

# Tech Center News™

WARREN, MICHIGAN - EST. 1976

VOL. 37 NO. 18

"Covers the Hub of Macomb County's Auto Industry"

DECEMBER 31, 2012



Grace Lieblein

## Lieblein Is Named GM Purchasing VP Succeeding Socia

General Motors has named Grace Lieblein vice president, Global Purchasing and Supply Chain, effective immediately.

In her new role, Lieblein will be responsible for GM's purchasing activities and supply chain and logistics operations worldwide.

She succeeds Bob Socia, who was appointed president, GM China, and Chief Country Operations officer, China, India and ASEAN in September.

In her new role, Lieblein will

CONTINUED ON PAGE 2

## Cruze's One-Stage 'Smart Air Bag' Uses Low-Output Inflator

The 2013 Chevrolet Cruze has introduced an industry-first driver-side air bag that uses a flexible venting technology.

The National Highway Traffic Safety Administration recently tested the 2013 Cruze with the new air bag technology under its New Car Assessment Program, and the Cruze received NHTSA's maximum 5-Star Overall Vehicle Score, the same rating it received in 2011 and 2012 when the small car used a dual-stage air bag system.

Unlike more complex dual-stage air bags that use one inflator for low-speed crashes and another for high-speed crashes, say

Chevy officials, the Cruze's new single-stage "smart air bag" uses one lower output inflator to manage both low-speed and high-speed crash forces.

The more compact, lighter weight system's flexible vent, say Chevy officials, reduces the risk of inflation-induced injury by allowing the driver's forward momentum to effectively push the air out and away.

GM testing shows the single-stage driver air bag provides excellent cushioning for drivers of varied sizes in both low-speed

and high-speed crash events.

"This new air bag technology is a smart way to manage crash forces, and is an integral part of Cruze's continued success in safety testing," said Gay Kent, GM general director of vehicle safety and crashworthiness.

"The latest safety rating reflects the confidence we have in its new and carry-over safety technologies and overall crashworthiness."

Cruze's flexible venting driver air bag is the second new air bag technology General Motors has announced for 2013.

The new Chevrolet Traverse crossover helped introduce the industry's first front center air bag, an inflatable restraint designed to help protect drivers and front passengers in far-side impact crashes where the affected occupant is on the opposite, non-struck side of the vehicle.

GM and safety restraint supplier Takata co-developed the flexible venting driver-side air bag and the front center air bag.

The 2013 Cruze continues to offer more standard safety fea-

CONTINUED ON PAGE 2



KC Cottrell CEO Lee Tae-young (left), and GM Korea President and CEO Sergio Rocha at signing ceremony in GM Korea's Changwon plant.

## GM Power to Light Up South Korea

General Motors announced recently that its Changwon Assembly plant, home of the brand new Chevrolet Spark and Spark EV, has reached an agreement with renewable energy company KC Cottrell to build a three-megawatt solar installation on the plant's rooftop.

When operational, it will provide the equivalent energy needed to provide electricity to 1,200 homes in South Korea for one year. This is the same as powering 221 homes in the United States for one year.

"This array will be the fourth-largest in our solar energy portfolio, joining our plants in Germany and Spain that house large solar

capacities on their rooftops," said Rob Threlkeld, GM's manager of renewable energy.

The array will be built on a 688,000-square-foot rooftop - about the size of 11 American football fields. When running at full capacity, it will generate enough solar energy to cut carbon emissions at the facility by 2,400 metric tons per year. The array is expected to go into service in the third quarter of 2013.

"This announcement reflects GM's commitment to reduce the environmental footprint of our facilities, no matter where they are around the globe," said Threlkeld.

CONTINUED ON PAGE 3

## TRW Unveils New Smaller, Lighter Airbag Inflator at Int'l Symposium

TRW Automotive Holdings Corp. unveiled its latest inflator technology recently at the 11th International Airbag 2012 Symposium in Europe.

The Livonia-based, Tier I global automotive supplier took the opportunity to showcase its new DI10.1G45 inflator, which is a further refinement of the DI10 family and is TRW's lightest and smallest inflator to date.

The device has been specially developed for "micro" airbag modules and is slated to start production in early 2014 at the TRW facility in Aschau, Germany, in support of a major European business award.

In addition to its smaller size, the new inflator is significantly lighter than its predecessors.

"As the industry continues to place increasing focus on the environment, the importance of reducing vehicle weight is paramount," said Dr. Achim Hofmann, senior manager of core engineering, Inflators.

"The DI10.1G45 product offers a weight reduction of approximately 25 percent over previous generation technology, as well as overall smaller dimensions."

"With its smaller size, the inflator is suitable for driver airbags, which need to be packaged into smaller and more compact driver airbag modules within the steering wheel."

TRW's DI10.1G45 airbag inflator output can be adapted according to restraint system requirements.

Although it uses standard-grade materials for the housing and weld joint technology, package size has been further reduced.

"As a leader in the airbag field,



TRW airbag inflator

TRW has been able to help satisfy stringent customer and industry regulatory requirements while halving the weight of its airbag modules in recent years - now among the lightest on the market - in addition to minimizing product size and packaging," Hoffman said.

"The integration of the inflator into the cushion, combined with new inflation technologies, bag and housing concepts and materials, have enabled us to achieve this significant weight reduction over the previous few years."

This latest smaller, lighter airbag inflator is another innovation TRW has come up with over 30 years of developing and manufacturing airbag modules.

The new inflator joins other breakthroughs, say TRW officials, such as its roof airbag system; adaptive frontal airbag technology; first-to-market compact low-mounted knee airbag module; and a head protection system for convertible vehicles.

Hofmann concluded, "With a wealth of experience and success within our Occupant Safety Systems business, TRW is well positioned to further develop and enhance its airbag technologies."

## Matching Workers to New Automotive Jobs A Critical Challenge for Michigan Business

by Jim Stickford

With the comeback of the auto industry, there will be more demand in Michigan for the "right" skilled worker than ever and that demand poses a challenge for the state's businesses and educational institutions.

Mike Wall, director of automotive analysis for IHS Automotive out of Grand Rapids, explained the situation as he spoke from Detroit via teleconferencing to select Dykema Gossett officials about the near future of the auto business in North America.

One problem faced by employers, Wall said, is getting the right-skilled people on the job. In some cases, that means getting engineers, and in other cases, it means getting a new kind of skilled worker trained and in place.

Afterward, in an interview, Wall said, "This is something that won't happen overnight. At my teleconference, one of the listeners in his mid-20s pointed out that when he was growing up in the Flint area, automakers were getting rid of people. So why would a smart, young person want to get in this industry?"

Wall had to admit that was a fair point, but said the auto business has made a comeback in the past couple of years and companies like Ford have really gotten into the technology side of things.

"Technology can be a dynamic factor in car development that brings more interest to the industry," Wall said. "As a start, we will have to woo people who left the industry during the downturn of a few years ago."

States like Michigan, Wall said,

actually have a secret weapon when it comes to getting engineers to live here. People in Silicon Valley and the tech corridor outside Boston often don't realize that their salaries can buy a much better quality of life in this state compared with the more expensive areas on both coasts.

But it's not just the OEMs who need engineers, Wall said, adding that the suppliers at all tiers shed a lot of people and will need to hire as production ramps up.

"In the last downturn, there wasn't a lot of job swapping," Wall said. "So when people left a company, they often left the industry. We have to get them back. So it's a matter of energizing people who

left, but it could be difficult because once bitten, twice shy. Plus, they might like where they landed and aren't inclined to come back to the auto industry."

Wall said Michigan's universities are doing a good job of training the next generation of engineers, but getting people into the field isn't easy.

Michigan is linked to the auto industry, for good or for ill, Wall said. But, he added, the auto industry doesn't just need engineers, it needs right-skilled workers.

"The challenge goes beyond four-year degrees," Wall said. "Maybe the new auto worker will need an associate's degree, which is two years."

## Ally Exits Liquidity Guarantee Program; Repays All Federal Government Loans

DETROIT (AP) - Ally Financial, Inc. has repaid \$4.5 billion of debt owed to the government after it helped bail the company out during the 2008 banking industry meltdown.

Ally, which used to be called GMAC Financial Services, was the financial arm of automaker General Motors until GM sold its controlling stake in Ally in 2006.

The government first invested in Ally in 2008, with the Treasury Department eventually gaining a 74 percent equity stake in Ally in December 2010.

With the repayment, Ally Financial said Wednesday that it has exited the Temporary Liquidity Guarantee Program of the Federal Deposit Insurance Corp. In October it repaid \$2.9 billion of debt under the program.

Aside from the assistance Ally received under the TLGP, the Detroit company also received a \$17.2 billion government bailout. So far Ally has repaid \$5.8 billion of that by selling off assets.

Last month Ally sold its operations in Europe, China and Latin America for \$4.25 billion to General Motors. In October Ally sold its Canadian operations to the Royal Bank of Canada for \$4.1 billion and a Mexican insurance business for \$865 million.

## Author Talks History

Author Nick Sinacori will be at the Clinton Macomb Library, 40900 Romeo Plank Road in Clinton Township on Monday, Jan. 14, at 7 p.m. to talk about Detroit at the start of the 20th Century.

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