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OVERNIGHT:
E. St. Louis St., Downtown Springfield, MO–5 p.m

SUNDAY, JUNE 21, 2015
LUNCH:
Expo Center, Claremore, OK–12:30 p.m.
OVERNIGHT:
Mickey Mantle Drive, Oklahoma City, OK–4:30 p.m.

MONDAY, JUNE 22, 2015
LUNCH:
Ackley Park, Elk City, OK–11:30 a.m.
OVERNIGHT:
Historic 6th Avenue, Amarillo, TX–4:45 p.m.

TUESDAY, JUNE 23, 2015
LUNCH:
Convention Center, Tucumcari, NM–11:30 a.m.
OVERNIGHT:
The Plaza, Downtown Santa Fe, NM–4:45 p.m.

WEDNESDAY, JUNE 24, 2015
LUNCH:
Old Town Plaza, Albuquerque, NM–11:45 a.m.
OVERNIGHT:
Courthouse Plaza, Downtown Gallup, NM–4:45 p.m.

THURSDAY, JUNE 25, 2015
LUNCH:
Visitors Center, Downtown Winslow, AZ–12:15 p.m.
OVERNIGHT:
Aspen Street, Downtown Flagstaff, AZ–4:30 p.m.

FRIDAY, JUNE 26, 2015
LUNCH:
Powerhouse Visitors Center, Kingman, AZ–11:30 a.m.
OVERNIGHT:
McCulloch Boulevard, Lake Havasu, AZ–4:45 p.m.

SATURDAY, JUNE 27, 2015
LUNCH:
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Tom Comerro, Editorial Assistant
CONTRIBUTORS: Ray Bohacz, Brooks T. Brierley, Patrick Foster, Bob Palma, Jim Richardson, Chris Ritter, Russell von Sauers, Milton Stern

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HEMMINGS CLASSIC CAR
is published monthly by Hemmings Motor News
ISSN# 1550-8730
www.hemmings.com • 222 Main St., Bennington, Vermont 05201

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> "Any knowledgeable mechanic will tell you that the best way to preserve your old cars and trucks is to drive them. Yes, drive them."

richard**lentinello**

Senselessness Stashing

I always shake my head in disbelief every time someone tells me that they don't drive their collector car, preferring instead to treat it like some ultra-rare artifact that is irreplaceable.

My standard reply is, "And just who are you saving it for?" This usually elicits a blank stare, as if a light bulb just went on in their head for the first time.

I usually follow with, "The next owner may very well drive the treads off your car's tires the first day he gets behind the wheel, so why save that experience for him to enjoy when you can enjoy it instead?"

Now, I'm not advocating that we abuse our collector cars, as that would be an absolutely wrong thing to do. Like I've said before, all old cars, regardless of rarity or value, need to be preserved so future generations will be able to better understand and appreciate just what this great country of ours once designed and created when the automobile played an important role in our society.

Any knowledgeable mechanic will tell you that the best way to preserve your old cars and trucks is to drive them. Yes, drive them. As long as the weather isn't harsh and the northern roads are already washed of the winter's corrosive salt, you should drive your old car on a regular basis. It doesn't have to be every day, but once a week at the very least. Even a once-a-month jaunt behind the wheel is preferable to it being kept in an immobile cocoon state.

Keep in mind that automobile engines, transmissions and differentials all employ a variety of neoprene seals, whose primary purpose is to prevent oil and other fluids from getting past a certain point and leaking out, thus ruining bearings and other mechanical components in the process. When a vehicle isn't driven, these seals dry up; this is especially so for the old rope seals that were commonly used to seal the crankshaft's rear bearing main cap. And when these seals do dry up, they shrink in size just enough to allow hot oil to flow past, hence the oil spots on your garage floor. The best way to prevent this from happening is to drive your car for several miles on a regular basis, or at the very least until the water and oil come up to operating temperature. This will allow the oil and grease to circulate and coat the bearings and everything else in the process, including the seals.

Other parts that benefit from being regularly used are the valves and piston rings, carburetors and fuel pumps, heating and A/C systems and the master cylinders, wheel cylinders and caliper pistons, all of which will deteriorate from a lack of use due to their rubber parts shrinking or developing corrosion.

Perhaps the most important part that needs to be used regularly is the tires. When not driven on for months at a time, tires will develop flat spots from being kept in the same position due to the car's weight. The major issue here is the development of vibrations, as the out-of-round tire will generate a resistance to rolling smoothly. These vibrations, which sometimes can be as bad as a loud thumping sound, will not only be irritating to deal with as they impede the car's steering, but they will seriously compromise the tire's safety and durability.

As for those who own convertibles, but refuse to drop the top because they don't want to put a crease in the fabric, I truly have to wonder why they bought a convertible in the first place. The whole purpose of owning a car with a top that drops is to experience motoring with open access to the blue sky above. The feeling that convertibles provide is unsurpassed when compared to fixed-roof automobiles, so why wouldn't you enjoy that wonderful experience as much as you can? Let's face it, your skin is going to get wrinkles, too. Is your car's measly canvas top so important that it shouldn't be allowed to gain a few wrinkles itself?

So, enjoy your time behind the wheel of your beloved collector car as much as you can before it's too late. After all, isn't that why you bought that car in the first place? To drive it, and to share its driving experience with your family and friends, too? Remember, life's short. The best way to get the most out of your time on Earth is to watch your classic car's odometer accrue mile after mile. You surely don't want the next owner to be the only one to see that happening, now, do you?

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BY TOM COMERRO

Pontiac Pow-Wow

THE PONTIAC OAKLAND CLUB INTERNATIONAL'S convention will take place July 21-25 at the Louisville Fair and Expo Center in Louisville, Kentucky. The tentative schedule includes indoor and outdoor swap meets that will be featured throughout the event. Car cruises, tours and chapter meetings will also take place, as will a judged car show on Friday. Non-POCI members are welcome. Please visit www.poci.org for registration information.

De Soto Display

THE NATIONAL DE SOTO CLUB has announced the dates for its 30th convention to be held in Kalamazoo, Michigan. The event will take place July 15-19 and feature driving tours around the Kalamazoo area as well as a car show at The Gilmore Museum grounds on Saturday. Tours will be family and children friendly, as they include trips to the Binder Park Zoo, Air Zoo (air museum, flight simulators and rides) and the W.K. Kellogg Manor House. Saturday's car show will run from 9 a.m.-3 p.m., and a swap meet will take place at the host hotel. For a full itinerary and associated fees, please visit www.desoto.org/convention.

JUNE Calendar

5-7 • Carlisle Ford Nationals
Carlisle, Pennsylvania • 717-243-7855
www.carsatcarlisle.com

5-7 • Lone Star Classic Cars Annual Swap Meet • Palmer, Texas • lonestarclassiccars.com

6-7 • Manchester Car Show
Manchester, Vermont • 802-362-6313
manchestercarshow.com

6-7 • Ramapo Concours d'Elegance
Mahwah, New Jersey • www.ramapoconcours.com
info@ramapoconcours.com

10-13 • Buick Club of America National Meet • Springfield, Missouri • 614-472-3939
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11 • Hemmings Cruise-In
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12-14 • The Elegance at Hershey
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THE MID-AMERICA OLD TIME AUTO ASSOCIATION is proud to announce that the 57th annual car show, flea market and car corral will be held June 16-20 atop Petit Jean Mountain, Arkansas. The swap meet will take place nestled among tall trees surrounding the Museum of Autos, making for an inviting experience for hundreds of vendors. Last year's event featured participants from as far away as Colorado, Illinois and South Carolina. The show day is scheduled for the 20th and will be held on the grounds of the Museum of Autos. If you are going to be in the area and would like to participate or attend, please visit www.motaa.com/2015swapmeet.htm for more information.

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BY DANIEL STROHL

Big-Trunk Bonnie

WHILE GOING THROUGH HIS OLD PHOTOS, Robert Lloyd of Export, Pennsylvania, came across a few of this unusual car/truck hybrid he took in 1996. "I don't have any information on it other than the pictures," Robert wrote.

Our first inclination was to go back and review Matt Litwin's story on the El Catalina factory prototype Pontiac sedan pickup from *HCC* #85 (October 2011). While only one of the three planned prototypes was built and survives to this day—the one featured in the article—the story notes that one was apparently constructed from the leftover parts from the project, was painted red, and has been spotted somewhere out in the Midwest. Could this be that same car?

Nope. Don Keefe, editor of the Pontiac-Oakland Club International's magazine, *Smoke Signals*, informed us that Lawrence "Gib" Mahle of Clarion, Pennsylvania, built the Bonneville and redid it a number of times, most recently in the early 1990s with a 455 and Turbo 400. He even helped build a second Bonneville pickup for Jack Buck of Greenville, Pennsylvania, Keefe said. Mahle died in 2007, but the pickup remains in his family.

Show and Tell

EVEN THE EXPERTS GET STUMPED EVERY NOW AND THEN. When the Early Ford V-8 Foundation was recently donated a 1932 Ford show chassis—that is a driveable bare chassis and drivetrain with no body and only a cowl, steering wheel and seat—its members were delighted, but at the same time stumped by the show chassis' specific history.

According to a write-up in the foundation's most recent newsletter, lore had it that Ford pulled about 20 complete chassis from the assembly line to send around to dealerships for display purposes. Once the dealerships were done with the chassis, they were to be returned to Ford to have bodies installed on them. Yet, many photos of the display chassis from 1932 show them with cut-away components and chrome plating on pieces that shouldn't be chromed.

Whatever the back story, the foundation at least knows that this particular chassis spent about 20 years on display in the Harrah's collection, followed by stints in several other collections—most recently in the Ron Pratte collection, which was dispersed at auction in January.

RE: Which Way's Forward?

A CAR AS DISTINCTIVE AS THE DOUBLE-ENDER 1957 Ford that we've highlighted twice already (see *HCC* #121 and #127) can't keep hidden for too long—somebody's bound to see or recall a weirdo car with two faces and two driving positions, after all. So while we don't yet know the whole history of it, we at least know that it still existed a few years back, thanks to these February 2012 photos that Gary Levesque of Southwick, Massachusetts, took of the car in front of an auto glass shop in Springfield, Massachusetts.

While the paint scheme has changed, and we don't see the two posts on the roof, as we did in the previous two photos, we can't imagine there's that many double-ender 1957 Fords to get mixed up.

We called the auto glass shop in Springfield to inquire about it, but the owner of the shop said he only owned the Ford for a few months before selling it. We don't imagine anybody would crush or dismantle a car like this these days, so we have to believe it's still out there. But where?

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 TOM COMERRO

Tulsa Turnout

LEAKE'S HUGE TULSA AUCTION WILL TAKE place June 5-7 at the River Spirit Expo at Expo Square. Over 750 collector cars, trucks and motorcycles are expected, representing a wide range of eras. A couple of cars caught our eye: a 1916 Stutz Model C Bulldog Special 4-passenger Touring car, a rare example with original factory body, and a 1959 Cadillac Eldorado Biarritz convertible, which was restored by Bud Ward. Leake is always adding consignments to its listings, so be sure to visit its website for the latest lots and schedule: www.leakecar.com.

Carolina Cruisin'

JUNE 18–20 MARKS THE DATES FOR THE Raleigh Classic Car Auction to take place at the Jim Graham Building of the Expo Center on the North Carolina Fairgrounds. The preview will be on the 18th, and the auction will begin on the 19th. Last December's event saw over 300 cars cross the block, with a wide range of variety, from low-mileage drivers to some rarer show cars. Automobiles consigned this time span 1939 to 1977, and over 90 percent of them are American. Check out Raleigh's site at www.raleighclassic.com to see what will be up for sale in the Tar Heel State.

AUCTION **PROFILE**

THE REGAL HAD ESTABLISHED itself as one of the more popular underslung cars during the Brass Era, and 1913 was about the height of popularity for this Detroit manufacturer. Over 7,500 cars were made that year, boasting some of the finest engineering available at the time. An L-head 4-cylinder engine rated at 25hp and a three-speed transmission, combined with a low center of gravity, give the Regal a very sporty feel and look.

This example was on display at The Henry Ford until 1979. Recently recommissioned, it featured new seat upholstery in black buttoned leather, while the paint is from an effort undertaken in the early 1970s by the Ford museum. Many of the original details are still present, including the instructive brass plaque for starting; the brass Stewart speedometer, complete with gradometer; and the thermosyphon cooling system.

CAR	1913 Regal Model N 'Underslung' Roadster	**LOT NUMBER**	231
AUCTIONEER	RM Auctions	**CONDITION**	#3
LOCATION	Scottsdale, Arizona	**RESERVE**	No
DATE	January 16, 2015	**AVERAGE SELLING PRICE**	N/A
		SELLING PRICE	$110,000

JUNE Calendar

5-6 • Seattle, Washington
Mecum Auctions • 262-275-5050
www.mecumauctions.com

5-7 • Tulsa, Oklahoma
Leake Auction Company
800-722-9942 • www.leakecar.com

5-7 • Newport Beach, California
Russo and Steele • 602-252-2697
www.russoandsteele.com

6 • Grove, Illinois
VanDerBrink Auctions • 507-673-2517
www.vanderbrinkauctions.com

13 • Williston, North Carolina
Silver Auctions • 800-255-4485
www.silverauctions.com

18-20 • Raleigh, North Carolina
Raleigh Classic • 919-269-5271
www.raleighclassic.com

20 • Coeur d'Alene, Idaho
Silver Auctions • 800-255-4485
www.silverauctions.com

26-27 • Denver, Colorado
Mecum Auctions • 262-275-5050
www.mecumauctions.com

27 • Murfreesboro, Tennessee
Southern Classic Auctions
615-496-2277
www.southernrclassicauctions.com

27 • Brandon, South Carolina
VanDerBrink Auctions • 507-673-2517
www.vanderbrinkauctions.com

SoCal Auction

RUSSO AND STEELE'S SUMMER AUCTION IS slated to take place just south of Los Angeles this June 5-7 at the Newport Dunes Waterfront Resort. Expect to see several highly collectible American cars against the backdrop of Southern California's beautiful coastline. A variety of listings—over 400 cars—should provide something for everybody. Whether you are looking to attend the auction as a spectator or hoping to participate, please visit www.russoandsteele.com for fees and registration requirements.

View and search through thousands of upcoming auction vehicles in one place at the Hemmings Auction Showroom, www.hemmings.com/auctions/.

BY MARK J. McCOURT

Tri-Five Treasure

WHILE THE 1956 CHEVROLETS tend to be overshadowed by their 1955 and 1957 counterparts, these cars have a quietly cohesive elegance that is all their own, a fact that's especially true of the iconic Nomad wagon. This model is celebrated in nostalgic fashion with this new decorative "Vintage Auto Sales" sign. Its hand-painted artwork has been reproduced on sturdy 1/6-inch sheet aluminum, which is made to appear distressed and rusted around the edges. It's sized 15 x 26 inches and features pre-drilled holes for easy hanging. Cost: $49.99.

800-423-5525
www.calcarcover.com

1977 Pontiac Trans Am

ONE OF THE MOST FAMOUS AMERICAN CARS of the 1970s—and a bona fide movie star—is Pontiac's unmistakable 1977 Firebird Trans Am. Auto World has created a trio of incredibly authentic resin replicas in 1:43 scale, and they come in the famous gold-trimmed black, blue-trimmed white and (not shown) red-trimmed yellow. These models feature perfectly scaled "screaming chicken" hood graphics, wonderfully detailed interiors, chrome foil trim and snowflake alloy wheels, and they're sure to please the most diehard fans. Cost: $69.99 each.

888-910-2889
www.autoworldstore.com

1954 Weller-De Soto Ambulance

THE VAN-BASED AMBULANCES of today—while roomy and practical—can't compete visually with the stylish passenger car-based ambulances that were common in the 1950s. An esteemed producer of professional cars in that era was Memphis, Tennessee's, Weller Brothers, which was noted for converting any style of vehicle, using a standard or extended chassis, into an ambulance, a hearse or a "combination coach" that could double as both. One of this firm's most handsome creations was the 1954 Weller-De Soto ambulance, which England's Brooklin Models has replicated in fetching Dark and Light Lilac-painted 1:43-scale white metal. It's substantial, wonderfully detailed with a visible dashboard and stretcher in the back, and has been approved by the Professional Car Society. Cost: $159.95.

800-718-1866
www.diecastdirect.com

Mustang: The First 50 Years

THIS TWO-DISC DVD SET contains 2½ hours of Mustang history, and such products rarely cover that much ground, no matter what the subject matter. In this case, however, the result is perhaps the most comprehensive video history of the Mustang ever produced. It starts out by explaining that the failure of the Edsel nearly assured that the Mustang never came to market. From there, it goes into the first prototypes before discussing the long genesis of the first-generation pony car. There's also plenty of respect paid to the huge-selling Mustang II from 1974 forward. We were very impressed by the depth of coverage this bargain-priced collection provided, and if you're into the Mustang in a big way, you'll likely be equally enthralled. Cost: $19.95. *—By Jim Donnelly*

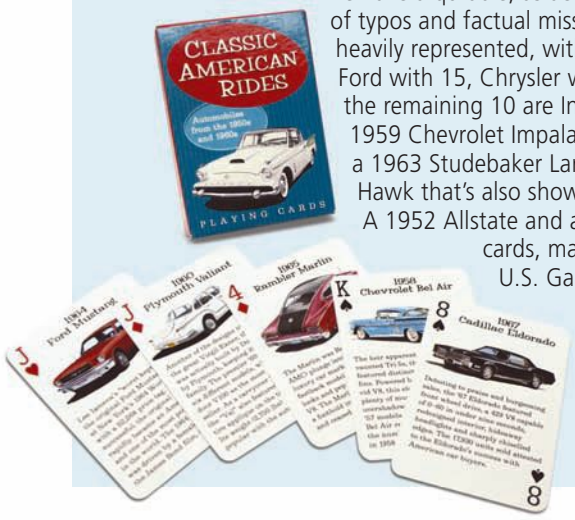
800-892-2822
www.tmbv.com

Classic American Rides

WHY PLAY CARDS WITH JUST ANY OLD DECK, when you could be brushing up on some of your favorite American cars from the Fifties and Sixties? With text by Mark A. Clark and color illustrations by Joe Boginski, Classic American Rides covers 54 of your favorites, counting the two jokers. The thumbnail write-ups are meant to entertain, so they'll likely engage even the non-gearhead members of your bridge foursome or poker buddies. If we have a quibble, aside from the inevitable couple of typos and factual missteps, it's that GM is so heavily represented, with 19 models, followed by Ford with 15, Chrysler with six and AMC with four; the remaining 10 are Independents. The aces are a 1959 Chevrolet Impala, a 1955 Mercury Montclair, a 1963 Studebaker Lark and the 1958 Packard Hawk that's also shown on the box. The jokers? A 1952 Allstate and a 1965 King Midget. The cards, made in Italy and sold by U.S. Games Systems of Stamford, Connecticut, are made of high-quality stock, with crisp printing. Cost: $6.

—By David LaChance

www.usgamesinc.com



Show Rod Model Kits

FOR YOUNG BOYS GROWING UP in the 1960s and early '70s, building model car kits was a rite of passage—practically everyone did it. Coinciding with the customizers' craze of building wild and crazy "theme" cars, constructing them in kit form was at the top of every kid's list.

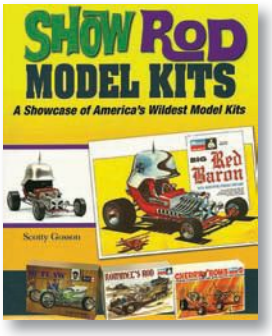
All those memorable custom model car kits have been brought together in this 144-page softcover book. You'll discover the story behind the creation of such great customs like the *Red Baron*, *Green Hornet's Black Beauty*, *Beverly Hillbillies'* TV truck, *T'rantula*, *Paddy Wagon*, *Monkeemobile*, *Beatnik Bandit*, *Munster Koach*, *Beer Wagon* and many more.

Other interesting chapters provide insight into the kit manufacturers and the designers of all the wild creations that have come to signify Sixties automobile creativity. If you built one of these kits when you were young, then you will want to read this book now. It's a must! Cost: $29.95.

— By Richard Lentinello

800-551-4754

www.cartechbookscom



Illustrating The (Auto) Icons

THE LATEST OFFERINGS FROM CHICAGO-BASED ARCHITECT and designer Jerome Daksiewicz exhibit keen and clever minimalism. Jerome's independent NOMO Design studio offers a range of design services to its clients, and he found great success after creating a series of posters depicting airport runways in their simplest forms. After growing the series from four to almost 50 prints, he expanded the idea further to include race tracks and golf courses. Most recently, however, he's found inspiration in a new subject: the front ends of cars.

"The idea actually came from a car-nut friend," Jerome explains. "He knows the type of design work I prefer, which often tries to find a beauty in the items typically overlooked and tends to be represented minimally." Ford seemed like the natural manufacturer to start with, as most of the men in the Daksiewicz family were themselves Ford workers.

His first print features the 28 most iconic Ford designs illustrated in trademark colors, with the crisp sort of line quality that calls to mind the architectural renderings of Jerome's past. He's followed this piece with similar ones featuring General Motors, BMW, Ferrari, Mercedes-Benz and Porsche, with more to follow. "I love how you can see certain design elements evolve over time," he notes, "and how all the prints have a similar rhythm, from top to middle to bottom." They're sized 18 x 24 inches. Cost: $30 each. *—By Zach Higgins*

http://shop.nomodesign.com

BY TOM COMERRO

Mopar Fillers

If you own a 1963-'65 Plymouth or Dodge A-body car, you may have found out the hard way that it's very difficult to find replacement bumper fillers for these particular models. Metro Moulded Parts now stocks reproduction fillers for hardtops, convertibles and two- or four-door sedans. The mounting holes are located in the proper places, and they are made of premium rubber that should last a long time. Cost: $30.

Metro Moulded Parts
800-878-2237
www.metrommp.com

Jump Starter

The NOCO Company offers the new Genius Boost, a portable lithium-ion automobile jump-starter that will restore power to dead and weak batteries. The booster is incredibly compact, but able to deliver multiple jump-starts on a single charge for cars that have engines up to eight cylinders. This is a great item for anyone to use, as it eliminates the pitfalls of other starters, such as the possibility of reversing the polarity when connecting it, sparking and arcing. The booster is powered by a high-density lithium-ion battery that will allow you to deliver high current in a wide range of temperatures without causing premature battery failure. The booster also comes with battery clamps and USB cable. Cost: $160.

NOCO Company
800-456-6626
nocousa.com/boost

Rolling Metalwork

Woodward–Fab has added a new power bead roller to its line of metal-working equipment. The new roller features a large 24-inch throat depth, variable speed and ¼-horsepower gear drive. This roller is designed to be perfect for strengthening beads, ribs or flanges in sheet-metal up to 18-gauge thickness. It comes with a floor stand, die rack for storage and round bead die. Die sizes and options are available for most applications. Cost: $975.

Woodward-Fab
800-391-5419
www.woodwardfab.com

Crank It Up

Brand new crank hole tunnels and covers for 1929-'30 Chevrolet passenger cars are finally being made again. These parts are notoriously absent due to their easy removal. Featuring a steel crank hole measuring 9 inches long, with attached chrome cover, this assembly fits to the front of the radiator splash apron but can still be easily removed for crank starting. The fit and finish is said to replicate the originals. Cost: $165.

The Filling Station
800-841-6622
www.fillingstation.com

670 Steering Boxes

New Delphi 670 power-steering gearboxes are now available from Lares. The gearbox is a bolt-in upgrade, offering the latest technology specifically for 1964-2004 GM and Jeep vehicles. The 12.7:1 ratio with .210 torsion bar allow for firm and precise steering. New rag joint steering couplers are also available. Cost: $599.

Lares Corporation
800-555-0767
www.larescorp.com

Going...Going...GONE!
United States Baseball Legal Tender Coin

Legal Tender Clad Half Dollar. Actual size is 30.61 mm

Only $29.95!

Cooperstown, N.Y.

The National Baseball Hall of Fame and the U.S. Mint have released the FIRST EVER *curved* American coin. This legal tender half dollar was struck in 2014 to honor the 75th anniversary of the National Baseball Hall of Fame and Museum.

First Ever Curved American Coin

The coin's curved design is a first in American history. The outward curving 'tails' side of the coin depicts a baseball—complete with intricate stitching. The inward curving 'heads' side of the half dollar reveals a classic leather baseball glove, with the curve perfectly reflecting the natural shape of a weathered and well-loved baseball mitt. Among the celebrity judges who selected this FIRST EVER curved design were Hall of Famers Joe Morgan, Brooks Robinson, Ozzie Smith, Don Sutton, and Dave Winfield. The curved design is like nothing you have ever seen before. You won't believe it when you hold it!

Going...Going...GONE

Public demand for these coins exploded and a number of versions sold out almost immediately. The Baseball Hall of Fame Half Dollar will go down in history as a runaway best seller. But even though the coins are no longer available from the U.S. Mint, you don't have to strike out.

If you CALL NOW, you can lock in your very own piece of baseball history—not to mention the *most unusual American coin ever struck!*

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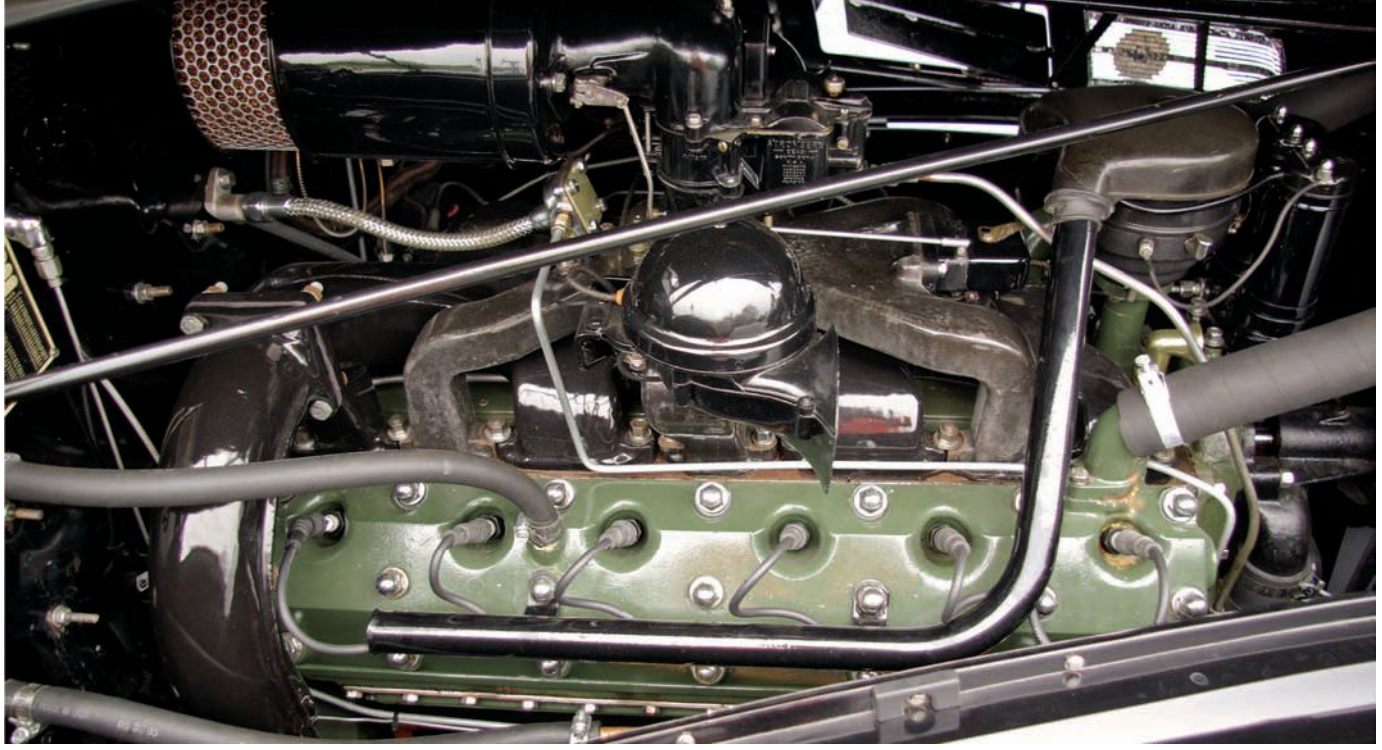
Victorious V-12

Restoring a 1939 Packard Coupe Roadster takes time, patience and skill, but rebuilding its V-12 engine takes a lifetime of experience

BY MATTHEW LITWIN • PHOTOGRAPHY BY RICHARD LENTINELLO

"Ask the man who owns one." Six inconspicuous words on their own, but in this arrangement they became legendary, their method comparable with President Theodore Roosevelt's speak-softly-and-carry-a-big-stick approach to foreign policy. In the case of Packard, the soft note of its advertising copy was also a powerful statement about automotive elegance, engineering and performance, and arguably, it still is, 59 years after the last "true" Packard rolled off the assembly line. Just ask today's enthusiasts who own one, like Sarasota, Florida's, Eugene Cohen.



Packard's venerable 473-cu.in. V-12 was rated at 175hp, but its real performance prowess was the ample torque that peaked at 1,400 RPM.

Introduced in 1899, Packard aspired to become synonymous with excellence, a paragon of engineering and advanced styling. Within a decade, it was helping to define the budding luxury car market, successfully competing against other segment giants such as Marmon, Peerless, Auburn, Pierce-Arrow and Cadillac.

By 1915, Packard's plush accommodations, bulletproof reliability and noteworthy performance had established a reputation for the company among successful socialites seeking the finest. Cadillac responded that year by abandoning its aging 50hp four-cylinder engine in favor of a revolutionary 70hp, 314.5-cu.in. 90-degree V-8. Packard, having converted to a 60hp, 415-cu.in. straight-six two years earlier, didn't waste time in introducing its famous Twin Six for 1916, a 424.2-cu.in. 60-degree V-12 rated at 88 horsepower.

This single act left GM's luxury division lagging in the market segment for a decade, even after Packard phased out the Twin Six—which had evolved to 90 hp—after the 1923 model year in the wake of a postwar recession. Eight cylinders became less costly and more efficient, and the race beyond eight cylinders was on hiatus only briefly.

In spite of the heightening economic crisis, Cadillac and Pierce-Arrow unveiled new V-12 engines for 1931, while Auburn and Lincoln readied their own versions for release a year later. In all fairness, Cadillac had again scored a victory by unveiling its monstrous V-16 for 1930. Marmon, already reeling in red ink, announced its own V-16 for 1931. Packard, not willing to relinquish its sales dominance, also entered the fray with a re-engineered Twin Six for 1932.

Renamed the Packard Twelve within the year, the car was equipped with a new engine of a 67-degree design displacing 445.5 cubic inches. Initially rated for 160hp, it was engineered with an unusual firing order that reduced vibration. Its real selling point was its 322-lb.ft. of torque that peaked at a wonderfully low 1,400 RPM. Coupled with a low final drive ratio (a choice of 4.06, 4.41, 4.69 or 5.07:1 gearsets), its off-the-line-performance was virtually second to none, and top speed was on par with its V-16 contemporaries.

Quiet and smooth, thanks to the Packard Eight chassis it utilized, the Twelve was hardly considered a hot rod. Its body was exquisitely designed by in-house staff and an array of custom coachbuilders, and its interior was equally elegant. It got even better when, in 1935, the V-12 engine was enlarged to 473.3 cubic inches, gaining another 15hp in the process. For 1937, Packard Twelve production was 1,300 units, or nearly three times as many V-12 and V-16 Cadillacs, combined.

Packard's reputation reached well beyond the affluent of the day; many of today's collectors aspire to own V-12 examples, which brings us to Eugene. As a youth, he became enamored with the marque while visiting an uncle who owned a 1937 Super Eight Sedan, a stylish senior Packard motivated by a more conventional, but no less smooth and powerful, 320-cu.in. straight-eight. Aware of the allure of V-12 power, Eugene's opportunity to purchase his own didn't occur until he reached adulthood. It was a second example, however, that he bought in 1976 that forever cemented his love of the marque. Then living in Clinton, New York, Eugene took a trip to the AACA's annual Hershey event and netted himself a 1938 Packard Twelve 1607 Coupe Roadster.

Attached to the firewall, the body plate confirms this Packard as a Convertible Coupe (1239), in addition to it being one of the first off the line.

According to Eugene, "Like the first V-12 I owned, I had to restore this one, including the engine. At the time, I was making rod bearings for the V-12, so I was gaining a lot of experience with their engineering. Once I had finished the car, we drove it all over Upstate New York, with our kids enjoying every minute of it in the rumble seat. When we decided to move to Florida several years later, I put my collection up for sale and, naturally, the first to go was the 1938 Coupe Roadster."

Flash forward to 2000. Eugene had established a reputation among Packard enthusiasts as one of the go-to guys who had the innate ability to resurrect a Packard visually and mechanically, which was what led him—through a recommendation—to a

The Senior Packards—including this Convertible Coupe with leather seating for two—always sported opulent passenger accommodations.

rare 1938 V-12 Convertible Victoria. He ultimately purchased it mid-project. Though he finished its restoration and displayed it in AACA events, the sale of his beloved Coupe Roadster haunted his consciousness. A chance recommendation in 2009 paved the way for him to recapture a slice of his past.

"A gentleman in Tennessee, who owned a 1939 V-12 Coupe Roadster, was referred to me by Fred Bruner of Max Merritt Packard Parts. I was told that the owner of the car—disassembled since the 1980s—needed to have the engine rebuilt so he could sell the car and use the money as a down payment for a house. He found out that it was going to cost $30,000-$50,000 just to have the V-12 reworked. Having rebuilt many, I was hesitant at first: Was it worth me running back and forth to get the job done? Instead, I said I might be interested in buying the car as-is, and we reached a purchase agreement," explains Eugene.

As is often the case with stalled projects, this one was discovered to be missing many parts when Eugene inventoried what he had acquired. Through conversations with the seller, he learned that the Packard had been disassembled in New Orleans. Ultimately, Eugene was able to travel to Louisiana to retrieve the parts, enabling him to begin the restoration. The work with the chassis, body and interior was comparatively straightforward, and Eugene's experience with the V-12 engine allowed him to negotiate the powerplant's nuances with relative ease.

"Packard Twelve engines used a crankshaft with hard-chromed journals. This was done to prevent wear and, with the exception of two, I've not had to have the crankshaft turned during a rebuild. I found that the crankshaft in the 1939 car I purchased had been rebuilt once before. Someone had tried to use incorrect bearings, which then slid on the journals causing wear. To correct it, they turned the journals .030, only exacerbating the problem. I sent the crankshaft out to be metalized, rechromed and machined back to stock specs; it took almost a year to do.

"I'm not sure of the exact metallurgy, but I know Packard pistons were a blend of aluminum and steel, engineered to dissipate excessive heat inflicted upon the cylinder head's surface when firing, something in the neighborhood of 6,000 degrees. Some rebuilders like to rework the original pistons, but it can be labor intensive. I prefer to use Egge pistons. They are a modern hypereutectic piston made entirely from aluminum but with a high silicon content, so they replicate the same heat dissipation rate.

"The valve lifters in a V-12 are not like those found in a modern engine. They are of a semi-lifter type set on a roller cam that then uses a hydraulic dash pot to control its close rate. As a result, they are difficult to set. Clearance needs to be between .030 and .045, and to do that, you need to be sure to completely depress the lifter. I find that a .030 clearance is still too tight and the V-12 won't run efficiently, so I set the clearance at .035. If set correctly, I have to look at the oil pressure gauge when

A bank of five gauges is centered on the dash; the middle gauge is actually an AM radio. Oddly, the fuel/oil pressure gauge is offset to the far right.

stopped at a traffic light to see if it's still turning; the engine can run that silently.

"As to the block, because of the 67-degree deck design, you can't use a conventional cylinder bore machine. What I have found works best is a Rottler CNC machine that has a moveable head. After the block is secured, you match the boring head to the cylinder degree.

"Packard's standard cylinder heads were made of aluminum, although cast-iron heads were also made. The aluminum heads invariably need a lot of work, since the water ports tend to corrode after 70-odd years of use, enlarging the opening that leads to the engine running hot. You can spend $3,500 on a set of reproduction cast-iron cylinder heads, or heliarc weld the aluminum heads, then mill them back to original specs. It's another facet that makes rebuilding a V-12 expensive.

"It's also difficult to set the points. Remember, you essentially have two six-cylinder engines, so you also have two coils and two sets of points, which are located in one distributor. One set of points is stationary and the other is moveable. To set the points, you put a timing light on the side with the stationary points and turn the distributor until it is properly timed. Then you go to the other bank, put the timing light on it and find that the movable points are not set right. So you shut the engine down, pull the distributor cap off, pull the rotor out and move the points just a little in one direction or the other. It's an arduous, oft-repeated process that never ends as perfect as it should. The best solution is to find an old Sun machine that can enable you to set the points with much more precision. There are a lot of Sun machines around, but finding one that's functioning is very difficult."

"I drive it a couple times a month. A Packard Twelve is a real pleasure to drive—smooth as silk."

After completing the restoration of this 1939 Coupe Roadster, Eugene was awarded with an AACA First Senior award; however, that's not to say that the rare V-12—one of just 446 such equipped cars Packard built collectively that year—hasn't been driven regularly.

According to Eugene, "I drive it a couple times a month. A Packard Twelve is a real pleasure to drive—smooth as silk. You never need to downshift the three-speed manual transmission at a corner; the torque is such that the car accelerates from almost a dead stop in high gear without balking. It's a heavy car, but the weight only bolsters the handling characteristics. You barely have to move the steering wheel with one hand to get a smooth, fluid response, almost as if it had power assist. The braking system was power assist from the factory, and I can tell you that this Packard stops almost as well as a modern car.

"Packard stopped making the Twelve at the conclusion of the 1939 model year, making it—in my mind—the ultimate Packard. Coupled with the neatest body style, it's one I enjoy immensely."

The Packard Twelve

Unparalleled Classic Era styling of the Thirties designed to complement unbridled power

BY MATTHEW LITWIN • PHOTOGRAPHY AS CREDITED

In the luxury car market, one of the industry giants that excelled at combining power and styling was Packard. Never was this more apparent than during the 1930s, at the very height of the Classic Era of automobile production. By then, the legendary smoothness of Packard's straight-eight engine kept the company solvent during the deepening Depression. However, the company surpassed the competition by attracting discerning buyers who wanted automobiles with opulent interiors, sophisticated styling and, most important, a smooth and powerful V-12 engine. Packard delivered on all counts, and in a very stylish way. Here are just a few of the more significant 12-cylinder motorcars that Packard was famous for.

RM SOTHEBY'S/ALISON LANGLEY

1932 **Twin Six Individual Custom Convertible Sedan** *by Dietrich*

Although Dietrich had begun building custom coachwork for Packard in the mid-Twenties, its most prestigious designs were the Individual Customs. The bodies were offered first in Super Eight guise in 1931 before Twin-Six/Twelve production was relaunched in 1932. Offered in 10 body styles with the Twin-Six engine, these individually ordered creations were striking, combining sporty lines, long hoods and a vee'd windshield with a 147.5-inch-long wheelbase chassis. Combined, just 238 Twin Six Individual Customs were built during the model year. This Series 906 five-passenger Convertible Sedan cost more than $6,900 when new.

1933 **Twelve Coupe Roadster**

Packard wasn't solely focused on well-to-do aristocrats; there was also an effort made in capturing the attention of sophisticated yet adventurous youth, as evidenced by the continued production of the Coupe Roadster as the Tenth Series rolled from the assembly line for 1933. The automaker's in-house team of engineers used an earlier LeBaron design as the foundation for this sporty creation featuring skirted swept fenders, vee'd grille and a folding top that sat flush with the body, all on top of a redesigned tapered 142-inch wheelbase frame. It's believed roughly 50 were produced in Series 1005 configuration, such as this example, at a cost of nearly $3,900 each.

RM SOTHEBY'S/ROD HATFIELD

1933 **Twelve Individual Custom All-Weather Town Car Landaulet** *by LeBaron*

The high cost of custom coachwork often resulted in exceptionally low production numbers that have since translated to both high demand and sale prices in today's collector-car market. One such example is this All-Weather Town Car originating from the Series 1005 Individual Custom line. Aimed at the extremely affluent, it cost more than $6,000, and it's believed that not only were there just three built by LeBaron, but that this was the only one to have been fitted with a rear landaulet top. When folded down, the top allowed passengers to experience carefully exposed open-air chauffeured motoring. As with many LeBaron-bodied Packards, the coachwork—with exception of the steel cowl and fenders—consisted of aluminum panels.

RM SOTHEBY'S/RONNIE RENALDI

RM SOTHEBY'S/DARIN SCHNABEL

1934 **Twelve Five-Passenger Coupe**

Packard Twelve output during Eleventh Series production culminated in 960 units spread across the 1106, 1107 and 1108 models, the last two, effectively supplied with custom coachwork by Dietrich and LeBaron, respectively. This stately five-passenger Coupe was of an in-house design—body number 737—built upon the company's 142.5-inch-long-wheelbase chassis. Although nearly identical to 1933 Packards visually, the 1934 models came with some mechanical advances such as the addition of a full-flow oil filter and oil temp regulator. Weighing in at more than 5,500 pounds, this coupe was easily capable of managing an impressive 0-60 MPH in a fraction over 20 seconds.

1934 **Twelve Seven-Passenger Touring**

At just shy of $4,000 when new, this four-door Touring car, body style 730, was one of the most affordable V-12-equipped Packards from 1934's Eleventh Series—no doubt a response to the fact that truly open touring models had been falling out of favor among customers from all walks of life. It is believed that only three examples—adorned with the same visual cues employed by other in-house-designed models—were built, making it perhaps the rarest Packard Twelve manufactured that year. By way of comparison, a closed five-passenger Twelve Coupe cost an additional $80.

RM SOTHEBY'S/HUGH HAMILTON

RM SOTHEBY'S/DREW SHIPLEY

1935 **Twelve Sport Phaeton**

In spite of the fact that Packard Twelve production far exceeded that of Cadillac's combined V-12 and V-16 output, there are nevertheless examples of Packards that are considered rare scattered throughout the Twelve's Classic Era history, including this Twelfth Series Sport Phaeton. It's believed that just four of these dual-cowl, five-passenger gems were built, each tipping the scales at more than 5,800 pounds. That bulk, however, was easily managed by its V-12 engine, which, thanks to a number of internal improvements, was now rated at 175 horsepower. Total Twelve production topped out at 788 units that year. Sport Phaeton production ceased after the 1936 model year.

1937 **Twelve Coupe Roadster**

By all accounts, 1937 was the pinnacle of Twelve production during the decade, a status bolstered in part by a slowly improving economy, a new Safe-T-Flex independent front suspension system for improved stability and control, vacuum-assisted hydraulic brakes, and the adaptation of contemporary lines without abandoning the conservative elegance the Packard customer had come to expect. The net result was a Fifteenth Series V-12 production figure of 1,300 units that included this exceedingly attractive Model 1507 Coupe Roadster, one of a believed 69 built and costing roughly $3,400 when new.

RM SOTHEBY'S/ROBIN ADAMS

RM SOTHEBY'S/DARIN SCHNABEL

1938 **Twelve All-Weather Town Car** *by Rollston*

As the decade of the Thirties was nearing its close, contracts between Packard and several custom coachbuilders remained strong, including that with New York City-based Rollston, which was highly regarded for its craftsmanship in creating formal town cars. Though produced in comparatively low numbers, the Rollston Town Cars were popular enough to be cataloged by the Packard factory. For the Sixteenth Series, or 1938 models, a more cost-effective manner of producing the Town Car was devised whereby the coachbuilder would be sent Touring Limousine bodies, which were then modified and refitted with superior appointments. Without options, the cost for one of these All-Weather examples exceeded $6,800.

RM SOTHEBY'S/ROBIN ADAMS

1938 **Twelve Convertible Sedan**

Convertible Sedans were still a popular body style, enough to warrant their continued production not just at Packard but throughout the luxury-car market and upper mid-price market as well. Now sharing a 139.5-inch wheelbase chassis with the Super Eight, Packard Twelves, such as this one, prominently featured a V-shaped windshield, pontoon-styled front fenders—which could support side-mounted spares, if optioned—and rich leather interiors with ample seating for five. With the V-12 still rated for 175hp, the shorter chassis permitted even this 5,400-pound creation to be more nimble than its predecessors.

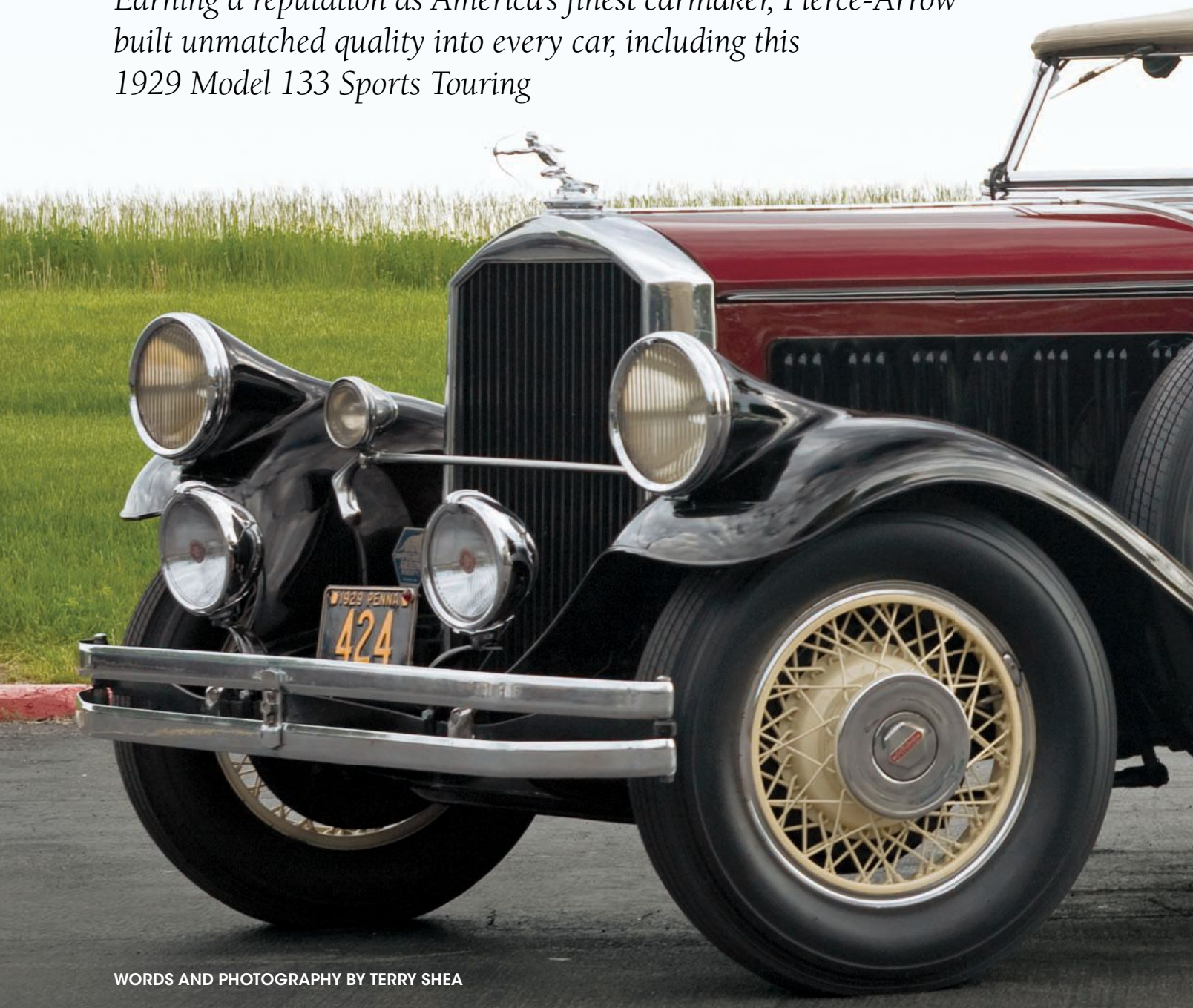
1939 **Twelve Touring Cabriolet** *by Brunn*

This would prove to be the final year of Twelve production in a slowly evolving luxury car market; however, that didn't mean Packard was ready to abandon the notion of custom coachwork. To the point, elegant creations from Brunn—including this Touring Cabriolet—were still an integral part of factory catalogs. Features here included a semi-folding fabric top with cabriolet bars and dual-tinted "Neutralite" glass skylights above the windshield to increase driver visibility, the latter a Brunn innovation. These Cabriolets cost an astounding $8,355—becoming one of the most expensive factory-authorized Packard Twelves ever created—thus only two were built. Of the 446 Packard Twelves offered during the model year, it's believed Brunn bodied fewer than 10.

RM SOTHEBY'S/DARIN SCHNABEL

Proud Pierce

Earning a reputation as America's finest carmaker, Pierce-Arrow built unmatched quality into every car, including this 1929 Model 133 Sports Touring



WORDS AND PHOTOGRAPHY BY TERRY SHEA

Pierce-Arrow built cars of uncompromising quality from 1901 through 1938, the name as revered as Packard, Auburn or Cadillac. But manufacturing cars of uncompromising quality requires significant capital, something Pierce-Arrow found itself short of in 1928. Having averaged a production of a little over 5,000 cars the previous few years, Pierce-Arrow remained a known quantity to its well-heeled buyers, but with a factory capable of producing 15,000 automobiles per year, it could not quite break even.

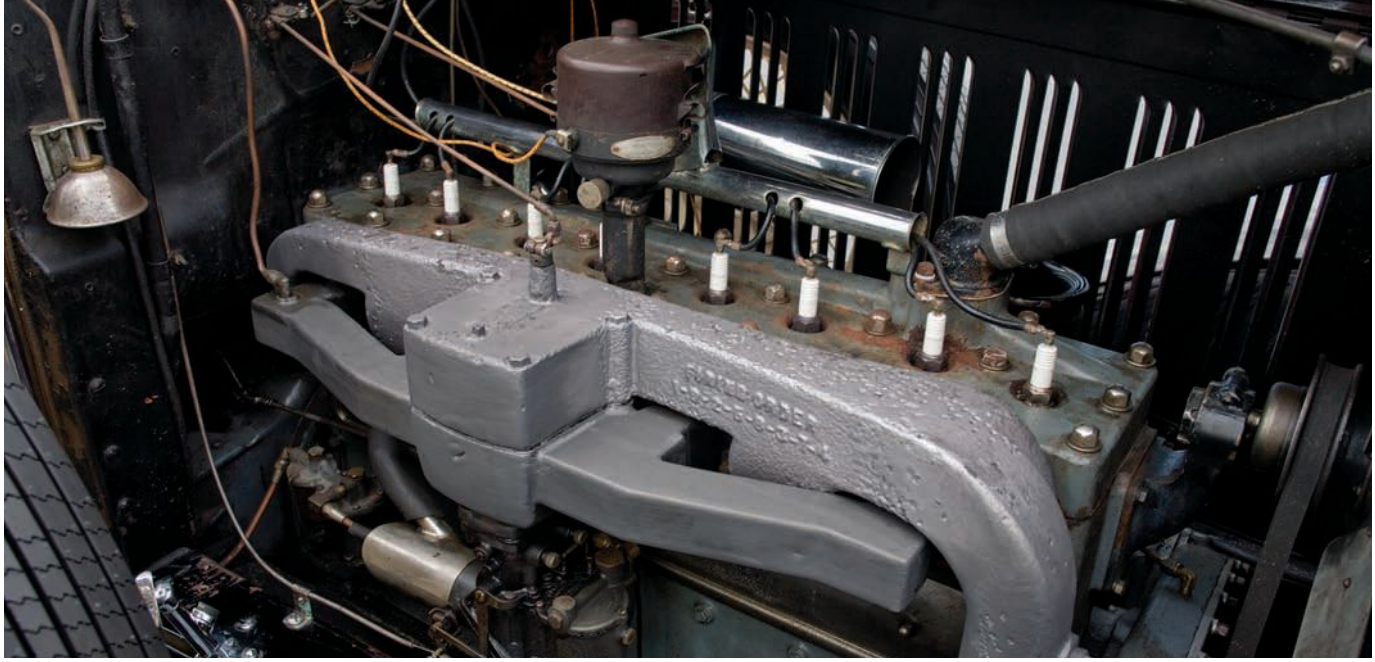
Customers knew the quality of Pierce-Arrow, a car that had been the choice of presidents. But their large, powerful T-head six-cylinder engines were expensive to produce and lacked the

cachet of straight-eight and V-8 engines from competitors, no matter their merits of smoothness and power delivery. By 1928, Pierce-Arrow had a stunning L-head straight-eight in the works, but not enough money to bring it to market.

Enter Studebaker. In a marriage of convenience in the form of a merger that saw the Studebaker Corporation take control of more than 90 percent of Pierce-Arrow shares, Studebaker provided Buffalo's finest maker of motorcars with some $2 million in much needed cash in 1928.

Along with its lower-priced Erskine line and the main Studebaker-badged cars, Studebaker having Pierce-Arrow in its portfolio gave it a leg up to begin taking on bigger players like General Motors. In fact, the merger made the combined Studebaker operation the fourth largest automotive conglomerate after GM, Ford and Chrysler. More important for Pierce-Arrow, it finally had the working capital it needed and put it to good use, completing the engineering and tooling to produce two new straight-eight-powered model ranges for 1929: the Model 133 and Series 143, so-named for the length in inches of their wheelbases.

Under the hood of each car was the all-new 366-cubic-inch straight-eight engine.Studebaker had introduced its own straight-



The 366-cu.in. straight-eight engine injected new life into Pierce-Arrow and powered two all-new ranges of cars for the Buffalo automaker.

eight just a year before in 1928, with the same 3.5-inch bore, and the Pierce-Arrow engine is often—erroneously so—imagined to be simply a stroked version of that engine. One major difference between the two is that Pierce-Arrow's powerplant employed nine main bearings instead of Studebaker's five. Adding confusion to the cause, Studebaker cast the iron Pierce-Arrow blocks in its Indiana foundry; however, it used a higher-quality alloy than what its own blocks were made of. Pierce-Arrow had been given wide latitude for how it ran its operations, despite Studebaker handling the block casting and some body stamping for Pierce out of South Bend. Pierce-Arrow engineers stationed at the Studebaker factory oversaw the engine block and body panel production to ensure that it met the company's elevated standards before the components were shipped to Buffalo for completion.

At 125 horsepower, the Pierce-Arrow straight-eight engine produced as much power as any other car on the market, save those named Duesenberg. Although it had just a 5.07:1 compression ratio, the Pierce engine made a healthy 250-lb.ft. of torque, giving both model ranges sufficient oomph for high-speed running.

Pierce-Arrow engineers also incorporated other innovations in their new engine, such as fitting a Lanchester vibration damper on the front of the crankshaft to make the big eight-cylinder operate even more smoothly. They also included a replaceable oil filter and mechanical fuel pump (in lieu of a vacuum tank), both features among the first in the industry. A Stromberg two-barrel carburetor fed a split manifold, where one barrel managed the inner four cylinders and the other the outer four.

> *"It appears to have about 120,000 miles on it. Most of the mileage seems to have come from the mid-1950s right on."*

The Pierce-Arrow straight-eight engine, as used in both the Model 133 and longer-wheelbase Model 143, proved an elixir, nay, a major triumph, for what ailed the storied Buffalo manufacturer, temporarily, at least. But it was not the only significant change for the models in 1929 that used it. Pierce-Arrow engineers also incorporated a hypoid axle for the final drive, the sort of thing that would come to Cadillac many years later. They also used shatterproof glass from the Pittsburgh Plate Glass company—another example of Pierce-Arrow engineering being ahead of the curve.

The cars were restyled, refreshingly more modern than previous efforts, yet still in line with the conservative looks Pierce-Arrow customers would have expected. Longer and lower than foregoing Pierce-Arrow offerings, the Model 133 and 143 were both a hit and available in many different configurations. The majority of cars included the frog-eye-like headlamps that protruded from the fenders, a design first introduced by Pierce-Arrow designer Herbert Dawley. (New York state law, curiously, prohibited such lamps, so all New York-delivered cars featured freestanding headlamps.) Dawley also gets credit for the helmeted archer hood ornament that first appeared in 1928 and that also adorned the 1929 models.

From 1913 on, Pierce-Arrows were recognizable for their fender-integrated "bugeye" headlamps—in the states that allowed them.

With the restyled body, the all-new engine and the extended reach of the Studebaker sales network, Pierce-Arrow sales achieved an all-time high in 1929, finding nearly 9,000 new customers.

Nick Sabatino, a retired

The Pierce-Arrow's Model 133 interior can be cramped for the driver and front passenger as the body tapers toward the cowl, but those two will be treated to the understated luxury and finery that were part of the company's well-earned reputation for making the finest cars.

electrician from Hollidaysburg, Pennsylvania, bought the five-passenger 1929 Pierce-Arrow 133 Sports Touring model featured on these pages about eight years ago. A car he had known about, this Model 133 was rolling into its space at the car corral at Hershey when Nick stopped the owner, took a test drive and made a deal.

Nick's Pierce-Arrow, despite its sheer presence and well kept appearance, is not a show car—he drives it regularly. He averages around 1,000 miles per year and has done some local touring events with the VMCCA. For certain, he appreciates the significance of the car. "I have a lot of history on the car," says Nick. "It appears to have about 120,000 miles on it. Most of the mileage seems to have come from the mid-1950s right on." Nick has had good luck driving his Pierce-Arrow, with only routine maintenance and a few small issues to deal with over the years, including replacing the head gasket and installing a new starter.

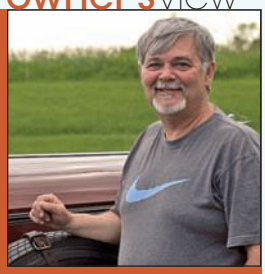
The car presents itself as being highly original, despite some obvious paint and interior work. "From what I can tell," says Nick, "the car has never been apart, although it had a repaint many years ago. I believe—it is very possible—that the black fenders are original paint. The upholstery has been replaced as was the roof before I bought it. I have just done a few maintenance things on it, but not much." The Pierce-Arrow reputation for quality is holding up 86 years after this car first rolled out of Buffalo.

When Nick offers to let me drive the Pierce-Arrow, I practically jump to the driver's seat, but Nick decides to take the top down first. It is a touring car, after all. I offer to assist, but it's a simple, one-man show: Nick loosens the wing nuts at the top of the tall, straight windshield and simply lifts the fabric top back. The process is easier than that on many more modern cars.

Stepping into Nick's wonderfully kept Pierce-Arrow reminds me that the Classics from the era, despite their vast overall size, do not necessarily offer tremendous room for the driver. The body that tapers from the back to the cowl at the front almost squeezes in the two people in that first row. The large-diameter steering wheel, canted somewhat away from the driver, also takes up space. Drivers of, how shall we put this, some girth, would have a hard time squeezing into the driver's perch.

Fortunately, the footwell provides more commodious space than similar cars, such as eight-cylinder Marmons. It takes attention and effort to coordinate the three pedals in any vehicle of this size, particularly due to its lack of modern conveniences like power-assisted steering or brakes. In this case, those stoppers

owner's view



It runs well, has plenty of power. It will go as fast as you want it to. It still runs 55 to 60 MPH without breaking a sweat. I have been on the New York State Thruway in the rain. The car has no windows. The top was up, but I am not sure that helped at all.

They are just high-quality cars. The engines are indestructible. They're real fun to drive, and they're just a, well, solidly built car. They have plenty of power. If you drive a Model A Ford, you know there's a lot of difference.

Maybe the shifting leaves a bit to be desired—there are no synchronizers on it. You've got to work with it.

are 100 percent mechanical, with no hydraulic actuation to speak of.

The view from behind the wheel is, quite simply, sensational. The top hinge of the long hood leads you right to the mascot, the helmeted archer, your champion while you drive. The wide, frog-eye headlamps, too, offer a far more fulfilling feeling than any current Bluetooth-enhanced, voice-activated infotainment system can dream of.

Turning the key, the big eight-cylinder engine fires to life, but you almost wouldn't know it. The nine-main-bearing engine immediately idles with a low purr. I am instructed by Nick to be careful shifting the gearbox, but he assures me that double-clutching is not necessary. The shift lever is long, but appropriately sized for the tall interior. Indeed, as Nick explains, shifting smoothly can be achieved by taking your time and being deliberate with the lever and deftly coordinating the accelerator and clutch. Though I grind the gears a bit the first couple of times getting out of first gear, I quickly acclimate to the nuances of the drivetrain and avoid that dreaded crunching of gears for the duration of the drive. First and second gear are used up rather quickly, particularly with the low-revving nature of the L-head engine as well as the car's 4.23-geared final-drive ratio. But the wide torque band allows for plenty of latitude when cruising in the third and final gear of the Brown-Lipe-built transmission.

The big steering wheel comes in handy when leaving the parking lot and provides ample leverage for steering the tall, but skinny, tires. Fortunately, the effort decreases drastically as we speed up. And the substantial displacement of the straight-eight engine offers plenty of torque to readily keep up with traffic. Slowing down, too, is drama-free, the four-wheel mechanical brakes operating in a very linear fashion: Pushing harder means braking harder. Though we never get to the point where the brakes fade, we could imagine how many panic stops might be found in such a system. Nevertheless, the overall braking competency of the big Pierce-Arrow gives the driver plenty of confidence.

The quality of the Pierce-Arrow shows through in the driving, in a car that has never been fully restored. Despite the car's age and the rudimentary nature of the solid-axle suspension, the Pierce-Arrow exhibits a solidity and surefootedness that surely appealed to buyers in 1929.

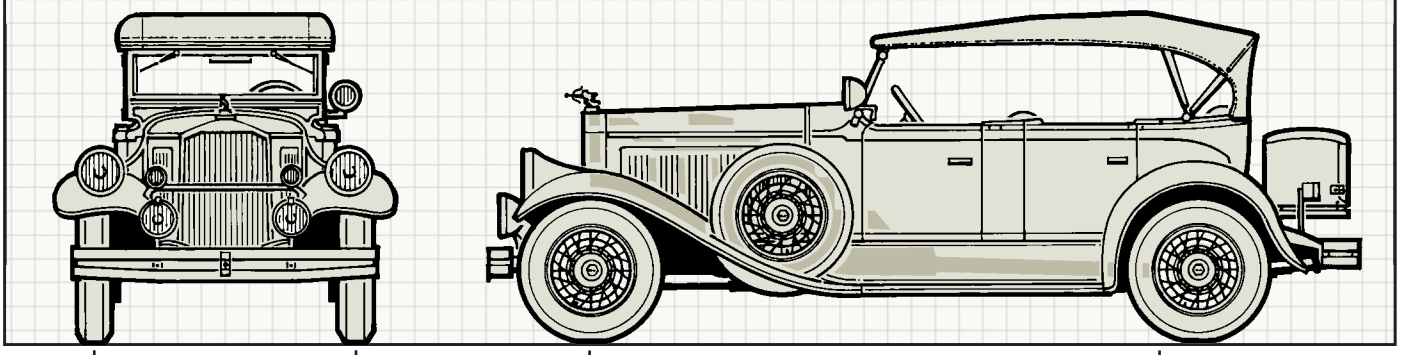
For several years, Pierce-Arrow profits generated from the eight-cylinder models helped keep Studebaker in the black. In 1929, Pierce-Arrow sent $2 million in profits back to South Bend—a number better than even the high-volume Studebaker could manage on its own. As sales volume dipped in 1930, so did returns, with Pierce-Arrow's annual tally down to $1.3 million in profits.

But as the Great Depression's bite got deeper and harder, Studebaker President Albert Erskine's insistence on paying dividends, even when profits were way down—and ultimately non-existent—depleted cash reserves and proved his and the company's undoing. By 1933, Studebaker was bankrupt. A dejected Erskine, ousted from the company, committed suicide. In the subsequent reorganization, Studebaker divested from Pierce-Arrow, which was sold to a group of Buffalo businessmen for $1 million in 1933, ending the arrangement.

Pierce-Arrow never fully recovered, ultimately going out of business as a car maker in 1938, but the marque never relented on its superior engineering, either. Nick Sabatino's 1929 Model 133 Sports Touring continues to prove that the Pierce-Arrow legacy of uncompromising quality endures, some 86 years after it first rolled off the production line.

1929 PIERCE-ARROW MODEL 133

ILLUSTRATIONS BY RUSSELL VON SAUERS, THE GRAPHIC AUTOMOBILE STUDIO



SPECIFICATIONS

PRICE

Base price	$2,975.00

ENGINE

Type	L-head straight-eight with cast-iron block and cylinder head
Displacement	366 cubic inches
Bore x Stroke	3.50 x 4.75 inches
Compression Ratio	5.07:1
Horsepower @ RPM	125 @ 3,200
Torque @ RPM	250-lb.ft. @ 1,200
Valvetrain	Solid valve lifters
Main Bearings	Nine
Fuel System	Single Stromberg UU2 dual-barrel updraft carburetor
Lubrication System	Full pressure; gear-type pump
Electrical System	6-volt
Exhaust System	Cast-iron manifold, single exhaust

TRANSMISSION

Type	Brown-Lipe three-speed manual	
Ratios	1st	2.97:1
	2nd	1.65:1
	3rd	1.00:1
	Reverse	3.81:1

DIFFERENTIAL

Type	Hypoid gears; semi-floating rear axle
Ratio	4.23:1

STEERING

Type	Gemmer worm and roller
Turns, lock to lock	3.75
Turning Circle	42.5 feet

BRAKES

Type	Bendix internal four-wheel mechanical drum brakes
Front/rear	15-inch drums

CHASSIS & BODY

Construction	Steel body over wood frame; pressed-steel ladder frame with 8-inch channel depth
Body Construction	Steel over wood framing
Body Style	Five-passenger touring
Layout	Front engine, rear-wheel drive

SUSPENSION

Front	Solid axle with 38 x 2-inch semi-elliptic leaf springs
Rear	Live axle with 60 x 2-inch semi-elliptic leaf springs

WHEELS & TIRES

Wheels	Steel wire wheels
Front/rear	19 inches
Tires	Four-ply
Front/rear	6.5 x 19 inches

WEIGHTS & MEASURES

Wheelbase	133 inches
Overall Length	203 inches
Overall Width	72.5 inches
Overall Height	68 inches
Front Track	58 inches
Rear Track	59 inches
Shipping Weight	4,100 pounds

CAPACITIES

Crankcase	9 quarts
Cooling System	26 quarts
Fuel Tank	20 gallons

CALCULATED DATA

Bhp per cu.in.	0.34
Weight per bhp	32.8 pounds
Weight per cu.in.	11.2 pounds

PERFORMANCE

Top Speed	85 MPH

PRODUCTION

Total 1929 models	8,422

PROS & CONS

+ Legendary and powerful straight-eight

+ Unmatched reputation for quality

+ Elegance and class on wheels

– No windows

– Overdrive only option

– Short rear-end gearing

WHAT TO PAY

Low
$55,000 – $65,000

Average
$90,000 – $105,000

High
$130,000 – $150,000

CLUB CORNER

Pierce-Arrow Society
P.O. Box 402
Catharpin, Virginia
20143-0402
www.pierce-arrow.org
Dues: $45/year

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

I FOUND THE ARTICLES ON FORD'S retractable hardtops in *HCC* #126 most enjoyable. They were truly an amazing piece of engineering. Over the years, I have heard that the top mechanism was quite reliable, as your overview article states. In the unlikely case of a failure, I have heard that there was some sort of a manual override available, so an owner would not be faced with a top that couldn't be raised or, worse, one that failed during raising/lowering. How, exactly, did this work? I understand that the top would self-diagnose, that is, the point at which the top stopped moving and would tell the Ford technician which circuit had failed.

I do have to take exception to one item, though. The 1959 and 1960 (and, for that matter, the 1961 models) top-line Fords were not Galaxie 500s, although I have heard them referred to as such in books, magazines and conversations. Granted, the 1959 models retained Fairlane 500 nameplates on the deck lids and the glove box door, with a gold-colored "Galaxie" plate added beneath. At least on the '59 models, I can understand how some folks would mentally add the "500" from the "Fairlane" identification to the Galaxie name. It's understandable, but it's still wrong, as it is for the 1960 and 1961 cars. The Galaxie 500 didn't appear until 1962, when the Fairlane name migrated to Ford's new intermediate, and the Galaxie became the base-line big Ford.

Peter Shepherd
Fairport, New York

THE VERY ENJOYABLE AND informative article by Richard about Ford's unique 1959 Skyliner Fairlane 500 had me scratching my head over some of the similarities with my own 1959 Thunderbird convertible.

In examining Richard's detailed photographs, one can see that in addition to the Thunderbird Special V-8 under the hood, the Skyliner also sports a pair of Thunderbird "gunsight" front fender trim pieces as well as dual "Square 'Bird" headlamp assemblies and a virtually identical rear deck lid.

After a little online research, the T-Bird influence became even more apparent in this advertising blurb from the time... "Here is Ford's fascinating new contribution to the motoring scene... a brilliant wedding of the fabulous Fairlane 500 with the equally fabulous Thunderbird. The smart thin-line roof, casually elegant lines, the pillarless side vision are unmistakably Thunderbird in styling. Specially quilted and pleated interior fabrics are unquestionably Thunderbird in taste. Add Thunderbird GO and you have the Galaxie—the most glamorous car in the Fairlane 500 series." ...clear evidence of the styling kinship between these two distinctive automobiles.

Thank you once again for reminding me why I subscribe to this wonderful magazine!

Mark Counts
Longview, Washington

THANK YOU, RICHARD, FOR YOUR wonderful article and photographs on the 1959 Ford Skyliner. When I was in 7th grade, a friend's parents bought a brand new 1957 Skyliner; it was all black. Boy, did I like to ride in it. Two years later, they traded in the '57 for a new 1959 Skyliner. I'm torn between whether I like the '57s or '59s better, but I do not like the side trim on the 1958 models.

Your words were accurate, but there was another difference (between the Fairlane and Galaxie Skyliners). On the lower rear quarter aluminum trim panels on the Fairlane 500 cars, thin black lines alternate with the ribs of the bright metal. On Galaxie models, the black horizontal lines were omitted.

Phil Brown
Somersworth, New Hampshire

FORD RETRACTABLES WERE VERY interesting cars, of course, yet I wondered at the time why it seemed they failed sales wise so quickly. I liked convertibles, and in 1957, looked at the retractables but bought a new Chevrolet instead.

One thing I remember well that surprised me was how they failed to sell. In 1959, we drove past "Jim Moran the Courtesy Man's" storage lot on North Cicero Avenue in Chicago, and the lot had row after row of unsold 1958 Ford retractables lined up just sitting there. This was well into 1959, and here were all these unsold '58 Skyliners. I knew they didn't sell well, but I could not believe how many were still in storage waiting for buyers. Bet they marked down a bunch. Old Jim must have lost a ton of money on that deal.

We still have quite a few examples here at car shows in Southern California, and they always draw a crowd with the top raised. Beautiful.

Tom Ziem
Laguna Hills, California

I ENJOYED THE ARTICLE ON THE GM Proving Ground in *HCC* #126. While reading the article, I observed what appears to be an attempt at disguising a car on page 44 in the middle left of the page. The car on the block-covered test track appears to be a 1955 Chevrolet Sedan from the cowl back. However the front of the car appears to be a 1953 Chevy. Is this in fact what it is, and was this an attempt at disguising the vehicle to hide it from the public?

Stephen Faucher
Shrewsbury, Massachusetts

ON CARBURETOR ICING, THE Mechanical Marvels article in *HCC* #126 was on target and interesting. My experience was with my 1960 Corvair, which would have icing in both carbs when I would cross the Blue Ridge Mountains in relatively mild weather. I would take a look at the carbs when the engine had stalled and see a rime of ice which inhibited the flow of air into the engine. A short wait with the hood closed would take care of things and the car would run fine.

I recall that some of my pilot friends were familiar with carb ice and would operate a control to heat up parts of the carburetor to keep the engine running. I believe that the Corvair with its air-cooled engine was creating its own problem with the large fan moving quantities of air towards the engine.

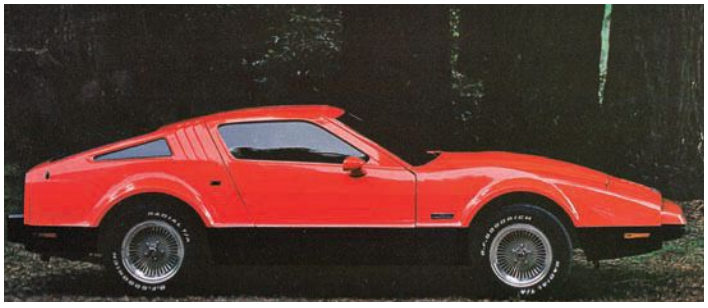
A humorous note: Mark McCourt's excellent article on the 1937 Studebaker mentions that the middle seat rider could be in an awkward situation. For many years, I was that middle seat rider. As a small, car-crazed boy I learned to move my legs in such a way as to avoid being struck by the long limber shift lever of the family's 1938 Dodge. Thus, I learned how to shift long before I learned to drive at age 15 in the parental 1948 Dodge with a column shift. That car, by the way, was ordinarily started in second gear and had Fluid Drive. Three could sit more comfortably in front in that barge.

Lawton Posey
Charleston, West Virginia

Poor, Poor Bricklin

Pity the poor Bricklin automobile. It doesn't get any respect. It's looked down upon, snickered at, has been the subject of April Fools gags and the punch line to jokes. And that's a shame because for all its faults, it was actually a pretty decent car.

A little background. Young entrepreneur Malcolm Bricklin, fresh from establishing the Subaru car in America, came up with the idea of producing an American sports car that looked like an exotic Italian sports car, had gullwing doors, a four-cylinder engine and a price tag under $3,000. Unlike other sports cars, it would also boast advanced safety features. Such a machine, he figured, would sell like hotcakes. After considerable development, a prototype was shown to prospective dealers in February 1974.



It turned out that the car Bricklin ended up building—the SV-1—was not exactly what he had originally set out to make—but it was close. It had great styling, though certainly not like a Lamborghini; it looked more American. Along the way, the four-cylinder engine was dropped, a straight-six was tried and finally an American Motors 360-cu.in. V-8 was chosen for production. This came connected to a four-speed manual or three-speed automatic transmission, both purchased from Chrysler. Oh—and the suggested price had gradually risen to $7,490, much higher than planned and even more than a Corvette.

But the promised safety features were there. The 10-MPH front bumper system consisted of a heavy bumper bar mounted on shock absorbers that moved in to soak up impacts. The rear also was rated for 10-MPH impacts. Heavy box-section perimeter frame rails ran along the sides at about thigh level, for side-impact protection, and the main body incorporated a roll-over cage. It, in all probability, was much safer than the Corvette.

Styling is subjective, of course, but in the opinion of many automobile writers and enthusiasts, the Bricklin was better looking than the Corvette. To be fair, I'd say they were about equally good looking. In overall size and layout, the Bricklin was similar to the Corvette, with a 96-inch wheelbase versus the Corvette's 98 inches; length of 187 inches versus 185.5 inches; and a curb weight of 3,500 pounds versus the Chevrolet's 3,490 pounds. Height and width were within an inch or so of each other.

In side-by-side acceleration comparisons, the Corvette proved quicker, but the difference wasn't all that much. Top speeds were similar. Road testers of the day gave it decent marks for ride and handling, as well as the brake system.

Certainly, when one considers that the Bricklin was built by a novice company and the Corvette by mighty General Motors, the newcomer fared surprisingly well.

Where Bricklin failed as a car was in quality control. It had probably the worst assembly quality of any car of the 1970s. *Road & Track* magazine tested an early example and reported that the body panels fit poorly and the weatherstripping around the doors was missing, as was the sound insulation. Neither the hood nor deck lid would open properly, and some parts were already rusting after just 1,000 miles. There were many missing or misaligned trim pieces inside and outside the car.

And those doors were always a problem. Bricklin used a convertible-top motor to power the gullwing doors, and that motor had a nasty habit of burning out prematurely. A bit more time spent on development would have solved that problem, but Bricklin rushed the car into production before it was completely proved out, and paid the price for it.

However, even the poor quality and bothersome doors wouldn't have been enough to sink the Bricklin; demand for the new car was extraordinary and eventually its problems could have been eliminated. No, what killed Bricklin was Malcolm Bricklin himself. He lacked the knowledge and skill to run a car manufacturing company and seriously underestimated the amount of capital he would need. Brand new car companies usually lose money for a year or two (or more) until they get everything running smoothly. What Bricklin lacked was the capital to stay in production long enough to finally hit profitability. When the money ran out, the company went into bankruptcy.

Too bad; it was a decent car.

"Certainly, when one considers that the Bricklin was built by a novice company and the Corvette by mighty General Motors, the newcomer fared surprisingly well."

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AT AMERICA'S CAR MUSEUM

The Bicentennial Boogie

Back when I lived in New Jersey, some people had a saying down there: "If you can remember the Seventies, you didn't really live them." I might beg to differ a little bit. At the risk of being branded weird, my memories of that decade are pretty crisp and largely pleasant. Listened to a lot of Southern rock. Saw a lot of concerts. Voted in my first presidential election via absentee ballot. And of course, there was the great bicentennial year of 1976.

But the truth is: I never made it to either of the big celebrations in Philadelphia or New York. I could have never handled the mobs that did show up. For me, my fireworks were on wheels. My enthusiasm for automobiles really took off flying in 1976. And it was like being hit by a thunderbolt. I was ravaging through car magazines until the ink was ground into my fingerprints. I made the rounds of local dealerships and shows. Around this same time, I also became a huge fan of heavy trucking, the direct result of endless collegiate laps on the Pennsylvania Turnpike, when the CB and *Movin' On* craze was still hot. There was a certain innocent purity to it, I suppose.

The car industry wasn't too far removed from some very bad times in 1976, referring specifically to the torturous General Motors strike at Lordstown, Ohio. But still, The Biz had bounced back with a vengeance. Part of what was going on was the rise of the personal luxury car, perhaps in parentheses, as Milton Stern refers to elsewhere in these pages via his appreciation of the Ford Elite. All that stuff caught my eye, too, and not just because the personal luxury coupes were so much NASCAR fodder back when Cale Yarborough was winning three straight Winston Cup titles. But given the benefit of nearly 40 years of hindsight, I think those cars, and that mindset, captured the Seventies with absolute perfection.

You know how some pundits referred to the Seventies as The "Me" Decade? Looking at the cars that were selling big then indicates they may have been on target. In our recent history of Oldsmobile, I mentioned the Cutlass Supreme, and specifically the two-door hardtop. This was a Colonnade-styled coupe that was an utter phenomenon in terms of buyer appeal, though I'd bet money that a lot of marketers at Oldsmobile back then couldn't explain what happened. It captured the public's imagination in a way few cars have done since. Back then, you wanted to be seen as a rising star in something affordable that still exuded cachet. The car augmented your image, whether it was a Cutlass Supreme, a Monte Carlo or a Ford Mustang II Ghia. So tell me this: Today, is the all-activity crossover the spiritual descendant of the Cutlass Supreme?

Let's also not forget that at least at GM, 1976 was a watershed year in a couple of other ways. The supposed last convertible, at that point, the Cadillac Eldorado, went out of production. And 1976 was the last year for the great, yawning, impossibly huge cars that formed GM's full-size lineup. Gas was costly, tastes were changing and the American automakers decided to make their products a little more European in proportion. The last big B-body Chevrolet Impala, for instance, stretched to nearly 223 inches of overall length on a 121.5-inch wheelbase. The corresponding wheelbase number for the 1977 Impala was 116 inches, and it had shed 800 pounds of weight or thereabouts. It's probably hard for younger people today to grasp just how profoundly the downsized GM cars shocked the marketplace. Rolling them out was likely the biggest single product gamble in modern automotive history.

So, let's give some credit here to 1976, and not just to the fireworks over the Hudson, either. It was the last year for the traditional American big car, because the Other Big Two scrambled to downsize once they saw what GM had wrought. And it was a year when individualism could be celebrated shamelessly. Good times. I'm sure glad I was there.

"...given the benefit of nearly 40 years of hindsight, I think those cars, and that mindset, captured the Seventies with absolute perfection."

bobpalma

Common Mistake, Uncommon Results

How could Buick and Oldsmobile each surrender third place in sales by making the same mistake… and yet end up with opposite results? At different times, each division's long-range product planners disregarded their core customers. Any company disregarding its core customers is courting trouble. Why did it help kill Oldsmobile, but didn't kill Buick?

Consider Buick in 1955. The division captured third place in sales by delivering a record 781,296 new Buicks. They were easily identified as Buicks; they had a Buick "look" to them, including four portholes per side to distinguish the funeral director's Roadmaster from the librarian's Special, which had only three.

But those 1955 Buicks were ready to be traded in by 1959. And what greeted those customers when they returned to Buick showrooms to see the 1959 models? Bizarre, un-Buick-like styling and new model names (Electra, Invicta, LeSabre) unfamiliar to the mortician, who wanted to see the new Roadmasters, or the librarian, who was thinking about moving up to a smoother-riding Super. Both of them (and, apparently, most other Buick customers) were so put off that sales fell almost 65 percent from 1955, to barely 285,000 units.

Twenty-odd years later, Oldsmobile garnered third place in both 1977 *and* 1978 by selling more than a million new Oldsmobiles each year, over 90 percent of which were 98s, 88s, or razor-sharp Cutlasses. But oddly enough, The General began rethinking that division's purpose, styles and model names.

The General first decided that when those millions of 98, 88 and Cutlass customers returned, they would be shown adequate conveyances like 1986 Delta 88s and FWD 1988 Cutlass Supremes, cars with none of the classic style that had defined those models. Then, having applied it to everything with four wheels except pickup trucks and riding lawnmowers, it added to the confusion by phasing out the gold-plated name *Cutlass* over the next few years.

Also getting the axe would be the solid 88 and 98 monikers. All those respected model names would be replaced with nondescript ones as odd as Camry and Altima: Achieva, Alero, Aurora and Intrigue… not to mention a swoopy, generic logo unlike the well-known, stylized, globe-encircling rocket. (How popular would Kathy Mattea's sassy 1997 hit *455 Rocket* have been, had it been recorded later as *2.2 Ecotec*?)

So why did Buick survive and Oldsmobile die? Because when Buick stumbled in 1959 and 1960, General Motors was still invincible. It was on the cusp of producing some of the best cars it would ever make, including 1961 and newer Buicks. Although retaining the new Buick model names, at least the 1961 models' styling was again acceptable to traditional Buick customers… and, significantly, there were few import alternatives to distract them.

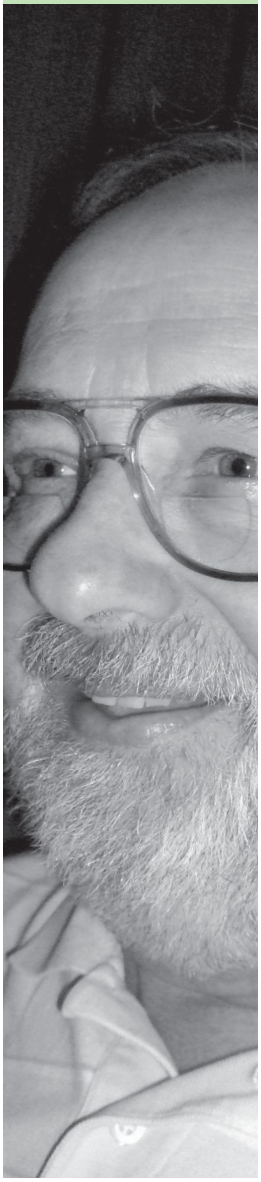
For Oldsmobile, though, times had changed by the 1990s. When The General decided to dispatch Oldsmobile to the front line against mid-priced imports, it jettisoned traditional Oldsmobile customer expectations. It marketed Oldsmobiles to people who *said* they would reconsider a domestic make.

However, it would appear they had been just humoring Oldsmobile's researchers. In reality, many had developed the automotive DNA of Clark Griswold's snooty, avant-garde neighbors Todd and Margo in the movie *Christmas Vacation,* snobbishly driving an import to scold the home team for selling "quality challenged" cars and trucks in the 1970s… and at Oldsmobile, underdeveloped diesel engines.

Broken English and bad grammar aside, there is something to be said for the old adage that one should, "dance with the one 'what brung ya'." Buick got away with shunning its steady date in 1959 and 1960 because it made amends in 1961, and most new-car buyers were still WWII Veterans who might have been reticent about buying a car from Germany or Japan.

But when Oldsmobile did it a generation later, boatloads of enticing, potential dates had arrived at the dance from overseas, and more new-car buyers were influenced by marginal domestic-make quality in the 1970s, than by memories of World War II.

"…when Buick stumbled in 1959 and 1960, General Motors was still invincible. It was on the cusp of producing some of the best cars it would ever make…"



Long-Haul Le Mans

Restored to be driven, this 326 H.O.-powered Pontiac is one of 13,897 Le Mans convertibles built for the 1965 model year

WORDS AND PHOTOGRAPHY BY THOMAS A. DeMAURO

Ask Pontiac fans about the division's 1965 offerings, and the first thing you'll notice is a smile appearing on their faces. Even after 50 years, those cars remain exceptionally popular. Today, average sale prices of the intermediate-sized Pontiacs, like the GTO and Le Mans, at times outpace the same model other-year Pontiacs of the era, and it appears that they have been sought-after since their introduction.

Inspired redesigns on all of its 1965 models propelled Pontiac ever closer to the forefront of American automotive styling. *Motor Trend* magazine recognized that accomplishment among additional attributes when it awarded the entire division its Car of the Year honor. Though not as extensively reworked as the full-size models, the intermediate lines did receive handsome front and rear revisions.

This, of course, included the sporty Le Mans, which was introduced on the 1962 Tempest. It graduated to its own series in 1963, and by 1964 had grown from a senior compact Y-body into a mid-sized A-body model.

One look at the 1965 Le Mans reveals why it was fashionable then and is coveted by collectors today. The stacked headlamps and recessed split-grille concept that made the 1963

full-size Pontiacs so admired was expertly integrated into the Le Mans and GTO. A new upscale wraparound taillamp treatment offered nighttime side visibility, and the rear featured wall-to-wall chrome trim that rendered the lamps nearly invisible when not lit.

Model year production for Pontiac topped 802,000 units, up from 715,261 for 1964. Le Mans two-door sales increased to 93,326 units from 80,186.

Given the division's steady advances in performance, styling and status since the late 1950s, by 1965, for many, Pontiacs were *the* cars to be seen in. That holds true today for Harry Timmermann, as he and his family regularly spend time in his Burgundy Le Mans convertible. In fact, he drove it over 1,200 miles from the St. Louis area to Pittsburgh and back again without incident in 2014, to attend the 2014 GTOAA International Convention.

According to Harry, a diesel mechanic from Trenton, Illinois (just east of St. Louis), taking extended road trips in this vintage Pontiac is almost commonplace. "We love driving our Le Mans," he says. "I drive it all over with my wife, Amy, and my stepdaughter Cristina—to local shows and to the national events. My granddaughter loves riding in the car as well. Some people think we're nuts—maybe we are—but at least we're having fun enjoying this fine Pontiac."

The circumstances under which Harry found the vintage Pontiac convertible back in March 2004 are also intriguing. "My sister called me about a captain in the Air Force who owned this car and wanted someone to work on it," Harry remembers. So, he prepared an estimate for his labor and instructed the officer to source the parts. The captain agreed, but after researching parts prices, he decided to sell the Le Mans and buy a motorcycle instead.

Harry asked if he could look at the Pontiac first. When he arrived, he found a complete and driveable 101,000-mile,

Parchment Morrokide interior is more luxurious, thanks to a power driver's seat and windows, A/C, Rally clock, AM radio and Custom Sports steering wheel.

rust-free, 1965 Le Mans convertible that was assembled at the Fremont, California, plant and sold through Lang Webb Pontiac-Cadillac in Vallejo. It had mildly toasted upholstery at the seat tops and checked, but original Burgundy paint.

Also apparent was the fact that it was extensively optioned—a 326 H.O. V-8; a column-shifted automatic transmission; A/C; ride and handling package; H.D. brakes, with aluminum front drums; white stripe tires; wire wheel discs; Custom Sports steering wheel; tilt steering wheel; power driver's bucket seat, steering, brakes and windows; pushbutton AM radio with power antenna; padded dash; windshield washer and dual-speed wipers; electric clock; mirror and lamp groups; custom retractable seat belts; front and rear floor mats; Soft-Ray glass in all windows; door-edge guards; and spare tire cover. All totaled, the $2,797 base price swelled to $4,563.95 in 1965 money.

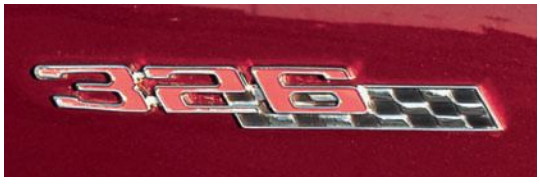
Realizing its value and potential, Harry purchased the Le Mans on the spot. "I have always liked the mid-'60s General Motors cars, but I've owned mostly Chevrolets, so this was my first Pontiac and first convertible," he says enthusiastically.

Initially, Harry planned to "fix it up a little bit" and then enjoy it. However, though the body remained on the frame, by May of 2004, the rest of the Le Mans was disassembled for restoration. The shell was sanded and chemically stripped to bare metal, and then the panels were straightened and repaired. Fortunately, none of the body panels needed to be replaced. Light applications of Evercoat filler were used as needed, and the surfaces were sanded smooth.

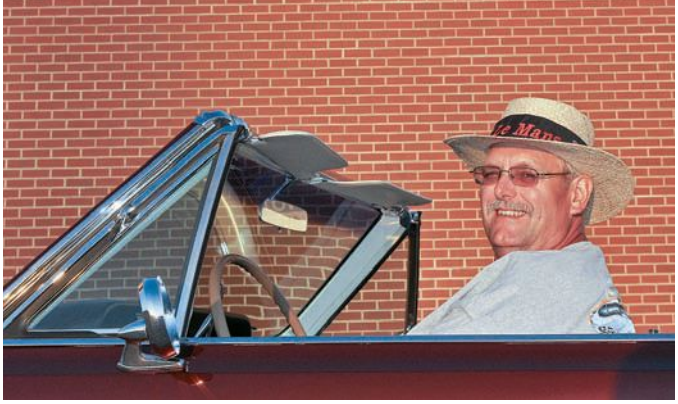
Martin Senour Trio/Prime etching primer, applied to protect the bare metal, was followed by multiple coats of Complete Primer and block sanding, four basecoats of Tec/Base acrylic urethane in Burgundy, and three coats of clear. The clear finish was then wet-sanded with 1200- and then 1500-grade paper and polished using 3M products. "We painted, wet sanded and polished the body in pieces, so we wouldn't have any tape edges," Harry explains, but he laments, "putting it back together was stressful because we were trying to not chip the paint."

All of the original trim was polished and reinstalled, save for the right rear wheelwell molding, which was replaced. United Bumper in St. Louis rechromed the bumpers. By August of 2004, the Le Mans was on the road.

Harry's winter project, beginning in December 2004, was a complete brake rebuild. The 9.5-inch drum brakes were retained and treated to new wheel cylinders, master cylinder, shoes, hardware kits, hoses and emergency brake cables. Why no front disc brake swap? "The Le Mans was an all-original, numbers-matching car with H.D. aluminum drums, so at the time I just wanted to keep it as stock as possible," he explains. However, knowing the Le Mans would be driven regularly, when he rebuilt and detailed the chassis the next year, Harry decided to make a few mild and somewhat hidden upgrades; polyurethane bush-



The original 326 H.O. V-8 engine was bored .030 over and upgraded with a longer-duration camshaft and a 650-CFM carb during its rebuild.



ings and firmer Koni gas shocks were installed.

In the interior, Parchment seat covers and matching door panels from Legendary Auto Interiors were swapped in by Haege's Upholstery in Belleville, Illinois, along with a new black carpet. The original dash pad was redyed, and the door sill plates and all interior bright trim were polished, while the engine and taillamp wiring harnesses were replaced with new harnesses from Lectric Limited.

Harry rebuilt the factory Super-Turbine 300 two-speed automatic transmission and installed a stock replacement torque converter. Ahead of that transmission was one of the 3,403 code-YP 326-cu.in. H.O. engines installed in the Tempest and Le Mans lines for 1965 (4,136 code-WR with the manual transmission). That original, 10.5:1-compression, 285hp, four-barrel V-8 was brought to MBJ Machine in Granite City, Illinois, where the block was bored .030-over, the stock crankshaft was machined, and the stock rods were resized and fitted with Sealed-Power hypereutectic pistons with plasma moly rings; a new Melling M54DS oil pump was installed.

Port work, hardened exhaust valve seats and a five-angle valve job were incorporated into the rebuilding of the cylinder heads. Sealed-Power 5/16-inch pushrods, with 1.50:1 stamped-steel rocker arms to actuate them, are accompanied by an upgraded camshaft. Melling's Pontiac "068" spec grind features 212/225-degrees duration at .050, an advertised duration of 288/302-degrees and .409/.408-inch lift. The factory Carter AFB carburetor was exchanged for an Edelbrock Thunder Series AVS 650-CFM carb on the original Pontiac cast-iron intake manifold, while reproduction spark plug wires add to the stock look.

"Some people think we're nuts—maybe we are—but at least we're having fun enjoying this fine Pontiac."

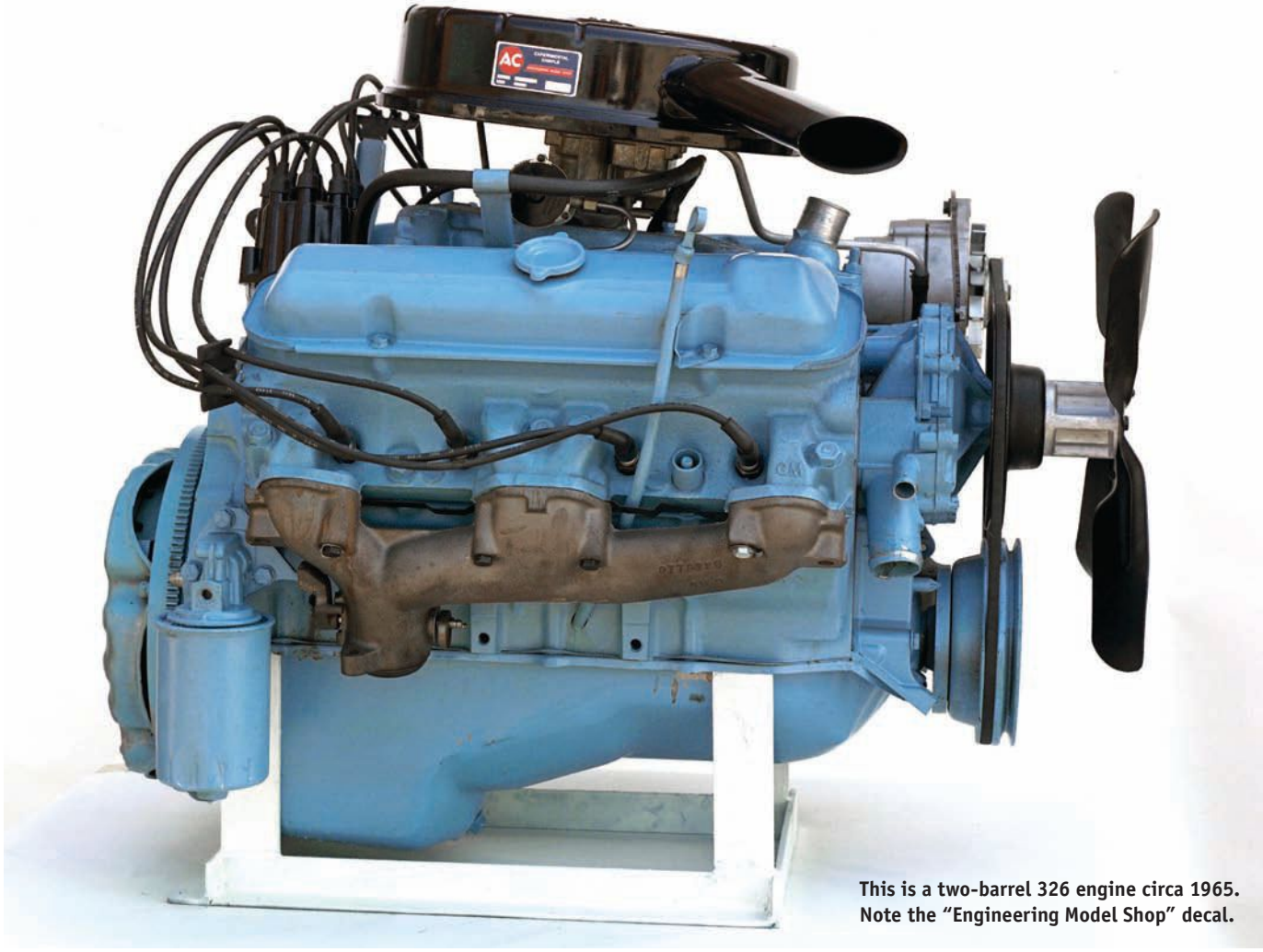
Though he improved the Pontiac just about every year, including the rebuilding of the factory 3.23-geared 10-bolt open differential in 2010, after it was first finished back in 2004, Harry began cruising in it regularly. "There's nothing better than driving at night and seeing the stars in a convertible," he says. And he's seen plenty of them, piloting his Le Mans two or three days per week on average and racking up an additional 59,000 miles!

You may be under the impression, considering all its road time, that this Pontiac doesn't do too well at the shows. That would be an incorrect assumption. Despite some chips on the nose, some bugs in the A/C condenser and some non-stock parts, the Le Mans has earned many awards. A member of the Metro East Muscle Car Club, Gateway GTO Association chapter of the GTOAA and Arch Chapter of POCI, Harry's Burgundy beauty has taken first in class four times at the GTOAA International Convention, with an additional two years in the Winners' Circle. It has also won three first-in-class awards at the POCI Convention and earned Concours Silver twice.

"Out of all the cars that I've owned, this one has been the best by far," Harry tells us. And we can see why. He drives it seemingly everywhere and still wins awards with it. Though he restored this Pontiac one project at a time over a span of about six years, Harry confides, "If I had to build this car all over again, I would probably take it down to the bare frame and do it all at once!" Nevertheless, the piecemeal approach worked for his budget and time constraints, and he's pleased with the results. "It drives like a dream," he says. What more could you ask for?

Midsize Muscle

Pontiac's medium-displacement 326-cu.in. V-8 was an engine that delivered both performance and economy



This is a two-barrel 326 engine circa 1965. Note the "Engineering Model Shop" decal.

BY THOMAS A. DeMAURO • PHOTOGRAPHY COURTESY GM MEDIA ARCHIVES

Despite its attributes, the Buick-built aluminum 215-cu.in. V-8 engine option for the 1961 and 1962 Tempest was likely never Pontiac's favorite. First, it wasn't a Pontiac engine, in an era when divisional autonomy was king at GM. Second, its price was nearly $190 higher than the top four-barrel option for Pontiac's innovative and standard 195.5-cu.in. four-cylinder "Trophy 4" engine, which was essentially half of a 389-cu.in. V-8. And both engines produced 155hp in 1961. The 215's weight advantage notwithstanding, less than two percent of Tempests sold were equipped with it.

By 1962, the Buick powerplant was fitted with a four-barrel carburetor and a 190hp (185hp say some sources) rating and the four-barrel Trophy 4 was bumped to 166hp. On the sales front, even the newfound power advantage didn't cover what had grown to just over a $220 price spread between the two engines. The V-8 installations for Tempests and Le Mans dropped to a little over one percent of total production.

For the 1963 model year, the unit-construction Y-body upon which the Tempest and Le Mans were built—though it would

retain its 112-inch wheelbase, torque-tube with flexible driveshaft and transaxle—was scheduled to get larger and heavier, further taxing the popular four-cylinder engine. The division needed a midsized V-8 for what was growing very close to a midsized car, but the 389-cu.in. engine from the full-sized lines was quite large for the application.

Pontiac had gained experience with reducing the bore in its standard engine when it downsized the 370-cu.in. V-8 in 1958 and the 389-cu.in. engine in 1959 to 336-cubic inches for use in certain GMC trucks. Though it was possible to do this with the current 389, it was still a heavy powerplant for a senior compact car.

Consequently, a weight-loss program included re-coring the Pontiac block and employing thin-wall casting techniques for the "326" and 389 (and even the 195.5 four-cylinder engine) that saved about 30 pounds over the 1962 model engines. And by decreasing bore size to 3.781-inches from the 4.0625-inches, 336.67 cubic inches could be realized while retaining the 389's outer dimensions and accessories. Any features required for mounting the engine in the transaxle Tempest and Le Mans were also added.

Despite the fact that the engine measured 336 cubic inches, Pontiac identified it as a V-326 in marketing materials and on the car's emblems. Even contemporary road tests stated 3.72 as the bore size.

Like the standard 389 engine, the 326 employed a two-barrel carburetor on a cast-iron dual-plane intake manifold, a Delco points distributor, and cylinder heads with 1.88/1.60-inch valves and 1.50:1 ratio rockers. Different cylinder head combustion chamber volumes were used, however, to set the desired compression ratio for the smaller bore size—8.6:1 for the 250hp two-barrel engine and 10.25:1 for the 260hp and the 280hp H.O. (High Output). The latter was also fitted with a Carter AFB carburetor, four-barrel intake and dual exhaust. A camshaft featuring 269/277 degrees advertised duration and .374/.406 lift was used for all 326s. The pistons were smaller and lighter than the 389 engine pistons, so the crankshaft's counterweights were reduced, but the connecting rods were shared with the larger engine.

A cutaway of a V-326 is displayed at a 1963 auto show.

For the 1963 model year, approximately 38 percent of the Y-body Pontiacs built were equipped with the heavier-than-the-215-but-more-powerful-and-affordable ($167.40 for the two-barrel) 326—a statistic that convincingly justified the engine's existence.

In 1964, the Tempest and Le Mans—then riding on a 115-inch wheelbase, perimeter frame, A-body platform with a conventional drivetrain layout—officially became midsize cars. The bore was reduced to 3.71875 inches (usually rounded to 3.72 inches) to get closer to the stated 326 cubic inches, thereby keeping total size under GM's 330-cu.in. limit for intermediate cars (a rule that was skirted by placing the 389 in the A-body as an option—called the GTO). The high-compression 260hp 326 two-barrel V-8 was dropped, and the H.O.'s compression ratio was increased to 10.5:1.

For 1965, the intake manifold and cylinder head ports were revised for better flow, valve sizes were increased to 1.92/1.66—the same as the GTO's 389—and output was uprated to 285hp for the H.O. The option prices were $108 for the two-barrel and $173.31 for the H.O.

Compression ratio for the $94.32 two-barrel 326 V-8 increased to 9.2:1 in 1966, and the H.O. cost $157.94. For 1967, the two-barrel and the H.O. were offered in the new Firebird ($95.04 / $169.70 H.O.) as well as the Tempest and Le Mans ($95.04 / $159.14 H.O.).

The engine displacement race was escalating by 1968, and the 326 grew to 350 cubic inches, ensuring that Pontiac would remain competitive against the 350s from Chevrolet, Buick and Oldsmobile, and Chrysler's 340, thus ending the reign of the 326 as Pontiac's midsized mainstay.

This vintage ad depicts the 326 and 326 H.O. offerings.

The Big Little Car

Fond memories of owning a new 1973 AMC Gremlin inspired the purchase of this all-original example, three decades later

BY MARK J. McCOURT • PHOTOGRAPHY BY RICHARD LENTINELLO

If you've ever bought, or even contemplated buying, a new car, you know how your interactions with the salespeople in the dealership showroom can influence your experience. A pushy or unpleasant salesperson can put you on the defensive—or even push you out the door—while a friendly salesperson who doesn't pressure you can make your purchase a breeze. A pleasant American Motors salesman put the Castro family in their first AMC Gremlin 42 years ago, and fond memories of that car brought them back to the all-original 1973 model they're enjoying today.

"My father had owned a 1966 Rambler American from new, and that was a good car," Oscar Castro remembers. "Our first car, when my wife Marcia and I were married, was my 1972 AMC Hornet Sportabout, which we bought new." Those newlyweds, who call Miami, Florida, home, were partial to the cars of the American Motors Corporation, so when it came time to add a second car to the household, Marcia's father introduced them to an AMC salesman he knew. "He was super nice and treated us really well, no pressure at all. Back then, you'd walk into a dealer, and it was like sharks circling, but this one said, 'Take your time, look around and just let me know when you are ready.'

"We were attracted to the Gremlin because it was affordable when we were starting out. I think we paid around $1,800 for our first one, brand new, with an automatic, air conditioning, roof rack, the works. It wasn't a hassle buying that car, and we bought many cars from him after that!" The Castro family's 1972 Sportabout and their new red 1973 Gremlin were siblings under the skin. Starting in 1970, the Hornet donated its mechanicals, front body panels and 96 inches out of its 108-inch wheelbase, to create the polarizing but popular runabout.

Their Gremlin was Marcia's daily driver, but sadly, it didn't enjoy a long life. It was deemed a total loss when someone turned left in front of Oscar—then driving

A single one-barrel Carter YF carburetor has proven more than adequate to feed the Gremlin's base inline-six engine.

This 232-cubic-inch six-cylinder shows its 42 years, but its squeaky-clean internals testify that the roughly 45,100 miles appearing on the odometer are genuine.

it—from the oncoming lane of a divided highway. "I was looking at him in the turning lane, thinking, no problem, then suddenly he pulled out, and I don't even think there was a skid mark. I wasn't badly hurt, really just a bump on the head, but that was it for the car—it wasn't even two years old at that time." Oscar had already developed a soft spot for the marque, and would go on to collect Javelins like the 401-equipped 1972 SST Z-code and SST Pierre Cardin Edition he currently owns.

Owning another Gremlin wasn't something he was planning to do, but he came across one that caught his eye when he was surfing the Internet in 2004. "I wasn't really looking to buy a car when I saw this one. I've always liked the Gremlin—it's an attention getter because it looks funky and cute. This car had a very good price, so I talked with the seller. From what I understood, it was parked for a long time before the guy took it out of storage and gave it to his daughter to drive to college. Of course, it wasn't a cool car, so she didn't want it. Her loss, my gain!" Oscar says with a smile. "He seemed honest, and I got a good vibe… my intuition was correct. The car was incredible."

Oscar's second Gremlin, bought 31 years after the couple's first, was largely identical in specification. It was Fairway Green, but shared the other car's 232-cu.in. straight-six engine and automatic transmission. The engine—which featured an 8:1 compression ratio and single-barrel Carter YF carburetor and made 100 (net)-hp at 3,600 RPM and 185-lb.ft. of torque at 1,800 RPM—was a fine match for the optional Chrysler-built, column-shifted three-speed Torque-Command automatic transmission. This car also had the Weather Eye all-season air conditioning that brought a heavy-duty cooling system, and an original AM radio. The rack-and-pinion steering was power-assisted, but the four-wheel drum brakes were not.

Both of those 1973 models had new standard features like a 5-MPH front bumper (with a matching 5-MPH rear bumper optional), 14-inch wheels (up from 13s), updated instrument panel control knobs and a larger reverse lamp, and while neither example was so outfitted (pardon the pun), the Levi's jeans interior

As fitting its basic, economy car mission, the Gremlin's instrumentation is barebones, but like the Mustang, this car could be fitted with an incredible range of options and accessories. This one has a column-shifted automatic, air conditioning and an AM radio, but a denim-like Levi's interior was also available.

When the Gremlin was introduced in 1970, a basic two-seat model was available, while the four-seater was more costly. The two-seater was gone by 1973, and this example shows how the seatback folds over the sculpted base to provide a nearly flat cargo floor—unfortunately interrupted by the full-size spare wheel.

was newly available. That year, 133,146 Gremlins would roll off the assembly line in Kenosha, representing a substantial portion of the 670,000-plus examples built between 1971 and 1978.

The odometer of our Driveable Dream feature car only registered about 43,000 miles, and this figure was borne out by the car's condition. Its standard front bench seat—with individual folding seatbacks—was covered in unmarked, factory-installed green vinyl, while the driver's interior door panel has one small area of damage where the door was closed into the un-retracted, outward-facing seatbelt buckle. While the metallic green paint shines handsomely on the car's vertical surfaces, its hood and roof have faded from years of exposure to engine heat and the hot South Florida sun. The passenger's door has a small rust area in its lower corner, which represents, surprisingly, the only notable corrosion on the entire car.

When he was originally considering purchasing the car, Oscar admits that he thought about restoring it into a Gremlin "X"-package clone by adding 14 x 6-inch AMC rally wheels, the color-coordinated "X" grille and bold body-side decals, as well as the roof rack and other choice items. Indeed, it would be relatively simple to install the factory-optional 304-cu in. V-8, which made 50 horsepower and 60-pound-feet of torque more than the standard straight-six, to turn this Kammtail 2+2 into a real hot rod. But seeing the Gremlin's untouched original condition, and experiencing how well it drove as-is, would quickly change his mind.

"There was a snafu when the car was being delivered from Ohio," Oscar explains. "Instead of dropping it off in Miami, they left it at the depot in Fort Lauderdale, which is maybe 25 miles away. I thought, 'What if something is wrong with the car and I can't drive it those 25 miles?' I was going to have a truck pick it up and bring it home, but I decided to take a chance and get it at the depot. It turned out that the air conditioning didn't work—I guess, in Ohio, the heater working was more important than A/C—and the gas gauge didn't work, so I filled it up to be safe, and just took off. I was a little shy on the expressway, but once I took it above 50 MPH and it went fine, I thought, 'We're good.' It was incredible. I'd been wondering if the odometer had rolled over, but there was no way… you could tell.

"It's a fun and nimble car to drive, easy to get in and out of, fits practically anywhere and has excellent get-up-and-go… I really enjoy it…"

"The Gremlin feels solid and very smooth as you cruise down the highway. I don't think the automatic takes anything away from the car's pep. On the contrary, when you're cruising and suddenly step on the gas, it downshifts smoothly and gives a spurt of acceleration without missing a beat," Oscar says, noting that this is a truly American take on the small, economical car. It easily manages its 2,600 pounds with plenty of torque for quick starts and interstate passing, even with the A/C blasting. Oscar adds that the unassisted brakes take a bit of getting used to, but the power steering is helpful, and that the interior is extremely comfortable with lots of leg and head room. The folding rear seat adds 10-cu.ft. of practical luggage area, while this car's 21-gallon fuel tank offers great range, although this car's 17-20 MPG wouldn't shame any contemporary imports.

This Gremlin isn't used often, and its annual mileage is about 200, which has brought the total up to the odometer's current 45,096 reading. The Castros typically take it out a few times a month to drive around the neighborhood, or to occasionally attend local cruise-ins and car shows, where it's invariably the only one of its kind in attendance. "Marcia's driven it to a few shows, and I'll drive another car. She likes to drive it—this is the car she complains about the least!" he says with a laugh. Indeed, this AMC earned Historical Preservation of Original Features awards at the 2010 and 2011 AACA Southeastern National Winter Meets, and it has even guest-starred in a locally filmed Spanish language *telenovela* (soap opera).

Oscar has a pair of hydraulic struts to replace the tired originals that hold open the Fairway Green Kammback's rear window. This is the only external access to the luggage area.

American Motors' charming gremlin mascot features prominently on the fuel filler cap.

"This car is rock solid and extremely dependable. I haven't done a single repair to it since I bought it 11 years ago. It always starts up right away, even when it hasn't been used in more than a week. I just put gas in it, drive it and change the oil and filter every year-and-a-half or so—it hasn't been driven 3,000 miles in 15 years," Oscar notes. "I have a pair of replacement struts for the rear window, but I haven't installed them yet. And I need to address the rust in the door before it gets worse—there's no way to match the paint, so it will either be left with gray primer in that spot, or I'll have to completely paint the car, something I don't want to do."

This Gremlin, like AMC's own Pacer, is a unique part of American car history, and it's an instantly recognizable cultural touchstone. "You can't mistake that car for anything else," he muses. "Most other cars have similar features, even if they're different makes and models. The Gremlin just looked different… like the designers said, 'We're stopping here, no trunk—slice!' I've noticed that you often see Gremlins on TV, and it gets comments everywhere we go. People are always telling me, 'Oh, my father or grandfather had one of those,' or, 'I drove one in high school.'

"It's a fun and nimble car to drive, easy to get in and out of, fits practically anywhere and has excellent get-up-and-go… I really enjoy it," Oscar says. "When I drive it—especially cruising down the highway—it makes me feel like I am back in 1973."

Enroute: There was no clearer sign of Buick's move upmarket in the late 1930s than seeing the Duke and Duchess of Windsor leaving their June 3, 1937 wedding at the Chateau de Cande (near Tours, France), to catch the night train to Venice.

NATIONAL ARCHIVES

Buick's Prewar Apogee

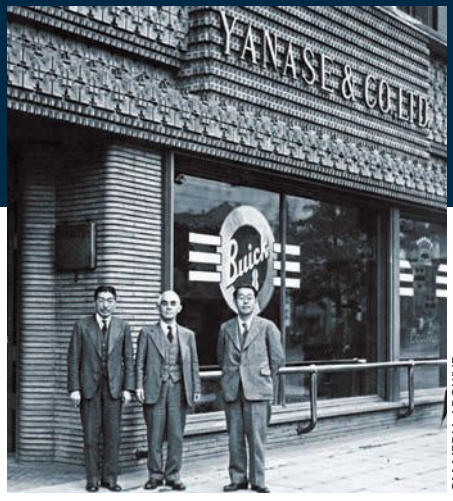
Distinctive Designs taken to dazzling heights

BY BROOKS T. BRIERLEY • PHOTOGRAPHY AS CREDITED

Buick head Harlow Curtice must have been very proud of the photograph of the Duke of Windsor (the former English King Edward VIII) and his duchess, leaving their June 1937 wedding in a specially bodied Buick two-window berline, dashing down the road to meet the night train to Venice.

Curtice worked diligently to expand Buick's markets, and was also determined to add cachet to it. The void left by the automotive legends that failed during the Depression, such as Franklin, Marmon, Pierce-Arrow, Peerless, et al., provided the commercial opportunity to build ever more impressive Buicks to fill it. The British Empire proved to be a special showplace for them—with those cars being produced in Canada. Windsor's younger brother, the Duke of Kent, was among the owners. In the U.S., financier J.P. Morgan included Buicks in his garage.

Towards the end of the Depression, a wide American range of Buick experiences was coincidentally recorded by commercial photographers traveling around the country. Under a New Deal directive, tucked away in the Farm Security Administration (FSA) budget, they were capturing details of everyday life. Buick's well-established popularity—the marque dates to 1904—made sure extremes such as a pre-World War I chassis converted into a farm tractor in New Bridgetown,



GM MEDIA ARCHIVE

Outside the Tokyo dealership, Yanase & Co.

LIBRARY OF CONGRESS

A chauffeur and his 1940 limousine wait in Brattleboro, Vermont.

In February 1940, Farm Security Administration (FSA) photographer Arthur Rosenstein was present when this eye-catching trailerload of sedans stopped in Chillicothe, Ohio—and added the image to the FSA's photo shoots recording contemporary American life.

LIBRARY OF CONGRESS

New Jersey, and the latest top-of-the-line limousine were among them.

American government officials liked Buick limousines, too. Henry Wallace, President Roosevelt's Secretary of Agriculture, rode in one. Some political customers brought the marque into controversy. In February 1940, a California state senator created a hubbub about the number of cars assigned to Governor Olson, surreptitiously made available for his use through different departments. Public Works purchased two Packards for him; the Department of Motor Vehicles bought two Cadillacs and one Buick. Another Buick had been purchased by the State Relief Administrator.

1940

Buick offered a dazzlingly large selection of models for 1940. Six groups were introduced in September 1939—the famous quartet of Special, Century, Super and Roadmaster (the Century was more expensive than the Super then), plus two top-of-the-line Limiteds. An alphanumeric designation, beginning with Series 40 (Special) and going to Series 90 (Limited), identified the hierarchy in each model's names.

Included were both standard body styles such as coupes, sedans and convertible coupes, plus more specialized models, such as a convertible phaeton (convertible sedan), a sport sedan and an eight-passenger limousine, the latter being the most expensive car in the entire line at $2,199. By comparison, the least expensive Buick was the $895 Special business coupe (which cost $236 more than the most basic Chevrolet). Chassis had four different wheelbase lengths, ranging from 121 inches (used on Special and Super models), 126 inches (Century and Roadmaster), 133 inches

GM MEDIA ARCHIVE

A new body style for 1940 was the ruggedly handsome Super Series 50 woodie estate wagon.

(Limited Series 80) and 140 inches (Limited Series 90).

In January 1940, more new models were announced. A new estate wagon—Buick's first production woodie station wagon—mounted on a wood-trimmed Series 50 Super 121-inch wheelbase chassis.

We're not sure which branch of the Los Angeles distributor, the Howard Automobile Company (historians like to recall Howard acquired the business by exchanging his Cadillac franchise with Don Lee), provided actor Clark Gable with a Buick woodie station wagon, but he took one of the first examples on a hunting and fishing trip to Mexico. Gable had some guard rail-like extensions added above the front bumper (shaped to complement the radiator grille) and had a luggage rack installed on the roof. The spare tire was moved up there, too, maximizing interior space. Clark Gable was not the only woodie customer in Hollywood. Warner Bros. studios bought one for the Bette Davis movie, *Now Voyager*.

February had another surprise, two new Townmaster models. They were streamlined town cars fashioned by Buffalo coachbuilder Brunn & Co. The larger car was made from a Roadmaster Series 70 sedan body—with a removable roof over the driver's area. The price was $3,895 FOB Flint, almost twice the price of the most expensive Limited. Buick was aware some town car owners wanted a modest-sized vehicle for city use and offered the same body on the Super's shorter 121-inch wheelbase. The latter had a more modest powerplant, too—producing 107 hp versus the Roadmaster's 141hp. Only prototypes appear to have been built, despite great press coverage and display ads that included the *National Geographic*.

GM MEDIA ARCHIVE

The assembly plant of General Motors de Mexico celebrated its third birthday in early 1940. That day, the body mounting line included this Buick C-body.

Buick put a new face on the 1940 models. A grin-like shape of thick horizontal chrome bars announced them. The largest models had new bodies, too; the least expensive lines used the previous year's body shells. Chrome trim was making a comeback in 1940, and Buick offered lots of it—exaggerated parking light housings, optional fender skirts and, of course, porthole-style vents (rectangular-shaped) in the sides of the hood.

Inside these new models was a striking-looking instrument panel—a great mix of different finishes. Details included a pushbutton "Sonomatic" radio. Directional signal lamps, called Flashway Signal, operated by a lever on the steering wheel column, were standard equipment. Lamps on the instrument panel flashed 100 times per minute to indicate use. The system was manually activated, automatically turning off when the steering wheel straightened out.

All 1940 Buicks were powered by overhead-valve straight-eight engines. The debate between V-shaped and straight/ inline engines was still going on. A quarter of a century had passed since Henry Leland began building V-8s in quantity; yet, the inline configuration was still believed to be inherently smoother. Buick made two different powerplants—the Special and Super shared the 107hp 248-cu.in. engine, with the Century, Roadmaster and Limited using a 141hp 320-cu.in. engine.

These efforts combined to produce Buick's best sales year to date; during 1940, some 300,000 cars were sold.

This 1940 convertible phaeton survived the war in Europe to carry Field Marshal Bernard Montgomery in triumph through Basel, Switzerland, in July 1946.

GM MEDIA ARCHIVE

Three words, buried in a publicity photo caption, described how that happened, "…they sell fast."

On The Eve of War

Buick always had interesting foreign activity. South of the border, General Motors de Mexico's factory in Mexico City assembled Buicks in its product mix of 55 units per day. Further west, in Japan, Tokyo's Yanase & Co., developed a methane converter for its Buick customers. Although Pearl Harbor was 18 months away from bringing World War II to the Pacific Ocean, militaristic thinking was widespread: Japan had begun to restrict the use of gasoline in private cars. Yanase's interest in a natural gas company encouraged showing Buick owners that gas was better than more conventional gasoline conservation methods, such as burning charcoal.

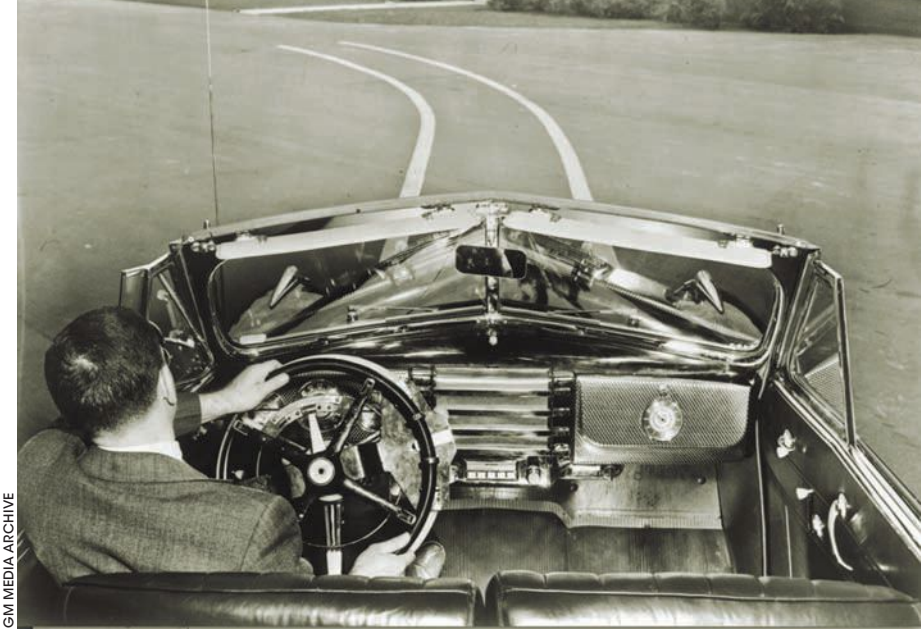
During the summer of 1940, discussions about the demands of war in Europe began to affect the American automobile industry. There was concern

TRANSPORTATION COLLECTION, SPECIAL COLLECTIONS LIBRARY, UNIVERSITY OF MICHIGAN

Brunn modified a sedan into this handsome Townmaster town car for the 1940 model year.

TRANSPORTATION COLLECTION, SPECIAL COLLECTIONS LIBRARY, UNIVERSITY OF MICHIGAN

At the New York Automobile Show: The dramatic-looking 1941 Brunn series-custom convertible victoria, on the Series 70 Roadmaster 126-inch wheelbase chassis, was painted Cinnamon Brown with bold yellow accents on the hood and sides. The dramatic dip in the body line accompanies the top fold into the body—could its shape also reference the Y-job show car?



GM MEDIA ARCHIVE

This factory photo of a 1941 convertible coupe with a steering effort tester attached to its steering wheel includes a glimpse of that year's great-looking dashboard.

that war orders would soon affect the production of passenger cars—encouraging people to buy cars through the summer at record levels. Buick, with Packard and Nash, again planned to lead the industry's model year introductions. Buick's program was to produce the first 16,000 1941 models in August 1940, with 130,000 more scheduled to be built through December.

The 1941 Buicks are visually very similar to their 1940 counterparts; technical changes were modest, too. The smaller engine output was raised slightly, to 115hp, as the larger engine rating jumped from 141hp to 165hp. Tweaks to the model lineup included eliminating all Limited 80 models—the remaining Model 90 Limiteds had a one-inch wheelbase decrease to 139 inches.

Buick greatly expanded its Brunn coachwork series-custom offerings for the 1941 model year with a second set of Town Car body styles, with Landaulet features, crafted by modifying big Limited 90 limousines. Still, the ultimate Buick coachbuilt story was in *The New Yorker* magazine: a series-custom Roadmaster convertible exhibited on the mezzanine of the October 1940 New York Automobile Show. That car was ready for an opening night in Paris—painted Cinnamon Brown with a bold side molding (whether mistaken for—or meant to be—an abstract letter Y), in yellow. Unlike town cars, this owner-driven body style targeted the trendy heart of the luxury car market. It was priced at $3,500, midway between the Lincoln Continental cabriolet's $2,778 and Packard's $4,595 Darrin convertible victoria.

The New Yorker was impressed and foretold a new range of cars, suggesting a companion coupe model would have had prospects pounding the table to place an order. Instead, this great hitting-the-nail-on-the-head design brought to a head internal GM debate about Buick unilaterally redefining its target market. Only this one stunning-looking convertible is believed to have been built.

On January 23, 1941, Harlow Curtice surprised everyone in the Buick world with more new models—all at the other end of the price range. During a long distance telephone hookup with Buick dealers and salesmen gathered in meetings throughout the nation—800 were at the Palmer House in Chicago—Curtice announced a new line of four Special cars, identified as the 40A, with a shorter 115-inch wheelbase. They were three-, and six-passenger coupes, plus a sedan and a convertible coupe available with the Special's standard 115hp engine or with a 125hp compound carburetion (Buick's name for a two carburetor configuration) option—the greater power with a lighter body improved the power-to-weight ratio.

That same month, Metro Motors in Bombay (Mumbai), India, joined with another Indian dealer, Western India States Motors in Jodhpur, to take a big display ad in the *Times of India* newspaper announc-

LIBRARY OF CONGRESS

1941 Limited at the Washington, D.C., airport in July 1941. Hoods of Limited models included a line of five rectangular portholes.

LIBRARY OF CONGRESS

Farm Security Administration photographer Andreas Feininger stopped alongside U.S. 40 in Mount Vernon Canyon, Colorado (Denver is in the background), in December 1942, to record a scene that includes his 1941 convertible. By this time, the Farm Security Administration photo shoots had been combined with the Office of War Information.

ing the new Buick lines. The Indian maharajah's favorite model is said to have been the 90 Limited limousine. Some survivors there are said to show ever-so-slight use, such as the one purchased during a prewar visit to London that remains in India with less than 3,000 miles on the odometer.

The 1942 Buicks were introduced on October 3, 1941, with a handsome new front end design. Although the Brunn coachbuilt models had been eliminated from the line, some of their trim details were adapted for the production models. Buick's luxury market interest continued by emphasizing a larger Roadmaster sedan. The chassis had been upgraded, extending the wheelbase to 129 inches. Trimming that model with bold two-tone paint (that also ran down the center of the hood) and whitewall tires made a neat-looking alternative to Cadillac's Series Sixty sedan.

Then, two months later, the Japanese attack on Pearl Harbor upended the entire automobile market. Buick passenger car production was wound down quickly, ending in early February 1942.

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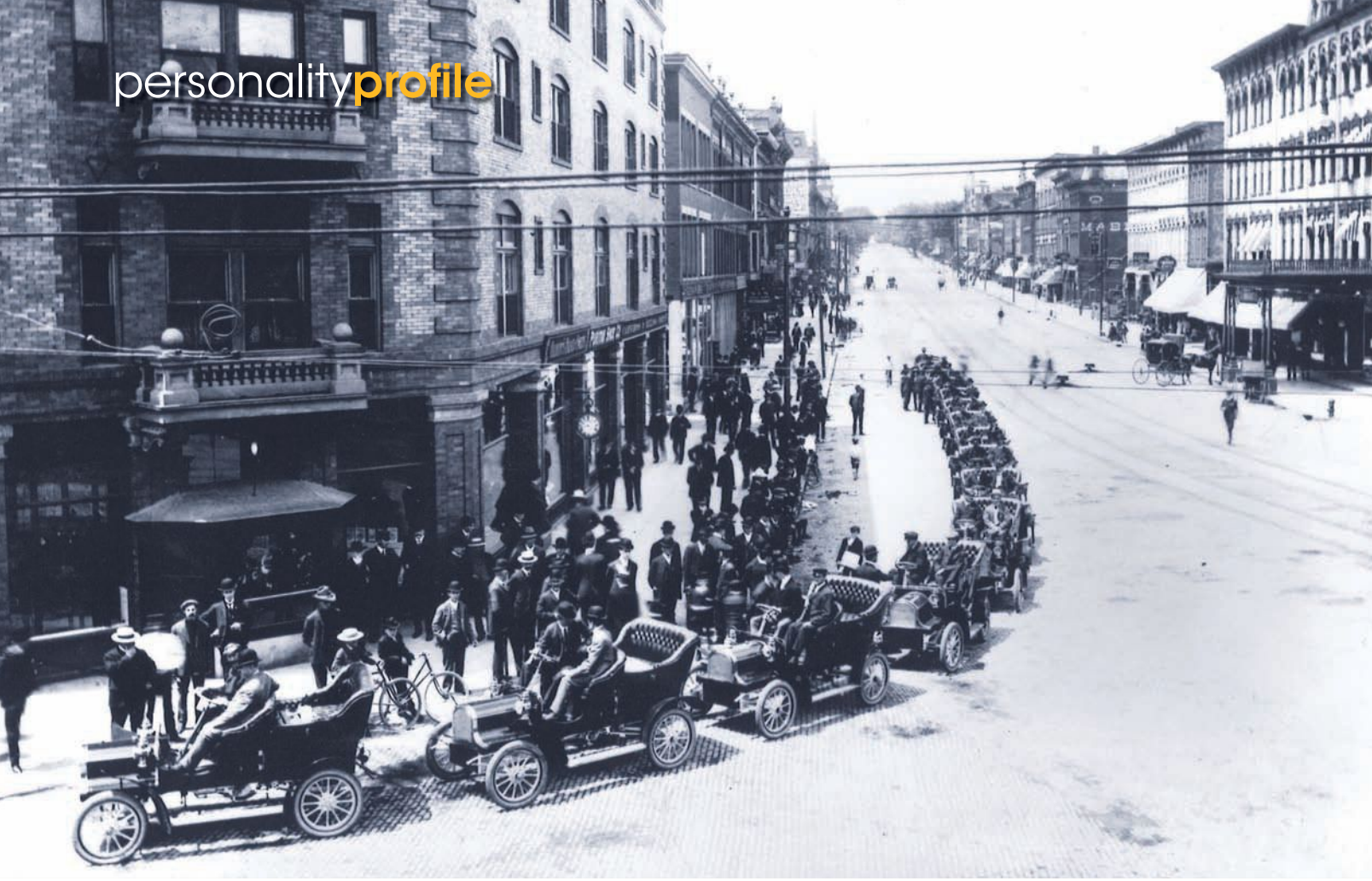
This 1942 Roadmaster sedan was photographed at the GM Proving Ground in November 1941. The background wall was scored like a giant sheet of graph paper to help compare dimensions of other GM vehicles and their competitors. This sedan contrasts sharply with the catalog scene leavened with coachbuilder trim details such as two-tone paint on the hood and whitewall tires. Here, too, the clouds of World War II visibly dominate the industry, trimming the car just as if it were in the depths of the Depression.



David Dunbar Buick

Founder of the Buick Manufacturing Company, he was a gifted visionary who suffered an ignominious end

BY JIM DONNELLY • IMAGES COURTESY OF THE LAWRENCE GUSTIN COLLECTION

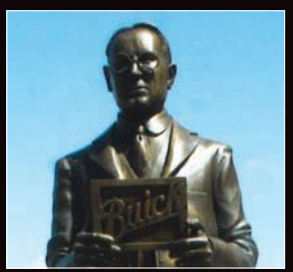
It's probably because he died broke. And when he did so, it was in early 1929, before the stock market went down in flames and created millions of impoverished individuals. Beforehand, if you went to your grave without leaving a big fortune in your wake, you were summarily considered a flop. It was the last of the Gilded Age and cash was flying everywhere, some of it nefariously. And in his last job, before he died penniless at age 75, the man who created a big measure of General Motors' foundation was supporting himself by teaching a shop class at a Detroit vocational school.

And so, as a result, a lot of the life's work of David Dunbar Buick remains lost to history today. We know his namesake car, of course, which survived the great shakeout of GM brands during the last decade to prosper in, of all places, China. We know the legion of great auto industry leaders who studied at Buick's feet, men with surnames that ranged from Chrysler to Nash. We know that Buick made its reputation with superior engineering and racing success, and can be credited with developing a workable valve-in-head engine that transformed the way cars were powered. For David Buick, however, it all came to naught. His obituary claimed he was never embittered by the poor fortune that befell him late in life, but you have to wonder about that.

"Professionally, Buick and Durant existed on two separate planes," says Larry Gustin, whose career took him from automotive editor of the *Flint Journal* in Michigan to Buick public relations to acclaimed biographies of both Buick and Billy Durant. "David Buick was looking for $1,500 so he could build a better car, but Durant was looking for $15 million so he could build a corporation. We can't really know for sure how much he actually had to do with the design when they were developing the car, but for sure, Buick was the boss. He did have great mechanical ability."

Even his journey to America was improbable. David Dunbar Buick was born in 1854 in Arbroath, a prosperous Scottish fishing village on the North Sea, to parents who spelled their last name "Buik." The family name, before the "c" was added, may be Old English designating a farm or a component of a cannon. The family patriarch, a carpenter and joiner, saw the coming of the railway to Arbroath before following several relatives to America, emigrating when David was only two years old. Most of the Buick relatives had settled in Michigan;

We can't really know for sure how much he actually had to do with the design when they were developing the car, but for sure, Buick was the boss. He did have great mechanical ability.



Engineer Walter Marr pilots the first Flint-built Buick back to the factory following a test drive in July 1904. Tom Buick, David's son, rides high in the passenger seat.

within three years, the elder Buick was dead. His wife remarried to a Detroiter and operated a candy store in the booming city for years.

In 1865, David Buick left Detroit to work on a farm but returned to the city four years later, finding a job at the Alexander Manufacturing Company, which produced plumbing fixtures. Sometime in his teens, Buick became an apprentice at the James Flowers & Brothers Machine Shop in Detroit, learning to polish newly made brass fittings. A decade later, a young guy named Henry Ford would apprentice there in the same capacity. Buick learned well and returned to Alexander as a foreman. The fixture business boomed because in the 1870s, an Englishman with the wonderfully coincidental name of Thomas Crapper had helped to popularize the flush toilet, and suddenly, everyone on both sides of the Atlantic wanted one in their homes. By the time the 1880s had run their course, Buick owned more than a dozen U.S. patents for plumbing-related innovations, one being for a process he developed to bond porcelain to cast iron. That means that, at least in America, Buick could lay claim to being the father of the all-white porcelain bathroom.

Despite the industry's overall good fortunes, the Alexander company was failing. Buick and a close associate, William Sherwood—they may have been classmates or fellow apprentices; the record remains unclear—managed to acquire Alexander and rename it for themselves. By the early 1890s, the Buick & Sherwood Manufacturing Company became one of the largest plumbing suppliers in Detroit. Yet Buick, who was clearly successful, was becoming bored, or maybe distracted is more correct. He developed a deep fascination with gasoline-fueled engines, the kind that could be used to power vehicles. It was a timely evolution of Buick's fortunes. The first automobile race in the United States took place in Chicago in 1895, and Charles King drove the very first powered car on the streets of Detroit a year later. Also in 1896, Ford drove his first quadricycle. Buick would later say that he was interested in developing a self-propelled dray for making deliveries, but it's obvious his obsession with gasoline power ran far deeper than that. By 1897, he was selling his own, self-branded stationary L-head engines for farm and industrial use. Sherwood became increasingly irritated at Buick's lack of attention to the plumbing business. In 1901, Buick left the company and used his $100,000 stake in its liquidation as startup capital to establish the Buick Auto Vim (as in "vim and vigor") & Power Company, its purpose being to build engines.

That was when Buick made perhaps the most fortuitous acquaintance of his life. Walter Marr was a self-taught engineer and all-around mechanical genius who, if anything, loved gasoline engines even more than Buick did. A one-time bicycle mechanic, Marr had gotten a gasoline-fueled engined wagon running by 1898. He is widely credited today for inventing the mechanical spark advance. Marr built maritime engines, and apparently met Buick when the latter was commodore of the Detroit Yacht Club. Buick hired him at once. Again, the history is foggy, but it appears that Marr was likely the person who convinced Buick to build a car. Buick and Marr were both known as prickly personalities with short tempers. Marr quit Buick at least twice before he left for good in 1902. Before that final breakdown, which saw Marr briefly join forces with Ransom Eli Olds, he got the first Buick automobile running, a single-cylinder buckboard with a tiller, and ultimately bought the car for himself. Buick reorganized his own firm as

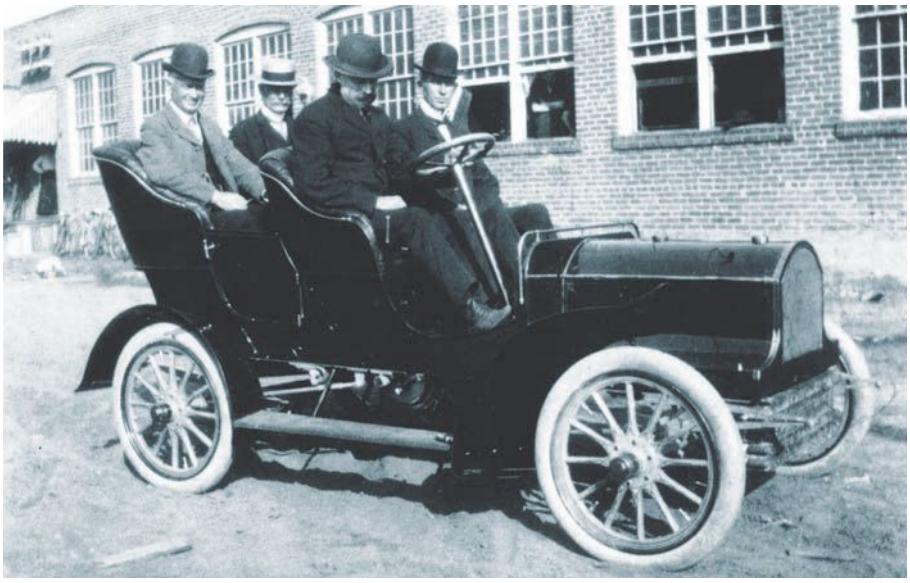
This is the first-ever Buick automobile, being tested by Walter Marr on a Detroit street, assembled gradually between 1899 and 1901. Marr later bought the car for himself.

the Buick Manufacturing Company.

Marr's putative replacement was a French-born machinist named Eugene Richard, who may—or may not—have been the leading luminary on Buick's development of the first American overhead-valve engine. Marr and Buick himself likely had input, as well. The larger issue is that with this engine, Buick created its early signature product. An engine with OHV architecture, its valves above the combustion chamber, inherently breathed better and had higher volumetric efficiency than the traditional L-head or side-valve configuration. For all its technological advancement, however, the Buick firm was beset by production delays, largely associated with Buick's personal tinkering that slowed deliveries. Richard did eventually patent the OHV engine design, assigning it to Buick, the company. "Buick knew enough to hire people who were really good, like Marr and Richard," Larry Gustin tells us.

Yet Buick was stumbling. His investors were spooked. In 1903, the company came to the attention of the brothers Frank and Benjamin Briscoe, who were eager to make their thriving Detroit sheetmetal business into a supplier for the toddling car industry. Benjamin Briscoe advanced Buick enough money so he could finish his incomplete, self-branded car. Later that year, Briscoe bought the car, the first ever badged as a Buick, for himself. Next, he agreed to supply more cash to Buick in exchange for a full reorganization of the firm that left the Briscoe brothers in charge of the money. The new business was called the Buick Motor Company.

It's evident today that the Briscoes soon tired of their association with Buick. Later in 1903, they learned that the Flint Wagon Works wanted to enter the auto business, and arranged to sell the firm to the wagon maker and move operations to Flint. With their newfound trove of cash, the Briscoes went off to found Maxwell, which would later help to beget Chrysler. Just that fast, Buick went from captain of industry to hireling, working for James Whiting, who owned the wagon works. The dizzying turns of events continued in 1904, when Buick sold its first automobile to an honest paying customer, a Flint physician, who ordered a Model B. Three months later, William Durant, who owned the Durant-Dort Carriage Company, bought a controlling interest in Buick from Whiting.



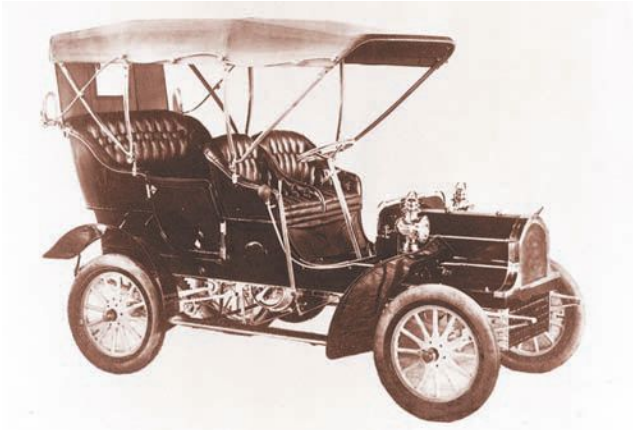
A Buick Model B from 1904 poses in front of the Flint factory. Wearing the straw boater in the back seat is James Whiting, who brought Buick from Detroit to Flint.

David Buick was now an employee of Billy Durant, who was determined to grow the firm's market share, doing so by fielding a factory race team with Louis Chevrolet and the dirt-track immortal Bob Burman as drivers. The model lineup continued to advance, with more sophistication and power on tap. Durant imported his own teams of engineers, including Marr, who made a return appearance. Buicks acquitted themselves well in the early Glidden Tours.

Having built just 37 cars in 1904, Buick was a well-established automaker, second only to Ford in total sales, running three shifts per day in Flint, within another four years. Durant was intent on making the marque the centerpiece of the corporation he intended to establish, General Motors. The incorporation of GM took place in September 1908.

David Buick was still on the payroll, at least for the moment, and had a seat on the board. The reality was that Durant was shifting him further and further from the core of the company's operations. Worse, Buick's health was beginning to fail, the consequence of years of overwork. He was interested in heading west to drier climes. When he left in 1909, Durant cut Buick a severance check for $100,000 in cash, plus stock. Buick headed to California and invested heavily in the oil industry. Newspapers carried paid teaser ads touting Buick as a business genius who was looking to line up new petroleum investors. But in 1910, the Buick Oil Company was listed by *The New York Times* as one of the businesses represented by a securities firm that was accused of widespread stock fraud. Years of litigation with shareholders followed that financially destroyed the oil company.

Buick became involved in promoting other cars, such as the Grand Rapids, Michigan-built Lorraine and a new self-designed car that would have been called the Dunbar if it had ever been produced. He was not invited to Buick's 25th anniversary fete. He was also destitute, the result of sinking the last of his money into a failed Florida realty venture. Journalist Bruce Catton, the future Civil War historian, tracked down Buick at his apartment in Detroit late in 1928. He was too poor to afford a telephone, much less one of the automobiles that he pioneered. When he died of cancer and pneumonia in March 1929, one newspaper reporter quipped that Buick left only his name on a car.



This official factory photo depicts a 1905 Buick Model C. Buick built between 730 and 750 of these cars, many of them at a second assembly plant in Jackson, Michigan.

Belvedere Beauty

In just two years, a fairly rare 1959 Plymouth Belvedere convertible goes from parts car to show winner. Part II—Painting, final assembly and the enjoyment of driving the finished product

WORDS AND PHOTOGRAPHY BY RICHARD LENTINELLO • RESTORATION PHOTOGRAPHY BY RICHARD KOCH

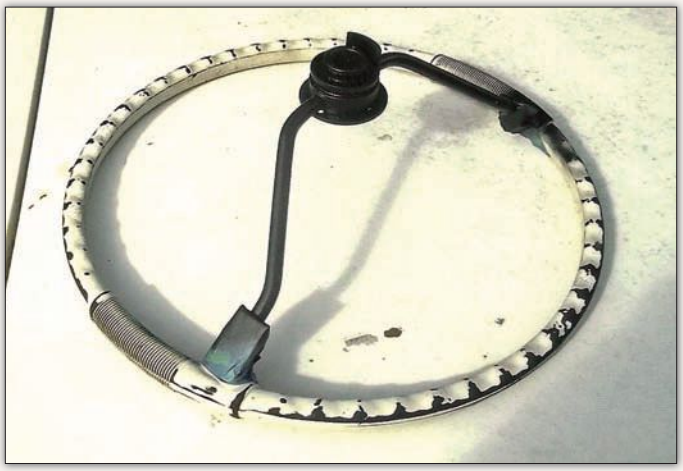
Since we started publishing this magazine nearly 11 years ago, we have profiled lots of fascinating restoration projects. Some were body-on restorations, others were body-off and ground-up restorations, while several were simply refurbishments that required just a repaint, new upholstery, carpet and

After the body was bolted back on the frame to have the replacement floor pans precisely aligned, it was lifted off again in order to be sprayed with a single coat of Eastwood's Encapsulator Epoxy, followed by two coats of urethane primer/sealer.

The replacement 318-cu.in. V-8 engine was sent to Lake Park Auto Machine Shop in nearby Lake Park to be machined and rebuilt. The block was bored .030-over and fitted with new pistons; the crankshaft was cut .010, polished and balanced for smooth operation.

A new oil pump and distributor driveshaft, which is gear-driven by the camshaft, was installed because the original gear had several broken teeth. An NOS shaft and gear assembly was found at Len Dawson's Deception Pass Auto Parts in Washington state.

The replacement engine had a two-barrel intake, so Richard decided to keep it and buy a used two-barrel carb instead of switching to a four-barrel set-up. He now regrets that, due to the two-barrel's poor gas mileage. It was rebuilt prior to installation.



The original "steering wheel" was just a rusted metal ring, so after Dan Morton, webmaster of www.59plymouth.net, gave him a replacement steering wheel, Richard lightly sanded the rim, then applied three coats of Rust-Oleum Gloss Black Appliance Epoxy.

Right-side rear armrest was fabricated using the left-side armrest as a mirror image pattern because the original armrest was rusted beyond recognition. Both armrests were sent to SMS Auto Fabrics in Oregon to be covered so they would match the door panels.

After the instrument panel had been removed and all the knobs, switches and wiring had been taken off, it was sandblasted down to bare metal using 30-grade media abrasive. After a second blast using finer 60-grade media, it was primed and painted.

Instead of spraying the body in one shot, it was easier for Richard to spray the car in sections. Using easy-to-remove blue tape, the entire firewall, floor pan and both sides of the windshield were covered with thick autobody paper for maximum protection.

Both front fenders, doors and hoods were refinished separately. Just a few small spots required a thin layer of lightweight body filler, followed by a coat of light gray epoxy primer, then two coats of primer/sealer. All the painting was done by Richard.

All the removable body panels, as well as all the small body and trim pieces such as the convertible top header bow and the sport deck cover, were primed and painted inside Richard's canvas-covered "garage," which he bought at Costco. It's an ideal setup.

Every wearing component, such as ball joints, tie-rods, bushings, bearings, seals and shocks was replaced with a new part. The old rusted gas and brake lines, and brake flex hoses, were also replaced, including the little brackets that hold them onto the frame.

With the rebuilt and painted V-8 now back from the machine shop, the intake, valve covers, exhaust manifolds and engine mounts were installed before the engine was bolted to the transmission. Then the unit was lifted into place using a two-ton engine hoist.

To help prevent unwanted road noise from infiltrating the cabin, a layer of Eastwood's Thermo-Coustic Sound Deadener barrier was installed all over the floor and on the entire firewall. Made of a butyl rubber membrane, it sells for about $120-$150.

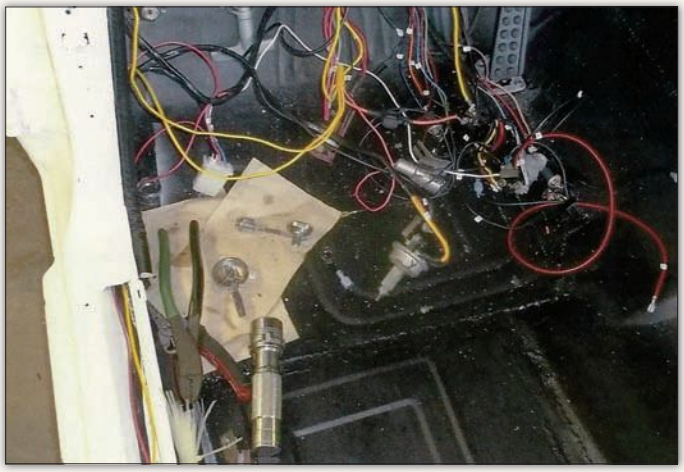
A new factory-correct interior firewall insulation pad was sourced from Gary Goers. Specializing in Chrysler parts, Gary also rebuilt the rubber-covered vent doors and supplied all weatherstripping, rubber bumpers and the gold "V-8" trunk emblem.

some mechanical work to make them roadworthy and respectable looking once more. But the most fascinating aspect of this particular 1959 Plymouth Belvedere's restoration isn't so much how it was carried out and its end result, but that it was a laborious body-off restoration performed mainly by just one man. A man who was already well into his seventies when the project first got under way.

New Orleans transplant Richard Koch of Palm Beach Gardens, Florida, purchased this Belvedere convertible in January 2011 when he was already 74 years of age. He then started its body-off restoration in June 2012 when he was 75, and completed it just 24 months later in October 2014 when he had just turned 78. Now that's

Each door's window operating system was refurbished and then reinstalled with new glass run channels and inner and outer door whiskers. The interior of the doors was sandblasted, wiped with Ospho, sprayed with two coats of epoxy primer and seamsealed.

There's nothing like the comfort of using the kitchen table to reassemble the instrument panel. After a single coat of epoxy primer, the backside was painted white, as per the original, then the topside was refinished with several coats of gloss black.



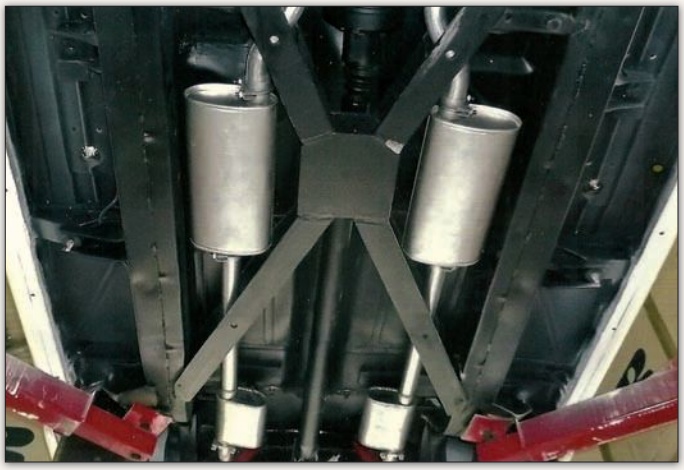
A new factory-correct reproduction wiring harness was purchased from YnZ's Yesterdays Parts. The new harness included a numbered schematic drawing, and all wires were tagged with matching numbers. According to Richard, "It was very easy to install."

Using nothing more than a rattle can, the heater housing was cleaned, primed and painted with Rust-Oleum Gloss Black Appliance Epoxy. The heater core was flushed and tested before installation, and all new rubber gaskets and drain flappers were installed.

After the body was painted and the engine and transmission installed, the radiator was bolted to the chassis along with both inner fenders. This allowed the radiator to be installed and hoses to be connected to the engine, along with the horns and hood hinges.

The replacement axle and differential assembly came from Richard's parts car. It was rebuilt using new bearings and seals, and the original 3:31-ratio gear set was retained. It was finished in the correct semi-gloss black, while new rear shocks were sprayed red.

Gas tank is original, but prior to being repainted, it was cleaned in a hot tank and the interior filled with a special sealer followed by several coats of silver enamel on the outside. The straps were media blasted and then refinished in semi-gloss enamel.



From the exhaust manifolds back to the dual exhaust tips, the exhaust system had been replaced with new pipes, resonators, mufflers and clamps. Made of mild steel, they were refinished in high-temperature silver heat paint to protect them from rusting.

This is the period during a restoration when progress slows down, because you need to take extra care in bolting the restored components back in place without damaging them or chipping the new paint. With the fenders on, next came the headlamps and grille.

Chrome plating was done by Space Coast Plating & Metal Refinishing in Melbourne, Florida, while the installation of the new canvas top, seat upholstery and carpeting was performed by Sergio Morales of S&S Auto Tops and Custom Upholstery, West Palm Beach.

truly amazing, and just goes to prove that determination goes a long way.

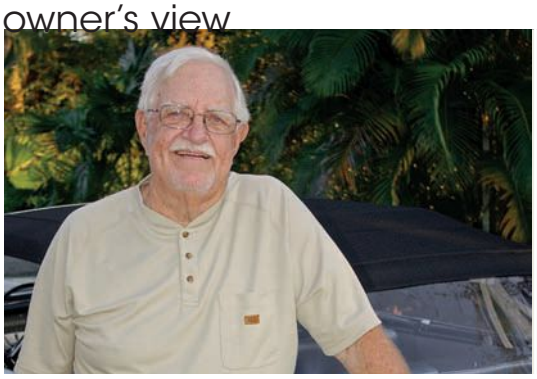
"I retired when I was 69 years old, with the intention of restoring and working on my old cars; it's something I wanted to do for a long, long time," Richard enthuses. "I looked forward to working on my cars every day, enjoyed the fun (not work) and kept at it until I was finished. Oh, by the way, it's a lot more fun if you have a lift, especially at my age."

Richard goes on to say, "If you make the restoration project fun, and something you want to do every day, then it's not work. Just picture yourself cruising down the road when you are finished. It also helps to have a parts car on hand."

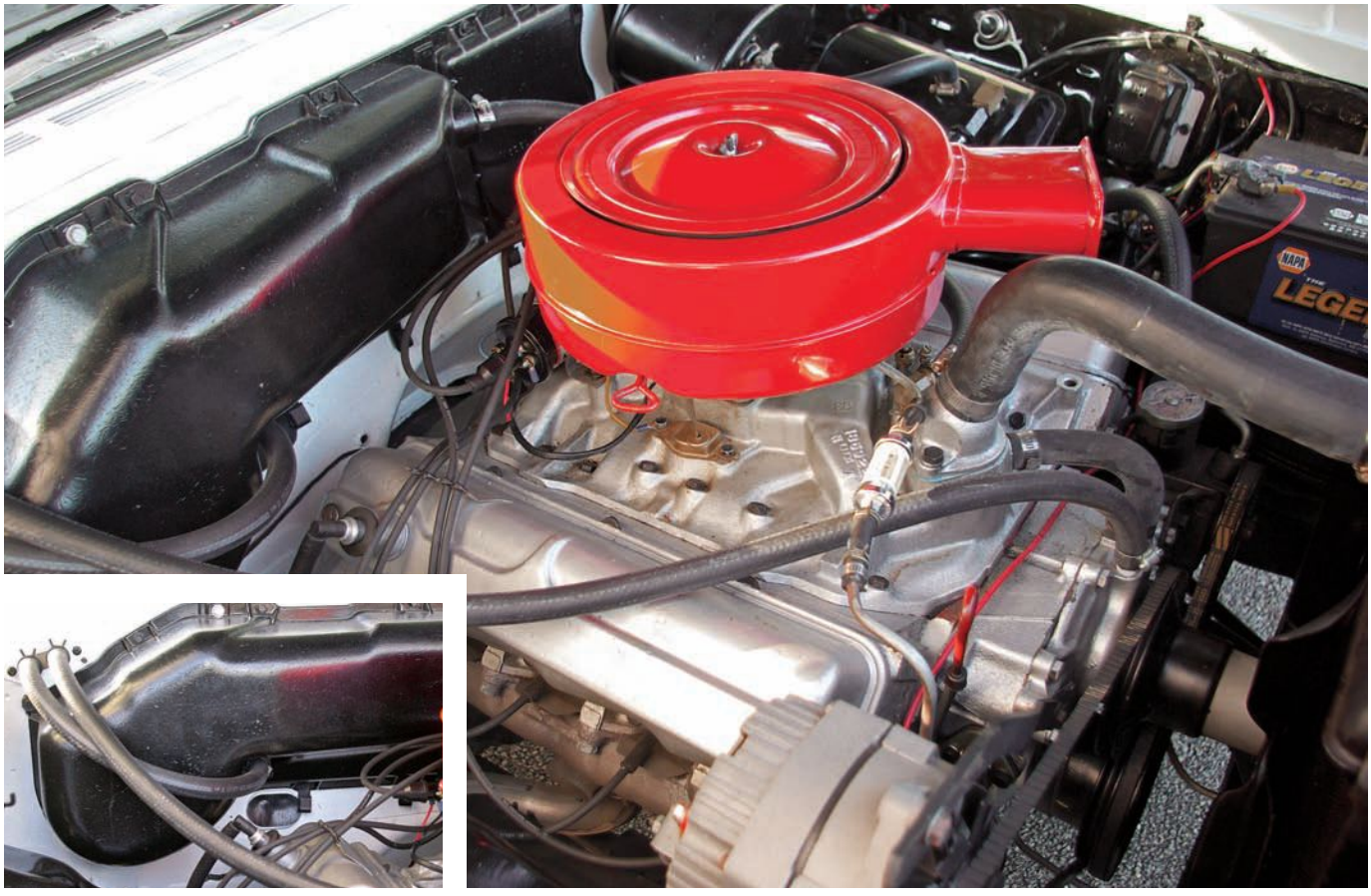
Being the type of person who prefers


0 10 20 30 40 50 60 70 80 90 100 110 120
FUEL
TEMP


PLYMOUTH



I simply love all of Chrysler's late-Fifties Forward Look models, which were designed by Virgil Exner, with the 1959 models having the best looking fins of all the Plymouths of that era. Now that I finished restoring this Belvedere, this in effect is a brand new car. I painted the body myself in our home garage; I applied three coats of Pure White single-stage urethane enamel, which I then wet sanded and buffed. It was a lot of hard, backbreaking work, especially at my age, although the stripping of the old finish was the hardest part. I'm a member of the Plymouth Owners Club, National De Soto Club and a local club called the Asphalt Angels, so now the only thing I'm going to do is drive it and enjoy it.



to do as much of the restoration work as he can, Richard also enjoys carrying out the painstaking refinishing process by himself. "Everything but the body was painted in what I call a Costco Garage, which is a portable garage completely enclosed with polyester canvas," Richard tells us. "I hang about 12 sheets of Bounce dryer sheets throughout the garage, which helps keep all the wasps and bugs out of the space. But the Costco Garage was a bit too small to accommodate the nearly 18-foot-long Belvedere, so the actual body was painted inside my main garage. With the car placed on my lift—which helped raise it off the floor so I didn't have to break my back bending down during the spraying—everything in the garage was first covered with painters' plastic drop cloths to prevent the overspray from ruining my tools and everything else in the garage. Drop-cloth-covered walls also helped keep the dust on the shelves from kicking up and ruining the newly applied paint."

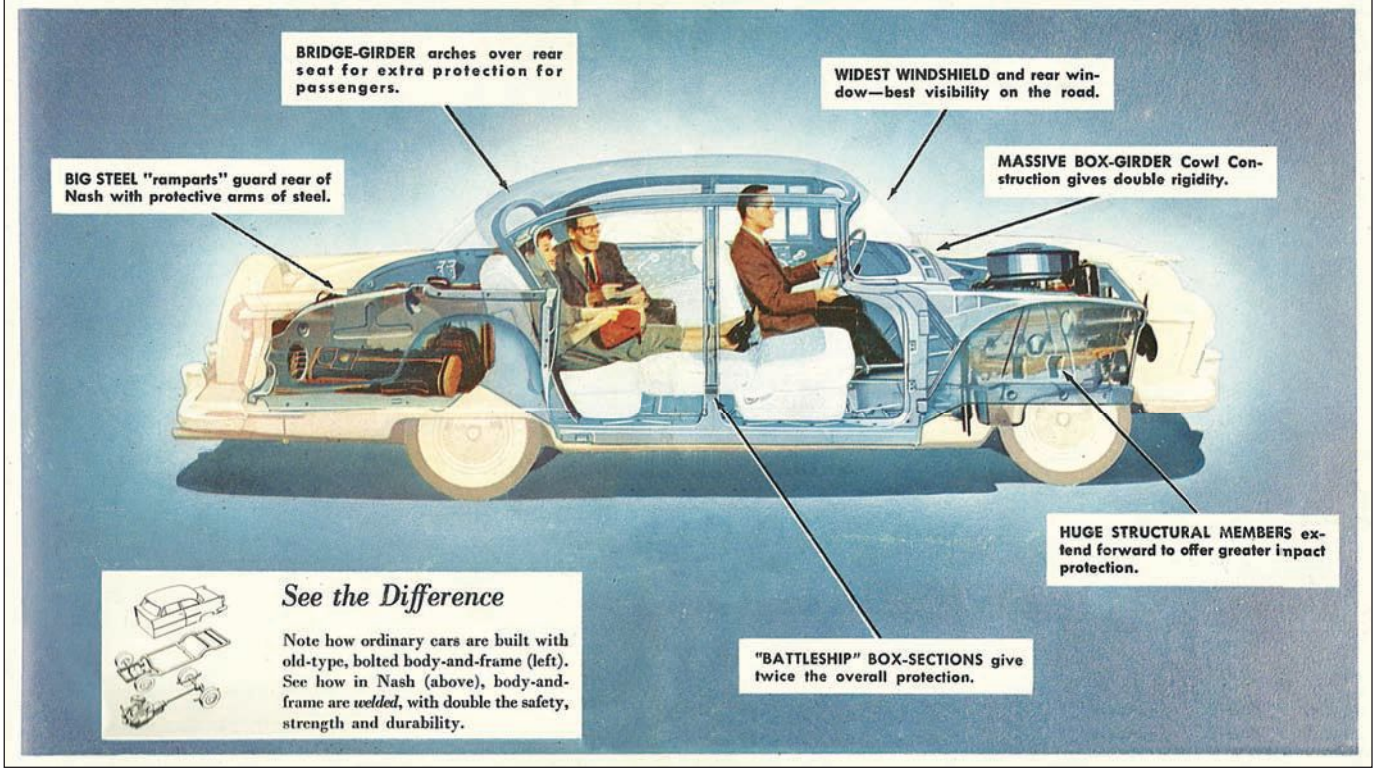
The only components on the Belvedere that are not correct are the alternator and the Chrysler electronic ignition, which Richard wanted to install in order to make the engine run better, be more reliable and start quicker, which it now does. And since these photographs were taken, Richard bought a set of wide whitewall radials, which, he recently told us, totally transformed the car's ride and handling to the point where the old Plymouth is now much more enjoyable and reassuring to drive.

Richard rebuilt his Belvedere so well that shortly after its restoration was completed, he and his wife, Yvonne, drove to a family reunion in Mississippi, then on to New Orleans to visit other family and friends, and also stopped along the way to take part in the Cruisin' the Coast show in Biloxi, Mississippi. Throughout the entire journey, the car drove perfectly. "We drove 2,060 miles that trip, and the car performed flawlessly," Richard is proud to tell us. "And best of all, we had a whole lot of fun driving in it."

Looking ahead to the future, Richard explains: "Now, after doing two complete body-off restorations and a repaint on my 1959 De Soto, all of which I did after I turned 70 years of age, the only thing I'm going to do now is oil changes, bearings, bushings and ball joints—that's it. I just want to drive them."

Nash Presents for 1956

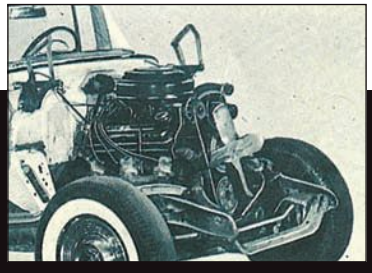
Nash Gives You Twice the Strength with Double Safe SINGLE UNIT Car Construction



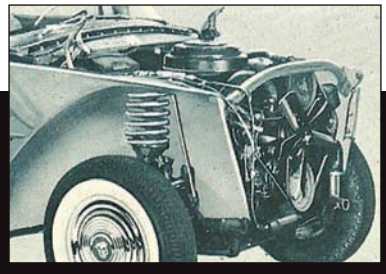
AMERICA'S FIRST FAMILY OF FINE TRAVEL CARS

THINK OF IT! In ordinary cars built the old fashioned way, some two tons of body and frame are held together by a handful of body bolts no bigger than your little finger! Naturally these bolts tend to loosen, the car rattles and squeaks... loses its rigidity. In event of collision, the impact may even shear these bolts. In Nash and Rambler, however, more than 8,000 electric welds join the frame-and-body into one single unit up to twice as rigid as ordinary cars.

And passengers ride inside a protective framework of heavy box girders welded into a continuous unit that surrounds passenger space above, below and all-around. No wonder Nash and Rambler are hailed by safety experts as the world's finest and safest cars for family travel.



See the shortcomings of a typical car with old-style construction. No impact absorbing protection above the frame... greater tendency to force engine into passenger space in a collision.



Now note the difference with Nash and Rambler. Huge members extend from windshield to grille, surrounding the engine, bracing it from all sides with rigid impact absorbing structures.

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3-1/2" SUPER BRIGHT NINE LED ALUMINUM FLASHLIGHT

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$6.99 VALUE

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SAVE $100

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CENTRALPNEUMATIC 20 OZ. GRAVITY FEED SPRAY GUN

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CENTRALPNEUMATIC

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CHICAGO ELECTRIC WELDING

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- 1500 lb. Capacity

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"Impressive Accuracy, Amazing Value" – Car Craft Magazine

TORQUE WRENCHES

PITTSBURGH PRO

- Accuracy within ±4%

YOUR CHOICE!

$9.99

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SAVE 66%

1/4" DRIVE
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3/8" DRIVE
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BY CHRIS RITTER

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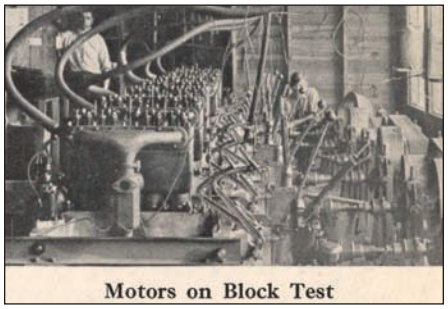
Templar Motors: Superfine!


Motors on Block Test


TWO-PASSENGER TOURING-ROADSTER

THE Templar Two-Passenger Touring-Roadster is a new creation in the sport model class. It is fast, sporty, and shows its class in every line. The seats are staggered four inches. When the top is removed the back rail slips down and becomes a hand rail. Or the rear section may be left up as a dust shield when roof section is removed. When demounted the top is stored in a special bag and is carried in the baggage compartment. The baggage compartment just back of the seats will carry a suit case, as well as the demountable top, tool kit, crank and jack.

The Roadster body is full hand-hammered aluminum. Two extra wire wheels with tires mounted are carried in a well sunk in the rear deck. There are no doors, but an aluminum step mounted on the outside of the body affords easy entrance. Each side of the body is fitted with an embossed leather scuff pad. Each running board carries a Stanwood rubber safety step plate. There is a foot rest in front of the right seat. The seats are deep and comfortable. There is a choice of four colors—bronze, gray, cream or wine.

The standard gear ratio of the Touring-Roadster is 4.4 to 1, giving it a speed of more than sixty-three miles per hour.

The windshield is cast bronze, made especially to fit this car, weather-tight and pitched at a rakish angle. A compartment is built into the side of the body to carry the kodak and compass.

The standard equipment of the Roadster includes six Houk wire wheels—black, white or red enamel optional. The equipment also includes six Cord tires and tubes, a rim-wind keyless auto clock, a 75-mile Warner autometer, a clinometer (grade indicator), a compass, spotlight, motometer, Kellogg tire pump, inspection lamp and cord, and an Autographic 1-A Junior folding Kodak.

IN 1917, THREE PROMINENT MEN from the Cleveland area started a car company. Led by M.F. Bramley, president of the Cleveland Trinidad Paving Company, and using the talent and experience of engineers from several other automobile manufacturers, they produced a car that was sporty and modern. Members of the local Knights Templar, the founders called their car Templar and incorporated the order's Maltese cross in its logo. To the automobile-buying public, the Templar promised something different—a moderately sized car built to superfine specifications.

While the Templar was an assembled car, the company did build its own overhead-valve engines. This fact was highlighted on an 8¾-inch x 12½-inch announcement flyer in 1918 that dedicates one full side to the "Vitalic Top-Valve Motor." That four-cylinder, 197-cu.in. engine, the announcement tells readers, was good for 43 horsepower and, "of course, real fuel economy." Regarding the overhead valves, the flyer explains that they "are completely enclosed and operate in an oil vapor," and encourages potential buyers to "think what this means in positive, quiet valve action." The Templar would also feature Hotchkiss drive and a semi-floating rear axle. This announcement flyer was designed to lure potential dealers with the promise of a strong market.

For 1919, Templar produced a six-page folder that provided specifications and descriptions for each of its cars, ranging from the $2,185 touring car to the $3,295 five-passenger sedan, a "custom built, aluminum body, solid pillar two-door type," offered in any desired color scheme or upholstery. Standard equipment included "silk curtains, silver hardware, dome light, reading lights, vanity case, smoking set, flower vase and Perfection heater."

In 1920, Templar produced its most complete sales piece to date, a 7-inch x 10-inch catalog featuring a color cover and 20 interior pages that were heavily illustrated and beautifully written. This catalog again extolls the virtues of the Templar Top-Valve Motor, reporting that it "sets a new standard for power, economy and flexibility" and reminding readers that four-cylinder engines have long proven themselves in racing cars and trucks. While some focus is placed on the engine, the catalog's main emphasis is finally on the cars themselves, with the author pointing to beauty, strength and economy as key features of the Templar. Profiling the contemporary buyer, the catalog describes him as "looking, first of all, for performance; next appearance; and then, true economy." According to the catalog, the Templar satisfies all of these demands because it "is superfine in quality, beautiful in appearance, light in weight, small in size and inexpensive to operate." Above all, it combines "the rich man's demand—quality and economy" with "the poor man's need—economy and quality."

Promising real adventure as a fast and sporty car, the 1920 Touring Roadster "shows its class in every line." The hand-hammered aluminum-bodied roadster had staggered seats for comfort, a top that could be stored in a special bag carried in the baggage compartment and a top speed of "more than sixty-three miles per hour." This car came standard with a grade indicator, corded inspection lamp, rim-wind keyless auto lock, compass and Autographic 1-A Junior folding Kodak camera housed in a compartment built into the side of the body. Clearly, real adventure awaited the Touring Roadster owner!

While Templar production would peak in 1920 with 1,850 cars, by 1921 the company would sell less than 700 units. That same year, a factory fire would deliver a nearly fatal blow, but the company forged ahead. Sales, however, continued to slide, and in 1923 only 123 cars were produced, and the company found itself in receivership. Templar would introduce a six-cylinder line in 1924, but those efforts were in vain—the last cars would roll out of the Lakewood, Ohio, factory in 1924, a premature and disappointing end for "the car for the Twenties."

BY MILTON STERN

The Elite Class

I AM ALWAYS DISAPPOINTED BY THE various lists of best and worst cars. What is their criteria? The lists are so subjective and usually created by people who know very little about automobiles. I realize that I take them personally, because just about every car on my bucket list is one of those "worst" cars.

I'll give you an example. I know someone who drives nothing but a certain brand of luxury cars. At a car show a few years ago, he referred to a Dodge Diplomat on the field as a piece of crap. I know the owner of the Diplomat, and his car—which is all original and maybe not the prettiest car on the road—never gives him any trouble. On the other hand, Mister Luxury Car is always complaining about how his cars are always in the shop. I once suggested to the snob that he buy something reliable like a Ford Taurus.

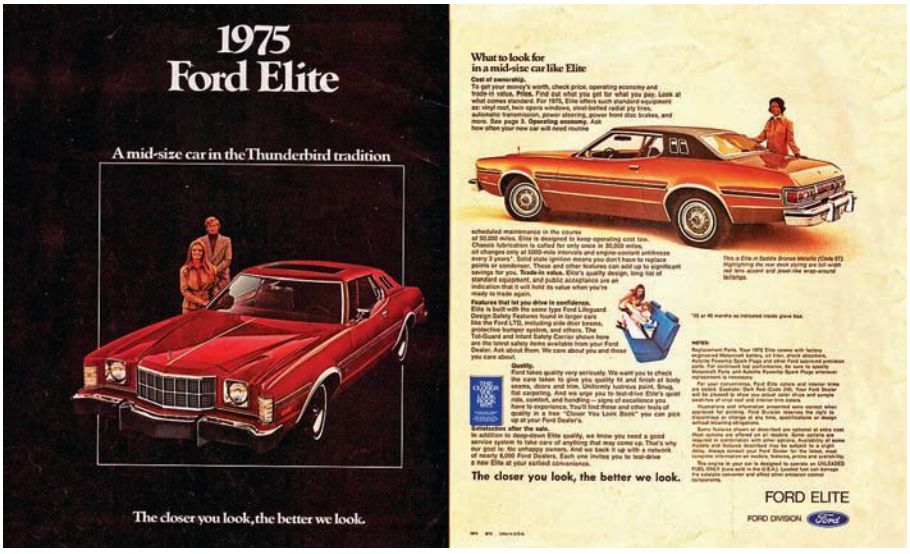
Recently, someone sent me the latest list of the 25 worst cars of all time. I noticed I drive one of those cars, and it is the most reliable car I have ever owned. I also couldn't believe this month's Detroit Underdog was on that same list. In addition, the cars that dominate these lists are usually from the 1970s. Yes, those '70s American cars had become more corpulent and thirsty, but many had style and class you don't see anymore.

Take the Ford Torino. These once very popular cars, which came in a variety of body styles and helped Starsky and Hutch fight crime, are rarely seen today. Yes, you do see the red coupes with the swoopy white stripes, but when did you last see a four-door sedan or wagon?

What do I always say? Show up in something no one else has. With the Ford Elite, you can do just that.

On an episode of *Cannon*, Frank Cannon rented a 1975 Ford Elite. It was brown with a matching vinyl roof and those parallel slanted opera windows. I thought it was a very attractive car. I am sure having the classiest of private eyes driving one didn't hurt sales.

Introduced for the 1974 model year as the Ford Gran Torino Elite, it was advertised as a "Mid-Size Car in the Thunderbird Tradition." Oh, how we miss the era of the personal luxury car. It was aimed directly at one of the 1970's most beautiful cars, the Chevrolet Monte Carlo. The following year, it would find added competition in the car that defined class, thanks to Ricardo Montalbán, the Chrysler Cordoba.



Although a Ford Gran Torino sub-, or should it be *super*-model, the Elite borrowed most of its body panels from the Mercury Cougar XR-7, which by then was already a mid-size car. The front end received the most extensive restyle of the Cougar's platform. Its most distinctive features were the aforementioned parallel slanted opera windows.

The following two years, the Torino moniker was dropped, and it became just Ford Elite. If you buy a 1974 model, it will be titled as a Ford Torino.

The market for personal luxury cars, especially those in the mid-size category, was improving, due to rising gas prices and the recent energy crisis. Many people who drove those huge Thunderbirds and Mark IVs were happy to move to a little bit smaller platform, so long as they could enjoy the same features to which they had become accustomed and retain that boulevard ride many of us miss.

The Ford Elite came standard with a 351-cu.in. V-8, power front disc brakes, power steering and automatic transmission. Air conditioning was an option, as were other accessories like cruise control, power windows, locks and sunroof. Some buyers were actually rolling up their own windows in these and other personal luxury cars. The horror! I imagine those that did trade down from a high-end car still went for all the available power options. The optional engines were the 400- or 460-cu.in. V-8s. For the final model year, bucket seats and a center console were available.

To say that the Elite was not a success due to its very short production run would be naïve. It was the Elite's success that led to its demise at the end of the 1976 model year. Ford decided to move the Thunderbird down to the mid-size platform, and what was introduced in 1977 was basically the same car with new front- and rear-end styling and a new roof, featuring a tiara band B-pillar reminiscent of the 1950s Ford Crown Victoria. The decision was genius. Thunderbirds flew out of the showroom like no other model before. The name made all the difference.

I did some research to see what Elites are available now, and I found quite a few. Of all the cars I have encountered, these personal luxury Fords seem to have been kept in the best condition. None of them are projects or rust buckets. All appear to be nice drivers requiring no cosmetic attention and in clean condition. Though some were selling for as low as $4,000, you can expect to pay around $6,000 for a good quality low-mileage example.

Imagine Thunderbird luxury at Torino prices. What more could you ask for? Don't you want to be part of the Elite Class?

BY JIM DONNELLY

Albert Pope

WE ALL KNOW THAT THE BICYCLE craze of the late 19th century attracted a lot of people who were later motivated to adopt self-propulsion for cycles and, eventually, for cars. Albert Augustus Pope was one of the few who rode that wave as far as it would carry him, arcing from business neophyte to transformative entrepreneur to full-scale automaker, nearly in one fell swoop. Or more accurately, in a nearly seamless progression, even though it didn't end the way Pope probably would have preferred.

As his middle name implies, Pope was born into an august New England family in Brookline, Massachusetts, in 1843, a brood that had made a fortune in lumbering. With a marked taste for adventure and order, Pope enlisted in the Massachusetts militia during the Civil War and was promoted all the way to brevet lieutenant colonel. Mustered out, he first made decorations for shoes until he attended the Centennial Exposition in Philadelphia during 1876. It was a revelation. Bicycles were bursting forth everywhere, and Pope guessed that a massive business opportunity existed in them. He started out importing bicycles from England, and then began manufacturing them in an erstwhile sewing-machine factory in Hartford, Connecticut.

UNIVERSITY OF CALIFORNIA

That one act turned Pope into a certified American legend. His bicycle, the Columbia, used hollow steel frame tubes and lightweight wheels, thus assuring that women could easily ride them. The suffragist Susan B. Anthony doubtless had Pope in mind when she declared, "The bicycle has done more for the emancipation of women than anything else in the world." Pope was a predecessor of people such as Carl Graham Fisher in lobbying governments to improve roads and parkways so his cycles could be ridden by the masses. It worked: Before the bicycle craze died out, the Pope Manufacturing Company was the largest employer in New England. Pope sat atop a monopolistic consortium of some 45 cycle manufacturers. One that broke away from it was Jeffery, which built the Rambler bicycle and later, the car of the same name.

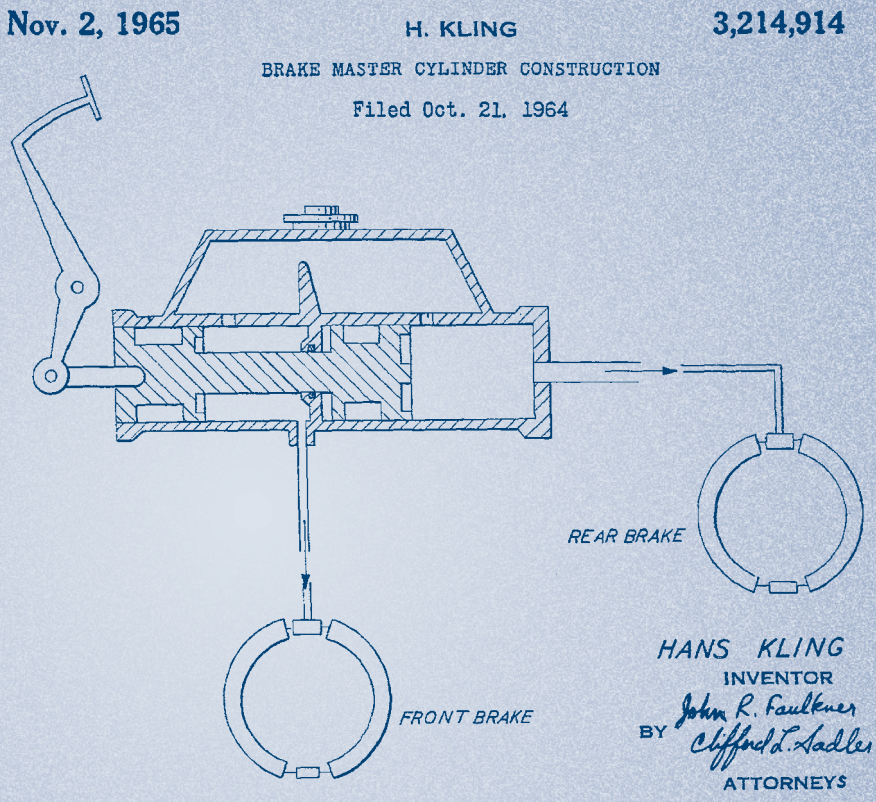
Pope lost a fortune when the cycle craze crashed but still saw a way forward. One such manufacturer under his control, Toledo, stopped building bicycles and switched to steam-powered vehicles in 1900. The next big thing appeared to be battery-powered hansom cabs, and Pope was asked to start building them. He hired Hiram Percy Maxim as his chief engineer and shortly gave him a brief to design a gasoline-powered automobile, rather than an electric one, which Pope thought had more profit potential. The Toledo steamer and Waverly Electric became Pope nameplates. So did the Robinson, of Boston. Other cars included the Riker and, naturally, the Columbia. Pope was expanding very quickly, recalling his bicycle exploits. Too quickly, as events would prove.

Following a financial panic in 1907, Pope Manufacturing Company was starved for cash and went into receivership. A new, slimmed-down operation was incorporated late the following year. The reorganization led to divestiture of the Toledo plant, which fell under the control of John North Willys. Albert Pope died suddenly at his Massachusetts estate in August 1909. His brother, George, and son, Albert, were tasked with keeping the company afloat in the patriarch's absence. To that end, the manufacture of all Pope-badged automobiles was halted save for a new, larger and more expensive car, the Pope-Hartford, which dated to 1904 and held the world's speed record in the flying mile for a time. George Pope eagerly organized auto shows to show off his products, but by 1913, Pope-Hartford was back in receivership once again.

This time, there would be no reprieve. The Pope-Hartford was down to a single model, but overexpansion had irreparably damaged Pope's finances. The firm's assets were sold off bit by bit, the last being the Hartford plant itself, which was taken over by Pratt and Whitney in 1915.

Brake Pedal Feel

Engineering the proper pedal pressure



ILLUSTRATIONS COURTESY THE U.S. PATENT OFFICE

JOB: Brake pedal feel tuning

BY RAY T. BOHACZ

IT IS ALMOST IMPOSSIBLE TO AVOID making comparisons between things. In few circumstances, however, is this tendency more noticeable than when taking a classic American car out for a spin, regardless of the brand, after having driven a modern vehicle. For those who have never had the opportunity to do so before, the effect is dramatically amplified.

Often, such first drives result in people commenting on how pleasantly surprised they are by the quietness and smoothness of the classic American car's engine, the soft and well-insulated ride, the roominess of the interior and bench seat, and the excellent line of vision. This experience is traditionally a real eye opener, since many of these people had always assumed that older cars were crude and would never compare favorably with modern ones.

There is one exception to their newly revised opinion, however: the brakes. These first-time old-car drivers will bemoan the effort needed to stop the classic car—which, they believe, very nearly requires both feet on the pedal. Considering the braking they have enjoyed in modern automobiles, they will decry the long distances it takes to stop the classic car. And, feeling like they have less control, they will worry over how their driving style will have to change to accommodate it. And if we are honest with ourselves, they aren't wrong.

The brakes on modern automobiles are a resounding testament to the technological evolution of every component in the system.

IN THE BEGINNING

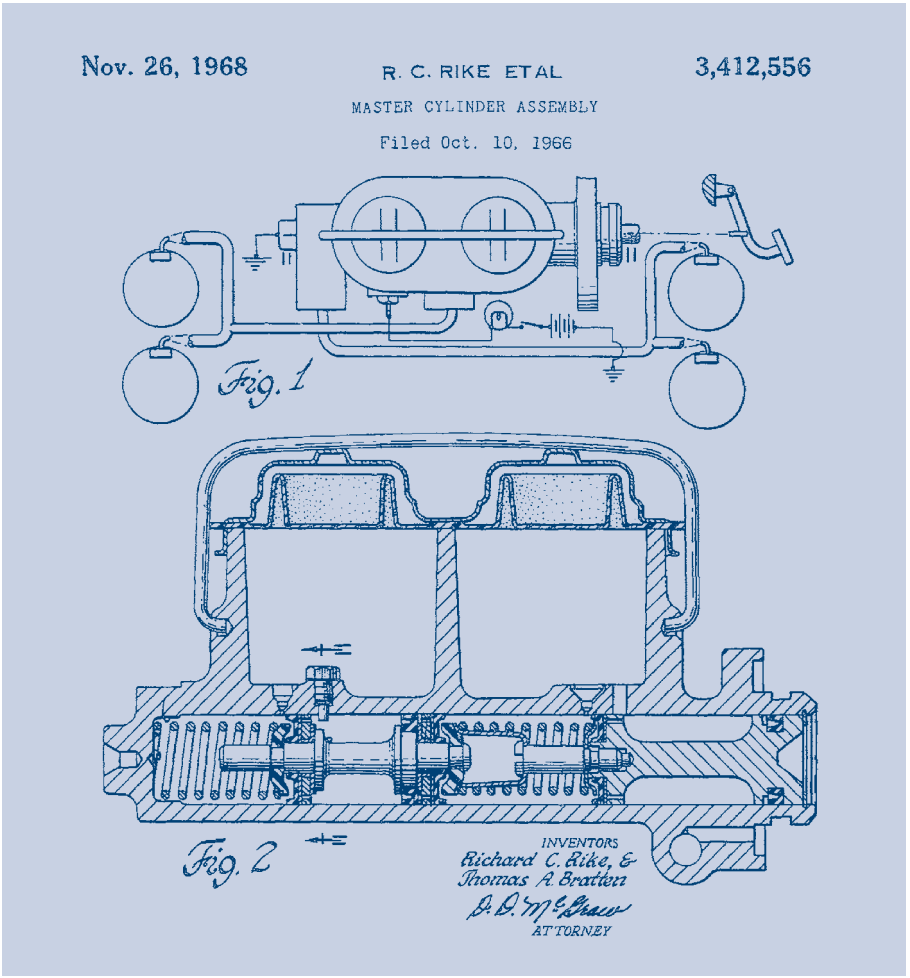
The first automobiles that employed a four-wheel-braking system were stopped via mechanical force. A series of rods and levers were linked to the foot pedal and acted as intermediate components between the driver and the brake shoe and the frictional material that did the stopping. On some automobiles, cables were used instead of rods.

As automobiles grew heavier, more powerful and more refined, and the roads were made smoother, the need to stop in shorter distances and with decreased effort became apparent. Soon, hydraulic braking systems replaced mechanical action with fluid pressure and improved every aspect of the vehicle's stopping while greatly decreasing effort and driver fatigue.

In the 1920s, the American company known as Loughead, later called Lockheed, pioneered the hydraulic brake system. It took quite a few years, but by the end of the WWII era, nearly every automobile was using hydraulic brakes.

Hydraulic brake systems are comprised of, at the minimum, the following components:

1. Master cylinder.
2. Fluid lines.
3. Wheel cylinders.
4. Application-specific hydraulic fluid.



The master cylinder is a key component in brake feel, since it correlates hydraulic pressure with pedal travel.

As the designs for hydraulic brake systems evolved, other components such as proportioning valves to distribute hydraulic force and junction blocks were added.

Hydraulic brakes replaced mechanical ones for several reasons:

1. Hydraulic actuation is a more efficient means of transferring force.
2. The hydraulic actuating force supplied to any one axle is automatically balanced between two brake assemblies. This is because pressure applied on a fluid in a closed circuit equalizes itself throughout that circuit. However, fluid pressure does not correct for variations in brake torque output that result from differences in friction between the rubbing elements.
3. Hydraulic actuation allows for greater versatility and ease of installation over mechanical rods and levers that must be straight and have clearance for movement.
4. Mechanical braking systems, when equipped with exposed linkages, are subject to damage from road debris and prone to becoming caked with mud and ice in the winter. When this occurs, a vehicle can effectively lose the ability to stop.

Given these significant advantages, the hydraulic brake system took hold in the automotive world, and almost 100 years from Lockheed's invention, the basic tenets remain unchanged.

TUNING THE FEEL

As with any technology, hydraulic braking has undergone a process of improvement since its introduction. One focus of this development was brake feel.

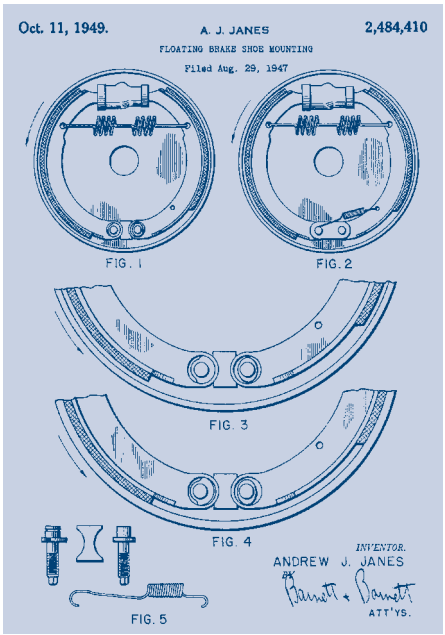
"Brake feel" is the feedback, the sensation, that drivers perceive in their foot and leg when applying the brakes. From vehicle model to vehicle model, even within a given brand, the feedback and effort required as a function of the stopping distance vary.

Many factors can affect brake feel:

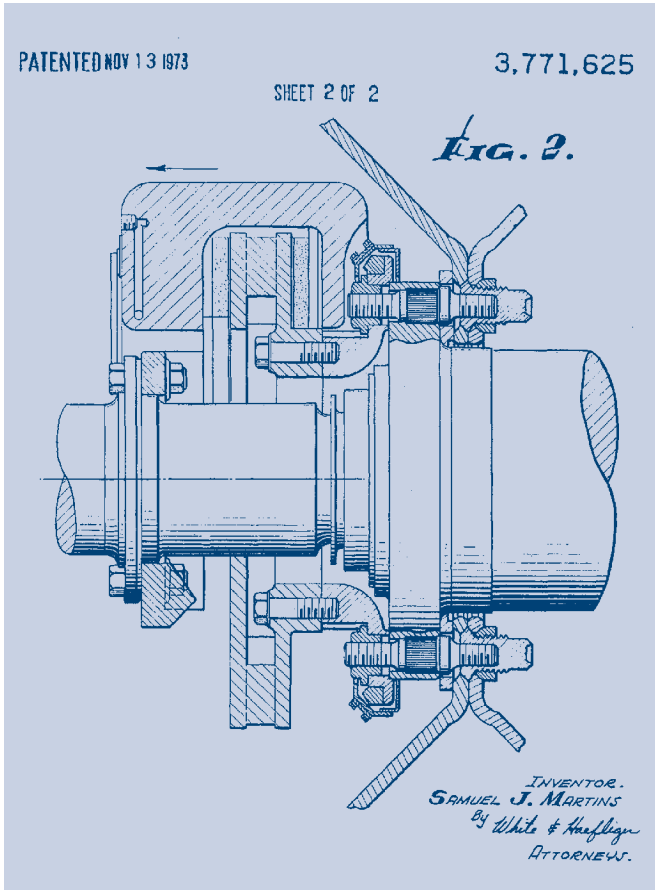
1. Hydraulic action/energy created by the master cylinder.
2. Chemical composition of the hydraulic fluid.
3. Characteristics of the flexible lines connecting the hard lines on the vehicle frame to those that attach to the unit.
4. Geometry of the interaction of the brake pedal, which moves in a slight arc, and the piston in the master cylinder, which utilizes linear action.
5. Resistance of the firewall and/or mounting point of the master cylinder to deflecting under force.
6. Ability of the braking components at each wheel to accept hydraulic force and resist deflecting under force.
7. Amount of force required to move the brake shoe or pad.
8. Characteristics of the componentry transferring hydraulic action to the friction material.

Other factors also come into play, but they are not specific to hydraulic braking systems. These are the weight of the vehicle and the interaction of the friction material with that of the friction surface.

Braking systems are required to be effective and driver-friendly at low speeds, when the amount of inertial energy is low, but they must also perform well during harder braking and panic-stop conditions. Just because a vehicle stops well under one set of circumstances does not mean that it will also do so under others. Take, for example, a vehicle that lacks firewall rigidity. Because the firewall supports the master cylinder, it experiences the force inputted to it from the brake pedal and, in this case, will de-



The method of mounting the brake shoes to the backing plate is used to tune stopping distance and feel. Not all systems have a leading and trailing shoe.



When disc brakes were first offered on the front wheels of automobiles, they added a level of refinement that could not be obtained with a drum system.

flect under the high load of a panic stop, robbing some of the movement from the piston in the master cylinder. Though the driver may be exerting a lot of force in lb./sq./in. on the pedal, a portion of that energy is going into flexing the firewall and not acting on the hydraulics. The result is a vehicle that may have acceptable—perhaps even exemplary—brake response and feel under normal driving conditions, but that has poor braking characteristics in a panic stop.

Rubber brake hoses that balloon under extreme braking conditions can also lead to a vehicle with inconsistent braking characteristics. In this case, the hose walls may remain true under the needs of normal braking, but when demand increases, expand, stealing some of the hydraulic force from the actuator that presses the friction material against the friction surface at the wheels.

Brake fluid is another key element in ensuring a vehicle can stop adequately under the variety of circumstances it must. Brake fluid, ideally, will maintain its viscosity regardless of changes in ambient temperature and conditions at the wheels. However, when braking, heat transfers from the friction pad to the fluid, and this can cause the fluid to boil and become a vapor. Unlike fluids, gases can be compressed. When localized boiling occurs, the brake pedal will feel "dead"—it goes to the floor, just as it would if the system had a leak. As soon as the fluid cools and condenses, the hydraulic action returns as if nothing happened. Today, the industry uses DOT 3, 4 and 5 brake fluids, classifications established by the SAE in 1945 to indicate a fluid's boiling point with no moisture, its boiling point with a defined amount of moisture and its viscosity in extreme cold. Most non-performance cars leave the factory with DOT 3 brake fluid in their system, while performance models—due to their need for a fluid with a higher boiling point—typically have DOT 5.

The manner in which the hydraulic force is applied to the friction material also has a significant impact on brake feel. With drum brakes, the size of the wheel cylinder, along with the design and friction of the pivot point, is tuned to achieve the desired result. While with disc brakes, the caliper design (fixed versus floating), the number of pistons in the caliper and the ability of the moorings to resist deflection are key. Fixed calipers have the most secure moorings and, when equipped with multiple pistons, not only provide the most force, but ensure even pressure against the pad. Brake systems relying on single-piston floating calipers are never going to produce the same feel or stop a vehicle as quickly as those using multi-piston calipers.

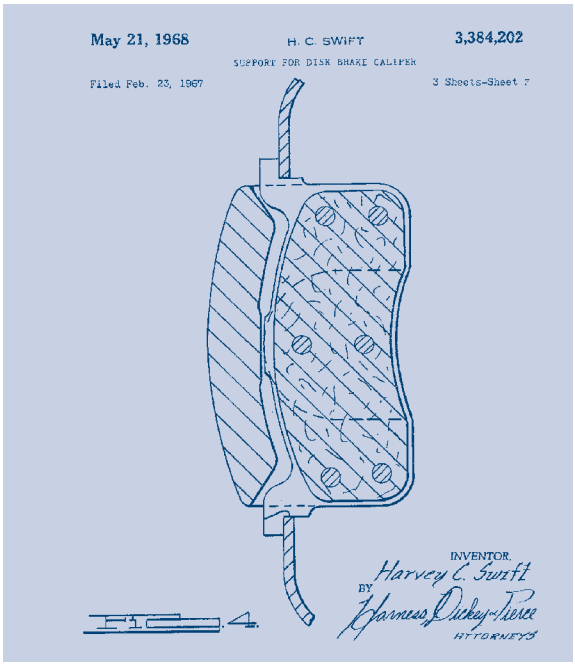
Finally, the interaction of the friction material with that of the friction surface has a substantial effect on brake feel. Depending on the material that each is engineered from, as demand increases, degraded or even improved braking can result.

THE COLLECTOR CAR SYNDROME

We've come, now, full circle. There is no denying that the brakes on a 50-year-old vehicle lack the advancements in technology that have occurred during that timeframe. Nevertheless, many enthusiasts complain about the feel of the brakes on their meticulously restored car. They are safe and stop well, but don't quite feel the way their owners think they should.

First, there is no "bad guy" here. The restoration parts industry does not intentionally produce brake parts that will disappoint its customers. The fact is, brake part suppliers are not usually manufacturers; they subcontract a majority or all of the manufacturing. This is an unavoidable necessity in a niche business like automobile restoration parts supply. However, if you source all of your parts from the same well-respected supplier, you will increase the likelihood that the components will work well together, resulting in the desired brake feel.

Creating the proper brake feel is more of an art than an engineering discipline, the braking system more like a symphony orchestra and the designer, the conductor.



The brake pad friction material is formulated for stopping ability, wear and noise, all while limiting dust production.

Buck Jones

Production Line Worker, 1951-'52, 1956-'59

GM Delco Battery Plant #9

AS A HIGH SCHOOL SENIOR IN 1951 who had just turned 18, I was able, through my friend's father, to be hired on at the Delco Battery plant in Muncie, Indiana. Although it was for the night shift, 11-7, I was thrilled to finally be old enough to have a real job. So, I worked at night, and during the mornings, thanks to very understanding teachers, finished my high school classes needed for graduation.

Delco Battery, a division of GM's Delco Remy, was first located in Muncie in 1923 in an old building that had been used to manufacture electrical lights for Harvester Company. In 1928, the production was moved to a vacant assembly plant previously used to manufacture the Sheridan automobile for W.C. Durant in 1921-'22, and the Interstate automobile prior to that. This became DR Plant #9.

It was during my time there that the first 12-volt batteries were being produced for use in the 1953 Cadillac, Buick and Oldsmobile production models. These were the long, slender 3ED Delco B batteries—19 x 4.25 x 9 inches—two cells wide and three cells long. The 1951 LeSabre concept car was also designed for 12-volt operation. It would be two more model years before the remaining GM cars went to the 12-volt system. Delco also produced batteries for non-GM companies such as Firestone.

My first assignment was in the molding department. There, both the cases and sheets of covers were molded of specially prepared rubber compounds in steam-heated presses, then trimmed of the excess "flash" and sent on to be prepared for assembly. For the covers, preformed lead bushings were assembled on a special "rack" and carefully loaded onto matching pins in a press. Each press had two levels, requiring a loaded rack for each one. Strips of rubber were then laid and trimmed. Because the bushings had to be loaded onto the racks during the curing time, there was little idle time on this line. The greatest fear was releasing the pressure on the bars that held the bushings in place on the rack before the bushings were properly seated over the pins in the press molds. Dropping the bushings created a huge mess, shut down the press for cleanup and didn't make the foreman a happy fellow. Your fellow workers, or course, got a huge laugh out of your misfortune. Heavy long-sleeved shirts and gloves were required as protection against burns from presses.

Some nights, being the low man on the totem pole, I would be loaned out to other departments. This could include separating the covers from their molded sheets, reaming out the bushings, assembling the plates, filling the charging acid, and the most hated of jobs—dumping the charging acid from the batteries, which required wearing rubber gloves, a face mask and a heavy wool shirt and pants that resisted being eaten with acid. Boxes of soda were always at hand to neutralize any spilled acid. It was hot, dirty and very physical work.

After being laid off during the 1952 down cycle, I was unwilling to draw unemployment, so decided to join the Navy. After four years of service, I returned to work at Delco and began attending college. Since my seniority continued during my service years, I worked the 2:30-10:30 p.m. shift and was elevated to less menial jobs, such as inspector, special projects or relief man. My mornings were spent going to school.

Plant management had a soft spot for veterans who were students and always reserved a "special" position for one of them in my department each shift. These were jobs that, by their nature, had considerable downtime during which the student was encouraged to study. It took me two years to gain this open position, which made my academic life much easier. I have always been grateful for this plant philosophy.

During my absence, the 12-volt 2SM50 battery was developed for 1955 model Chevrolet and Pontiac cars, and a new system of "dry charging" was in place. After assembly and charging, the batteries were emptied of their acid and shipped to the warehouse for distribution. They would then be refilled with acid and recharged at their final destination before installation. This resulted in longer shelf life, safer handling and reduced shipping costs.

In 1959, having completed my undergraduate work, I was ready to move on to a more rewarding career in high school teaching, where I remained for 29 years before retiring. I will always be grateful to Delco Battery and GM for the opportunity to experience the "real" work world, and to the U.S. government for financing my college education, which ensured that I wouldn't have to spend my working career in a hot, smelly battery plant.

In later years, during one of the GM reorganization programs, Delco was merged into the Delphi Group, and still later, in 2004, was sold to Johnson Controls. Batteries under the DELCO label are still being produced today for replacement and current models, and exact reproductions of the 3ED and 2SM50 batteries, and others, are being made by an independent company.

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.

AUCTIONS AMERICA

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MAY 7-9, 2015

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1970 Dodge Hemi Challenger R/T Hardtop

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Auctions America will return to the historic Auburn Auction Park, May 7-9, for its annual Auburn Spring Collector Car Weekend. In addition to the more than 500 collector cars and a selection of memorabilia that will cross the auction block, the event will feature a swap meet, car corral, and the return of the AACA's National Special Meet.

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TECH TALK

BY MIKE McNESSOR

1950s POP STAR

Q: I have a 1957 Chevrolet two-door hardtop with a 275hp, 327-cu.in. V-8 and three two-barrel carbs. I put Flowmaster mufflers on it, and ever since, the engine pops and crackles on deceleration. I've checked for vacuum leaks, but haven't found any, and it has a stock camshaft. Any ideas on how to stop this popping?

Gary Williams
Lone Oak, Texas

A: If the car didn't do this prior to the installation of the mufflers, the simplest explanation for what's happening is that you have some exhaust leaks. Check all around the manifolds and pipe connections for gaps. If you have exhaust headers, make sure the collector gaskets aren't blown out and that the connections at the cylinder heads are sealed up. (Headers can be especially tough to keep tight and sealed.) It may be that there's some unburned fuel in the exhaust, and the fresh air from the outside as well as the heat from the exhaust is promoting combustion inside the exhaust system, causing the popping noises you hear. There are several other issues that could result in this behavior, but exhaust leaks are the most common.

HARD-STARTING HAULER

Q: I have a 1984 Chevrolet C10 with a 350-cu.in. V-8 and a 700R-4 automatic transmission. When the truck sits for more than three days, it is hard to start. Once, I primed the carburetor and it started the first time. I replaced the cap, rotor, ignition wires, spark plugs, fuel pump and the starter. It had a 750 Edelbrock carburetor, and I replaced it with a 600 Edelbrock carb. Both carburetors had the same problem. How about an electric pump?

Harry Briscoe
Bastrop, Texas

A: Next time, before pouring gas in the carburetor, pull off the air cleaner and work the throttle wide open and closed by hand while looking down the throat. You should see gas squirt from the pump jets. I suspect you won't and that means the bowls are empty because of a leak or evaporation. Today's gas evaporates quickly, and some carburetor designs are more prone to fuel evaporation than others.

To address potential heat issues, you could try a phenolic spacer below the carburetor. The fuel isn't evaporating completely out of the bowls due to heat soak—otherwise you'd have trouble starting the engine when it is hot as well. But underhood temperatures could be contributing to the evaporation, which takes a few more days to get to the point where the carburetor's bowls are almost completely empty.

If you don't like cranking the starter and working the gas pedal, a low-pressure electric fuel pump (I've had good luck with Facet brand pumps, but there are many others on the market) plumbed in your fuel line can help send gas into the carburetor quickly when the vehicle has been sitting for longer periods. It can be used in conjunction with the mechanical pump—turn it on to fill the float bowls, and turn it off after the engine is running. Just make sure to turn it off after you park the vehicle. You could also remove the mechanical pump, altogether, block off the mounting boss and install an electric pump like the ACDelco EP12S.

TECHNOLOGICAL TWEAKS

Q: I have been reading about performance chips for cars. They tout an increase of 4 to 7 MPG and an increase of up to 60 horsepower. Are these chips the real deal? The sellers say they are completely safe for your engine. Please share your thoughts on installing these chips.

Joe Tawney
Boise, Idaho

A: On a modified engine, you might update the ECU to take advantage of power adders or performance engine components you've installed. But on a stock engine, the differences made by altering the ignition timing, the fuel delivery and the transmission shift points with an aftermarket "chip" might be difficult to notice under normal driving conditions. Personally, I'd stick with the factory engine management components and sensors unless I was making other modifications. And then, I'd work with someone familiar with the correct hardware/software combinations for my engine.

DARK MATTER

Q: When I changed the automatic transmission fluid in my 1976 Buick Century, the old fluid looked very dark. It's shifting fine, but now I'm wondering if I should have flushed the entire transmission? Is that something I could do myself, or would I have to take it to a shop?

Bill Foley
Boston, Massachusetts

A: It's normal for ATF to darken as it's nearing the end of its lifespan. I'm guessing you're concerned that the dark color of the fluid meant it was burned and is an indication of internal transmission damage. But if the fluid didn't have a distinctly burned smell and there wasn't any metal or clutch material in the pan, I wouldn't worry about it, especially if transmission is operating normally. I wouldn't flush the transmission, as this can sometimes cause more trouble than it's worth on old, well broken-in automatics.

You can perform a sort of flush yourself (with a helper) at home. Drain and refill the transmission then disconnect the return line from the radiator at the point where it connects to the transmission, and direct the end of the line into a bucket. Start the car, and the transmission will pump out the fluid into the bucket. While the transmission is draining, have a helper pour fluid into the filler so that you don't run it dry. When you've added two or more quarts and the fluid is coming out of the line clean, shut the engine off, reconnect the line and fill the transmission to the correct level.

READER RESPONSE

Regarding "Pedal Nearly to the Metal" in *HCC* #127, I had the same problem on a 1978 Dodge pickup. I found out that Dodge oriented the brake caliper around the circle of the rotor so that the air bleed hole was not at the top of the caliper reservoir, leaving an air pocket. I left the fluid line attached, loosened the caliper, and held it so the bleed hole was at the top. This necessitated drip bleeding the system instead of pressure bleeding with the brake pedal, since the pads were no longer in proper contact with the rotor. It worked out well, but left me confused about what the designers were thinking, or not thinking about.

Rodney Luttrell
Nebo, West Virginia

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.

9th Annual

Hemmings Motor News CONCOURS D'ELEGANCE

SEPT. 25, 26, 27, 2015

Keynote Speaker: Peter Brock

The youngest automotive designer in General Motors history, he went on to create the Shelby Cobra Daytona coupe that won an international championship, and to run Datsun's racing effort on the West Coast.

FRIDAY, SEPTEMBER 25th

REGISTRATION & RALLY

- 9:00 a.m. – 4:00 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 – **w/luncheon buffet** (boarding promptly at 2:00 p.m.)

Deadline to purchase Lake George Cruise tickets: 9/4/15

SATURDAY, SEPTEMBER 26th

CRUISE-IN SPECTACULAR

Gates open at 8:00 a.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 2:00 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: Peter Brock, automotive designer.

SUNDAY, SEPTEMBER 27th

CONCOURS d'ELEGANCE

10:00 a.m. – 4:00 p.m. Open to concours-quality, pre-1973 cars, by invitation only.

MORE TROPHIES TO BE AWARDED THAN EVER BEFORE!
Winners also will appear in the pages of *Hemmings Motor News* and *Hemmings Classic Car.*

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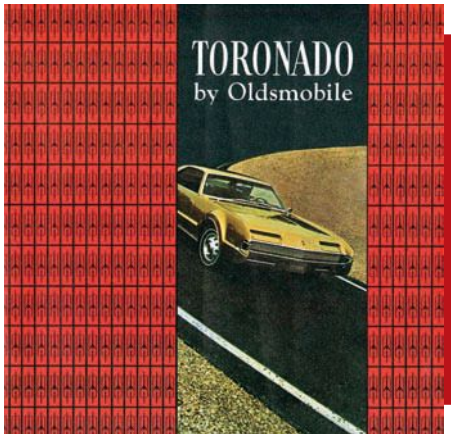
REARVIEW MIRROR 1966

BY TOM COMERRO

LINCOLN'S CONTINENTAL has grown another four inches and features more headroom, shoulder room and trunk space. The high-performance 462-cu.in. V-8 and all-new transmission provide a smooth operation and flow of power. Also new this year is the hardtop coupe, which is distinctive in style while maintaining the superior engineering and comfort of a Continental.



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A Changing Time

THE REMINISCING STORIES THAT I USUALLY READ ARE written by men who actually lived during the era when cars were different and had style, when you could work on them yourself and have pride in the fix you made. But I'm 17 years old and own a 1972 AMC Javelin. It's a straight-up SST Javelin with a 304-cu.in. V-8, two-barrel carb and a three-speed Torque-Flite automatic transmission. The car isn't a Mustang or some Mopar, like most hotheaded 16-year-olds want, but, as I later found out, this Javelin was special in its own way.

My father and I first went to see it in the summer of 2012. It was located up in Pennsylvania's coal country and had recently come out of storage after 25 years of being in a guy's basement. It wasn't in the best of shape, even though it only had 51,000 miles on the odometer. The body had rust in the "mother hips" that the second-generation Javelins are known for. Because it had been sitting too long without care, the carburetor was frozen; it just dumped gas into the engine and made it rev fast. The seats needed to be reupholstered, as well, and forget driving in the winter—the heater didn't work. But as my dad has said, it's not every day that you see a Javelin; just try going out and finding a $4,000 dollar car that's 40 years old, driveable and from the East Coast. Case in point: This car needed a lot of work.

I was perfectly willing to do the work, but saying that is easier than actually doing it. All I really wanted to do was drive it, but I had work to do to get there. We started with a new carb and worked our way out from there, but as we later realized, the rarity of the parts was something else. This came as a real shock. I knew it was an orphan car, but thought the parts would be out there somewhere, and that somewhere would be either Ohio or Arizona. Thankfully, my dad, an engineer, found interesting ways of fixing things.

Heat was a must, but the heater control valve was broken, and the heater core was shot, so we ended up buying a standard heater control valve and rigging it in there in this weird contorted fashion. So now, when I come out of school and it's a hot afternoon, I have to pop open the hood and turn the heat off because the control doesn't work from the interior. Everyone who walks by gives me a lot of funny looks and laughs, but no matter what, I love that car.

We got the engine to run pretty well using an old-fashioned computer gauge from my dad's days of working on his 1951 Ford to check dwell and to make other important measurements that need to be adjusted every now and then. Before we started using this tool, the engine would run okay, but its habit of stalling in intersections was pretty frightful, especially when the people who drive all these new cars have no idea what's going on and think that mine will somehow start moving as they keep coming towards me. It's a miracle that I didn't get hit in the first four months of owning the Javelin.

By now, I am truly attached to the car. Forget the Mustangs and the Camaros. I have something nobody else has, at least nobody where I live. For some odd reason, people often ask if it's a Camaro. Even if you know nothing about cars, but can read, it clearly says "Javelin" right on the side. That's just like when kids pull up in their Hondas at school (cutting a hole in your muffler and putting on an exhaust tip as big as a sewage pipe does not make you cool, by the way) and ask me if I have a turbo because they see a "boost meter" on the column. Yet again, if a person can read, it says "Tachometer" right on it.

So, now that I own this Javelin, I have wised up and appreciate what it's like to truly own something and work on it and value it with my life. More and more, I find the kids at school think that they're doing serious work on their cars, when, in the end, all they've done is something like tint their windows. When I tell them how much work I put into my car, they don't appreciate the reason for it.

As I look around, I see how much things have changed. For one, working on something and feeling a sense of accomplishment have gone out the window. Be it working outdoors, on your car, or even on homework, it seems not to matter to young people anymore. More important, many kids today don't care about maintaining their possessions, and they value very little. This is why I no longer let anyone ride in my Javelin; too many have mistreated it.

To all the car guys out there: I thank you for passing on your knowledge and for preserving a pastime that is slowly disappearing. But, take heart; I'm living evidence that some 17-year-olds still value the old ways.

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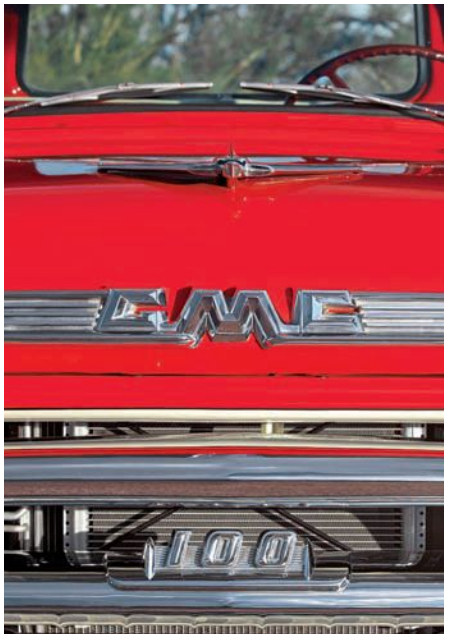
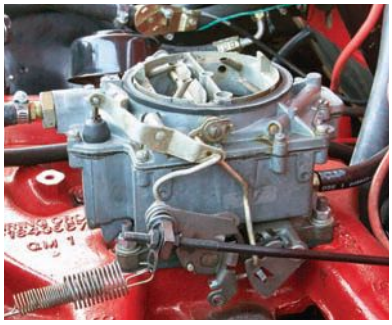


BY MIKE McNESSOR • PHOTOGRAPHY BY JEFF KOCH

At some point in the last 20 years, four-wheel-drive became common on new light trucks while manual gearboxes and dash-mounted ashtrays became a rarity. But in the days following World War II, General Motors did not offer a factory-built four-wheel-drive pickup truck, so a small vendor called NAPCO, or Northwestern Auto Parts Company of Minneapolis, Minnesota, stepped up to meet the demand.

Armed with NAPCO's ingenious Powr-Pak 4x4 conversion kit, a mechanic could transform a two-wheel-drive GM truck into a four-wheel-drive in just a few hours, with no welding and minimal cutting needed. The front drive axle in the package was fitted with tubes modified for constant velocity joints, thus allowing the wheels to steer, and the transfer case was a divorced unit, driven via a shaft off the transmission, so it could be mounted without altering or adapting to the stock powertrain.

NAPCO conversions date at least as far back as the 1947-'55 (first series) GM light trucks. However, prior to 1955, only



Modern touches make this 1959 GMC with factory NAPCO 4x4 more reliable and user friendly. Its 336-cu.in. V-8 is outfitted with an alternator and HEI ignition. Plus, the truck has A/C and power brakes, as well as carpeting and leather upholstery with cloth inserts.

one-ton and three-quarter-ton trucks could be converted, because half-ton trucks used a torque-tube style driveshaft that wasn't easily adapted to a transfer case. Once the torque tube was eliminated, in the second-series 1955 trucks, it became possible to use NAPCO conversion kits on half-tons.

The NAPCO conversions were originally performed by Chevrolet and GMC truck dealers or independent NAPCO installers. Starting in 1956, Powr Pak 4x4 was offered as a factory-installed option on GMCs, while Chevrolet began offering it from the factory in 1957. The two were identical systems, other than the availability of a V-8 and an automatic transmission on the GMC trucks. (The Chevrolet could only be ordered with the 235-cu.in. six-cylinder and a four-speed manual transmission.) This continued more or less unchanged until the introduction of the redesigned 1960 haulers, when GM installed its own four-wheel-drive system on light trucks.

Today, many older four-wheel-drive trucks and utilities are enjoying an uptick in popularity, perhaps as a side effect of the widespread demand for four-wheel-drive on everything from lawn mowers to the family station wagon.

This trend has not gone unnoticed by vintage-truck enthusiasts like Don Way, 61, an aerospace engineer from Scottsdale, Arizona, who enjoys restoring early four-wheel drives. When Don retires, he and friend Damon Bruns, a Phoenix firefighter and fellow NAPCO enthusiast, plan to put their knowledge and stockpile of spare parts to good use, restoring these high-riding trucks for other owners.

"I still work as an engineer full-time, and I do this on the side," Don said. "It's a growing fad. The trucks are very dynamic to look at, and the prices aren't prohibitive. You can get a nice-running truck for anywhere between $9,000-$15,000, and then parts are available almost everywhere."

This month's feature truck, a 1959 GMC, is Don's latest project, which began with a solid, original NAPCO 4x4 he found in Sheridan, Wyoming. The truck is unusual because it's a factory-assembled NAPCO GMC with a V-8, power steering and a high trim level including a fleetside bed and custom cab. Don bought it sight unseen with the intention of tearing it down and rebuilding it with a few subtly added creature comforts—air conditioning, power brakes, carpeting and upgraded interior surfaces—to make the old workhorse more driveable.

"I put it together with the intention of driving it," he said. "I don't build vehicles to sit and get trailered places."

First, the truck's cab, front end and bed were separated from the chassis, and everything was sent out for media blasting. The bare frame was then powder coated black, while all of the freshly blasted body panels, axles and running gear were prepped for repair, reconditioning and refinishing. "There were a couple of rust spots on the lower front fenders and cab corners, but those were about the only places there was rust on the truck," Don said. "The bed was rough, though—the stamped 'bullets' on both bedsides were caved in pretty badly. We started working on those and eventually got the dents out, so there was almost no filler used on the bed."

After the body panels were repaired and primed, the entire body was refinished in two-stage urethane—three coats of red and white base color, followed by four coats of clear. The lower portion of the firewall and the cab floor were treated to a layer of spray-on sound proofing to help dull some of the road noise.

Don rebuilt the truck's front and rear axles and painted them with single-stage semi-gloss black enamel, then hung them from new, stock-spec leaf springs. He also rebuilt the Spicer transfer case and SM420 Muncie four-speed transmission.

The GMC's original powerplant was a 336-cu.in. V-8 that was a cousin of the Pontiac 389. Don and longtime friend Neil Pothoff rebuilt the engine using parts from Egge Machine after having the block bored .030 over at a local machine shop. A few deviations from stock included the installation of a set of aftermarket rocker arms, an HEI distributor, an alternator and an aluminum radiator.

Inside, the bench seat was upholstered in cream-colored leather with velour inserts, and a headliner was added. Wall-to-wall carpet helps keep the noise down, and an Old Air Products air conditioning system helps keep the truck's cabin cool during Arizona's hottest weather. While the GMC retains its stock through-the-floor brake and clutch pedals, Don installed an aftermarket booster and dual master cylinder below the floor for safety's sake.

Currently, the high-riding 4x4 rolls on 7.50x16 nylon tires mounted on steel rims, lending it an authentic look, but Don says the truck has surprisingly good road manners, even with deep 3.90:1 gears. "It drives beautifully. I've been driving down the freeway doing 60-65 MPH and had a lot of throttle left," he said. "It doesn't dart. It doesn't move around. It's just as stable as can be."

In addition to a fleetside bed and deluxe cab, this GMC boasts factory power steering, making it a very well-optioned early 4x4.

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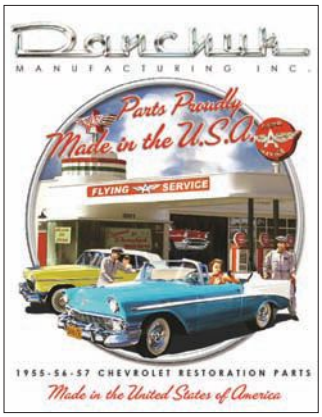

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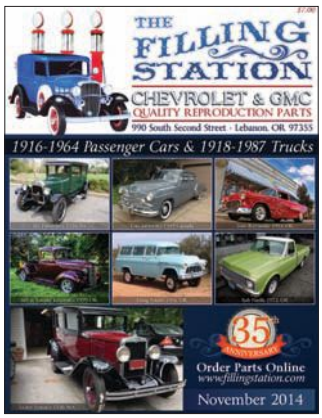

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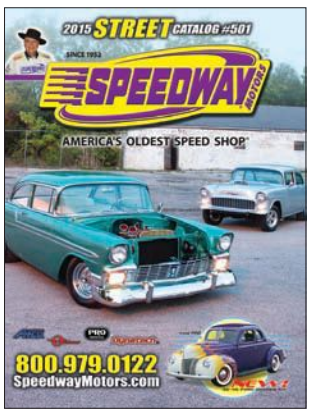

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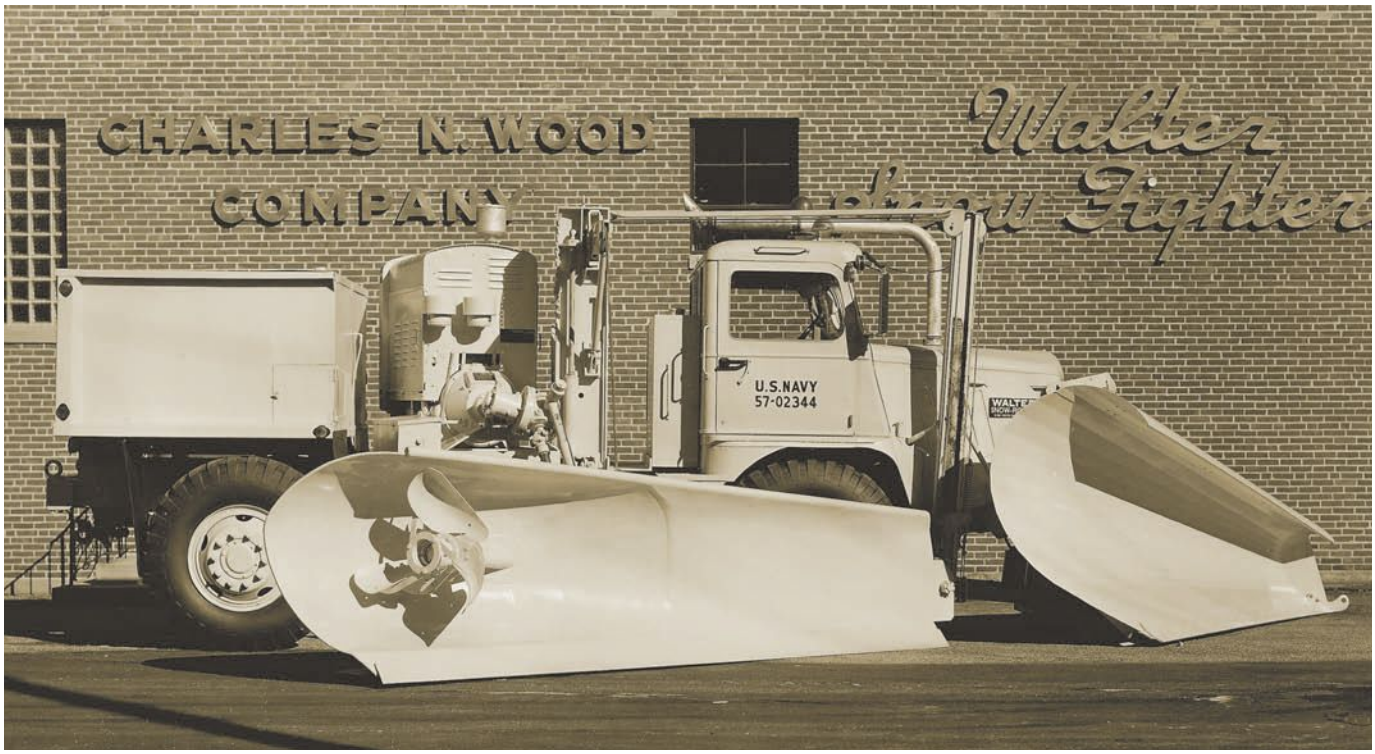

BY JIM DONNELLY • PHOTOGRAPHY FROM THE COLLECTION OF MARK SIMIELE

Go ahead. It's all right to admit it. You hate snow, especially if you live anywhere within hollering distance of New England or the Mid-Atlantic states. You're sick of it. You wish it would go away and never return.

You find yourself fantasizing about a permanent move to Florida or Arizona. And if you have to endure accumulating snow and drifting, the vehicle you see in the photo above is one of the world's most welcoming, comforting sights. Just don't get too close to the spreader.

So, let's celebrate the merciful onset of springtime by looking at one of the greatest names ever when it comes to clearing huge amounts of snow from the highways. The name is Walter, a fallen flag among truck nameplates, but one that still commands boundless respect in the decades since it left the marketplace. And we bet that few people remember how the manufacturer started out building exceptional luxury automobiles in New Jersey, an endeavor that indirectly evolved into one of America's most storied specialized cars.

In 1883, a Swiss émigré named William Walter arrived in New York City and began producing equipment used to make chocolates, very appropriately. Just before the turn of the century, Walter imported a three-wheeled, Swiss-made voiturette that is believed to have been the first car ever driven on Staten Island. It wasn't particularly pleasing to drive, so Walter decided to build his own, the Waltmobile, a two-cylinder buggy that quickly gave way to bigger, much more costly Walter cars that sold well despite their $5,000 price tag. Walter acquired a brewery in Trenton, New Jersey, and continued manufacturing cars there until 1909, when he built his first truck. The car factory was briefly in disuse until new operators took it over and began assembling the storied Mercer Raceabout under its roof.

From the 1920s onward, Walter trucks were famed for their quality, power and ability to traverse the very worst in weather and road conditions. William Walter believed his trucks ought to have four wheels, considering additional axles a superfluous complication. Instead, he took Walter firmly into the world of four-wheel drive when such a concept was genuinely novel. His Four Point Positive Drive design made use of three locking Walter differentials, with the center unit handling automatic torque proportion-

ing. The system prevented any wheel from turning faster than any other wheel, regardless of traction conditions, which led directly to reduced driveline wear. To steer, early applications of constant-velocity joints were employed.

Walter trucks were all but unstoppable, which is why governmental authorities absolutely loved these unique rigs. Many, but not all, used Waukesha gasoline engines for power; diesels became popular after World War II. The smaller photo shows a fleet of Walter heavy wreckers and dump trucks delivered after the war to the Triborough Bridge Authority in New York City, which was a major Walter customer for decades. But let's look at the bigger image for some inspiration. The rig is one of a pair of Walter Model AHUL Snow Fighters that were delivered to the U.S. Navy in 1954 through the Charles Wood Company, a major Walter distributor for New England. The truck has a front offset V plow, but it's the rest of the rig that's so interesting. Behind the cab is an auxiliary power unit. A series of shafts led from the power unit to the wing plow that runs down the side of the truck. Look inside that plow. There's a little propeller in there called a Roto Wing that Walter first popularized. The wing plow blade would shove snow into the Roto Wing, which blasted it out to the side under power, while the ballast box behind the power unit kept the truck churning ahead. It was just the ticket for clearing huge drifts off a runway along Cape Cod, to name one locale.

Its assembly operations long since moved from New York City to the Albany, New York, area, Walter declared bankruptcy in the early 1980s. Its assets are now owned by Kovatch Mobile Equipment of Nesquehoning, Pennsylvania, itself a respected manufacturer of specialty trucks, particularly fire apparatus.

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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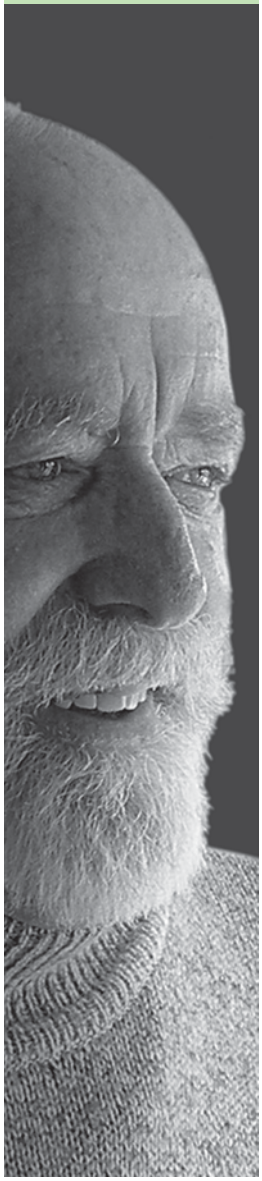

jimrichardson

Women On Wheels

My father once said, after noting my performance on a report card from high school, "All you care about is cars and girls." He was right. What else was there? Algebra? Hygiene? In fact, women and cars are still a big part of my life, though I narrowed myself down to one girl a long time ago. But there are still many classic cars I want to own.

Women and cars go together in my mind. Some of you out there would say women don't care about cars, but you are hanging around with the wrong women. In my adolescence, I dated a girl who was stunning, sweet-natured and smart. Problem is, I would come over to pick her up for a date and she wouldn't be ready, so I would go out to the garage and talk to her father while he was tuning up his sprint car for Saturday night.

He talked a lot, and as a result, she and I would end up late for the movies. After a few such events, she broke up with me. And then I met a girl named Candy who was anything but sweet. She had one of the fastest Chevys in town. We went to motorcycle races on Friday night, sprint car races on Saturday and the drags on Sunday. It was great until she left me for a psychopath with an Indian motorcycle.

Most men admit that they don't understand women, and yet car companies run by guys have over the years attempted to design cars intended for them. The results have been mixed. Let me cite the example of the 1955 Dodge La Femme.

It became obvious to postwar dealers that women were a big factor in the selection of family cars, so Chrysler decided to take it one step further with a Dodge Royal Lancer designed specially for women. They called it La Femme. It was painted Pepto-Bismol pink and gray, and had a special interior that consisted of tapestry with little pink rosebuds on a silver-gray field along with pale pink vinyl trim. The car also came with a matching purse, lipstick case and comb, cigarette lighter and change purse all in faux tortoise shell or pink calfskin, with ersatz gold accents. These accouterments were stowed in a special compartment in the seat back. The car also had gold "La Femme" badges on its fenders in place of the chrome Royal Lancer logos.

It flopped, and was dropped after 1956. Why? I surmise that the designers were trying to appeal to their concepts of women without any real understanding of their intended market. It was sort of like asking Hulk Hogan to design ball gowns.

Early electric cars were a big success with the fair sex, but they weren't necessarily designed for women at first. But many women bought them, so the companies tailored their cars to suit. Well-off ladies preferred Detroit Electric cars, and the company's advertising was designed to reach them. One ad stated: "For the bride to be, or the bride of many Junes ago, a Detroit Electric."

Famous ladies who owned Detroit Electrics included Mamie Eisenhower and Clara Ford. In fact, Clara drove Detroit Electrics from 1908 on after Henry bought her a Model C coupe. Also, the wives of the owners of many other automobile companies, including Stutz, Packard, Dodge, Studebaker and Cadillac drove Detroit Electrics.

Another notable success for cars marketed to women was the Jordan Playboy. Ned Jordan, an advertising genius, decided to form his own car company in 1915. He surmised that a quality car that had style would appeal to women, and he was right. Jordans came in rich, exciting color schemes, were low and rakish for the time, and had beautifully trimmed and appointed interiors.

Jordans were marketed much like cars are today, as items that reflected who you were, and what you wanted to project about yourself. Many ads featured illustrations of young women driving Jordans in stylish romantic surroundings. Perhaps the best-known ad is titled "Somewhere West of Laramie," showing a cowboy on a galloping horse next to a young, beautiful woman in a Jordan Playboy roadster at speed.

The ad portrayed women as independent, adventurous and stylish. Ned Jordan built quite an automotive empire, but his fondness for ladies other than his wife, and his drinking habits, helped bring the company down by 1931 as the Depression reached its depths. Too bad, because the Jordan was a great car with a big Continental straight-eight, hydraulic brakes and real style.

Obviously, most women don't care about cars, nor do most guys. But car buff women know what they want, and buy accordingly. So, if the men who run the car companies want women to buy their cars, perhaps they should get car women involved in the design of them. And if the women they ask don't want to be involved, it's because they are asking the wrong women. Do you agree? Let me know. jameshr106@aol.com

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