Cadillac Electric Starter Turns 100 During 2012

DETROIT - With the turn of a key or push of a button, starting a car today is taken for granted. But a century ago, the electric starter that debuted in the 1912 Cadillac Touring Edition helped establish Cadillac's reputation as a test bed of technology and in-

Before the electric starter, it took a hand crank, a lot of muscle, and a bit of hope to

"Hand cranking was the No. 1 injury risk in those early days of the automobile," said Greg Wallace, director of the General Motors Heritage Center, referring to the kickback on a crank handle that could break an arm, or worse.

As cars grew larger and purposeful, so did the engines and effort required to start them. It was so difficult, in fact, that it gave rise to the term "cranky," which often described someone's mood after struggling to start a car.

Cadillac founder Henry M. Leland, who had already pioneered electric lights and electric ignition on his cars, worked closely with Charles F. Kettering, the inventor of the electric starter, to incorporate the device into his cars. The electric starter also was GM's first electric motor - a core business today anticipating the growth in the electrification of the automobile.

'It was one of the most significant innovations in the history of the automobile," Wallace said. "It was a complete game changer. Within a few Cadillac featured women in their advertising showing them as drivers, instead of passengers or bystanders.

Before the electric starter, Leland was an expert machinist and precision manufacturer. A few years earlier, he devised component standardization and interchangeable parts. Soon after the electric starter. Cadillac would be the first to introduce the V-8 engine and the synchromesh transmission for easier gear shifting.

Cadillac was also the first car company to offer a fully enclosed car body as standard equipment.



GM Vice President of Engineering, Charles Kettering, was credited with the invention of the electric starter for Cadillac in 1912. By 1933 he was on the cover of Time magazine for his many accomplishments at GM.

"As a premium brand even in its earliest days, Cadillac positioned itself as a technology and innovation leader as a way to set it apart from the dozens of other auto companies," Wallace said.

Among the more visible Cadillac innovations beginning in the 1920s were designer bodywork and color lacquer paint. Later, Cadillac would innovate design with sleek, curvaceous body styles and jet-inspired tail fins.

Cadillac introduced the first automatic climate control and heated seats. Twilight Sentinel automatically turned on and off headlamps, and the first tilt-telescoping steering wheel helped drivers feel more comfortable behind the wheel. All were Cadillac firsts. In more recent years, Cadil-

lac was the platform for many high-tech innovations. It pioneered the air-cushion restraint system 1974 - a precursor to modern air bag systems. In 1996, Cadillac vehicles were the first to include OnStar, the leading on-board security, communication and diagnostic system.

In 1999, Cadillac introduced the first automotive night vision system. Magnetic Ride Control, the world's fastest-reacting suspension technology, was introduced by Cadillac in

Today Magnetic Ride Con-

The CAR THAT HAS NO CRANK

This year marks the 100th anniversary of the invention of the electric starter from Cadillac.

trol is a crucial element in the vanced technology elements performance of Cadillac's CTS-V and Escalade models, as well as the upcoming XTS and ATS sedans. It's been adopted by a few other automakers on a handful of elite sports cars.

Cadillac expands significantly in 2012, with new ad-

CUE, a new user experience for in-car connectivity that will be a signature feature of the 2013 XTS and ATS. CUE recently received a Popular Mechanic's Editors' Choice Award at the 2012 International Consumer Electronics

GM Makes Big Changes To White Collar Pensions

By JEFF KAROUB AP Business Writer

DETROIT (AP) - General Motors Co. plans to freeze its U.S. pension plan for longtime white-collar workers and give all salaried employees annual bonuses but not pay raises in an effort to hold down expenses, officials announced last week.

The Detroit-based automaker said roughly 19,000 salaried workers hired before 2001 will move from a traditional pension with guaranteed payments to a 401(k)type plan with contributions based on salary and bonuses. Employees hired after 2001, which represent about 30 percent of the company's salaried workforce, already are in that defined contribution plan.

The changes take effect Oct. 1, and workers will keep all pension benefits they have already accrued, officials said.

GM also said it would offer bonuses to all 26,000 salaried employees and release the amounts when it announces quarterly and full-year earnings Thursday. The company is expected to post a 2011 net profit of around \$8 billion – the best in its 103-year history.

GM vice president of global

human resources Cindy Brinkley said the changes are geared toward increasing profitability and reducing risk.

GM, a little less than three years past government-funded bankruptcy protection that saved the company from financial collapse, is expected to top its record annual profit of \$6.7 billion of 1997, when the pickup truck and SUV sales boom was in full swing. Earnings should set a new record despite total sales in the U.S., GM's second-largest market, near a historic low of 12.8 million cars and trucks last year.

The changes announced last week include offering salaried employees an additional five days of vacation and eliminating a plan that allows them to buy up to five days.

The announcement follows other pay-and-benefit-related news from the other two automakers representing the Detroit Three.

Chryslersaid earlier this month that both salaried and hourly workers would get profit-sharing checks, but he would not reveal amounts. Ford said last month that it was giving pay raises and bonuses to 20,000 white-collar workers.

Camaro ZL1 will Offer Popular 'TapShift' Tranny

DETROIT - When the new 2012 Chevrolet Camaro ZL1 arrives this spring, performance car enthusiasts will experience the hands-on driving satisfaction of a "stick" with the ease of an automatic transmission due to General Motors' newly improved Tap-Shift technology.

Since its introduction several years ago, TapShift has allowed drivers to control upand down-shifts with paddle shifters. For 2012, GM powertrain engineers implemented a patent-pending software algorithm that improves tap response time by up to 60 percent compared to the previous system. No hardware changes were required for the upgrade.

'The faster you can get to the next gear, the better, and from the sound of it, the ZL1 automatic's performance is going to make paddle shifting more exhilarating and satisfying for drivers of all skill sets," said Eric Fedewa, director of Global Powertrain Forecasting at IHS Automotive.

We're seeing a trend toward more manual-modecapable, fun-to-drive automatic transmissions across all vehicle segments, and GM's technology is leading the

раск. The 2012 ZL1's six-speed automatic transmission delivers a 0-60 time of 3.9 seconds - a tenth of a second faster than the manual transmission

By staging hydraulic pressure in the clutch for the next gear, the new control module algorithm reduces tap delay for the 1-2, 2-3, 3-4, and 4-5 upshifts by 200-300 milliseconds. The system anticipates shift requests based on current gear, throttle, torque and speed. By pre-filling the clutch for the next gear, the tap up-shift response is near

instantaneous.

"As great as the previous system's performance was, we were driven to achieve even better results," said Gabe Gibson, GM performance car calibration engineer.

"Not only did we make the upgrade to Camaro, we implemented it on the 2012 Corvette as well, and will use it on all vehicles with TapShift control going forward.

Staged up-shifts will help drivers of the 2012 ZL1 – the most powerful production Camaro ever – get the most out of its supercharged 6.2L engine that is SAE-rated at 580 horsepower (432 kW) and 556 lb.-ft. of torque (754 Nm).

ZL1 customers' choice of an ible will go on sale later this ZL1 sales.

automatic 6L90 transmission with TapShift manual mode or a six-speed manual transmission is unmatched in its class. With 0 to 60 taking 3.9 seconds, and a top speed of 184 mph, the power and acceleration of the ZL1 automatic rivals many supercars.

"We think Camaro drivers will really appreciate the performance improvement offered by staged up-shifts, whether they're merging onto the freeway or putting their ZL1 through its paces at the track," Gibson said.

The Camaro ZL1 Coupe will summer as a 2013 model. go on sale this spring as a 2012 model.



When the 2012 Chevrolet Camaro ZL1 arrives this spring, ZL1 customers' choice of an automatic 6L90 transmission with TapShift manual mode or a six-speed manual transmission is unmatched in its class.

Chevrolet currently expects the automatic transmission to The Camaro ZL1 Convert- command up to 50 percent of

Campbell Ewald Is Accepting New Applications for CE CITY Program

WARREN - Campbell Ewald, iors enrolled in a Detroit high a marketing and communications agency, has partnered tend, but the students must with the College for Creative be willing to dedicate their Studies (CCS) to provide De- time and passion to nurture troit high school students their creative talent. with hands-on learning and Talented Youth – Workshop program.

Applications are now being accepted through February 29, 2012, for the free six-week workshop that will be held at CCS on Saturdays from 11 a.m. to 1 p.m., beginning March 17, 2012.

The CE CITY Workshop is a competitive learning experience where students will be divided into teams and will work with mentors from develop TV public service announcement ideas

CELL # 1-586-405-5175

school. There is no cost to at-

"As part of our commitmentoring through the CE ment to give back to the com-CITY - Creatively Inspiring munity, we created CE CITY to foster the abundance of talent we see in the youth of Detroit," said Bill Ludwig, chairman and CEO of Campbell Ewald. "The CE CITY Workshop will provide these students the opportunity to develop creative solutions for real marketing challenges."

The Workshop is a component of CE CITY, the initiative-Campbell Ewald created to celebrate their centennial anniversary. The agency part-Campbell Ewald and CCS to nered with two Detroit organizations, the College for Creative Studies and YouthVille The program is open to Detroit. Together, they are all sophomores, juniors and sendonating time and talent.

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