

## Detroit Auto Scene

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## CEMA Car Show To Benefit ADA, Forgotten Harvest

The Chrysler Employee Motor-sport Association will hold the 24th Annual CEMA Charity Car Show Saturday, June 8, at the Chrysler Museum.

The 2013 event will benefit the American Diabetes Association (ADA) and Forgotten Harvest, which rescues surplus, prepared and perishable food that would have otherwise been discarded and donates it to local emergency food providers.

This year's theme is a celebration of "Muscle Cars – Past and Present." All makes and models are welcome to join in, and CEMA also encourages local car clubs to participate.

"We have five local clubs coming right now and would be able to accommodate more. Advance notice would be appreciated so we can plan for it," said CEMA planner Marc Rozman.

Any additional auto clubs who wish to participate can make contact with Rozman in advance of the June 8 charity car show at rozdodge@wowway.com or they can go to www.cemaclub.org. There will be a food vendor on site, and, as usual, the show is free to all spectators.

The Chrysler Museum will be open for the event. A voluntary donation of any amount the visitor chooses to give is requested for admittance.

In keeping with the theme of this year's show, members are putting together an indoor presentation called, "Racing Through the '60s," in which several successful local Detroit-area drag racers talk about that dynamic period of time in the sport of drag racing.

## GM Attracting Professionals to Detroit

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electrical. The batteries have to be designed and that's chemical engineering. All in one car."

Vander Elzen said that combining of different mechanical, electrical and software controls is often referred to as mechatronics.

Part of GM's efforts in attracting people with the needed skills is bringing people to the Detroit area.

"That means keeping people educated in Michigan, in Michigan," Vander Elzen said.

"Not all people who attend Michigan universities are from the state."

So part of his job is letting those out-of-state people educated in Michigan schools know that staying in Michigan is a viable career choice, Vander Elzen said.

"We just did something at this year's Detroit auto show where we took 300 Michigan college students to a networking event," Vander Elzen said. "They got to meet employers from the city of Detroit and the Detroit area. The idea was to give the students a taste of what it is like to live here and work here. We do this a couple of times a year."

# GM is No Featherweight in Manufacturing Process

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Stingray and Cruze diesel.

"Customers probably don't think about what actually goes into putting a high-quality vehicle on the road, although that's exactly what they expect in appearance and functionality when they are shopping for a new vehicle," said Mike Ptashnik, Quality manager at GM's Detroit-Hamtramck Assembly. "These tools may be small, but they are really important in helping us build vehicles that deliver on customer expectations."

Five of these tools, used in most of GM's 12 assembly plants in the United States, are:

- Female ostrich feathers that remove fine exterior dust particles before a vehicle is painted;
- Gap sticks to help ensure uniform body fits;
- Velocity meter gauges that confirm door closing efforts are what customers expect;
- Sniffer gauge that detects refrigerant leaks in the engine compartment;
- A water probe that senses interior moisture.

Jay Baron, president and CEO of the Center for Automotive Research in Ann Arbor, Mich., also sees small tools making big quality contributions.

"With all the technology that goes into designing and making the car, in the end, it's the small things that really matter," said Baron.

"If the door gaps are not flush and parallel, or the door squeaks when you open it, or there's a small fleck in the paint finish, the overall quality of the vehicle may be tainted in the eyes of the consumer."

To ensure long-lasting paint quality, GM plants use female ostrich feathers on each vehicle before the top coat of paint is applied. The paint feathers remove microscopic bits of dust that could affect paint quality.

The pre-paint ostrich feather process resembles a car wash without the water. Ostrich feathers are wrapped around six cylinders, two that roll over each of the vehicle sides and two overhead that clean the fascias, roof, hood, and decklid.

As a vehicle's steel body approaches, the cylinders roll over the body front to back to capture fine dust particles before the final top coat of paint is applied. Female feathers are softer and last longer than their male counterparts.

The feathers are durable, yet

delicate enough to prevent scratching. Each feather possesses microscopic fingers, which remove fine dust particles from the body by creating static electricity. As the cylinders of feathers do their job, a high-powered vacuum removes dust residue.

The amount of pressure and feather surface or "crush" applied to each vehicle varies from one to three inches, depending on model and body part being cleaned. Once a vehicle makes its way through the station, a flashlight is used to inspect for any missed particles.

One ostrich feather has no impact on a vehicle's paint quality. But combined with thousands of other feathers, they are a critical tool used at GM plants. No birds are harmed in the feather collection process, as they are collected as a part of the bird's natural shedding process.

Gap stick ensures uniform body fits. Employees at GM plants receive hours of training on body panel fit and flushness. To ensure vehicles meet extremely tight tolerances, finger-sized measuring tools called gap sticks are used to ensure gaps between body panels are consistent and uniform on the finished vehicle.

At Detroit-Hamtramck, highly trained and skilled Quality inspectors take gap measurements in about 61 seconds, and docu-

ment the results at the rate of 45 vehicles inspected per hour.

At GM's Ft. Wayne Assembly Plant, where nearly 4,000 employees build the 2014 Chevrolet Silverado and GMC Sierra full-size pickups, each Quality operator averages a minimum of 20 hours of classroom and on-the-job training annually, depending on the complexity of the job they're required to do.

Ft. Wayne's Quality Department employs more than 250 people on three shifts who conduct a variety of detailed testing and standardized inspection on each vehicle built.

The velocity meter gauges door-closing efforts. Once fit-and-flushness levels are achieved, a door velocity meter is used to measure door closing effort to ensure that a gentle push is enough to close it.

The door velocity meter is a high-tech tool designed and patented by GM. It attaches to the body by covered magnets. Once in place, on the rear quarter panel to test rear doors and on the rear doors to test the front doors, the doors are opened and closed several times to generate a reading that must meet a required velocity that translates to force (effort).

The sniffer gauge ensures a leak-free refrigerant system. The robustness of a vehicle's air con-

ditioning system is verified by a sniffer gauge, a tool comprised of a long and flexible rubber prong attached to a base unit that emits a loud screeching noise if unacceptable levels of refrigerant is detected.

The test takes about two minutes after the vehicle has been running for three to five minutes to get refrigerant flowing through the vehicle.

Inspectors insert the wand into all interior outlets and under the hood. Leaks are rare and when the sniffer alarm sounds, the issue is addressed in the plant before shipping vehicles to dealers.

The water probe helps keep interior moisture out. To ensure a moisture-free cabin, some vehicles are subjected to an eight-minute, monsoon-like water test. After the comprehensive water test, the vehicle's interior is evaluated for unseen moisture entering the cabin through the use of a water probe.

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