Detroit Auto Scene

31201 Chicago Road South Warren, Michigan 48093

586-939-6800

Reader Input or feedback: News@DetroitAutoScene.com To Inquire about advertising: Ads@DetroitAutoScene.com

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

William Springer II, publisher and interim news editor; Lisa A. Torretta, operations

Detroit Auto Scene is a registered trademark of Springer Publishing Co.

www.DetroitAutoScene.com

Ford Opens New Plant in China **Under Joint Effort**

Ford President and Chief Executive Officer Alan Mulally was in China last week to celebrate the seven millionth Ford Transit vehicle produced and the opening of the JMC Xiaolan Plant, a new commercial vehicle assembly plant in Nanchang, Jiangxi province. At the celebration, Ford and JMC also announced its plans for a brand new engine plant and two new Ford products.

The JMC Xiaolan Plant just launched more than doubles JMC's annual vehicle production capacity to 545,000 units from 245,000 units previously.

The plant represents a \$300 million investment by Ford's strategic partner Jiangling Motors Corp (JMC) and produces both Ford- and JMC-branded vehicles on a highly flexible production line that takes advantage of Ford's global manufacturing expertise to ensure high quality while maximizing efficiency, said Mulally.

The first vehicle to come off the production line at the plant was the seven millionth Ford Transit ever produced.

"Jiangling has been a great partner for Ford in China and we are excited about the expansion of our partnership," said Mulally. "We have a long-term commitment to this partnership and have plans in place to further increase capacity, bring in great new products, and introduce Ford's leading global technologies.'

Ford engineers are pioneering thermal imaging technology similar to what law enforcement agents use to track down criminals - to find and eliminate air leaks in vehicle cabins.

The result is less wind noise and a quieter ride, which is key to customer satisfaction with vehicle quality.

"Ford is redefining our vehicles through many innovations - both features to improve the driving experience and fuel economy, and advanced new tools to help engineer better vehicles," said William Dedecker, Noise, Vibration and Harshness engineering supervisor.

'We are using thermal imaging to further improve quietness so customers can enjoy the other features our vehicles offer, such as audio systems - and even the sounds of silence."

Thermal imaging is the use of cameras to photograph heat in the environment, Dedecker said. Thermal imaging cameras capture the radiation present that appears as an infrared image. In Ford tests, air leaks show up as hot spots when heated air es-

Thermal Imaging Helps Ford Hear 'Sounds of Silence' capes a vehicle.

Data from Ford's U.S. Global Quality Research System show the 2013 Ford Fusion earned a 67 percent approval rating for interior quietness compared with 58 percent for the 2012 Toyota Camry.

Fusion data were for the first quarter of 2013, compared with full-year 2012 data for the Toyota Camry, which did not receive major updates for 2013. The 2013 first-quarter study, conducted for Ford by RDA Group of Bloomfield Hills, asked owners of all major makes and models to comment on troubles and rate their overall satisfaction with their threemonth-old vehicles.

Thermal imaging technology allows police to see through bushes and into dark alleys. While a bad guy hiding at night might not be visible to the eye, a thermal image of the area will show his body heat and allow law enforcement to move in.

Ford engineers, inspired by energy companies that use thermal imaging to find air leaks in houses, employ the technology to see air leaking out of a vehicle.

Engineers heat the air inside a vehicle's cabin, then take thermal images to actually see the location from which warm air is escaping. This allows them to test different ways to contain air, through changes in design and insulating materials.

"We are the first automaker to use this technology to track air leaks," said John Crisi, Ford NVH engineer.

"It's an example of the innovative methods we use so our customers have a more pleasant driving experience. Our cameras can detect tiny holes and openings we could not otherwise identify."

In addition to reducing noise, sealing air leaks increases heating and cooling efficiency by reducing energy loss, similar to how sealing a home prevents leaks of heated air in the winter and cooled air in the summer, Crisi said.

Before this technology, Ford engineers relied on sensory findings to prevent air leaks. They would fill the car with smoke, then watch for the smoke to exit from small holes. They would walk around the vehicle and feel

for air leakage.

And they would use nonmedical stethoscopes to try to hear air leaking from the cabin, a method they still rely on to some extent.

While successful, said Crisi, these approaches were not as consistent. With the use of thermal imaging, engineers can speed up development time by finding results at a faster rate, he said.

Engineers have identified several key areas that are vulnerable to air leaks and letting noise into a vehicle, including moonroofs, window glass, door trim, the trunk lid and liftgate, doors and the base of the windshield.

"Wind noise is something a driver can really sense in a negative way while driving," Crisi explained.

"By using thermal imaging technology, Ford can provide a smoother and quieter ride for our customers."

Got News?

If you have solid business news for this paper, please contact us at News@DetroitAutoScene.com.

Ford F-150 Regains Title of Vehicle 'Most Made in U.S.A.'; Avenger 3rd

CONTINUED FROM PAGE 1

terson said. "When you think of all the parts that go into a truck, which is a real complex piece of machinery, it's amazing.

"And, we sold 650,000 F-150s last year. That's a lot of parts made in America."

Also, Peterson said, topping the Cars.com list with the F-150 is especially satisfying because the vehicle has played such a strong role in Ford's comeback as an American car company. But trucks aren't all that Ford is doing right now.

"For a long time, our focus was on trucks," Peterson said. "But now trucks are just a part of our growth. We have a great selection of cars that are contributing, too. But trucks remain an important part of our business . . . With construction picking up, the demand for trucks is only going to get greater."

Dodge spokesperson Kathy Graham said that the people at Chrysler were pleased to see the Avenger high up on the Cars.com list because it's a good car.

"The Avenger is a great mid-

TARDEC, U-M Researchers Work to Make Soldiers Safer

accounted for two-thirds of U.S. noncombat military deaths since to help reverse.

Transportation crashes have for seat and vehicle interior layout.

Reed and colleagues collected 2000 – a trend University of data from more than 300 soldiers Michigan researchers are hoping - men and women of all shapes and sizes – at three U.S. Army

sized car." Graham said. "It offers a lot to drive. And it's just a bonus that it's made in Sterling Heights. The city has been a great partner with Chrysler and, obviously, all the people who build it are a huge part of its success. We couldn't do it without them and we're proud to make an American car with American workers."

GM also had a few cars make the Cars.com list - Chevrolet Traverse, the GMC Acadia and the Buick Enclave - all made in GM's Lansing facilities.



2013 Dodge Avenger built at the Sterling Heights Assembly Plant.



Some of the Chrysler volunteers who enjoyed building 400 bikes for foster care children.

Chrysler Volunteers Help Build 400 Bikes for Kids

Research professor Matthew Reed and colleagues at the U-M Transportation Research Institute and U.S. Army Tank Automotive Research, Development and Engineering Center (TARDEC) aim to make seating in military vehicles safer, more effective and more comfortable for soldiers.

Previous studies of seated anthropometry - measurement of height, weight and proportions of the human body - have not included the impact of protective gear worn by soldiers on their posture and body shape.

'Current and future military vehicle programs face major challenges in providing adequate accommodation for soldiers while ensuring performance and safety," Reed said. "Current design guidance is based on outdated anthropometry."

Reed says that military vehicle programs lack detailed information on soldier posture and body shape, including the effects of personal protective equipment

bases in 2012.

Using laser scanning and three-dimensional measurements, they analyzed the vehicle seating positions of soldiers both drivers and crew, with and without their protective equipment and other gear - relative to the steering wheel, pedals, foot position and seat height and angles.

"The Seated Soldier Study: New Data and Tools for Soldier-Centered Design of Vehicles" is the first large-scale study of soldier posture and body shape in seated environments.

Results are being integrated into both commercial tools and TARDEC's internal design and assessment software, and will be integrated into more Army program tools and procedures.

The research was funded by TARDEC through the Automotive Research Center, a U-M-based U.S. Army Center of Excellence for modeling and simulation of ground vehicles.

CONTINUED FROM PAGE 1

ble community project near and dear to their hearts.

"You may have noticed that the bike builds – June 8 and June 15 - were not during the workweek, but were held on Saturdays," Harris said. "That shows the spirit of volunteerism is alive and well at Chrysler.'

Some volunteers like to bring their whole family, she said.

"It's a great way for kids to know service is important.'

Chrysler employees participating in the bike build represented Engineering, Human Resources, and other functional areas within the company.

Last year, Chrysler community service initiatives touched the lives of more than 260,000 people in communities where Chrysler employees live and work.

Volunteer initiatives range from one-on-one mentoring to corporate-sponsored large.

events that involve more than 100 employees, such as community food drives.

Janice Berry, director of Community Relations - Orchards Children's Services, said the agency relies on volunteer help to assemble the bikes and on donations to purchase the bikes, which then need to be assembled.

"The voluntary effort on the part of Chrysler employees is huge," Berry said, adding that other groups and volunteers also participated, but the primary labor in assembling the bikes was supplied by Chrysler employees. She also thanked GM, which as a presenting sponsor for the agency's recent annual fundraiser donated a large share of the funds used to purchase the bikes.

"Chevrolet is proud to support Orchards Children's Services," said Don Johnson, vice president of Chevrolet Sales and Service. "The work they do to provide children being fostered and adopted with the guidance and support they need as they transition into new families is making a positive impact on the community."

Joe Serra, president of Serra Automotive and co-chair of this year's fundraiser added, "I cannot stop advocating for these children since becoming involved with Orchards. It warms my heart to assist the children with getting the things that every child deserves.'

Orchards Children's Services provides foster care, adoption, clinical, medical and home-based services for more than 5,000 children throughout Southeast Michigan.

Berry said the monies raised at the annual fundraiser go to support various programs throughout the year, and part of the proceeds go toward purchasing the bikes for assembly.