be launched this fall in the United States. The engine will also be offered in the 2014 XTS large luxury sedan this fall.

The new engine, GM officials say, is a comprehensive upgrade on the 60-degree, 3.6L DOHC V6 offered in today's SRX, XTS and ATS. However, they add, almost every component is unique.

New features include all-new cylinder block casting, all-new cylinder head castings, strength-

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## Chrysler Rebrand Yields 200 S Special Edition

by Jim Stickford

Chrysler has been able to remake its image despite not having a lot of money to do so because they focused on targeted, smaller opportunities.

That's how Saad Chehab, president and CEO of the Chrysler Brand, explained the brand's turnaround to the Automotive Press Association at a special luncheon March 21.

Besides telling the group how the Chrysler brand has remade itself, he introduced the new Chrysler 200 S to the world.

Chehab said another key factor in the turnaround was teaming up with successful entrepreneurs such as Motown's Berry Gordy and fashion maven and "son of Detroit" John Varvatos.

The entrepreneurs have their own brand and they are "sons of Detroit," Chehab said, adding that they wanted to be a part of helping promote the city and the people who make it go.

These efforts have been successful by bringing attention from media not normally associated with the auto industry, Chehab said. At the most recent fashion week in New York City, Varvatos hosted a special event to show off a limited edition



The new Chrysler 200 S Special Edition

Chrysler 300 that featured interior designs with the "Varvatos" touch.

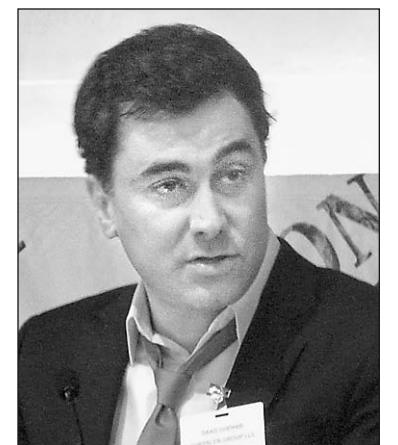
These designs, Chehab said, are meant to make the 300 appeal to the Wall Street executive and the Miami entrepreneur equally. There will be only 2,000 of these special Varvatos 300s produced. And the campaign that launched them was reported in media outlets that usually cover the fashion industry because of the special fashion week event Varvatos hosted.

Berry Gordy's Motown edition

300 comes pre-loaded with 100 tracks of Motown songs. Other unique features include a 10-speaker Beats audio system with 12-channel amplifier.

*Motown: The Musical* makes its Broadway debut April 14, and will help showcase the partnership between Motown and Chrysler.

Chehab said Chrysler's willingness to team up with other companies who have a story that supports the Chrysler's "Imported from Detroit" philosophy of led the company to join forces



Chrysler Brand CEO Saad Chehab spoke about changing the brand's image at the Detroit Athletic Club.

with Carhartt, a local company that has been in metro Detroit for 120 years and is known around the country for the tough work clothes it manufactures.

The result of this joining of forces is the 2013.5 Chrysler 200 S Special Edition. Chehab said Carhartt collaborated with Chrysler in the interior design and choice of materials of the 200 S. The vehicle also has a unique interior and exterior appointments.

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## Jay Leno Test-Drives Army's New Alpha Combat Vehicle

by Jim Stickford

Jay Leno's "Jay's Garage," looked a little different recently.

There, for all to see, was not a souped-up, aerodynamic Mustang or a racecar-like Corvette Stingray, but a hulky armored-car-looking combat vehicle that looks more like a tank than a racecar.

The vehicle, TARDEC's FED Alpha, was making a guest appearance on Leno's Website, "Jay's Garage."

FED stands for Fuel Efficiency Demonstrator and two vehicles, an Alpha and a Bravo were built under the aegis of the U.S. Army's Tank Automotive Research, Development and Engineering Center (TARDEC).

Project engineer Rachel Agusti said the Alpha was designed in Van Buren Township and the Bravo was designed in Sterling Heights. She likened the two vehicles to concept cars that would get heavily tested by the Army so that they would know which technologies helped improve fuel efficiency.

Neither the Alpha or the Bravo will be going into production, Agusti said. But should a company like General Dynamics ever wish to design a new vehicle in the same class as the Alpha and Bravo FEDs, they would know which technologies worked.

Agusti said the Alpha was "key

turn" running by September of 2010. The Army finished testing it at the Chelsea Testing Grounds in July of 2012. The vehicle was then taken to the Army's main testing grounds in Aberdeen,

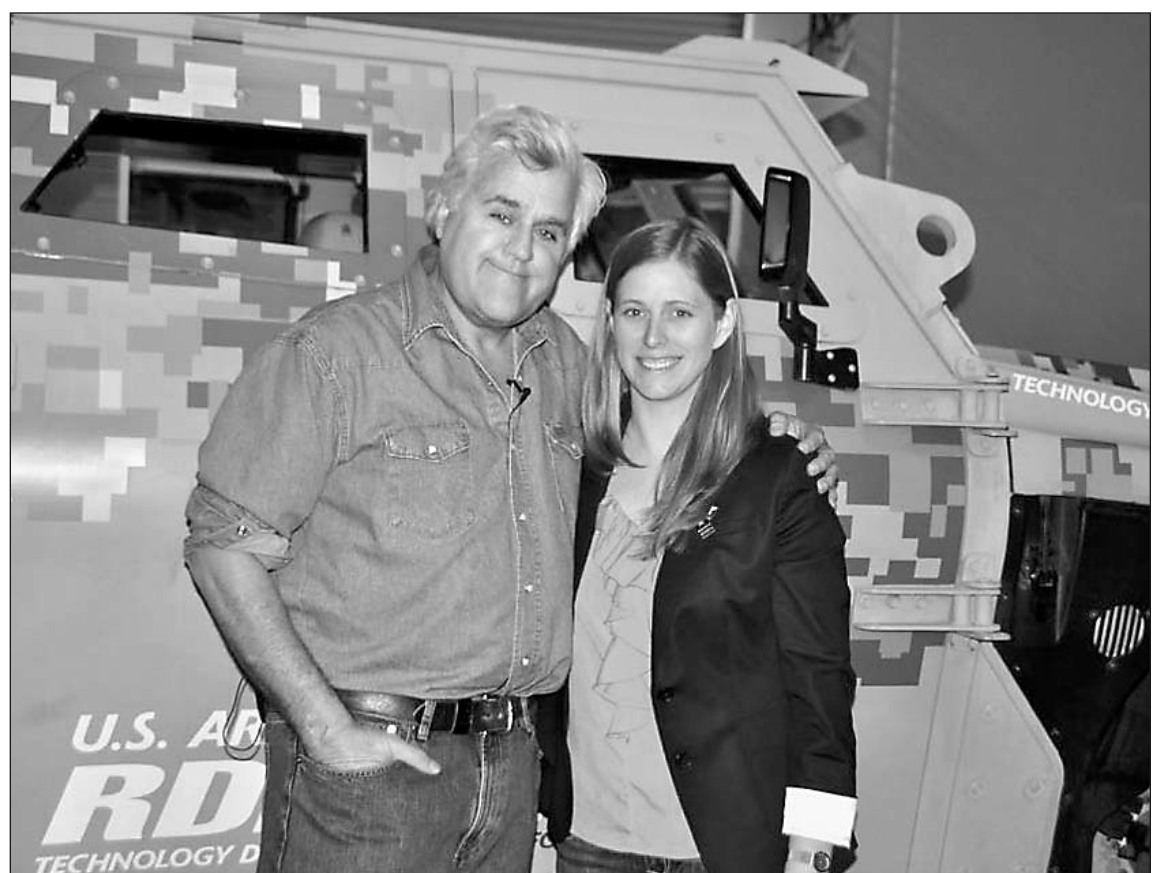
Md., for further testing.

The Bravo was "key turn" running by December of 2011. It was just sent to Aberdeen for its final testing.

"These vehicles are really just

research and development projects," Agusti said. "Once all the testing has been done, we will take that information and share it

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TARDEC engineer Rachel Agusti got to meet Jay Leno when he drove the TARDEC-designed FED Alpha.

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