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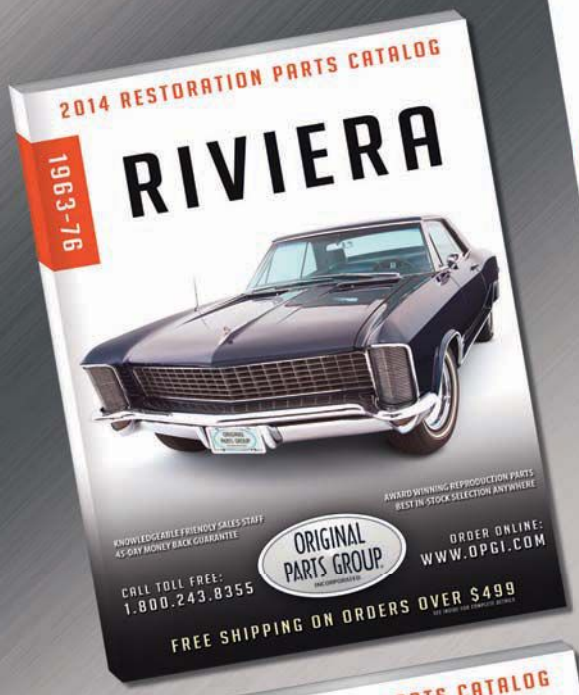

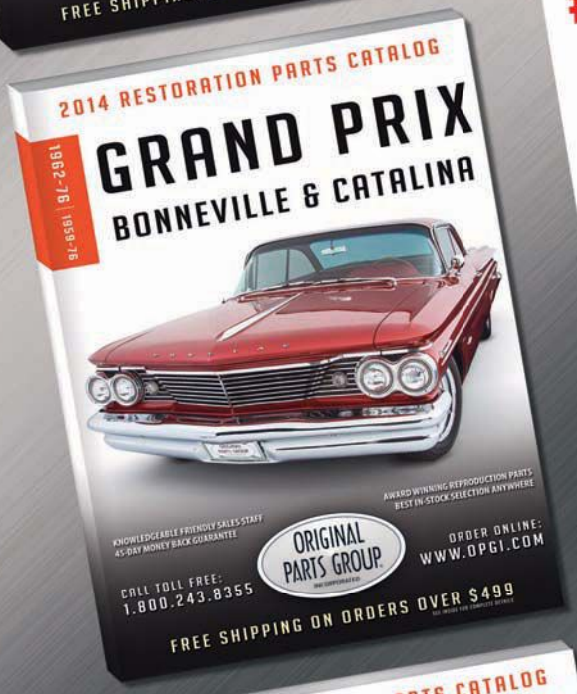

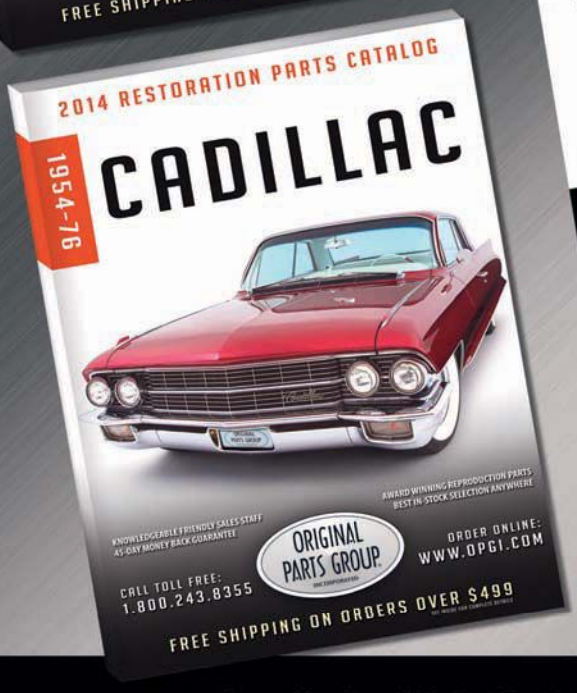

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How to Outsmart a Millionaire

Only the "Robin Hood of Watchmakers" can steal the spotlight from a luxury legend for under $200!

I wasn't looking for trouble. I sat in a café, sipping my espresso and enjoying the quiet. Then it got noisy. Mr. Bigshot rolled up in a roaring high-performance Italian sports car, dropping attitude like his $14,000 watch made it okay for him to be rude. That's when I decided to roll up my sleeves and teach him a lesson.

"Nice watch," I said, pointing to his and holding up mine. He nodded like we belonged to the same club. We did, but he literally paid 100 times more for his membership. Bigshot bragged about his five-figure purchase, a luxury heavyweight from the titan of high-priced timepieces. I told him that mine was the ***Stauer Corso, a 27-jewel automatic classic now available for only $179.*** And just like that, the man was at a loss for words.

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> "There are several things that you really must do to safeguard you and your car…against breakdowns and crashes."

Get Ready for Summer

Let's take a break from talking about design and styling and instead focus on getting our old cars ready for summer cruising. Before you take a long trip to attend your club's national convention or other similar big collector-car event, there are several things that you really must do to safeguard you and your car–as well as others on the road–against breakdowns and crashes.

It doesn't matter if your car has been driven through the winter months or has been stored away in a warm, cozy garage, parts deteriorate due to age, use and weather conditions. Some of those parts will only require a quick cleaning, some just a minor adjustment, yet others must be replaced.

Preventive maintenance may cost a few dollars, but it'll be a whole lot cheaper than having your car transported back home on a flatbed should it break down, thus ruining your vacation in the process. So here are a few things that you need to check and change before the summer driving season begins.

Tires – Only a few square inches connect you with the road, so why take chances with cheap tires? Always buy the best quality tires possible. Check the build date on your tire's sidewall; if they are more than five years old, replace them. If they are worn, replace them. And make sure the spare tire is in good condition, too.

Battery – A weak battery affects your car's ignition and entire electrical system. If your battery is more than five years old, replace it before it dies when you're out in the middle of nowhere. Buy a name-brand battery, and one with the most cold-cranking amps possible, or at the very least a heavy-duty type. Replace the terminals and cables too if they are cracked.

Alternator – Old alternators with lots of miles on them will soon expire. If your car's alternator is the original unit and you want to keep it so its build-date numbers match, take it to a motor rebuilding shop and have them clean the armature and put in new brushes. If you need a new alternator, upgrade to one that puts out higher amps; if your car has a generator, have it cleaned too and the brushes replaced as well.

Voltage Regulator – Any car that has sat for a long period should have its voltage regulator replaced with a new unit. Lack of use causes corrosion to develop on the contact points, freezing them either in the open or closed position. If the regulator's cover is removable, clean the points with crocus cloth and make sure they open and close easily, and remove any dirt or corrosion.

Brake Hoses – Bend the hoses to check for small cracks or chafe marks; if so, replace. But replace both sides to ensure equal fluid pressure to both wheels. If the hoses are more than 10 years old, chances are the interior lining has deteriorated, reducing braking performance. Also check the wheel cylinders and calipers for leaks as well, and replace as needed.

Lights – Old bulbs can be dimmer than new bulbs, causing your brake lamps to be not so bright. Use the correct-rated bulb, and coat the contacts with dielectric grease to ward off corrosion and promote better conductivity.

Fuel Hoses – Modern fuels have chemicals that will deteriorate old rubber fuel lines from the inside out, so replace them all with new lines. Use new clamps, too.

Fuel Filter – Change the fuel filter every spring. A buildup of sediment will diminish fuel flow, causing power loss. Also clean the fuel bowl attached to the fuel pump, if one is present.

Fan Belts – Twist the belt and if small cracks are present replace with a new belt. Adjust to make sure the belt is snug, but not too tight, and that all the ancillary components that it runs are in perfect alignment to one another.

Radiator – Drain the radiator and run water through it via a garden hose until the water comes out clear. Then refill with fresh distilled water and antifreeze.

Radiator Hoses – If they show signs of small cracks or are very soft when squeezed, replace, and use new clamps, too.

Exhaust – Any and all leaks must be fixed, because your life depends on it. Even the smallest trace of carbon monoxide gas into the cabin will make you drowsy while driving, and may cause you to crash. Replace all clamps and hangers that are rusty and weak.

Write to our executive editor at rlentinello@hemmings.com.

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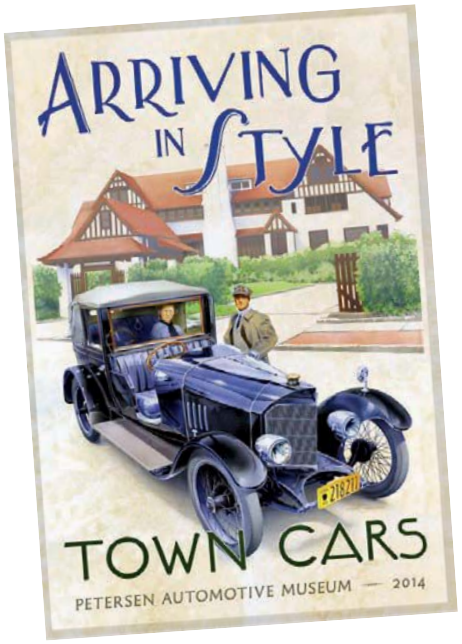
BY TOM COMERRO



Petersen Town Cars Exhibit

FROM THE EARLY 1900S TO THE MID-1960S, the term "town car" referred to a body style distinguished by an open chauffeur's compartment and an enclosed passenger area. The town cars were among the most expensive and fancy body styles offered by manufacturers. The Petersen Museum's town car exhibit features the finest examples of these formal all-weather cars ranging from the 1920s to the one-of-a-kind postwar designs. The exhibit opened earlier this year and will continue to be displayed until February of 2015. The Petersen Museum is located in Los Angeles, so be sure to stop by if you are in the Southern California area this year. For more information, visit www.petersen.org.

Pebble Beach Features Ruxton and Steam Cars

THE RUXTON WAS A REVOLUTIONARY FRONT-DRIVE VEHICLE that was produced at the start of the Great Depression. An estimated 96 Ruxtons were manufactured, and just 17 working examples remain. Pebble Beach will gather a record number of them at the August 17 Concours d'Elegance. In addition to that, several steam pioneers will take to the show field this year. Steam power was well developed long before the internal combustion engine, so be sure to look for them at this year's show. The weekend events kick off on August 13 with the Auction, and the 14th features the Tour. For more information and a full calendar of events from the Pebble Beach weekend, please visit www.pebblebeachconcours.net.

Milwaukee Masterpiece

IN ITS 10TH YEAR, THE MILWAUKEE MASTERPIECE will showcase 125 of the most significant vehicles from years past, as well as 125 new participants to Sunday's Concours d'Elegance. The weekend-long celebration, August 23-24, is open to the public and includes a gathering of individuals and local and regional car club members who display their favored two- and four-wheeled vehicles. Saturday will begin with a parade of club vehicles from the Harley-Davidson Museum to the show grounds.

The Concours d'Elegance takes place on Sunday, with more than 250 vehicles selected by the concours committee taking over the show grounds to compete for senior awards, including Best of Show, Chairman's Cup and Chief Judge's Cup, as well as first-in-class distinction. The event takes place at Veterans Park in Milwaukee. For more information, log onto milwaukeemasterpiece.com.

AUGUST Calendar

1-3 • Das Awkscht Fescht
Macungie, Pennsylvania • 610-967-2317
www.awkscht.com

2-3 • Summer Elkhorn Car Show & Swap Meet • Elkhorn, Wisconsin
608-244-8416
www.madisonclassics.com

6-9 • Lincoln Motor Car Museum Dedication • Hickory Corners, Michigan
248-789-9258

7 • Hemmings Motor News Cruise-In • Bennington, Vermont
800-227-4373 • www.hemmings.com

9 • New London to New Brighton Antique Car Run • Minnesota
763-757-4143 • www.antiquecarrun.org

9-10 • All Pontiac Weekend
St. Charles, Illinois
www.cruisintigers.com

12-16 • Professional Car Society International Meet • Rochester, Minnesota • 612-325-2344
www.professionalcarsociety.org

15-17 • North-South Ford F-100 Run
Morro Bay, California • 209-835-7629

15-17 • Ozarks Swap Meet & Car Corral • Springfield, Missouri
417-736-3485
www.ozarksantiqueautoclub.com

16 • Woodward Dream Cruise
Woodward Avenue, Michigan
248-335-8740
www.woodwarddreamcruise.com

17 • Ford Lincoln Mercury Day
Larz Anderson Auto Museum • Brookline, Massachusetts • 617-522-6547

22-24 • Corvettes at Carlisle
Carlisle, Pennsylvania • 717-243-7855
www.carsatcarlisle.com

24-31 • Auburn-Cord-Duesenberg Festival • Auburn, Indiana
260-925-3600 • acdfestival.org

Hot August Nights

THIS YEAR MARKS THE 28TH YEAR OF HOT AUGUST NIGHTS, and this year's events will take place in Reno and Sparks, Nevada. Expect over 10,000 cars, ranging from American classics, pickups, muscle cars and more. Events include parades, cruises, poker runs, show-n-shines and swap meets. Be sure to attend if you are in the Northern Nevada area this July 29-August 3. For more information and a full listing of events, visit www.hotaugustnights.net.

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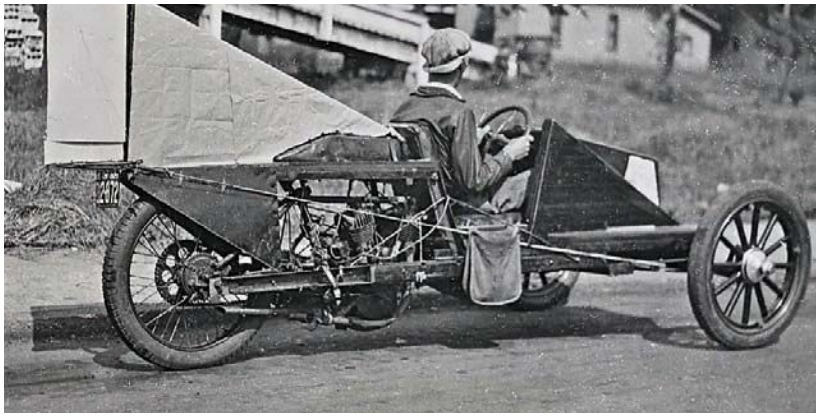
BY DANIEL STROHL



Freak Machine

WHILE WE HAVEN'T LEARNED MUCH MORE ABOUT THE INDIAN-POWERED REVERSE TRIKE from a few issues back (see Chief-T, *HCC* #115), other than the name of the builder—Gale Lockhart of Los Angeles, California, who put it together for a total cost of $18—we have since come across another homebuilt reverse trike from roughly the same era, give or take a decade or two. This time, it uses a Harley-Davidson F-head twin mounted in a mid-engine configuration with a giant tailfin stabilizer (first automotive tailfin, perhaps?) connected to the steering system.

We do have a press photo caption to go with it, but it offers up very little information, noting only that the "freakmachine" weighs 200 pounds and could hit 90 MPH. No builder's name was given, but the photo was apparently taken in summer 1929 in Portland, Oregon.

So, again, who built it, and could it still be around today?

Zippo Snuffed?

THE FOLKS FROM ZIPPO, the lighter company, recently reached out to us as part of some promotional campaign centered around lost items (i.e., favorite lighters). The impetus for the campaign, what interested us the most, was the fact that Zippo somehow lost a one-of-a-kind car integral to the company's history.

In 1947, founder George Blaisdell bought a brand-new Chrysler Saratoga, and then spent $25,000 having Gardner Display of Pittsburgh modify it with two giant Zippo lighters shooting neon flames. Blaisdell traveled the country with his productmobile for the next several years, until, as company lore tells the story, it wore out and was in need of refurbishment. Zippo then sent the Chrysler to Toohey Motors, a Pittsburgh Ford dealer, to have it placed on a Mercury truck chassis. The $40,000 cost for the refurbishment wasn't in Zippo's budget at the time, so the company let it sit at Toohey Motors, and then forgot about it.

Until the late 1970s, that is, when company executives went to take the project off the back burner only to find that Toohey went out of business in the intervening decades and that their Chrysler had disappeared. They had another Saratoga built to replicate the original—this time powered by a small-block Chevrolet V-8—but have yet to find the original.

Something that unique couldn't have disappeared without a trace, though, and we have a hard time believing it was scrapped, so where could it be?

Ferreting Out the Falcon

WE RECENTLY SPOKE WITH COLLECTOR JOE BORTZ regarding his Chrysler Falcon concept car—Exner's vision for competing with the Corvette and Thunderbird in the two-seat sports car arena in the mid-1950s—and learned that Bortz's wasn't the only one of its kind that Ghia built for Chrysler.

In fact, at least two are known to have been built, and there's some debate that a third may have been built as well. But only one—Bortz's light blue example—still exists, right?

Maybe not. The black example, which features subtly different front sheetmetal and which appeared in most, if not all, Chrysler press photos, was never recorded as destroyed, and we've heard anonymous rumblings that it's still out there. We'll keep you updated the more we hear.

Recently discovered a unique or noteworthy classic car? Let us know. Photographs, commentary, questions and answers should be submitted to Lost & Found, c/o *Hemmings Classic Car*, P.O. Box 196, Bennington, Vermont 05201 or emailed to dstrohl@hemmings.com. For more Lost & Found, visit http://blog.hemmings.com/index.php/category/lost-and-found/.

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BY MIKE BUMBECK

Inviting Pebble Beach

GOODING & COMPANY IS GEARING UP for their annual Pebble Beach Auctions. One standout consignment is this 1920 Mercer Series 5 Raceabout. The Series 5 has been owned by the same family since 1945 and ran in the 1949 Glidden Tour. Estimates place the sale from $300,000–$400,000. Gooding & Company's Pebble Beach Auctions will be held at on Saturday August 16, at 5:00 p.m. and Sunday, August 17, at 6:00 p.m. Viewing opportunities precede the auction starting Wednesday August 13. Contact: www.goodingandcompany.com.

COURTESY OF GOODING & COMPANY. PHOTOS BY CHIP RIEGEL

Barrett-Jackson at Hot August Nights

GOOD NEWS FOR THOSE WHO WANT to put winter in the distant past is that the annual gathering of classic cars and the people that love them known as Hot August Nights is set for 2014 in the biggest little city in America. Barrett Jackson will be there—along with a half million vintage automotive enthusiasts—with its second annual Hot August Nights auction and the Barrett-Jackson Cup Awards, spanning the two best months of summer from July 31 to August 2nd, in Reno, Nevada. Contact: www.barrett-jackson.com.

AUCTION PROFILE

THE JET AGE-STYLED OLDSMOBILE 4-4-2 Holiday Coupe may not have had the cartoon flash or race-inspired looks of some contemporaries, but its combination of performance and style makes it a solid choice in classic cars for those who want to run like a cheetah without looking like a peacock.

This car appeared in solid and original condition, showing the normal signs of wear associated with age. Telltale cracks in the steering wheel spoke of almost 50 years as well as the Oldsmobile's clean state. The combination of a 350-hp, 400-cu.in. V-8, power front bench seat and factory air was appealing on every level.

CAR	1967 Oldsmobile 4-4-2 Holiday Coupe
AUCTIONEER	Auctions America
LOCATION	Auburn, Indiana
DATE	May 9, 2014
LOT NUMBER	3177
CONDITION	2/Original
RESERVE	No
AVERAGE SELLING PRICE	$33,000
SELLING PRICE	$18,700

AUGUST Calendar

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ART & AUTOMOBILIA

BY MARK J. McCOURT

Informative Tribute

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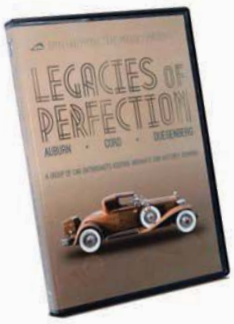

Legacies of Perfection

TOO BAD MOST OF US WEREN'T FORTUNATE ENOUGH to get class projects like this one. Ball State University is located in Muncie, Indiana, and holds courses in both local history and media production. Some of those students banded together to make a documentary about what happens in a place up Interstate 69 a piece, Auburn.

Specifically, the students focused their attention and lenses on the history of Indiana's great trio of automotive nameplates, Auburn, Cord and Duesenberg. This DVD is a feature-length documentary on the histories of all three marques, plus an examination of the people associated most closely with the cars. It was a semester-long project done in cooperation with the Auburn-Cord-Duesenberg Museum, which sells the DVD. It depicts history, the annual A-C-D Festival, and features interviews with museum historian Jon Bill and the commanding restorer of Duesenbergs, Randy Ema. You'll like it. Cost: $18.95.

260-925-1444

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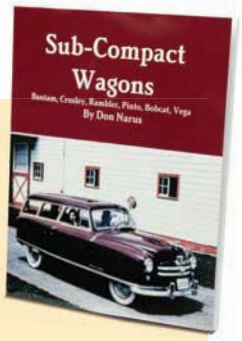
–By Jim Donnelly



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In an Automotive Light

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–By J. Daniel Beaudry

1936 Buick Special

FLINT'S PRIDE AND JOY WAS AN EXCITING NEW CAR IN 1936 when it offered fresh styling, hydraulic brakes, upgraded engine components and, in closed versions, solid "Turret Top" roofs. The sportiest and most appealing style was the four-passenger Convertible Coupe, which was available in the accessible Model 40 Special line. Brooklin Models has created a 1:43-scale version of the M-46C Special Convertible Coupe for its "The Buick Collection B.C. 1934 to 1939." Handmade in England, the accurately depicted black-over-red model features numerous bright metal pieces and is surprisingly hefty in the hand. Cost: $129.50.

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1963 Studebaker Avanti

OF ALL OF THE AUTOMOBILES THAT STUDEBAKER BUILT in its 115-year history, none was as forward-looking—and ultimately, long-lived—as the Avanti. Automodello has modeled the first-year, supercharged Avanti R2 in 1:43 scale, and in typical fashion, the result is stunning. It is available in an edition of 499 pieces in Avanti Gold Metallic and Avanti Red, as one of 50 hand-numbered Tribute Editions in Avanti Turquoise, and as a hand-numbered Homage Edition of 24 examples in Black. The detailing of these models is true to form, from the delicate windshield wipers to the gauge-filled instrument panel. True Avanti fans will covet these, price notwithstanding. Cost: $119.95 (Gold/Red); $150 (Turquoise); $235 (Black).

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Technically Ties

BETHANY SHORB, founder of Cyberoptix Tie Lab in Detroit, is committed to making ties that don't evoke responses like, "Oh. A tie. Thanks." And she delivers. "We not only wanted to provide an alternative to the boring tie," Bethany recalls, "but also to the $150 department store tie. I got into making my own clothing because I couldn't afford what I liked, so I had to do it myself."

Until recently, she did do it all herself; for nearly a quarter of a million ties, Bethany designed and hand-printed everything. Now, eight years on, she has hired a small staff, but still personally creates all the patterns. Many of her ties are based on automotive or industrial designs sourced from area Motor City whatnot shops. In the ties we examined, we were particularly fascinated by how she is able to convert such non-conventional subjects into conventional-looking patterns, leaving their origins to be appreciated only by astute observers. "I enjoy twisting traditional tie patterns and motifs without venturing into gauche 'novelty tie' territory," she explains. "I'm personally drawn to the more pattern-based designs, ones that look like a traditional necktie motif, but have a little something extra hidden within the pattern that you might not realize is there until up close to the wearer."

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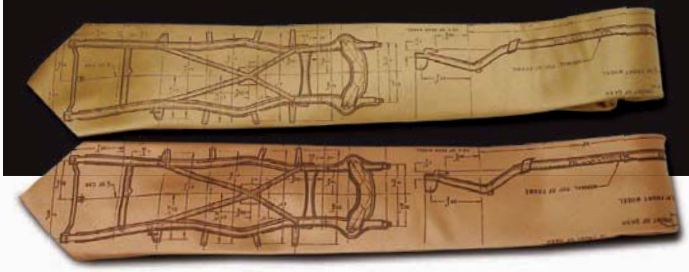
—By J. Daniel Beaudry



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FINISH: Middle Street, Downtown Lowell, MA – 4:45 p.m.

Sunday, June 22, 2014
LUNCH: Bennington Station, Downtown Bennington, VT – 12:05 p.m.
FINISH: Shadows on the Hudson, Poughkeepsie, NY – 5:00 p.m.

Monday, June 23, 2014
LUNCH: East Stroudsburg University, East Stroudsburg, PA – 11:30 a.m.
FINISH: Valley Forge Casino Resort, Valley Forge, PA – 5:15 p.m.

Tuesday, June 24, 2014
LUNCH: Town Hall, Downtown Millsboro, DE – 11:15 a.m.
FINISH: North Landing, Downtown Portsmouth, VA – 5:30 p.m.

Wednesday, June 25, 2014
LUNCH: Waterfront Park, Downtown Elizabeth City, NC – 11:30 a.m.
FINISH: Middle Street, Downtown New Bern, NC – 5:15 p.m.

Thursday, June 26, 2014
LUNCH: Expo Center, Downtown Clinton, NC – 12:15 p.m.
FINISH: Water Street, Downtown Wilmington, NC – 5:00 p.m.

Friday, June 27, 2014
LUNCH: Broadway at the Beach, Myrtle Beach, SC – 11:30 a.m.
FINISH: Patriots Point, Mount Pleasant, SC – 4:30 p.m.

Saturday, June 28, 2014
LUNCH: River Street, Downtown Savannah, GA – 11:15 a.m.
FINISH: The Landing, Downtown Jacksonville, FL – 5:25 p.m.

Sunday, June 29, 2014
LUNCH: National Parts Depot, Ocala, FL – 12:15 p.m.
GRAND FINISH: Lake Sumter Landing, The Villages, FL – 3:00 p.m.

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1955 SPORT COUPE

Montclair!

Mercury's mid-market model was briefly its biggest seller during an era of marque indecision—Part 1

BY MATTHEW LITWIN • PHOTOGRAPHY FROM HEMMINGS MOTOR NEWS ARCHIVES

It may be inconceivable today, but by the late Thirties, Ford Motor Company was losing sales due to a price gap in its product lineup. The space between the top-of-the-line Ford DeLuxe and entry-level, semi-luxury Lincoln Zephyr was being absorbed by similarly positioned Buicks and Chryslers, as well as upscale Dodge and Oldsmobile models. Recognizing the market potential, Edsel Ford convinced Henry they were overdue in building a new line of cars to fill the void. The result was Mercury: a full-sized car that featured the popular Zephyr styling and a plush interior, with an economical price.

1956 CONVERTIBLE

Introduced in 1939, Mercury was available in a single series that supported four body styles on a 116-inch wheelbase platform while motivation was supplied by a 95-hp version of Ford's venerable 239.4-cu.in. flathead V-8. Over 69,000 were produced, a number that swelled to a little over 86,000 in 1940, and to 98,293 in '41—a year that featured a lengthened 118-inch wheelbase. Although World War II halted 1942 automobile production, Mercury had done more than establish itself as a great mid-market value: Its flathead was now making 100 hp unaltered, earning the line—still available as a single series—a reputation as a "hot car." It was a perception not lost on hot rodders and customizers after the war, especially when Mercury introduced its unique, yet polarizing, 1949 redesign.

Mercury's evolution continued in 1952 when the make was finally offered in two trim levels: the entry-based Custom and upscale Monterey series, and in 1954, the aging flathead was replaced by a new 256-cu.in. overhead-valve V-8 rated for 161 hp. All told, total production had jumped to 259,305 units.

As successful as the Mercury was, the auspicious start was tempered by a growing sentiment from its own customer base and critics alike that it was a car ceaselessly shifting from an upscale, or "Senior," Ford—dressed with style, comfort and luxury within a Ford-based body shell—to a cheapened, or "baby," Lincoln, and back again. Even within Dearborn's front office, the division was an enigma, as executives and designers struggled to come to terms with where it actually fit in within the company. Jettisoned from Lincoln-Mercury to a stand-alone division in 1955, it became part of Mercury-Edsel-Lincoln by 1958, before Edsel was unceremoniously dropped. Mercury's fate was forever sealed as a member of the Lincoln division thereafter. It was into this tumultuous era in which Mercury—reveling in sales growth, yet mired in product placement—released a new trim level in 1955: Montclair.

Touted as a "luxury line with a sports car flair," the Montclair supplanted the Monterey as the luxury model. Initially available in a trio of two-door body styles—hardtop, Sun Valley (with its green-tinted Plexiglas roof section), and convertible—the Montclair was more than a new model name. For the first time since 1941, the chassis was redesigned, featuring a longer 119-inch wheelbase, upgraded ball-joint independent front suspension and realigned rear shocks, as well as larger brakes.

The V-8 engine received a boost in power, to the tune of 198 hp. This was made possible by enlarging the 256 to 292 cubic inches while reshaping the combustion chambers, utilizing aluminum pistons and a higher-lift camshaft, adding a Holley four-barrel carburetor versus a two-barrel, and increasing the compression ratio from 7.5:1 to 8.5:1. On paper, the new engine was said to push a showroom-stock Mercury in excess of 100 MPH, which would eventually have an impact on the stock car circuit.

But chassis dynamics and a more powerful engine do not make a new car sellable to the masses alone: Styling was a necessity, and Mercury did not disappoint. In spite of the fact that

1957 CONVERTIBLE

1957 FOUR-DOOR SEDAN

the division (technically not a single entity under its own general manager until April 1955) was still massaging a three-year-old Ford shell, a budget increase permitted sweeping changes that separated the new model from its counterpart.

Most of the sheetmetal was new, with front fenders featuring sharply designed headlamp eyebrows above a revamped double-bar grille treatment. Chrome trim on the hood lip wrapped around to each fender, which continued toward the aft end of the doors. Faux chrome scoops on the quarter panels were designed with a forward rake, visually enhancing the sense of speed. Additionally, vision was increased with a new curved windshield and A-pillar.

Inside, a colorful array of upholstery colors and patterns greeted consumers. For the driver, an arched instrument panel contained auxiliary gauges and indicators set above and below a sweeping speedometer. Typical of the era, other controls flanked the instruments, including a centrally mounted optional radio and electric clock.

Mercury added a body style to the Montclair line in April: a four-door "hardtop," though it was technically not a hardtop at all—brightwork acted to "camouflage" the model's B-pillars. It was revered by the press due to its low overall height, which was just 0.2 inches taller than its two-door hardtop brethren.

With a cost ranging from $2,631 to $2,712, the Montclair earned its merit in just one season, finding 104,667 buyers. Most of the cars sold were equipped with the Merc-O-Matic automatic transmission rather than a standard three-speed manual. It was part of a combined 328,808-unit model year that set a new production benchmark for Mercury.

Not surprisingly, changes seemed to be minimal to the Montclair for 1956; however, visually there was still a sense of newness. Aside from the typical front and rear fascia changes, the side trim became a sweeping "Z" shape, starting at the front fender before meeting the bottom of the faux quarter panel vent, and then continuing to the taillamp bezel. It was the perfect division point for two-tone and "Flo-Tone" paint schemes. On the hood was a new "M" logo, which the division capitalized on in the form of the new "Big M' advertising campaign.

More notable were the mechanical advancements, the first being the introduction of a 12-volt ignition system, as well as altered brakes and softer shocks. These were trumped by the 312-cu.in. Y-block available in an array of horsepower ratings: 210 hp (8.0:1 compression) for those with a standard three-speed manual transmission, and a 225-hp (9.0:1 compression) version in conjunction with the Merc-O-Matic. Late in the model year, a 235-hp 312 appeared on the option list, while dealers supplied the necessary parts—dual four-barrel carburetors included, mostly to racers—that would enable the 312 to produce 260 hp on paper.

Eliminated from the Montclair lineup was the Sun Valley—which never witnessed strong sales—while the two-door hardtop and convertible remained. So, too, did the four-door hardtop, officially called the Sport Sedan, but only until January 2, 1956, when it was replaced by a true hardtop called Phaeton, itself attaining 23,493 buyers in an abbreviated production run. Montclair sales as a whole slid, however, to 91,434—a common plight in the mid-price market due in part to a recession which began that year.

As highly lauded as the Montclair had been, changes came swiftly when the division drove into a completely new realm of production for 1957. For the first time, the marque offered cars that did not share a body with Ford or Lincoln. Stretched over a new 122-inch-wheelbase chassis, the 211.1-inch-long bodies were given concave grilles and front-hinged hoods, quad headlamps before the end of the model year, and V-shaped canted taillamps, with their concave contours continuing to the leading

edge of the quarter panels, or in the case of four-door models, to the midpoint of the rear doors.

There were mechanical changes as well. Montclairs were still offered with a standard 312, now rated for 255 hp; however, the Merc-O-Matic transmission became standard equipment rather than optional. If the 312 wasn't enough for buyers, they could have selected the 290-hp version of the 368-cu.in. V-8. It was an engine originally introduced in 1952 for the Lincoln family of cars, and 1957 would be the only year in which it was available in a Mercury. A race-breed 335-hp 368 was also available under homologation rules; however, most were installed in Montereys.

Visual and mechanical changes aside, Mercury also realigned their product roster for 1957. The Custom and Medalist series were eliminated, which demoted the Monterey to entry-level status. In turn, the Montclair's two-year reign as the luxury model was over, as it was repositioned to the mid-range series, while the new Turnpike Cruiser claimed top honors. As to the Montclair lineup, a two- and four-door Phaeton (hardtop) was accompanied by a convertible and four-door sedan, with prices ranging from $3,188 to $3,430. Series production dropped to 75,351.

Overall, much of the 1957 styling was retained for 1958, with alterations in trim being the primary visual enhancements. That said, the body was slightly lengthened to 213.2 inches. Mechanically, the MEL (Mercury-Edsel-Lincoln) family of engines was introduced; thus the Montclair series now contained a 10.5:1 compression, 330-hp 383-cu.in. V-8 standard, or an optional 400-hp 430-cu.in. engine featuring a trio of two-barrel carburetors.

Nineteen Fifty-Eight also marked another year of series realignment. The two- and four-door hardtop Turnpike Cruisers—easily spotted by their reverse-slanted backlites—were fully absorbed as models within the Montclair series, which continued to support a convertible, four-door sedan, and two- and four-door (hardtop) Phaetons. By now, the Montclair closely

1958 TWO-DOOR PHAETON

1959 FOUR-DOOR HARDTOP CRUISER

mirrored the appearance and appointments in the Monterey series; outwardly, save for the Turnpike Cruisers, additional trim separated the two series. But with sales focused on the new Edsel, Mercury production dipped yet again, and Montclair model year production ceased at just 20,682 vehicles.

The 1959 Montclairs could be described as refined. V-shaped taillamps remained; however, the concave cove along the model's rear flanks was not as dramatically recessed, and it had been lengthened to cover a full two-thirds of the stretched-again 217.8-inch body. Also lengthened was the wheelbase, to 126 inches, while the front body work received a facelift that closely resembled that of the Ford sedans.

Although the standard 383 and optional 430 engines were still offered, the initial wave of horsepower battles between makes subsided, thus output was reduced to 322 hp and 345 hp, respectively. There was also a reduction in the number of body styles. Montclairs could now be purchased in two- and four-door hardtop, and four-door sedan guises, with hardtops receiving a different, curved-roof design from flat-topped sedans. Sales rebounded only slightly, however, landing at 23,602 units as the parent company strove to keep the mid-priced Edsel viable.

If 1959 was a year of refinement, 1960 was the year in which Mercury took a conservative approach. Again, the body was lengthened slightly—to just over 219 inches—however the flanks took on a more slab-sided look devoid of scalloped contours. Montclairs continued to closely resemble Montereys; however, three small vertical chrome bars in front of the rear wheel opening were visual indicators on the three body styles retained from the previous year. Still offering plush interiors with contemporary designs, Montclairs were now equipped with a 310-hp version of the 430-cu.in. V-8 standard.

The design coincided with the fallout of Edsel's failure and the late release of the compact Comet, a model that was met with great fanfare. With a $3,280 to $3,394 starting price—compared to the most expensive, similarly equipped $3,077 Monterey—just 19,814 Montclairs were produced during the 1960 model year. A year later, as the Comet's star rose rapidly, the Montclair (and Park Lane) was eliminated from Mercury's lineup, albeit briefly. After a three-year hiatus, it would return to Lincoln-Mercury showroom floors.

1960 FOUR-DOOR HARDTOP

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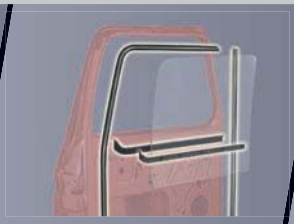
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The Big M!

How one owner goes the extra mile to keep his 1956 Mercury Montclair highly original

WORDS AND PHOTOGRAPHY BY TERRY SHEA

We treat the collector car hobby as the big tent it is, embracing refreshed, restored and even modified cars, but it's not hard to appreciate survivors, particularly when it comes to authenticity and originality. We can't seem to get enough chalk marks, faded decals and factory-original finishes. And when it comes to upholstery, the new stuff is seemingly never the same, is it?

There's just something about survivor cars that captivates the imaginations of collectors. When you want a glimpse into the way things really were, nothing beats a well preserved original.

The 1956 Mercury Montclair featured on these pages has been very carefully preserved since new, with wear and tear kept to a minimum and originality more than hinting at maximum. The mid-Fifties Montclairs show a glimpse of what Ford could have done with the Mercury division. Available as two-door and four-door (Phaeton) hardtop models, as well as the convertible, the 1956 Montclair proved that the right amount of well-placed chrome, distinctive sheetmetal and a handful of deft styling touches inside and out can really set a car apart. It's no wonder 1956 Montclairs remain valued by collectors.

Rockville Centre, New York's, Joe Nolan had been on the lookout for the right 1955 or '56 Mercury convertible. After a near 20-year quest, a conversation led to the discovery of the low-mileage '56 Montclair convertible shown on these pages. That conversation led to Joe acquiring the car from a longtime collector of Lincolns and Mercurys who repeatedly touted the car as "very special."

How special? So far, it has earned a ZZenith

Though Mercury designers weren't always given the budget to truly distinguish their cars from Ford products, the 1956 Montclair features a very distinctive and handsome V-shaped instrument panel; well-equipped example came from the factory with power brakes, power steering and AM radio.

certification from the Bloomington Gold organization (for a car exceeding 90 percent of original factory components, finish and features) as well as an AACA Historical Preservation of Original Features (HPOF) award. From the paint and body to the interior to the top and almost everything under the hood, this Mercury is very nearly as it came from the factory in 1956.

Despite a vague, often-changing mission as Ford's middle child in the lineup between the working man's Ford and the moneyed man's Lincoln, there were moments when the Mercury badge truly meant something different and the products offered the public had genuine distinction. The 1955 and '56 models, particularly the Montclairs, carried that distinction in both the sheetmetal and the guts underneath it.

With a heavily redesigned Ford in the works for 1955, Mercury designers did their best to distinguish their models and the engineers did the best to distinguish the driving dynamics of the all-new chassis. Both groups succeeded.

Even as Ford lost the last vestiges of the separate rear fenders for 1955, Mercury doubled down and emphasized their bulbous rear quarters even more. Sure, it was a conservative move, but the mid-priced buyers went for it, with sales jumping for 1955 to a new record for the division. For 1956, Mercury went even further, particularly on the top-line Montclair models, where added bling was the order of the day, most notably on the beefy grille and Z-shaped spear with fake scoop down the side of the car. On two-tone models, this spear separated the colors. Additionally, on the Montclairs, Mercury fully chromed the rocker panels, with Mercury and "Big M" badges throughout, along with a large, jet-inspired hood ornament.

Mercury had plenty of news under that hood as well, with the introduction of the 312-cu.in. Y-block V-8 for 1956. Only a couple of years removed from Ford's flathead era, by 1956, Ford's Y-block was doing yeoman service for all of the Blue Oval's divisions. Within the fenders of every Montclair was a version of a 312-cu.in. Y-block overhead-valve, pushrod V-8. The base level, when coupled with a three-speed manual, featured 8.0:1 compression to produce 210 hp, though very few Montclair buyers had any interest in shifting their own gears. Merc-O-Matic-equipped cars came with 8.4:1 compression and made 215 hp. The optional engine, with

Originality of this 1956 Montclair shows in many ways. Redone interiors will likely have silver piping because the original gold shown here is no longer available. The emblem with the visage of the Roman god Mercury still illuminates when the door is opened—the type of embellishment long since missing on modern cars, but so beautifully displayed here.

M235 engine shown here was a mid-year upgrade that found the 312-cu.in. Ford Y-block with a new camshaft, silver rocker covers and either a Carter or Holley four-barrel carburetor in place of a Ford-built unit, all working together to help give the engine a 10-horsepower bump to 235 horsepower.

9.0:1 compression, was good for 225 hp. The best part for all Montclair buyers in 1956 was that even the lowest-spec engine produced quite a bit more power than 1955's 292-cu.in. variant of the Y-block.

Late in the 1956 model year, during the spring, Ford engineers added a hotter camshaft to the higher-compression engine, with a Mercury-specific part number no less. Along with either a Carter or Holley carburetor, the updated engine made 235 horsepower, earning it the M235 moniker from Mercury. To distinguish the M235 from lesser 312s, they also specified argent silver gray valve covers, still stamped with the word "Mercury" in blue letters, but also featuring a long, horizontal Thunderbird-esque decal that had "M235" written on it as well. Joe's Montclair features this hotter engine package.

For fans of even more power—and who really doesn't want that?—Mercury offered a dealer-installed kit consisting of new cylinder heads and camshaft, along with a new intake manifold and two four-barrel carburetors. When properly installed, this "M260" setup was good for 260 horsepower and made the basis for the Mercurys that racers found very competitive in 1956, the winged god claiming five checkered flags on the NASCAR Grand National circuit that year. The company also set some 20 speed records during the 1956 NASCAR speed trials, further engendering the Mercury name with car fans.

With that 1955 redesign, Mercury engineers went out of their way to improve handling, impressing the likes of *Motor Trend* and *Motor Life* magazines, who both found it one of the best handling cars on the road. The company also adopted a 12-volt electrical system for 1956.

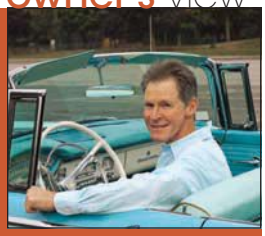
With distinctive style, modern running gear and performance to boot, Mercury managed one of its high points in 1956, and that dynamically appealing range of attributes remains strong with Joe's '56 Montclair convertible, a car he found through a conversation and now meticulously maintains to preserve its condition. But that authentic originality doesn't mean he doesn't drive it. Far from it.

For local shows almost anywhere reasonably close to his Long Island home, Joe will drive his Montclair. And, because he wants to do so safely, he has installed a few, bolt-on-only upgrades that can easily be reversed.

"With the Treadle Vac power brake system," Joe says, "you have a very, very snappy sort of powerful brake pedal response. With the disc-brake and dual master cylinder upgrade, you have the requirement of more foot pedal power to engage the brakes, but the difference is that the brakes are flawlessly even with the discs. When you apply a lot of power, the stopping effectiveness is greater. Although the brake pressure requires a little more from a physi-

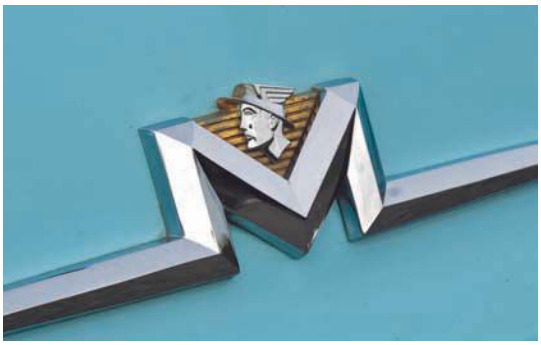
The 1956 Mercury Montclairs were loaded with deliciously detailed and luxurious styling touches that looked more out of the contemporary Packard playbook than anything else at Ford or Lincoln, including the frenched headlamp surrounds and the big chromed Z-shaped spears across the sides of the body highlighted by the fake scoops on the rear quarter panels.

owner's view



It's a very attractive car. Montclair was the high point of Mercury's fleet. Some people would say that the Ford Sunliner looks better, but there's a certain austerity in the Ford products that is completely the opposite in the Mercury. The interior is spectacular. The adornments on the door are really, really vivid. Everything in that interior has a richness to it. I have parked at car shows right next to a '56 Ford, fully restored convertible. And you look at the dash and all of the details and, of course, the framework in the softop has chrome in it, which was a sort of a distinctive aspect of luxury cars in the Fifties. *–Joe Nolan*

cal standpoint by me, I *know* it's going to stop. Of course, this is a '77 Granada front disc brake conversion. I didn't want to alter anything. I just wanted bolt-on/bolt-off, which is what I got." He also found period-correct seat belts for another added safety measure.



"It's actually a fairly powerful car," remarks Joe, "with a very nice sound, if you will—dual exhaust, of course. It's the factory exhaust, kind of that nice 'motorboat' sound. It's quite responsive. It has a lot of torque and it's powerful. The ride is smooth, although because it has bias-play tires, it will pick up bumps that people with radial tires have long ago forgotten about. When you're on a smooth road, it tracks and rides well. It does the typical Fifties roll in turns, but it's powerful and smooth and it's comfortable. Again, you've got turning radiuses that are different from the steering of a modern car."

Taking no chances, Joe has a regimen for maintaining the Montclair that reads like a how-to in caring for a survivor. Joe's philosophy starts with the "why" of doing what he does. "You're not trying to create perfect-looking, restored surfaces," he says, "You're just trying to reveal as much as remains from the original car.

"I rarely put water on it," Joe continues. "Generally speaking, I don't think that most classic cars need to have a water bath. When you put water on cars, it can end up in places that don't dry for several days, potentially leading to rust, corrosion, etc."

When it comes to polishing and keeping the brightwork bright, Joe prefers the non-abrasive Noxon. He also likes the spray-on/wipe-off products, such as those offered by Meguiar's. But Joe still considers himself a student of the game, carefully experimenting to be able to preserve and protect without overdoing it: "I try to work in very, very small areas, and I try to pay attention to materials that match whatever surfaces I am cleaning. I always test things in small areas."

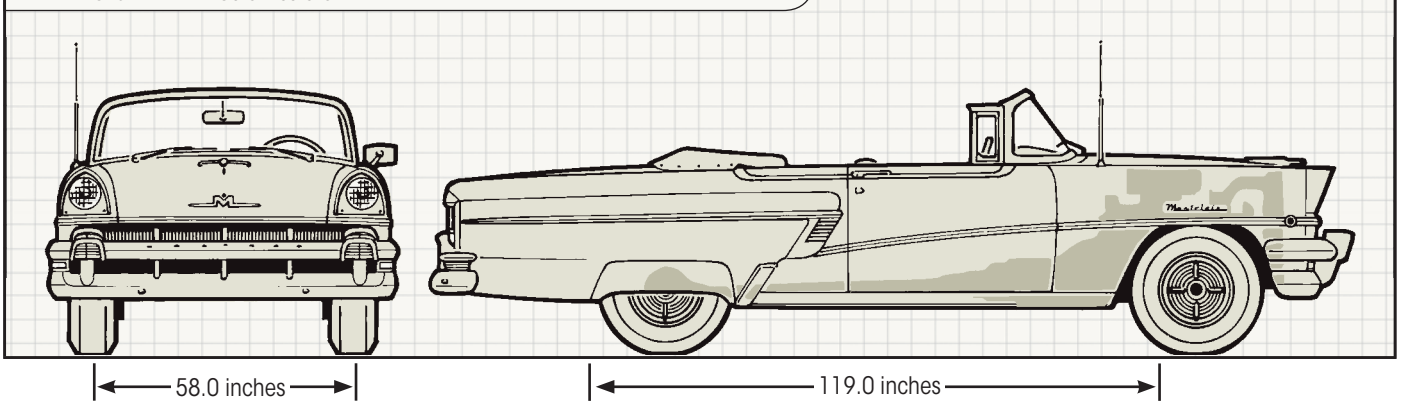
Joe uses "diluted bathroom products" for the interior vinyl and WD-40 and Evapo-Rust to keep any minor surface corrosion from taking over. For those areas under the hood where some dirt and grime may invade, he sometimes turns to waterless hand cleaner, being very careful to work around the factory chalk marks on the firewall and inner fenders. After all, Joe reasons, "If it's okay for your skin, it's going to be okay for metal surfaces."

Although Joe leaves the majority of the mechanical work on his cars to professionals—"the best, best people I can identify in the area"—he doesn't take lightly the task of preserving his Big M. "It's a lot more effort for me to try to preserve aspects of this car than it would be to write a check and have them replaced. That would be very easy to do."

Mercury might be gone, but it's certainly not forgotten. And with cars like Joe Nolan's highly original '56 Montclair convertible, those memories will stay strong and prosper for at least the next generation.

1956 MERCURY MONTCLAIR

ILLUSTRATIONS BY RUSSELL VON SAUERS, THE GRAPHIC AUTOMOBILE STUDIO



SPECIFICATIONS

PRICE

Base price	$2,900

ENGINE

Type	Ford Y-block overhead-valve V-8 with cast-iron block and cylinder heads
Displacement	312 cubic inches
Bore x stroke	3.80 x 3.44 inches
Compression ratio	9.0:1
Horsepower	235
Torque	325-lb.ft.
Valvetrain	Solid valve lifters
Main bearings	5
Fuel system	Carter four-barrel carburetor
Lubrication system	Full pressure, gear-type pump
Electrical system	12-volt
Exhaust system	Cast-iron manifold, dual exhaust with reverse-flow mufflers

TRANSMISSION

Type	Merc-O-Matic three-speed automatic with three-element torque converter
Ratios	1st 2.40 2nd 1.47 3rd 1.00 Reverse 2.00

DIFFERENTIAL

Type	Hypoid gears; semi-floating rear axle
Ratio	3.15:1

STEERING

Type	Worm and roller with Bendix hydraulic linkage booster
Turns lock to lock	Five
Ratio	20.0:1 gear; 25.4:1 overall
Turning circle	43.2 feet (curb to curb)

BRAKES

Type	Hydraulically operated steel drums with vacuum-servo power assist
Front	11 x 2.5-inch drums
Rear	11 x 2.0-inch drums

CHASSIS & BODY

Construction	Steel body on steel ladder frame with box-section side rails, five crossmembers and one X-member
Body style	Two-door, six-passenger convertible
Layout	Front engine, rear-wheel drive

SUSPENSION

Front	Independent upper and lower control arms, coil springs, link-type anti-roll bar; hydraulic shock absorbers
Rear	Live-axle on semi-elliptic leaf springs; hydraulic shock absorbers

WHEELS & TIRES

Wheels	Stamped steel discs
Front	15 x 5-inches
Rear	15 x 5-inches
Front tires	7.60 x 15
Rear tires	7.60 x 15

WEIGHTS & MEASURES

Wheelbase	119 inches
Overall length	206.4 inches
Overall width	76.4 inches
Overall height	58.8 inches
Front track	58.0 inches
Rear track	59.0 inches
Shipping weight	3,725 pounds

CAPACITIES

Crankcase	5 quarts
Cooling system	20 quarts (with heater)
Fuel tank	18 gallons
Transmission	21 pints (with overdrive)
Rear axle	3.5 pints

CALCULATED DATA

Bhp per cu.in.	0.75
Weight per bhp	15.85 pounds
Weight per cu.in.	11.94 pounds

PERFORMANCE*

0-60 MPH	11.0 seconds
Top speed	102.6 MPH

*Source: *Motor Trend* test of a 1956 Mercury Montclair two-door hardtop equipped with the 225hp 312-cu.in. engine and Merc-O-Matic transmission, published March 1956.

PRODUCTION

Mercury made 91,434 Montclairs in 1956, of which 7,762 were two-door convertibles.

PROS & CONS

+ Highly original

+ M235 engine with more power and torque

+ Pinnacle of 1950s Mercury style

– Maintaining originality

– Explaining originality at shows

– Having to fit better brakes to safely get to the shows

WHAT TO PAY

Low
$28,000 – $34,000

Average
$42,000 – $54,000

High
$65,000 – $85,000

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P.O. Box 1245
Northbrook, Illinois
60065-1245
847-997-8624
www.mercuryclub.com
Dues: $40/year
Membership: 1,200

EMAIL YOUR THOUGHTS AND COMMENTS TO: **rlentinello@hemmings.com**

IN *HCC* #116, Richard selected the Thunderbird as the overall most stylish model. I will not disagree with his choice and the reasons for his decision, but I would also nominate another model that merits at least a tie for the top spot. That would be the Cadillac Coupe de Ville.

From the day of its introduction, the Coupe de Ville was a sensation, due to its crisp lines, hardtop styling, and attention to detail. Add in the quality of the components, interior and exterior, and Cadillac had a winner. As the years and even decades progressed, styling evolved, and innovations were added; the Coupe de Ville remained a stylish, sporty model, even as a full-sized luxury car. Even the name was musical, setting a proper mood for driving it. Long, low, sleek, well-appointed, a Coupe de Ville was like driving your living room divan, according to the literature of the time, and what a statement it made when arriving at its destination. Given a choice between a 1961 Thunderbird and a '61 Coupe de Ville, I would not want to flip a coin—I'd rather build a larger garage, to have one of each.

James Eccleston
Gloucester, Virginia

GREAT ARTICLE ON NYPD police cars in *HCC* #116. The photo of the 1968 Fury outside that station house is marked "MT," which actually stood for Motor Transport, not Manhattan Traffic—they had "loaner" cars for when a replacement was needed. The NYPD RMPs were run 24 hours a day, seven days a week and piled on the miles. Breakdowns were as common as fender benders while on patrol.

I remember Dad, who worked at the 103 in Queens, telling me that the '66 Chevys were notorious oil-burners, and they were happy to get back to Plymouths the next year. After the 103, Dad served in a specialized unit that drove unmarked Highway units; they were big 1970-'71 Plymouth Furys with 440 four-barrels. that were tuned to haul down speeders. What I wouldn't give to have that gold Fury 1 he and his partner used each shift. It always squealed the tires taking off from a light.

Dale Koster
Oldsmar, Florida

Jim Donnelly replies: My mistake. We had a Manhattan Traffic unit in one of those other photos, which is why I got them mixed up.

I REALLY ENJOY the Detroit Underdogs articles because they highlight cars that are usually not otherwise talked about much. Author Milton Stern recently asked: "Do any Monzas exist?" Sure, I have a 1979 2+2 that I've had for almost 20 years. It has the Buick-sourced 3.2-liter V-6, automatic, P/S, P/B and A/C. Since it has a 2.93 rear axle, it isn't too exciting getting off the line, but once moving, it'll go right past legal highway limits pretty easily.

And did you know that one of the early names that had been considered was "V-8 Vega"? But the need to put a four and V-6 in them probably killed that one. And, during the first year, 1975, and surprisingly only in California, you could get a 350 V-8 in a Monza.

Ken Alarie
Bellevue, Nebraska

FOR ONE THING, no one should consider this Monza as any kind of underdog. Look at the facts. I don't have the production figures for 1975, but in 1976, 81,000; 1977, 73,000; 1978, 139,000; 1979, 164,000; and 1980, 169,000 (not including the production of the extended model year in the fall of 1980). Clearly, the Monza was a success; production increased continually, and if production had gone on into the '80s, it would have continued to be a good seller.

When the new Monza V-8 was introduced in 1975, it was considered quite revolutionary, and most of the automotive press was excited about the car, and gave it very favorable reviews. The power-to-weight ratio of the V-8 Monza was excellent, and gave very spirited performance, even with the small 262-cu.in. V-8. *Road & Track* said: "A compact, sporty, and handsome American car." "The Monza 2+2 is certainly an exciting shape." "A small, sporty package with luxury features." In fact, most of the automotive reviews comparing the Mustang II with the Monza preferred the Monza.

As far as styling, yes, elements of European designs influenced the Monza shape and, yes, the Ferrari 365 GTC4 exerted the strongest effect. Pininfarina also had a hand in the Monza design. There are Corvette and Camaro styling features as well. Although much of the engineering of the Monza was based on the Vega, the bugs had been worked out, and many improvements incorporated in the Monza design. This also made the current Vega a better car.

Now with the passage of time, what about the quality of the Monza? I know that the new Monza and other H-bodied cars were built with a new extensive rustproofing program, using Zincrometal in the quarter-panels. I have currently in my yard many 1975-'76 Cadillacs, all from Colorado, and all horribly rusted, and yet the Monza and H-body examples sitting there, also Colorado cars, have mostly perfect bodies. I can also attest to the effects of hail damage: The Cadillacs have much hail damage, and the H-bodies very little, since the steel is better quality. The soft body parts of the Monza, as well as the bumpers, have held up quite well, so that design has proved itself.

So, as far as the negative tone of the article, why would anyone say, "throwaway car" or make fun of the beautiful styling? The 1975–'80 Monza sold well, people liked them and they are considered a great success.

Duane Hayes
Peyton, Colorado

THANK YOU, ALBERT CLARK, for your "Reminiscing" article in *HCC* #117 on the AMC Pacer. I'm one of those who not only had a great ownership experience with one, but also think it was a beautiful (and practical) design. The Pacer was very wide for a small car—that, and the high roof and panoramic windows made you feel like you were in a huge car rather than a true compact (yes, the A/C was plenty strong enough to overcome all that heat load). Well-engineered, nicely designed controls, passenger door five inches longer than the driver's door for better access to the rear seat, a huge hatchback lid that opened into a large, boxy space, perfect for bulky items, etc.

I bought my 1977 Pacer DL brand-new, drove it for five years with no problems other than normal maintenance, and sold it then only because that old enemy, rust, was starting on the rocker panels. Other than that, it still ran and looked like new; I still consider it to be a unique, innovative design, and yes, one of the best-looking small cars I've ever owned.

Dave Anderson
Chesterbrook, Pennsylvania

Packard: An Alternative Ending

It's no secret that I still mourn the loss of the Packard Motor Car Company. I suppose it's a tragedy I'll never really get over. But what makes it more difficult to accept is the feeling that it didn't have to end the way it did.

In the post WWII-era, Packard was happily humming along. Sure, it was as stodgy as your uncle and management ranks were full of gray heads. But the company was profitable. Keep that in mind.

Realizing it needed an injection of new blood, Packard's management tried to hire George Romney in 1948. When he turned them down in favor of Nash, Packard didn't try to find anyone else until four years later when they hired James Nance. Obviously, that was much too long to correct a problem they knew existed.

That was in 1952. Nance came up with a plan to separate the lower-priced Packards from the senior models, first by calling the cheaper series Packard Clippers, then by creating what he called "curbstone differentiation," i.e., give the two series different styling to better separate them in the public's eye. The final step was to drop the Packard name from the Clippers, thereby creating a completely separate line of medium-priced Clipper cars. It was exactly the right formula. Ah, but it was the execution that really mattered, and there the company screwed up. In the end, it kept the same styling for four model years, 1951-1954, rather than three, then completely restyled the carryover body shell for 1955, with few styling differences between the two series.

The result was that, in 1954, probably the most competitive year in history, Packard dealers were stuck with four-year-old styling. Not a good position to be in that year. In the same period, Nance spent money on new production facilities like it was going out of style. Packard rapidly became unprofitable.

Suppose Packard had brought out the 1955-styled models—which was a very popular thing to do—in 1954, which it could easily have done, and reserved it solely for the senior Packards, leaving the Clippers to carry the older design for one more year. In that scenario, sales of the more profitable Packards would have been much greater and Clipper sales wouldn't have been any less, save for people who decided to move up a notch from the medium-price class to the Packard class. And the company would have achieved the curbstone differentiation it so badly needed. It could have then restyled the Clipper for 1955 with a completely different frontal look, using the Packard body, giving it something new for what turned out to be a fantastic year for car sales.

Also in the 1954-'55 time period, management consolidated all body and final assembly operations into its undersized Connor plant, which was costly and delayed introduction of the 1955 models by months, slowed production to a crawl, and created quality so bad that Packard's reputation was severely damaged. Although by 1956, the quality problems were licked, buyers stayed away because of Packard's new reputation for lousy quality. Think of that for a moment: Packard with a poor reputation. Suppose instead, it continued producing cars as it had since 1942, making bodies in the Connor Avenue plant and doing final assembly in the East Grand Boulevard main plant. It wouldn't have suffered so many quality problems. Its reputation would have remained unblemished. And it would have built many more cars, which dealers were hollering for.

Nance also introduced a completely new V-8 for 1955—at the same time that he introduced the new styling, new assembly plant, a heavily-revised automatic transmission and a whole new suspension system. Is it any wonder there were quality problems? Suppose instead of going into full production of the V-8 in 1955, the company reserved it strictly for Packards, with Clippers continuing to use the old straight-eight for one more year. That might have helped keep quality levels at Packard's traditional high standard.

But here's the real melon scratcher. Suppose George Romney hadn't turned down Packard's employment offer in 1948. Despite his later image, Romney owned a Cadillac at the time and he enjoyed the good things in life: big house, big car, big salary. Would he have been able to remake Packard into a young, aggressive Cadillac competitor?

"But here's the real melon scratcher. Suppose George Romney hadn't turned down Packard's employment offer in 1948."

The Dream of Steam

I was enjoying scrapple and potato latkes at the Front Street Diner in Harrisburg, Pennsylvania, last weekend. Nice morning crowd. I started looking around and realized that the walls were covered with Pennsylvania Railroad artwork, including prints of the great Grif Teller's paintings, this behind only a long whistle blast from the imposing Rockville Bridge across the Susquehanna River and the sprawling Enola Yards on the opposite shore. Dipping a latke in sour cream, I tried to imagine how coal smoke from the Pennsy's locomotive fleet must have acridly enveloped the neighborhood in years past. Inevitably, I also thought about how steam-powered travel evolved on the road, and how much its history paralleled, if you will, the story of external combustion on the rails.

PHOTOGRAPH BY DAVID TRAVER ADOLPHUS

1922 Stanley 735M

You could say that both the steam locomotive and the road engine, as I'll call it here, were born because some people wanted to displace the horse any way they could. This was an instance where road vehicles actually got a beat on their rail counterparts. Nicolas-Joseph Cugnot developed a steam road tractor that actually ran during 1769. In 1805, Oliver Evans succeeded in driving a combination wagon, scow and dredge with a steam engine named the *Orukter Amphibolous* down to the Delaware River in Philadelphia. The previous year, Richard Trevithick came up with the first full-scale prototype of a steam-powered railroad locomotive, in England. Come to think of it, steam vehicles enjoyed a longer life there than they did in the United States, especially on the road. With ample supplies of low-grade coal and peat for fuel, steam trucks built by the likes of Foden plied British roads up through World War II.

So what happened in this country? Anybody who reads these pages is undoubtedly familiar with the work of F.E. and F.O. Stanley, brothers who, mainly to be different, embraced the steam car as a highly exclusive vehicle that was also iconoclastic. While a Stanley steamer once held the world land speed record, Stanley wasn't the top seller among the 125 or so steam cars that were offered in the United States through the last century's first two or so decades. White, better known for trucks and sewing machines, sold far more steam cars than Stanley ever did. Even Ransom Eli Olds had a fling with steam power before focusing on gasoline as a fuel.

Why? The answer applies to steam vehicles in general. However elegantly individual they were to some eyes, there were both practical and economic reasons that kept them from becoming viable over the long term. Some of the best illustrations of their shortcomings help if rail tech is available for comparison. The first issue involves two ingredients necessary for steam, fuel and water. On the Pennsy, engines like their glorious K4 Pacifics took water on the fly from huge pans between the rails, stopping to refuel at coaling towers along the main line. Steam locomotives had tenders for good reasons.

Put plainly, if you run a steam engine low on water, you're dead meat. About a half-hour from Harrisburg is the Railroad Museum of Pennsylvania, whose exhibits include a huge piece of riveted iron that hurled a half-mile when a locomotive's boiler disastrously exploded. Water cools a steam engine besides vaporizing as a propellant. If the level drops, exposing the top of the firebox, the zooming heat will pressurize the steam until it blows the boiler apart. I don't know how often this happened in steam-powered cars, but the risk was there. Plus, there's the issue of range, even though most steam engines turned at a fixed rate, due to the need for fuel and water replenishment.

To that, add the fact that on long upgrades, steam cars could literally run out of steam under sustained full power. A partial fix for this came from Abner Doble, who manufactured his steam-powered Full Classic in minuscule numbers (maybe 45 in all) through 1931. Doble innovations included a water-walled firebox for safety and a condenser that recycled waste steam into water. Yet in comparison to simply filling up a car with gasoline, the steamers were terribly maintenance-intensive, inconvenient and inefficient. That's what killed them. The auto industry gave up on steam not long before railroads did the same, for most of the same reasons.

> "Both the steam locomotive and the road engine were born because some people wanted to displace the horse any way they could."

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Which Marque Tops List of Survivors?

We all are well informed as to which automotive makes produced specific models that are now considered Full Classics. For a select few manufacturers, such as Cord, DuPont, Mercer, ReVere and Stutz, as well as several others, it's all of the cars that they had built. But what is rarely discussed among collector-car enthusiasts is which Classic automobiles have the highest survival rate.

PHOTOGRAPH BY JEFF KOCH

1941 Cadillac Series 62 Deluxe Coupe

Like many clubs, the Classic Car Club of America encourages their members to list all the Classic cars they currently own in the club's annual *Handbook and Membership Roster.* In addition to bragging rights, this, more importantly, constitutes a registry of Classics, allowing members to find individuals with similar automobiles.

With a little effort, the listing also reveals some interesting information about the Classic motorcars owned by CCCA members. (While most Classics are very likely owned by CCCA members, there are Classics out there that are owned by non-members, and consequently not included in the following numbers.) And, before I move forward, I must acknowledge the efforts of CCCA Publications Editor Ron Verschoor, who loves to analyze this information.

So, which Classic car brand shows the highest survival rate among the members of the CCCA? Most individuals I know would say Packard or Cadillac, which clearly is a logical choice. Of the approximately 6,000 cars listed with the CCCA, more than 27 percent are Packards. Cadillac is a distant second, with nearly 19 percent.

After those two marques, the percentages drop significantly. The next most frequently owned brand is Rolls-Royce at 5.8 percent. Rounding out the top ten—and separated by slight amounts—are, in order, Lincoln, Pierce-Arrow, Auburn, Cord, Lincoln Continental, Chrysler and Bentley. Those 10 marques represent more than 80 percent of the total cars registered. As of 2014, there were 109 separate marques that had achieved Classic status.

Classic car enthusiasts will debate the significance of the above totals. Some will simply state that Packard and Cadillac were "more popular" than the other marques. Others will point out that for many years, Packard and Cadillac offered lower-priced options while their competitors did not. An example: From 1921 to 1931, Lincoln's base price was around $4,600, while Packard and Cadillac offered cars that qualify for Classic status for half that cost—thanks to a wider price range of offerings.

The assembled data also provide the answer to a question not often asked, but one that is interesting nevertheless: Which year of manufacture tops the list? It surprised me to learn that the answer is 1931, at nearly 9 percent, followed by 1937, 1941, 1930 and 1932.

And what is the single-most popular year and marque combination? That would be 1941 and Cadillac, at nearly 5 percent. Not far behind is the 1934 Packard at 3.5 percent.

It doesn't surprise me to see the 1941 Cadillac in first place. It seems to be the most popular car for CCCA CARavans and weekend tours. It's easier to drive than many of the big Classics of the 1920s and '30s, but doesn't compare in curb appeal.

By the early 1930s, it was obvious that the effects of the Great Depression had spread to luxury automobile manufacturers as well as custom body builders. A golden era in American automobile history was coming to an end.

Although, as noted above, not every Classic car is owned by a CCCA member, there aren't a lot of unaccounted-for Classic automobiles out there. The sad reality is that two world wars plus several aggressive scrap drives by the automobile industry reduced the number of Classic automobiles to what exists today.

"A golden era in American automobile history was coming to an end."

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11293792

SUPER COUPON!

FREE

PITTSBURGH

6 PIECE SCREWDRIVER SET

ITEM 47770/61313

Item 47770 shown

$4.99 VALUE

WITH ANY PURCHASE

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11251578

SUPER COUPON!

CENTRALPNEUMATIC

40 LB. CAPACITY FLOOR BLAST CABINET

Item 68893 shown

LOT NO. 68893/62144

SAVE $110

$189.99

REG. PRICE $299.99

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11292959

SUPER COUPON!

CHICAGO ELECTRIC WELDING

MIG-FLUX WELDING CART

Welder and accessories sold separately.

LOT NO. 69340/60790 90305/61316

Item 69340 shown

SAVE 40%

$359.99 REG. PRICE $599.99

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11256825

SUPER COUPON!

RAPID PUMP® 3 TON LOW PROFILE HEAVY DUTY STEEL FLOOR JACK

PITTSBURGH

- Weighs 77 lbs.

LOT NO. 68049 60688/61253 61282/62326

LOW PROFILE 2-3/4" High

20" - 29" Long

$79.99 $92.99 REG. PRICE $169.99

Item 61253 shown

SAVE $90

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11264891

SUPER COUPON!

"Impressive Accuracy, Amazing Value" – Car Craft Magazine

TORQUE WRENCHES

PITTSBURGH PRO

- Accuracy within ±4%

YOUR CHOICE! $9.99

SAVE 71%

REG. PRICE $34.99

1/4" DRIVE LOT NO. 2696/61277

3/8" DRIVE LOT NO. 807/61276

1/2" DRIVE LOT NO. 239

Item 239 shown

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11268795

SUPER COUPON!

27", 11 DRAWER ROLLER CABINET

Item 67421 shown

LOT NO. 67421 61485

SAVE $200

INCLUDES:
- 6 Drawer Top Chest
- 2 Drawer Middle Section
- 3 Drawer Roller Cabinet

$159.99 $199.99 REG. PRICE $359.99

US★GENERAL

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11278680

SUPER COUPON!

CENTRALPNEUMATIC

20 OZ. GRAVITY FEED SPRAY GUN

LOT NO. 47016/67181/62300

SAVE 66%

Item 47016 shown

$9.99 REG. PRICE $29.99

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11284063

SUPER COUPON!

STORM CAT

NEW

900 PEAK/ 800 RUNNING WATTS 2 HP (63 CC) GAS GENERATOR

LOT NO. 66619 60338/69381

SAVE $80

Item 69381 shown

$99.99

REG. PRICE $179.99

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11277401

SUPER COUPON!

27 LED PORTABLE WORKLIGHT/FLASHLIGHT

LOT NO. 67227 69567/60566

SAVE 50%

Item 67227 shown

HFT

Requires three AAA batteries (included).

$2.99 REG. PRICE $5.99

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11257986

SUPER COUPON!

3 GALLON 100 PSI OILLESS HOT DOG STYLE AIR COMPRESSOR

CENTRAL PNEUMATIC

LOT NO. 97080/69269

SAVE 50%

Item 97080 shown

$39.99

REG. PRICE $79.99

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11243041

SUPER COUPON!

"Impressed with the Quality, Covers your Entire Garage at an Unbelievable Low Price" – Street Trucks Magazine

RETRACTABLE AIR HOSE REEL WITH 3/8" x 50 FT. HOSE

SAVE $65

Item 93897 shown

LOT NO. 93897 69265/62344

$64.99 $129.99

CENTRAL PNEUMATIC

REG. PRICE $129.99

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11244970

SUPER COUPON!

PITTSBURGH AUTOMOTIVE

6 TON HEAVY DUTY STEEL JACK STANDS

LOT NO. 38847 69596/61197

SAVE 52%

Item 38847 shown

$37.99

REG. PRICE $79.99

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11293315

SUPER COUPON!

SAVE $120

"An Excellent Means of Adding a Winch to your 4x4 Without Breaking the Bank" – 4 Wheel Drive & SUV Magazine

9000 LB. ELECTRIC WINCH WITH REMOTE CONTROL AND AUTOMATIC BRAKE

LOT NO. 68143/61346/61325/62278

BADLAND

Item 61325 shown

$279.99

REG. PRICE $399.99

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11292899

Customers and Experts Agree Harbor Freight WINS in QUALITY and PRICE

SUPER COUPON!

CENTRALPNEUMATIC HIGH SPEED METAL SAW

SAVE 70%

LOT NO. 91753/60568

Item 91753 shown

$9.99

REG. PRICE $33.99

11337403

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SUPER COUPON!

PITTSBURGH MOTORCYCLE 1000 LB. CAPACITY MOTORCYCLE LIFT

SAVE $380

LOT NO. 69904/68892

Item 68892 shown

$319.99

$429.99

REG. PRICE $699.99

11339995

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SUPER COUPON!

CEN-TECH CAN AND OBD II DELUXE SCAN TOOL

LOT NO. 60693/99722/62119

SAVE $60

Item 60693 shown

$69.99

REG. PRICE $129.99

11337988

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SUPER COUPON!

12 TON SHOP PRESS

CENTRAL MACHINERY

- Pair of Arbor Plates Included!

SAVE $80

$119.99

REG. PRICE $199.99

LOT NO. 33497 60604

Item 60604 shown

11330331

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SUPER COUPON!

"Top of its Class in Quality at a Really Great Price" – Hot Bike Magazine

1/2" INDUSTRIAL QUALITY SUPER HIGH TORQUE IMPACT WRENCH

CENTRAL PNEUMATIC EARTHQUAKE

- 700 ft. lbs. Max. Torque

LOT NO. 68424/2623/61738

Item 68424 shown

SAVE $55

$74.99

REG. PRICE $129.99

11331447

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SUPER COUPON!

POWDER-FREE NITRILE GLOVES PACK OF 100

WESTERN SAFETY

- 5 mil. thickness

YOUR CHOICE!

$6.29

REG. PRICE $10.99

Item 68498 shown

MEDIUM LOT NO. 68496/61363

LARGE LOT NO. 68497/61360

X-LARGE LOT NO. 68498/61359/37052

SAVE 42%

11309959

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SUPER COUPON!

MECHANICAL WHEEL DOLLY

SAVE $50

Item 67287 shown

Haul-Master

- 1250 lb. Capacity

$59.99

LOT NO. 67287 61917/62234

$79.99

REG. PRICE $109.99

11296752

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SUPER COUPON!

3 PIECE TITANIUM NITRIDE COATED HIGH SPEED STEEL STEP DRILLS

- Drill 28 Hole Sizes

SAVE 60%

Item 91616 shown

WARRIOR

LOT NO. 91616 69087/60379

$7.99

REG. PRICE $19.99

11307711

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SUPER COUPON!

36" METAL BRAKE WITH STAND

CENTRAL MACHINERY

LOT NO. 91012/62335

Item 91012 shown

SAVE $90

$189.99

REG. PRICE $279.99

11299823

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SUPER COUPON!

CEN-TECH AUTOMATIC BATTERY FLOAT CHARGER

Item 42292 shown

LOT NO. 42292 69594/69955

SAVE 66%

$4.99

REG. PRICE $14.99

11317424

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SUPER COUPON!

10 FT. x 17 FT. PORTABLE GARAGE

SAVE $120

HFT

$179.99

REG. PRICE $299.99

Item 69039 shown

LOT NO. 69039 68217/60727/62286

11320905

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SUPER COUPON!

6.5 HP (212 CC) OHV HORIZONTAL SHAFT GAS ENGINES

PREDATOR ENGINES

LOT NO. 60363/69730/68120

LOT NO. 69727 CALIFORNIA ONLY

Item 69727 shown

SAVE $150

$99.99

REG. PRICE $249.99

11334098

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SUPER COUPON!

7 PIECE BODY AND FENDER SET

PITTSBURGH AUTOMOTIVE

LOT NO. 31277/60812

SAVE 58%

Item 31277 shown

$24.99

REG. PRICE $59.99

11317769

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SUPER COUPON!

HFT 7 FT. 4" x 9 FT. 6" ALL PURPOSE WEATHER RESISTANT TARP

LOT NO. 877/69137 69249/69129/69121

SAVE 66%

Item 877 shown

$2.99

REG. PRICE $8.99

11299229

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SUPER COUPON!

PORTABLE TIRE CHANGER

PITTSBURGH AUTOMOTIVE

- 8" to 16" Rim Capacity

SAVE 41%

Item 69686 shown

NEW

LOT NO. 69686/62317

$34.99

$59.99

REG. PRICE $59.99

11306013

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SUPER COUPON!

110 LB. PRESSURIZED ABRASIVE BLASTER

SAVE $105

Item 60696 shown

LOT NO. 69724/60696/95014

$94.99

$134.99

REG. PRICE $199.99

CENTRAL PNEUMATIC

11308811

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SUPER COUPON!

170 AMP MIG/FLUX WIRE WELDER

SAVE $135

WE CARRY A FULL LINE OF WELDING WIRE AND ELECTRODES

$164.99 REG. PRICE $299.99

LOT NO. 68885 61888

Item 68885 shown

CHICAGO ELECTRIC WELDING

11330848

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SUPER COUPON!

US GENERAL 16" x 30" TWO SHELF STEEL SERVICE CART

LOT NO. 5107/60390

Item 5107 shown

SAVE 56%

$27.99

REG. PRICE $64.99

- 220 lb. Capacity

11323032

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Amelia Island Concours

The collector car scene's most diverse and sensational display of incredible American and European sports and classics

WORDS AND PHOTOGRAPHY BY RICHARD LENTINELLO

Impressive. To be able to view up close a jampacked show field filled with many of the world's most incredible automobiles is truly a wonderful and memorable experience. But that's what you can expect at the Amelia Island Concours.

As is the case during early March, the Amelia Island Concours starts off the concours circuit with a stunning display that's hard to surpass. Between all the fascinating and rare automobiles, its scenic northern Florida location and the picture-perfect weather, this car show is perfect.

For enthusiasts of finely crafted vintage Italian sports cars, there was plenty to enjoy viewing up close, such as the 1921 Alfa Romeo G1, the oldest surviving Alfa Romeo, as well as the Zagato class that showcased several outstanding coachbuilt beauties, including an unrestored 1900 SSZ that was just discovered after having been stored for 40 years in a garage in Rome.

Other Italian coachbuilt cars included several Chrysler concept cars, as well as all 10 Packard concept cars, courtesy of owner Ralph Marano. Additional hallmark American cars included the second 1963 Studebaker Avanti built; its restoration was spectacular. Alongside it was an equally impressive 1958 Pontiac Bonneville that was also restored to perfection. Then there was an impressive display of early Pierce-Arrow touring cars, as well as several early Duesenbergs with some very unique coachwork. Oh, and let's not forget the fascinating display of competition-based solid-axle Corvettes impeccably restored in their period livery.

Some of the rare European cars included the Maserati Sebring Prototype 1, a prewar V-16-powered Alfa Romeo, and a very rare, one-of-three Tojiero Jaguar sports racer. Over on the Porsche stand, there was a perfectly restored 1965 911 that belongs to Jerry Seinfeld, alongside of which was displayed the new Targa model. More importantly, Porsche debuted its sensational new 918 Spyder as well. It says a lot about this event that the auto manufacturers, which also include Cadillac and Chrysler, consider the Amelia Island Concours a significant occasion to launch some of their new models.

As always, The Golf Club of Amelia Island will be the site of the 2015 concours, which is scheduled for Sunday, March 15th. But get there on Friday, so you can take in the Gooding and RM auctions, the nearby Festival of Speed, and enjoy the Cars and Coffee show on Saturday. We already have our calendar marked to attend, and so should you.

One of the most impressive-looking cars was this 1930 Duesenberg J302 roadster, one of five Murphy-bodied convertible coupes with a disappearing top. It was displayed by the William Lyon family from California.

This striking fastback is the 1971 Buick Silver Arrow III — one of Bill Mitchell's Riviera concepts. It's powered by a 455 Stage 1 V-8.

Built for Sebring, this is one of six 1956 SR (Special Racing) Corvettes produced. It's owned by John and Sally Neas of Oklahoma.

Frank Hagerty of Hagerty Insurance showed his 1948 Ford, which was once used to transport tourists across the Sleeping Bear dunes of northern Michigan.

Noted Packard show-car collector Ralph Marano brought 10 such Packards, including this beautiful 1952 Macauley coupe.

Known as the Packard Henney, this is Ralph Marano's custom-crafted two-door based on a 1951 Packard 200 business coupe.

Kanter Auto Products owner Fred Kanter showed his 1958 Dual Ghia 400 prototype, which is built on a 1957 Chrysler 300 chassis.

At the Chrysler display was this stunning LeBaron-bodied Chrysler Newport dual-cowl Phaeton with hydraulically operated top.

This 1921 Duesenberg Model A Bender Coupe featured a seven-window cabin with a distinctive flat, squared-off roof; it was impeccably restored.

Listed as the 137th oldest Packard extant, this six-cylinder 1914 Model 138 Phaeton is owned by Charlie Wallace and Kay Flynn.

The arresting color scheme makes this 1956 De Soto Golden Adventurer a real standout for its California owners Malcolm and Steve Schneer.

This 1925 Duesenberg Eight Speedway supercharged race car won the Indy 500 in 1925 and '27; it's owned by Terence Adderley of Michigan.

Richard Atwell from Texas entered his exquisite 1947 Ford Sportsman, a desirable top-of-the-line, wood-bodied convertible.

This pretty 1952 Chrysler SWB Ghia prototype is owned by Michael Schudroff from Connecticut.

Renowned collector Nicola Bulgari from Rome, Italy, showed his fascinating 1937 Chrysler Imperial Convertible C-14; it's the only known survivor originally fitted with vent windows.

South Florida resident Sam Lehrman displayed his rare 1935 Pierce-Arrow V-12 Convertible Coupe. With its one-year-only styling, it's one of less than 10 known to have been built.

Powered by a flathead Lincoln V-8, this perfectly restored 1952 Muntz convertible came down from New Jersey with owners Joan and Sonny Abagnale.

Floridians Chris and Jack Beebe displayed this very rare 1938 Buick 44 Drophead Coupe. It was built by Lancefield Coachworks of London, England.

The shape of this 1935 Duesenberg SJ roadster is undeniably captivating. It was built for Barbara Hutton, and is now owned by Harry Yeaggy of Ohio.

This 1953 Corvette is the earliest known Corvette to run a NASCAR-sanctioned event; it was displayed by owner Terry Michaelis from Ohio.

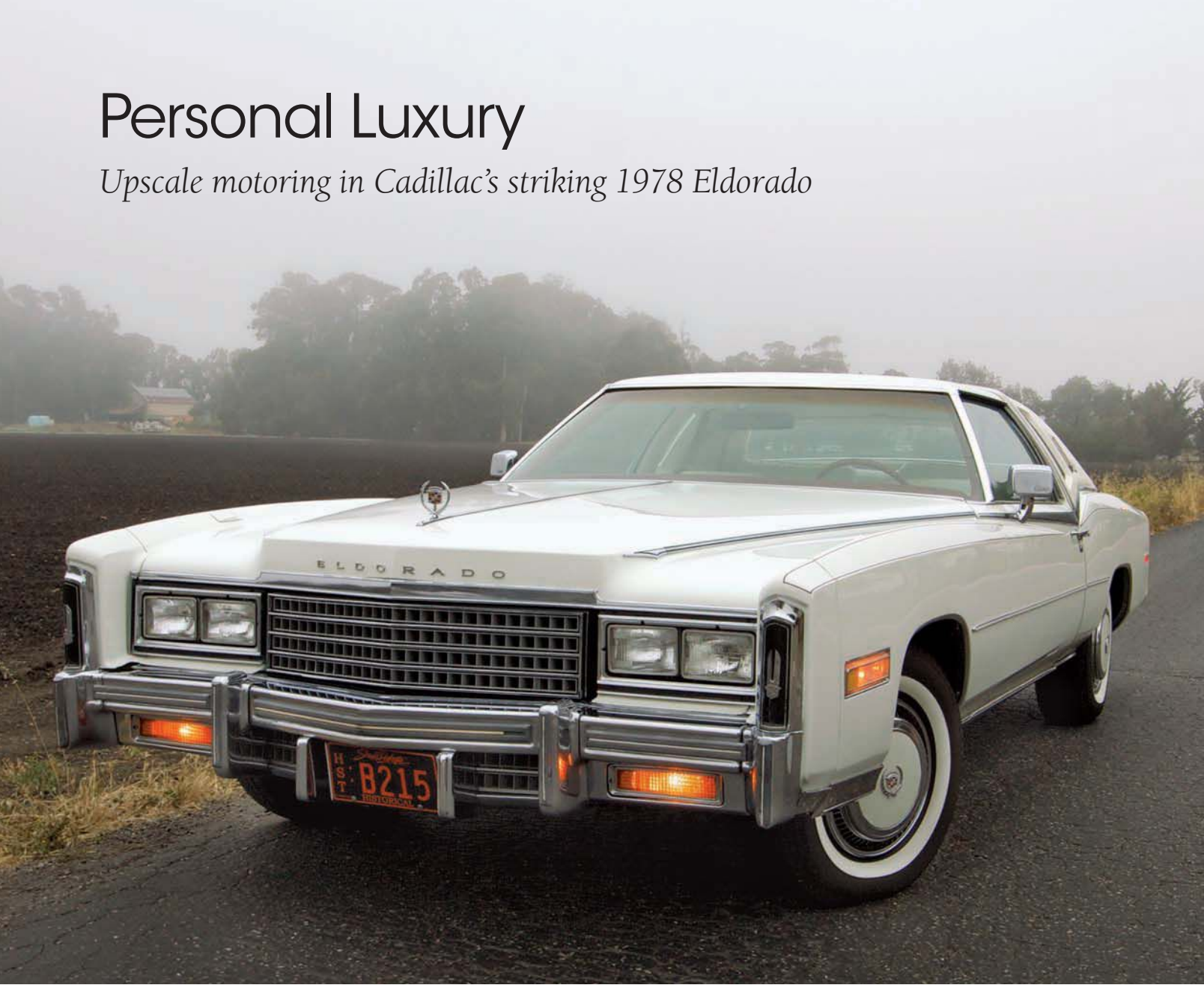
The pleasing shade of yellow brings out the outstanding shape of this gorgeous 1941 Buick Phaeton, owned by Mike and Ralph Stowe from Michigan.

Duesenberg collector Steve Wolf showed his magnificent 1929 J142 Murphy Convertible Sedan; it looked dazzling in its bright green finish.

Looking absolutely stunning in its Redwood Copper and Ivory paint scheme was this finely restored 1958 Pontiac Bonneville hardtop, owned by Florida residents Don and Donna McCullen. Alongside sits the 1956 Continental MK II owned by Dewayne Deck of Colorado; it was originally built for Josephine Ford, Henry Ford's only granddaughter.

Personal Luxury

Upscale motoring in Cadillac's striking 1978 Eldorado



BY MIKE BUMBECK • PHOTOGRAPHY BY JEFF KOCH

The Cadillac Eldorado underwent a redesign in its eighth generation that made the car bigger than ever. The 1971 Eldorado was one of the largest cars ever built by General Motors, and set the standard for long Cadillac coupes for nearly a decade.

The last year of this iteration of Eldorado, touted by Cadillac as the world's most elegant personal car, was 1978. The 1971-1978 Eldorado was competition for the Lincoln Division and its Continental and Mark IV and later Mark V personal luxury cars. Shared General Motors corporate platform cousins included the front-wheel-drive Oldsmobile Toronado and rear-wheel-drive Buick Riviera.

The Eldorado was offered in coupe and convertible versions from 1971-1976, and officially in coupe only until the end of the line in 1978—though a few were reportedly whisked off the line for conversions. Cadillac produced a total of over 347,600 Eldorados between 1971 and 1978, with the last year of the convertible and 200th year of the United States seeing 14,000 convertible Eldorados sold for 1976.

The Eldorado was a solid performer for the luxury division, with consistent sales to those in the market for what Cadillac called an outstanding personal luxury car, the only luxury convertible built in America, one of the world's most exciting

cars, personal size luxury, and finally front-wheel drive with a flair all its own. The famously substantial front-wheel-drive personal luxury car was downsized for its ninth generation in 1979.

This particular 1978 Eldorado Biarritz had fallen from grace when it was purchased by Mike Steiner. The car sat under a carport for many years, with one previous attempt at roadworthiness before Mike purchased the car and returned its factory luster through meticulous restorative efforts with his partner, John Burge. Full-size American personal luxury cars are preferred stock for Mike, with Cadillac a longtime favorite.

"The last big cars were a favorite of mine since I was a small child. I was in grade school when the '76s came off the line; I was in the eighth grade, and I've always loved the '76 de Villes and Fleetwoods, and then of course the Eldorados carried through '78. It has been a lifelong favorite. I've decided that I'm going to have one until the day I die. I have so many of them now, I can't help but make it!"

There are a healthy number of Eldorados out there in good to fair condition, having survived intact, but not without suffering the effects of time. Even if they were in a carport or garage, any car was built to drive. While misuse is unkind to all cars, it is particularly unkind to a car with the level of luxury and sophistication built into a Cadillac. Think of a mansion after years of leaks and weather ruin once grand craftsmanship. Their unique style makes them a worthy collectible.

"It's a very recognizable car. Because everybody knew it was the last one, so many people jumped on the bandwagon to have it. They were really around for a lot of years. Especially in places where rust is not an issue—they last and last and last. You can't kill the engine. It's like trying to find a station wagon these days. Anything that was bought as a utility car got used up. Anything that grandma and grandpa bought to use in their retirement had a sporting chance at surviving."

The 425-cubic-inch V-8 engine and automatic transmission are original equipment. Fresh fluids and rubber, followed by a carburetor rebuild and tune-up, brought back silent power.

The elk-grain padded vinyl top often hides damage. The mid-roof location, in concert with pad material, can trap moisture and enhance underlying rust.

Mike has been collecting full-size Seventies Cadillacs since his first acquisition in 1984. He hasn't been without a Seventies-vintage Cadillac since. He currently counts 35 cars in his collection. Mike used to drive all of them daily in rotation until recent times, when he picked up a 1995 Lincoln Town Car for modern motoring. Twenty-four-26 MPG highway, plus a trunk almost as big as the Lincoln, trumps the Eldorado's 12-at-best MPG.

The fleet is maintained and rotated out for pleasure driving from their secret climate controlled desert hideout. Oil changes and regular

maintenance occur at annual intervals, as the distance traveled per car is not vast, but rather cumulative through the entire fleet. For interior perfection, Mike recommends Leatherique, not only for cleaning and preserving original leather, but also for restoring cracked and dry leather back to its supple luxury.

The most common problems concern the complexity of Eldorado luxury. Radios were well built, but time is not kind to solder joints. Mike said the radios can often be easily repaired by opening them up and looking through the circuit boards with some magnification for missing solder on key components. Some quick work with some electronics cleaner and a soldering gun has the radios ready to belt out the hits for another 36 years.

The Biarritz vinyl cushioned tops often hide years of corrosion under the durable space-age vinyl and padded material. The position of the material atop the rear of the roof and C-pillars along with the leading edge trim collects moisture. The long heavy doors can wear out door-hinge bushings. Removal and rebushing can return the doors to their proper arcs. Some things like plastic door strikers deteriorate over time, and the GM body-to-bumper fillers from the year are famous for disintegrating.

Even though the car sat for many years, the engine was in excellent shape. Rotten rubber and crumbling belts were replaced. The stock carburetor was rebuilt. A tune-up soon had the engine running smooth again. The big mill was never designed to spin to oblivion, but rather loaf along smoothly and quietly at low revolutions and produce prodigious torque. Mike reports that the engines and powertrains are often mechanically stout even after many years of sitting.

The leather seats were brought back to new condition by careful cleaning and refinishing with Leatherique products for unmatched Cadillac comfort. The interior is a collage of factory issue and OEM parts used to replace those damaged by the California sun.

The 1978 model Eldorado V-8 had shrunk in displacement to 425 cubic inches from the behemoth 500-cubic-inch 1971 version. The 425 featured the square engine architecture of its predecessor. With a 4.08-inch bore and 4.06-inch stroke, the 425 made 180 horsepower at 4,000 RPM, with a single four-barrel carburetor. What mattered most for the 4,900-pound car was torque. The engine produced its full measure of 320-lb.ft. of torque at just 2,000 RPM. Hydraulic lifters made for silent running. The three-speed automatic transmission works seamlessly, but does leave Mike wishing for an overdrive out on the highway.

Suspension was engineered for maximum comfort, but there are some unique aspects to the front-wheel-drive Eldorado. The 1974 cars came equipped with the rear anti-roll bar, but unfortunately the later cars did not—even though the

suspension is pre-drilled for the bar. Mike keeps his eyes peeled at the salvage yards and picks up one whenever he can, as the simple bar makes for a vast improvement in handling and overall stability for the front-wheel-drive machine.

The self-leveling suspension is a pneumatic system. One of the rearward air shocks had two ports in a Delco tee, which runs between the shocks and helps levels the system automatically. If the system isn't connected correctly, it will not work. Maintaining the leveling system is as easy as getting the plumbing right.

"Make sure the Level-Ride is connected," says Mike. "That way, when you put four people in the car, it brings itself back up to correct ride-leveling height, and when everyone gets out, it bleeds it back down to its correct height, and it always maintains. The 1978 had an electric pump, the '77 and older had a vacuum pump."

The front shocks are standard monotube, though Mike recommends KYB gas-charged shocks for use on wheels that propel, steer and stop the Eldorado. With the suspension sorted, Mike reports surprisingly competent handling from the big car. "This car corners so darn flat, you would never know it was over 4,000 pounds"

The tires on this car are Michelins rated for Sport Utility Vehicle use that Mike shipped off to Diamond Back Classic, who vulcanized the correct 1⅓-inch whitewall onto the modern-spec radial. The sheer weight of these cars is tough on tires. Flat spots and band separation are common problems from sitting. Despite what some may tell you, tires have an expiration date. Taking out a classic car on old tires is a formula for disaster.

With new tires and freshened-up suspension, Mike reports that the car moves effortlessly at interstate highway speeds. Thanks to four-wheel disc brakes, the car safely scrubs off momentum with equal aplomb. Numerous road trips to the mile-high city of Denver and back again from the high desert of Palm Springs proved that the Cadillac Division got it right when it came to brake engineering for their full-size cars.

"It looks like it's about 1980, because this car can't be more than two years old. It looks like an all-original, pristine, low-mileage car that's about two years old. To me, that's dead-on perfect with what we wanted it to be."

After this car went through multiple chapters of adventures in painting, Mike had a local pinstriper come in and duplicate the factory tape work with brush and enamel. One of Mike's other Eldorados served as a factory template. "I had the guy come out, and parked another Eldorado Biarritz beside this one, and said 'these are the stripes—make them red'"! The exterior lenses were hand-polished with plastic compounds on a high-speed buffing wheel to return the original crystal-clear look. Raised letters were hand-painted individually in silver to duplicate the factory detail.

Mike and partner John did all the restorative work on this car, and are proud of the finished result. The goal was a car that looks a few years out of the showroom. "It looks like it's about 1980, because this car can't be more than two years old. It looks like an all-original, pristine, low-mileage car that's about two years old. To me, that's dead-on perfect with what we wanted it to be."

The public adores seeing this full-size example of American craftsmanship rolling from the Seventies in modern times. With new paint and every single piece of brightwork removed and polished to shining perfection, the car appears as if it had emerged from a time portal to 1978, and people never mistake the car for something other than a Cadillac. The car took first place in its category at the 2012 Great Autos of Yesteryear Casual Concours, validating Mike's passion for this era of personal luxury automobile.

"All of the auto manufacturers had pinnacle moments throughout history, and I think that the mid-Seventies full-size rear-wheel-drive cars, the Cadillacs, the Electras, the 98s, the big Lincolns—the Town Cars and the Mark Vs—were all pinnacles. These last big Eldorados were so magnificent in their styling, in their shape; the comfort level of those Biarritz seats—it's impossible to beat it. There's been nothing since."

Standards of the World

The joys of Cadillac, in the words of owners of the marque

WORDS AND PHOTOGRAPHY BY JIM DONNELLY

Scores of cars and hundreds of devotees traveled all the way from Australia in some cases to genuflect before their beloved crest. They turned out on a sodden, muggy August weekend in Quincy, Massachusetts, for the Cadillac & La Salle Club's huge annual Grand National meet. You name it and it was there, everything from self-starting V-8 flatheads to soaring fins, front-drive Eldorado coupes and other classics to today's Escalades and CTS-Vs.

As is the case with every great automotive gathering, the cars stand on equal footing with their owners and enthusiasts. When you're talking Cadillac and La Salle, you are speaking of people who are fully cognizant of where they and their cars rank atop the ziggurat of American automotive history. To a person, they voice the deepest respect for the automobiles and for Cadillac heritage.

We wanted to give them an opportunity to explain, in their own words, the joys and responsibilities of Cadillac ownership. If you like what you read here, clear your calendar: The 2014 Grand National meet will be held July 8-12 at Fort William Henry along upstate New York's spectacular Lake George.

1958 SERIES 62 EXTENDED-DECK SEDAN

It's a different car. It draws a lot of attention because you don't see many of them that have the extended rear deck. I love the car because of the way it looks. I love all of GM's 1958 models, but I especially like the Cadillac because of the styling. They were all beautifully styled. We enjoy taking it out and giving people the chance to see it. It's not a rare car, but you almost never see an extended-deck car from 1958.

Steve Lachowetz
South Hadley, Massachusetts

1993 ALLANTE

The color, ride and speed are what turns me on about these cars. The early Allantes, with the Northstar V-8, had something like 300 hp, so that made them legitimate sports cars. I'm the second owner of this one. Everything is original, including all the paint. It's wonderful to drive; it just floats when you're on the road.

Fred Miceli
Levittown, New York

1962 TOWN SEDAN

This is called a 'short deck,' and there's not many short deck models in the U.S. The story I've been told is that these models were built for city drivers who wanted to pull them into shorter garages, and the regular Cadillacs were so long they wouldn't fit. They only made about 3,000 of them from 1961 to 1962½. They're pretty rare cars.

Douglas Smith Jr.
Halifax, Massachusetts

1930 MODEL 452-A V-16

This is an all-weather phaeton, or convertible sedan, with 16 cylinders. The body is custom Fleetwood from Fleetwood, Pennsylvania, before it was part of Cadillac. I like to say this wasn't a restoration, but a resurrection. It was only a pile of parts when I got it. The V-16 is the ultimate: the biggest engine, most horsepower of any early Thirties car. It's a dinosaur but it's still the greatest Cadillac. They made 258 of this model, which was a lot for V-16s.

Dick Shappy
Warwick, Rhode Island

1958 ELDORADO BROUGHAM

I just love the styling and the way it rides. I fell in love with these cars when I was young.

George Pesnick
Birmingham, Alabama

1947 SERIES 62 CONVERTIBLE

It's an all-original car. I intend to keep it this way; have no plans to restore it in any away. It's perfect on the highway, runs beautifully, just a great car. I have other antiques and want nothing but original cars. To me, once you restore a car, it never drives as well as before.

Dino Martini
Warwick, Rhode Island

1956 COUPE DEVILLE

The color is Dawn Grey with a Camelot Grey top. It's mostly original, with a little bit of restoration here and there. I'd say it's 90 percent original paint. I like the colors, which weren't on the Cadillac sheet of recommended combinations. Plus it's from the Southwest, so it's rust free.

Charlie Petty
Blairstown, New Jersey

1937 MODEL 7057 COUPE

They called this a 'Sport Coupe,' three windows with a rumble seat. It's a mostly original car, mostly original paint. I just love it. To me this is the epitome of Art Deco styling and I love the way the car presents.

Kenneth Washwell
Millbury, Massachusetts

1942 SERIES 7533F FORMAL SEDAN

This is car number 1 of 80 that were built, and number 2 went to Howard Hughes, which is why this car was used before I owned it in the movie *The Aviator*. I had heard that there was only one other one of these seven-passenger limousines still around and it was in Australia, but since then, another one has been found in Kentucky. We drove up from New Jersey. Took us about nine hours with stops to let the tires cool down.

Roy Garretson
Clifton, New Jersey

1987 FLEETWOOD BROUGHAM STATION WAGON

We don't actually know who did the station wagon build on it. It's got the original 5.0-liter gas engine, so with the extra coachwork, it's a little underpowered. We just like having something everybody else doesn't have, like a Cadillac station wagon.

Jerry and Rita Trapani
East Islip, New York

1926 MODEL 314 CUSTOM

Fisher built the body, a sport phaeton with double cowling; they have some 1927-model year features on them that were being phased in toward the end of the 1926 model year. The yellow area on the rear doors is caning, which is supposed to look three-dimensional. This car became available to me in pieces, and 25 years later, it took its first Cadillac Grand National award.

Mike Goldblatt
Norwich, Connecticut

1931 MODEL 4560 SPORT PHAETON

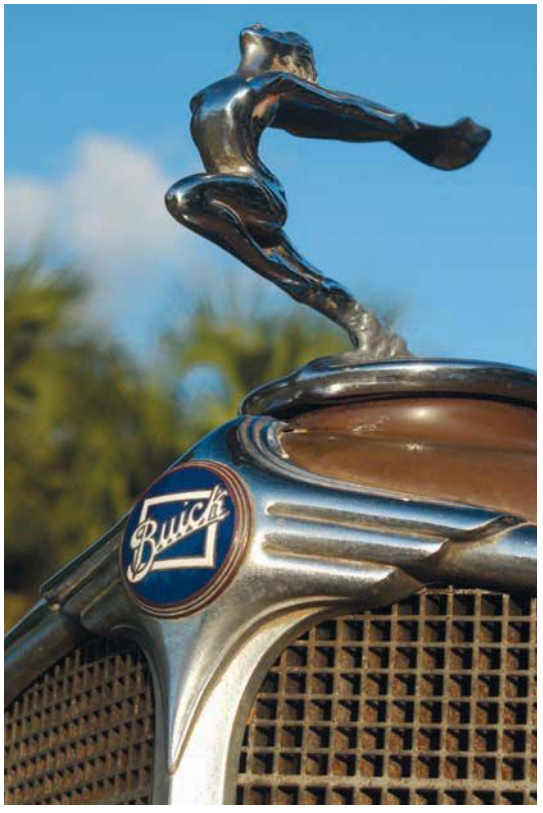
We've had this car since 1988. We found out that this car had gotten shipped over to Europe in the late Thirties and when it came back, had gotten stuck in the mud at Hershey. Sure enough, when my husband was restoring it, he found a bunch of mud caked in the back.

Kathy and Alan Miller
Windham, Connecticut

From Father to Son

An almost entirely original 1933 Buick Model 67 Sedan has been in the careful hands of one family for more than 50 years

BY TERRY SHEA
PHOTOGRAPHY BY RICHARD LENTINELLO



Passing something down from father to son. It's a tradition that likely goes back to the dawn of civilization, but you could be forgiven for thinking it came about with the collector car hobby.

For many of us, the shared experience of driving, restoring, maintaining or just simply enjoying an old car with the old man led to where we find ourselves today, fully enmeshed in as rewarding a pastime as there could ever be. More than just a collection of old steel, aluminum, copper or brass, vintage cars can represent some of the best times shared between fathers and sons.

Jay Michelson knows this feeling as well as anyone. After his father, Barnet, bought this 1933 Buick Series 67 sedan 51 years ago, the two spent plenty of time taking care of it and participating in hundreds of car shows over the years. Before Barnet passed away, Jay took custody of the big Buick in the late 1980s, and today remains as keen on keeping the sedan in great shape as he does on keeping those memories alive. Formerly of White Plains, New York, but now retired and living in Coral Springs, Florida, Jay keeps the Buick as his only collector car now, though the family once had a 1933 Chrysler Imperial convertible and a '28 Nash.

But old, well-preserved, one-owner Buicks tucked away in garages just don't find themselves. Jay explains: "My father was in the retail—new and used—plumbing supply business, and he used to have scrap dealers coming in to sell him the used bathtubs, pipes, whatever he was buying. And he used to tell them, 'If you ever go to a house and see an old car, let me know.' Well,

Amazingly original Buick has been on the show circuit for more than 50 years; wire or steel wheels were the only options in 1933 as Buick had finally done away with wooden artillery wheels.

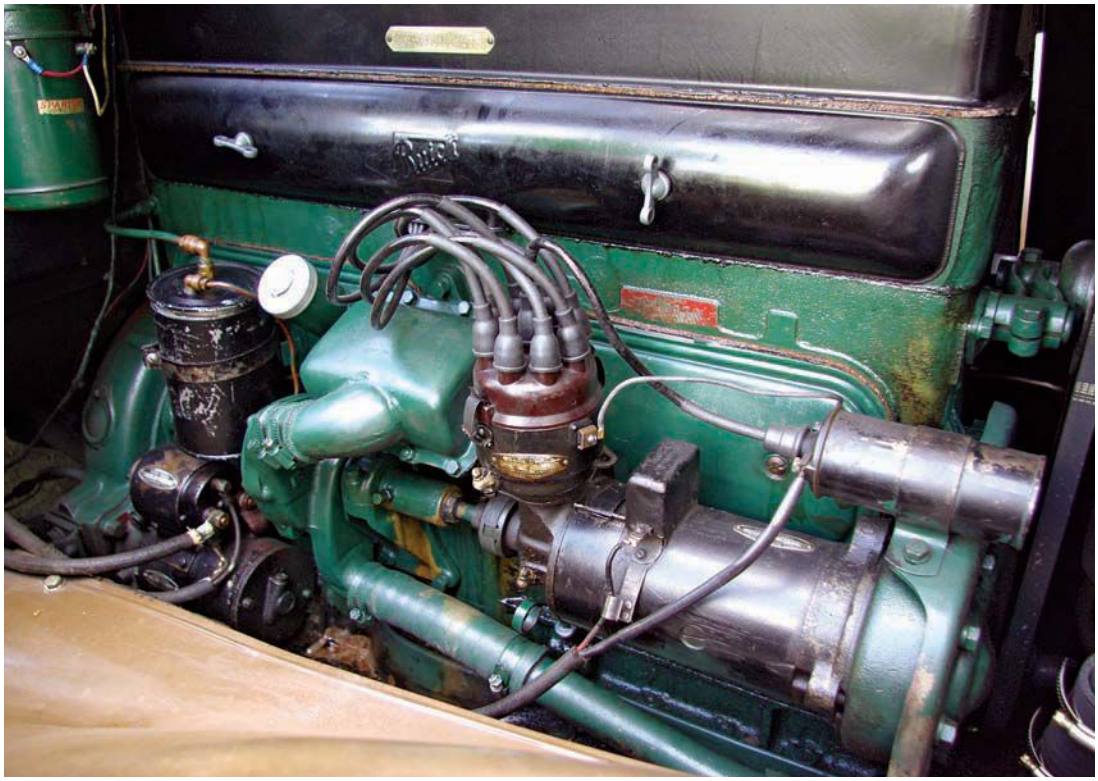
one day, this man came in. He said he was buying newspaper out of a car and it was sitting in a 1933 Buick. He gave my father the address and the information. They went over, saw the car and the man wouldn't sell it.

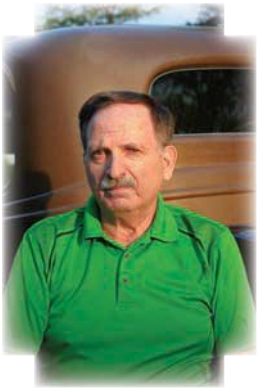
"Every time they would pass his house with a delivery or something," Jay continues, "they would stop if they saw him in front of the house. One day, they caught him just right. This was 1963. My father was standing out there talking with him in the street, and his wife came home from the supermarket. He said to his wife, 'What should I do with the car?' She said, 'Get rid of it already!' They hooked a chain to it and towed it out of the garage, put it on the street and then they paid for it. That's how the car became ours."

And what a car it was! Though not perfect, the big Buick remained in fantastic shape. "The car was only sitting two years," recalls Jay. "They put in the battery and the car started right up. The guy gave us five brand new tires and tubes in wrappers. We put them on, because it had all of the original tubes and tires on."

Jay, still a teenager, knew that the Buick was going to stay in the family a long time. "When my father brought this car home, I said to him, 'That's going to be my car.' I was 17 years old." With just 16,000 miles on the Buick, Barnet began showing the car almost immediately, going to an event less than a month later. Even then, collectors knew the Buick was as special as Jay did.

Buick had been at the forefront of the American auto industry from early in the 20th century right through the Twenties, a perennial top-five





"When my father brought this car home, I said to him, 'That's going to be my car.' I was 17 years old."

player on the sales charts and the very bedrock of the creation of General Motors. But, as with the rest of the industry, the Great Depression had not been kind to the automaker from Flint, Michigan. Sales dropped from well over 200,000 as late as 1928, down to all of 56,000 and change for 1932. Clearly in trouble, Buick re-engineered and redesigned its entire line for 1933, with the hopes of lighting a fire in the showroom. Unfortunately for Buick, sales fell further, to just under 47,000. Fortunately for today's collectors, the distinctive Buick designs for 1933 continue to display the class and quality that were long the hallmark of the company.

For 1933, Buick offered four series, each available in several different body styles. The mid-level Series 60 featured an impressive 127-inch wheelbase on a very stout X-frame. Along with a bare chassis—a blank canvas for coachbuilders—the Series 60 lineup included a convertible coupe, a sport coupe, a Victoria coupe, a convertible phaeton and a four-door sedan, known specifically as the Series 67, which commanded the lion's share of the series' sales for 1933, with 7,450 sold.

Like all Buicks that year, the Series 67 sedan featured a new V-shaped grille, valanced front fenders and either wire or stamped steel wheels. Gone for good were any traces of the wooden artillery wheels that were used for so long. Sedans in '33 also received a rearward-curved tail section nicknamed the "beavertail." While not necessarily aerodynamic, the Buicks at least had a dash of swoopiness and a rake missing from earlier cars. Though Buick would be hard pressed to find buyers even in a recovering, if shaky, economy, the cars at least hit all the right styling notes.

Inside, luxury touches abounded as well, with Series 60 cars featuring mohair broadcloth seats, full carpeting, including for the rear seat footrests and new, deeper armrests for those rear-seat passengers. Drivers were treated to a full set of large gauges, with clear, simple numbers on them. For

Buick interiors merged luxury with practicality, the wood-look dashboard fronted with a full set of clearly legible and functional gauges; three-speed transmission featured synchromesh on the top two gears.

Owner's father found the correct, optional trunk in the late 1960s in New Jersey, completing the sedan's beautifully elegant look and complementing the dual sidemounts.

one year only, all 1933 Buicks featured a dash-mounted starter button.

Under the hood, Series 60 cars were all powered by Buick's 97 hp, 272.6-cu.in. straight-eight, which also produced a healthy amount of twist to the tune of 210-lb.ft. of torque. At well over 4,000 pounds, the 67 sedan needed every pound-foot it could muster. Even today, Jay admires the performance of his remarkably well-preserved Buick. "I've driven the car from White Plains to Danvers, Massachusetts, twice, and once to Baltimore," he says. "Every trip was fine. Those were each about 200 miles each way. And the car was fine the whole trip, driving it out and back. It was a pleasure to drive. I can't go that fast. I roll 50 to 55 MPH at the fastest."

Jay's Buick has never been painted since it left the factory and the engine has never been out of the car. The relatively low-RPM Buick straight-eight's robust bottom end has never needed any work. Only a lapse in maintenance on Jay's part meant some head work was required. But don't expect history to repeat itself. "You should adjust the valves every 10,000 miles," Jay points out. "And that was my mistake. My father never told me I needed to adjust the valves. And they burned. They closed up. And it will never happen again."

Though the Buick's paint looks aged, it should—it's more than 80 years old! Plenty of areas now show primer through the Rockford Brown finish, most notably on the voluptuously curved fenders. Jay is a fan of the 67's originality, but that doesn't mean he loves the paint. "The nitrocellulose lacquer is terrible," he shares. "If you let it get spotted up, you have to re-wax the whole car." Sure, the chrome has some pitting to it, but the rust-free metal is as sound as it gets, a testament to the care given by the Michelsons' 51 years with the car.

Since Jay's father bought the car, the list of work done remains tiny, given the vehicle's age. The tires have been replaced a couple of times, wearing out and not dry rotting, it should be noted. He had to have the starter rebuilt. The water pump used to leak, so Jay had a hardened stainless steel shaft made. The car has gone through a couple of fuel pumps in his stewardship as well. Along with an authentic trunk that Jay and his father found in the 1960s, very little else has gone into it. Most of the interior still looks sharp, and only the well-used driver's seat, which sags and is starting to fray, shows any real sign of wear.

Along with regular oil changes and tending to the "40 or 50" grease fittings, Jay also makes sure the 67 is regularly waxed. Though worn, the finish continues to keep the car free of corrosion.

Its sole previous owner had put just 16,000 miles on the car in the 30 years he owned it. And between Jay and his father, the pair has added roughly 25,000 miles so far. Though not perfect, the big Buick sedan remains in fantastic shape, a regular reminder to the good times Jay and his father spent driving, showing and simply enjoying it.

The Hagerty Education Program at America's Car Museum carries forward the legacy and mission of the former Collectors Foundation.

The skills and knowledge needed to preserve America's automotive heritage are disappearing. That's why the Hagerty Education Program at America's Car Museum is committed to providing scholarships and educational grants to students and organizations committed to hands-on training of these skills and trades. It's crucial to the hobby and to society as a whole that we promote interest in collectible vehicles by developing the next generation of enthusiasts and restorers to protect and cherish this important part of America's industrial history and culture.

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Although incredibly small, the Ford Comuta concept could hold four or five passengers.

Comuta

Ford's Fascinating Tiny Town Car

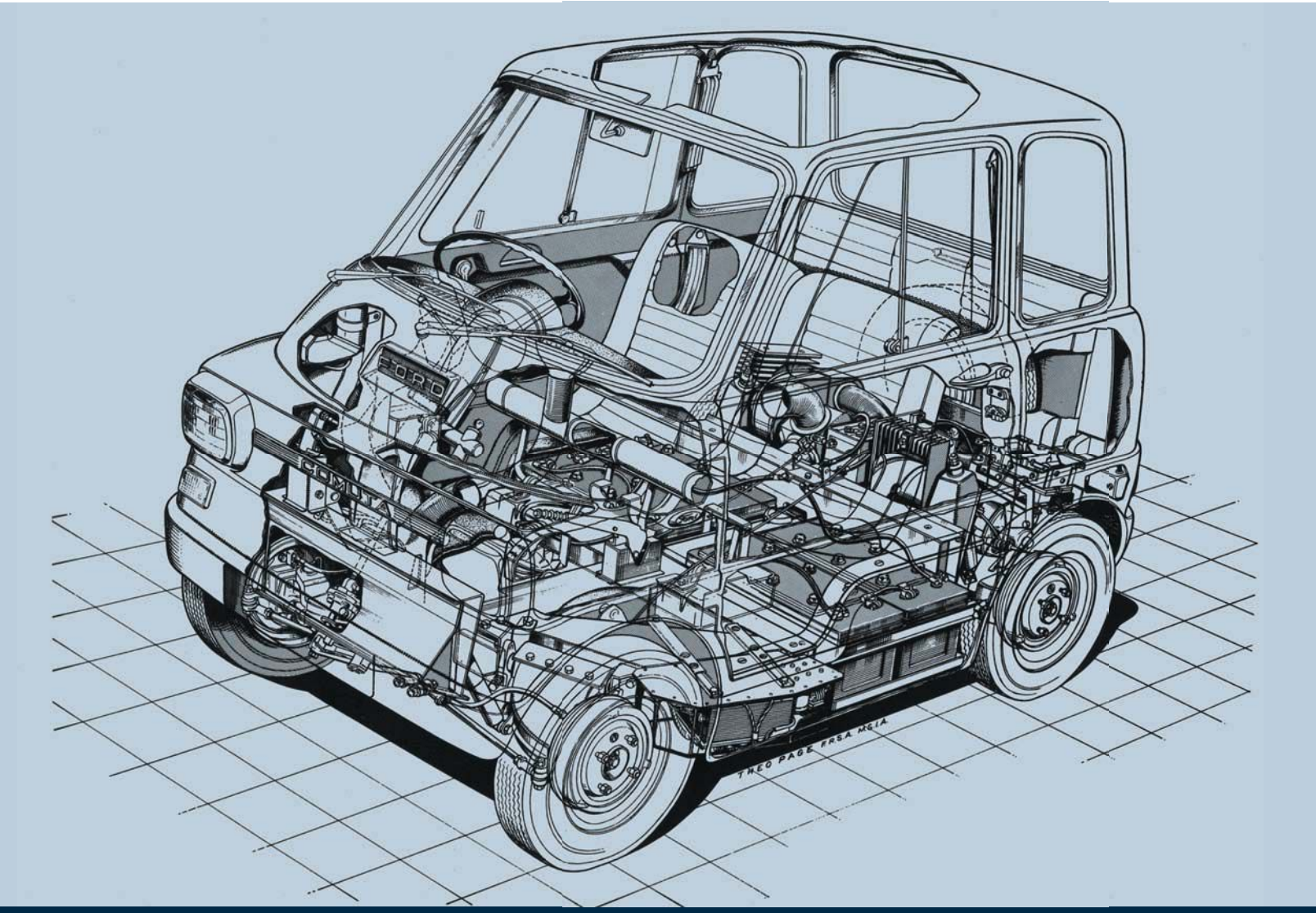
BY PATRICK R. FOSTER • PHOTOS COURTESY OF THE PAT FOSTER COLLECTION

Sometimes it seems as if the automotive industry has been investigating or experimenting with electric cars ever since the last commercially available models went out of production in the 1930s. There have been many electric car proposals from small start-up firms, but much more interesting have been the several attempts made by the larger manufacturers. Ultimately, none has been successful on a long-term basis; there hasn't been a real, volume-selling electric vehicle (EV) from any of the major automakers. Yet those companies are, like a moth to a flame, now and then attracted by the lure of building a practical electric car.

The appeal is understandable, especially during times of high fuel prices, or during the fuel-shortage scares of the 1970s, which saw long gas lines and fistfights among people waiting to fill up their cars. A rule of thumb is that when gasoline gets expensive or hard to get, any vehicle that doesn't use it grabs the public's attention.

But even before the so-called "gas crisis," automobile manufacturers had certain reasons to consider EVs. During the late 1950s and early '60s, the problem of air pollution came into the spotlight, and electric cars were seen as one way to reduce the amount of pollutants going into the air. In addition, crowded cities and roads were a major problem that seemed to indicate a need for smaller, more maneuverable cars—"commuter cars," as they're sometimes called.

The Ford Motor Company saw a need to do something about those problems and decided the best thing it could do was explore the possibility of creating a small electric



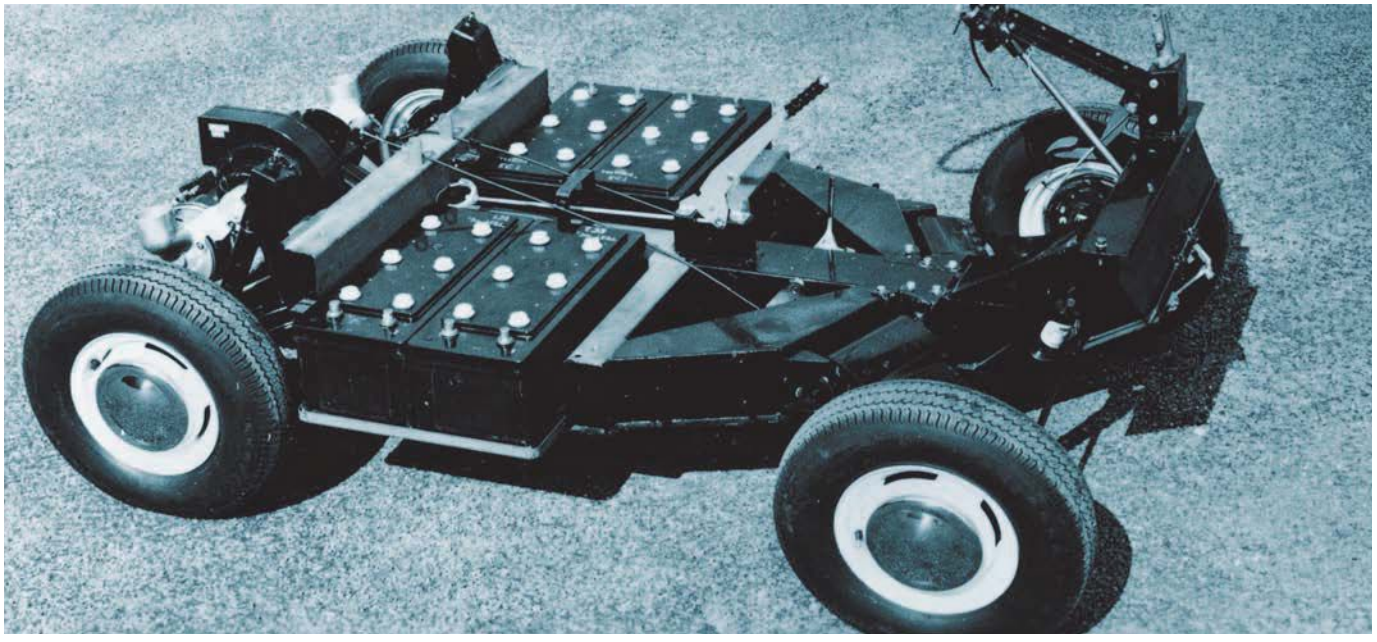
"Ghost" drawing shows the Comuta's mechanical layout. Engineers were able to fit a lot of mechanical elements onto the Comuta's short chassis.

car that could be used in place of a full-size automobile in certain applications. In 1966, the small-car experts at Ford of Britain's Research Staff were assigned the task of looking into the feasibility of building a small electric-powered car. The parameters were specific. The car was to be quite small, ideal for in-town usage. There would be room inside for two passengers up front, along with a small rear bench seat for children, but the overall length would be held to a minimum for ease of parking. In fact, Ford's target was to be able to park the tiny car end-on to the curb, so three cars could park in a space formerly reserved for one car!

The car's impact on the environment was also to be kept to a minimum. Although electric cars, by their nature, are virtually non-polluting, many of the power plants that generate the electricity burn fossil fuels, and can spew tons of pollutants into the air. Not wanting to merely push the pollution problem over to the power plants, Ford stipulated that its little car be very efficient, using a minimal amount of power. Ford also wanted to address the growing problem of noise pollution in urban settings, so another program goal was that the concept car be very quiet in operation.

Although this was to be only a test car to explore electric vehicles, Ford wanted a viable automobile, one that people could afford to buy, so component and assembly costs were to be carefully considered. The target was a car with good performance, ease of drivability and low initial cost. In addition, controls were to be made as simple as possible. Ford was looking to produce a car that people could get in and drive

Ford lined up a Comuta next to a Mustang to graphically illustrate its tiny size.



EV chassis with rear-mounted electric moters, one per side, and four batteries.

without requiring special instructions or extensive training- a "seamless ownership experience," to use today's jargon.

Work on what became known as the Ford Comuta began during the spring of 1966. Although Ford realized that gasoline cars would probably remain the best transportation choice for years to come, the company believed that for certain applications, electric passenger cars could have unique advantages. Some areas of anticipated use would include retirement communities and urban and suburban neighborhoods where low speeds and dense traffic patterns prevail. The company wanted to gain some real-world experience designing such cars so that, as they put it, "proper judgments could be made."

Ford of England's Research Staff began to formulate project goals during the spring of 1966, and by May had presented a proposal for what it called the "450E" program. From that point, the various components of the car were considered—such things as electric motors, power control systems, alternative suspensions, etc. After the usual give and take of decision-making, the actual design work began in July 1966. Although Ford's engineers realized the Comuta was probably only a first step on the EV learning track, efforts were made to produce as "real world" an EV as possible.

The goal of a very short overall length limited the interior floor space available for passengers. Engineers designed Comuta's seating configuration so passengers would sit more upright than usual, thus needing less legroom. This arrangement also allowed for the batteries to be stored within

the wheelbase for better weight distribution. Overall length was held to an incredibly short 80 inches—or more than five feet shorter than a Nash Metropolitan, a car many Americans dismissed as a puddle-jumper. Comuta's wheelbase was just 53.5 inches, over two-and-a-half feet shorter than the Met's 85-inch wheelbase. Ford even offered a press photo of the Comuta next to a Ford Mustang to illustrate the difference in size. No doubt about it, Comuta was the Tom Thumb of automobiles. However, despite its diminutive size, Comuta could seat two adults up front while squeezing two or even three children in the small rear seat area. Ford claimed that with its tallish doors, entry and exit from Comuta's front seat was actually better than most production cars.

Powering the Ford Comuta were two 24-volt electric motors, one at each rear wheel. Adapted from existing units supplied for aircraft use, each motor was rated at 5hp, maximum. The motors were series-wound, direct-current, heavy-duty types, cooled by forced air that flowed through them and then was ducted to exit inside on the front floor where it was used to warm the car's interior. It also supplied heated air for the windshield defogger. Since the motors did not operate while the car was stopped, a separate electrically heated wire system could be used to clear the windshield.

For power, Ford used four 12-volt, 85-amp lead-acid batteries—two per side. Connected in series, they provided 48 volts and gave the car a maximum range of 40 miles at a steady 25 MPH on flat roads. It was hoped that more advanced batteries could eventually provide a greatly increased range. Naturally, Comuta was fitted with a "state of battery charge" indicator instead of a gas gauge.

Rather than using a conventional transmission, Ford's Comuta had an advanced controller system using thyristors for better efficiency than the usual wire resisters. Ford claimed the thyristors enabled 15-20 percent more of the stored battery power to be used for motivation rather than wasted as heat loss. A hand lever was used to select forward, reverse and neutral modes. Once forward was selected, the driver need only push down on the gas—er—accelerator pedal to be smoothly and silently on their way.

Engineers were able to keep Comuta's weight down to a svelte 1,200 pounds, and it was a very maneuverable automobile, perfect for city driving with a turning circle of just 18 feet.

We don't know whatever happened to the Ford Comuta, but we sure hope it's somewhere safe, such as a museum. Who knows—we may need it someday!

ELECTRIC CARS RETURN

The electric motor uses no fossil fuel. For all practical purposes, it runs silently. And, of course, there are much fewer moving parts in an electric car than in any other type.

Until a few years ago, however, large automakers did not seem to be interested in developing electric cars. The picture is changing rapidly. More and more people are spending more and more money on research in this area. The electric car, in fact, may be an ultimate solution to our problems of pollution.

The Comuta is an electric car built by the Ford Motor Company in Great Britain. There is room enough inside for two adults in front and two children in the rear. The top speed of the Comuta is 40 miles an hour.

Interesting look of Ford Comuta concept is the result of keeping bumper-to-bumper length to an absolute minimum.

The Blackhawk Automotive Museum

For more than 25 years, showcasing unique classics in a jewel-like setting

BY MARK J. McCOURT • PHOTOGRAPHY COURTESY OF THE BLACKHAWK AUTOMOTIVE MUSEUM

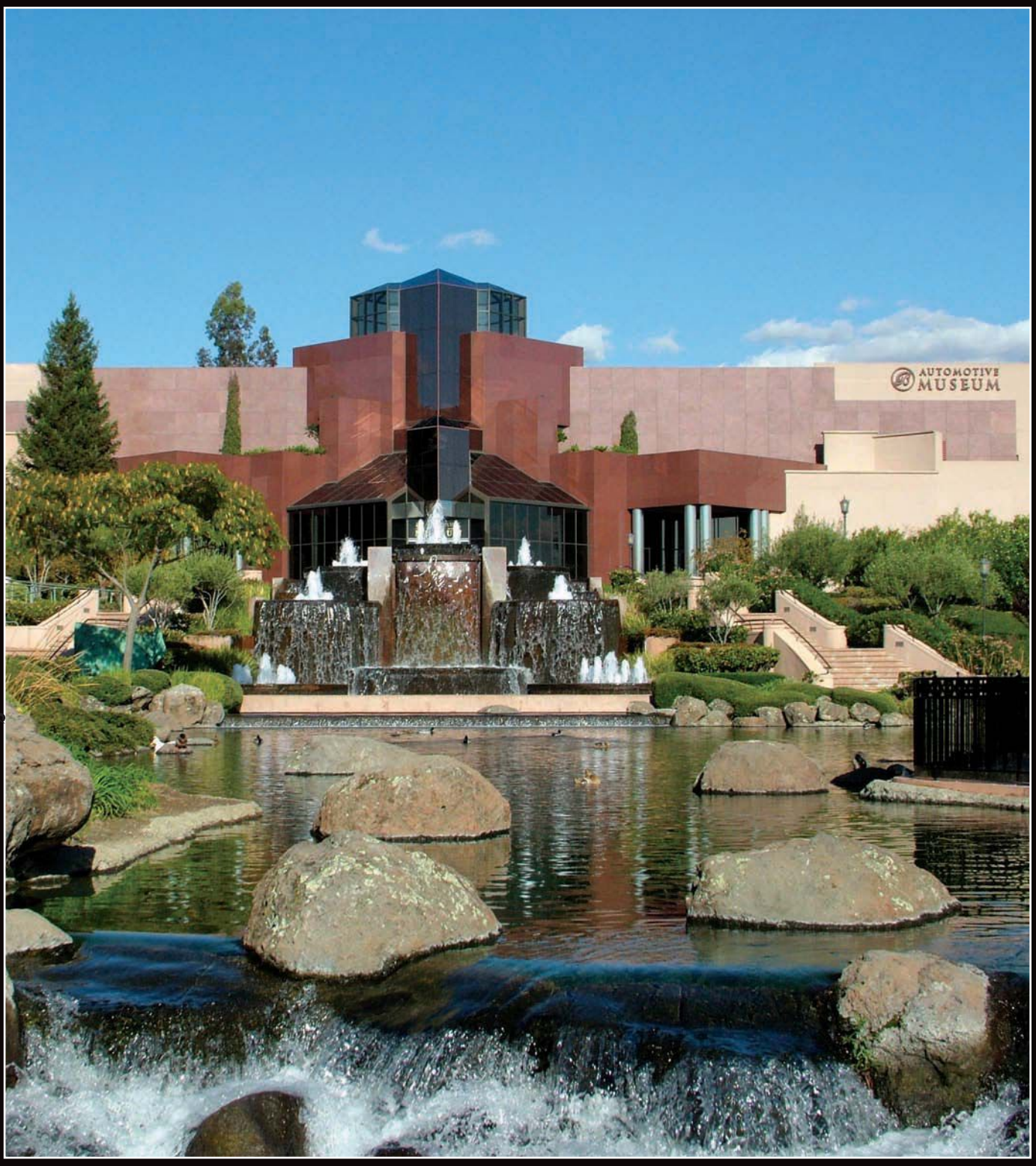
While every museum shares the goal of conserving important artifacts and educating patrons to improve their understanding of the world around them, each museum—whether it celebrates art, history, culture or a particular hobby—has a unique fingerprint, its own way of presenting its vision and collection. America is home to hundreds of museums that celebrate the automobile and its contributions to the human condition, but one stands apart for the special way its collection is presented. From every angle and perspective, California's Blackhawk Automotive Museum is a feast for the senses.

Located in Danville, 30 miles east of San Francisco, the Blackhawk Automotive Museum took its name from the Blackhawk Ranch that once encompassed the area. Blackhawk was part of a planned upscale community constructed in the 1980s, and this facility is its showpiece. Finished in September 1988 and surrounded by park-like landscaping, this impressive, angular modern building was designed to be a "jewel box" for the special automobiles it contains.

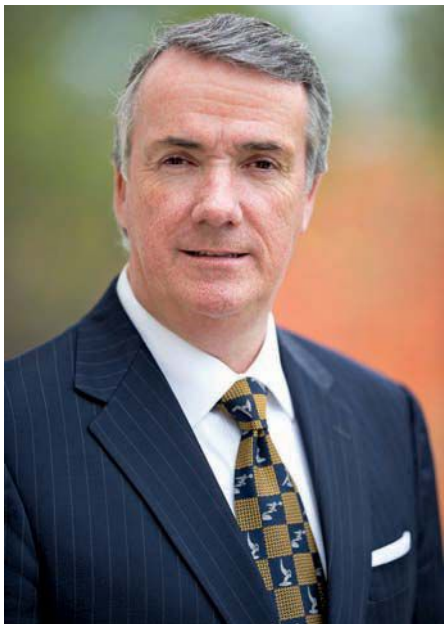
Walking past fountains and waterfalls and through the glass foyer entrance is a suitable prelude to experiencing the grandeur of the building's interior, which is filled with polished granite, ebony and brushed metal. It's obvious that every aspect of the architecture was carefully designed; there are two 35,000-square foot galleries, the upper one showcasing classic examples of American and European late-1920s and 1930s one-off and ultra-rare automotive coachwork, the lower currently celebrating the collection's 1950s and early-1960s sports cars and sports-racing cars, predominately from Europe. Also on display are a collection of "idea cars," or concept cars of the 1950s, which include three of the Virgil Exner Ghia-bodied Dodges and all three Alfa Romeo Bertone BATs.

Stepping into the galleries, you're presented with a view unlike any other automotive museum: The floors are glossy black granite, the walls and ceiling dark, the vehicles individually and precisely pin spot-lit so that their shapes and colors pop, like precious gems in display cases. Although joined in theme and displayed together, this treatment makes each automobile virtually become its own exhibit. You won't find dioramas, street scenes or storyboards fighting for your attention—the vehicles tell the visitors their own stories.

The special emphasis this treatment provides the vehicles is only part of what sets the Blackhawk Automotive Museum apart. Akin to some other car museums, it was founded around



"Most of our cars are on display anonymously, as our owners are not looking to show off–they simply want to share the car, and we like to think this is a great place to do so."



Executive director Tim McGrane has enlivened the Blackhawk Automotive Museum's calendar with a wildly popular Cars & Coffee event that draws hundreds of participants every month; the museum's upscale ambiance has also made it a favored private event venue.

an individual personal collection, but the industry- and hobby-wide connections of its two founders set it up to enjoy enviable patronage in the decades that have followed. Timothy "Tim" McGrane, this museum's executive director, explains its objective and how it came to be.

"The Blackhawk Automotive Museum is a 501(c) nonprofit foundation that was opened 26 years ago. Our mission has been to educate visitors about the history, culture and artistic legacy of automobiles. It was founded by Don Williams and Ken Behring. Don got into the world of classic cars in the mid-1960s, and he founded the Blackhawk Collection in the early 1980s; that is a separate private company that buys and sells great classic cars," Tim explains. "He met Ken, a real estate developer with a passion for special automobiles, and the two joined forces to create this foundation. Don remains president of the museum's board and its driving force."

While some of the roughly 90 vehicles on display are part of the permanent collection, visitors will also experience privately owned cars that are on loan from prominent collectors around the world. Don's network of connections, and the Blackhawk Museum's own reputation, have made it a desirable place to display automobiles. "Most of our cars are on display anonymously, as our owners are not looking to show off—they simply want to share the car, and we like to think this is a great place to do so," Tim says with a smile.

The automotive aspect of this foundation's mission has remained constant in the past quarter century, while its scope has encompassed different initiatives at different times. For a period after it opened in 1988, the Blackhawk Automotive Museum had an association with University of California, Berkeley, that concurrently ran natural history and paleontology exhibits in its halls. And for a 10-year period, it was home to a world-class collection of automotive fine artwork. "It represented the history of the automobile through art of all kinds," he notes, "paintings, sculptures, ceramics, bronzes, textiles, metalwork and more. That collection is now housed at the [Louwman] Dutch National Motor Museum in Holland.

"And for almost two decades, we've been an affiliate of the Smithsonian Institution," Tim continues. "That affiliate program came about after the Smithsonian celebrated its 150th anniversary; they'd toured the country for more than a year showcas-

The ratio of American to European marques in the museum's 1920s/1930s gallery is 50:50, and some U.S. cars bear European coachwork, like the famous 1937 Cadillac V-16 bodied by Hartmann of Switzerland and the 1936 Auburn 852 Cabriolet by Labourdette of Paris.

ing iconic pieces they had—the Lincoln hat, the Ruby Slippers (from *The Wizard of Oz*), Richard Petty's Number 43 race car. The tour was well received, and at the end of the anniversary year, they didn't want to put the items back in storage. So the Smithsonian started its affiliate program, and we were one of the very first museums to be named. Since I've taken the director position, I've significantly increased our communication with them, and we're collaborating on future programs."

While they're currently working together to create a Smithsonian-based automotive exhibit, among others, this affiliation has broadened the Blackhawk Automotive Museum's appeal to non-automotive visitors. The museum has hosted historic initiatives including a *Titanic* exhibit, an Abraham Lincoln exhibit and an exhibit on the history of postage stamps. "Our mission remains showcasing the automobile, but we have had successful non-automotive exhibits through the years, and that will continue," he notes.

Following traditional museum practice, the Blackhawk relies on docents, those volunteer educators who interpret the collections for visitors. Since 1992, the museum has trained 600 adult volunteers in its intense six-month docent program, and they also offer a version of the program to engage high school juniors and seniors. "To most of the people who come here, docents are the face of this museum. They are able to turn a visitor's trip into an experience," Tim says. "Our docents don't have scripts—'Here's our 1936 Auburn, and here's what you say about it…'—they do their own verified research and formulate their own talks. Some of them approach tours from a mechanical point of view, some focus on design, some point out if cars have colorful ownership history. We couldn't survive without volunteers, we're very proud to have them."

Those docents deepen their knowledge in the Blackhawk Automotive Museum's sizable research library. Over the past 15 years, this facility amassed an enviable collection of automotive reference books, periodicals and sales brochures dating back to the turn of the last century; these materials offer a broad overview of classic car history, and are also made available for public use.

The museum's gift shop and bookstore are located adjacent to the lobby; volunteer docents give self-created gallery tours.

If you aren't tempted to peruse the stacks, you might enjoy one of the museum's other outreach programs: their Blackhawk Cars & Coffee gathering, held on the first Sunday of every month, is a huge hit. Tim brought this popular concept to the museum with the idea of attracting a broad swath of enthusiasts who may not otherwise choose to visit. "We're very fortunate because, not only is the museum spectacular, but the Tuscan-themed plaza that it anchors—as well as its parking lots—are extremely attractive. We wanted to keep it simple: We set the hours from 8:00 to 10:00 a.m., but people come when they want, they leave when they want, they drive what they want, and we hand them a cup of coffee.

"The first Sunday we held it, April 2013, I hoped we'd get 20 cars—within an hour, 98 showed up. Each following month it built, up through 130, 150, 220—this past April, on the event's one-year anniversary, we stopped counting at 627 cars!" he says with a grin. "It took a few months for people to understand our wish: Pull up in what you drive, because if you like it and you're proud of it, that's what counts. We attract a really diverse group of cars, everything you could imagine and a lot you can't. It's been a great community builder, and from the museum's point of view—our docents and members—they see the excitement, they see the energy this brings. Museums aren't traditionally hotbeds of excitement and energy, and that's what we've changed."

Encouraging that excitement in visitors is the primary goal of the Blackhawk Automotive Museum, whose slogan is, "To Imagine…To Dream…To Inspire…" They keep thinking of new ways to engage while telling the deeper automotive story. Tim muses about cars that would enhance the collection: "A Tucker—that resonates with the public more than I could have imagined. It's an iconic car that a large cross-section of Americans recognize and has a story they relate to. It would also be wonderful to have a Mercer, and something from the GM Motorama like the Y-Job.

"We know we're not going to be all things to all people. The DNA of this museum will not change, we won't have neon lights or storyboards, we're not going to be showing the America's Most Beautiful Roadster award-winning car—that's for another museum. We all do things differently," he muses. "People have suggested we hold a concours…but we are a concours, every day of the week. We have what we feel is the greatest 90-car concours you can see, and you don't have to wait until the third weekend in August."

Perhaps one of the most famous streamlined automobiles of the 1930s, this 1933 Pierce-Arrow V-12 Silver Arrow sedan is one of five built, and three known to still exist.

CONTACT:
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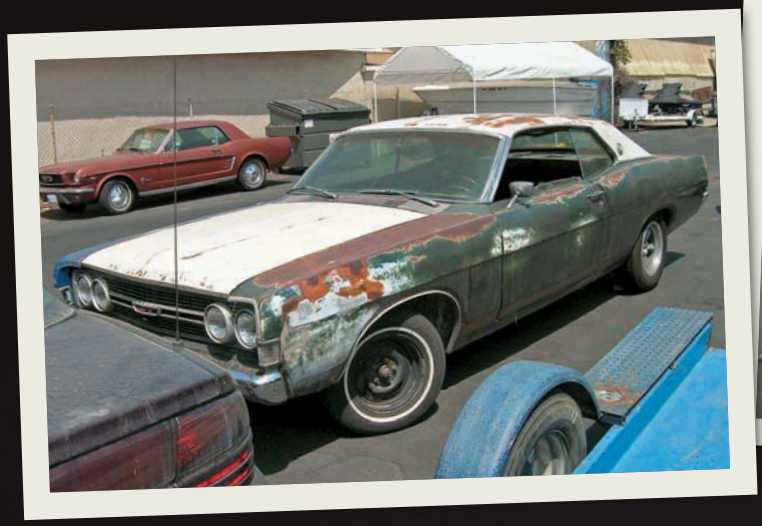
925-736-2280
www.blackhawkmuseum.org



Grand Return

After seven years in waiting, a 1968 Ford Torino GT receives its restoration

BY MATTHEW LITWIN • PHOTOGRAPHY BY JEFF KOCH
RESTORATION PHOTOGRAPHY COURTESY OF CHUCK JENNINGS

The Torino GT's body was stripped of its remaining paint and surface rust using various grades of sandpaper. Leaving the body panels in place helped retain its natural lines as skim coats of filler were applied and sanded to smooth imperfections.

Once the body work had been completed, the remaining trim was masked before a protective yet thin layer of primer was applied to protect the sheetmetal. This was the first of two applications of primer the Formal Roof GT was to eventually receive.

Here, trim has been carefully arranged according to which side of the car it had originated on. It was also inspected for damage, which helped determine which pieces would need either simple buffing or complete refinishing.

Having been rebuilt seven years prior, the 9.0 compression, 210-hp 302-cu.in. engine was removed again. This served two purposes: It permitted access and cleaning of the front unit-body structure, and eased the restoration of the engine's exterior.

Automotive tastes change. It's been proven by those with purchasing power time and again. Touring cars were the rage in the early Twenties; wind-cheating Airflows in the Thirties; fastback Sedanettes in the late Forties. Tall tailfins, chromed trim and micro cars all fell out of favor for a variety of reasons as well, as did muscle cars, for a time. The list is continuously lengthened as design evolution and technological advances have left our preferred method of transportation economized and laden with attention-grabbing electronic gadgetry. We know; we've succumbed to this modern realm of daily driver as well. But that doesn't mean our affection for fins, four-barrels, chrome—or a combination thereof—has ever waned.

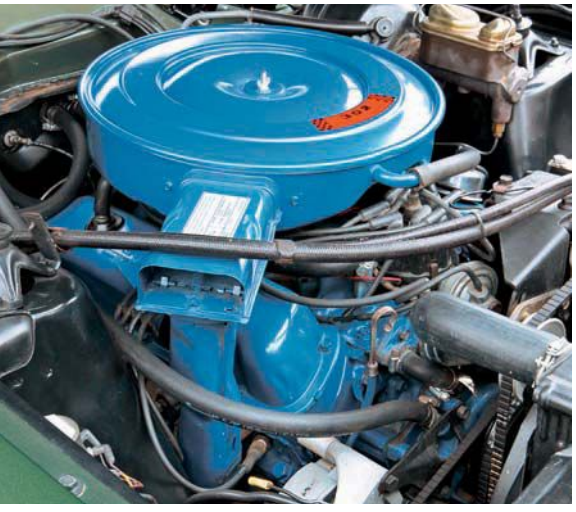
San Dimas, California, resident Chuck Jennings is just one of many who can attest to the automotive changes we've all lived through, but not in the usual sense. He's had a particular affection for high-horsepower muscle cars—he owns a 1969 Pontiac GTO and '70 Plymouth 'Cuda as proof—however, there's a calming force lurking in his garage in the form of a dark green metallic 1968 Ford Torino GT. It's a car that we usually associate with big-block engines and the aero wars of stock car racing, which makes 'calming force' and 'Torino' sound like an oxymoron. What makes this combination of verbiage a reality is an

Ford's C4 automatic transmission was also separated from the Torino a second time. Like the engine, it was cleaned after its prolonged slumber and placed in protected storage while the engine bay was receiving its refurbishment.

As the engine bay was being media-blasted, great care went into documenting factory markings uncovered on the radiator support panel and firewall. Doing so enabled the owner to have them replicated later in the restoration process.

The Torino's front bench seat had clearly seen better days and was scheduled to be reupholstered later. At this early stage, the dash and instrument panel, door panels, and front section of floor carpet have already been removed.

In spite of its deteriorated condition, the Ford fortunately had not succumbed to copious amounts of damaging rust. While surface rust on some body panels was easy to rectify, the only patch panel the GT required was this section of floorpan.



often forgotten piece of history: Torinos built with sedate power far outnumbered those with race-inspired big-blocks.

To that point, Chuck's GT arrived from the factory with a standard two-barrel carbureted 302-cu.in. engine. Its 210 hp is serene, yet powerful enough to move 3,200 pounds of metal. The two-door hardtop, with its "formal" roofline hallmarked by a sharply angled backlite, was then decorated with a number of comfort and convenience options, such as air conditioning, tinted glass, power disc brakes and steering, and an automatic transmission. For that added touch of elegance, it was finished with a black vinyl top and white stripe tires. Like so many others, the GT then transitioned from new to used car in the hands of several owners. By the time it was presented to Chuck, its condition was far from new, and the timing wasn't particularly right.

"My wife and I were hosting a backyard wedding for a friend, and one of the guests noticed my collector cars in the garage. During the conversation, he told me about this Torino GT he was considering selling. I didn't need another car—I was deep into the restoration of an Olds 4-4-2 and I had a 1970 Dodge Challenger out back waiting its turn—but one thing led to another, and he offered the Ford to me at a very reasonable price. It was in rough shape—torn interior, balding tires, faded paint, and it burned oil—but it ran and it was complete," says Chuck.

After the rest of the interior had been emptied of its contents and the floor repair completed, the entire floorpan was given a protective coat of semi-flat black paint. Note that the application of paint was carried up the kick panels and doors.

After the engine bay and surrounding unit-body structure had been cleaned, the rest of the body was masked off before primer and a coat of semi-gloss black paint was applied. It was given a proper cure time before the area was repopulated.

At this stage, the front fenders have been bolted into place and realigned with the rest of the body. The 302-cu.in. engine has also been pulled from hibernation and prepped for its return to the chassis with a fresh coat of Ford Engine Blue paint.

Reassembly is already in full swing in the engine bay. With the engine in place, the front section of wiring harness has been reconnected to most of its associated components. Note the replicated factory marking on the radiator support panel.

As it turns out, Chuck had a soft spot, and a plan, for this particular Torino. "I had worked for a Ford dealer in 1968 and '69, and really liked the Formal Roof look of the GT; I even considered purchasing one. But in '68, no kid would have bought one unless it had a 390 or better under the hood. Flash forward to 2003. My grandson really wanted the Plymouth 340 Duster I had just sold, and I thought to myself, there was an opportunity here."

Chuck bought the Ford and presented it to his grandson—who lived in Arizona—during his visit. His grandson was excited to have a vintage car to call his own, and Chuck offered to give him a head start on its restoration by having the engine and transmission rebuilt. Chuck and his friend John tackled the V-8, while the C4 automatic was sent to Remac Transmission, also in San Dimas, and upon completion, the Torino was towed to Arizona. A few pieces of trim were removed soon after; however, as is often the case with young men, school, part-time work and other activities consumed much of his grandson's time. After a year of understandable neglect, the Torino was returned to Chuck. It sat untouched for another six years.

"In 2010, after completing both the Olds and a GTO I could not pass up, I turned my attention back to the Ford when my nephew John said he would like to work on it and earn some extra money. He's very good at body work, and since I was financially into it for more than I

There were a number of little projects that needed to be accomplished. While Just Dashes was restoring the dash and its padded surface, owner Chuck disassembled, cleaned and rebuilt the instrument panel. Here the 120 MPH speedometer is readied.

After a second application of primer and more sanding, a fresh coat of Dark Green Metallic was applied to the Ford one section at a time. Although a new vinyl roof would be glued in place later, the top was painted to further protect the metal.

With all of the painting, sanding and buffing completed, the push was on to finish the project. Several pieces of trim have been installed. After careful alignment, the front bumper is being tightly secured to its mounts; the grille would follow.

Most of the interior has been completed, including the floor carpet, seats and dash, along with the air-conditioning system and its associated trim. Even the vinyl top is in place. Some of the last pieces installed were the door panels and trim.

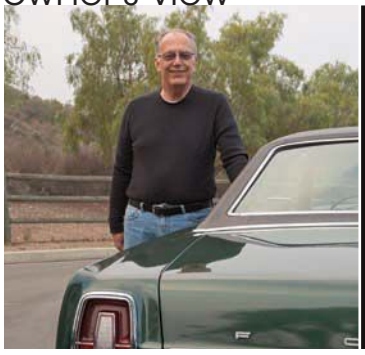
would have gotten had I sold it, I turned the project over to him," says Chuck.

Rather than completely disassemble the car, John left the Torino intact as he sanded the panels to bare metal. Although its as-sold condition would suggest otherwise, the Ford had led a charmed life; nary a spot of damaging rust was uncovered, save for a small section on the floor where the original carpet had been removed later. For this, a patch panel was fabricated and TIG-welded into place. A skim coat of filler was applied to the exterior panels where needed, which was then smoothed using the common coarse-to-fine grade progression of sanding before the entire surface was protected with a layer of primer.

Once Chuck had the car back, he began removing and recording the remaining trim before pulling the engine and transmission again. The front end was then completely disassembled, allowing him to media-blast the front unit-body structure, a process that also uncovered several original factory markings. Piece by piece, the interior was also removed, starting with the dash, before moving to the seats and remaining upholstery.

Over the next several months, numerous aspects of the restoration were being accomplished at the same time. Both the 302 and the transmission were being cleaned and redetailed; Just Dashes in Van Nuys, California, refurbished the dash as Chuck cleaned the gauges; trim

owner's view



If you're thinking of restoring a car, take the time to fully understand how much time and money are going to be involved for the desired outcome. Talk to other guys who have completed a similar car, and try to find out how much was spent on things like paint, body prep, an engine rebuild and upholstery, and how much of the work you should reasonably be able to perform yourself. And be prepared to have to tear things apart two, even three times, before you get it to work or fit right. Also, pay attention to those return periods when purchasing parts. This kind of planning goes a long way in achieving your goals.

was polished or set out to be replated; hard-to-obtain trim—which was needed to replace the few original pieces that had gone missing—was acquired; and new vacuum control units were purchased. While Chuck worked on his list, John primed and then painted the front unit-body structure in semi-flat black.

"As I was running out of things to take apart and detail, then reassemble, I realized I was real close to needing the car repainted before I could begin reinstalling everything. We had already repopulated the firewall, sealed the floorpan and replaced the engine and transmission, so once we put the front fenders back on, I had the body sealed in a finish primer. Section by section, the body was then finished in its factory shade of Dark Green Metallic. Each time a section was done, I would put something back on the car that would not interfere with the paint process.

"Trim and upholstery were last, but we uncovered problems in the process. To take advantage of a shipping discount, I ordered an upholstery kit and wheelwell moldings together. When I took the car over to Citrus Auto Upholstery in nearby Covina, they found that the company I dealt with sent material for two front bench seats and none for the rear. After a long discussion with the supplier, they agreed to send the correct material, but then a few days later, I learned that the rear side panels were for a '71 Torino rather than a '68. To top it off, the right rear molding was incorrect. It was a lesson in why bulk purchases for discount shipping are not necessarily an advantage."

Although it slowed the completion, Chuck cautioned that setbacks of any type are not an unexpected malady that seems to befall every restoration. "When you're a car guy, when it's your hobby, and when you enjoy returning something to its former glory, you realize you don't restore it for money. You do it for the enjoyment it brings to you and others, and so you can relive some great memories, too."

Chuck's Torino GT was officially completed in March 2014, and as of this writing, he's barely had two months to enjoy it in its finished state. However he's already made it clear that pleasure cruising is in its future. "I prefer the 302, since I don't plan on racing, and I want to enjoy driving it wherever I desire. I'll turn on the A/C, turn up the radio, and sit back and enjoy the road wherever it leads me."

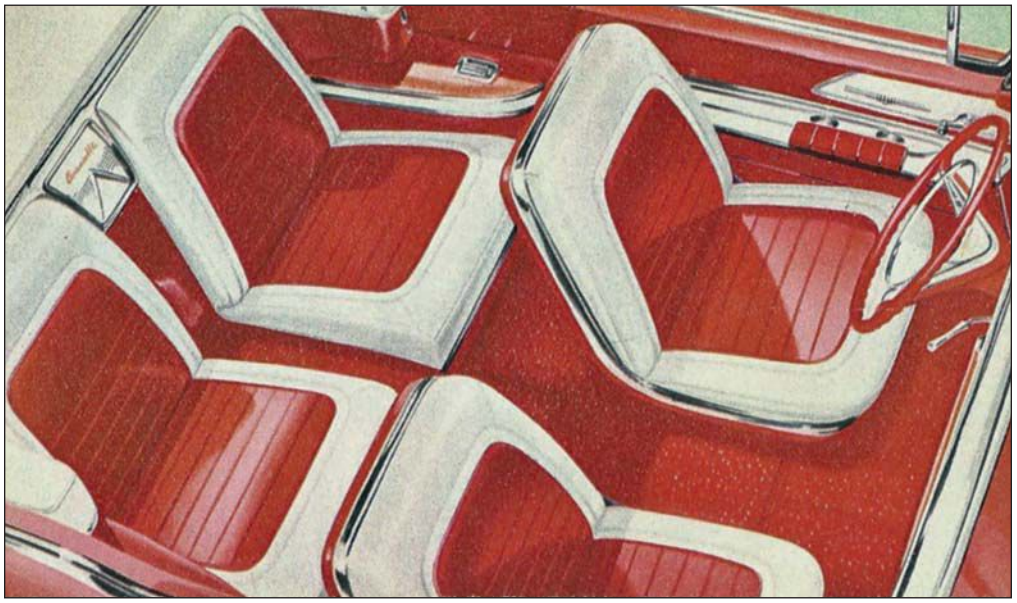
1958 Pontiacs

A NEW KIND OF CAR IS BORN...

planned from the ground up as the Golden Anniversary showpiece for Pontiac and General Motors! Now, Pontiac brings you scores of bold and basic advances in modern automotive design teamed together in a daring revolution.

Step into a new world of "custom-tailored" beauty in every model of the Golden Jubilee Car!

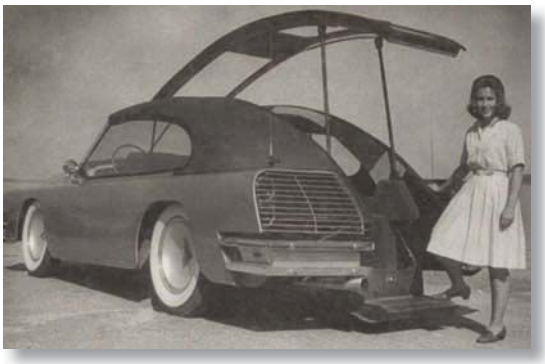
Special interiors for each series provide a total of 60 glamorous selections to harmonize or contrast with hundreds of exterior paint combinations. Even instrument panels and wall-to-wall carpeting are keyed to this luxurious new kind of motoring beauty—and it's yours at no extra cost in the Bold New Pontiac.



BY CHRIS RITTER

ILLUSTRATIONS COURTESY OF THE AACA LIBRARY

Selling the Mohs



TWO UNIQUE, LIMITED-production vehicles came out of Madison, Wisconsin, from 1967 through 1979. They were the product of inventor, aviator and businessman Bruce Mohs. His automotive creations were huge and included the Ostentatienne Opera Sedan and the Mohs SafariKar. On a smaller scale, Mohs also built an "Ultra-lite" motorcycle and even a kid's car called the Model F Funster. Sadly, Mohs produced a supply of sales literature that simply did not live up to the style of the cars or the man himself.

The Ostentatienne Opera Sedan was the first of Mohs' full-size automobiles. Built on an International Harvester chassis, the car had a length of 246 inches, width of 90 inches and a tread of 74 inches that would "provide unparalleled cornering characteristics" when compared to other luxury vehicles. Entry into the vehicle was gained by a single full-size door that opened at the rear of the vehicle. This rear opening allowed the owner "to enter his car erect and with dignity." It was also needed because the car featured a full-length steel rail on each side of the frame to protect occupants from broadside collisions. It was powered by a standard 304-cu.in. V-8, or an optional 549-cu.in. V-8. Mohs assured prospects that both engines developed "adequate" horsepower.

The standard equipment list was extensive and included sealed beam tail lamps, a refrigerator, butane furnace, deep pile carpeting, individually adjustable windshield wipers, and a hot water heater. It is no surprise that this behemoth weighed in at 5,740 pounds and was priced at $19,600 or $25,600, depending on engine selection.

Mohs' second automotive creation was an on-/off-road vehicle that entered the market in 1972 named the SafariKar. As with the original Opera Sedan, big and luxurious was the theme in the SafariKar. The dual-cowl phaeton featured a retractable convertible top, rear seats that converted into beds and an exterior covered in padded Naugahyde. According to the sales flyer this covering "is not only quiet in the extreme, but low in maintenance since there is no paint on the exterior of the car. You merely wet, wipe and dry for cleaning. No waxing. No polishing." There were doors on each side, but they weren't hinged, instead they slid in and out on linear shafts. The SafariKar featured a 392-cu.in. V-8 and sold for $14,500.

While the Mohs cars were big and over-the-top, their sales literature was anything but ostentatious and consisted of simple black-and-white, two-sided flyers. These flyers included photographs and a list of equipment and features. Sales literature for this car should have been extremely interactive with paper models that had opening doors and more illustrations about the swing and sway seats.

Featured in the sales flyers for both cars was Mohs' patented swing-a-way seats which "compensate for centrifugal force in turns and pivot into the horizontal in the event of frontal collision." In brief, they kept the passenger centered in their seat with no side-to-side sliding. Company literature also brags that Mohs "shares no components or design philosophy with any other car" and may have stretched the truth a bit when it stated that owners will see "minimum depreciation" in their investment.

While not considered sales literature, the AACA Library owns a collection of correspondence between Bruce Mohs and several automotive manufacturers, designers and government agencies. The first letter comes from legendary designer Gordon Buehrig who bluntly wrote to Mohs, "I do not care for your design of a new car… I would like to suggest that you check the opinions of a number of people before going ahead with your present design."

In other correspondence, readers can learn that Mohs had several meetings with the Ford Motor Company regarding the use of his seats in Ford products. We can also see his passion for safety in communications with the Department of Transportation, which, at one time, considered Mohs for an appointment with a newly formed Experimental Safety Program.

Mohs' cars may have been big on style, power and appointments, but their sales literature, while informative, lacked the flair, originality and attitude of the ostentatious vehicles.

BY MILTON STERN

Ford's Foxy Fairmont

FOR MANY OF US, THERE ARE certain years that represent great milestones in our lives. For example, the year we learned how to drive often ranks up there in the top three. One of my milestone years was 1978, the same year the Ford Fairmont was introduced. While the Ford Granada, a car I love, was first intended to replace the Maverick, it was this Dearborn compact that actually did. The Granada was still selling strong, so it soldiered on in its Mercedes-like form for a few more years before being replaced in 1981 by a Fairmont-based version.

The Ford Fairmont was built on the new Fox platform, and it was the first Ford designed using computer analysis, which explains its sweeping lines and awe-inspiring shape. Yes, the car looked as if it were designed by a geometry teacher. This is no insult to geometry teachers; geometry was my favorite subject.

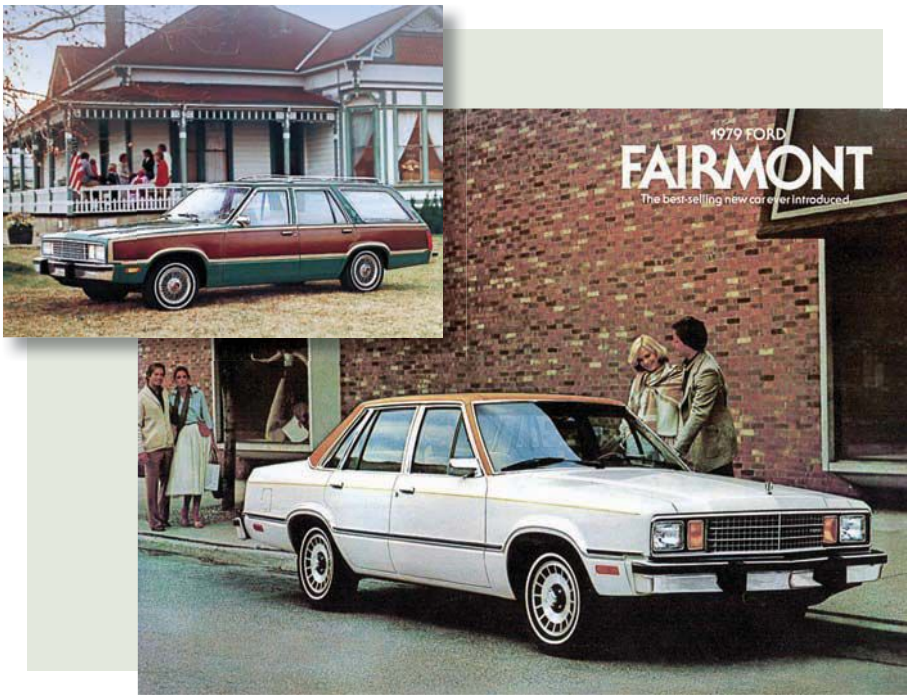
I remember, just before its introduction, a friend of the family sold Fords, and he was so excited about this new car, he expounded all its modern features, including its aerodynamics.

The Fairmont was still considered modern even while Chrysler was at the same time introducing America's first front-wheel drive subcompacts—the Omni/Horizon twins. But, compared to the car it replaced, it really was something new.

Although it retained rear-wheel drive, the Fairmont had many features found on cars today. For starters, it had coil springs instead of leaf springs in the rear, and the front suspension included MacPherson struts and rack-and-pinion steering. Do you know the first American cars to offer rack-and-pinion steering? The 1974 Ford Pinto and Mustang II.

The boxy design allowed for a shorter wheelbase of 105.5 inches, yet it had more interior room in a lighter body, resulting in more miles per tankful. The Fairmont consisted of two- and four-door sedans and Ford's first compact station wagon since the 1970 Ford Falcon station wagon.

Shortly after the Fairmont's introduction, Ford introduced the far-out Futura, using a name from the former Falcon family. The Futura was to the Fairmont what the Marlin was to the Rambler Classic—a car you either loved or hated. From some angles, the Futura looked as if it were built on the wrong platform. It was first offered as a two-door model, which had a wide "tiara band" that mimicked the very popular and recently introduced 1977 Thunderbird—a car Ford couldn't build fast enough. In 1981, two- and four-door Fairmont Futura sedans were added.



The Fairmont was a big success for Ford, and due to its light weight, Ford confidently offered a 2.3-liter, four-cylinder engine. In addition, the familiar 200-cu. in. straight-six was available as well as the 255- and 302-cu.in. V-8s. Transmissions ranged from a three- or four-speed manual to the more commonly ordered three-speed automatic.

At the time of its introduction, a friend's family bought a base model Fairmont that had a three-speed manual on the floor. His car was a baby blue, two-door sedan with button hubcaps. I would love to find one exactly like it today. There is something about a base-model survivor.

A turbocharged four-cylinder engine from the Mustang was offered in 1979 and 1980. In addition, a few turbocharged automatic four-door sedans were used for testing by the California Highway Patrol, but they didn't pass.

There was also the Mercury version of everything above, the Zephyr.

With all its fanfare and many offspring, the Ford Fairmont lived a relatively short life compared to other Fords going back to 1960. Its final year was 1983, when it was replaced by the Tempo, but its platform would carry on for a long time. It was also the basis for the 1981-'82 Granada and the 1983-'86 Ford LTD mid-size when the full-size became the LTD Crown Victoria.

Now, to the question at hand. Why should you consider a Ford Fairmont? If you are new to the hobby and your funds are limited, here is a car you can have for very little money. This is not a five-figure car. The mechanicals are straightforward, too. Since the platform lived on in other cars and it was powered by familiar Ford engines and transmissions, repairs and parts finding should be easy and inexpensive. You will also get good gas mileage during road rallies compared to the guys in the land yachts. While they stop for gas every hour, you can do a little sightseeing and have a few dollars left in your pocket for souvenirs. In other words, with a Fairmont, you can still afford a snow globe.

WORDS AND PHOTOGRAPHY BY JEFF KOCH

Three Strikes, You're Out

SMALL-SCALE DIE-CAST CAR companies come and go; we can lament the disappearance of storied names like Ertl, Racing Champions and Johnny Lightning all we want, but their names, and their tooling, appear to have been relegated to history.

And so, when old tooling pops up in new places, we're always fascinated; a second chance for a die-cast car line is rare. But a third chance? Virtually unheard of. Yet one example stands out.

It started with the model-kit concern AMT; in the fall of 1967, it launched a line of 1/64 scale (3-inch) die-cast cars called AMT Pups. The tooling appears to have been pantographed down from AMT's annual kits, including opening hoods. It launched four models, all 1968s: Charger, Camaro, Cougar and Mustang. These four models were scheduled to be the first wave: more cars were due to come later. There was, however, a hitch in the plan.

Mattel's Hot Wheels came along and cleaned AMT's clock.

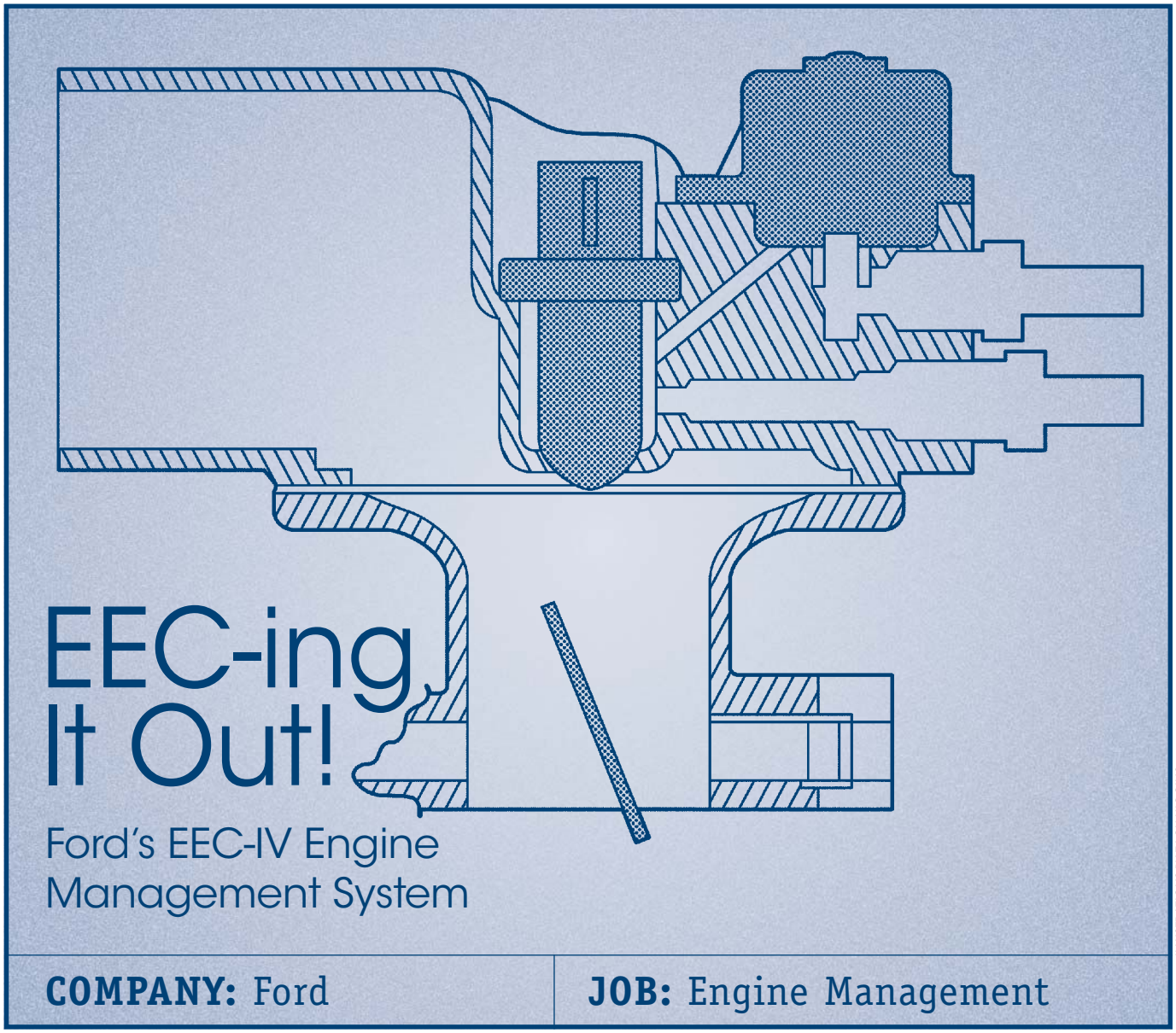
AMT had clearly modeled their die-cast cars on the Matchbox ideal—a high level of cast-in detail, while shifting the models to a more American emphasis—while the market had quickly taken to Hot Wheels' flashy Spectraflame colors and fast-rolling redline tires on Delrin bushings. So disappointing were initial sales that AMT sold everything, including tooling that had yet to be produced, to Mego. (Younger baby boomers may remember the Mego name attached to a variety of action figures, including Action Jackson and a number of DC Comics licenses.) In a nod to the fast-rolling competition, the chassis were modified to accept piano-wire axles and thin, fast-rolling wheels and tires. Mego's Jet Wheels line consisted of eight cars, newly painted versions of the AMT Pups models, plus four more: Riviera, Corvette, Corvair coupe and a two-seat AMC AMX. A line of open-wheel Formula One cars—a pair of Ferraris, Cooper, Maserati, BRM, Honda V12 Lotus-Climax, and the all-American Eagle—were also done by Jet Wheels.

These, too, did poorly, and the tooling was sold once again. A few transitional models, marketed as Tuffy, appeared to have either the AMT ground off the chassis or the Jet Wheels name covered up; it's possible that these were assembled from leftover pieces and marketed as they could be. Tuffy did introduce one new model: a contemporary Pontiac Bonneville convertible (surely based on AMT's '68 promotional model); these models were "Made expressly for McCrory-McLellan-Green Stores," according to packaging.

Later, with a revised chassis once again and a new, solid wheel that offered a sticker mag in place of any molded detail, these were marketed under the Super Speedy name; the packaging showed a pair of Hot Wheels-esque orange gravity track lanes curved into the shape of a double S. One more model debuted as a Super Speedy: a Ford Torino fastback, with tooling almost certainly based on AMT's annual kit, and which today borders on unobtanium. Super Speedy models petered out of existence in the early 1970s, and the tooling disappeared for good this time. The models remain obscure; today, only hard-core marque fans or die-cast collector fiends seek them out.

The tooling may well have changed hands on the financial ledgers, but it's entirely possible that the same factory was contracted to manufacture them. All were made in British-ruled Hong Kong, and paint color and quality (between Mego Jet Wheels and Super Speedy models, anyway) seem quite similar.

All of them are charming, and some (Corvair, Pontiac convertible) have not been done in stock form in this scale elsewhere previously or in the following four and a half decades. Mint-boxed AMT Pups, by far the most common models to be found, start at $50 and up; Super Speedy Torinos can be $300–$400 or more in mint-loose shape.



EEC-ing It Out!

Ford's EEC-IV Engine Management System

COMPANY: Ford

JOB: Engine Management

ILLUSTRATIONS BY ZACH HIGGINS

BY RAY T. BOHACZ

THE WORLD OF AUTOMOTIVE engines changed dramatically as the end of the 1970s approached. Tighter emission standards and decreased fuel consumption were mandated by the federal government. These legislative decrees forced Detroit to incorporate technology that it had never before dreamed of putting under the hood of a car.

A timeline of emission controls would reveal the replacement of the road draft tube in the early 1960s with the PCV (positive crankcase ventilation) valve. Eventually, this included a charcoal canister to control evaporative discharge from the gasoline, along with an exhaust gas recirculation (EGR) valve. The model year 1975 brought the advent of the catalytic converter and the need to use unleaded gasoline, because leaded fuel would coat the catalytic material and render it ineffective. Catalytic converters will only work well when they're fed an engine-out air/fuel ratio of 14.7:1. Thus, the need to keep the mixture at that concentration for the majority of engine operating scenarios was recognized as being important.

During that time, Detroit engineers were also replacing the breaker point distributor with an electronic system. The new design eliminated the wear that the points would normally experience over time, thereby preventing the increase in engine-out emissions that would have come with it.

All four of the Detroit car companies responded with their own theories and designs for engine management systems that, at first, employed electronic carburetors but eventually morphed into various styles of electronic fuel injection.

A FAMILY HISTORY

Ford decided to call its system "Electronic Engine Control" (EEC). It used an alphabetical designation along with a Roman numeral to identify each iteration. The first

system, which debuted in 1978 on the Lincoln Versailles 302-cu.in. V-8, preceded GM's implementation of its Computer Command Control (CCC) by three years. Identified as EEC-I, it was mainly found on 1979 vehicles destined for California. Subsequent versions of Ford's Electronic Engine Control were designated EEC-II, EEC-III, EEC-IV and, finally, EEC-V.

EEC-I through EEC-IV will be the focus of this discussion and are classified as OBD-I (on-board diagnostics) systems by the EPA. EEC-V (1996 and up) was Ford's first OBD-II system. By federal mandate, OBD-II must monitor catalytic converter performance, offer advanced self-diagnostics and report via a dashboard telltale if the engine experiences a misfire. By contrast, OBD-I required an oxygen sensor only to control the engine-out air/fuel ratio, offered limited self-diagnostics and was not legislated to include a dashboard warning light. Prior to EEC-V, Ford did not include a warning light to indicate a system malfunction, but GM—right from the beginning—did on its CCC design. Many in the industry feel that the CCC system from Delco Electronics was the impetus for the government eventually requiring a dashboard light to notify the driver of an emissions-related malfunction.

EEC-IV

The EEC-IV design debuted for the 1984 model year and was found on engines with both CFI (central fuel injection) and PFI (port fuel injection) as well as on a few carburetor-equipped engines.

The primary difference between EEC-IV and its predecessors is in the reference voltage supplied to its sensors. Whereas the previous Ford systems used a 9-volt reference, the new design employed the more common 5-volt signal. On 9-volt reference systems, if the battery happens to be weak during very cold weather, it is possible for the voltage to drop below the 9-volt threshold when the driver tries to start the engine. When this occurs, the engine will crank but not start, since the EEC system will not turn on. This problem ceased to be an issue in Ford's EECs when it switched to the system that used the lower reference voltage.

An engine controller has inputs and outputs or "I/O" in electronics parlance. The sensors are "inputs," information-gathering devices for specific aspects of the engine such as coolant temperature, RPM, manifold vacuum, throttle angle, etc. "Outputs" are control circuits. These operate the fuel injectors, the ignition circuit, air-injection-reaction direction valves, idle speed control, EGR valve and many others.

EEC-IV works with a "look-up table" to control fuel and spark timing. A distance chart found in a road atlas is an example of a kind of look-up table. It possesses an X and a Y axis, and the value is read where the two meet. So, if you want to determine how far it is from Detroit to Chicago, you locate one of these cities on one axis and the other city on the other axis, and then follow the lines they head across and down until they meet. The distance between the two cities is indicated at this confluence.

Most, if not all, engine management look-up tables use engine speed and load. Depending on the design of the management system, the look-up table could instead work with injector opening times, or more advanced designs such as the EEC-IV have the volumetric efficiency of the engine mapped. Based upon data from the sensors and the hardcoded information about the size of the engine and the fuel flow rate of the injector, it then mathematically calculates an injector opening. The calculation also takes into consideration the thermal efficiency of the engine, that is, how efficiently it's converting fuel into horsepower. The metric used for this is "brake specific fuel consumption" (BSFC), and it is the subject of discussion in Mechanical Marvels a few issues back (*HCC* #117, June 2014). In addition, the value is trimmed by input from the coolant and intake air temperature sensors.

Volumetric efficiency is a measure of how full with combustible mixture the cylinder bore is. It is the result of the piston's pumping action along with the air-flow potential of the engine. A production engine will fill the bore approximately 85%, and only during peak torque. For example, a then-common 302-cu.in. Ford V-8 when at 85% VE would have the useful cylinder fill of a 256.7-cu.in. engine. Thus, it would need fuel only for that amount of cylinder fill.

Along with VE, thermal efficiency impacts the injector-opening rate, since it determines the fuel required to create the desired mixture strength as a function of BSFC. The more thermally efficient the engine is, the less fuel it requires for a given VE to create the desired air/fuel ratio.

In terms of determining the injector opening time, the Ford EEC-IV system was much more advanced than either GM's or Chrysler's designs of the same era. It used what could be considered a "math-based" VE calculation. Eventually, Ford's fuel-control logic came to be emulated in EFI systems industry-wide.

Engine load was measured either with a mass air-flow sensor (MAF) or a manifold absolute-pressure sensor (MAP). In lay terms, a MAP sensor reads intake manifold vacuum, while a MAF system calculates the mass of the incoming air. As with most things, both designs have their benefits and downfalls.

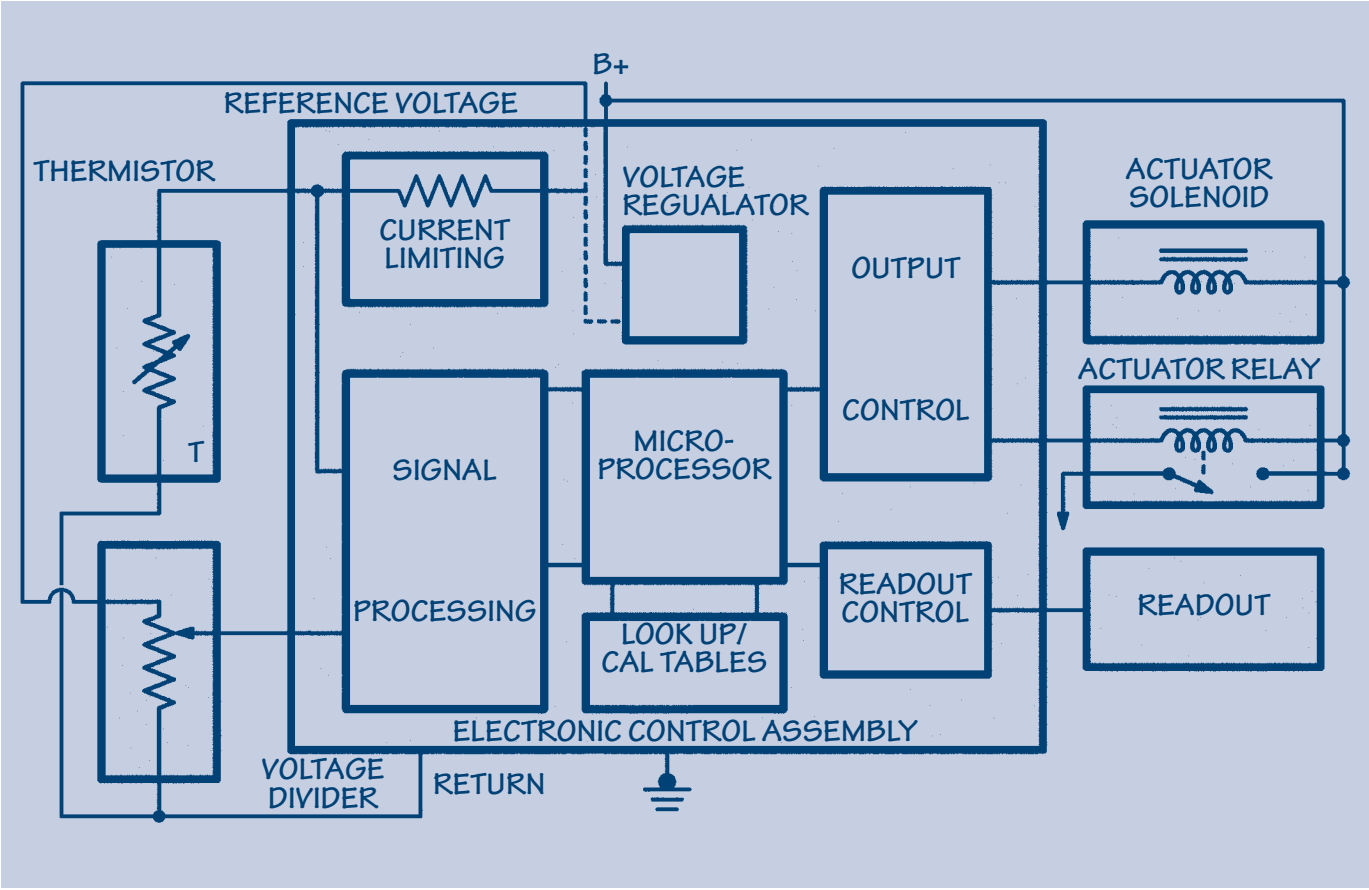
It is accepted that a MAF load calculation, in theory, is more accurate, since air is considered elastic—it expands and contracts with temperature. However, a MAF-type system is harder to package under the hood since it needs to be part of the induction tract prior to encountering the throttle blade(s). It is also sensitive to any air leaks in the system after the sensor takes its measurements. This unmeasured air is known within the community as "false air."

The MAP sensor only requires access to the vacuum in the intake manifold, is less costly to manufacture, and can be located anywhere under the hood, with a rubber vacuum line bringing it the signal.

To Ford's credit, either load calculating system was excellent and was not problematic at all. For comparison, GM's TPI design was based on a German-made Bosch MAF sensor that experienced nearly a nine-out-of-10 failure rate within the first few years of use. GM eventually switched to a homegrown, American-made AC-Delco sensor in its MAF applications, and converted the next generation TPI to a MAP sensor. In contrast, the Ford MAF was considered bulletproof. The majority of those replaced were due to poor diagnoses by technicians and were, in fact, not faulty.

The EEC-IV MAP was unique when compared to other similar sensors in the industry. It worked on a digital frequency, whereas GM, Chrysler and many of the imports used a less-costly analog (varying voltage) MAP sensor. The EEC-I through EEC-III systems with MAP sensors had an analog output and were identified as B/MAP sensors. These units monitored not only engine vacuum, but they also had a separate port that was open to atmospheric barometric pressure input.

Some digital EEC-IV MAP sensors looked at barometric pressure when the ignition key was turned to "on" and just before the engine cranked. It then stored this information in memory to use later as a reference. It was erased when the ignition was shut off. In other applications, Ford employed a digital barometric sensor that was not part of the MAP sensor.



The Ford EEC processor included an advanced circuit that calculated the required injector opening time based upon a mathematical formula that looked at volumetric efficiency.

The EEC family of engine control units (ECU) is known for its extreme quality and rarely ever failing. ECUs did fail, but rarely.

If the EEC system had an Achilles' Heel, it was its extreme sensitivity to ground circuit issues. A high-impedance ground would drive it crazy. A typical diagnostic procedure on any EEC-equipped car was to keep replacing parts until the problem resolved itself. Since ground connections are not "parts," consumers with EEC-IV equipped engines were often handed huge bills for sensors and an ECU their cars did not need. This gave the brand an undeserved poor reputation.

As excellent as the EEC systems were, the diagnostics were cumbersome at best. Whereas the GM Delco CCC pioneered the now-industry standard of providing a data stream via a scan tool plugged in under the dashboard, the Ford system did not offer that ability. Also, the GM design allowed trouble codes to be retrieved by grounding two pins in the scan tool connection under the dash. This would cause the "Check Engine" light to flash a code indicating the troubled circuit. In a pinch a paper clip could be used to evoke this function.

The EEC-I thru EEC-III did not have any trouble codes readily available, nor did they have any memory in which to store them once the key was turned off. A tool called a "breakout box" was required. The breakout box was located in series between the ECU and the wiring harness and was necessary for reading sensor inputs and ECO outputs.

EEC-IV was equipped with a memory in which to store system trouble codes after the key was shut off. There were two ways to acquire trouble codes from an EEC-IV system: A tool called a "Star Tester" could be used, or an awkward and complicated procedure could be followed using an analog voltmeter; the sweeps of the voltmeter's needle are noted, and these indicate the trouble codes. For this reason, many mechanics that worked on a variety of brand cars shunned computer-controlled Fords. The GM system was so much easier to work with.

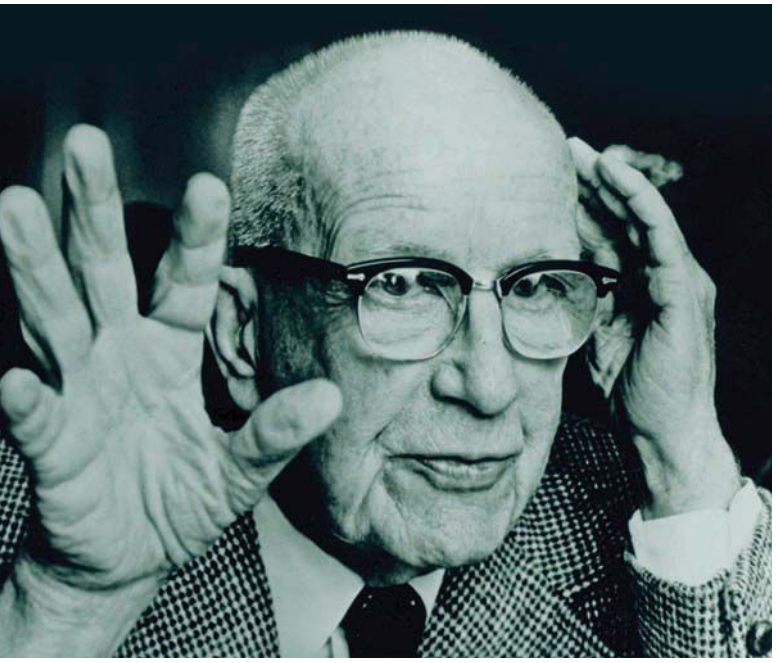
Another unique aspect of the EEC system was its first use by a domestic manufacturer of a heated (three-wire) oxygen sensor instead of the then-common unheated (one-wire) design. A heated sensor allows more freedom in placement, since it can be farther from the engine's exhaust port in the cylinder head. Its output is also more stable since it maintains the proper operating temperature under conditions such as extended idle or while the vehicle is stuck in traffic.

All EEC systems operated the electric fuel pump when so equipped. As a safety feature in the case of a collision, an inertia switch was placed in the voltage line to the fuel pump. If the car were involved in a crash, the circuit would open and the fuel pump would shut off. The inertia switch had a button that popped out when this occurred and could be reset simply by pressing it back in. The switch was usually located in the trunk. Some unscrupulous parking garage attendants would know this and would take their fist and smack the sensor to trigger it. Then, when the owner would come back to get their car, it would not start. The attendant would then offer to look it over for them, which in almost every case the owner would be more than agreeable to. The attendant would reset the inertia switch and pocket a healthy tip as the man that saved the day.

BY JIM DONNELLY

R. Buckminster Fuller

AFTER SOME CONTEMPLATION, you'll likely come to agree that it's easier to describe the lifetime work of Richard Buckminster Fuller, as unconventional as it clearly was, than to define the man. Fuller was an inventor, a scientist, an architect, philosopher, a teacher and a futurist. He also had a very different and unique notion about how automobiles should be built. For that reason, we nominate Fuller (along with another Henrik Ibsen-worthy freethinker, William Stout) of being a co-father of the modern minivan.



How can we make such an oddball claim? Easy. Stout, an aeronautical engineer, created a forward-oriented passenger module called the Scarab, with the engine in back, pushing the cabin-like conveyance down the highway. Fuller thought bigger, considering the entire planet to be a spaceship of sorts, which had to move in harmony with the rest of nature. It was later on that he applied that mindset to land transportation. Fuller was born in 1895 in Milton, Massachusetts, sprung from a family that had produced more than its share of deep thinkers and activists. Enlisting in the Navy, he invented a high-speed rescue winch for aviation use and was rewarded with an appointment to Annapolis.

In 1927, Fuller created the first in a series of highly simplified inventions dubbed "Dymaxion" and trademarked by a light, triangulated frame. The initial one was a modular house so feathery and compact it could be delivered to its site, fully assembled, by aircraft, its basic structure consisting of bricks made from compressed wood shavings. Fuller's continuing work came under the name he applied to it, Design Science. Its early expression was Dymaxion technology, the lightweight framing of complex structures. Stout and Fuller were working independently of one another—indeed, they likely never met—when Fuller adapted his Dymaxion concepts to an automobile. In 1933, he unveiled the Dymaxion car, a revolutionary failure.

It resembled, somewhat, a Zeppelin gondola on wheels. With passenger capacity for 11, the three-wheeled Dymaxion car could be U-turned in its own length via a single, steerable rear wheel. It used an 85-hp Ford flathead V-8 mounted at the rear. Almost as soon as it was rolled out, the Dymaxion was involved in a demonstration at the Chicago World's Fair when it crashed, killing its driver. Investors, who allegedly had been pitching Fuller's design to Chrysler, pulled out in a panic. To this day, some proponents of Fuller's work claim the project was sabotaged out of fears the Dymaxion would immediately relegate all other cars to obsolescence. Only three such cars were built, and just one authentic, original example is known to survive today. The Dymaxion car is known, however, to have been an inspiration for the postwar Fiat Multipla wagon, itself a successful early interpretation of what came to be known, decades later, as the minivan.

The rounded, skeletal design of the Dymaxion car was reprised and refined in other Fuller developments. One was a Dymaxion bathroom that could be easily grafted onto an existing house—it was the late 1930s, when any number of homes were just getting indoor plumbing. Another was a circular shelter that failed to find wide acceptance as a dwelling, but was nonetheless adapted during World War II as field quarters for radar crews in remote areas.

Long a practitioner of applied geometry, Fuller came out of World War II with an idea for a structure that was adaptable for literally any use. The Dymaxion-framed geodesic dome would become his lasting achievement, used as the centerpiece of Ford's redesigned world headquarters in Dearborn, Michigan, and as a sphere at Expo 67 in Montreal, Canada. Late in life, Fuller enjoyed visiting professorships and fellowships at innumerable institutions of learning and consultancy, where he lectured that the roles of the artist and scientist were naturally intertwined. Bucky Fuller, as his admirers called him, died within 36 hours of his wife's passing, in 1983.

I WAS THERE

Robert Thacker

Clay Modeler

American Motors Corporation, 1959-1962

I WAS A CLAY MODELER AT American Motors Styling from fall 1959 to spring 1962 when Edmund Anderson was the director of design. He held that position from 1950 through 1961. Dick Teague was Ed's second in command.

Ed was what we called a "character." He could be thrifty or extravagant, modest or flamboyant, hung up on details or expansive about the big picture, but Ed was never boring. As director of AMC's modest design staff, he had time to be personable to everyone, and we all got to know him quite well. He often displayed the perfect smile.

Ed Anderson's exploits were legendary. In 1960 he still often drove a Nash Healey coupe, which had the original Nash six replaced with a Packard V-8. (Could it have been a prototype? Could it be the only Packard Healey?) One morning, while motoring in from Romeo, the Detroit police gave chase down Greenfield and onto Plymouth Road. Ed raced for the company gate, depending upon AMC security to filter out the pesky pursuers. Unfortunately, the sirens followed the Healey right down into the executive garage. When Ed finally got to his office he strongly proposed discipline for the laxity of plant protection allowing this obvious breach of styling security.

Ed was always gathering his personnel together for pep talks, emulating AMC chairman George Romney's fiery employee inspirationals. At that time, the styling staff numbered about 30, including managers, supervisors, stylists, modelers, draftsmen and Karen, the secretary. One of his pet themes was how desperate our competitors were to discover the advanced plans of AMC styling. We were lectured about loose talk. He told us he didn't even tell his wife what he was working on, and we shouldn't either. His talk was flourished with examples of information leaked to relatives, the guy at the gas station, etc., and the resultant damage.

Most times we worked extensive overtime. The public may find it hard to understand the urgency of working under such pressure during 1960 on a 1963 car, but such are the demands of lead-time.

The evening of the big talk we were sculpting away on a full-sized model of a future Rambler. Some rolling boards with full sized illustrations of various proposals had been left standing between our model and the office door. We heard that door open, feet shuffling, hushed voices and Ed talking in his distinctive forced whisper, (due to a laryngectomy some years before). Curious, we peeked between the boards and discovered Ed was conducting a guided tour of about 20 boy scouts. Talk about loose lips!

Ed had a habit of keeping his favorite old suits long after they began to show wear. One day he rushed up to a designer's drawing board and requested a squeeze of ochre and a couple of other earth shades. After mixing to his taste, he touched up the worn edges of his pockets and cuffs for an unexpected meeting.

Ed sincerely believed rival car companies would pay any price to discover AMC's plans. We had a gentlemanly facility man named Raiffe, who apparently did very well at the track. One day he attained one of his dreams and bought a new Cadillac, which easily outshone everything parked in the AMC lot. When Ed saw it there and inquired as to its ownership, he started an investigation. He suspected that GM had hired a spy. There was no hard evidence that Ford, GM, Chrysler or anybody else had the slightest curiosity about the styling plans of AMC.

Being an expatriate of Oldsmobile studio, Ed was envious of the public image of the Big Three's styling centers. At that time each had glossy brochures and booklets extolling their unique creativity, and GM and Ford had released styling movies, (implying that design was actually being inspired by, of all things, philodendrons and fish)! Ed wanted a styling movie so bad. Soon he developed a plan where the sales department would finance his film as a promotion for the new 1963 Ramblers. The whole staff could feel Ed's excitement as he planned every frame of this extravaganza. A local film producer was selected. For days Ed led them around the styling center pointing out photo ops, people, sketches and models he would like to feature. Designers created dreamy renderings and modelers created futuristic scale clay models to be included as background. Scriptwriters and technicians took notes, tested amperage, evaluated light, shadow, noise, sight lines, etc. Welcome to Hollywood. AMC was finally joining the big players!

Filming began with scenes taken strategically around styling. The grand opening scene was to be a dynamic introduction in the styling lobby, featuring Karen and Ed. Ed had had this area redecorated which was no mean feat. The basic building was the ancient Kelvinator plant dating back to the early 20th century. New face panels concealed factory columns, pipes and girders. After the new paint and carpet, Ed had his favorite pictures hung at obvious focal points. Several short takes had tested the scene and the acting. The technicians had to string about eight huge cables in from outside generators because none of the ancient in-house circuits could support their power needs for lights and equipment.

The day of the final shoot for the opening scene arrived. Ed's script called for him to enter through the newly etched glass doors, greet Karen, who would hand him the morning mail, and then cameras would follow him to his lushly redecorated office for an interview on the exciting status of American Motors Styling.

Karen sported the latest outfit and a chic hairstyle; Ed was resplendent in an expensive suit from Detroit's finest clothier. Huge lights stood ready to cast luminescence on the glorious scene. After a few dry runs and false starts, the director was ready for the final take. "Lights, camera, action," and Ed swaggered in through the etched doors with his perfect smile as he greeted the beaming Karen holding forth his mail. It was the perfect take—but just then the unthinkable happened.

The new hot lights set off the ancient sprinkling system. Rust-clotted water splattered out over everybody and everything. Panic spread as the goop began to immerse the electrical cables and creep under the walls into the studios and Ed's lush office. Someone ran to cut off the generators, casting the scene into darkness. Shouts went out to shut off the sprinklers, but nobody knew where. They found

a building maintenance man who began rolling out crispy, yellowed drawings, tracing his finger over the old pipelines, reading penciled-in construction changes and finally figuring out where that old valve was located. A union employee classified to turn valves was eventually found. By then, the deluge had continued for over an hour and most of the design facility was a flooded shambles.

Ed was despondent. Styling was sodden after its tsunami. Some of the staff secretly snickered at the humiliation of their proud chief. Belatedly the film was completed, with, I'm sure, a new take for the introductory lobby scene. I left AMC before the 1963 models were introduced, so I never saw the finished film, although I was told that parts of me were in it as the announcer intoned "from the hands of the experienced sculptor," as I spread hot clay, forming a future fender.

Throughout his administration, Ed was plagued by Nash and later, AMC's practice of hiring consultants to submit proposals to compete with Ed's in-house designs. Even when he won the competition, his pride was compromised by having to submit to the humiliation of having "Farina" imprinted on *his* designs so advertising and sales could feed off the supposed cachet of "Italian" design. A new full-sized prototype proposal would arrive from Italy, and we'd pull it out of the crate and gather around it stunned by yet another unbelievable design. Ed's patience with this irritation was wearing a little thin.

Before George Romney left for his successful campaign to run for governor of Michigan, he met with Ed and offered him a lucrative retirement plan. Ed accepted it, accelerating Dick Teague's hopes of becoming the director of styling. However, true to form, AMC hired Bill Schmidt for a competition to determine who would direct AMC styling. Dick won the runoff against his old Packard rival, was named director and later the first, (*and last*), vice president of design for American Motors.

Ed rode off into the sunset of his life, quite possibly leading a wild chase in his one-of-a-kind Packard Healey, and beaming that perfect winning smile!

I Was There relates your stories from working for the carmakers, whether it was at the drawing board, on the assembly line or anywhere in between. To submit your stories, email us at editorial@hemmings.com or write to us at I Was There, c/o *Hemmings Classic Car*, 222 Main Street, Bennington, Vermont 05201.

TECH TALK

BY MIKE McNESSOR

BACK TO BASICS

Q: I have a 1967 Camaro, in which a previous owner replaced the radio with one of those square box, flat-faced things, and cut the dash. Is there any place that makes metal replacement panels to repair the dash without replacing the whole dashboard?

John LeBlanc
Via email

A: To our knowledge, no one sells a repair panel for just the center portion of the Camaro dashboard, but you could buy an entire dash and cut out what you need. Another possibility might be to get a stock-style radio and the trim bezel, and then take the car to a restoration shop and ask them to fabricate the portion needed to support the radio. In either case, unless you could use bonding adhesive, you're looking at painting the area that requires repair.

RICH RUNNING 'VETTE

Q: I own a 1960 Corvette, with a 283 cu.in. engine. A problem I have is with the exhaust. The odor is extreme, and I am told it is because the engine has a mild cam. The carburetor has been adjusted numerous times, but still has that smell of running too rich. The engine was rebuilt and has about 7,000 miles on it.

Nick Kelly
San Mateo, California

A: A mild cam shouldn't allow raw fuel to enter the exhaust. A performance cam (with a lumpy idle) and a lot of valve overlap would tend to do that. However, running too much timing advance could conceivably cause an incomplete burn that would make the exhaust smell like gasoline. You didn't mention which carburetor your Corvette has, but it sounds like you need to find a specialist to take a look. Sometimes, a rich condition can be caused by worn metering rods in factory four-barrels, which is something you'll never adjust out. It could also be something as simple as the choke hanging up, which is something that could be adjusted out. You also didn't really describe when you're experiencing this rich smell. If it's while you're driving, perhaps it isn't your exhaust at all, but a fuel tank venting issue, a problem with the filler pipe or a small leak.

HARD CHARGER

Q: I have a 1967 Mustang with a 289. I'm experiencing erratic charging—it charges and then it won't charge. I have replaced the alternator twice, replaced the voltage regulator, and replaced the alternator wiring, and it's still not working.

Terry Ultsch
Westerly, Rhode Island

A: If you are buying rebuilt alternators from an auto parts store, I wouldn't rule out the possibility that they are failing quickly or are not functioning properly right out of the box. Find a reputable rebuilder in your area who will take the time to setup your alternator with the correct parts and reassemble it correctly. When you install it, be sure the belt is in good condition and that the tension is properly adjusted.

You didn't mention the battery, but I wouldn't rule that out either. It isn't unusual for a failing battery to repeatedly take a charge, hold it for a few hours and then discharge. Charge your battery with a charger overnight, and then test it with a load tester. If it fails under a load, replace it.

Lastly, cables and proper grounds are frequently overlooked, but are often the cause of electrical problems. Make sure your engine-to-firewall ground strap is hooked up as well as any body grounds the car might have had when new. Also check the condition and connections of your battery cables.

COOLANT CONFUSION

Q: I recently replaced the radiator in my 1969 Pontiac Le Mans convertible. It has a 350 V-8 with an automatic transmission. My quandary is in trying to decide which antifreeze to use. I've read so many different opinions regarding brands, types, colors, etc., that now I'm completely confused. A little guidance please?

Bill Hawthorne
Via email

A: Avoid long-life coolants designed for newer cars, as well as Dex-Cool coolants. Look for a coolant being sold as "conventional green" or "original formula," and advertised as being safe for older vehicles. There are many brand-name "classic" green antifreezes on the market and several store brands that will work fine as well.

AM JOINS THE DIGITAL AGE

Q: What's the best way to play music from an iPod or MP3 player over the factory AM radio in my 1963 Rambler Classic 660?

Jim Phillips
Chicago, Illinois

A: One of our editors found the solution to this problem a few years ago in the "Services Offered" section of *Hemmings Motor News* when he was hoping to channel digital music through the stock Sonomatic radio in his Buick Riviera. (The story appeared in the November 2009 issue of *Hemmings Muscle Machines*, or you can look it up on our website, www.hemmings.com/mus/stories/2009/11/01/hmn_tips2.html)

For $50, Precision Stereo Repair in New Hartford, New York, added an input jack to our man's AM radio so he could plug in an MP3 player (or any other device with a headphone output). We singled out Precision Stereo Repair because it was near Hemmings HQ, which made it possible for us to go to shoot photos to accompany the story, but there are several companies advertising this same service in *Hemmings Motor News*.

Interestingly, for another $50, Robert said he could "hot rod" the AM radio to increase its output, and deliver better sound both on the AM band and with the MP3 player. He offers cosmetic reconditioning services for radios as well.

A second possibility, that we have not tested, is an add-on device called RediRad. RediRad plugs in between the antenna input on your radio and the antenna lead. The iPod or MP3 player then plugs into the RediRad, which can be hidden in a convenient location beneath your car's dashboard. Prices are in the neighborhood of $100 for the RediRad, and a new AM model appears to be in the works as of this writing. Many enthusiasts might like the fact that they can install RediRad themselves, rather than having to send their radio out.

For more information head to rediscoveradio.com.

Send questions to: Tech Talk, c/o *Hemmings Classic Car*, P.O. Box 196, Bennington, Vermont 05201; or email your question to: mmcnessor@hemmings.com.

8th Annual

Hemmings Motor News CONCOURS D'ELEGANCE

Sept. 26, 27, 28, 2014

Keynote Speaker: J Mays
World renowned automotive designer for Audi, BMW, Volkswagen and Ford Motor Company

Friday, September 26th
REGISTRATION & RALLY

- 10:00 a.m. – 5:00 p.m. registration at the Saratoga Automobile Museum, 110 Avenue of the Pines, Saratoga Springs, New York.
- 12:00 noon – Join in a Rally through the beautiful Adirondack region
- 2:00 p.m.– 4:00 p.m. Cruise scenic Lake George, Queen of the Lakes, aboard the Adirondac Shoreline cruise. (boarding promptly at 2:00 p.m.)

Saturday, September 27th
CRUISE-IN SPECTACULAR

10:00 a.m.– 4:00 p.m. An all-makes car show that's open to cars, trucks and motorcycles. Including: muscle cars, street rods, sports, exotics and classics. Awards at 3:00 p.m. Cocktail reception with cash bar at 6:00 p.m. and dinner available at 7:00 p.m. at the Gideon Putnam Resort. Keynote speaker: J Mays.

Held at:

SARATOGA AUTOMOBILE MUSEUM

110 Avenue of the Pines, Saratoga Springs, NY

Sunday, September 28th
CONCOURS d'ELEGANCE

10:00 a.m. – 3:00 p.m. Open to concours-quality, pre-1980 collector cars.

Master of Ceremonies: Ed Lucas, lifelong car enthusiast, director & chief judge for the Classic Car Club of America & expert commentator for the Barrett-Jackson Auctions.

MORE TROPHIES TO BE AWARDED THAN EVER BEFORE!

Winners also will appear in the pages of *Hemmings Motor News* and *Hemmings Classic Car.*

WELCOME TO SHOW AT THE SUNDAY CONCOURS:

All Full Classic® cars as recognized and listed by the Classic Car Club of America

CONCOURS FEATURED MARQUES:

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- *Pre-1975 Dodge Centennial*
- *Alfa Romeo*
- *Fire Trucks*

TO REGISTER FOR THE SHOW

or to find out more, log on to:

hemmings.com/concours

Call 800-227-4373

E-mail Trisha Grande at tgrande@hemmings.com

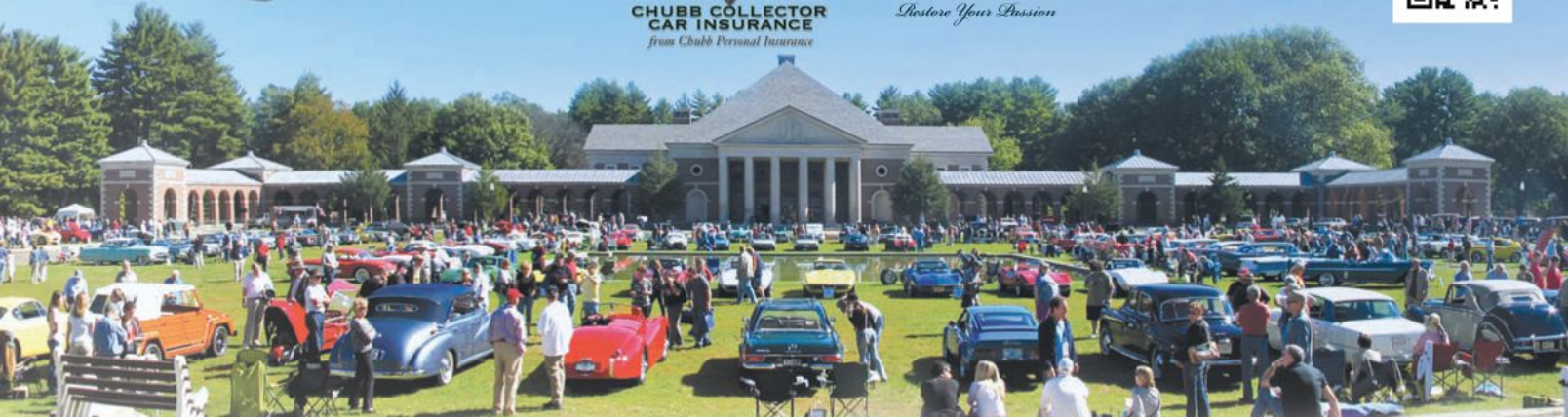
Register early to ensure you're able to stay at the Host hotels.

HOST HOTELS:

- *Gideon Putnam Resort – 518-584-3000 (Group Code: 9N55ME) phone reservations only*
- *Hilton Garden Inn – 518-587-1500 (Group Code: HMNCD)*
- *Hampton Inn & Suites – 518-584-2100 (Group Code: HMC)*
- *The Saratoga Hilton – 888-866-3596 (Group Code: AKPP)*
- *Courtyard Marriott – 518-226-0538 (Group Code: Concours d'Elegance)*

TO ENTER YOUR SHOW CAR IN THE SUNDAY CONCOURS:

Submit photos to concours@hemmings.com Open to concours-quality, pre-1980 collector cars.



REARVIEW MIRROR 1920

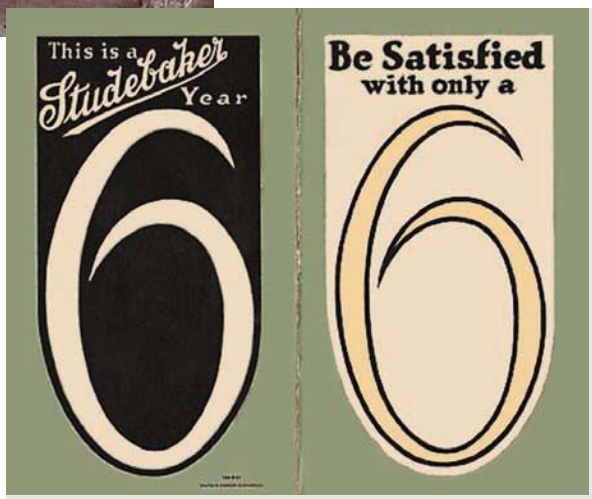
BY TOM COMERRO

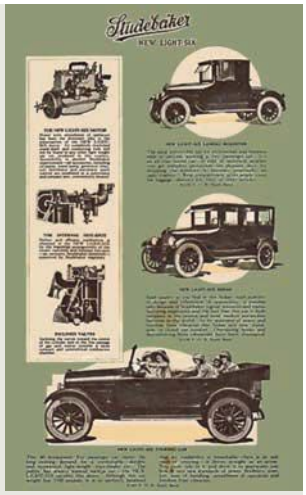
ANNUAL PRODUCTION OF AUTOMOBILES stands at around 2.3 million, with a total of 7.5 million cars and trucks registered in the United States.

Dollars & Cents

Average new house – $5,000
Average annual income – $1,400
One gallon of gas – $0.20
Average new car – $600
Beefsteaks, per pound – $0.36
Loaf of bread – $0.12
Milk, per quart – $0.16
Hotel room – $1.00-$1.50/night
First-class stamp – $0.02
Ticket to the movies – $0.25

PACKARD'S TWIN SIX CONTINUES with the 3-35 series. The new "Fuelizer" incorporates a spark plug in the intake manifold, helping to vaporize the gasoline. The Twin Six is built on a 136-inch wheelbase and is available in seven different body styles at a starting price of $5,500.





STUDEBAKER'S LIGHT SIX features a flatter radiator shell and a square opening for the radiator core. The shorter hood and vertical louvers along the length of the side panels makes for a more modern-looking Studebaker. The quick and powerful Light Six will also allow you to pull away from traffic and can be driven for long durations without tiring out the driver. Available in several different body styles, the Light Six has a starting price of $1,485.

STUTZ'S SERIES H is available in the two-person Bearcat roadster or touring models. The Bearcat is built on a 120-inch wheelbase, while the roadster and touring measure in at 130 inches. The T-head four-cylinder features a cast-iron block, 16-valve cast-iron cylinder head, Stromberg carburetor and pressure fuel feed, allowing it to produce 80 hp at 2,400 RPM. Stutz would produce over 4,000 series H vehicles of all body styles for this year.

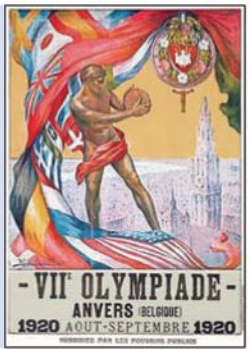
PROHIBITION BEGINS with the 18th Amendment coming into effect.

WARREN G. HARDING defeats James Cox to become the 29th President of the United States.

THE MARK OF ZORRO, starring Douglas Fairbanks, is released.

HARRY FRAZEE SELLS Babe Ruth to the Yankees to finance his theatrical productions.

THE 1920 OLYMPICS takes place in Antwerp, Belgium, with over 2,600 participants.



MICHAEL SCHALL JOHNSON • LAS VEGAS, NEVADA

My First Car

JUST AS THE SUN WAS BEGINNING its descent into the ocean, I was speeding up the California coast in my big 1929 Packard sedan on Highway 101. I was on my weekly journey from Culver City to Lompoc to see my girlfriend, Jane. The year was 1962; I was 19 years old.

I was flying past the hulking semi trucks in the middle lane at 70 MPH when I suddenly lost all power. I had to take the center mud-soaked island so that I would not be run over by those big rigs. The mud stopped me in my tracks, and I was stuck up to the running boards.

I plodded through the mud to determine what the trouble was. I opened the hood and loosened the fuel line and determined that I was getting no fuel to the old Detroit Lubricator updraft carburetor. The original, leaking, vacuum fuel tank that was a sort-of passive fuel pump that worked on the vacuum of the engine had been bypassed in favor of a Bendix flapper-type electric fuel pump. The pump was located under the removable floorboard in front of the passenger seat. I removed the top cover of the fuel pump and pushed against the spring-loaded flapper to make it go up and down to get fuel into the carburetor, and got the engine started, but alas, I was hopelessly stuck.

I remembered passing a gas station back down the road a couple of miles or so. I walked back to it and called my girlfriend, and she said her friend would bring her down to me—a distance of about 30 miles.

Joe at the gas station said he would pull me out for 15 bucks. He also said he had a fuel pump out back on a junk car and that he could take it off for another $15. I had 35 dollars in my wallet, so I could do that.

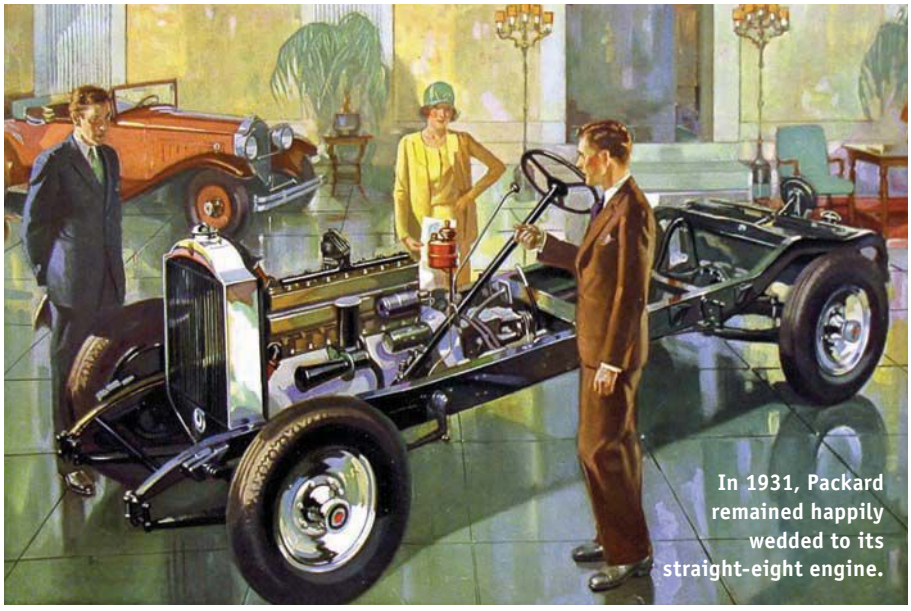
He could not budge the Packard with his old tow truck, as the elapsed time seemed to have made the 5,000-pound car settle in solid in the fresh mud.

"We'll have to winch her out," he said, "I'll get the CHP out here to block traffic for about 10 or 15 minutes."

A gruff-looking old patrolman soon arrived, looked at Joe and sneered, "Make it snappy!" as he moved his car into position with his red light on and his light flashing. Joe moved his wrecker into position, chocked his wheels and pulled out the braided steel line and wrapped it around the front axle of the heavy sedan after some digging. He slowly, inch by inch, pulled it up onto the pavement.

Joe came over to me and said, "That'll be 30 bucks."

"You said it would cost 15 dollars to pull me out," I said.



In 1931, Packard remained happily wedded to its straight-eight engine.

"I didn't know that you was stuck that bad," he said. "And that heap you have there must weigh 5,000 pounds."

"What if I don't pay you?"

"I'll just tow yer old jalopy to the impound yard, then it will cost you a whole lot more money!"

I turned to the patrolman and said, "Can he do that, when he told me 15 dollars?"

"He shore can; you're lucky the state don't bill for tying up all the traffic and my time."

"Here's your 30," I said to Joe, "But I can't buy that fuel pump, I don't have the money.

I turned to Jane, who had just been dropped off by her friend, and said, "Do you have any money?" She shook her head no, "How are we going to get home?"

"Well," I said, "I'll show you how." I got out my big screwdriver and showed her how to work the spring-loaded flapper on the fuel pump. "If you can keep that pump going, we can make it to Lompoc. I don't want to leave my car here. Or I can pump it and you drive."

"Okay, I'll do my best pumping it; you know I can't drive this big car."

So we went along, about 20-30 MPH at best, at worst almost stopping, with Jane occasionally crying out, "I'm tired, I can't go on! My arm hurts!" But we finally made it to her home in Lompoc. The next day, I borrowed some money and went to the auto parts store for another fuel pump and fixed the problem.

Several months before the stuck-in-the-mud incident, I had purchased this big 1929 Packard. I bought it for $250 from a farmer in Riverside; it had been in his barn since before the war. It last had been painted blue with a brush. It looked pretty ugly, but everything was there, and the engine looked good. I had been saving for a '55 Chevy. Then I saw that ad in the *Riverside Press* for a Packard and remembered how I always loved Packards; they were not ordinary cars. I grew up in Los Angeles, and when you saw one, a lot of times it had a movie star in it.

The old Packard was not running well when I bought it, so I found a mechanic

named Frank who had an old machine shop and junkyard that dealt in nothing but prewar cars. He always told me they quit making cars when the war started and the quality was never the same after the war.

I asked him, "How about helping me put a Chevy V-8 in my car?"

He said with a grimace on his face, *"Pleeease* don't do that to this car. Do you know what you have here? You have a custom-built 645 Model Deluxe 8. Cost more than $5,000 in 1929. I'll show you how to tune it up and make it purr like a kitten." Frank also showed me all the details and craftsmanship that made this a special car, from the precision nuts and bolts to the oxbow radiator shell, and how they carried the oxbow design over to the headlamp shells. "Packard used a high-quality nickel iron for their engine blocks; the stuff is hard," Frank said. "Packard resisted developing a V-8, as it was never as smooth an engine or as quiet and elegant as the straight-eight." Frank taught me a lot about prewar cars, and I acquired a lot of respect for him and those old cars.

I traveled all over California and made trips to Las Vegas in that '29 Packard. The only other problem I ever had with it was a bad ignition condenser. It was a great car for fun, as we could hold nine people and you could hide a six-pack of beer under the floorboard. It was hard to handle, especially on rough roads, as the original primitive shocks were long gone. The gas mileage wasn't very good, but at 25 cents a gallon, it wasn't that big of a deal. I had to go to a truck tire shop to change or repair tires as the rims had dangerous snap-rings on them. Those 20-inch tires were very expensive and wore out quickly.

After a couple of years, I grew weary of having that old auto and yearned for something newer, so I traded it for a 1958 Bel Air. I eventually lost touch with Frank, but I have never forgotten him and the real love he had for vintage cars. That era was a time when old cars were in the hands of people who loved them; they didn't have to be perfect.

Get published!
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Hot Rod Hybrid Hauler

The 1970 El Camino SS marked the pinnacle of the model's performance

BY MIKE McNESSOR • PHOTOGRAPHY BY JEFF KOCH

Factory performance trucks have always been novelty acts—playthings with tailgates designed to stir up excitement around a manufacturer's workaday offerings.

But even the most pragmatic truck buyer has to tip his hardhat to the true standouts of the hot rod hauler segment. Trucks like Ford's SVT F150 Lightning and off-road-going Raptor; GMC's Syclone/Typhoon twins; or Dodge's Li'l Red Express Truck and Ram SRT-10.

Chevrolet's most outrageous novelty truck ever was probably the 2003-'06 SSR (shorthand for "Super Sport Roadster"). The SSR's styling was lifted directly from the frequently hot rodded Advance Design series trucks, but for added impact, it was outfitted with a precisely folding power retracting hardtop. In its final incarnation, the SSR was powered by a 6-liter LS2 engine borrowed from the Corvette and GTO, offered with an available six-speed manual transmission.

As rolling objet d'art, the SSR was remarkable, because it made the daring leap from the auto show turntable as a concept to showroom floors as a production vehicle, with few discernible changes. The truck's open top and rumbling exhaust made it seem like an oversized Corvette and with 400 hp on tap, channeled through deep 3.73:1 gears, the SSR could ignite its P295/40R20 tires at will.

But despite being based on the rugged mid-sized Trailblazer chassis, the SSR was nearly as useless as it was charming: a two-seat roadster with an oversized trunk in the shape of a truck.

If the SSR has a spiritual forebear in Chevrolet history, it is this, the big block-powered El Camino SS.

The El Camino was always positioned between Chevrolet's cars and light trucks as the alternative vehicle for drivers seeking car-like road manners with more cargo-carrying versatility than

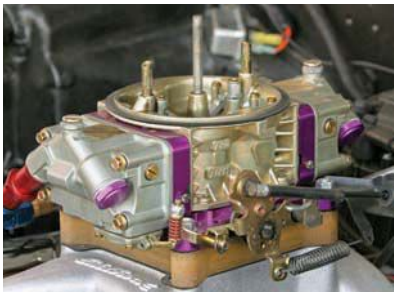
a station wagon.

Ford, not Chevy, deserves credit for the El Camino's design, as well as its Spanish-sounding name. For 1957, Dearborn figured out that it could sell a few more station wagons by removing two-thirds of the car's roof and marketing the new machine as an open hauler. The early Ford Ranchero was successful, and became even more so when it was shifted downstream to the penny-pinching Falcon platform in 1960.

Chevrolet's El Camino sold well in its first year, 1959, but its numbers flagged against the smaller Falcon. The El Camino and its stablemate, the sedan delivery, were both phased out in 1960—it's unclear whether this was due to disappointing demand or as part of some larger plan. The model resumed production in 1964 on the mid-size Chevelle/Malibu A-body chassis, where it would remain until 1987.

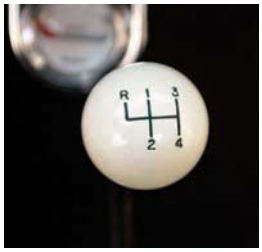
Frequently derided by car snobs as low-brow, the El Camino and Ford's Ranchero enjoyed decent commercial success over the years and remain popular with old-car enthusiasts today. The return of the car-based truck concept has been hinted at over the last decade, but American truck buyers gravitate increasingly toward larger rigs with crew or club cabs and four-wheel drive, so it's hard to imagine a two-seat, two-wheel-drive compact hauler ever making a mass-market comeback.

Though it blurred the lines between station wagon and truck, the El Camino shared its chassis and some of its sheetmetal with the A-body Chevelle station wagon. The cargo box was built to be functional, with double-wall construction on the side panels and a ribbed steel floor. The tailgate, too, was strong and functional—ribbed and double-walled, with a center release for one-handed opening. Like many small trucks, the El Camino's bed couldn't easily accommodate a 4 x 8 sheet of plywood, as there were only 44 inches between its rear fender wells. At its widest points, the bed measured 59 inches and was just over six-feet long—dropping the gate yielded an additional 22.5 inches of length. The truck had a storage area inside the rear of the passenger compartment where a plastic toolkit box was stored. Behind that, under the bed, was an unutilized area where the Chevelle station wagon's rear seat footwells remained in the shared floorpan; the El Camino's spare tire was stored upright behind the passenger seat.



The 375-hp, 402-cubic-inch L78 396 shared its camshaft with the LS6 454. An aluminum intake was also part of the package, but the manifold pictured is an aftermarket unit, as is the carburetor (right) and a few other engine compartment bits.

Up front, the El Camino benefited from the styling updates that Chevrolet made to the Chevelle line for 1970. The quad headlamps remained for one more model year, but they were now set in body-colored surround panels, which served as bookends for the horizontal grille. Also, a pair of round parking lamps were positioned below the headlamps in the El Camino's front bumper (a slight styling variation from the Chevelle, which



El Camino SS interior trim included a steering wheel badge, but none on the door panels (because of the vent window crank). SS package also included three-gauge instrument panel with tach, 120 MPH speedometer and clock.

used rectangular parking lamps).

Sheetmetal and minor trim differences aside, Chevelles and El Caminos rode on identical all-welded perimeter steel frames, but the convertibles and the El Camino had boxed frame members for added rigidity. Coil springs were standard fare, front and rear, on Chevelles, but the El Camino's rear suspension received a boost from factory-installed air shocks.

The fun began when buyers checked off the Super Sport package, unleashing the El Camino's inner muscle car. Super Sport El Caminos could be ordered with the buyer's choice of the entry level SS 396 or the all-out SS 454 packages. The SS 396 buyer got a 402-cu.in. Mark IV big-block engine with 350 hp in base trim. From there, he might've been able to step up to one of the two 375-hp 402 engines: the L78 or the L89 with aluminum heads. For a pickup truck, the 402 was more than enough. In fact, it was the only big-block engine available in Chevrolet's half-ton trucks until 1973. But buyers wanting the ultimate performance El Camino could choose the SS 454 available with either a 360-hp 454 or the legendary 450-hp "LS6" 454.

The LS6 454 wasn't exotic, just an effective mix of proven parts that produced 500 pound-feet of torque at 3,600 RPM. The LS6 used a beefy four-bolt main block, steel crankshaft, a solid-lifter camshaft that it shared with the 375-hp 396, and domed pistons that pumped up 11.25:1 compression. A pair of cast-iron closed chamber heads with rectangular ports and 2.19/1.88 valves capped off the LS6 and the engine breathed through an aluminum low-rise intake manifold fed by a 780-cfm Holley carburetor.

Super Sport El Camino buyers could choose between a Turbo Hydra-Matic 400 automatic or a Muncie four-speed manual, while a 8.875-inch "12-bolt" axle with 3.31:1 gears was standard.

SS grille and fender badges were also part of the deal, as was a standard domed or optional vacuum-operated Cowl-Induction hood and power disc brakes.

Inside, El Caminos could be ordered with manual or power-adjusted Strato-bucket seats and a center console, but bench seats were common. The standard all-vinyl interior used Madrid grain in 1970, and the dashboard instruments were shared with Chevelles.

From a horsepower standpoint, 1970 was a high-water mark for Chevrolet's high-performance hauler. The LS5 454, with 8.5:1 compression was uprated to 365 hp, perhaps to compensate for the LS6's sudden vanishing act from the Chevelle lineup.

Today, the 1970 SS 396 and SS 454 El Caminos are prized by collectors and can command high prices. With only a reported 540 LS6 El Caminos built in 1970, they are considered the most valuable of the breed.

The El Camino's bed was built tough enough to handle any cargo that a pickup could, but the inner fenders are only 44 inches apart, so a sheet of plywood or sheetrock won't lie flat. The owner of this truck applied an aftermarket coating to protect the sheetmetal.

Two Generations, One Brand

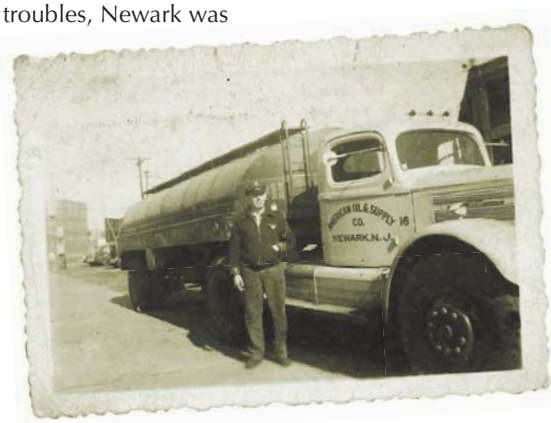
Hauling around New Jersey in vintage White

BY JIM DONNELLY
IMAGES FROM THE ARCHIVES OF KEN CAIRNS

By even bigger margins than today, Newark was New Jersey's largest city during World War II. It was coming off a financial near-meltdown due in part to uncollected taxes during the years that encompassed the Great Depression.

One of the ripple effects was that the new airport and seaport under construction ended up not as city property, but under the umbrella of the Port Authority of New York and New Jersey. A decade later, more or less, the airport and seaport would be separated by a new superhighway, the New Jersey Turnpike. In the 1940s, despite its troubles, Newark was a powerhouse of both finance and manufacturing, which also made it a transportation hub. That meant trucks. Lots of them, either passing through after exiting the Lincoln Tunnel and heading west, or else shuttling local deliveries all around the booming city.

It was that knowledge that moved Ken Cairns to reach out to us. Ken grew up in East Orange, near Newark, where his father was a truck driver in the midst of the wartime economic frenzy. He sent us a letter. Inside the envelope were a couple of tiny prints, with serrated paper edges, barely 2 by 4.5 inches, the kind made with Kodak 120 roll film that was thumb-wound into millions of Brownie box cameras. The portrait showed a guy with his tank truck. On the back was hand-lettered the date of the photo, February 23, 1942.



In those days, when the United States was struggling to come back from Pearl Harbor, Ken was a Jersey kid of five or so. He doesn't remember exactly where the photo was taken, or by whom. But he knows it shows his father, James Francis Cairns, alongside one of the trucks he drove during the war. It's a gasoline-fueled White tractor pulling about a 30-foot tank trailer of undetermined manufacturer. No matter, the disc-wheeled tractor can stand on

its own as an icon in Ken's images.

The tractor is a White WA-122, judging by its dimensions, perhaps the handsomest truck produced by a U.S. manufacturer during the war years. Beginning in 1936, White undertook a full restyling of its medium and heavy truck models, the design work contracted out to Alexis de Sakhnoffsky. The trucks were characterized by long hoods with horizontal vent strakes, a cathedral-like grille shell that sloped rearward, and very unusually for any truck of that period, a one-piece windshield. Motivation came from Super Power, as White called it, its own L-head gasoline straight-six with up to 110 hp. Note the six filling hatches at the top of the tank trailer, one for each compartment, to minimize swerves from a sloshing load.

HCC first grabbed Ken's attention when a very early edition of this space featured an insulated truck operated by Feigenspan, a Newark brewery that existed around the same time that he was growing up. His father switched from the tanker operation, American Oil Company, to driving beer trucks. By that time, as Ken tells it, Feigenspan had been absorbed by P. Ballantine & Sons, another Newark brewer of beer and ale that was on an expansion blitz. James Cairns became a Ballantine company driver and found himself driving a single-axle box trailer pulled by another contemporary White, the tilt-cab 3000 tractor.

Ken entered trucking himself in 1960, and drove for a variety of carriers, including L.J. Kennedy, the well-known flatbed steel hauler out of Kearny, New Jersey, where the Cairns family later moved. Ken got his own seat time in Whites, including a 3000 tractor like the one his father drove. He went to trucking management posts before relocating to La Verne, California, to escape the punishing Eastern winters.

One memory of his Dad's career has stuck with him. "When I was a kid, I'd sometimes stop by the Ballantine yard while he was there, and wait around while he did paperwork," Ken recalled. "The driver's room always had a cooler in it filled with iced beer and ale. The drivers could drink as much beer as they wanted. Try that today."

We enjoy publishing period photos of authentic, old-time working trucks, especially from the people who drove them or owned them. If you have a story and photos to share, email the author at jdonnelly@hemmings.com.

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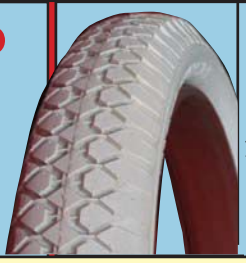

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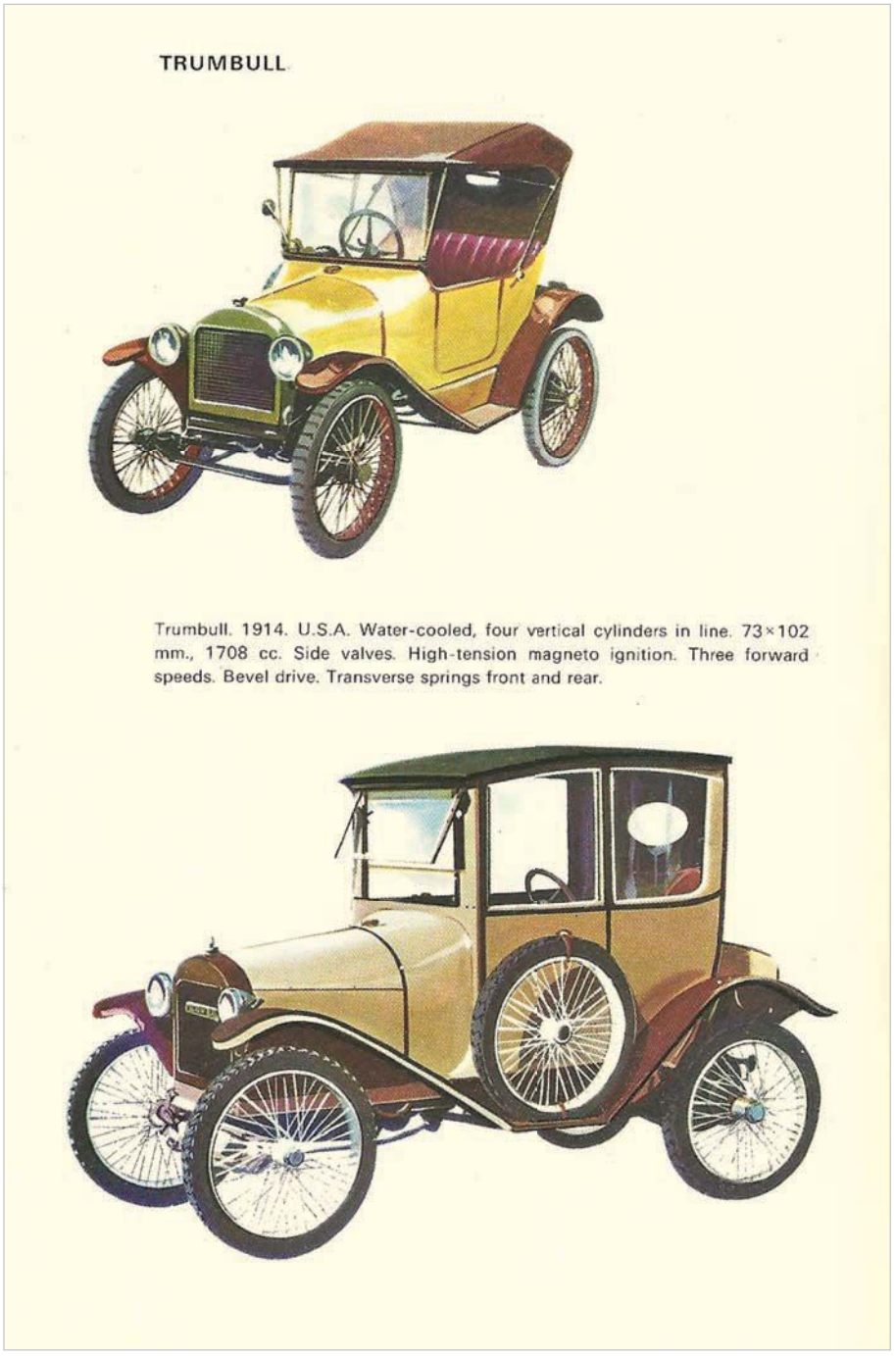
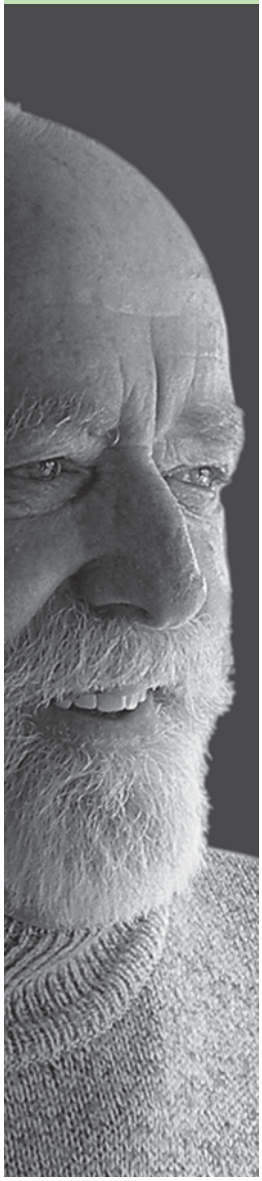


Passenger Cars 1913-'23
T.R. Nicholson
1972

Advertisers in this issue

"The point of cruising wasn't what to do, as much as it was about the process of doing it, and being with friends."



jim**richardson**

The Thrill is Gone…or is it?

Remember cruising? I am not talking about taking ships to other countries. I'm talking about getting friends in a car and going to see other friends, or going to drive-in restaurants or movies, or to meet the opposite sex; or to take a drive in the country just to see where the road would take you. I'm thinking of the time before the 1970s, when cars were big and roomy and designed to hold five people in comfort.

In the earliest days, cars were open, and designed *primarily* for pleasure cruising. If you lived in town, you walked to work. If you lived in the country you rode a horse. And if you wanted to get from Nebraska to Texas you took the train. But if you could afford a car, you mainly used it to visit family and take drives in the country. And there was a lot of country back then, but few roads.

PHOTOGRAPH BY DANIEL STROHL

Modern cars are not for cruising. They are meant to get you from A to B as quickly as possible. They are hermetically sealed and have climate control, so you never know what the temperature is outside, nor can you smell the flowers, or sage, or the rain coming. In fact, not only are you sealed off from the reality around you, but you have a plethora of electronic gadgets to distract you from it.

These distractions include, of course, the radio and CD player, but you now also have television, video games, GPS, iPad hookups, telephones and on and on. Perhaps rightly so, because what is there to see when blasting down an eight-lane superhighway? And where is the challenge? You have power steering, an automatic transmission and traction control, so all you have to do is guide the thing now and then. Your mind starts wandering while you are confined in your steel cocoon.

People actually die of that boredom. This morning, a young woman in North Carolina crashed into a garbage truck on a highway while messaging her friends on Facebook. She was telling everyone how happy she was. She sent her message at 8:54 a.m. and the accident was called in at 8:55 a.m.

She sent the message, and one minute later she was dead. But, then, a minute is a long time. These days, I prefer to make every one of them count. And I can think of nothing I would rather do than take a slow drive in an old car—preferably an open one such as my "common as muck" (as a British friend with a Bentley referred to it) 1966 Morris Minor drophead, or my more snotty 1939 Packard 120 convertible coupe—enjoying the sights, sounds and smells, oblivious to concerns for what our policy is on Ukraine, bills I need to pay, etc. I am in the reality of the moment, undistracted and very much alive.

The only *driving* pleasure built into modern cars is speed. You can even buy cars that are capable of 200 MPH in the unlikely event that you want to go that fast. But TV ads are full of young men slipping on their driving gloves followed by speeded-up footage of them ripping down mountain roads, or in four-wheel drifts on a dry lake. I had a brief period of doing such things in my youth, but I was doing it 1949 Chevs, not cars that can cruise at 90 and kill you if you have a momentary lapse of attention because you are trying to pop in a CD.

With old cars, shifting, braking, steering, watching the gauges and all of the aspects of conducting a vintage machine down the road are part of the pleasure. An early sports car is ideal for cruising. An MG, Triumph or Alfa Romeo roadster would be great if it is just you and your main squeeze, and an antique convertible sedan is wonderful if you want to take family and friends with you.

That all sounds idyllic if you live in the country you say, but what about city dwellers? Well, I grew up in the city, and we were never at a loss for places to see on a nice afternoon. There was always the rich part of town where we could marvel at how the fortunate few got on. And then there was the harbor, where we could look at the big ships. And there were always places for snacks and girls to watch.

But the point of cruising wasn't *what* to do, as much as it was about the process of doing it, and being with friends. These days, if you want to cruise with others in your vintage vehicle, join a club and attend some of their tours. You'll have fun, and you will get a chance to experience *this* world, and *this* reality, without desperately and distractedly trying to get there, not knowing whether *there* is even worth getting to.

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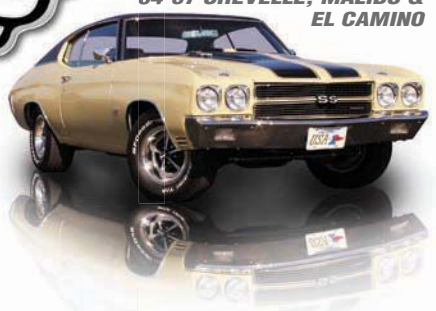

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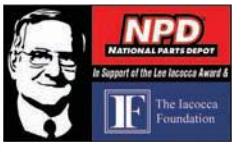

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