

## Acadia Geared for Burgeoning Mid-Sized SUV Market

by Jim Stickford

SUVs are becoming more popular than traditional sedans, and that's not likely to change anytime soon.

That's why GMC completely redesigned the 2017 Acadia to compete in the mid-size SUV segment, the largest niche in the SUV market.

Speaking at the Detroit Section of the Society of Automotive Engineers' (SAE) November dinner at the San Marino Club in Troy Nov. 17, James Chandra said that, as the Acadia's product manager, it was his job to improve the vehicle because of the public's demand for SUVs.

"The program for the new Acadia got its start back in 2012," Chandra said. "Fun facts about the GMC brand. There is an insatiable demand for trucks and SUVs. We're closing in on six years of growth and we have the highest transaction price for a non-luxury brand and the highest customer loyalty in a decade."

And, Chandra said, the Denali sub-brand now accounts for about a quarter of GMC sales.

"We've been able to nurture the Denali and spend media money on it," Chandra said. "We've been pushing it with a consistency of design, price and packaging. This is important because

the Denali line performs like a luxury brand. The average transaction price is better than Cadillac or BMW."

With the Denali line proving successful, Chandra said that GMC has switched gears to concentrate on the Acadia.

"This next year will be the biggest year for the Acadia in quite some time," Chandra said. "We will use the broadest range of media from traditional to social to cut through the clutter of media to drive our message to SUV intended buyers."

This is important, Chandra said, because SUVs are the big thing and mid-sized SUVs are the biggest part of the biggest market niche. With the Denali line, GMC can hold its own in the large end of the mid-size SUV market segment.

GMC owns half of the large-SUV market segment, he said. But the previous version of the Acadia, he said, accounts for only about 6 percent of the mid-range of mid-sized SUVs.

That means there's room for growth and GMC came up with the 2017 Acadia as a way of achieving that goal, Chandra said.

To that end, GMC decided to redesign the 2017 Acadia from the ground up. That meant talk-



2017 GMC Acadia Denali



Spadafora, left, and Chandra at SAE dinner

Photo by Gabriela McGill

CONTINUED ON PAGE 7

## Macomb County Seeks Tax Prep Volunteers

Macomb County is looking for volunteers to help people by preparing tax returns free of charge.

This is part of the county's Volunteer Income Tax Assistance (VITA) or Tax Counseling for the Elderly (TCE) programs, said county spokeswoman Laura Rios.

Volunteers will receive training to provide free tax help for low-to-moderate-income families who need assistance preparing their tax returns.

Macomb County Veteran Services, an IRS VITA partner, assists Macomb County and surrounding communities, Rios said.

In 2016, 28 volunteers prepared over 1,000 tax returns that brought back more than \$1,166,490 in refunds to the area. Across the country, over 90,000 people volunteered during the 2015 filing season and prepared over 3.7 million returns at thousands of tax sites.

The first training classes take place on Dec. 3 from 9 a.m. to 1 p.m., Rios said classes will be held at the county's Family Resource Center in Mount Clemens.

Rios said those interested in volunteering should call 586-469-6507 to learn more and sign up.



2017 Chevrolet Colorado ZR2

## Chevy Boasts Off-Road Tech At Debut of Colorado ZR2

Chevy brought a little Hollywood to the introduction of the new Colorado ZR2.

The new mid-size pickup was introduced at the LA Auto Show last week.

The vehicle is poised to reset expectations for off-road trucks, said GM spokesman Monte Doran.

Colorado's new performance capabilities will include more off-road technology than any other mid-size pickup when it goes on sale, Doran said.

He said that, visually, the production version of the Colorado ZR2 closely resembles the concept shown at the 2014 Los Angeles Auto Show. Consumer response to that concept was so overwhelming that the team knew they needed to carry as much of the original design into production as possible.

"For both the concept and the production versions of ZR2, the

exterior design was shaped by the desire to improve capability driving over mud, sand and rock," said Rich Scheer, director of Design for Chevrolet Truck. "The wider, more aggressive stance, modified front and rear bumpers, and even the bed-mounted, spare-tire carrier all improve performance driving over rough terrain."

"The ZR2 is effectively a segment of one, combining the nimbleness and maneuverability of a mid-size pickup with a host of new off-road features and the most off-road technology of any vehicle in its segment," Doran said.

"Compared to a standard Colorado, the ZR2 features a much wider track and a lifted suspension. Functional rockers have been added for better performance over rocks and obstacles,

## Ford Tops Chevy's Flag-Pulling World Record

The competition between Ford and Chevy trucks has extended to the American flag.

Just two months after Chevy set the world record for hauling a flag, Ford beat it.

Ford set the Guinness World Records title for the World's Largest Flag Pulled by a Moving Vehicle with a 2017 Ford F-450 Super Duty pulling a 4,124-square-foot U.S. flag.

The record was set on Nov. 19 at the Homestead-Miami Speedway's 1.5-mile track, said Ford spokesman Matt Fancett.

The record eclipses the previous mark set earlier this year by Chevrolet with a 3,200-square-foot flag at Texas Motor Speed-

way on Sept. 28, Fancett said.

With its 6.7-liter Power Stroke turbo diesel V8 producing a best-in-class 925 lb.-ft. of torque and 440 horsepower.

"The F-450 displayed an exceptional level of towing power that Ford truck owners have come to expect from the top-selling truck series in America," said Fancett.

"At Ford and with Ford trucks in particular," said Doug Scott, Ford Truck Group Marketing manager, "we are used to being number one."

"Towing the largest banner and setting the Guinness World Record in the category certainly fits with our DNA and what we are all about when we talk about

Ford trucks and their towing power.

"This is a great accomplishment, another to add to the list of distinctions. Earlier this week, we received the 2017 *Motor Trend* Truck of the Year award, so we will add this to the list."

Ford is no stranger to patriotic displays at Ford Championship weekend, utilizing the F-Series line of trucks to fly the U.S. flag as part of pre-race activities since 2003, Fancett said.

To set the record, the truck had to travel beyond the 100 meters (328 feet) previous record mark without the flag touching the ground, Fancett said.



4,124-square-foot American flag flaps in the wind as Ford F-450 Super Duty pickup sets Guinness World Record.

CONTINUED ON PAGE 3

**Tech Center News®**

31201 Chicago Road South  
Warren, Michigan 48093

586-939-6800

Contact us:  
Info@TechCenterNews.com

Deadline: Thursday 5:00 p.m.  
for the next edition of Monday

William Springer II, publisher  
Lisa A. Torretta, operations  
Jim Stickford, news

Tech Center News is a registered  
trademark of Springer Publishing Co.

www.TechCenterNews.com

**NHTSA Agrees  
To Delay GM's  
Air Bag Recall**

by TOM KRISHER  
AP Auto Writer

DETROIT (AP) – U.S. auto safety regulators are allowing General Motors to delay a large recall of potentially defective air bags, giving the company time to prove that the devices are safe and to possibly avoid a huge financial hit.

The unusual move by the National Highway Traffic Safety Administration buys time for an outside company hired by GM to do long-term tests of Takata air bag inflators in older trucks and SUVs, including GM's top-selling vehicle, the Chevrolet Silverado pickup.

GM reluctantly agreed to recall 2.5 million vehicles in May to replace Takata front passenger inflators.

But the company said at the time its inflators are unique and safer than those linked to 11 deaths in the U.S. and as many as 16 worldwide.

The company petitioned for the delay in mid-November and the government agreed on Nov. 21.

The decision delays the recall until Aug. 31, 2017. If GM can prove to NHTSA that the inflators are safe by that time, the recall could be canceled.

The recall covered the Silverado, GMC Sierra pickup and many popular full-size SUVs from the 2007 to 2011 model years.

Some of the trucks are now older than the minimum six years that it takes for Takata inflators to deteriorate and become risky.

But GM contends its tests so far show that they are safe for at least 3-1/2 more years.

The testing could help GM fend off several recalls totaling 6.8 million trucks and SUVs with the same inflators that ultimately could cost the company \$870 million, according to a GM filing with securities regulators. Another batch of recalls is slated to start on Dec. 31.

The delay also pushes the decision into the administration of President-elect Donald Trump, who has stated that he wants to get rid of unnecessary government regulation.

GM said the timing of its filings was motivated by upcoming NHTSA deadlines. "Any other conclusion is just speculation," spokesman Tom Wilkinson said in a company statement.

Takata uses the chemical ammonium nitrate to create a small explosion and quickly inflate air bags in a crash.

But tests have shown the chemical can deteriorate when exposed to high temperatures and airborne moisture. That can make it burn too fast, blowing apart a metal canister designed to contain the explosion, flinging shrapnel into drivers and passengers.

In addition to the deaths, more than 100 people have been hurt by the exploding inflator canisters.

**GM Offers Fleet Customers Various Fuel Alternatives**

Cooperation can breed success. Just ask the folks at Chevrolet, GMC and Power Solutions International, Inc. (PSI)

Chevrolet and GMC are partnering with PSI to introduce heavy-duty pickups and full-size vans powered by 6.0-liter V8 compressed natural gas (CNG) and liquefied petroleum gas (LPG)-capable engines starting in the first quarter of 2017.

Chevrolet also will offer CNG and LPG versions of its new Low Cab Forward commercial truck.

This move follows the selection of PSI, based in Wood Dale, Ill., as General Motors Fleet's preferred upfitter for CNG and LPG trucks, said GM spokeswoman Emily Moran. PSI is one of North America's largest and most experienced providers of integrated turnkey alternative-fuel powertrain solutions.

Ship-through will be offered, allowing customers to seamlessly order and take delivery from the same dealer. GM will supply vehicles equipped with the 6.0L V8 engine with hardened valves and valve seats to PSI, which in turn will install the fuel system and other hardware and ship directly to Chevrolet and GMC dealers in all 50 states.

All PSI-modified vehicles are covered by Chevrolet and GMC's five-year/60,000-mile (whichever

comes first) limited powertrain warranty.

The expanded lineup brings GM Fleet's portfolio of alternative fuel, hybrid and EVs to more than a dozen trucks, cars and crossovers.

Other recent additions include the Chevrolet Bolt EV, a Duramax 2.8-liter B20-capable Duramax diesel for the Chevrolet Express and GMC Savana vans and new available 6.6-liter B20-capable Duramax diesel engines for the Chevrolet Silverado HD and GMC Sierra HD.

"Expanding choice is the key to helping more commercial and government fleets reduce their fuel consumption, fuel costs and emissions using alternative fuels and EVs versus using traditional gasoline," said Ed Peper, U.S. vice president of GM Fleet. "There are no 'one size fits all' solutions for fleet managers."

GM Fleet's partnership with PSI follows customer demand and ongoing investment by companies across the nation in CNG refueling infrastructure.

In November, the U.S. Department of Transportation's Federal Highway Administration (FHWA) announced 55 routes that will serve as the basis for a national network of "alternative fuel" corridors spanning 35 states.

Though the network is nearly



2016 Chevrolet Express

85,000 miles long, more miles will be added in the future to accommodate electric, hydrogen, propane and natural gas vehicles as additional fueling and charging stations are built. Currently, four of the top five "Green Fleets," as identified by Bobit Media Group, operate CNG-powered vehicles. All of the top 25 fleets use at least two fuels.

Expanding Alternative Fuel Vehicle options, including 2017 and 2018 models, Chevrolet and GMC will offer more than 25 different cars, trucks and vans that use

alternate fuels or electric propulsion.

CNG and LPG models are:

- Chevrolet – Express Cargo 2500, 3500 and 4500, Express Passenger 2500 and 3500, Silverado HD, Low Cab Forward 3500 and 4500;

- GMC – Savana Cargo 2500, 3500 and 4500, Savana Passenger, Sierra HD;

- B20-capable Diesel models are: Chevrolet – Cruze, Colorado, Express, Silverado HD;

- GMC – Savana, Canyon, Sierra HD.

Real Living Kee Realty  
15501 Metropolitan Parkway, Ste. 105, Clinton Twp. MI 48036

**ANN MEYOU**  
REALTOR  
Cell: 586-623-2861  
Office: 586-840-0400  
Fax: 586-840-0401  
ann.meyou@realliving.com  
www.realliving.com/ann.meyou  
*Speaks Arabic and Chaldean*

**Fremont Insurance**  
Michigan Exclusive Since 1876

**INSURANCE SHOPPERS AGENCY**

Phone: 810.388.9200 | Fax: 810.388.9201  
Email: knewsome@marysvilleisa.com

Receive a FREE \$10 Gift Card Just For Letting Us Quote Your Home and Auto Insurance

**Home – Auto – Commercial  
Bundling Discounts**

Kristin Newsome, Agent

**INSURANCE MADE EASY!**

**FIRST CHOICE** **MUFFLER & BRAKE SERVICE**  
23252 VAN DYKE  
3 Blocks North of 9 Mile  
HOURS: Mon.-Fri. 7:30am-5pm; Sat.-Closed

WARREN • 586-757-7203

**DELUXE OIL CHANGE SPECIAL**  
Up To 5 Qts. Of Oil Lube & Filter  
No Disposal Fee  
**\$23<sup>36</sup>**

**RADIATOR POWER FLUSH & FILL COOLANT SYSTEM**  
Extended Life Coolant & G05 Extra  
**\$79<sup>95</sup>**  
Most F.W.D. U.S. Cars • In-store offer ends 11-30-16

**BRAKE SPECIAL**  
• Front Premium Disc Brake Pads  
• 2 New Front Rotors  
• Labor Included  
**\$229<sup>95</sup>**  
Most F.W.D. U.S. Cars • In-store offer ends 11-30-16

**Check Our Price on Tune Ups, Water Pumps, Heater Cores & Other Repairs**

**MAKE US YOUR FIRST CHOICE**

**HIBACHI BUFFET**

CALL FOR RESERVATIONS  
CATERING • CARRY-OUT

*We Serve Asian & American Cuisine*

STEAK • PRIME RIB  
SEAFOOD • CRAB LEGS  
HIBACHI GRILL  
FULL SUSHI BAR

★★★★  
Try Our New Buffet RATED 4 STARS!

**LUNCH BUFFET**  
**\$8.29**  
Mon-Fri • 11am-3:30pm  
Price Excludes Beverages

33431 Van Dyke at 14 Mile (Same Shopping Center as Walmart)  
**586-264-7000**  
Fax: 586-264-8080

Learn How To Get The Most From Your Retirement Savings

**COMPLIMENTARY RETIREMENT READINESS KIT**

**RETIRE SMARTER**

Two Ways to Receive Your Free Kit

By Phone **Call (810) 593-1624**

Download Now **KaydanWealthPresents.com**



The Big Red Kettle at Campus Martius in Detroit

## Chevrolet's ZR2 Truck 'Can Do It All Well'

CONTINUED FROM PAGE 1

and the front and rear bumpers have been modified for better off-road clearance."

The ZR2's class-exclusive features include front and rear electronic locking differentials, available diesel engine, and the first off-road application of Multimatic Dynamic Suspensions Spool Valve (DSSV) damper technology.

As a result, Doran said, the Colorado ZR2 delivers exceptional performance in a variety of scenarios - from technical rock crawling to tight two-track trails to high-speed desert running to daily driving.

"Our engineers have been incredibly successful developing Corvette and Camaro performance variants with broad performance envelopes," said Mark Reuss, executive vice president, Global Product Development, Purchasing and Supply Chain.

"The ZR2 applies that same philosophy to off-road performance. You can go rock crawling on Saturday, desert running on Sunday, and comfortably drive to work on Monday.

"This truck can do it all, and do it all well."

To achieve this balance of on- and off-road performance, Reuss said, the Chevrolet engineering team turned to a new and "surprising" partner in creating the ZR2's dampers, which are the heart of any off-road truck.

The 2017 Chevrolet Colorado ZR2 will be the first application of Multimatic DSSV damper technology to an off-road vehicle.

Multimatic Inc., based in Markham, Ontario, is a maker of high-performance DSSV dampers as used in championship-winning motorsport vehicles, including Formula One winners.

The first volume production vehicle to use DSSV dampers was the 2014 Chevrolet Camaro Z/28.

"From our experience on Z/28, we knew the performance advantages offered by DSSV dampers," said Mark Dickens, executive director of Chevrolet's Performance Variants, Performance Parts and Motorsports Engineering.

"We also know that Multimatic's motorsport development mentality would allow us to bring a uniquely precise and repeatable custom damper to market even more quickly than a traditional damper system."

Compared to deflected-disk valving common on most dampers, the ZR2 employs spool valves that offer increased precision and manufacturing repeatability along with enhanced ride and handling performance both on- and off-road, Dickens said.

The Colorado ZR2's DSSV dampers are position-sensitive, Dickens said. Their aluminum bodies each house two spool valves providing both compression and rebound damping optimized for everyday driving.

The Colorado ZR2's DSSV dampers are position-sensitive, Dickens said. Their aluminum bodies each house two spool valves providing both compression and rebound damping optimized for everyday driving.

## Salvation Army Attacks Poverty in Detroit, Suburbs

The Salvation Army of Metro Detroit kicked off the holiday season on Nov. 18 with the annual lighting of the Big Red Kettle in downtown Detroit.

This year, said Salvation Army spokeswoman Andrea Kenski, the group's goal is to raise \$8.4 million through its Red Kettle Fundraising Campaign throughout Wayne, Oakland and Macomb counties.

"The need is great," Kenski said. "The campaign begins on the heels of new data from the U.S. Census Bureau reporting that while metro Detroit's median household income increased more than two percent, poverty rates remained flat at 16 percent.

"Among communities with more than 65,000 residents, Detroit continued to post some of the nation's highest poverty rates at nearly 40 percent."

Detroit's poverty rate for children was higher at 58 percent, Kenski said.

But Detroit is not alone. Oakland and Macomb Counties have also experienced spikes in poverty levels since the recession in 2008. According to the Brookings Institute, one in three poor Americans - about 16.4 million people - lives in the suburbs.

"Red kettle donations during the campaign are vital in ensuring the organization can continue providing more than 2.7 million meals and more than 652,000 nights of shelter that are the hallmarks of The Salvation Army," Kenski said.

"But they also provide critical funding for after-school and camp programs for children, drug and alcohol rehabilitation, and programs to help families break the cycle of poverty and work toward financial stability."

The Salvation Army combats poverty without discrimination, using the funds raised during the

Red Kettle Campaign throughout the year, Kenski said.

Through a combination of grassroots fundraising and special events, the organization engages supporters across metro Detroit while ensuring that the funds stay in the communities in which the donations have been made.




**WATERPROOF**  
MADE IN THE  
**USA**

#604

**RED WING SHOE STORE**  
M-F 10-8; Sat. 10-5; Sun. 12-4  
33289 Mound Rd.  
Just North of 14 Mile Rd. in Stover Plaza  
- on the west side of the street -  
**586-264-4500**

Banquet Facility


## Royalty House

Proudly Family Owned for 40 Years

Seating Accommodations for 80-1200

"Experience the Elegance with Royalty"

**(586) 264-8400**  
www.royaltyhouse.com • royalty@royaltyhouse.com



**FERRIS STATE UNIVERSITY**  
Metro Detroit


## Open House

Complete your bachelor's degree quickly and locally.

Ferris offers classes on-site at Macomb Community College and online. Locally offered programs include Business Administration and Industrial Technology Management. Transfer credits you've already earned. Come to the open house and learn how.

**Tuesday, November 1, 4:30 - 7:00 p.m.**  
Macomb Community College  
South Campus, K Building Lobby

**(586) 445-7150 | ferris.edu/warren**



## CJ'S BBQ

### DELI & CATERING



Our chefs create something exciting every day...

From Party Trays to Full Buffets - **WE DO IT ALL!**


**Deli Sandwiches & Hot Bar Available All Day**  
Homemade Soups  
Fresh Baked Bread

"Catering For The Holidays... At Your Place Or Ours" seating up to 75

**6177 Chicago Road • WARREN (West of Van Dyke)**  
**586-825-0067**  
[www.cjscompanystore.com](http://www.cjscompanystore.com)  
HOURS: M-Sat. 10-3 • Closed Sun.

*We're not the same old Quality Inn...  
"Come see our Vision"*



**Newly Renovated Hotel**  
located across from the GM Tech Center

Room Rates Starting At **\$74** Per Night

**OVERALL RATING**  
★★★★☆

Choice Guest Rating 4.5 / 5

100% Smoke Free

Free Hot Breakfast

Business & Fitness Center

Free Shuttle Services • Free Parking & Local Calls

**30900 Van Dyke Rd. Warren, MI 48093**  
PH 586-574-0550 • Fax 586-574-0750

## Macomb Boy Needs Heart/Lung Transplant

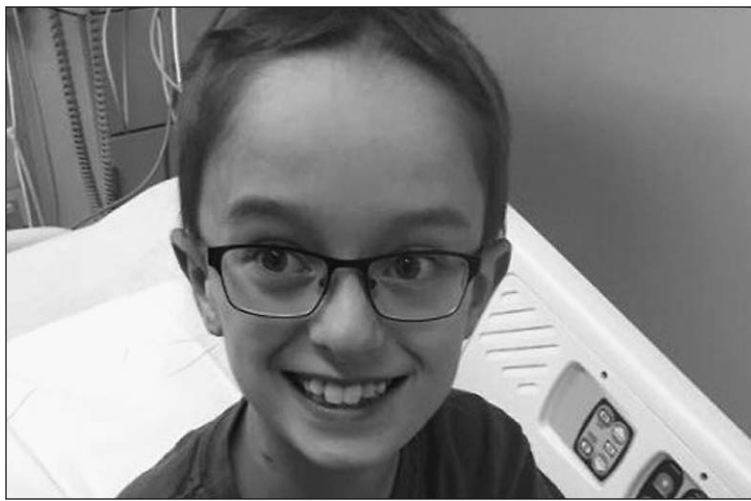
With Christmas fast approaching, many people realize how fortunate they are for their families and their health.

However, one local family is fighting for their son's life.

10-year-old Thomas Maier, grandson of a retired police officer, was born with a congenital heart defect known as Tetralogy of Fallot. As a result, he has been through 6 open-heart surgeries and numerous heart catheterizations in the past 10 years.

In May 2016, Thomas went to Nationwide Children's Hospital in Columbus, Ohio for a possible Melody heart valve placement, which would improve his condition. Unfortunately, the placement attempt failed. The Maiers were told that Thomas's condition had advanced to the point where they anticipated he only had 3 to 5 more years to live.

While at Nationwide Children's Hospital, they were given another treatment option – a heart-lung transplant. Prior to this, the Maiers had been told that Thomas was not a viable candidate for this surgery. Because of his numerous procedures and blood transfusions, Thomas's antibody count is extremely high, which can make rejection more likely. Fortunately, this is an obstacle that the doctors at Nationwide are willing to tackle.



Thomas Maier, 10, waits for treatment and a possible transplant.

The next step was to give Thomas chemotherapy medication. Such medications are typically given to blood cancer patients to stop the production of the B and T cells which produce the antibodies. After receiving the results of Thomas's blood tests, doctors found no sign of the B cells or plasma markers. Unfortunately, the treatments were not successful.

Starting the week after Thanksgiving, the Maiers will be heading to Mott Children's Hospital in Ann Arbor where Thomas will begin a new form of treatment known as Plasmapheresis; a process that removes the plasma, which contains the antibodies, from the blood and replaces it with a substitute. If the antibody numbers aren't lowered, it will make it harder to find a viable donor and increase the wait time.

If all goes well in Ann Arbor, doctors are hoping to put Thomas on the transplant list soon. Once on the list, Thomas and his father Jeff will be living in Columbus, Ohio, at the Ronald McDonald House across the

street from the hospital. (While on the transplant list, Thomas must be within a 3-hour radius of the hospital.) Recently, Thomas's father, Jeff, left his job to help out with doctor appointments and care for Thomas full-time. His sister Abby and mother Karin will be staying in Michigan so that Abby can continue her schooling and Karin can work and keep their medical insurance intact.

The average wait time for a heart and lung transplant is 4-6 months; however, the doctors anticipate Thomas's wait will be longer due to his antibody issues. Once Thomas receives the transplant, they'll have to stay in the Columbus area for 6 months or more for close monitoring and rehabilitation. In total, Jeff and Thomas anticipate being in Ohio for at least a year or more.

Friends and family are doing everything to help, but more help is needed. The Maiers have started a fundraiser at youcaring.com to ease the financial burden of medical and living expenses during their stay in Columbus.

Those interested in helping can go to youcaring.com.

## Continental Launches New 48-Volt Hybrid Systems

For years, the automotive industry has been talking about introducing mild hybrid systems based on 48-volt technology.

That day has come, said Continental spokesman Thomas Recke.

Continental, which has its North American headquarters in Auburn Hills, has now begun volume production of the first low-voltage hybrid drive, which will be introduced by French carmaker Renault (model: Renault Scenic Hybrid Assist) by year-end 2016.

The first production solution combines an efficient, water-cooled induction motor with an integrated inverter, Recke said. The electric motor transmits power via a belt drive directly to the crankshaft of the combustion engine – an arrangement referred to by experts as "P0 topology." Further production ramp-ups are soon to be set in motion on the basis of a modular system for 48-volt drives.

"We are proud that we were able to secure Renault as the first customer for our innovative 48-volt drive," said Juergen Wiesenberg, head of Hybrid Electric Vehicles at Continental North America. "Other production launches for both diesel and gasoline vehicles are in the pipeline for North America, Europe and China."

Wiesenberg said the market for 48-volt drives will experience significant growth in the coming years.

"In 2025, approximately one in five new vehicles across the world will be equipped with a 48-volt drive," Wiesenberg said.

48-volt is considered a progressive technology, as the low voltage compared with conventional hybrid vehicles enables considerable savings in fuel consumption in return for moderate additional costs, Recke said.

As a result, Continental anticipates that market penetration will be rapid, with four million vehicles with low-voltage hybrid drives to be produced worldwide in 2020, Recke said. For 2030, the technology supplier's experts forecast a global market of as many as 25 million new vehicles.

During development of the modular system, the engineers at Continental placed great emphasis on achieving a high degree of efficiency for the overall system, simple adaptation to existing vehicle powertrain designs, and highly automated, cost-effective production.

The efficiency of a 48-volt system is largely dependent on the amount of drive and recovery output available in continuous operation, Recke said. Continental has chosen to employ a water-cooled induction motor that can be connected directly to the engine's cooling circuit.

This makes it possible to assemble a machine that, depending on the version, can continuously provide an output of six kilowatts and torque of 60 newton meters, all in the installation space of a conventional starter alternator. By using a belt drive, up to 150 newton meters can be transmitted to the crankshaft. Within the modular system, only the length of the motor changes the power.

The inverter, based on a metal-oxide-semiconductor field-effect transistor (MOSFET), is integrated in the housing lid, which saves space. The modular system from Continental also includes a AC/DC converter, which enables the 48-volt system to be connected to the vehicle's on-board power supply. This makes it possible to use some of the energy stored in the lithium-ion battery to stabilize the on-board power supply as well.

Simple adaptation to existing powertrain designs is a major benefit of the P0 concept that Continental has pursued. It enables the load point of the combustion engine to be shifted. The fuel savings demonstrated in test vehicles are considerable, with a figure of 13 percent in the New European Driving Cycle. In real-world use – especially in cities – the savings are even higher due to the greater share of driving spent in energy recuperation phases and can reach up to 21 percent.

This is helped by the fact that the combustion engine can be switched off when the vehicle approaches traffic lights, starting at speeds below 13 mph. The combustion engine is always started with the 48-volt drive within just 0.2 seconds – a conventional starter needs roughly twice as much time, Recke said. When the 48-volt drive is combined with a diesel engine as in its first production application, there is an additional effect.

This is because the nitrogen oxide emissions produced during acceleration from low engine speeds fall by up to 10 percent, as some of the necessary torque is generated via the electric motor.

## Reducing Mass, Friction

BorgWarner's advanced engine timing system drives the new, Alfa Romeo all-aluminum 2.0-liter gasoline engine.

The Alfa Romeo exclusive engine makes its debut in the new 2017 Alfa Romeo Giulia and Giulia Veloce premium mid-size sedan, said BorgWarner spokeswoman Katya Pruett.

"This 2.0-liter Alfa Romeo engine delivers 280 HP and 400 Nm of torque, allowing it to launch from 0 to 62 mph in 5.5 seconds, and achieve a top speed of 149 mph," Pruett said.

"BorgWarner's engine timing system includes the company's next-generation silent timing chain for direct-injected, boosted engines, and helps Fiat Chrysler Automobiles reach its challenging engine performance goals."

"We are very pleased," said Joe Fadool, president and general manager, BorgWarner Morse Systems, "to expand our successful business with FCA by supplying Alfa Romeo with our sophisticated engine timing solutions, as we have for other FCA engine series since 2010."

"At BorgWarner, we understand how various complex engine timing components interact with each other. This enables us to deliver leading integrated systems solutions specifically tuned and optimized for each customer application."

BorgWarner's engine timing system is designed to reduce mass and friction for improved fuel economy and engine efficiency, Fadool said.

The advanced chain has high-quality finishing links and optimized chain link profiles and pins for improved wear performance.

Featuring a precisely designed geometry to reduce mass, BorgWarner's silent timing chain offers best-in-class strength and durability as well as the lowest noise, vibration and harshness on the market, Pruett said.

As a systems supplier, BorgWarner delivers numerous components for engine timing systems, such as chains, tensioners and cam phasers, facilitating a highly tuned engine for optimal timing.

### PERFECTO PLUMBING

24 Hour  
Emergency  
Service



Certified  
Backflow  
Testing

MICHAEL PAGANO  
Licensed Plumber

586.206.3202

## Catch the Tech Center News when you're on the go.

Warren, Michigan Newspaper TechCenterNews.com ©Springer Publishing Co., Inc. ARCHIVE

# Tech Center News™

Definitive Newspaper of the GM Presence in Warren, Michigan

Information Page DECEMBER 8, 2014 contact News Dept

**Open This Week's Edition** or click on image at right >>>

Published Weekly for the Tech Center and the Immediate Area

**CLICK TO PRINTABLE PDF**  
for examples of small ads  
in actual size with prices

[Advertising Rates](#) [contact Ad Dept](#)

[return to TOP OF PAGE](#)

SITE IS UPDATED ON THE WEEKEND FOR MONDAY,  
IN TIME FOR THE CURRENT BUSINESS WEEK.

Tech Center News

**Our classic tabloid format fits most of today's mobile device screen resolutions. The scrollable pdf is viewable on tablet or smartphone.**

**TechCenterNews.com**

## Chevrolet Racer Comes From Behind, Wins

HOMESTEAD, Fla. (AP) – Jimmie Johnson walked across the stage after driver introductions to find his car inexplicably missing from pit road.

In a dramatic start to his race for a record-tying seventh championship on Nov. 20, Johnson learned NASCAR's inspectors had yanked his Chevrolet off the pre-race grid and sent it back through tech.

The Hendrick Motorsports team had been accused of manipulating a body panel, and Johnson had to start last in the field.

In less than 30 laps, he was sniffing the top-10.

"He came from last doing that?" Joey Logano asked his team, "Wow."

The best was yet to come.

For most of the day, Johnson was the worst of the championship contenders in a winner-take-all season finale at Homestead-Miami Speedway. He needed only to beat three other drivers to tie Richard Petty and Dale Earnhardt with a record seven titles, but he was clearly not in the same league as the other finalists Nov. 20.

Johnson, who seemed to have sensed the last 10 weeks that he was finally going to grab that special seventh title, never panicked.

"I felt like something was going to happen, and I was going to be OK with it," Johnson said. "For a while, I came to grips with the reality of (finishing) third, fourth, somewhere in there and shaking somebody else's hand and being happy for them."

"Then it changed so quick at the end."

Johnson was practically gifted his seventh title when Carl Edwards' aggressive attempt to win the championship ended in a wreck. Johnson got the restart of his life in overtime, took the lead on the very last lap of the race, won for the first time in his career at Homestead and grabbed the final Sprint Cup trophy.

The win was the 15th for Hendrick Motorsports and seventh for crew chief Chad Knaus, who now only trails Dale Inman's record eight.

"When I was coming to the checkered flag, I had to really look closely at it going by to make sure it was, like, 'Is this really happening?'" Johnson said.

## Chrysler Recalls Cars, SUVs Over Leaks, Wipers

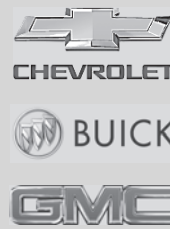
DETROIT (AP) – Fiat Chrysler is recalling nearly 89,000 cars and SUVs to fix possible fuel leaks or problems with windshield wipers.

The most serious recall covers nearly 35,000 Dodge Durango and Jeep Grand Cherokee SUVs worldwide from the 2016 model year. All have 3.6-liter V6 engines. A fuel tube may have been damaged in manufacturing, and could cause a gas leak and fire.

Fiat Chrysler says an employee found a leak in one vehicle and no fires have been reported. The company estimates that only 30 vehicles may have leaks, but the recall is needed to find them. Owners will be notified by mail starting Dec. 19. In the meantime, Fiat Chrysler says owners should be alert for fuel leaks and contact dealers if they spot one.

The other recall covers more than 54,000 Dodge Dart compacts from the 2016 model year in North America. Electrical voltage spikes caused by a windshield washer pump can cause short circuits. That can cause the wipers to fail.

# ED RINKE



**2016 BUICK REGAL** SPORT TOURING

Stk. #B461574

LEASE FOR **\$99\*** 24 MO. \$999 DOWN

PURCHASE FOR **\$21,995\***

EXPERIENCE THE NEW BUICK

**2016 BUICK ENCORE** CONVENIENCE

Stk. #B564291

LEASE FOR **\$99\*** 36 MO. \$0 DOWN

PURCHASE FOR **\$22,709\***

**2017 BUICK VERANO** 1SH SPORT TOURING

Stk. #B470037

LEASE FOR **\$175\*** 36 MO. \$999 DOWN

PURCHASE FOR **\$23,229\***

**2017 BUICK LACROSSE** ESSENCE

Stk. #B470444

LEASE FOR **\$289\*** 39 MO. \$1,999 DOWN

PURCHASE FOR **\$35,249\***

**2016 BUICK CASCADA** PREMIUM 1SP

Stk. #B461787

LEASE FOR **\$239\*** 39 MO. \$999 DOWN

PURCHASE FOR **\$35,529\***

WE ARE PROFESSIONAL GRADE **GMC** WE ARE PROFESSIONAL GRADE

**2017 GMC YUKON** SLE • 4X4

Stk. #G570945

EVERYONE LEASE FOR **\$349\*** 36 MONTHS \$1,999 DOWN

**2017 GMC ACADIA** SLE-1

Stk. #TTHCOJ

EVERYONE LEASE FOR **\$209\*** 36 MONTHS \$999 DOWN

PURCHASE FOR **\$29,142\***

**2016 GMC SIERRA** 4WD • 1500 DBL. CAB SLE

Stk. #G564047

LEASE FOR **\$169\*** 24 MONTHS \$1,499 DOWN

PURCHASE FOR **\$31,429\***

**2017 GMC TERRAIN** SLE-1

Stk. #G570291

LEASE FOR **\$99\*** 24 MONTHS \$999 DOWN

PURCHASE FOR **\$21,899\***

**SHOWROOM HOURS:**  
MON. & THURS. 8:30AM-9PM  
TUES., WED. & FRI. 8:30AM-6PM

We'll give you a \$3,500 minimum for your 2003 or newer trade in.

See us for your GM employee purchases.

**1-866-452-1300**

26125 VAN DYKE AT 10 1/2 MILE ROAD

Now looking for experienced salespeople to join our team!



Paul Makowski  
pmakowski@edrinke.com

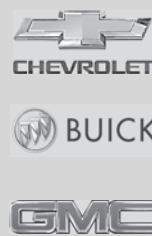


Dennis Thacker  
dthacker@edrinke.com

VISIT OUR WEBSITE: [edrinke.com](http://edrinke.com)

All prices and payments include GM rebates. Pictures may not represent actual vehicle. Pricing subject to change per GM incentives. Prices and payments are inclusive of active GM employee discount (unless otherwise stated). All leases are 10,000 miles per year with approved S Tier credit. Sierra, Regal, Encore, Enclave, Acadia, Terrain are 24 months leases. Verano, Lacrosse, Envion are 36 month leases. Cascada is a 39 month lease. All vehicles shown are \$999 down, except for the Encore which is \$1499 down and Yukon which is \$1999 down. Disposition Fee may be required at vehicle turn in. Must have lease loyalty and/or closing competitive lease. Prices and payments are plus tax, title, plate fee w/ acquisition fee up front, refundable security deposit required on certain vehicles - to be determined by lender. Pricing is subject to select model vehicles - while supplies last. \*\*\$3,500 trade in is valid on 2003 or newer vehicles w/ under 115k miles in drivable condition, no branded titles, reconditioning determined by appraiser. Certain restrictions may apply, see dealer for complete details. \*\* Exp date: 11/30/2016.

# ED RINKE



WE'LL GIVE YOU A \$3,500 MINIMUM FOR YOUR 2003 OR NEWER TRADE IN

**SILVERADO** 1500 • 4WD LT DBL CAB 2017

Stk. #570823

LEASE FOR **\$379\*** 39 MONTHS \$999 DOWN

PURCHASE FOR **\$36,509\***

**VOLT** LT 2017

Stk. #470031

LEASE A LT **\$259\*** 39 MONTHS \$999 DOWN

PURCHASE FOR **\$31,589\***

NO GM EMPLOYEE DISCOUNT REQUIRED **CRUZE** LT 2017

Stk. #470063

LEASE A LT **\$99\*** 24 MONTHS \$999 DOWN

PURCHASE FOR **\$20,839\***

NO GM EMPLOYEE DISCOUNT REQUIRED **EQUINOX** LT 2017

Stk. #570228

LEASE FOR **\$128\*** 24 MONTHS \$999 DOWN

PURCHASE FOR **\$23,395\***

NO GM EMPLOYEE DISCOUNT REQUIRED **MALIBU** LT 2017

Stk. #470127

LEASE A LT **\$188\*** 24 MONTHS \$999 DOWN

PURCHASE FOR **\$24,059\***

**CAMARO** LT 2017

Stk. #470207

LEASE FOR **\$309\*** 39 MONTHS \$999 DOWN

PURCHASE FOR **\$27,069\***

NO GM EMPLOYEE DISCOUNT REQUIRED **TRAX** LTZ 2017

Stk. #564518

LEASE A LS **\$97\*** 24 MONTHS \$999 DOWN

PURCHASE FOR **\$15,938\***

NO GM EMPLOYEE DISCOUNT REQUIRED **TRAVERSE** FWD • 1LT 2017

Stk. #570250

LEASE FOR **\$139\*** 24 MONTHS \$999 DOWN

PURCHASE FOR **\$29,869\***

— NO APPOINTMENTS NECESSARY FOR OIL CHANGES —

**ED RINKE** • FAST • FRIENDLY • DISCOUNTS

GM Certified Service

**GM SERVICE CENTER** MICHIGAN'S LARGEST

•SERVICE DEPT. •PARTS •BODY SHOP

**866-452-1547**

26125 Van Dyke @ 10 1/2 Mile Center Line, MI 48015

**Quick Oil Change EXPRESS LANE**

**LUBE OIL FILTER \$23.95** Up to 5 qts.

Fluid Level, Brake & Alignment Check Included.

Open Mondays & Thursdays until 8:30pm

Excludes synthetic, Diesel & Med. Duty Trucks. Most GM cars & trucks. One coupon per customer. Must present coupon with order. Plus tax. Expires 11-30-16.

**BODY SHOP** 586-754-7000 ext 1231

INSURANCE WRECK AMENDED TRANSPORTATION AVAILABLE

During Scheduled Repairs

FREE OIL CHANGE With Each Major Repair

WE REPAIR ALL MAKE & MODELS

Certified Service

SERVICE HOURS: Monday & Thursday 6:30am-9:00pm; Tuesday, Wednesday & Friday 6:30am-6:00pm • Shuttle at 6:30am - Pick-up Both Ways • All Day starting at 6:30am.

See us for your GM employee purchases.

**1-877-451-7707**

26125 VAN DYKE AT 10 1/2 MILE ROAD

Now looking for experienced salespeople to join our team!



Nicole Dodge  
nhuminski@edrinke.com



Jim Pfeifle  
jpfeifle@edrinke.com

SHOWROOM HOURS: MON. & THURS. 8:30AM-9PM / TUES., WED. & FRI. 8:30AM-6PM / FIND NEW ROADS

All applicable rebates including lease loyalty, Chevrolet lease loyalty or lease conquest offers have been deducted from sale price/payment. Traverse, Equinox, Cruze, Trax are 24 month leases. Camaro, Malibu, Silverado, Volt, is a 39 month lease. Pricing is subject to select model vehicles, while supplies last. Pictures may not represent actual vehicle. Prices subject to change per GM incentives. Prices and payments are inclusive of active GM Employee Discount (Unless otherwise stated). Pricing is subject to select model vehicles while supplies last. All leases are 10k miles per year w/ approved S Tier credit w/ \$999 due at signing unless otherwise stated. Prices & payments are plus tax, title, and plate fees with acquisition fee up front. Disposition Fee may be required at vehicle turn in. Refundable security deposit required on certain vehicles - to be determined by lender. \*\*\$3500 trade-in is valid on 2003 or newer vehicles with under 115k miles in drivable condition, no branded titles, less reconditioning determined by appraiser. Certain restrictions may apply, see dealer for complete details. \*\* Expiration Date - 11/30/16.



VISIT OUR WEBSITE: [edrinke.com](http://edrinke.com)



NO DOC FEES Find us on FACEBOOK



# WE GUARANTEE THE LOWEST PRICE OR IT'S FREE! buff whelan chevrolet

OVER 1,000  
New Chevrolets  
in Stock!



CALL  
JEFF CAUL  
586-274-0396

## 2017 CHEVY CRUZE HATCHBACK LT

**\$204+ TAX WITH \$0 DOWN**  
24 MTH LEASE  
10,000 MILES

NO SECURITY DEPOSIT REQUIRED \* Stk #71329  
Equipped with Power Locks, Power Windows, Power Mirrors, Keyless Entry, Back-Up Camera, Bluetooth and More...



## 2016 CHEVY TRAX 1LT

**\$153+ TAX WITH \$0 DOWN**  
24 MTH LEASE  
10,000 MILES

NO SECURITY DEPOSIT REQUIRED \* Stk #65614  
Equipped with Power Locks, Power Windows, Power Mirrors, Power Seats, Remote Start, Back-Up Camera, Deluxe Cloth/Leatherette and More...

## 2017 CHEVY EQUINOX LT

**\$155+ TAX WITH \$0 DOWN**  
24 MTH LEASE  
10,000 MILES

NO SECURITY DEPOSIT REQUIRED \* Stk #70450  
Equipped with 7" Touch Screen, OnStar/XM Satellite Radio, MYLink Touch Screen Radio, Remote Keyless Entry, Rear Vision Camera, Alum. Wheels & More...



## 2017 CHEVY TRAVERSE 1LT

**\$249+ TAX WITH \$0 DOWN**  
24 MTH LEASE  
10,000 MILES

NO SECURITY DEPOSIT REQUIRED \* Stk #71233  
Equipped with Power Locks, Power Windows, Power Mirrors, Remote Start, Captains Seats, Heated Seats and More...

Free shuttle service to home, office or shopping.

# buff whelan chevrolet

WHERE THE DEALS MAKE THE DIFFERENCE, EVERY DAY SINCE 1970!

Van Dyke • South of 18 Mile • Sterling Heights

Jeff Caul  
586-274-0396



MEMBER SINCE 1989



CONVENIENT HOURS: MON. & THURS. 8:30AM-9PM / TUES., WED. & FRI. 8:30AM-6:30PM / FIND NEW ROADS

\*See dealer for details. All Rebates/Incentives have been deducted from sale price/payment and are subject to change by manufacturer without notice. GM Employee discount required unless otherwise noted. The Cruze Hatchback lease includes GM Lease Loyalty or Lease Conquest. The Trax, Traverse, and Equinox leases assumes that you qualify for Chevy Lease Loyalty or Lease Conquest. To qualify for Lease Conquest you must have a NON-GM Lease in the household that terminates within 365 days. All lease payments are based on 10,000 miles per year. 1st payment, tax, title and plate fee due at signing on all leases unless otherwise noted. All deals expire 11/30/2016.



# VYLETEL

0% 72 MO 2016 YUKON/XL - 2016 SIERRA LD DOUBLE CABS  
20% OFF MSRP ENCORE - LACROSSE - SIERRA DBL CAB  
ON SELECT INVENTORY

# BLACK FRIDAY

• ALL MONTH LONG •



ALL NEW 2017 GMC  
**ACADIA**  
FWD • SLE-2  
**\$285\***  
36 MONTH LEASE FOR ONLY  
10K PER YEAR



Stock #9637-17 • Deal #63133  
\$1640 total due at signing.  
GM pricing plus tax, title, lic. & doc fees. Lease figured with lease conquest rebate.  
NO SECURITY DEPOSIT REQUIRED

2017 GMC  
**TERRAIN**  
FWD • SLE-1  
**\$119\***  
24 MONTH LEASE FOR ONLY  
9K PER YEAR



Stock #9465-17 • Deal #63132  
\$1264 total due at signing.  
GM pricing plus tax, title, lic. & doc fees. Lease figured with lease loyalty rebate.  
NO SECURITY DEPOSIT REQUIRED!

2016 GMC  
**SIERRA**  
1500 • 4WD • DOUBLE CAB • SLE  
**\$279\***  
36 MONTH LEASE FOR ONLY  
10K PER YEAR



Stock #9396-16 • Deal #62603  
\$1920 total due at signing.  
GM pricing plus tax, title, lic. & doc fees. Must have GMC/Buick lease loyalty rebate.  
NO SECURITY DEPOSIT REQUIRED!

ALL NEW 2017 GMC  
**ACADIA**  
LIMITED • FWD  
**\$335\***  
36 MONTH LEASE FOR ONLY  
10K PER YEAR



Stock #9459-17 • Deal #63680  
\$2943 total due at signing.  
GM pricing plus tax, title, lic. & doc fees. Must have GMC/Buick lease loyalty rebate.  
NO SECURITY DEPOSIT REQUIRED

EXPERIENCE THE NEW BUICK

ALL NEW 2017  
BUICK ENCLAVE  
FWD • CONVENIENCE  
**\$219\***  
24 MONTH/10K PER YEAR LEASE FOR ONLY  
\$1,844 DUE AT SIGNING



Stock #5212-17 • Deal #62606  
GM pricing plus tax, title, lic. & doc fees. Lease figured with lease loyalty rebate.  
NO SECURITY DEPOSIT REQUIRED!

ALL NEW 2016  
BUICK LACROSSE  
LEATHER • 1SL  
**\$28,995\***  
NOW WAS \$37,220  
20% OFF SALE  
5 TO CHOOSE FROM



SAVE OVER  
**\$8,200 OFF LIST**  
Stock #5003-16

ALL NEW 2017  
BUICK ENVISION  
FWD • ESSENCE  
**\$295\***  
36 MONTH/10K PER YEAR LEASE FOR ONLY  
\$1,681 DUE AT SIGNING



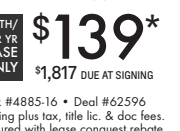
Stock #5221-17 • Deal #63678  
GM pricing plus tax, title, lic. & doc fees. GM lease figured with lease conquest rebate.  
NO SECURITY DEPOSIT REQUIRED!

ALL NEW 2016  
BUICK ENCORE  
SPORT TOURING  
**\$149\***  
39 MONTH/9K PER YEAR LEASE FOR ONLY  
\$1,652 DUE AT SIGNING  
DEMO SPECIAL



Stock #5039-16 • Deal #62599  
GM pricing plus tax, title, lic. & doc fees. Lease figured with Buick/GM lease loyalty rebate.  
NO SECURITY DEPOSIT REQUIRED!

ALL NEW 2016 BUICK REGAL  
FWD • PREMIUM II GROUP  
**\$139\***  
39 MONTH/9K PER YEAR LEASE FOR ONLY  
\$1,817 DUE AT SIGNING



Stock #4885-16 • Deal #62596  
GM pricing plus tax, title, lic. & doc fees. Lease figured with lease conquest rebate.  
GM pricing must have Non GM in household set to expire 365 days from delivery.  
NO SECURITY DEPOSIT REQUIRED!



DEMO SPECIAL

VISIT OUR WEBSITE TO SEARCH FOR MORE VEHICLE SELECTIONS AT WWW.VYLETEL.NET  
40755 Van Dyke • Sterling Heights • 586.977.2800

WWW.VYLETEL.NET

SALES: Sun CLOSED; M, TH 8:30am-9pm; T, W, F 8:30am-6pm; SAT 10am-3pm  
SERVICE: Sun CLOSED; M, TH 7am-8pm; T, W, F 7am-6pm; Sat 8am-1pm

\*All lease/purchase examples are figured with GM employee pricing. Lease conquest rebate qualifies to customers who have a non GM lease in household set to expire within 365 days of new lease/purchase delivery date. \*Buick/GMC lease loyalty rebate applies to customers who have a current Buick/GMC lease in household. IVC certificates may apply to lease/purchase examples and are good while dealer supply last. Expires 11/30/16

# Cooper Standard, DSM Win SPE Engineering Award

Cooper Standard of Novi and DSM, whose North American headquarters are in Troy, were honored with a Society of Plastics Engineers' (SPE) Automotive Innovation Award during the organization's annual awards gala earlier in November.

The team won SPE's "Most Innovative Use of Plastics" award in the "materials" category for Cooper Standard's High Performance Vacuum Brake Tubes designed for automotive industry applications, said Cooper Standard spokeswoman Sharon S. Wenzl.

Developed to replace traditional clamped rubber hoses, Cooper Standard's High Performance Vacuum Brake Tube simplifies engine and undercarriage routing, Wenzl said.

The design uses a smaller diameter with a thinner wall, which allows a 35 percent space savings and a more than 50 percent weight reduction over current rubber hoses and clamps, Wenzl said.

This product also allows for rapid assembly and ease of maintenance through the use of quick connectors, and eliminates the need for heat shields and brackets.

Combined, the system provides a cost-effective, next-generation tube innovation, Wenzl said.

"The DSM Arnitel CM622 thermoplastic material provided us the perfect opportunity to deliver customers an innovative solution to meet critical mass reduction goals, while exceeding their expectations for high-performance vacuum brake applications," said Chris Couch, vice president of Cooper Standard's Innovation and Product groups. "We are thrilled to be honored by the SPE for this team achievement."

DSM's material enables the Vacuum Brake Tubes to perform

over a broad temperature range (-40 to 150C), possess excellent under-hood chemical resistance, offer burst strengths exceeding 60 bar and deliver flexural force of greater than 50 Newtons, Wenzl said.

The Arnitel CM622 material was designed to maintain property retention after extended exposure to elevated temperatures. Further, the plastic lines and connectors are resistant to the corrosive effects of road salts, Wenzl said.

Commenting on the award on behalf of DSM, Bill Senge, R&T Director Americas, spoke of the importance of the partners' collaboration from concept to market in this advanced application project.

"What is most challenging in our business is to stay ahead of the innovation curve. We at DSM believe strong collaborations ensure that our developments cater for current and future market trends," Senge said.

"This SPE award for Cooper Standard's High Performance Vacuum Brake Tubes is also proof of what can be achieved when material specialists and application engineers join forces to drive automotive trends and speed the implementation of next-generation lightweighting designs."

The SPE's Automotive Innovation Awards program is the oldest and largest competition of its kind in the automotive and plastics industries, Wenzl said.

Dozens of teams made up of automakers, tier suppliers and polymer producers submit nominations to judges that detail for innovative parts, systems and modules.

Applications must be on a commercially available vehicle by Nov. 1 of the year in which a nomination is submitted, Wenzl said.

# WARREN URGENT CARE

8am-10pm • 7 Days a week • 365 Days a Year

"Bringing Quality Urgent Care To Your Neighborhood"

"We Care"

## URGENT CARE FOR ACCIDENTS AND INJURY

ADULT & PEDIATRIC ILLNESS  
Digital X-Rays, EKG and Lab Work, On-Site Lab Service, Strep, Mono, Pregnancy & Urine Testing, Vaccinations, Sports & School Physicals, Occupational Medicine, Work-Related Injuries, Pre-Hire Physicals (BAT & Urine Screening)

SPECIAL ON SPORTS PHYSICAL \$25.00 State-of-the-Art Facility

586-276-8200

31700 Van Dyke • Warren, MI 48093

On Van Dyke Rd., between 13 & 14 Mile in St. John's Windemere Park

OTHER CONVENIENT LOCATIONS:

Woodland Urgent Care  
22341 W. 8 Mile Road  
Detroit  
313-387-8700

N. East Macomb Urgent Care  
43900 Garfield, Suite 121  
Clinton Township  
586-868-2600

FLU SHOTS

ATTENTION  
Chrysler, GM, Ford Employees, we're within 2 miles of your plants

HAP & BCN  
NO Referrals Needed!  
www.warrenurgentcare.com

WE DO HOUSE CALLS OR COME SEE US...  
Before You Trade-In or Sell Your Car

# JIM DOUGLAS AUTO SALES



Buyer & Seller of Clean Vehicles Since 1975!

You'll Get Your Tax Break  
Plus 100's if not 1,000's More

248.332.8326

1153 Baldwin Rd • Pontiac • www.jimdouglasautosales.com

# Acadia Geared for Mid-Sized SUV Market

CONTINUED FROM PAGE 1

ing with customers before the process began to find out what exactly they wanted.

"We even went on garage visits," Chandra said. "We talked with people about how they felt the Acadia fit into their lifestyles. We even talked with Grand Cherokee owners. What we found out was that these people were busy and wanted an SUV that fit their lifestyles."

People want a light, agile vehicle that's a good drive, Chandra said. And many people still want that third row of seats "just in case" they might need it, even though most people admitted they don't use a third row during everyday use.

"We changed the Acadia to grow our sales volume," Chandra said.

Paul Spadafora, chief engineer on the 2017 Acadia, said that one way GMC was able to change the Acadia was by using an entirely new architecture that managed to reduce the size of the vehicle length by three-and-a-half inches and reduce weight by 728 pounds. The Toyota Highlander is now 200 pounds heavier and two inches longer.

The reduction in length allows the new Acadia to have a turning radius under 39 inches, said Spadafora. This is in a segment where the average vehicle's turning radius is over 40 inches.

"And the vehicle is really strong in terms of structure," Spadafora said.

"We looked at all the joints and are using new bonding technologies to bond dissimilar materials. When you use a lot of great but different materials, you have to find new ways to bond them together.

"We used advanced analytics so that we put only what was

needed to do the job. We didn't overengineer this vehicle and we were able to use a lot of aluminum."

The new Acadia uses a new five-point lightweight suspension system that was created through integrated work between GMC and its suppliers.

"The 2017 Acadia will come in four trim levels," Spadafora said.

"That includes an all-terrain level as well as a Denali level. The seating comes in five-, six- and seven-passenger configurations."

"We even changed the way it feels to depress the gas and brake pedals," Spadafora said.

While people may want a third row of seats just in case, Spadafora said, in the past it's

been difficult for people to get to that back row to sit.

"We took care of that and it's possible for someone my size to get there quite easily - and I'm not a small guy," Spadafora said.

He added that developing the vehicle was really a matter of evolution.

GMC was able to learn from the work done on previous GM vehicles and use that experience to integrate new technologies into a new structure using new bonding techniques on new materials.

The result is a lighter, more maneuverable vehicle that was designed with input from customers at the very beginning of the design and engineering process.

## Pentastar Hires Marx Layne

Marx Layne & Company of Farmington Hills has been selected as the digital marketing partner for Pentastar Aviation, a business aviation leader in Waterford, said Marx Layne spokeswoman Lana Mini.

Marx Layne will be providing digital program consulting and implementation as well as strategic communications and media relations for the Pentastar Aviation brand and service capabilities, which include aircraft management, charter, advisory services, aircraft maintenance, avionics services, interior services, and award-winning fixed-base operation (FBO) services, Mini said.

"Pentastar already has an impeccable reputation within the business aviation industry. We will focus on utilizing key digital platforms to further strengthen and elevate their brand and drive customer engagement," said Marx Layne's president, Michael Layne.

Marx Layne has experience in online content development and placement strategies that enhance overall awareness and reputation online, building a stronger digital presence, Mini said. Marx Layne provides traditional and digital marketing solutions, including media relations, video ads, search engine optimization, social media content and strategy, and web content creation to reach targeted audiences. Pentastar is wholly-owned by Edsel Ford II.

"We continuously look for ways to reach our target audience and we want to make sure we stay ahead of the constantly changing digital landscape," said Greg Schmidt, Pentastar CEO.

"Marx Layne brings experience in delivering and creative online content and digital marketing strategies and we are excited to be working with them to further communicate our brand story."

# THANKS AGAIN FOR A GREAT NOVEMBER, NOW IT IS ALMOST DECEMBER

## CALL FOR NEW PROGRAMS

Please call with the vehicle you desire and you will be delighted with the payment.



CALL **BRUCE LITVIN** CELL # **1-586-405-5175**  
- 24/7 & 365 -  
40 YEARS OF QUALITY SERVICE  
blitvin@lunghamer.com

# 1-888-665-5438

## Joe Lunghamer

**CHEVY** #44296 **BUICK** #42333 **GMC** #21552  
Drive Beautiful WE ARE PROFESSIONAL GRADE!

475 SUMMIT DRIVE • 248-292-2502 • 5825 HIGHLAND RD. (M59) • WATERFORD

# TRANSPARENT PRICING

No games. No gimmicks.

- No old school, hidden-fee pricing.
- The price you see should be the price you pay.
- **PLUS** we only include rebates you would actually qualify for.

## SELLERS

REPUTATION IS EVERYTHING



38000 Grand River Ave. | Farmington Hills, MI 48335  
**888-502-4098** | **SellersBuickGMC.com**

See Dealer for Details

### 2016 Buick Regal

Premium 2 Turbo FWD Lease Offer MSRP: \$32,630

expires: 11.30.2016

**\$223** per month

TRANSPARENT PRICING

INCLUDES: ALL TAXES & FEES, NO SECURITY DEPOSIT  
INCENTIVES INCLUDED: GM Employee Pricing, GM Lease Loyalty + Select Model



BUICK

36 months 10,000 miles year **\$590** total due at signing (includes first month payment)

### 2016 Buick Encore

FWD Lease Offer MSRP: \$25,525

expires: 11.30.2016

**\$199** per month

TRANSPARENT PRICING

INCLUDES: ALL TAXES & FEES, NO SECURITY DEPOSIT  
INCENTIVES INCLUDED: GM Employee Pricing, GM Lease Loyalty + Select Model



36 months 10,000 miles year **\$434** total due at signing (includes first month payment)

### 2017 GMC Acadia

SLE1 FWD Lease Offer MSRP: \$33,770

expires: 11.30.2016

**\$317** per month

TRANSPARENT PRICING

INCLUDES: ALL TAXES & FEES, NO SECURITY DEPOSIT  
INCENTIVES INCLUDED: GM Employee Pricing, GM Lease Loyalty + Select Model



GMC WE ARE PROFESSIONAL GRADE

36 months 10,000 miles year **\$395** total due at signing (includes first month payment)

### 2016 GMC Sierra

DBL CAB SLE 4WD 1500 MSRP: \$43,115

expires: 11.30.2016

**\$243** per month

TRANSPARENT PRICING

INCLUDES: ALL TAXES & FEES, NO SECURITY DEPOSIT  
INCENTIVES INCLUDED: GM Employee Pricing, GM Lease Loyalty + Select Model



36 months 10,000 miles year **\$661** total due at signing (includes first month payment)

Offers include: Tax, Title, Plate, Transfer, CVR, Doc Fee, GM Employee Pricing, GM Lease Loyalty (must have a 1999 or newer GM lease in household), Select Model and 1st Month's Payment. No security deposit required. See dealer for details.

# MORAN CHEVROLET

# 72 HOUR SALE!

This Monday, Tuesday & Wednesday

**FINAL 3 Days to Save... NO Employee Discount is REQUIRED On Our Most Popular Models!\***

## 2017 EQUINOX "LS"



- 2.4L DOHC Engine!
- 7" Color Touch Screen MyLink Radio!
- OnStar with 4G LTE w/built-in Wi-Fi Hotspot!
- Bluetooth for Phone!
- Remote Keyless Entry!
- Rear Vision Camera!
- Aluminum Wheels!
- Chevrolet Complete Care INCLUDED!

Stock# H34559

**NO EMPLOYEE DISCOUNT REQUIRED**

**24 MONTH LEASE**  
**\$118\***

**The Best Price... PERIOD!**

Was \$26,405 Sale Price: **\$20,690\***

\$999 Down

NQ Security Deposit required. Tax, title and plate fees extra.

## 2017 CRUZE "LT"



- 1.4L Turbo DOHC Engine!
- Automatic Transmission!
- 7" Color Touch Screen MyLink Radio!
- OnStar w/4G LTE w/built-in Wi-Fi Hotspot!
- 24/7 Promise... The Most Connected Car on the Road!
- Remote Keyless Entry!
- Rear Vision Camera!
- Bluetooth for Phone!
- Chevrolet Complete Care INCLUDED!

Stock# H31809

Was \$22,325 Sale Price: **\$17,843\***

**24 MONTH LEASE**

**NO EMPLOYEE DISCOUNT REQUIRED**

**\$129\***

**The Best Price... PERIOD!**

\$999 Down

NQ Security Deposit required. Tax, title and plate fees extra.

## 2017 TRAX "LS"



- ECOTEC 1.4L "Turbo" DOHC VVT Engine!
- OnStar w/4G LTE w/built-in Wi-Fi Hotspot!
- 7" Color Touch Screen Radio w/Bluetooth!
- Remote Keyless Entry!
- Bluetooth for Phone!
- Rear Camera!
- USB Port and Auxiliary Input!
- Chevrolet Complete Care INCLUDED!

Stock# H33786

Was \$21,895 Sale Price: **\$17,448\***

**24 MONTH LEASE**

**NO EMPLOYEE DISCOUNT REQUIRED**

**\$129\***

**The Best Price... PERIOD!**

\$999 Down

NQ Security Deposit required. Tax, title and plate fees extra.

## 2017 MALIBU "LT"



- 1.5L Turbo DOHC Engine!
- 7" Color Touch Screen MyLink Radio!
- Teen Driver Safety Technology!
- 8 Way Power Driver's Seat!
- Rear Vision Camera!
- OnStar w/4G LTE w/built-in Wi-Fi Hotspot!
- 17" Alloy Wheels!
- Remote Keyless Entry!
- Chevrolet Complete Care INCLUDED!

Stock# H32139

Was \$26,000 Sale Price: **\$21,730\***

**24 MONTH LEASE**

**NO EMPLOYEE DISCOUNT REQUIRED**

**\$198\***

**The Best Price... PERIOD!**

\$999 Down

NQ Security Deposit required. Tax, title and plate fees extra.

## 2017 TRAVERSE "LT" "Style and Technology Package"



- 3.6L SIDI V6 Engine!
- 6.5" Color Touch Screen MyLink Radio!
- 7 Passenger Seating w/2nd Row Captain's Chairs!
- Rear Vision Camera!
- Remote Start and Entry!
- Heated Front Seats!
- 20" Aluminum Wheels!
- OnStar w/4G LTE w/built-in Wi-Fi Hotspot!
- Chevrolet Complete Care INCLUDED!

Stock# H33965

Was \$36,740 Sale Price: **\$30,968\***

**24 MONTH LEASE**

**NO EMPLOYEE DISCOUNT REQUIRED**

**\$235\***

**The Best Price... PERIOD!**

\$999 Down

NQ Security Deposit required. Tax, title and plate fees extra.

**We'll Give You \$2500 Minimum for YOUR Trade-In!... GUARANTEED!\***



### SHOWROOM HOURS:

Monday	8:00 AM - 9:00 PM
Tuesday	8:00 AM - 6:00 PM
Wednesday	8:00 AM - 6:00 PM
Thursday	8:00 AM - 9:00 PM
Friday	8:00 AM - 6:00 PM

**(586) 791-1010**

35500 S. Gratiot Avenue... North of 15 Mile / Clinton Township / **FIND NEW ROADS™**

\*Pictures may not represent actual sale vehicle. All applicable incentives including bonus tags, competitive lease, lease conquest and/or lease loyalty offers have been deducted from Sale Prices/Payments and are subject to change by the manufacturer without notice and are plus title, tax, plate and DVR fees and were valid at time of printing. Leases are 10,000 miles per year. Disposition fee may be required at lease turn in. \$2500 minimum trade-in guarantee is for 2004 or newer vehicles with 150,000 miles or less in drivable condition. No branded titles. Certain restrictions apply, see dealer for complete details on all incentives/offers. Sale ends 11/30/2016 @ 6:00PM.

