

Engineers of Chevrolet's IndyCar V6 Earn BorgWarner Motorsports Award

DETROIT – The unbeaten track performance of the new Chevrolet IndyCar V6 engine is bringing acclaim to the engineers who created it and hope for its significant technology to find its way into passenger cars.

GM Engineers Mark Kent and Matt Wiles, along with Steve Miller and Steve O'Connor from Ilmor Engineering, took home the 46th annual BorgWarner Louis Schwitzer Award last week for their work on the Chevrolet IndyCar V6 engine.

The award recognizes individuals for innovation and engineering excellence in the field of race car design, specifically related to the annual Indianapolis 500 race.

The fuel-efficient 2.2-liter twin-turbo V6 engine, GM's first IndyCar engine since 2004, has earned four wins in the first four IZOD IndyCar Series races of the 2012 season.

The development team leveraged GM's experience in E85 fuel and direct injection and Ilmor Engineering's race engine

design expertise.

"Going four-for-four at the racetrack and winning the Louis Schwitzer award has exceeded our expectations, but the ultimate goal for this project has always been to develop powerful fuel-efficient engine technologies that could be transferred to production cars," said Kent of the GM Performance Vehicles and Motorsports group.

"Racing has always been a great proving ground for advanced powertrain technologies, and this IndyCar V6 is no exception."

Some of the direct-injection turbo capability that gives the IndyCar engine its edge also will power the new Ecotec 2.0L engine coming to the 2013 Chevrolet Malibu.

Rated at 259 horsepower and 260 lb.-ft. of torque between 1,700 and 5,200 rpm, the 2.0L is more powerful than Malibu's previous V6 engines.

Available turbocharging also powers Chevrolet's Sonic and Cruze.

The secret to the IndyCar engine's success is how its twin turbochargers boost performance and throttle response.

The team enhanced the engine's Hitachi fuel delivery system with six high-pressure direct injectors in the heads and six lower-pressure injectors in the plenum.

The team used computer models and testing to determine the best possible placement of fuel injectors to make them suitable for production cars. They also made use of special coatings in the engine and exhaust system to reduce friction and improve fuel economy.

And, they designed compression ratios and piston shapes to manage the heat generated during operation.

With peak performance of 12,000 RPM, the 2.2-liter V6 is the highest revving direct-injection engine in current racing competition.

The engine is currently at the service of Team Penske, Andretti Autosport, KV Racing



PHOTO: HOLMAN PHOTOGRAPHY

The BorgWarner Louis Schwitzer Award is presented to General Motors and Ilmor engineers by Jim Bailey, center, from BorgWarner. The annual award distinguishes engineers for innovation and engineering excellence related to the Indianapolis 500 race. From left: Matt Wiles and Mark Kent from GM; Bailey; Steve Miller from Ilmor Engineering and Steve Holman from the Indiana Section of SAE.

Technology, Ed Carpenter Racing, Panther Racing, Dragon Racing, and Panther/Dreyer & Reinbold Racing this year.

"Even though the four of us were individually recognized, it

was the entire team that deserved recognition," Kent said.

"This award would not have been possible without the significant contributions by the GM Global Advanced & Race

Engine Engineering group, Ilmor Engineering, Hitachi and our Chevrolet IndyCar teams."

The BorgWarner Louis Schwitzer Award is coveted throughout motorsports.



Chrysler Belvidere Assembly Plant Manager Kurt Kavajecz, left, UAW Local 1761 President Bob Cunningham and UAW Local 1268 President George Welitschinsky mark the occasion with employees as the first Dodge Dart rolled off the line recently.

Red Dart Rallye First Off Assembly Line

BELVIDERE, Ill. – The first Chrysler Group vehicle built off a Fiat-derived architecture, the 2013 Dodge Dart, blends Alfa Romeo DNA with Dodge performance and style.

The new Dart will be available with 12 exterior colors, 14 interior color and trim options, three powerful, fuel-efficient engines, three transmission choices, numerous safety features and world-class aerodynamics.

The first vehicle off the line was a red Dodge Dart Rallye with a black-and-red interior, powered by a 1.4-liter engine with manual transmission. Optional features included a rear camera and sunroof.

The 2013 Dodge Dart will be

available in five trim levels with a starting U.S. Manufacturer's Suggested Retail Price of \$15,995. The first Darts will begin arriving in dealer showrooms in June.

In addition to the Dodge Dart, the Belvidere Assembly Plant currently builds the Jeep Compass and Jeep Patriot.

The 2013 Dodge Dart redefines performance with Alfa Romeo DNA, fuel-efficient powertrains and Dodge performance. The all-new Dodge Dart is a thoroughly modern vehicle that's fuel-efficient, carefully designed and crafted, agile and fun-to-drive, say Dodge officials.

Dodge also claims the 2013 Dodge Dart is loaded with innovative technology, class-leading safety features and clever functionality, and sets a new standard in the compact car segment by offering unmatched personalization, roominess, style, functionality and fun-to-drive dynamics.

"The all-new Dodge Dart is a groundbreaking car that will surprise and delight customers who want a no-compromise, fun-to-drive car that's a great value," said Reid Bigland, president and chief executive officer – Dodge Brand, Chrysler Group LLC.

"With 12 exterior colors, 14 interior color and trim options, three powerful, fuel-efficient engines, three transmission choices, unsurpassed safety features and world-class aerodynamics, the new Dodge Dart sets a new standard for the compact car class."

The 2013 Dodge Dart will be available in five trim levels:

SE, SXT, Rallye, Limited and R/T (available 3rd quarter 2012) with a starting U.S. Manufacturer's Suggested Retail Price of \$15,995. It will be built in the United States at Chrysler Group's Belvidere Assembly Plant in Belvidere, Ill. Production of the 2013 Dodge Dart began two weeks ago.

"The Dodge Dart was a dream to design," said Joe Dehner, head of Dodge Design – Chrysler Group LLC.

"The Alfa Romeo-based architecture allowed us to design an exterior with great proportions that say 'fun-to-drive' when you look at it."

"Add in the Charger-inspired 'racetrack' taillamps, a new, sleek crosshair grille and piano black accents, and it all adds up to a performance-inspired design with just the right amount of attitude."

"We were inspired by classic, beautifully designed vehicles throughout time. Each car was beautiful, based on its surface work and presence alone; they didn't need unnecessary cladding, jewelry or lines that confuse the eye."

The Dodge Dart effectively replaces the former Plymouth and Dodge Neon car platform as Chrysler's entry in the compact car market, where it will now compete against the Chevrolet Cruze and Ford Fusion for national sales.

Introduced at both the Detroit and Chicago auto shows earlier this year, the 2013 Dodge Dart has already received positive critical reviews from the automotive and business press and the national Dodge dealership body alike

GM Retiree Tricks Out 1950 Merc' with 'Olds Guts'

by Gerald Scott
News Dept.

Perhaps only at the spring Boy Scouts of America car show at Warren city hall would you find a 1950 Mercury Custom car with a 1977 Oldsmobile engine and drivetrain inside. And all built by a GM guy and not a Ford/Mercury guy, by the way.

But in the local car cruiser world, a GM retiree with a thing for Mercs is not that unusual at all.

So it was as GM Tech Center retiree Chuck Reynolds, 79, had his car on display at Warren city hall and both he and the old Merc had some great stories to tell.

"I started at GM in 1960 and retired in 1987," Reynolds recalled of his career at Fisher Body, which used to have an office building at the Tech Center about where the Vehicle Engineering Center (VEC) is at today.

"I was a senior graphic engineer, which is a fancy title – I was an illustrator. I did exploded views of cars and all kinds of artwork. I loved it. After I retired, one of the shops that we used to ship work out to, hired me, and they transferred me into Truck & Bus as a contract person and I worked there for another six or seven years.

"GM was a heckuva nice place to work at, they gave me a great retirement."

Reynolds is an esteemed retiree if only because he holds the institutional knowledge about Fisher Body and its 20th century contributions to General Motors – the numbers of people locally who worked at Fisher Body are now few and far between. Reynolds has a great memory, however.

"They lasted until 1984, then they dissolved the 'Fisher (Body name)," Reynolds recalled. "And then they combined Chevrolet, with Fisher, and I forget who else . . . oh, GM of Canada and they came up with C-P-C (for Chevrolet - Pontiac - GM of Canada). So I was with them for 2-3 years, until 1987.

"I did all kinds of artwork for brochures, manuals, owner's manual."

Reynolds is a westsider who has prospered in the east. He went to Cooley High School in Detroit, served in the Air Force during the Korean War and then his longer career at GM Fisher Body. He was an airplane mechanic for the Air Force during the Korean War.

Oh yeah, what about the Ford car?

"I always liked Ford cars, I grew up on the west side," he said. "It might've been made by Ford, but underneath it's all GM.

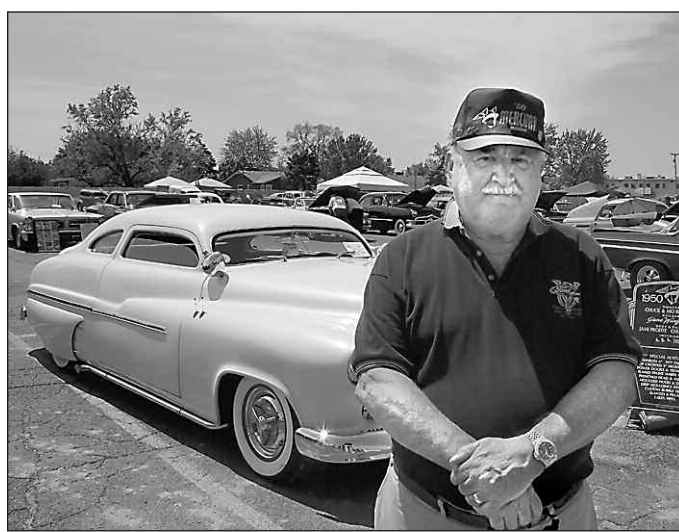
"I bought a 1977 Oldsmobile and – mint car – we took it all apart, the seats and everything, I used it in the Mercury here.

"Took the body off and got down to the chassis with the Olds engine and power steering and all the Olds goodies . . . it's a 350 engine, and then we put this body on it."

The more famous Mercury of that era was the 1949 because James Dean drove one in the movies, but Reynolds insists the 1949-50 Mercs are virtually identical as far as body style and options went.

Reynolds even wears a baseball cap that says "1950 Mercury," all to declare his car guy love for a rival model such as Ford's Mercury.

So sayeth the GM guy with the gussied-up Mercury.



GM Tech Center retiree Chuck Reynolds has tuned this 1950 Mercury Custom to include a 1977 Oldsmobile engine and drivetrain. He had the car on display at the recent Boy Scouts of America spring car show at Warren city hall.

Cars 'R' Stars to Feature Hot Rods, Customs, Drag Cars

by Jennifer Knightstep
Special Writer

One of the most thrilling classic car shows in metro Detroit, formerly known as the Carnival of Cars, is returning this summer under a new name, Cars 'R' Stars.

Along with the name change, Cars 'R' Stars offers something else new and exciting, says Don Sommer, Cars 'R' Stars board member. What's so special about this year's show?

"Drag cars," says Sommer, "This year's theme is, 'When Life's a Drag' is Good,' and we'll be featuring some of the most famous drag cars of the '50s and '60s. If you're a fan of drag cars, you're not going to want to miss this show."

The list of famous drag cars is impressive, including the original Silver Bullet, the Bob Ford Thunderbolt and the '49

Packard Flintstone Flyer.

Cars R Stars will be held Sunday, June 10, at the historic Packard Proving Grounds on Van Dyke, south of 23 Mile Road, in Shelby Township.

The significance of the locale is, of course, one of the reasons Sommer and the other board members selected the spot.

In a press release, Sommer explained, "Our plan is to display these historic racers in the remaining Proving Grounds race track, giving the display an exciting and authentic appeal."

Sommer is an expert on classic car shows with a twist, founding the Meadow Brook Concours d'Elegance.

He himself is excited about Cars 'R' Stars, and he's planning to bring his own 1930 Packard Phaeton (a 4-door convertible) to the event.

"This show is for the drag fans, the people who want to see and hear these cars up



Dave Koffel's 1949 Packard Gasser called the "Flintstone Flyer" will be one of the marquee vehicles at the Cars 'R Stars car show at the old Packard Proving Grounds in Shelby Twp. June 10.

close," says Sommer.

"But it's also for all of the other fans of collectible transportation."

To delight those fans, Som-

mer says Cars 'R' Stars will include a range of sleek hot rods, classic muscle cars, race cars,

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