


**BIG UTES!** G-WAGEN AND LINCOLN NAVIGATOR

# CAR **AND** DRIVER

MAR/2018

INTELLIGENCE. INDEPENDENCE. IRREVERENCE.

## Can the new 400-hp **Audi TT RS** hold off the **Porsche Cayman S?**

A photograph of two sports cars on a road. In the foreground, a red Audi TT RS is shown from a front-quarter view, moving towards the right. In the background, a blue Porsche Cayman S is also moving towards the right, slightly behind and to the left of the Audi. The background is a blurred road and sky, suggesting motion.

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*photography by James Lipman*

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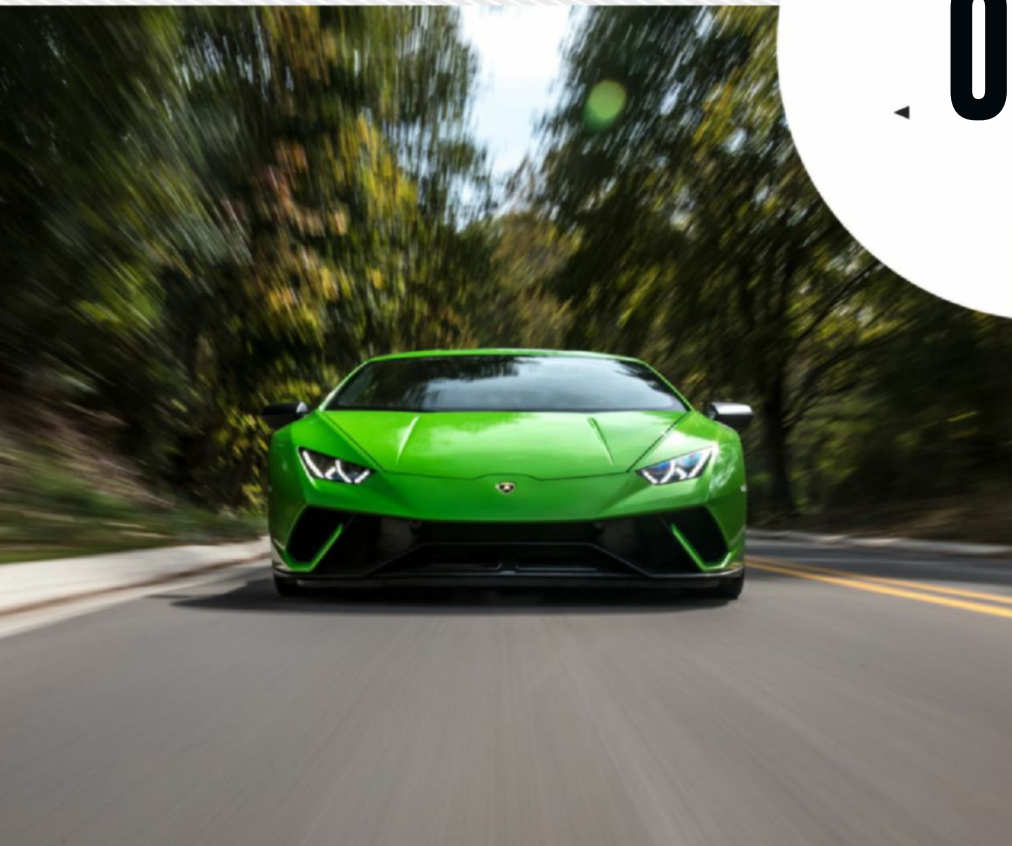
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[CARandDRIVER.com/2018CruzeDiesel](http://CARandDRIVER.com/2018CruzeDiesel)

#### 2019 CHEVROLET CORVETTE ZR1

We take a ride in the ultimate front-engined Corvette.

[CARandDRIVER.com/2019CorvetteZR1Ride](http://CARandDRIVER.com/2019CorvetteZR1Ride)

#### FERRARI GTC4LUSSO

Ferrari face with a Volvo booty.

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# Backfires:

The joyful noise of the commentariat, rebutted sporadically by Ed.



## HEADS OR TAILS

Why on earth did you choose the butt end of the ZR1 for the December 2017 [subscriber] cover? It's like teasing an interview with a supermodel, then filming the back of her head.

—Phillip Fosnot  
Chandler, AZ

**Nice pseudonym, Toback—Ed.**

## TEXTBOOK

Reading the *Encyclopedia Vehicula* [December 2017] under “Zimmer.” I noticed that two of the three *C/D* covers pictured had people on them. I guess, back in the day, attractive people were put on the cover to distract everyone from the unappealing cars. You must have stopped that policy because there should

have been a crowd of fashion models around the green Honda Civic Si on the August 2017 cover.

—John  
Poughkeepsie, NY

The December 2017 issue was the first *C/D* in a long time that I couldn't finish in one sitting. After wiping and flushing, I continued to enjoy it for several more hours—which is more than I can say for the burrito that started the whole sequence.

—Greg Koster  
Eastchester, NY

Wanted to let you know that I've always loved cars, and car-related magazines, too. Your latest issue was awesome! Loved the definitions. “American Dream” grabbed me the

moment I opened my copy and I couldn't put the issue down until I'd read every word! I have a short attention span and don't usually do that.

—Beverly Wittler  
McDonough, GA

The *C/D* issue on the history of cars was a trip down memory

lane. It was great for those of us who saw the annual change of car models from the Big Three (GM, Ford, and Chrysler) in the 1950s, then the importation of foreign cars and the switch-over to front-wheel drive in the 1970s, and now the proliferation of SUVs everywhere. I

enjoyed the advancement of car tech and safety changes, too. I was caught by how South Korea makes billions on manufacturing cars while North Korea spends billions making missiles. Go figure!

—Dave Thomas  
Cincinnati, OH

**Thank you for the Single with cheese. Oh, and the Frosty—Ed.**

If I wanted to read a dictionary, I would read a dictionary.

—Rob Gardiner  
Madoc, ON

Kudos on your 750th issue. I have read all 750 of them and feel this is your best work to date. A great walk through auto history.

—Larry Warner  
Hodges, SC

What a great 750th issue with so much

packed into it. When Lexus introduced its LS400 [“Luxury, Japanese-Style”], I was driving a Mercedes. The dealer was doing you a favor by selling you a Benz. The loaner was usually an older diesel that barely moved from zero to 60 in two minutes. I was sold on the Lexus after the reception and a test drive in the car. My wife was not and did not want to give up her Benz. So I discreetly drove the Benz to the Lexus dealer and received a great trade-in and surprised my wife. After a day driving the Lexus, she was sold. The new car was much more pleasant to drive, and Lexus offered so many perks for their initial customers, including extravagant dinners at the dealership with great



champagne, tickets to Broadway shows, a visit to the Forbes estate with a great lunch, and so much more. I have always owned one or two Lexus cars thanks to that initial visit.

—Marvin Frank  
Longboat Key, FL

Been a subscriber since the '60s. Your 750th issue was the best I've read. Great job. But how do you not mention my 1971 Vega, Chevy's self-destructing multi-million seller? All the Pinto did was explode, not implode ["Memo"].

—Alan Berman  
Marietta, GA

I'm a longtime subscriber to *Car and Driver* and have not been happy about various things with the magazine, some recent, some for a while. First off, I have to say that the December issue was a major disappointment. What the hell is this mess? Part dictionary, part reminiscing about the good (and bad) old days, and part current events. How about a few more road tests? Maybe include another comparo?

At the risk of sounding like Clara Peller (probably three-quarters of the staff doesn't know who that was), "Where's the beef?"

—Thom Tabor  
Surry, ME

**A more pressing question is, why do Frostys give me cramps?—Ed.**

Your 750th issue was a fun walk down memory lane and a blast to read. Just to be picky, your statement that "In 1978, Volkswagen became the first foreign auto manufacturer to build cars within our borders" is off by 57 years ["Marysville, Ohio"]. In 1921, Rolls-Royce produced a Ghost in its Springfield, Massachusetts, factory. It made nearly 3000 cars there between 1921 and 1931, when the Depression put an end to the project. In this time when the truth is becoming rare and purported lies are "fake news," I think it is important to keep alive the policy of Joe Friday: "Just the facts, ma'am."

—Jay Paul Myers  
Tampa, FL

**In 1921, they called it spurious news—Ed.**

**"BUT HOW DO YOU NOT MENTION MY 1971 VEGA, CHEVY'S SELF-DESTRUCTING MULTIMILLION SELLER? ALL THE PINTO DID WAS EXPLODE, NOT IMplode."**

## Editor's Letter:

I first encountered the Audi TT in 1999 on a long drive from New York to Florida, and the timing couldn't have been better. I was midway through a Walter Gropius phase, affecting bow ties, black suit coats, and an air of somber idiocy, so the Bauhaus coupe was well suited to my pretentiousness.

On that drive, I fell in love with the thing, but only on an intellectual level. It was a gracefully transitioned version of that shocking concept car from 1995, losing none of its aesthetic rigor in its journey to the street. Designer Freeman Thomas envisioned the TT as a neo-bathtub Porsche, but he and fellow designers Peter Schreyer, Romulus Rost, Hartmut Warkuss, and Martin Smith created something artier than even that, a collection of radii and circles that somehow coalesced into a fully resolved, indivisible design. Even the TT badge on the first cars looked like the symbol for pi.

Alas, it drove sort of—how do I put this?—fine. It performed admirably for the era, but its driving character did not achieve the wholeness of its styling. Never intended to be a telemark like the Porsche Boxster, it was still a bit underwhelming in the skis department. Its Golf-based, transverse-engine architecture always poked out its head at inopportune moments, such as when—through no fault of my own deft Walter Röhr-like maneuvers—its front bumper nearly became intimate with a hickory tree on Georgia's Suches Loop.

But Audi never gave up on its little *Apfelkuchen*. TT performance models have evolved through three generations to inch ever closer to mini-supercar status—not only a platform for new technologies, but also a power-packed two-door with serious aspirations. In its second generation, it was a structural aluminum early adopter and offered magnetorheological dampers. The third gen was the first recipient of Audi's Virtual Cockpit, which nixes the pop-up screen and centralizes the car's readouts in front of the driver. The 400-hp TT RS on this month's cover should be understood as an R8 in miniature. Not mid-engined, of course, but nevertheless an extreme performance machine with astonishing power from its lovably oddball inline-five. How will it fare, finally, against a true, schussing mountain carver such as the Cayman? See Jared Gall's story on page 034 to chart its progress against our perennial 10Best winner.



—Eddie Alterman







The 750th issue of *Car and Driver* is worthy of hardcover publishing. It is your most enjoyable, informative, and best-written issue ever. A hardcover version would be the most read coffee-table automotive book available! Just do it and they will buy.

—Raymond Failor  
Wadsworth, OH

I'll keep it simple. As a 50-plus-year reader of *C/D*, I have to tell you how much I enjoyed the December issue. Read it from front to back right out of the mailbox. Haven't done that in a long time. Great job!

—Bruce Reiss  
Tampa, FL

I have to sincerely congratulate you on your 750th issue, which I recently received with great anticipation. Having been a car enthusiast for over 50 years, I can honestly say that it is one of the best car-mag issues that I have read. The dictionary format and relevant articles on a myriad of automotive topics were terrific. Coincidentally, I just returned from SEMA where the Kia Stinger was featured at the

afterparty; I love Corvettes and Mustangs; own a GTI and a Lexus LS400; and have overhauled my son's VW buses, all of which were integral parts of this 750th.

—Earle Kollmar  
Victoria, BC

Your *Encyclopedia Vehicula* was a complete waste of time and paper. The intended audience is a mystery; certainly not anyone who gives a flying shit about cars and is over 20 years of age. I'm considerably older than that and felt insulted by most of the content. Was this some sort of cost-saving measure? If the January issue is as worthless, I won't be renewing my subscription.

—Laurence Scott  
Santa Paula, CA

The December 2017 issue: simply brilliant.

—Ron Post  
Frederick, MD

**Tell Scott that—Ed.**

You folks really outdid yourselves with this best-ever issue. Great articles and information that kept me entertained for a week of reading. Thanks and wow!

—Dan Foster  
Castle Rock, CO

Zowie. Best single issue of any car magazine in history. That includes the seminal preface by Mr. Alterman [“American Dream”]. In this day and age, for you to have the resources, desire, and wherewithal to do this in a magazine is remarkable.

—Eric von der Lieth  
Santa Monica, CA

I've been reading your magazine for as long as I can remember. I was attracted by the December 1970 cover, which said: “Mothers hide your daughters! Marcos has arrived.” Not to mention the picture of the young lady posing next to the Marcos. Your December 2017 issue prompted this first-ever-for-me letter to you. This issue was all at once entertaining, informative, and hilarious. I read and enjoyed every single word, cover to cover.

—Bruce Gelert  
Ponte Vedra Beach, FL

Enjoyed the 750th issue. Horsepower got an honorable mention, but torque must be miffed after hoping for some clarity.

P.S. I appreciate that you don't

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tell readers of Backfires where address codes NL and BC are, whereas Alex Trebek seems compelled to tell us that Canadian provinces are in Canada.

—Michael Hewes  
Chelsea, QC

**We don't see any reason to rub it in—Ed.**

As a preface, I've been a subscriber since the David E. Davis Jr. days and yours is my favorite of many car and motorcycle magazines. The 750th issue was remarkably innovative, informative, and creative. It's like the new bible of car info for enthusiasts. Great use of graphs and graphics (without overuse), amazing writing from a wide panel of authors, lots of trips down memory lane, and tidbits of new information (like with "Keys"). The Detroit roller-coaster image was stunning, and thanks for finally giving Ralph Nader some respect. I can't imagine the effort it took to prepare this issue; it must have been enormous. You all deserve to take a breather and just fill the next issue with Backfires and any leftover graphs that you didn't get to publish in the 750th.

—Lance MacNevin  
Ashburn, VA

### YOU UGLY

A wonderfully apt piece on the Pontiac Aztek by Daniel Pund ["Aztek," December 2017]. "It was and shall remain an irredeemable shit heap" hit home for me.

When I first saw the Aztek at an auto show, my comment was, "I didn't know shit could be piled that high and that it came in that color."

—Robert Gabrick  
Somerset, WI

The story on the Aztek was right on the money. Please run a picture of the Aztek beside a picture of the BMW 5-series Gran Turismo. Everyone was thinking it; I was the only one who had the courage to say it.

—Darrin Zankl  
Tampa, FL

**Actually, Zankl, it's widely acknowledged that the Aztek started what's now known as the trapezoid segment—Ed.**

Your assessment of the Pontiac Aztek is so wrong. Have you ever sat in an Aztek? Have you evaluated the cargo space in the Aztek? I noticed that you included Bob Lutz's scathing opinion of the car, but you left out what the Aztek was like on the inside. Pontiac designed a very good interior, with a dash that was both useful and unique, while offering a lot of space for cargo and passengers. Lutz said—and he's right—that cars are like girls. A girl could be smart and have an incredible personality, but if she isn't attractive, a lot of boys will ignore her. It's the same with the Aztek. It was a great CUV, but a salesman can't make people sit in the car if it isn't attractive.

You complain about the Aztek

being built on the GM minivan platform: That was actually a good thing. I could get two adults and our son, then needing a car seat, to fit in the back seat, and no one felt cramped.

What we loved about the Aztek was the two-piece hatch. If it was raining, snowing, or cold and windy, I could unload groceries with the garage door closed. And the lower part of the hatch had two seat cutouts for sitting, plus two cupholders. My wife and I used to sit on it while our son rode his tricycle in our driveway. As he got older, we sat on the tailgate while he practiced his soccer dribbling. Nowadays, if we want to watch some activity in the front yard, we have to get out lawn chairs.

I will grant you that the Aztek was ugly. I will also grant you that GM should have put the 3.8-liter V-6 engine under the hood. On the other hand, having a car that is rare was cool. Friends of ours always knew it was my wife when they saw a red Aztek driving around. No one ever recognized me in my green Oldsmobile because there were so many of them.

Once, while landing at Chicago's O'Hare International Airport, we could see the Aztek in the economy parking lot. It's pretty cool to be able to see your car from a McDonnell Douglas MD-80.

In looking at Google Maps a few

years ago, I said to my wife that she must have been at her parents' condominium when the satellite was over our town. When she asked how I knew that, I said that the Aztek was in the parking lot. Come on, seeing an Aztek from space is pretty cool.

—Kent Frederick  
Downers Grove, IL

**Did any of you make it past the part about the cutouts in the tailgate?—Ed.**

I read with interest your review of the Aztek. I was a salesman for the Pontiac dealer in Griffin, Georgia, when that automobile/SUV was released, and we received three in our inventory. Despite placement at the front of the dealership, they sat there like rejected, ugly dolls at a Barbie convention. Things got so desperate that the dealership offered a new gas grill to the first salesperson to sell one. After I spent hours with a couple highlighting every positive attribute imaginable, including several I made up, they finally purchased a yellow Aztek and I got the grill. Sigh. If I could go back in time, I'd likely have given them the grill *not* to buy the Aztek!

—Stephen Watson  
Jesup, GA

### RUB OUT

Broke out in a big smile when I got to the M section of the December 2017 issue and saw "Miss Cancellation." I was a subscriber when the original photo-

graph ran. My only complaint is that you didn't rearrange this page to provide a larger picture of her.

—Patrick Dee  
Albuquerque, NM

I have fond memories of reading my father's copy of *Car and Driver* throughout my teens, so I was delighted to page through the 750th issue in my chiropractor's office recently. But I was greatly disappointed to see the photo of Miss Cancellation captioned, "Why do we keep running this photo every chance we get?" I thought you had more class than to print photos of braless women that further the degrading view that they are objects to be ogled. Please banish all objectification of women from future issues. Harvey Weinstein no longer has money to renew his subscription anyway.

—Mary McCluskey  
Alexandria, VA

Why do you keep running this photo? The same reason I stare and smile each time it's published!

—Scott Collins  
St. Petersburg, FL

### CANOE TRIP

What, pray tell, is a "douche canoe" ["Dating," December 2017]? Thank you for enlightening your reading public.

—Kris Ferguson  
Fredericksburg, VA

"Douche canoe." I like it.

—Bill Meckley  
Scotia, NY

**Great, but do you know what it is?—Ed.**

## Letter of the Month:

—  
On page 052 of the December 2017 issue, you stated the purpose of the Jersey barrier. I thought they were developed to keep the New Jersey people in.

—Rick Matzko  
Punta Gorda, FL

## FIFTH DOOR

I was outraged when I read that the Honda Civic Type R beat the Ford Focus RS in a comparison test ["Hatches, Hot," December 2017]. The RS is a beast. It looks like one, performs like one, and satisfies in every aspect—and that's coming from a Chevy guy. The Civic Type R, on the other hand, looks like a botched creation on the wrong side of the tuner world. Maybe you should rethink your verdict and who you assign to comparisons.

—John Grant Campbell  
Chatsworth, GA

Let me get this straight: The drift-happy, much-quicker, and better-shifting, -sounding, and -looking Ford Focus RS lost out to the Honda Aztek—I mean Civic Type R—because the Honda rode more smoothly over expansion joints on a highway drive? WTH?! Why didn't you include a Toyota Prius in this test? The way you rate cars, it'd win every time. Slower, quieter, and, wow, it glides over bumps!

—Will Spencer  
Tabernacle, NJ

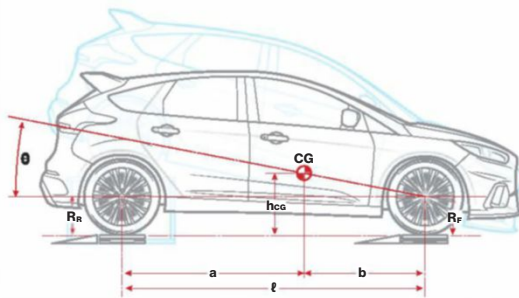
## Explained: Measuring Center-of-Gravity Height

In your comparison test of the Ford Focus RS and Honda Civic Type R ["Hatches, Hot," December 2017], the results include the heights of the cars' centers of gravity. Could you explain how center-of-gravity height is determined in your testing?

—Larry Kenworthy, Gaithersburg, MD

We start by measuring the hub heights ( $R_F$  and  $R_R$  in the formula below) and weighing the car on level ground ( $W$ ). Knowing the wheelbase ( $\ell$ ) and weight distribution, we can calculate the longitudinal location ( $a$  and  $b$ ) of the center of gravity ( $CG$ ). Then we blatantly ignore every safety warning on our lift to set the rear wheels onto homemade platforms and weigh the front axle ( $W_F$ ) in this tilted position. The following formula spits out  $CG$  height:

$$h_{CG} = R_F \left( \frac{a}{\ell} \right) + R_R \left( \frac{b}{\ell} \right) + \left( \frac{W_F \ell - Wb}{W \tan \theta} \right)$$



## HATERADE

No need for the reminder to "try not to hate Ralph Nader too much" ["Nader, Ralph," December 2017]. I'll always appreciate his ethics, courage, and hard work taking on the

irresponsible and profit-hungry corporate powers that be at risk to his health and personal safety. Thank you, Ralph.

—Bob Gotch  
Carmel-by-the-Sea, CA  
**You probably voted for him, too—Ed.**

## INFO WARS

The "Infotainment" piece with suggestions for vehicle manufacturers was one of the most brilliant pieces of journalism I've ever read in your magazine [December 2017]. It's exactly how I and, I'm sure, millions of other people feel, and the illustrations were great. It was like a Dr. Seuss book for automotive engineers and designers.

—Bob Haibeck  
Elmhurst, IL

## 20 QUESTIONS

Thanks for the short "Piëch, Ferdinand" interview [December 2017]. Great for us

folks with short attention spans. I have so many questions, even from such a short interview. Does "so we had to get creative" mean that this was not an actual interview with Piëch? If it was a real interview, was it actually so short, or was a lot edited out? Can you advise if Ferdinand and interviewer Brett Berk are great friends, or do they hate each other's guts?

Total compliment: I did *not* see such an interview coming!

—Michael S. Dersch  
Kinnelon, NJ

**Remember when Hustler interviewed the Reverend Jerry Falwell?—Ed.**

## FAST AS YOU

I found P.J. O'Rourke's "Speeding" entry more apt for *Parliament of Boors* than any encyclopedia [December 2017]. Speeding is less of an exercise in civil disobedience and more of an exercise in selfish endangerment of others, which, of course, the rest of us know. Someone ought to inform him that acceleration and not speed is the key to enjoyment, otherwise we'd be reading *Commercial Jet and Passenger*. I will admit that one might be able to make a case for "jerk," and not just as a name to call P.J.

—Chad Rose  
Houston, TX

## NUMB AND STINGING

Did anyone else compare the numbers on the new Kia Stinger GT ["Road Test: Kia

Stinger," December 2017] with the first-gen Dodge Viper's ["Viper RT/10, Dodge"]? It's amazing how things have progressed in 25 years.

—Jonathon Pfetscher  
Howard, OH

## SUGGESTION BOX

A is for Alfa Romeo and G is for Glaring Omission [December 2017].

—Steve Leyton  
San Diego, CA

Under the letter P, why didn't you include "Phillips, John" referring to himself 750 times?

—Tom Ferrara  
Pound Ridge, NY

*Car and Driver's* 750th: great story selection and brilliant layout. Best ever, certainly a keeper for me. I'd have squeezed in 200 words on Pikes Peak right after "Piëch, Ferdinand," but so what?

—Bud Wells  
Greeley, CO

## ALLIGATOR PEAR

The only thing dumber than a cover photo of an ugly fruit driving a nice convertible [February 1989] is interviewing that ridiculous fruit almost 30 years later ["What I'd Do Differently: Otis the Avocado," December 2017].

—Todd Gemelli  
Hancock, MI

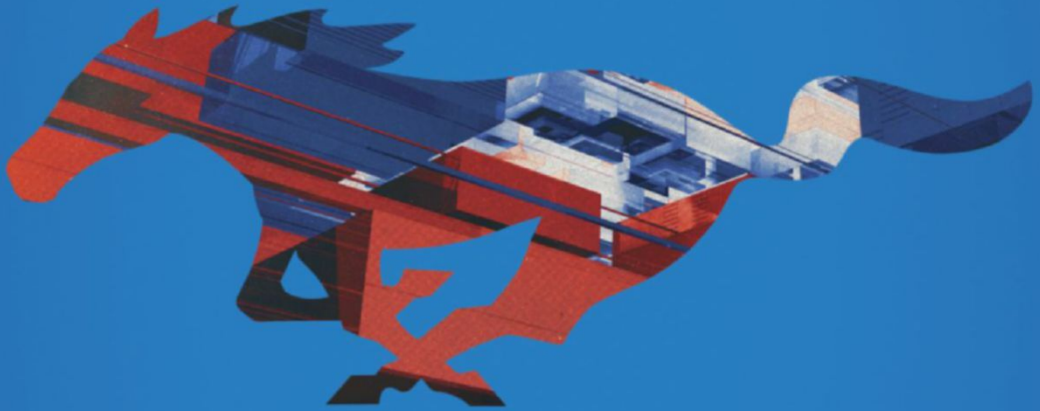
Please tell me your secret for keeping avocados around for more than 28 years. Mine always spoil after two days.

—Todd Busa  
Meriden, CT

**Otis is pretty rotten—Ed. ▀**







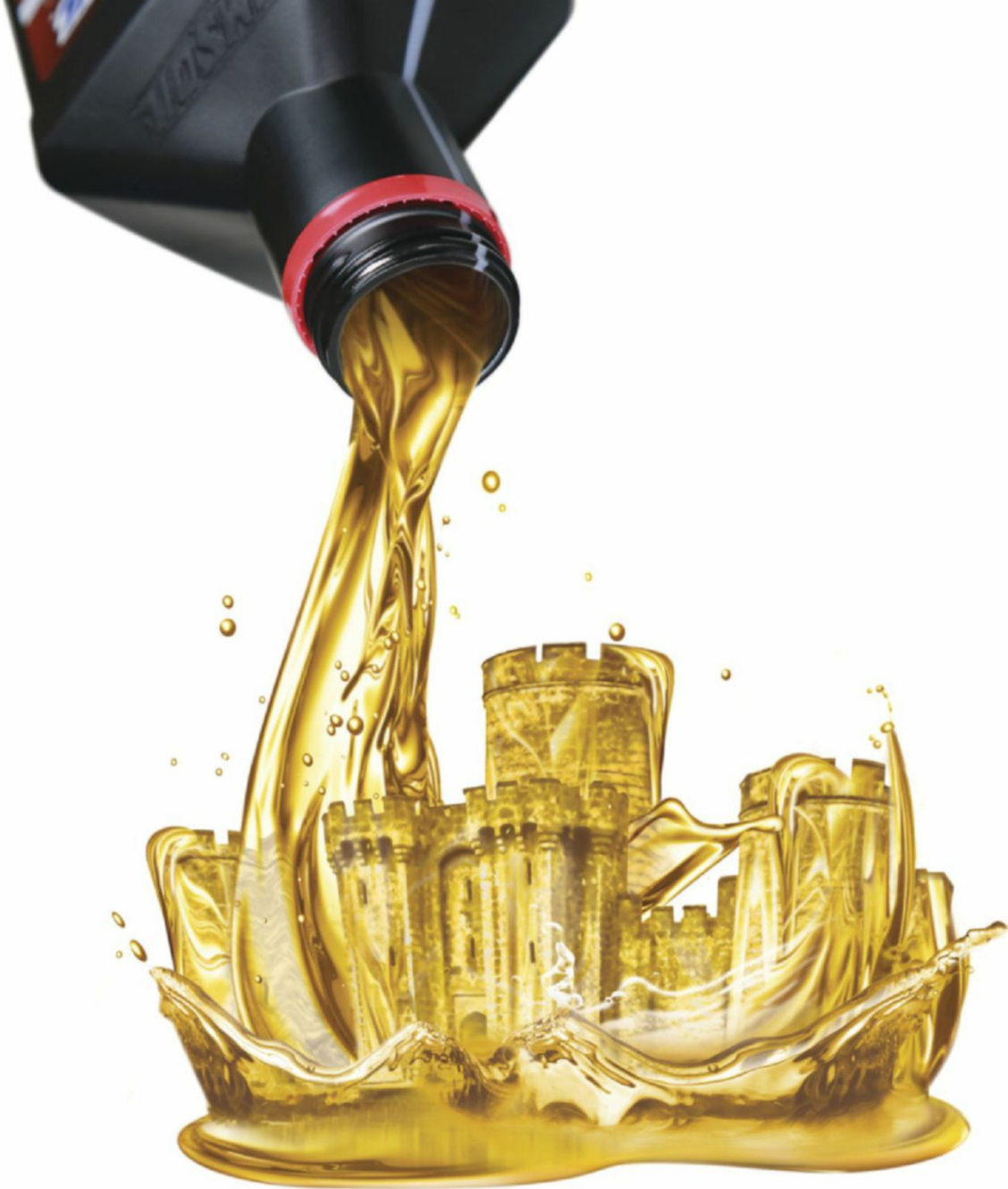
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# Upfront

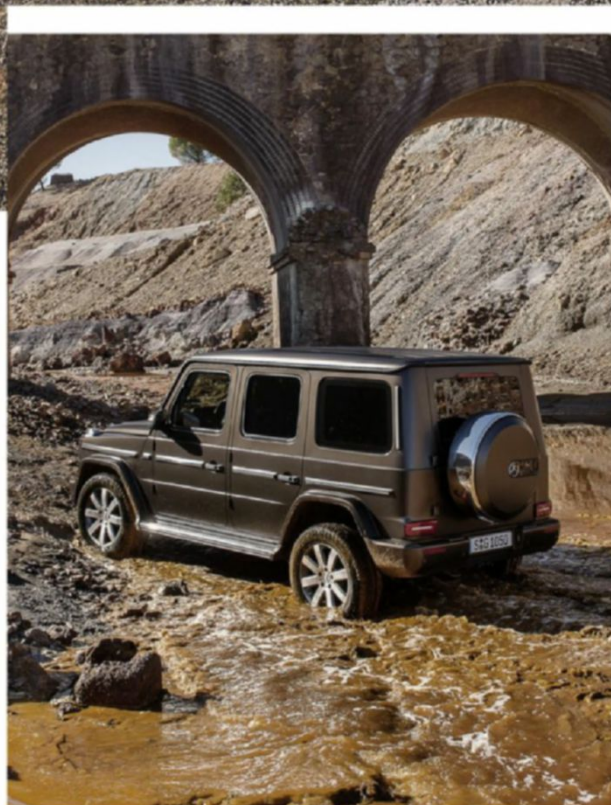


Reveal of the Month

## G-WAGGIN'

THE DELICATE ART OF FIXING  
WHAT WASN'T BROKEN. *by James Tate*

■ **AUTOMOTIVE DESIGNERS** will tell you there's nothing harder than redesigning an icon. Which is why Mercedes left the Geländewagen largely untouched for almost 40 years. The outgoing G wasn't an icon because it was smartly packaged or drove well, though. Its on-road dynamics were decidedly Bronze Age. And while it may have been just the truck you needed if you were an overthrown dictator trying to get the hell out of one of the -stans during a military coup and you didn't exactly use the money to build roads, it was glorious overkill for the Realtor of the Year getting the heck on the darn I-5 during rush hour. The extent to which the former scenario lends adventurous atmospherics to the latter is the essence of the modern-day G, and it's what must be maintained. Based solely on looks, which is what primarily matters to most, we'd say Mercedes has done it. The 2019 Mercedes-Benz G-class will go on sale toward the end of 2018.





## ▼ STYLING

Its nose is a little more rounded than before and the 2.5-inch increase in overall width is noticeable, but the G-class's rugged character is retained—nay, heightened. The near-vertical wall of a windshield has miraculously stuck around, though it is now almost imperceptibly raked in the interest of fuel economy and reduced noise—contrasting with out-of-place aero mirrors. Even the big fender-mounted blinkers remain, as does the thick strip that flanks the whole truck. And yes, closing a door still sounds like the hatch dropping on a battle tank.

## ▼ INTERIOR

There's little doubt inside that the G is new. There are unexpected novelties such as real cupholders, but the redesign hardly stops there. Almost every dimension offers a little more wiggle room, and rear-seat legroom grows by a significant 5.9 inches, which means regular humans can actually fit back there. The stretched wheelbase also means those passengers no longer have to awkwardly navigate the rear wheel arch while getting in and out.

The G550 will have a 12.3-inch COMAND display as standard. A second screen that replaces the analog instrument panel with a digital representation is optional, and the resulting extra-wide digital dash looks more at home here than it does in the brand's swoopier models—boxy vehicle, boxy display. One feature you won't find in the S-class's version of this setup is the off-road screen showing altitude, compass heading, differential status, and pitch and roll angles. The G also gets touch-sensitive buttons on the steering wheel, multiple on-road drive modes, and a G-Mode that optimizes the SUV for off-road endeavors. The key difference being that, now, it should be more at home on road, too.



IT LOOKS SO SIMILAR TO ITS PREDECESSOR THAT MOST PEOPLE LIKELY WON'T KNOW THE DIFFERENCE, BUT ONLY THREE PARTS CARRY OVER FROM THE OLD G TO THE NEW: THE SPARE-TIRE COVER, HEAD-LIGHT WASHER NOZZLES, AND DOOR HANDLES. IT'S LONGER AND WIDER BUT, MERCEDES SAYS, OVER 350 POUNDS LIGHTER, TOO.



### 001

The materials and finishes inside are an upgrade, but the layout should be familiar to returning G-class buyers. The center stack even retains the trio of switches sandwiched between the central air vents to control the locking differentials.

### 002

The new G550 has better approach and breakover angles than the old one (31 and 26 degrees, respectively; improvements of one degree each), about a quarter-inch greater ground clearance, and almost four inches more fording ability. And it can cling to steeper side slopes.





002



▼ CHASSIS

Manufacturer Magna Steyr will still hand-build the G-class in Graz, Austria, on a ladder frame. The body shell is steel, but the hood and doors are now aluminum. Mercedes stretched the truck's wheelbase by 1.6 inches and its overall length by 2.1. To improve the vehicle's road manners, the company fitted the G-wagen with one of those newfangled independent front suspensions in place of the front solid axle. The live axle remains out back, but the addition of a Panhard rod should better control its movement. And instead of the old recirculating-ball steering—one of the last such systems on the market—Mercedes used a full-blown, electrically assisted, variable-ratio rack-and-pinion setup.

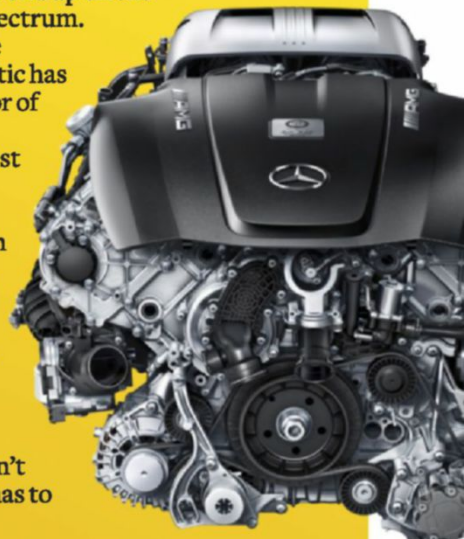


JEEP HAS ITS "TRAIL RATED" BADGE, AND NOW THE G-WAGEN IS "SCHÖCKL PROVED." SCHÖCKL IS A 4741-FOOT PEAK NEAR GRAZ WHERE MERCEDES PUTS TEST MULES THROUGH MORE THAN 1200 MILES OF ASCENTS AND DESCENTS.

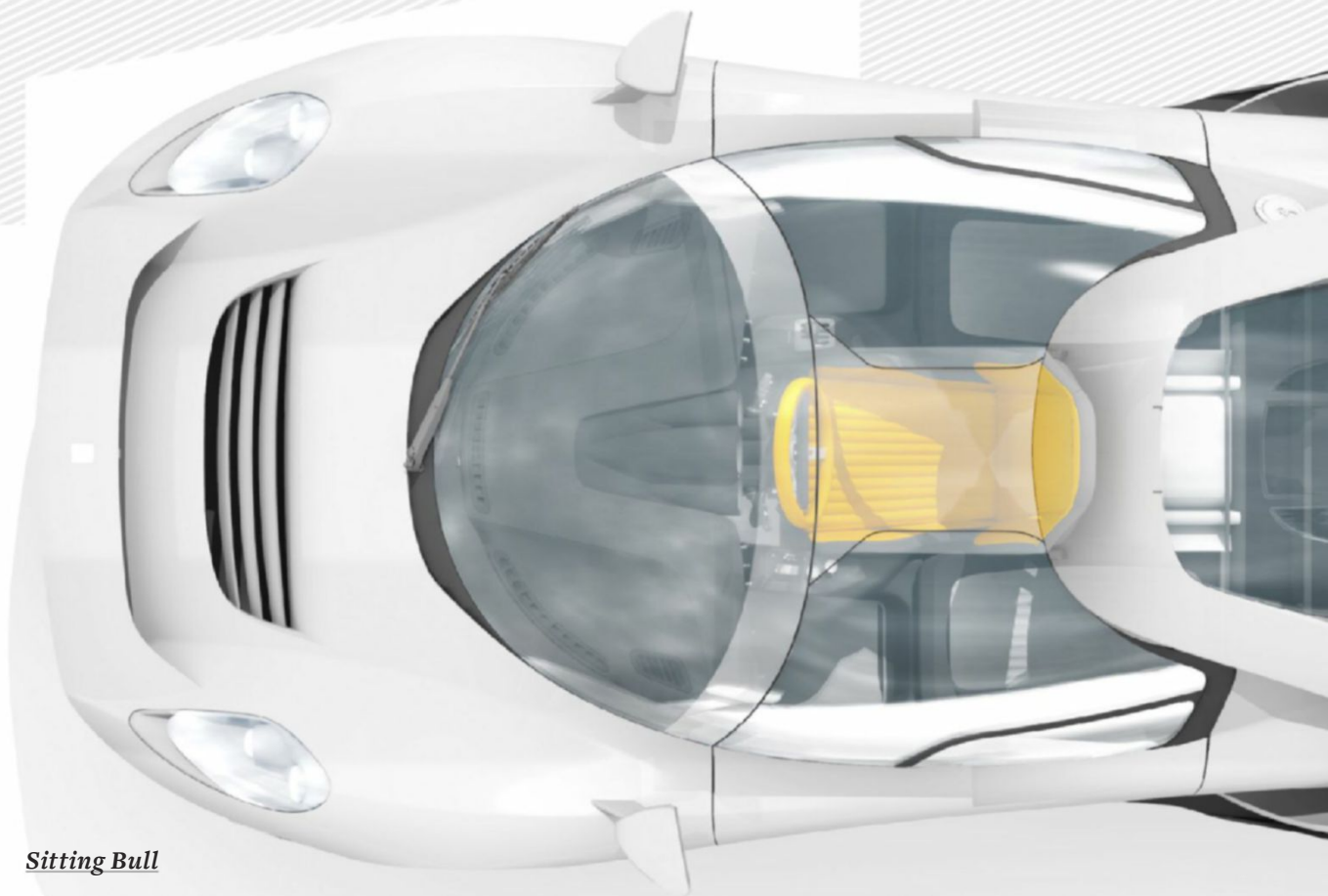
▼ POWERTRAIN

The G550 will continue to use Mercedes' twin-turbocharged 4.0-liter V-8 with 416 horsepower and 450 pound-feet of torque, but the engine will gain cylinder deactivation for this model. The AMG G63—to be unveiled this spring—will lose the twin-turbo 5.5-liter and move to a hotted-up version of the same 4.0. In other AMG applications, this engine makes anywhere from 469 to 603 horsepower and from 465 to 664 pound-feet of torque. We'd expect the mega-G's tune to end up on the higher end of that spectrum.

In either trim, the seven-speed automatic has been dropped in favor of the new nine-speed transmission. The rest of the G-wagen's drivetrain is no less off-road capable than before, offering full-time all-wheel drive with the ability to lock the center, rear, and front differentials. In the case of Mercedes' old war horse, evolving doesn't necessarily mean it has to change much.







## Sitting Bull

# CENTRAL INTELLIGENCE

EQUAL PARTS INSTINCTUAL AND FOREIGN, DRIVING FROM THE MIDDLE OF THE CAR IS ABOUT TO MAKE A COMEBACK. *by Eric Tingwall*

**□ TWENTY YEARS AFTER PRODUCTION** of the coveted F1 supercar ended, McLaren will again put drivers in the center seat with its new \$2 million-plus grand tourer codenamed BP23. The British racing specialists weren't the first to literally put their customers at the center of their work, but McLaren became synonymous with the central driving position due to the impossibly long shadow cast by the F1. When it shows the BP23 later this year, the company hopes to recapture some of that magic, thanks in no small part to the unconventional seating configuration.

The Brits won't be alone this time, though. Budding supercar constructor James Glickenhaus plans to place the driver front and center in his mid-engined \$400,000 SCG 004S, and Tesla will offer road warriors a central seat in its electric Semi. According to their makers—at least one of which we trust with such projections—all three vehicles will be on the road in 2019.



Three's a trend, even if these vehicles are so niche as to be experienced by only the megawealthy and those who work for megacorporations. Are the rest of us simply missing out? Just know that along with a central driving position's advantages come a handful of inconveniences.

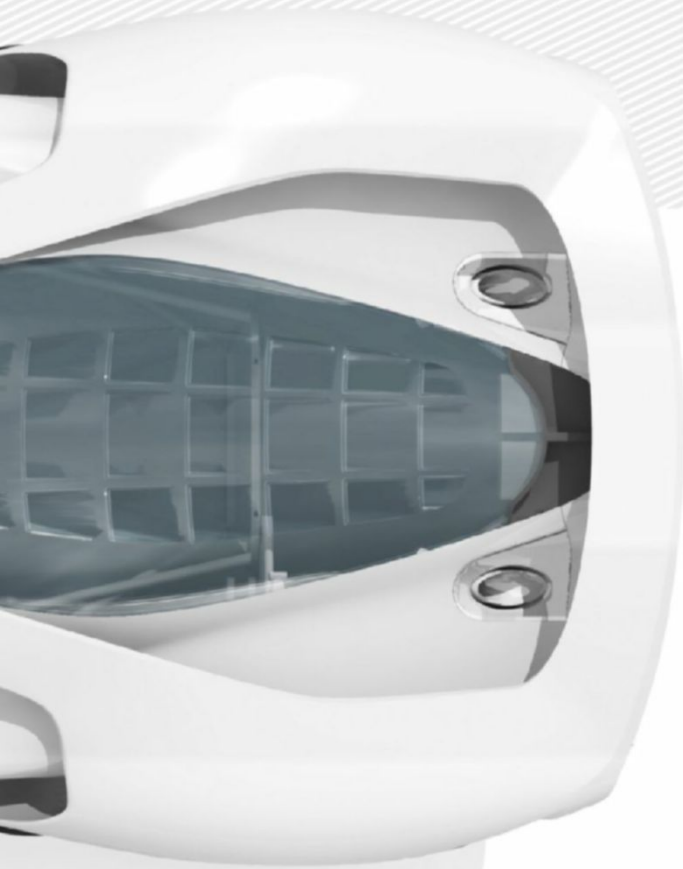
### Headroom

With the wind tunnel drawing aggressive tumblehome and longitudinal tapers into their cockpits, many exotics leave little headroom for tall drivers. Positioning the pilot under the greenhouse's crown gives him more head space without actually raising the roof. The SCG 004S will also be offered in a race trim, and centering the driver in the car meant designers worried less about series' regulations dictating a minimum distance between the driver's helmet and the roll cage.

### Pedal Offset

Gordon Murray, designer of the McLaren F1, cites the offset between the driver's seat and the pedal box that was common in late-80s supercars as one of the key reasons for implementing the central seating position. With the driver's feet centered between the wheel wells, he can square his hips to the car's centerline with straight legs.





## Visibility

“You have a great view. You can see corners easier—the apexes—whether they’re right-hand or left-hand,” says Glickenhaas of the central seat. Except, that is, when you’re trundling behind traffic that’s almost certainly taller and bulkier than your supercar. Every inch

the driver is moved toward the middle of the car is more sheet-metal that needs to be steered into the oncoming-traffic lane to match the sightlines in a conventional car.

## Global Markets

A central seat eliminates much of the duplicate work that goes into designing both right- and left-hand-drive cars. That’s all the more valuable when a production run consists of a hundred, or even just a dozen, cars. In exchange, engineers are forced to reevaluate common components. McLaren engineers made sure the BP23’s HVAC system distributed air evenly after moving it from its usual location in the center of the dash. A central driving position is legal in the U.S., according to Sue Smith, a compliance consultant with Pilot Systems, yet McLaren won’t certify the BP23 here, likely due to challenges with crash regulations. The company will instead help U.S. buyers import the car privately.

## Ingress/Egress

A driver can walk through the Tesla Semi’s cabin, but a center seat makes getting in and out of a low-slung supercar even more taxing than usual. “You have to be supple, no question about it,” says Glickenhaas. Andy Palmer, vehicle line director for McLaren’s BP23, notes that advances in carbon-fiber design tools and manufacturing have eliminated the tall and wide structural elements that F1 owners have to hurdle every time they enter and exit their cars. “What we’ve been able to do with our design of the tub is put a flat floor into this car. It’s considerably easier to get in a BP23 than it is an F1,” he says.

## That Special Feeling

When Ford and Chevrolet build mid-engined supercars, how are the exotic brands really to be defined? We can’t think of another automotive attribute as central as the driver’s seat. “It’s quite special sitting in the middle of the car,” says Palmer. “It gives you a good appreciation of the positioning of the vehicle on-road and on-track as well.”

## SCG 004S

SCUDERIA CAMERON GLICKENHAUS PLANS TO BUILD 250 COPIES OF THE 004S POWERED BY A TWIN-TURBO V-8 MAKING 650 HORSEPOWER AND REVVING TO 8200 RPM. BACKING THAT ENGINE UP WILL BE A SIX-SPEED AUTOMATIC OR A SIX-SPEED MANUAL. THE MANUAL’S STICK CAN BE INSTALLED ON EITHER SIDE OF THE DRIVER’S SEAT DEPENDING ON THE MARKET.



## Safety

As any parent knows, the center of the car is the safest place to be in a side-impact collision. Moving the driver inboard also creates a larger buffer between the driver and a front wheel during a small-overlap crash. The safety benefit is especially relevant for Scuderia Cameron Glickenhaas, which is expecting to sell cars without airbags, allowable under the U.S. Low Volume Motor Vehicle Manufacturers Act of 2015.



1931-2018

# DAN GURNEY

A VERY WORLDLY AND INTERESTING IN-BETWEEN.

by John Pearley Huffman

“**MOTOR RACING** has been very kind to me,” wrote Dan Gurney for the *New York Times* in 1975. “It has exposed me and those around me to a wide spectrum of experiences, from utter tragedy to intoxicating joy and happiness. Tears at both ends—and a very worldly and interesting in-between.”

Daniel Sexton Gurney died on January 14, 2018, at age 86, leaving behind a singularly impressive biography. Pretty much all the legends about him—from his brilliant driving to his winning cars and fearless innovations—are true.

Gurney was born April 13, 1931, in Port Jefferson, New York. He relocated with his family to Riverside, California, in 1948, just as the region roared to life as the epicenter of post-war car culture. Gurney served in the Korean War as an artillery mechanic and, in 1955, entered his first professional race, at Torrey Pines in San Diego County.

His ascent through the racing ranks from there was meteoric. Standing six feet, four inches tall, undeniably handsome, and flashing a megawatt smile, Gurney was ridiculously charismatic. While other drivers could be reckless, Gurney turned caution and precision into competitive advantages.

Gurney was the first driver to post wins in the four major motorsports categories: endurance sports-car racing, Formula 1, IndyCar, and NASCAR. And no one was better at his home track, Riverside International Raceway, where, between 1963 and 1966, he won four consecutive Winston Western 500 races.

Perhaps his greatest year was 1967, when Gurney qualified second for the Indianapolis 500 and was contending for the lead before dropping out on lap 160. The winner of that race was A.J. Foyt, who would team with Gurney in a Shelby American–entered Ford GT40 Mark IV to win the 24 Hours of Le Mans that year. It remains the only time that an American-built car driven by American drivers has done so.

A mere week after Le Mans, Gurney won the 1967 Belgian Grand Prix behind the wheel of an All American Racers Eagle. Gurney had co-founded the team with Carroll Shelby in 1965. This is the only time an American driver has won a Grand Prix race while driving an American-made car, and the only time any driver has won in a car he had designed.

Gurney’s driving career was brief, but he pursued it at a time when drivers were dying horrible deaths at a furious rate. “I



**1964**  
Gurney embodied everything C/D stands for. That’s why we nominated him for president in 1964, although this campaign didn’t extend beyond our pages.



**1971**  
We managed to coax Gurney out of retirement for one more race: In 1971, he co-drove a Ferrari Daytona with C/D’s Brock Yates in the first official Cannonball Baker Sea-to-Shining-Sea Memorial Trophy Dash.

believe one of the marks of a successful race driver is that he can retire in one piece,” he said in 1970, when he retired.

Gurney continued innovating with his race cars, inventing the Gurney flap in 1971. He added a small aluminum lip to the trailing edge of the Indy Eagle’s rear wing, which increased downforce for greater cornering speeds. The car took pole at the 1972 Indianapolis 500 and won both the 1973 and 1975 races. AAR remains the only constructor ever to win in Grand Prix racing, the Indy 500, and endurance racing.

Gurney was active well into the 21st century with projects ranging from his Alligator motorcycles to the Delta Wing race car. “Well, what length of life is acceptable?” Gurney had concluded in that 1975 *New York Times* story. “Is a long life most desirable despite all other considerations? What constitutes a long life, anything after 40, 50, 60? On the other hand is the length all-important, or is something else such as the sum of experiences accumulated in a life span? Coming up with such rules or guidelines becomes quite impossible.”

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# THE CHEVROLET SUBURBAN

TRACING THE EVOLUTION OF A DEPOT HACK. *by Brett Berk*



luggage to and from train stations and ship terminals. A heater and rear bumper were notable options, but the innovation came in using steel rather than wood for the body, which now boasted an enclosed cabin. As amenities increased, mainstream buyers followed. The Suburban now starts above \$50,000, and Americans bought nearly 60,000 last year.

The Suburban's entrenchment is a product of many factors. It has long been one of GM's best-executed vehicles, delivering on its promise to cart many people and their possessions reliably wherever they might need to go in above-average comfort. It adapts to a rutted two-track as easily as it does an eight-lane expressway, uniting the oft-conflicting desires of rural and city denizens into one quintessentially American vehicle. And make no mistake, its Americanness—big, brash, potent, and pragmatic—is a large part of its appeal to patriotic owners no matter where they might fall on the political spectrum.

Suburban sales are strong across the country. Missourians bought the most last year, with Texas and California neck and neck for second- and third-place sales. This bucks the trend of many domestic products, which seemingly vanish from the roads outside of flyover country. Certainly many buyers are merely running the numbers on offspring and tow ratings and arriving at the Suburban as the most logical conclusion.

But there's more: The Suburban and its smaller Tahoe sibling boast some of the industry's highest loyalty figures—more than 75 percent of buyers who stay in the segment buy another one, according to General Motors.

Sandor Pizar, Chevrolet's marketing director of full-size trucks and SUVs, tells how, at a recent event celebrating Chevy trucks' centennial, the emcee asked, "How many people have named their trucks?" Almost all hands shot up. He then asked, "How many people have named their smartphones?" Big laughs ensued.

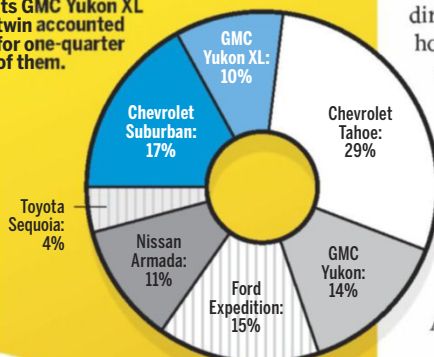
"It's a funny question, but it really is an intriguing point," Pizar says. "People name what they love. And they love their Suburbans."

**CHEVY DIDN'T TRADEMARK THE** name "Suburban" when it introduced the industry's first steel-bodied, eight-passenger truck-based wagon back in 1935. Other marques subsequently used the term, and it didn't officially become GM's until 10 years after Plymouth discontinued its Suburban station wagon in 1978. Now, 83 years on, the Suburban is the longest-running nameplate in automotive history and is attached to the go-to hauler for people with big families and big needs. With a new Chevy Silverado just unveiled, a 12th-generation Suburban is imminent.

Chevy first applied the name to a \$675 (about \$12,000 in 2017 dollars) depot hack, a basic truck used to ferry passengers and

## BIG SHOTS

The nonluxury-full-size-SUV market saw about 340,000 sales last year. The Chevy Suburban and its GMC Yukon XL twin accounted for one-quarter of them.





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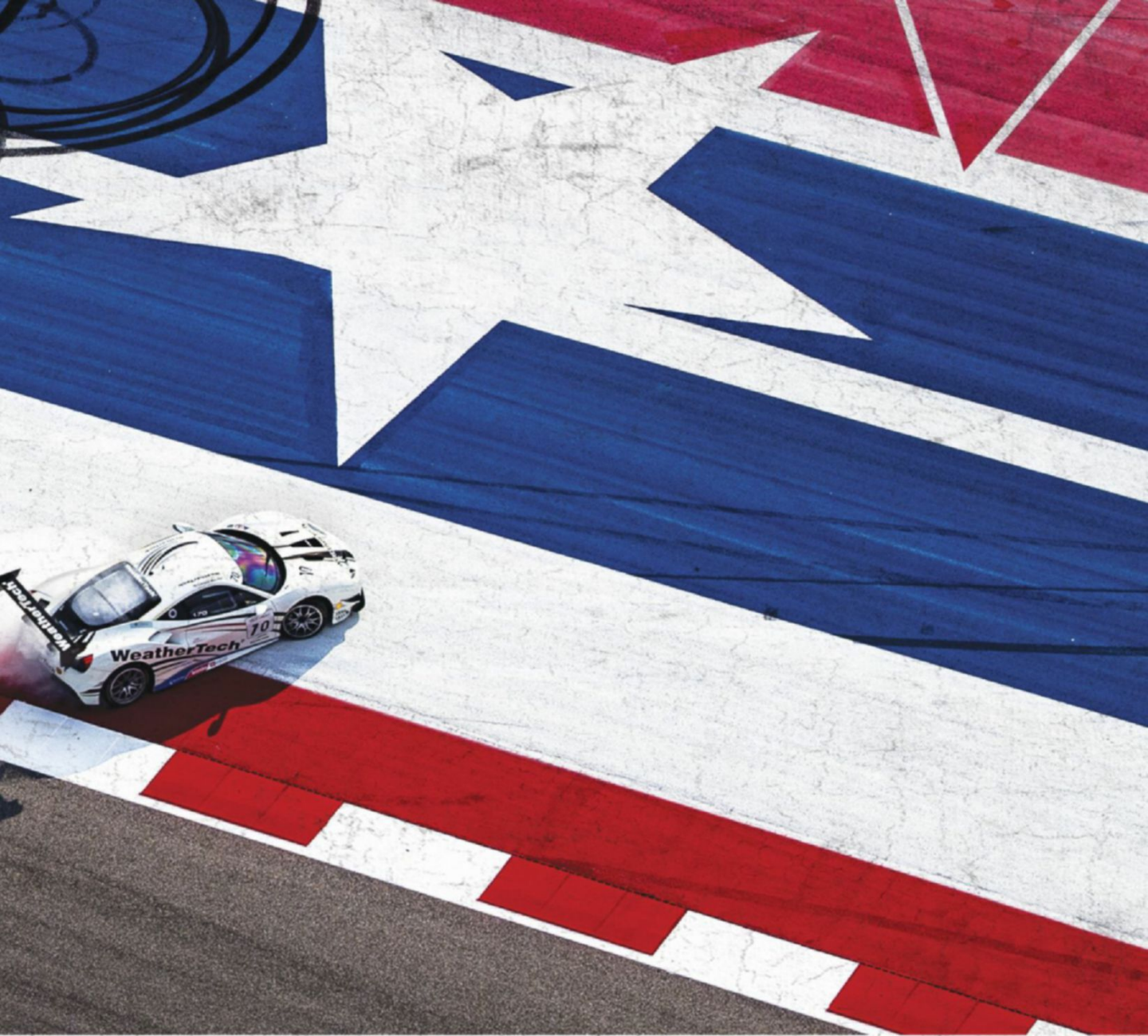
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# John Phillips // Imagine, for a moment, that you could own any three cars in the infinite cosmos of cars. But the vehicles you select must remain in your possession until you die. Between six feet above and six under, you can't sell them, can't will them to heirs. Now what?

Do you choose three daily drivers? Three museum-quality works of genius just to polish and ogle? I'm not ashamed that my own choices get shuffled, rejiggered, mislaid, and delayed as if they were a congressional vote on golfing pants. So I posed the question to friends:

• **Eddie Alterman—C/D editor-in-chief:** 1959 Ferrari 250GT SWB, 2005 Ford GT, 2018 Mercedes-AMG E63 S wagon.

• **Daniel Pund—C/D deputy editor:** 2018 Mercedes-AMG E63 S wagon, 1975 Lancia Stratos, 1970 Dodge Coronet Super Bee (426 Hemi or 440 Six Pack).

• **Keith Martin—Sports Car Market editor and publisher:** 1965 Alfa Romeo Giulia Spider Veloce, 1967 Alfa Romeo GTV, 1967 Alfa Romeo Duetto.

• **William Jeanes—former C/D editor-in-chief and publisher:** 1966 Ford Shelby Mustang GT350H, 1931 Bentley 4 1/2 Liter "Blower," 2018 Ford F-150 XLT.

• **Michael Jordan—freelance journalist:** 1951 Ferrari 340 America Ghia coupe, 1977 Pontiac Firebird Trans Am Special Edition W72, 1999 Porsche 911 GT3.

• **Bruce McCall—New Yorker contributor and illustrator, C/D contributor:** 1967 Citroën DS19, 1970 Mercedes-Benz 600 SWB, 1949 Cadillac Series 62 fastback.

• **Patrick Bedard—former C/D editor at large and columnist:** 1966 Ferrari 275GTB, 1966 Jaguar E-type coupe, 1966 Plymouth Bel-



vedere II two-door hardtop 426 Hemi.

• **Ken Gross—author, concours judge, and former Petersen Automotive Museum curator:** 1966 Ferrari 275GTB/6C, 1932 Ford highboy roadster, 1937 Bugatti Type 57SC Atalante.

I importuned six other pals whose answers I wanted then didn't, having realized, at this point, that the responses were inviting as much insight as ditchwater. I mean, Gross picked the Ford highboy with a Mercury flathead V-8 because he dreamed of one in high school. Bedard picked the 275GTB for the "click, whir, hiss" it emits prior to starting. Martin selected three Alfas because, well, the man apparently appreciates the heft of a good fire extinguisher. And the kindhearted Jordan ached for the Trans Am because he

drove one across America in a self-guided Cannonball. Fact is, Jordan nearly nominated a 58-hp 1977 Le Car because he won a few races in a Renault spec series. And as for the Ferrari 340, he felt former *C/D* correspondent D.O. Cozzi said it best: "It's the kind of Italian car where you can taste the dirt on the turnip."

People express hot ardor for cars because of their Walley World adventures driving them. Which works out unhappily, because love makes no sense but commonly does put money in someone's pocket. You could ask any attorney or Lotus dealer about that.

Naturally, my own trio was no less goofy: a 1998 Ford Crown Victoria project car ["The Lounge Lizard," November 1998], a 1970 Bud Moore Engineering Ford Mustang Boss 302 Trans-Am race car, and a 1967 Bizzarrini 5300 GT Strada.

Justifying those selections would require a weekend in Tijuana with Charlie Sheen. I'm not sure why I remain in the thrall of that black-on-black Crown Vic cop car. Well, it achieved 150 mph and, at full whack, sounded like an electric sparking and whirring transformer ready to explode. And it did a couple of times. A friend named Jeff Willard said he'd pay me \$50 for every Crown Vic ride that entailed one full-throttle conflagration. Then I'd want the Boss 302 because I raced one in Canada and in the Midwest and would enjoy reenacting my defeats in modern SVRA races, especially at Mid-Ohio and Mosport. And I'd want the Bizzarrini because its Chevrolet engine could be easily muscle-ized without anyone noticing, and the car is so rare, I'd win trophies at Italian-marque concours. No competitors at all, which, I've found in life, is the best way to win.

I told my wife, Julie, about my three-cars idea. She shrugged, then tossed the question back, replacing cars with famous photographers' portraits. "Well, I'd want something from Avedon, Adams, and Leibovitz," I answered by rote. But it was a lie, because what I'd really buy is a Monty Sloan portrait of a black contemplative wolf, which I already own, and two of Julie's published wildlife photos, which I also already own. "That doesn't get us anywhere," she said. It wasn't news to me.

Objects in the mirror are best worshiped from afar, which leaves this little essay at the busy intersection of Tailspin and Nowhere.

My life is hell.



A 150-mph cop car ignites one man's fantasy—a vehicle that performs donuts and carries them, too.



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# Daniel Pund // As if it wasn't bad enough that Phillips has outed me for lusting after history's ugliest muscle car, the googly-eyed 1970 Dodge Coronet Super Bee. It's a muscle car that wears glasses, ferchrisakes. Even the Mopar faithful draw down the corners of

their mouths and avert their eyes when confronted with the '70. And let's just say, people who welcome the Dodge Warlock into their fold are not exactly the most discerning aesthetes.

This revelation comes at an especially awkward time for me because I was aiming to appear to have good taste. Further, I have written this very column about another of my unconventional loves, this one newfound. So now it's apparently a pattern with me.

Whatever. I fell in love with a commercial van and I feel simultaneously giddy and guilty about it. But look, this is no metal mule like the Maruti Suzuki Super Carry. It's no Tata Xenon Yodha, which is an actual vehicle that couldn't possibly live up to its spectacular name. No, I fell for a Mercedes. Okay, it's a Spanish-built box of a Mercedes, but still, it's a Mercedes, and that counts for something. And it's not just a box. The Mercedes Metris passenger van is a box with three rows of seats mounted inside it, big windows circling its body, and stuff like power-sliding doors, heated front seats, and—wait for it—carpet. This means that while I could carry a load of toilets or pesticides in my Metris, I wouldn't necessarily be expected to.

I never pictured myself as a commercial-vehicle slappy. Growing up, I didn't care about toy trucks. Instead, I played with an Evel Knievel Stunt Cycle and Matchbox versions of the Saab Sonett III and the Lamborghini Marzal. Compounding my shame: Every dork in the car-journalism game collectively fell for commercial vans about the time that the Metris's big brother, the Sprinter, first arrived in the U.S. I was dubious, knowing that these



people were just pulling a hip-to-be-square routine. That their affection for such vehicles was undergirded not by the vans' merits but by the shallow appeal of the strange as well as the ready availability of vans in press fleets to move their stuff from one apartment to the next. And yet, now I find myself among them, at least in the case of the Metris. By all rights, I should hate this four-cylinder-powered airport shuttle. But I can't stop liking it. It is utterly without artifice. It hasn't been styled in any significant way, beyond having its hard edges smoothed. It looks pretty much like an old VW EuroVan. But it's a EuroVan that doesn't suck to drive. It is free from feature overkill. It has no integrated intercom system that enables (and therefore encourages) children in the third row to

make demands of the front-row parental types. There is, after all, a reason they were banished to the third row in the first place.

It's honest goods. It has possibly the smallest wheel-size-to-body-height ratio this side of a Snap-on Classic 60 rolling tool cabinet. But big wheels on family vehicles are dumb and heavy, and they ruin the ride quality of just about everything that wears them. The Metris is powered by a turbocharged 2.0-liter four. That should really suck, but it doesn't. It produces only 208 horsepower, but it extrudes a fat 258 pound-feet of torque at only 1250 rpm. You'll notice that 1250 rpm isn't all that far above idle speed. So, yeah, the roughly 4800-pound Mercedes is not as quick as a V-6-powered minivan. But that's hardly the point. At 8.4 seconds to 60 mph and with a top speed of 101 mph, the Metris is quick and fast enough. But more important, around town, the Metris is responsive. And while it has a longer wheelbase than both the Honda and Chrysler minivans, it also has a tighter turning radius. On the highway, it clocks along at 85 mph with an unwavering sense of straight ahead, rare among vehicular billboards. Its steering feels more direct and linear than not just other vans but most other cars.

Also to its credit: It has the current market's most outdated nav and infotainment systems. Perfect! When was the last time I used a car's nav system for anything but professional investigation? Probably about the time that the Metris's system would have been considered cutting edge. Here's a secret: I carry with me at all times a small computer that allows me to pinpoint my location on the planet and directs me to wherever I might like to go.

So save me your buggy tech and your swooping plastic trim and your gratuitous surface excitement. I don't mind driving a vehicle that is exactly what it appears to be, particularly when it's thoughtfully engineered to serve its mission in life.

And in my hands, its mission in life was sleddin'. Not only did our Jupiter Red Metris comfortably transport eight people (many of them not yet fully grown), two tandem sleds, and four cheap-ass plastic saucer sleds to a local hill, but when we'd escaped without major injury, I might have drifted the rear-drive Metris through the empty, snow-covered parking lot near the hill. Hey, the kids gotta learn about countersteering somewhere. Not going to do that in your Odyssey.

The Super Bee is harder to justify.





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## **Ezra Dyer // At Deere & Company World Headquarters, the lawn is immaculate. The Deere complex in Moline, Illinois, is a midcentury Eero Saarinen masterpiece, low steel buildings hugging lushly forested hills. Nary a blade of grass is amiss. There sure would**

be, though, if they let me out of the showroom with the sweet model 648L grapple skidder that's parked inside. With 756 pound-feet of torque and a ground-hugging weight of 39,340 pounds, that sucker could do some major damage in my hands. I know this because they have training simulators inside, and I did major virtual damage with every one of them. Next time you see a dump truck, check out the top portion of the dump bed. It's probably all scarred up. Now I know why. As they say in the business, 'tis a fine dance betwixt bucket loader and dump truck, 'tis a fine dance, indeed. You hear that at job sites everywhere, just as sure as John Deere was founded by the man whose products still bear his name: Mr. Bob Tractor.

I was at Deere not because I wanted to buy a skidder—although I certainly do—but because Chevy wanted to tow some heavy stuff, and trailering excavators is much simpler than towing 20,000 pounds' worth of live eels or Swarovski chandeliers or things like that. So we loaded up a 15,000-pound John Deere 310L backhoe on a 6000-pound Big Tex gooseneck trailer and set off down the highway in an 8000-pound Silverado 3500HD Duramax 4x4 dualie. Fans of math and the Federal Motor Carrier Safety Administration will note that this combination of truck, trailer, and cargo far exceeds the 26,001-pound combined gross vehicle weight rating that triggers a commercial driver's license requirement. And while I do hold a coveted international driving permit (very difficult to get, unless you walk into a AAA office and have a few minutes) as well as a license to get funky (homemade), I do not have a CDL. So a GM engineer drove.



And I gotta say, the heavy-duty diesel pickup has attained a level of beastliness that is bordering on silly. All in—truck, trailer, and the throwing stars I bought at the truck stop—our total weight must have been way past 30,000 pounds. And yet the Silverado surfed its 910 pound-feet of torque out onto the highway without causing a ripple in any fellow motorist's morning latte. We were bouncing around something fierce, though. “The limiting factor now with trucks isn't power,” said my chauffeur, “it's brakes and suspension.” And licenses, I would add.

But most of us aren't hauling a 310L. Myself, I could be happy with a tidy little 320E skid steer. As construction people say, the size of the equipment you require depends on the amount of time you have.

Like, the Grand Canyon could've been formed by erosion rather than a million tons of dynamite if we'd been less patient. That's the outlook I took later in the day, when we went to the Deere demo site in nearby Coal Valley: Start small and wreak havoc gradually.

The demo site is where customers try out equipment and get training. Deere has all sorts of fantastic machines there: bulldozers, excavators, road graders, and at least one giant dump truck. I decided to start with a skid steer and a pile of gravel.

Right away I discovered a design flaw, in that it doesn't seem right that you can dump gravel on yourself, which I did. So I ripped a few zero-radius donuts and moved on to an excavator, a mid-size 160G LC. One of the John Deere guys showed me how to work the joysticks, admonished me not to move the tracks, and stepped aside to observe.

What the 160G lacks in top speed—3.3 mph—it makes up for in bucket reach. You can dig a hole 21 feet deep or dump dirt from 21 feet in the air. As it turns out, doing the latter is really fun. I'd grab a scoop, raise the arm as far as it would go, and then slowly tilt the bucket to unleash a waterfall of soil. This earned me a reprimand from my John Deere minder, who rapped on the door and yelled: “Not so high! You're dusting us out!” Man, foreman's always bustin' my chops for dumpin' too high. I can't help it. That's just my dig style.

He was also unimpressed when I announced “Pro move!” and started swinging the bucket sideways to brush dirt back into the hole. “Actually, that's an amateur move,” he said. “The arm isn't designed to work that way. It's like pushing sideways on your elbow.” This guy didn't demand that I turn in my hardhat, but I felt like I had two strikes. So I hopped into a nearby 210G LC, both to escape scrutiny and to revel in a bigger bucket. You know, a 160G would suit my needs, but I bet the salesman could upsell me on the 210G.

If you've ever wondered whether it's fun to operate giant digging machines, I can confirm that it absolutely is. There's something profoundly gratifying about a small human gesture, a flick of the wrist or a twitch of the foot, resulting in some action on an inhuman scale. That sense of awe also extends to towing big things, and if modern trucks seem capable beyond all reason, Deere's toy box proved that there's always room for improvement. Maybe next time we'll tow a skidder. ■



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A photograph of two sports cars driving on a road. In the foreground, a blue Porsche Cayman is shown from a front-quarter view, moving towards the right. In the background, a red Audi TT RS is driving in the same direction. The background consists of rolling hills under a cloudy sky.

**AUDI TT RS**

Price: \$80,200 • Power: 400 hp  
Torque: 354 lb-ft • Weight: 3277 lb  
0-60 mph: 3.2 sec

A gray California winter helps  
establish the pecking order  
among German sports cars.

by Jared Gall

photography by James Lipman

# Prima Donners






**PORSCHE 718 CAYMAN S**  
Price: \$81,590 • Power: 350 hp  
Torque: 309 lb-ft • Weight: 3102 lb  
0-60 mph: 4.1 sec









**IN THE WINTER OF 1846**, a group of pioneers seeking a better life in the vast unknown of the American West got trapped by weather in the mountains of the California territory. Bored and running desperately low on cheesy Pringles, they had to turn to the most cursed of sustenance: putrefied beef jerky from the Sherman Oaks Chevron station.

Did we say 1846? We meant 2018. And it's cool; only one of our three pouches of Oberto had turned gray. Still, though, we didn't know that could happen to beef jerky.

We'd fled subzero temperatures in Michigan to conduct this comparison test in the fair Southern California weather, only to arrive just in time for the area to get its first precipitation of consequence in many months. For two straight days it rained and snowed, but finally the weather cleared and we could really crank up our Conestogas.

Audi's TT RS is new for 2018 and powered by a 400-hp turbocharged 2.5-liter inline-five. Compared with lesser TTs, the RS gets a front fascia





with larger intakes that flare out for more airflow, a purposeful wing and large-caliber oval exhaust outlets in back, and a price that starts at \$65,875. Our example's options list was a lengthy one, but nearly all of it mattered. The \$6000 Dynamic Plus package nets carbon-ceramic front brake discs and the stiffer Sport suspension; the \$3500 Technology package adds navigation and a Bang & Olufsen sound system. The \$1750 Black Optic package grants the roly-poly TT some menace by blacking out the exterior trim and mirror caps, and the \$1000 exhaust system matches that with black tips and a loud button. All told, our Audi TT RS tallied \$80,200.

That's very nearly as expensive as the Porsche 718 Cayman S it's up against. Having forsaken the flat-six that was so central to its identity, the Cayman is powered by a turbocharged flat-four as of 2016. In the S, as in the TT RS, it's a 2.5-liter, this one rated at 350 horsepower. Prices start at \$67,350, but in typical Porsche fashion, the Cayman we tested stretched somewhat spendier. Notable additions include the Sport exhaust with a loud mode to match the Audi's for \$2890; the adaptive PASM Sport suspension that lowers the car 0.8 inch and stiffens the springs and anti-roll bars for \$2070; 20-inch wheels for \$1580; and a limited-slip differential with brake-based torque vectoring for \$1320. And then there's another \$6380 in rinky-dink tier-two nonsense to inflate the final sticker to \$81,590.

The Cayman holds the distinction of having earned a spot on our 10Best list every year it's been available, so it's fair to say we like it. But it's also fair to consider this TT a coupe version of the RS3, which joined that list this year. Should be a good fight. Wagons ho!

## 2. Audi TT RS

It's a high-style way to navigate the mountains, but the TT RS is no prima donna. With 354 pound-feet of torque at 1700 rpm and all-wheel drive, this red-orange nug-

get launches like a magma loogie. Launch control revs the five-pot to 3500 rpm and then dumps the clutch, so that the TT RS blows past 60 mph in just 3.2 seconds. The apogee of car cuteness until Pixar got into the game, the TT has turned nasty, running 11.6-second quarter-miles at 119 mph.

Thrust from the five is immediate and monstrous no matter where you are in the powerband. But we do wish the engine had a more natural soundtrack. Its warble is unique, but in either quiet or loud mode, it sounds so synthesized that it might as well be a

**Audi TT RS [+] The nicest sports-car interior for less than \$150,000, the last five-cylinder that matters. [-] Covered-wagon ride nets only moderately impressive handling, overly sanitized soundtrack. [=] A lovely and impressive thing that keeps the driver at a distance.**







Above: All-wheel drive might make for hellacious launches, but it doesn't help the car turn or stop when you drive into freezing rain on summer tires.

four-cylinder trying to sound like a five. The only high-performance quintuple on the market should be allowed to trump its weirdness. (The Ford Transit's turbo-diesel five is unlikely to stir any souls.)

Audi's little coupe has no match when it comes to interior styling. It's fastidiously detailed, with hardly a contour change or line break that isn't set off with a new material or finish. Just look at the seats—black leather with red contrast stitching around diamond-patterned perforations, each of which allows a peek at the red underside of the seating surface. Even the seatbelts have red bands along their edges (part of the \$900 RS Design package). Audi incorporates all of this without making the TT look fussy or overly busy, and the in-dash air vents seem to have benefited from as much engineering as the entire Dodge Dart.

Perhaps it's the back seat—strictly for kids—but the Audi's interior feels more spacious than the Porsche's. That said, it's in the Audi that tall drivers will find their heads jackhammering the headliner on rough roads. That Sport suspension swaps in stiffer fixed-rate dampers for the standard adjustable units. Technical director Eric Tingwall noted: "The short suspension travel, stiff compression, and loose rebound control mean this car can feel both harsh and springy—often in the same suspension event." It's fine on smooth pavement and for commuter duty, but on rough roads, you get the impression that the suspension is taking each input, then magnifying it and propelling the body upward with two times the force.

## 2018 AUDI TT RS

## 2017 PORSCHE 718 CAYMAN S

PRICE AS TESTED  
BASE PRICE

**\$80,200**  
\$65,875

**\$81,590**  
\$67,350

### DIMENSIONS

LENGTH  
WIDTH  
HEIGHT  
WHEELBASE  
FRONT TRACK  
REAR TRACK  
INTERIOR VOLUME

165.0 in  
72.1 in  
52.9 in  
98.6 in  
61.6 in  
60.7 in  
F: 47 cu ft  
R: 27 cu ft

172.4 in  
70.9 in  
50.2 in  
97.4 in  
59.6 in  
60.6 in  
F: 49 cu ft

### CARGO VOLUME

12 cu ft

15 cu ft

### POWERTRAIN

#### ENGINE

turbocharged DOHC  
20-valve inline-5  
151 cu in (2480 cc)

turbocharged DOHC  
16-valve flat-4  
152 cu in (2497 cc)

POWER HP @ RPM  
TORQUE LB-FT @ RPM  
REDLINE/FUEL CUTOFF  
LB PER HP

**400 @ 7000**  
**354 @ 1700**  
7000/7200 rpm  
**8.2**

**350 @ 6500**  
**309 @ 1900**  
7400/7500 rpm  
**8.9**

### DRIVELINE

#### TRANSMISSION

7-speed dual-clutch  
automatic

6-speed manual

#### DRIVEN WHEELS

GEAR RATIO:1/  
MPH PER 1000 RPM/  
MAX MPH

all  
① 3.56/5.2/37  
② 2.53/8.6/62  
③ 1.68/13.0/94  
④ 1.02/18.2/131  
⑤ 0.79/23.5/169  
⑥ 0.76/28.7/174  
⑦ 0.64/34.1/170

rear  
① 3.31/6.2/47  
② 1.95/10.6/80  
③ 1.41/14.6/110  
④ 1.13/18.2/136  
⑤ 0.95/21.7/163  
⑥ 0.81/25.3/177

#### FINAL-DRIVE RATIO:1

4.06, 3.45\*

3.89, limited-slip  
differential

### CHASSIS

#### SUSPENSION

F: struts, coil  
springs, anti-roll bar  
R: multilink, coil  
springs, anti-roll bar

F: struts, coil springs,  
anti-roll bar  
R: struts, coil springs,  
anti-roll bar

#### BRAKES

F: 14.6-inch vented,  
cross-drilled  
ceramic disc  
R: 12.2-inch vented  
disc

F: 13.0-inch vented,  
cross-drilled disc  
R: 11.8-inch vented,  
cross-drilled disc

#### STABILITY CONTROL

fully defeatable,  
competition mode,  
launch control

fully defeatable

#### TIRES

Pirelli P Zero  
255/30ZR-20 (92Y)

Pirelli P Zero  
F: 235/35ZR-20 (88Y)  
R: 265/35ZR-20 (95Y)

## CAR AND DRIVER TEST RESULTS

### ACCELERATION

0-30 MPH  
0-60 MPH  
0-100 MPH  
0-150 MPH  
1/4-MILE @ MPH  
ROLLING START,  
5-60 MPH  
TOP GEAR, 30-50 MPH  
TOP GEAR, 50-70 MPH  
TOP SPEED

**1.2 sec**  
**3.2 sec**  
**8.1 sec**  
**21.4 sec**  
**11.6 sec @ 119**

1.6 sec  
4.1 sec  
9.3 sec  
23.7 sec  
12.4 sec @ 115

### CHASSIS

BRAKING, 70-0 MPH  
ROADHOLDING,  
300-FT-DIA SKIDPAD  
610-FT SLALOM

**140 ft**  
**1.05 g**  
46.7 mph

144 ft  
1.04 g  
**47.1 mph**

### WEIGHT

CURB  
%FRONT/%REAR

3277 lb  
60.5/39.5

**3102 lb**  
44.6/55.4

### FUEL

TANK  
RATING  
EPA COMBINED/  
CITY/HWY  
C/D 750-MILE TRIP

14.5 gal  
93 octane

**16.9 gal**  
93 octane

**22/19/29 mpg**  
**20 mpg**

**22/20/26 mpg**  
**20 mpg**

### SOUND LEVEL

IDLE  
FULL THROTTLE  
70-MPH CRUISE

**46 dBA**  
**83 dBA**  
**70 dBA**

51 dBA  
86 dBA  
73 dBA



And despite that, the Audi can't match the Porsche's feel or feedback. The lack of body movement and dearth of steering feel make it hard to tell when the Audi is at its limits. You end up driving the car not quite certain how close you are to the edge of control, which is particularly unnerving in the wet.

The TT RS is an accomplishment, a dramatic departure from what the TT had been, and an impressive car. It's just a little too narrowly focused, a little too compromised, to beat the Cayman. Then again, the Cayman is very nearly a perfect sports car.

## 1. Porsche 718 Cayman S

Parts of California feel as if nature imagined infinite racetracks, piled them on top of and wove them through one another, and then sat back waiting for mankind to invent the automobile and pavement. There are few cars we'd rather drive on roads like these than the Porsche Cayman. It is, as Tingwall put it, "the finest example of chassis neutrality that exists."

Whereas the Audi's ride tends toward punishing, the Cayman's has some baked-in compliance that helps communicate loads and forces to the driver. But don't mistake softness for weakness: While the TT RS nipped the Cayman by 0.01 g around the skidpad, the Porsche outpaced the Audi in the most critical dynamic evaluation, our unequally spaced slalom that combines acceleration, deceleration, and cornering. The Cayman's steering weight increases predictably to let you know how close to the limit you are, and the low hoodline afforded by the mid-mounted engine is a boon for forward visibility that makes placing the Porsche on the road a cinch. In the Audi, the uniform radius of the bulbous nose hides the corners of the car pretty effectively.

The Porsche scrapes and scratches its low, low chin on drive-



If you wanted to read anything into the placement of controls on steering wheels, it might be that the Porsche is more driving focused.

way transitions, but it's the car that we wanted for those long, rainy highway slogs. Even with its suspension set to maximum firmness, the Porsche still has a comfier ride than the Audi.

There is a downside to the Porsche on the highway, though. It's loud. The flat-four is more vocal than the Audi's five under all conditions, but at highway speeds, it turns 1000 rpm or so higher. Geared tall on the low end—redline arrives at 47 mph in first and 80 in second—and short on the high, it's as though the Cayman has six third and fourth gears. And there's enough road noise to make you think that at least 174 of the Audi's 175 extra pounds are sound deadening. Porsche can't blame it on tires, as both cars rode





# FINAL RESULTS



► **PORSCHE 718 CAYMAN S**  
*Maximum points available*

**AUDI TT RS**

	<b>1</b>	<b>2</b>
<b>RANK</b>	<b>1</b>	<b>2</b>
<b>VEHICLE</b>		
DRIVER COMFORT	10	9
ERGONOMICS	10	8
CARGO SPACE*	5	4
FEATURES/AMENITIES*	10	10
FIT AND FINISH	10	10
INTERIOR STYLING	10	10
EXTERIOR STYLING	10	8
REBATES/EXTRAS*	5	1
AS-TESTED PRICE*	20	20
<b>SUBTOTAL</b>	<b>76</b>	<b>80</b>
<b>POWERTRAIN</b>		
1/4-MILE		
ACCELERATION*	16	20
FLEXIBILITY*	5	3
FUEL ECONOMY*	10	10
ENGINE NVH	10	8
TRANSMISSION	10	7
<b>SUBTOTAL</b>	<b>47</b>	<b>48</b>
<b>CHASSIS</b>		
PERFORMANCE*	20	19
STEERING FEEL	10	10
BRAKE FEEL	10	10
HANDLING	10	8
RIDE	10	7
<b>SUBTOTAL</b>	<b>60</b>	<b>53</b>
<b>EXPERIENCE</b>		
FUN TO DRIVE	25	25
<b>TOTAL</b>	<b>230</b>	<b>203</b>

\*These objective scores are calculated from the vehicle's dimensions, capacities, rebates and extras, and/or test results.



on Pirelli P Zeros. It doesn't help matters that the Audi's Bang & Olufsen is an outstanding stereo, and the Cayman's base system sounds not entirely unlike an iPhone in a Solo cup. We also find it a little bit insulting that you can spend \$80K on a Porsche and still not have automatic climate control. That's embarrassing, not so much for owners as it is for Porsche.

But speaking of sounds, oh, the Porsche's. Rest in peace, flat-six, and long live the turbo four! The more time we spend with 718s—and the further into memory that six's wail fades—the more we like the four. This thing sounds like a goblin, all mechanical grumble and spitting overrun. There's even a little aural treat when you turn the car off and the four grumpily clatters into silence as though not all its parts stop moving at the same time. Needing 14.5 psi of boost to generate full power—the TT RS swallows 19.6—the Cayman can be laggy at low rpm around town, which is never a problem with the Audi. But during exercises on roads that keep the revs up, there's nothing to worry about.

Being a manual rear-driver, the Porsche was slower than the Audi in acceleration testing—4.1 seconds to 60 mph, 12.4 and 115

**Porsche 718 Cayman S** **[+]**Chassis dynamics perfected, with the world's best transmission to boot. **[-]**As loud inside as an Airbus with a leaky emergency exit, extortionist options pricing. **[=]**One of the best cars at any price is hard to beat, especially on an even playing field.

mph in the quarter—but being a manual, it's also vastly more engaging. And this isn't just the better transmission in this test; Porsche manuals are the best transmissions you can buy today, period. Shifter throws are direct and tight, and the clutch's weight and progressive takeup put on a clinic other manufacturers should attend. Few things in life illuminate the joy of using a well-designed product for its intended purpose quite like rowing a manual Porsche down a winding road. Not even blasting a quicker, more powerful Audi down that road. It was enough to make us forget the rancid beef jerky. ■

# california

THE NISSAN LEAF WAS THE FIRST WIDELY AVAILABLE EV. IS THE SECOND VERSION GOOD ENOUGH TO BANISH THOUGHTS OF THE CHEVROLET BOLT OR THE TESLA MODEL 3?

BY TONY QUIROGA

PHOTOGRAPHY BY JAMES LIPMAN

**There's no more** favorable climate for an electric car than Southern California. The year-round temperatures are right in the happy zone for lithium-ion-battery function, and the winter is so mild that neither range-sapping heat nor A/C is needed for about five months of the year. The political climate is also right, with the state and many of its cities offering additional incentives to buy an EV—atop the federal spur that can return up to \$7500 to a buyer's pockets. From using the carpool lane when driving solo to no-cost meter parking in Santa Monica to free charging when parked at LAX while you're winging off to somewhere with worse weather, California would really think it was swell if you'd stop driving your fossil-fuel burner. There's even a bill in front of the State Assembly that, if passed, would require new passenger vehicles in California to be zero-

Ports: DC fast-charge on the left, standard hookup on the right. The shifter is actually a friendly little droid that rides along with you and saves the day.





# king

2018 NISSAN LEAF



emission by 2040. Oh, and there's another \$1000 to \$1500 for you if you get rid of your pollution machine; and how about a \$500 rebate to make that home charger more affordable?

The incessant stop-and-go traffic that paralyzes the L.A. basin is also a best-case scenario for an EV such as the new Nissan Leaf. Redesigned for 2018, this Leaf looks nothing like its predecessor, a car that pegged the dorkiness meter deep into French territory. If the new car looks less like a Renault Mégane and more like the love child of a Nissan Murano and a Chevy Bolt, we consider that an improvement, even if the 0.28 drag coefficient—the same as before—means it's still shaped like a doorstop.

Dinking along in traffic in a school of unwashed Corollas and RAV4s is made more palatable in the Leaf thanks to the near silence of the electric motor, now making 147 horsepower, up from 107. Electric motors solve two small-car problems: a traditional lack of torque and the noise of a strained four-cylinder. Under the hood, where

you'd expect an internal-combustion engine to be, is a big metal cube that houses the power-delivery module, the inverter, and the electric motor. Only 67 decibels of motor, wind, and tire noise make it into the cabin at full whack. At 70 mph, a speed briefly attainable in L.A., there's a luxury-car-grade 65 decibels. Noise problem solved. Yet even with 40 more horsepower, the Leaf's acceleration is not to be confused with that of a Tesla Model anything. A zero-to-60-mpg run takes an adequate 7.4 seconds, but it's the torque that impresses. A mere tap of the accelerator releases a dry gulch of instant push—236 pound-feet's worth—that's good for a quick 2.8-second jump from 30 to 50 mph, enough to flatten your occipital bun into the headrest.

Just don't smash the accelerator too often or the air-cooled, 40.0-kWh lithium-ion battery, 10.0 kilowatt-hours more than before, will start discharging like it's a dollar-store D-cell. Nissan claims a 150-mile range, and in our estimation, it's possible



to extract that, though you'll need to be gentle and slow, two things *C/D* editors are not. We left our desert testing facility with a 98 percent charge and a 151-mile range displayed. Cruising along at 75 mph, we noticed that the range started falling faster than the odometer was climbing.

Slowing to 65 mph stabilized the two readings and ensured that we'd easily make it back to L.A. This approach even retained enough juice for the 34-mile run over the San Gabriel Mountains on the squiggly Angeles Forest and Angeles Crest highways.

There's little incentive to take an EV onto a canyon road, but the Leaf's platform, an adaptation of its predecessor's, mounts the battery in the floor. Putting the weight low helps keep the Leaf's 3494 pounds on an even keel. The Michelin Energy Saver A/S tires were clearly chosen for their low rolling resistance, and they start howling well short of the 0.79 g of available grip, but the Leaf isn't ever out of sorts. Steering feedback is good and the low-grip chassis is unerringly stable, plus the motor's torque can launch the Leaf out of corners with ease. Just don't turn on the ProPilot Assist system (part of the \$2200 Technology package on our mid-level Leaf SV) when you're on a fun road.

On gradual curves or a straight road, ProPilot Assist centers the Leaf in its lane and, if you ignore the Nissan's warnings, will allow for hands-off steering for a few seconds at a time, provided it can read the lanes. Its ability to do so is shown on the digital half of the gauge cluster, but it signals with an annoying beep every time it loses the trail. As with all adaptive-cruise-control systems, speed rises and falls relative to traffic, but we found that ProPilot

**Top:** The Leaf no longer has droopy drawers. **Above:** Its conventional interior design is nicer than the old car's, but it's still a bit chintzy.

Assist slowed the Leaf down too early and too often, to the point of being seriously aggravating. ProPilot Assist won't steer through sharp curves, though in the name of science, we tried it in the canyon anyway. The system does slow the car for tight corners, but it prefers speeds and g-forces that will make you think a Sears driving-school instructor is operating the brake pedal. There's nothing "Pro" about it.

To make the pain of going slowly a little easier, Nissan fits the new Leaf with an e-Pedal function that can be turned on and off. Flipping the e-Pedal toggle ahead of the clam-shaped shifter injects Novocaine into the accelerator in an attempt to mellow out any eagerness in your right foot. But the e-Pedal's best trick is increasing regenerative braking. Without touching the brake pedal, the driver can steadily and predictably bring the Leaf to a complete stop. Should you hit the brakes at 70 mph, the Leaf will stop in a long 191 feet. But in traffic's waves of acceleration and deceleration, one-pedal driving is a major convenience; once you try it, you won't want to go back.

Back home after our instrumented-testing session, the Leaf showed 41 miles of range remaining. Add that to the 105 miles traveled, and the Leaf could have gone 146 miles in our mix of freeway cruising and canyon-road bombing. Plugged into a household 120-volt outlet, the battery took about 26 hours to replenish. On a 240-volt unit, an empty-to-full charge is said to take about seven hours. A fast-charging CHAdeMO connection is optional on base S models for \$1590 and standard on SV and SL trims. Public 440-volt DC fast chargers take a claimed 40 minutes to bring the battery to 80 percent charge. We found a fast charger—they're outnumbered by 240-volt units by about 10 to 1—but it was out of order. Alas, even L.A.'s love of EVs is not perfect.

With the same 106.3-inch wheelbase as the first Leaf, the new version offers an identical 93 cubic feet of passenger space and





24 cubic feet of cargo room as last year's model. The interior is more attractive for 2018, though. The large digital display next to the analog speedometer is configurable in a number of ways, and the touchscreen works quickly and without sluggishness. That said, the Leaf's interior quality feels on par with a \$20,000 Sentra's, which is a reminder that when you buy a Leaf, you're essentially buying a \$20K car and a really expensive battery.

Without incentives, the Leaf starts at \$30,875. A mid-level SV such as our test car comes standard with fast-charging capability, a 7.0-inch touchscreen, 17-inch wheels, navigation, adaptive cruise control, and Android Auto and Apple CarPlay for \$33,375. Our tester also had the Technology package, which includes ProPilot Assist, LED headlights, and a power driver's seat, plus the All Weather package's heated front seats, steering wheel, and

**[+] Silent drivetrain, punchy motor, longer range, fast-charging capability.**  
**[-] Overly cautious driver-assist systems, Sentra-grade interior, the Chevy Bolt and Tesla Model 3 have superior range.**  
**[=] A giant step for the Leaf, a small leap for EV kind.**

outside mirrors. Adding splash guards and floor mats brought the total to \$36,845. Nissan's pricing places the Leaf below the \$37,495 Chevy Bolt, with its 238-mile range, and above cars such as the Fiat 500e, which can go only 87 miles on a charge.

The Leaf's larger battery and superior range give it a major advantage over marginally less costly EVs, but the same logic applies when comparing the Bolt with the Leaf. Nissan seems to grasp that logic and will soon offer a 60.0-kWh battery, matching the Bolt's, which should take the Leaf's range beyond 200 miles. We'd be remiss if we didn't mention the Tesla Model 3. Tesla promised 220 miles of range for its 3 at a starting price of \$36,000, but the company currently only builds a long-range 310-mile version that starts at \$45,000.

Nissan's little electric car offers the most range for the money, besting the 124-mile Hyundai Ioniq EV and the 125-mile Volkswagen e-Golf, which are similarly priced. But adding ProPilot Assist and a number of other options puts the Leaf perilously close to the Bolt and Model 3. We've yet to drive the 3, but the Bolt is more fun to drive and goes farther on a charge than the Leaf. Going farther is what's most important in this class of EVs, and although the Leaf is vastly improved and more practical than before, the Bolt has made its way past California dreaming. ■

## 2018 NISSAN LEAF SV

**PRICE**  
**AS TESTED** ..... **\$36,845**  
**BASE** ..... \$33,375

**VEHICLE TYPE:** front-motor, front-wheel-drive, 5-passenger, 4-door hatchback  
**OPTIONS:** Technology package, \$2200; All Weather package, \$900; splash guards, \$190; floor and cargo area mats, \$180  
**AUDIO SYSTEM:** satellite radio; minijack, USB, and Bluetooth-audio inputs; Android Auto and Apple CarPlay interfaces; 6 speakers

**MOTOR**  
 permanent-magnet synchronous AC  
**POWER** ..... 147 hp  
**TORQUE** ..... 236 lb-ft

**BATTERY PACK**  
 lithium-ion, air-cooled  
**CELL COUNT/CONSTRUCTION** .... 192/pouch-type  
**CAPACITY** ..... 40.0 kWh  
**MANUFACTURER** ..... Nissan

**DRIVETRAIN**  
**TRANSMISSION:** 1-speed direct drive  
**FINAL-DRIVE RATIO** ..... 8.19:1

**CHASSIS**  
 unit construction with a rubber-isolated front subframe  
**BODY MATERIAL:** steel stampings

**STEERING**  
 rack-and-pinion with variable electric power assist  
**RATIO** ..... 14.9:1  
**TURNS LOCK-TO-LOCK** ..... 2.6  
**TURNING CIRCLE CURB-TO-CURB** ..... 36.1 ft

**SUSPENSION**  
**F:** ind, strut located by a lower control arm, coil springs, anti-roll bar  
**R:** torsion beam, coil springs, anti-roll bar

**BRAKES**  
**F:** 11.1-x-1.1-in vented disc, 1-piston sliding caliper  
**R:** 11.5-x-0.6-in vented disc, 1-piston sliding caliper  
**STABILITY CONTROL** ..... partially defeatable

**WHEELS AND TIRES**  
**WHEEL SIZE** ..... 6.5 x 17 in  
**WHEEL CONSTRUCTION** ..... cast aluminum  
**TIRES:** Michelin Energy Saver A/S 215/50R-17 90V M+S

**EXTERIOR DIMENSIONS**

WHEELBASE	106.3 in
LENGTH	176.4 in
WIDTH	70.5 in
HEIGHT	61.4 in
FRONT TRACK	60.6 in
REAR TRACK	61.2 in
GROUND CLEARANCE	5.9 in

**INTERIOR DIMENSIONS**

PASSENGER VOLUME	F: 55 cu ft R: 38 cu ft
CARGO VOLUME BEHIND	F: 30 cu ft R: 24 cu ft

## CAR AND DRIVER TEST RESULTS

**ACCELERATION**

ZERO TO	SECONDS
30 MPH	2.7
40 MPH	3.9
50 MPH	5.5
60 MPH	7.4
70 MPH	9.9
80 MPH	12.9
90 MPH	16.8
ROLLING START, 5-60 MPH	7.3

TOP GEAR, 30-50 MPH	2.8
TOP GEAR, 50-70 MPH	4.5
1/4-MILE	15.8 sec @ 88 mph
TOP SPEED	92 mph (gov ltd)

**HANDLING**  
 ROADHOLDING, 300-FT-DIA SKIDPAD ..... 0.79 g  
 UNDERSTEER ..... moderate

**BRAKING, 70-TO-ZERO MPH**  
 SHORTEST STOP ..... 191 ft  
 LONGEST STOP ..... 195 ft  
 FADE RATING ..... none

**WEIGHT**  
 CURB ..... 3494 lb  
 PER HORSEPOWER ..... 23.8 lb  
 DISTRIBUTION ..... F: 57.9% R: 42.1%

**MILEAGE**  
 EPA COMBINED/CITY/HWY ... 112/125/100 MPGe  
 EPA RANGE ..... 150 miles (mfr's est)

**INTERIOR SOUND LEVEL**  
 IDLE ..... 25 dBA  
 FULL THROTTLE ..... 67 dBA  
 70-MPH CRUISING ..... 65 dBA

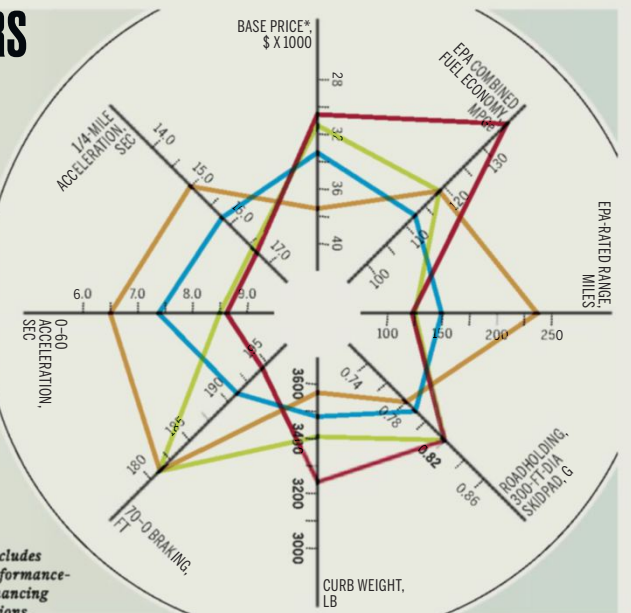
## COMPETITORS

The Nissan Leaf gains on the competition, but it will need the forthcoming 60.0-kWh battery pack to contest the Chevrolet Bolt's range.

- CHEVROLET BOLT  
AC MOTOR, 1-SP DIRECT DRIVE
- HYUNDAI IONIQ EV  
AC MOTOR, 1-SP DIRECT DRIVE
- NISSAN LEAF  
AC MOTOR, 1-SP DIRECT DRIVE
- VOLKSWAGEN E-GOLF  
AC MOTOR, 1-SP DIRECT DRIVE



\*Includes performance-enhancing options.



# Our Entirely Subjective Guide to the Most Important Good-Weather auto.-motive events of 2018

*Hobnob with the swells at Pebble or wax swollen at the Van Nationals? Yes! \_by Brett Berk \_illustrations by Brett Affrunti*

**Like hedgehogs and wood frogs**, many beloved vehicles go into hibernation in the winter. This garaged slumber protects them from predators such as potholes and road salt and from sliding into ravines, and it allows for the completion of deferred maintenance—or its continued deferral. But in the spring, they are awakened from their respite, flushed with fresh fluids, and driven or shipped to events around the world, where they are venerated, ridiculed, and raced, and generally given the opportunity to break down or crash and remind their owners of the fragility of life, which is a lesson that can't be learned too often.

Even if you don't own a special car, you can still take part in this annual ritual. Just go to an automotive event. Don't know which ones are best? Well, as in all things automotive, let us be your guide. Here are 20 of the most interesting gatherings of our vehicular tribe in 2018. You don't have to go to all of them, but you should.



## **Amelia Island Concours d'Elegance**

Founded in 1996 as an upstart southern competitor to California's Pebble Beach Concours d'Elegance, Amelia Island has grown significantly in size and stature over the past 22 years to the point where the vehicles on display here are as prestigious as those at the world's top car shows. Because it's a bit less traditional, Amelia is often more adventurous in its classes and curation, so you'll see unique concept, coachbuilt, and celebrity cars. And because it takes place on a tiny barrier island off the coast of northeast Florida, it is more self-contained than other such gatherings. Everything occurs at the Ritz-Carlton—auctions, art exhibits, lectures and discussions, sales of ephemera, manufacturer rides and drives, black-tie galas, excessive drinking, and the concours itself. This means less time slogging through traffic and more time ogling beautiful cars. The crowds have grown considerably in recent years, but the location and scale allow the event to maintain a hospitable sense of intimacy and accessibility.

**March 9–11 • Amelia Island, FL**  
[ameliaconcours.org](http://ameliaconcours.org)





### Radwood at Hootie-Con

Don't miss an opportunity to watch millennials make humiliating errors in appropriating '80s and '90s fashion while fetishizing '80s and '90s vehicles. A Crapcannes car-film festival, a 24 Hours of LeMons race, and an engine-heat BBQ cookoff cap off the festivities. **March 24 • Sonoma Raceway, Sonoma, CA • [radwood.org](http://radwood.org)**

Patrick Dempsey mix with tuners, artists, brand ambassadors, fanboys, and the kind of hip concessioners usually absent from concours. Sign up for updates online so you'll be in the know when this year's location is revealed.

**April 22 • Los Angeles, CA**  
[luftgekuehlt.com](http://luftgekuehlt.com)

### Moab Easter Jeep Safari

This annual tour is hosted by Red Rock 4-Wheelers and shepherds phalanxes of off-roaders, including the Jeep faithful, along 40 incredible off-road trails. To reward this fanatical brand allegiance, Jeep usually unveils a host of inspired concept vehicles. **March 24–April 1 • Moab, UT**  
[rr4w.com](http://rr4w.com)

### Luftgekühlt V

Five years ago, two-time Le Mans–class winner Patrick Long and his friend Howie Idelson decided to put on a car show. As, like just about everyone else, they love air-cooled Porsches, they focused their event on them. They named it “Luftgekühlt” because that word has uniquely complex combinations of consonants and because it happens to mean “air cooled” in German. They then invited cars that represented an obsessive's history of air-cooled Porsches to the parking lot of an L.A. cycle shop and told friends to stop by. Now in its fifth year, this pop-up show has become *the* event for Porschephiles but somehow retains its compelling combination of cool congeniality, insider exclusivity, and extremely good taste in Porsches. Celebrities such as Jerry Seinfeld and

### Syncro Fest

This off-roading/camping event is the largest gathering of all-wheel-drive Volkswagen Vanagon Syncros (and other Type 2s) in America. Given its timing near May 5, it has also gone by the culturally appropriate and humorous name Syncro de Mayo. **May 3–8 • Hollister, CA**  
[syncrofest.com](http://syncrofest.com)

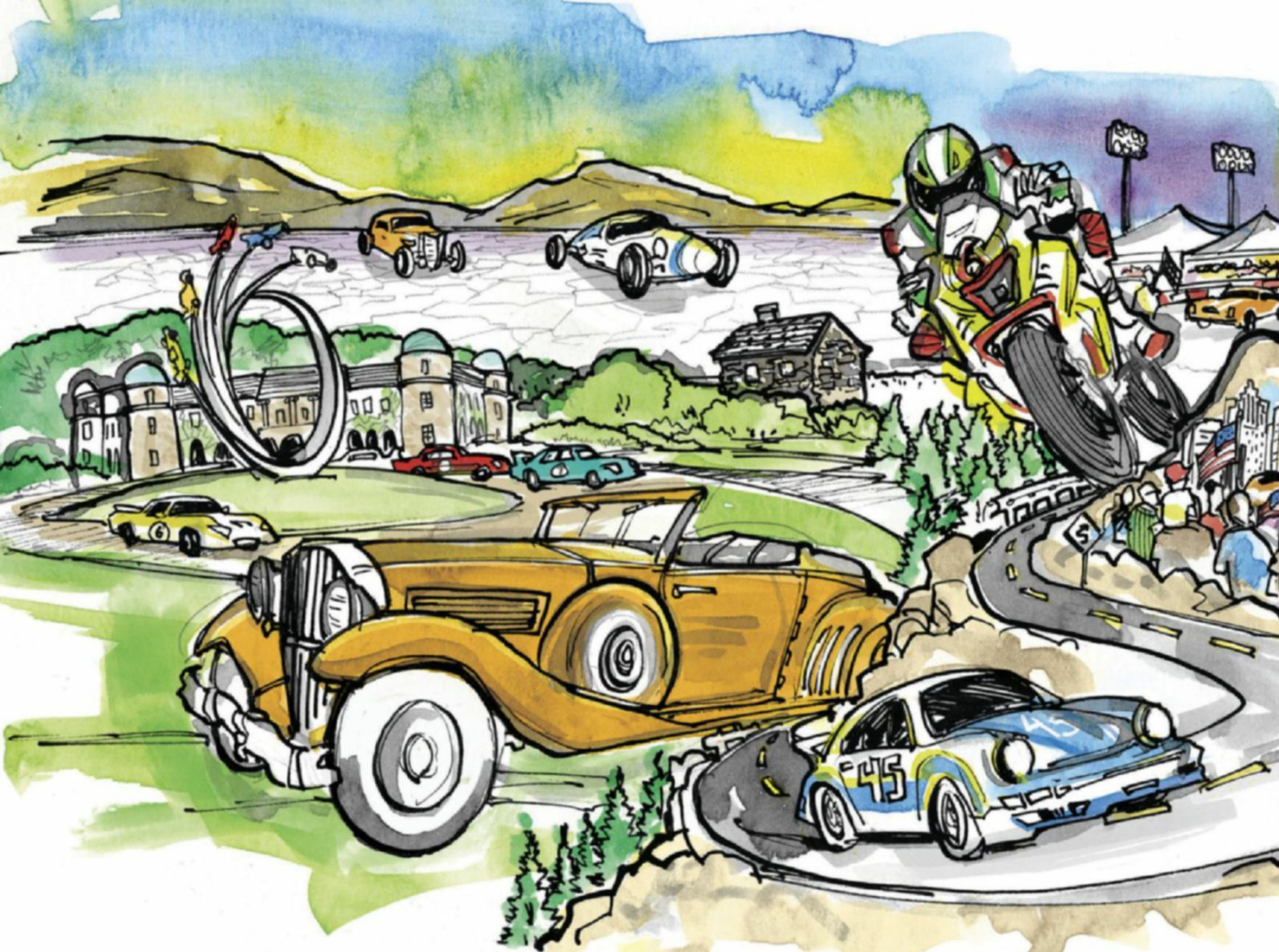
### Touge California

This 200-mile rally on the Pacific coast is sponsored by the superb Japanophile publication *Japanese Nostalgic Car*. Now in its fourth year, the rally celebrates the diversity of collectible Japanese vehicles and the obsessive culture surrounding them. **April TBA • Southern California**  
[japanesenostalgicar.com](http://japanesenostalgicar.com)

### Southern Ohio Forest Rally

This stretch of forest was once the battleground for a famed rivalry in the '70s and '80s but then went out of use for 21 years. The event, now bumped up to 130 stage miles, returned to Rally America's schedule last year with 76 starters—RA's biggest run in '17. **May 18–19 • Chillicothe, OH**  
[southernohioforest rally.com](http://southernohioforest rally.com)





### Isle of Man TT

The world's most dangerous motorcycle race features hundreds of crazed racers careening at more than 200 mph around a 38-mile loop of public roads on this rugged Irish Sea island. Watch amateurs attempt the same thing on "Mad Sunday."

*May 26–June 8 • Isle of Man  
iomtt.com*

### Toledo Speedway Night of Destruction

Do you like to see big things being ruined? Ever wish you could witness a field of liveried school buses racing around a figure eight, smashing and flipping until they're nothing but shard salad? Yeah, us, too. This year, you have two opportunities to catch the carnage.

*June 1 and August 17 • Toledo, OH  
toledospeedway.com*

### 24 Hours of Le Mans

A prestigious and historic endurance race, famous for advanced prototype race cars. But the site also has a concert venue, fairgrounds, and a carnival in the track's center full of 250,000 drunk, sleep-deprived cavorters. A spectacular spectacle.

*June 16–17 • Le Mans, France  
lemans.org*

### The Broadmoor Pikes Peak International Hill Climb

This crazed mountaintop race is the second-oldest continuously operating American motorsports event after the Indianapolis 500. With the notable exceptions of the years during which the world wars were being fought plus 1935, it has been held annually since 1916. The Hill Climb is aptly named as it entails racing up a 12.4-mile slog that features not only 156 turns but a gain of nearly one vertical mile of elevation. It ends at the 14,115-foot summit of Pikes Peak, among the tallest in the continental United States. The air is thin at the summit, with 41 percent less oxygen than at sea level, so drivers and their vehicles have to work harder to maintain power, speed, and focus. Cars, trucks, motorcycles, and quads all participate. In fact, unlike most sanctioned races, there are no limits on the type of vehicle that can enter; drivers have made the climb in overpowered semis and homemade EVs. Gravel sections used to add to the course's harrowing nature, but since 2011, for better or worse, the entire route has been paved.

*June 24 • Colorado Springs, CO • ppihc.com*

### EyesOn Design

A carefully curated, 200-plus-vehicle celebration of ideal automotive design held at the lakefront home of Edsel Ford, whose name is ironically and unfairly synonymous with ghastly automotive design.

*June 17 • Grosse Pointe Shores, MI  
eyesondesign.org*

### Goodwood Festival of Speed

The 26th edition of the world's greatest automotive garden party. Held on the posh

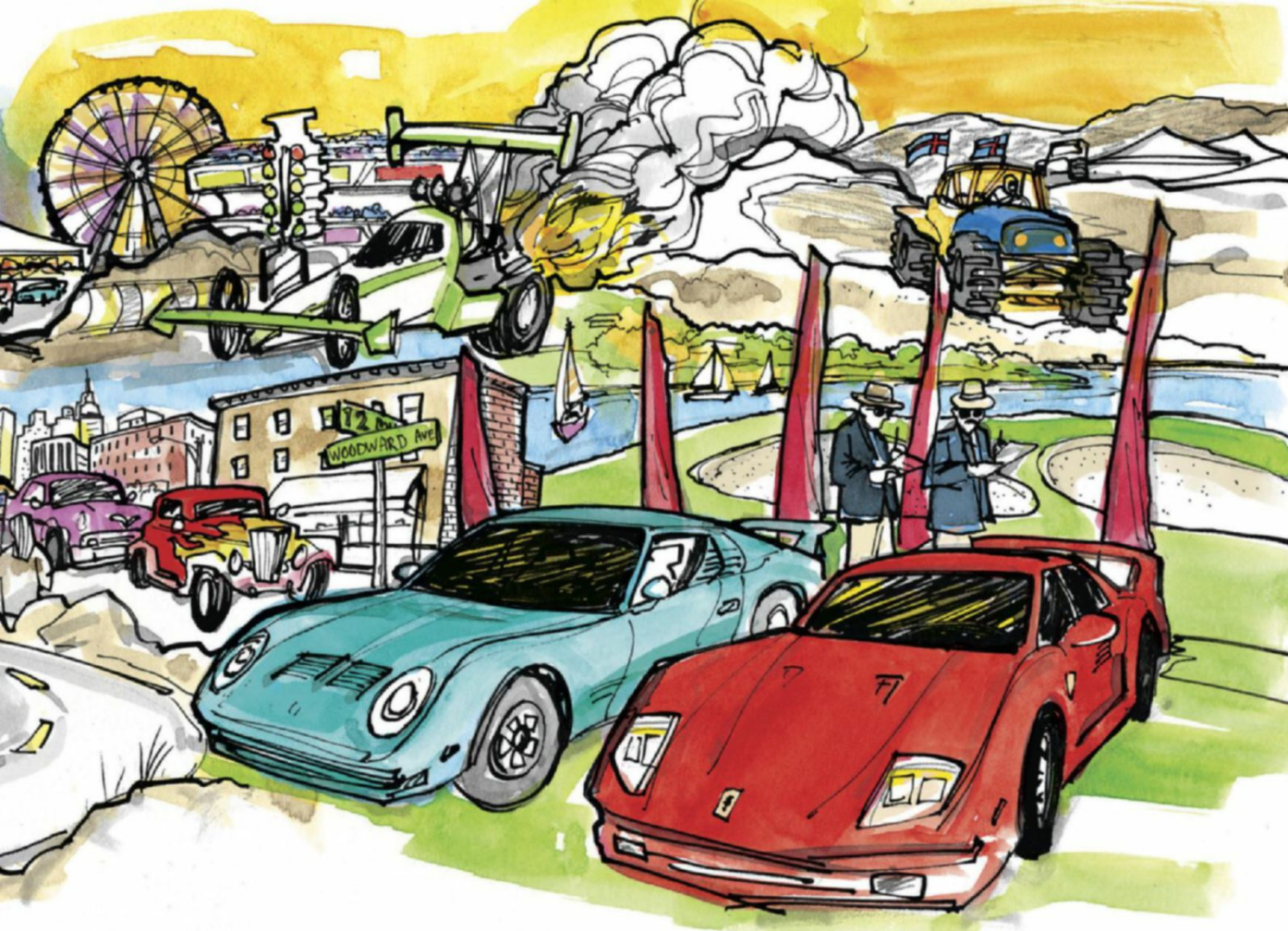
estate of the Duke of Richmond, the centerpiece is a balls-out hill-climb up the Duke's driveway in everything from monster trucks to Formula 1 race cars.

*July 12–15 • West Sussex, England  
goodwood.com*

### Van Nationals

There is nothing shady about a van. Belief in this mantra, and little else, will unite some 600 vans and their drivers and occupants for "five days of hanging loose" in an area of





Indiana that must be a minimum of 500 feet away from any school.

**July 25–29 • Rensselaer, IN**  
[van-nationals.com](http://van-nationals.com)

### **Bonneville Speed Week**

For more than a century, the salt flats around Bonneville, once measuring 96,000 acres but now only 30,000, have been the premier location in the human quest for maximum vehicular velocity. Bring sunscreen but leave your margarita rim jokes at home.

**August 11–17 • Bonneville Salt Flats, UT**  
[scta-bni.org](http://scta-bni.org)

### **Monterey Car Week**

The Pebble Beach Concours d'Elegance has been wowing car lovers since 1950. In the intervening seven decades, the event has developed from a small sports-car show and race into a weeklong car-and-lifestyle bacchanal that blankets the Monterey Peninsula in plumes of blue smoke and champagne spume. The actual concours is a must-see, and the ancillary events are more than worthwhile. Concorso Italiano showcases vintage Italian cars, with rows of overheating De Tommasos and Lancias. Legends of the Autobahn does the same for the Germans, but with less wasted fluids. The

Quail is an exercise in elite excess for the oligarchic and overrestored—cars and humans alike. The Concours d'LeMons revives beloved and maligned baroque vehicles, mostly from the '70s and '80s. Auctions from Bonhams, Gooding, and RM Sotheby's feature record-setting, eight-figure classics. But our favorite show comes with admission to the Rolex Monterey Motorsports Reunion at Laguna Seca: the chance to wander around the paddock and see, hear, smell, and feel vintage cars of every era starting up, revving, running, and racing.

**August 17–26 • Monterey, CA**  
[pebblebeachconcours.net](http://pebblebeachconcours.net)

### **Woodward Dream Cruise**

An amorphous automotive takeover of a 20-mile stretch of the first paved road in Detroit and America. If you enjoy the sound of Hemis, Clevelands, and small-blocks sitting in traffic, the Dream Cruise is for you. Prepare for full-on idle worship.

**August 18 • Ferndale, MI, to Pontiac, MI**  
[woodwarddreamcruise.com](http://woodwarddreamcruise.com)

### **NHRA U.S. Nationals**

Drag racing is one of the seven wonders of the profligate world. This final race of the National Hot Rod Association's regular

season is where drivers make last-ditch efforts to qualify for the championship playoffs and to wow deafened, fume-dizzied crowds with displays of speed greater than 300 mph. Attendees are as much victims of assault as they are spectators.

**August 29–September 3 • Indianapolis, IN**  
[nhra.com](http://nhra.com)

### **Orphan Car Show**

Ypsilanti, Michigan, was home to numerous automotive marques that no longer exist, including Apex Motors, Kaiser-Frazer, and Saxon. So it's the perfect locale for this oddball show, dedicated to dead car brands and their delightfully weird products. Cars must be a minimum of 25 model years old to be eligible for display.

**September 16 • Ypsilanti, MI**  
[ypsiautoheritage.org](http://ypsiautoheritage.org)

### **Icelandic Formula Off-Road at Bikini Bottoms**

The national championships of three insane regional off-road series take place in Tennessee but are inspired by extreme-terrain hill-climbs held in Icelandic rock quarries. As baffling as they are thrilling.

**October 4–7 • Dyersburg, TN**  
[southernrockracing.com](http://southernrockracing.com)





# MASSIVE ATTACK

**MASSIVE  
ATTACK**

**THE 2018 LINCOLN  
NAVIGATOR  
REORDERS THE  
AMERICAN-FULL-  
SIZE-SUV  
HIERARCHY.**

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**BY SCOTT OLDHAM**





Yo dawg, I heard you like the Lincoln star. So I put, like, a jillion Lincoln-star shapes in your grille and a big light-up one in the middle.





# FOR MUCH OF THE 20TH CENTURY



**F**or much of the 20th century, the Cadillac-versus-Lincoln thing mattered. It had significance well beyond quarterly earnings and the automotive industry. For many, it was about national pride.

Today, nobody really cares. For too long, that rivalry has been a fight for last place. It's like the Bengals-Browns game; there are a few die-hards still sitting in the stands, but America has tuned out.

Whoa, whoa, whoa. Stop the clock. The 2018 Navigator changes everything. *Everything*. And Cadillac knows it, refusing to make an Escalade available for a comparison test.

The Navigator is not just the largest, most opulent, and most powerful Lincoln ever; it delivers what an American luxury vehicle should in this day and age, in the market segment where luxury buyers have gathered. And Lincoln charges for the privilege. With only a few options, including a rear-seat entertainment system, our Navigator L Black Label 4x4 test vehicle cost \$101,765.

Shaped with restraint, the Navigator's lines are clean and its exterior chrome bits are tastefully applied, starting with the recessed grille that's large but proportional to the vehicle. The grille's design is familiar from the MKZ and Continental sedans, as is its grate, which features a pattern of Lincoln's star logo—itsself an adaptation of the emblem used on the Continental Mark II in the mid-1950s. The larger star in the grille's center lights up, which is a little over the top and derivative of Mercedes-Benz, but it's a welcome shot of pizzazz.

The Lincoln's horizontal taillights add visual width. Unfortunately, its exhaust is hidden from view under the rear bumper on the passenger's side, just as it is on the Ford Expedition. This may be a design choice or a cost-cutting measure—either way, it's an opportunity for the aftermarket: This thing begs for a couple of large chrome exhaust pipes.



**[+] Strong performance, almost every feature in the book, refined powertrain, impressive fuel mileage. [-] Busy ride with the 22-inch wheels, some overly complicated controls. [=] Every hip-hop artist in America is about to trade in an Escalade.**

At 221.9 inches long, the Navigator L is still a few inches shorter than the Escalade ESV, but park it next to a Mercedes GLS or a Land Rover Range Rover and it dwarfs the Europeans. Its long, smooth flanks mimic the look of the Navigator concept that stole the 2016 New York auto show. The concept's understated badging, blacked-out pillars, and turbine-style wheels also made the cut, although its massive gullwing doors, which wowed showgoers and highlighted the concept's impressive interior, did not.

Much of the Navigator has been plucked from the parts bin. Large chunks of its aluminum body, which Lincoln claims saves some 200 pounds over the 2017 model, are taken from the Expedition. On our scales, though, the difference between our Black Label tester and a 2016





Navigator L 4x4 amounted to just 31 pounds. The front of the steel ladder frame is similar to that of the Expedition and F-150 pickup. The rear of the frame and the design of the Navigator's independent multilink rear suspension are shared with the former, and they're essentially unchanged from last year's model. Cadillac's Escalade still uses a solid rear axle à la 1967 Chevy C10.

Under the Gator's hood is the Ford F-150 Raptor's twin-turbocharged DOHC 3.5-liter V-6 and 10-speed automatic transmission. As in the pickup, this engine makes 450 horsepower at 5000 rpm and 510 pound-feet of torque at 3500 rpm, which shades the output of the Caddy's 420-hp 6.2-liter V-8.

With EPA ratings of 16 mpg city and 21 mpg highway, the Lincoln is also more fuel efficient than before. Making liberal use of its nonintrusive stop-start system, we averaged 15 mpg during two weeks of mixed driving around Los Angeles.

The V-6 is smooth and refined and fires with a mild rasp. A strong bottom-end punch and a 5900-rpm redline make it a perfect match for the 10-speed automatic, a unit engineered and built in a Ford-GM partnership. Its programming is spot-on in the Navigator. Part-throttle gear-changes are tight and snappy, and the transmission always seems to be in the right gear at the right time.

We prefer Caddy's V-8 rumble, but the Lincoln's V-6 has a pleasing, deep burble. And you can hear it inside the cabin, but

only because Lincoln pipes it in through the speakers.

There's more chrome inside the Navigator than out, and more perforated leather than we've ever seen in one place. The headliner and pillars are covered in yards and yards of faux suede, and the huge front and rear consoles present an array of wood, piano-black trim, brightwork, and knurled knobs. Even the dash-mounted push-button shifter is trimmed with chrome, as are the parking-brake and engine-start buttons.

A configurable 12.0-inch screen displays the elegant instrumentation, and a 10.0-inch touchscreen atop the dashboard handles the infotainment and navigation duties. The feature list seems endless and yet par for the segment, from rear audio controls and onboard Wi-Fi to a 360-degree camera setup. There are also illuminated, power-operating running boards; a heated steering

Never has the term "full boat" been more apropos than in describing the titanic and opulently equipped Navigator L Black Label.





The Navigator (which Lincoln would prefer you shorten to "Navi," not "Gator") has an Excite mode. But the point of the Gator is to soothe, not excite.

wheel; power-folding second and third rows; and a gargantuan panoramic sunroof. Our truck's optional Perfect Position Seating package offered 30-way adjustment, three heat settings, three ventilation settings, and massage for the front seats. The second-row captain's chairs are not quite as lavish as the fronts, but they're heated, they recline, and they slide forward easily to provide access to the spacious third-row bench that can seat three. There are also air-conditioning vents throughout the headliner and buttons in the cargo area that drop the second and third rows flat for maximum cargo capacity.

That said, Lincoln could work on simplifying things a little. A few too many features and setting options are buried in a sea of menus between the truck's two screens.

At 6330 pounds, the Gator shouldn't be quick, but it is. Half throttle leaves traffic for dead and handles most highway passes easily, as the transmission is quick to give you a few downshifts and a burst of power. Full throttle shifts the load back and unweights the front suspension, raising the truck's big beak in the air like a '60s muscle car. Upshifts are firmer now and right on redline as the closely spaced gears click off quickly and the full-size SUV pushes past 100 mph with little effort.

At the test track, the Navigator produced drama-free launches and a zero-to-60-mph time of just 5.5 seconds. That's a full second quicker than its predecessor and 0.3 second quicker than the last Escalade we tested, in 2016, a lighter standard-length truck equipped with an eight-speed automatic. Cadillac has since upgraded its SUV with the same 10-speed found in the Navigator, which will no doubt help its launch times and its fuel-economy numbers, too. The Lincoln's quarter-mile run of 14.2 seconds at

# 2018 LINCOLN NAVIGATOR L BLACK LABEL 4X4

PRICE AS TESTED ..... **\$101,765**  
 BASE ..... \$98,100

**VEHICLE TYPE:** front-engine, rear/all-4-wheel-drive, 7-passenger, 4-door hatchback  
**OPTIONS:** Lincoln Play rear-seat entertainment system, \$1995; Perfect Position 30-way, heated, ventilated, and massaging front seats, \$1250; Cargo package, \$420  
**AUDIO SYSTEM:** satellite radio, CD player, rear DVD entertainment; minijack, USB, media-card, and Bluetooth-audio inputs; Android Auto and Apple CarPlay interfaces; 20 speakers

## ENGINE

twin-turbocharged and intercooled V-6, aluminum block and heads  
**BORE X STROKE** ..... 3.64 x 3.41 in, 92.5 x 86.7 mm  
**DISPLACEMENT** ..... 213 cu in, 3496 cc  
**COMPRESSION RATIO** ..... 10.0:1  
**FUEL DELIVERY SYSTEM:** port and direct injection  
**TURBOCHARGERS** ..... BorgWarner  
**MAXIMUM BOOST PRESSURE** ..... 18.0 psi  
**VALVE GEAR:** double overhead cams, 4 valves per cylinder, variable intake- and exhaust-valve timing  
**REDLINE/FUEL CUTOFF** ..... 5900/6000 rpm  
**POWER** ..... 450 hp @ 5000 rpm  
**TORQUE** ..... 510 lb-ft @ 3500 rpm

## DRIVETRAIN

**TRANSMISSION:** 10-speed automatic with manual shifting mode  
**FINAL-DRIVE RATIO** ..... 3.73:1  
**ALL-WHEEL-DRIVE SYSTEM:** part-time 2-speed with automatic front-axle engagement, electronically controlled limited-slip rear differential

## TRANSFER-GEAR RATIOS (LOW/HIGH)

..... 2.64:1/1.00:1

GEAR	RATIO	MPH PER 1000 RPM (low/high)	SPEED IN GEAR (rpm) (low/high)
1	4.70	2.1/5.4	11/32 mph (5300/6000)
2	2.99	3.2/8.4	17/50 mph (5300/6000)
3	2.15	4.5/11.8	24/71 mph (5300/6000)
4	1.77	5.4/14.3	29/86 mph (5300/6000)
5	1.52	6.3/16.5	34/99 mph (5300/6000)
6	1.28	7.5/20.0	40/115 mph (5300/5750)
7	1.00	9.6/25.4	50/115 mph (5225/4525)
7	0.85	11.2/29.7	50/115 mph (4450/3875)
7	0.69	13.8/36.6	50/115 mph (3600/3150)
7	0.64	15.1/39.9	50/115 mph (3325/2875)

## CHASSIS

full-length frame  
**BODY MATERIAL:** aluminum stampings

## STEERING

rack-and-pinion with variable electric power assist  
**RATIO** ..... 20.5:1  
**TURNS LOCK-TO-LOCK** ..... 3.8  
**TURNING CIRCLE CURB-TO-CURB** ..... 43.3 ft

## SUSPENSION

**F:** ind, unequal-length control arms, coil springs, 2-position electronically controlled dampers, anti-roll bar  
**R:** ind; 2 diagonal links, 2 lateral links, and a toe-control link per side; coil springs; 2-position electronically controlled dampers; anti-roll bar

## BRAKES

**F:** 13.8- x 1.4-in vented disc, 2-piston sliding caliper  
**R:** 13.2- x 1.0-in vented disc, 1-piston sliding caliper  
**STABILITY CONTROL** ..... traction off

## WHEELS AND TIRES

**WHEEL SIZE** ..... 9.5 x 22 in  
**WHEEL CONSTRUCTION** ..... cast aluminum  
**TIRES:** Hankook Dynapro HT 285/45R-22 114H M+S

## EXTERIOR DIMENSIONS

**WHEELBASE** ..... 131.6 in  
**LENGTH** ..... 221.9 in  
**WIDTH** ..... 79.9 in  
**HEIGHT** ..... 76.1 in  
**FRONT TRACK** ..... 67.6 in  
**REAR TRACK** ..... 67.2 in  
**GROUND CLEARANCE** ..... 9.6 in

## INTERIOR DIMENSIONS

**PASSENGER VOLUME** ..... **F:** 65 cu ft **M:** 59 cu ft **R:** 47 cu ft  
**CARGO VOLUME BEHIND** .... **F:** 120 cu ft **M:** 73 cu ft **R:** 34 cu ft

## CAR AND DRIVER TEST RESULTS

### ACCELERATION

ZERO TO	SECONDS
30 MPH	1.9
40 MPH	2.9
50 MPH	4.1
60 MPH	5.5
70 MPH	7.3
80 MPH	9.3
90 MPH	11.8
100 MPH	14.8
110 MPH	18.4



98 mph isn't AMG quick but is plenty spry for a vehicle standing taller than six feet and weighing more than three tons.

The Navigator's ride is compromised by the Black Label's standard 22-inch rollers. It isn't uncomfortable, per se, but it's busier than it should be, with too much road intrusion into the seat, pedals, and steering wheel. Considering the Lincoln's 131.6-inch wheelbase, we expected the Navigator to glide effortlessly over the road, but it doesn't. It can't help that, with the Black Label's 22-inchers, each corner of the truck carries 93 pounds' worth of wheel and tire. The Range Rover and Mercedes-Benz GLS, as well as luxury sedans such as the Porsche Panamera and Mercedes S-class, do a better job of isolating you from the pavement's nooks and crannies.

Body motions are well controlled, but large impacts reveal the Navigator's truck-based roots. The SUV also suffers from occasional cab quiver and surprisingly audible groans from its cargo area as its structure flexes.

In Normal mode, the Lincoln's steering is lifeless on-center, but it tightens up if you switch over to Excite, which retunes the transmission for more aggressive gearholding and stiffens the dampers. There's also a Conserve mode to help increase fuel efficiency, and settings to adjust the all-wheel-drive system for slippery surfaces and deep snow. Each is confirmed with an elaborate graphic that momentarily takes over the SUV's sizable instrumentation screen.

Despite its name, Excite mode does not turn the Navigator into a Porsche 911. On the twisty sections of California State Route 74 south of Palm Springs, it proved

confident and capable, but a cooking podcast is more exciting. So the Navigator may not be fun to toss around, but push it in the corners, and it does hang in there, even at an enthusiast's pace. The guy in the E-class couldn't believe we were glued to his tail.

The 20.5:1 steering ratio should be quicker to give this barge more athletic response, but there are some elements of sportiness here: The transmission does match revs when you ask for a downshift with the paddle shifter, and the Navigator turns in well and takes a positive set. Reach the limits of its Hankook Dynapro HT tires, though, and it understeers mildly to warn you away from further speed. By then you've fried its brakes anyway, which are wooden and cook quickly under the Navigator's bulk. The smaller Mercedes GLS can't tow 8100 pounds like the Lincoln, but it's a far more engaging drive for about the same money.

Although the 2018 Navigator isn't exactly our jam, there's no doubt it redefines the top of the American-full-size-SUV game. The gang responsible for the Escalade better strap on the pads and lace up their cleats good and tight, because this rivalry is about to retake the field. And for the first time in a generation, maybe two, people will be tuning in. ■



ROLLING START, 5-60 MPH	.....6.5
TOP GEAR, 30-50 MPH	.....3.4
TOP GEAR, 50-70 MPH	.....4.1
1/4-MILE	.....14.2 sec @ 98 mph
TOP SPEED	.....115 mph (gov ltd)

<b>HANDLING</b>	
ROADHOLDING, 300-FT-DIA SKIDPAD	.....0.78 g
UNDERSTEER	.....minimal

<b>BRAKING, 70-TO-ZERO MPH</b>	
SHORTEST STOP	.....191 ft
LONGEST STOP	.....205 ft
FADE RATING	.....moderate

<b>WEIGHT</b>	
CURB	.....6330 lb
PER HORSEPOWER	.....14.1 lb
DISTRIBUTION	.....F: 49.9% R: 50.1%
TOWING CAPACITY	.....8100 lb

<b>FUEL</b>	
CAPACITY	.....28.3 gal
OCTANE	.....93 (recommended)
EPA COMBINED/CITY/HWY	.....18/16/21 mpg
C/D OBSERVED	.....15 mpg

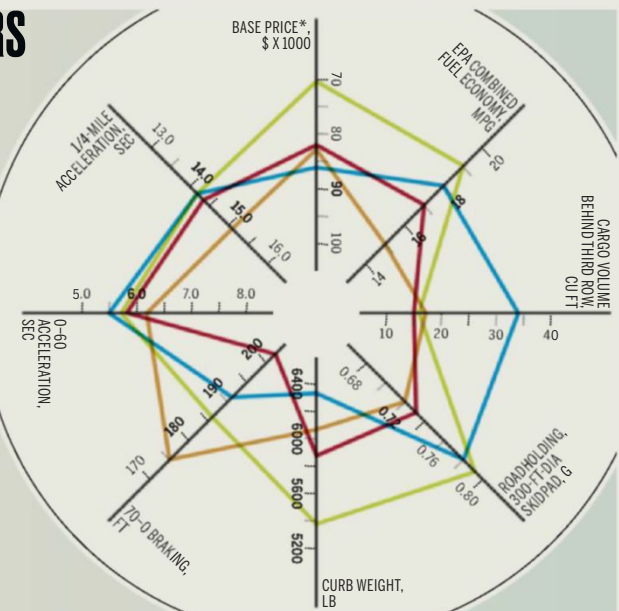
<b>INTERIOR SOUND LEVEL</b>	
IDLE	.....39 dBA
FULL THROTTLE	.....70 dBA
70-MPH CRUISING	.....64 dBA

## COMPETITORS

Predictably, the huge Navigator L is heavier and has more cargo space than its competitors. Less predictable, perhaps, are its quickness and efficiency.

- INFINITI QX80  
5.6-L V-8, 7-SP AUTO
- 2017 CADILLAC ESCALADE 4WD  
6.2-L V-8, 8-SP AUTO
- LINCOLN NAVIGATOR L 4X4  
3.5-L V-6, 10-SP AUTO
- MERCEDES-BENZ GLS450 4MATIC  
3.0-L V-6, 9-SP AUTO

\*Includes performance-enhancing options.





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# HURRICANE HARVEY DESTROYED MORE VEHICLES THAN ANY SINGLE EVENT IN AMERICA.

## THIS IS THE AFTERMATH.

[ BY JOHN PEARLEY HUFFMAN ]

**D**isasters are always fascinating. From fender benders to war, humans will stop and stare at the tragic, the grotesque, the hideous. In early December, I watched a massive plume of malevolent brown smoke moving over Ventura, California, threatening my hometown of Santa Barbara. I was mesmerized by the Thomas Fire, like everyone else. But it wasn't just the physical proximity of the flames that captivated me. I had just returned from Houston, which was still picking up after the devastation of Hurricane Harvey. Last year, as August came to a close, Houston was hit with nearly 52 inches of rain. At least 88 people were killed, and thousands lost their homes. Reports also estimate that up to a million cars were destroyed in the widespread flooding, as many as half of which were in Houston, America's fourth-most-populous city.

That's a huge number, but it would make sense. The city of Houston has 2.3 million residents and spreads out over 627.5 square miles. Throw in the suburbs, and the metro region expands to 6.3 million residents and almost 1300 square miles. There are some buses and light rail running in the city's urban core, but both get scant in the vast sprawl beyond. The Texas Department of Motor Vehicles had more than 3.5 million cars registered in Houston's Harris County during 2016—and seven other counties border Harris. Few places are more car-dependent than rapidly growing, economically vital, multicultural but wholly Texan Houston.

By the time I arrived, nearly four months after the storm, Harvey was a thriving business. The city was superficially okay; the occasional Whataburger was boarded up, and building supplies were stacked up alongside gutted houses, but life was moving on. There weren't hulls of abandoned cars along the roads because even flooded junk represents at least a few hundred dollars of value. To find out how the local car business in Houston dealt with destruction of this magnitude, I spent four days following the money. This is what I saw.

## THE PORSCHE SHOP

“I’ve lived in Houston four years,” says Jordan Remeljej, an Australian who founded Modern Aircooled in 2015 and runs the Porsche-only repair shop and car-guy hangout. “I’ve seen three major flooding events that I’ve read in the papers were ‘once in a lifetime.’ We have a habit here, during violent storms, of watching TV and drinking until we go to sleep.”

Modern Aircooled sits in a small, old former window-factory showroom in the Heights. “The difference between this particular flood event and the other two that I’ve experienced is that this time,” Remeljej explains, “the wealthy neighborhoods got flooded.

“We were well prepared,” he continues, “because we’ve seen it happen and we didn’t want to be complacent about things. A lot of clients called and asked, ‘How’s the shop?’ I’d say, ‘How’s your home? If you think you’re in danger of flooding, leave your car here. We’ve got all the insurance in the world. We’re okay.’ If this place goes substantially under water, no one cares about their car anymore. At that point, the whole city is under water. We had one car here, a GT3 race car, that was the only car a guy had left. He lost a Ferrari 430 Scuderia, a BMW M3, his toys, and his truck.”

While Modern Aircooled got a sheen of water across its floor during Harvey, its challenge afterward was deciding what kind of jobs it could handle.

“We started getting calls,” Remeljej says. “‘My convertible top is trying to go down when I’m on the highway,’ or ‘It got a little wet on the floorboards.’ We would ask, ‘Was the car running when this happened?’ And if it was, we’d say, ‘We’re not interested.’ We don’t have the space or size to deal with internal engine damage and things like that. We don’t have the cash flow to be waiting on big insurance claims. We chose jobs that we knew we could get the car back as good or better than it was. And we could do it without involving insurance for a reasonable price based on the value of the car.”

As for owners whose Porsches had drowned? “We just had to refer them to the dealerships.”

## THE WRECKER

“I’ve been doing it since I was 13,” Vincent Liggio says with his deep drawl, reflecting upon his many years in the towing business. “It’s in my blood.” Running out of the Houston suburb of Dickinson, Liggio’s fleet isn’t big, but it’s seen a lot.

“Everybody was going to watch the



At Modern Aircooled, Peter Lobona and Jordan Remeljej have a passion for Porsches. Socks? Not so much. Vincent Liggio and Mike Sabatier with the company’s one surviving flatbed.



claim the hulls and send them to auction. “We were lucky if we got \$200 a car,” Liggio laments. He retrieved about 100.

But the water that corroded the electronics in those abandoned cars was tough on his Ford F-650 trucks, too. Down to one tow vehicle after the flood destroyed three of his rigs, Liggio was looking to borrow another when I spoke with him. “I have the drivers, but I don’t have trucks. By the time I fix my trucks and stuff, I’m going to lose money.”

## THE DEALER

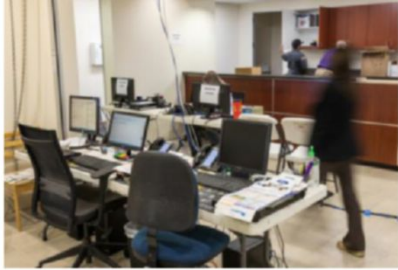
“I hit a red car with my Jet Ski,” explains Carter Dale, who had taken to the streets of Houston by watercraft. “I ran right over it.” Dale’s family owns and runs McRee Ford in Dickinson. In total, the dealership would lose 1100 new, used, and customer vehicles to Hurricane Harvey. It was the Ford store that sank.

McRee Ford has a prime spot fronting I-45, the Gulf Freeway, where the grandeur and epic scale of the dealership’s year-old, 96,000-square-foot building attracts passing drivers. Still owned and run by the family of Frank McRee, who started the business in 1947, it’s physically the sort of dealership that Ford would want all its stores to be. At least when it’s not submerged.

“The water came in everywhere,” recalls Dale, McRee’s great-grandson. “We had to destroy \$61,000 worth of new tires. Drilled holes in all of them. The insides of tires aren’t made to get wet.”

While the flood swamped the parking lot, water only lapped fitfully toward the showroom where specialty vehicles such as GT350s and Focus RS models were positioned. So of the 15 vehicles that escaped unscathed, most were of the compelling variety. A restored 1965 Mustang convertible, the showroom centerpiece belonging to family patriarch and dealer principal Mitchell Dale, also survived.





As for the others, Ford insisted that all of McRee's flooded new inventory—about 450 vehicles—be crushed. A fleet of trucks came in to haul them away, a difficult project since so few of them still ran. And by the time some of the new pickups reached the crusher, their valuable and easily removed tailgates had gone missing. Go figure. The customer cars awaiting service at McRee were handled by owners' insurers; most went to salvage auctions.

As Harvey hit, however, the McRee Ford inventory was a secondary consideration. The family lives in the area, and the dealership's 180 employees faced challenges of their own. Fortunately, every one of them survived and most are now back at work. Rebuilding the bottom floor of the dealership meant improvising systems to get the business moving again. The parts department relocated to tables set up in the huge service area; service writers were working on desks in the reception area; and the body shop and oil-change operations were shuttered until those facilities could be dried out. "No one said, 'It's not my job,'" Mitchell Dale says gratefully. "We'll end up running better now than before the storm."

By September 7, just days after the storm ended, the dealership was back in business selling new cars again. In addition to the post-Harvey demand for new vehicles, Ford's "Texas Is Family" promotion, which offered employee pricing to anyone who lost a vehicle to the flood, made September the best month yet for new-car sales at McRee—385 units. "But I don't want to go through another hurricane to have another record month," says Mitchell Dale.

## THE AUCTIONS

It's a ballet performed by a dozen or so yellow 15-ton Volvo L90E wheel loaders owned by online auction company Copart, dancing through the 400-acre grounds of Royal Purple Raceway in Baytown, Texas. Ripping between rows, rows, and more rows of flood-damaged vehicles, the big Volvos seek their prey. When they find the right car or truck, the articulated machines turn into it while hardly slowing, their long forks shoveling the vehicle into an old tire serving as a bump stop. An L90E lifts pickups into the air as easily

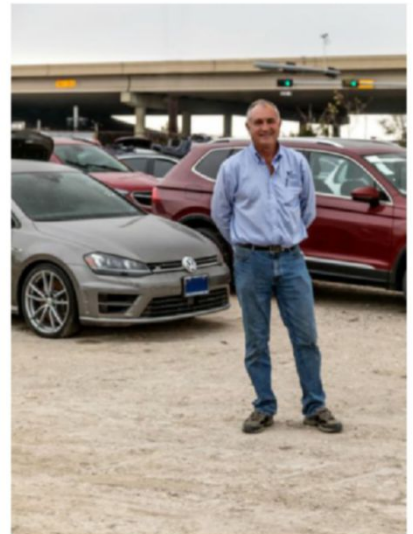


McRee Ford's back office kept going on folding tables. Carter Dale in the body shop at McRee. Harvey drowned cars with no respect for class or price. Dennis Wynne came out of his Florida retirement to inventory flooded vehicles from Houston-area dealerships.

as you would pick up a dropped pen. At that point, the loader swings around and hightails it back to dump the salvaged vehicle onto a waiting trailer near the raceway's entrance.

This process goes quickly because there are a lot of cars to move. At one time, Copart was storing 30,000-plus cars at Royal Purple.

Insurance salvage lots around the country dispose of totaled vehicles every day, part of an industry that operates in anonymity until an event like Harvey hits. Then massive temporary lots like the one at Royal Purple become the stars of YouTube flyover-drone videos, and the online auctions themselves attract thousands of fresh eyes digging for bargains. These lots are where vehicles with salvage titles—the scarlet mark of automotive marginalization—go to find new homes.



Copart's loaders feed an hours-long line of dualies extending off the Royal Purple lot and onto the FM 565 highway. Each is towing a one- or two-car trailer and working too hard to be washed. When the drivers get close to the loading area, they go to the drag strip's box office, show their paperwork, and get the retrieval slips.

Along the edge of the property is a celebrity row of ruination: a Ferrari 488 Spider, a Rolls-Royce Phantom Drophead Coupé, and various Teslas, Porsches, and Nissan GT-Rs. These delectables inspire fantasies of easy rehab and exotic motor-ing, but reality is more daunting.

The astounding volume of Copart's lots—the massive one at Texas World Speedway finally finished off that facility's motorsports operations—obscures the fact that there are opportunities for smaller players. A few miles down the road from Royal Purple, along I-10 but still in Baytown, is a 13-acre plot usually used as an equipment yard. But in the aftermath of Harvey, it became a parking lot for flooded brand-new vehicles acquired from dealerships—the inventory for the salvage-car bidding site [SalvageNow.com](http://SalvageNow.com).

"This is catastrophe-only business here," says Dennis Wynne, who came out of retirement in Florida to manage the lot. "It's testing our system in the field and generating some revenue from the cars, too." Beyond Wynne, there was one guy to man the gate and two to move cars around.

Still wearing dealership paper plates, the Buicks, GMCs, Hondas, and Volks-



Angela Rodriguez and Tamara Ross at Houston Auto Recyclers, where flood-damaged cars would be stripped for parts and the hulls crushed. The interior of a new Buick dries in the sun.



wagens look perfect. “All of them are on a salvage title, rebuildable,” says Wynne. “They are branded for life and their warranties are void. They are what they are. We’re somewhere close to 3000 cars. I’ve kind of lost count. But they’re still coming in. It’s been what? Four months?”

A veteran of previous catastrophe operations, Wynne appreciated some aspects of Harvey. “Kind of a nice experience,” he explains, “to have cars that actually had clean water go into them and clean water go out of them. That’s not too bad.”

Selling only to dealers, most of SalvageNow’s cars will wind up rehabbed and back on the road somewhere. “We have overseas buyers on our website that come in and bid on a group of them so they can get them in containers and overseas.”

Each car has quirks, but common problems involve electronic parking brakes, shifters, and other modules. After some prodding, Wynne found the key fob for a blue 2017 Honda Civic Si coupe with four miles showing on the odometer. It started with the first press of the button—and then the dash ignited to display myriad warning lights: the brake-hold, power-steering, VSA, hill-start, electric-brake, tire-pressure-monitoring, emissions, and brake systems all represented. Who knows how many fault codes it would throw if it were hooked up to a diagnostic tool? But it drove like the brand-new Civic Si it is. At least around the SalvageNow lot, it felt ready to drive cross-country. Originally stickered at \$24,790, it would likely sell for slightly more than \$16,000.

“I’ve driven salvage-title and flood cars for at least the last 30 years,” says Wynne. “You get a good deal and a lot nicer car. [Because of Harvey,] I got a 2018 Honda

Odyssey van that just left here yesterday heading back to Florida. I took it over to our home in La Porte, put it in the garage, and took it apart. Took all the interior out of it, dried it out. Put it back together and took it down to Honda, had them check everything on it. A couple hundred bucks and they certified it as fine. Put it on the truck yesterday and sent it to [our retirement home in] Florida.”

## THE END OF IT ALL

—  
“With all these cars being flooded, the auctions are selling them pretty cheap,” says Angela Rodriguez, who works for Houston Auto Recyclers, a pick-a-part yard in the city. They’ve been stocking up on junk-car inventory at Copart auctions. “Anywhere from 150 or more cars a week. It’s helping our business on this side because we’re getting them at a lower price.”

Business has been booming, certainly helped by the number of damaged cars that need to be repaired. “Normally around this time of year, the number of picks coming in would drop,” says Tamara

Ross, who helps run the lot with her husband, Harry. “But it’s been steady since the summer. This year compared to last year, we’re up.”

“We are crushing cars more than before,” adds Rodriguez. “We have to send out an extra load a day.”

From the Houston Auto Recyclers yard, the crushed cars go to Houston’s ports as scrap metal and then get shipped overseas to be melted down into fresh steel—the eventual fate of almost all cars.

**H**ow many vehicles were destroyed or damaged during Harvey is easy to speculate about, but tough to pin down. And it depends on who is counting. Insurance companies seemed quick to total out cars touched by water. But not everyone carries comprehensive insurance, and no one knows how many flooded cars were simply abandoned or how many are being kept on the road by owners who can’t afford anything else.

The Houston Police Department says it wasn’t keeping track of the abandoned vehicles. State Farm says it had settled 38,300 auto claims worth approximately \$400 million by the middle of December. That’s one company, albeit the biggest one. The Insurance Council of Texas reports an industry-wide figure of 250,000 cars and just shy of \$4 billion paid out. Throw in the uninsured fleet, and it’s an enormous number, what has to be the single largest incident of vehicular destruction in American history.

But this is just a blinkered glimpse of the larger tragedy. The insurance companies took about a \$19 billion total hit for Harvey, not counting what FEMA paid out in flood insurance to the 15 percent of homes that had it. (Total spending on natural disasters in the United States hit a record \$306 billion last year.) The silver lining is that all the systems—distribution, production, legal, insurance, family, charitable, and other—that were under considerable stress in Houston appeared to mostly work. But money is a Texas lubricant. Over in Puerto Rico, the recovery from Hurricane Maria has been agonizing. And many of the people living in Houston’s poorer Fifth Ward moved there from New Orleans after 2005’s calamitous Hurricane Katrina. Haiti reportedly lost more than 220,000 people in its 2010 earthquake and still hasn’t fully recovered. Insurance companies that pay claims quickly (or at all), legal systems that respect contracts (eventually), and governments that actually distribute aid (imperfectly)? They’re not universal. Comparatively, Houston had it easy-ish. ■



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# 2016 NISSAN TITAN XD

**Arrival: Jul/2016**  
**Departure: Oct/2017**

The workhorse blues. *by Mike Sutton*

**T**here's no easy way to say this: Our long-term Nissan Titan XD Diesel was one of the most disappointing new vehicles we have evaluated in recent memory, a distinction highlighted by our truck's serious mechanical issues and grounded in its general inability to endear when it was healthy.

Spearheading Nissan's then new second-generation Titan lineup for 2016, the XD leverages a near-heavy-duty build and an available Cummins turbo-diesel V-8 to serve a niche somewhere between established half-ton and three-quarter-ton pickups. While lesser, gasoline-fueled Titans have since joined the mix, the diesel XD is a brutish curiosity that, in theory, is ideal for the commuting and moderate workloads we ask of the trucks in our fleet. But therein lies this middling heavyweight's paradox: For how massive and unwieldy this Titan XD is on the road, its payload

and towing maximums of 2003 and 12,037 pounds, respectively, are eclipsed by those of some light-duty trucks.

While the XD's ride is undeniably stiff when empty, its control-arm front suspension and leaf-spring solid rear axle offer a bit more compliance than a full-HD pickup's. For the crew-cab-only 2016 model, we settled on the midrange Pro-4X trim with standard four-wheel drive and a six-foot, six-inch cargo box for a fair \$52,165. (Subtract \$5000 for the XD's livelier 390-hp gas V-8 that Nissan added later in 2016.) Along with bountiful standard equipment—bright LED headlights, a towing package, blind-spot monitoring with rear cross-traffic alert—the off-road-oriented Pro-4X brings a locking rear differential, Bilstein dampers, 18-inch wheels with all-terrain tires, and a bevy of underbody skid plates. The Titan's nonfunctional fender vents and grossly overhung snout are offered at no additional charge.

Adding the \$3310 Pro-4X Convenience package (heaters for the steering wheel and four of the five seats plus leather hides all around) along with the \$1100 Pro-4X Utility and Audio package (a Rockford Fosgate stereo, front and rear parking sensors, and a host of tie-downs in the cargo bed) was a sounder decision than our trim-level choice. Our Pro-4X's lack of any assist steps for an as-tested \$57,155 truck (Nissan offers cab and box steps separately as accessories) riled its detractors. And at more than 20 feet long and weighing 7280 pounds, the XD is simply too hulking to effectively tackle off-road terrain.

Despite the modest 310 horsepower from the Cummins turbocharged 5.0-liter V-8, the diesel's 555 pound-feet of torque pulls the Titan through traffic with determination. Early logbook comments noted the stability with which the Titan tugged about three tons of trailer and jalopy, albeit without much haste. Some niggles cropped up, too, including concerns about a numb and heavy helm that continued to groan at low speeds even after we discov-

#### Rants & Raves

"It is just too big for its own good and really shows Nissan's inexperience with this class of vehicle."  
—Joseph Capparella

"Just over 8300 miles on the odometer and the power-steering pump feels as if it's failing."  
—Drew Dorian





# PRO-4X CREW CAB DIESEL



**“LACKS THE POWER OF CURRENT HD RIGS FROM MAJOR PLAYERS BUT IS MORE STABLE AND EASIER TO DRIVE WHEN TOWING THAN HALF-TON OFFERINGS FROM THE SAME.”**

—JOSH JACQUOT, REVIEWS EDITOR

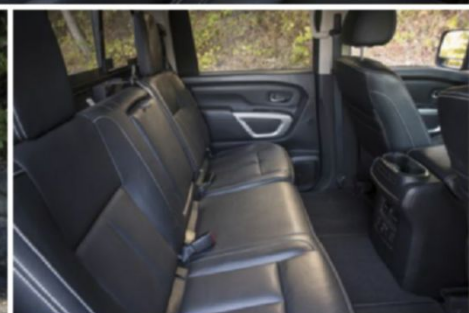
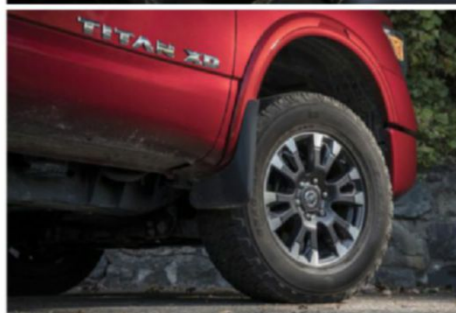




ered the power-steering system's fluid was low and topped it off. A recalcitrant tailgate-release handle also plagued the Titan for much of its term, despite the dealer replacing a faulty electronic lock actuator at no charge.

The diesel XD was lethargic at the test track, plodding to 60 mph in 9.4 seconds after its 6000-mile break-in period and covering the quarter-mile in 17.3 seconds at 82 mph. Those times improved somewhat, to 8.9 and 17.0 seconds, once the XD had loosened up at 40,000 miles, as did its stopping distance from 70 mph (204 feet down to 197) and meager grip around the skidpad (0.66 g versus 0.71). But other diesel rigs from Ford, General Motors, and Ram churn out more than 900 pound-feet of torque, with some examples able to bolt to 60 mph in less than 7.0 seconds. The Cummins V-8 also sounds less refined in operation than its 32-valve dual-overhead-cam layout would suggest; the wavering growl that accompanied the 5.0's clatter prompted technical director Eric Tingwall to scribble "Chewbacca is my co-pilot" in the Titan's logbook.

The Wookiee under the hood also had a voracious thirst for diesel exhaust fluid—a urea-based solution injected into the XD's exhaust system to limit nitrogen-oxide emissions. With our truck's laborious duty cycle (DEF consumption is relative to engine load) and the XD's small, 4.5-gallon DEF tank, the 44 gallons we fed the Nissan over 40,000 miles, at roughly \$6 per, came in many small doses. The DEF monitor in the Titan's info display also occasionally asked for refills when the tank was nearly



full and flashed service alerts that quickly disappeared.

Other logbook entries expressed wonderment at Nissan's approval of the XD's uncouth Aisin six-speed automatic. Even after two computer reflashes under warranty, the Titan's transmission lurched through its ratios under acceleration and, with equal abruptness, clunked into gear at slower speeds. "It's hard to believe someone could sign off on this transmission calibration," noted assistant technical editor David Beard.

Virtually every driver agreed that the Pro-4X's cossetting Zero Gravity front seats were its best attribute, with the crew-cab interior itself stocked with amenities and storage options for long voyages and a range of work. But the cabin's vibrations, chintzy materials, and outdated 7.0-inch touchscreen that washed out in sunlight never impressed its occupants. Deputy online editor Dave VanderWerp summed it up well: "This new Titan feels a generation

#### Rants & Raves

"This truck is just shockingly bad. Previously, I had only been in the Titan with a trailer attached. Sadly, it drives like it's towing even when it's not."

—Jeff Sabatini

"Over the last two days, I've spent 30-plus hours driving the Titan and have found the seats to be quite comfortable."

—Maxwell Mortimer

"Never have I jumped into a vehicle this new and been this unsure of its capabilities to make it home issue-free."

—Nathan Petroelje

## Service Timeline:

The trials of a burdensome beast.

Key: ● - Repairs ● - Damage ● - Maintenance  
○ - Normal Wear ○ - Oil Additions

### July 20, 2016

150 miles: Nissan Titan XD diesel begins its long-term test.

### August 10, 2016

2172 miles: Dealer updates transmission software under warranty to address slipping shifts, aligns front wheels, and inspects power steering for source of groaning but finds nothing amiss, \$0

### October 3, 2016

8298 miles: Dealer performs a recall fix for the Titan's fuel-tank breather tube; also performs oil and fuel-filter change, tire rotation, and inspection, \$352

### November 22, 2016

13,274 miles: Dealer again inspects power steering under warranty, tops off with fluid, and bleeds the system; also secures loose A/C hose underhood, \$0

### December 19, 2016

15,744 miles: Dealer performs oil and fuel-filter change, tire rotation, and inspection; reflashes transmission computer again per recall; and replaces faulty tailgate lock actuator under warranty, \$397

### April 26, 2017

26,118 miles: Dealer performs oil and fuel-filter change, tire rotation, and inspection; also replaces engine and cabin air filters, \$503

### April 30, 2017

26,927 miles: Titan XD sets off for California.

### May 1, 2017

27,335 miles: Titan illuminates an intermittent "reduced engine power" warning and check-engine light for low coolant levels; dealer in Davenport, Iowa, tops off engine coolant and gives the all-clear to carry on, \$0

### May 4, 2017

29,736 miles: CEL for low coolant level returns near Baker, California; driver purchases OBD II scanner (\$100) to confirm and clear fault codes and tops off engine coolant.

### May 5, 2017

30,595 miles: CEL and "reduced engine power" warnings illuminate near Parachute, Colorado; driver again clears codes and tops off coolant.

### May 8, 2017

30,961 miles: Titan arrives at a dealership in North Platte, Nebraska, with multiple fault codes, the engine knocking, and white smoke coming from exhaust. Dealer replaces faulty No. 8 fuel injector and full exhaust system under warranty, clears codes, and tops off coolant; pressure-tests engine-cooling system and the EGR cooler, both of which check out, \$0





or more behind full-size pickups from the Detroit Three.”

Despite its many faults, our Nissan racked up miles hauling furniture and yard debris, towing off-road toys around Michigan, and fetching cars from both coasts. While the thousands of miles our truck covered with a trailer lowered the fuel-economy average to 15 mpg overall, the unladen Titan returned 18 mpg on our 200-mile highway loop. (As a heavy-duty truck, the XD is exempt from EPA fuel-economy estimates.)

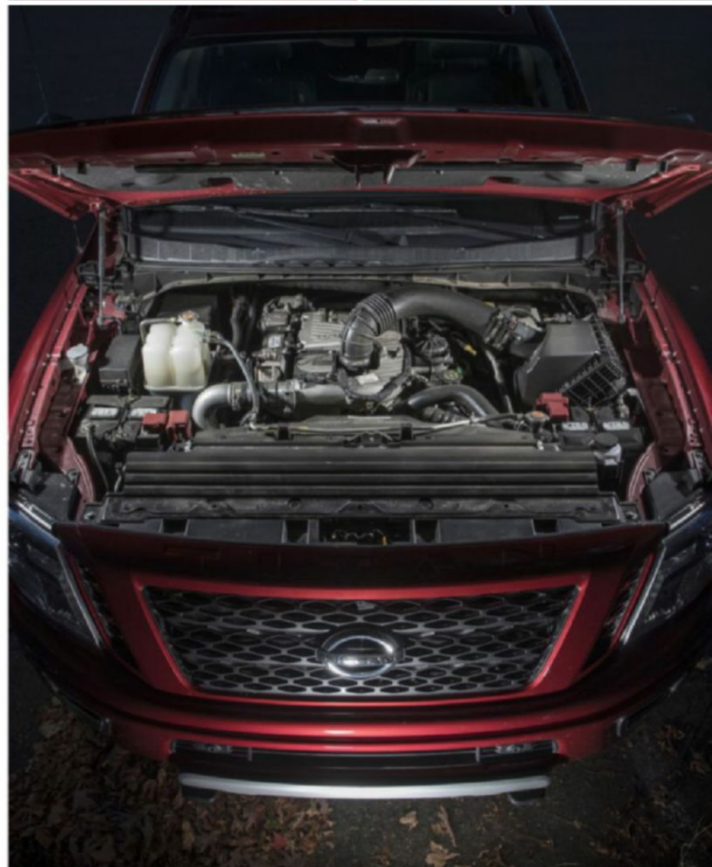
Basic maintenance for the diesel Titan was substantial. Nissan’s service schedule calls for regular checkups every 10,000 miles unless the oil-life monitor in the cluster asks for it sooner, as our hardworking truck’s did. We spent \$1634 on four routine stops, plus a fifth and final \$298 visit for new brake and transmission fluids that should have been changed by two separate dealers as part of the Nissan’s 20K- and 40K-mile jobs.

The XD’s logbook reached peak negativity when the Cummins engine started acting up around 27,000 miles, ultimately stranding us several times. While en route from Ann Arbor to Santa Barbara, California, to retrieve C/D’s flame-painted Mitsubishi Eclipse “GT-R” [“Hot vs. Cheesy,” March 2017], the XD limped into an Iowa dealership down on power and illuminating a check-engine light for low coolant levels. The service desk, determining nothing serious was amiss, replaced the coolant and erased the codes before clearing us to carry on in the now seemingly healthy truck.

It was 2400 miles later, on the return trip in the California desert with the Mitsu in tow, that the same check-engine alert reappeared, which we confirmed with an OBD II scanner purchased from an auto parts store (the closest Nissan shop was 60 miles away). With the last dealership experience proving uneventful, we felt reasonable in repeating the previous fix until the issue could be further investigated back home. In hindsight, given the now chronic coolant loss, we would have been wiser to seek a second opinion from another Nissan store.

Our optimism ended in Nebraska when the truck’s problems went into overdrive, the Titan consuming more coolant before limping into another dealership with white smoke spewing from its tailpipe. A kaleidoscope of check-engine warnings pointed to a leaking exhaust-gas-recirculation cooler, which is a heat exchanger that uses engine coolant to reduce the temperature of exhaust that is routed back into the combustion chambers to curb

The Titan XD provides all the weight of a heavy-duty pickup but without the HD performance or capability. At least the front seats are comfortable.



**May 14, 2017**  
**31,998 miles:** Titan returns to Ann Arbor.

**May 20, 2017**  
**32,315 miles:** Titan departs for Virginia International Raceway.

**May 25, 2017**  
**33,149 miles:** Dealer in Danville, Virginia, in response to another CEL and the Titan running rough, again replaces No. 8 fuel injector and fuel filter under warranty, as well as the engine-

control module and its wiring harness, \$0

**June 12, 2017**  
**34,147 miles:** Dealer in Lima, Ohio, clears another EGR-related warning code, refashes engine-control module under warranty, \$0

**June 21, 2017**  
**34,838 miles:** Dealer in Ann Arbor investigates the return of the Titan’s EGR-related CEL, performs inspection, and clears the fault code, \$0

**July 17, 2017**  
**36,234 miles:** When the CEL reappears, dealer replaces EGR cooler and valve under warranty, performs recall replacement of rear seatbelt bolts, \$0

**October 31, 2017**  
**40,653 miles:** Dealer performs oil and fuel-filter change, tire rotation, and inspection, \$382

**November 3, 2017**  
**40,669 miles:** Dealer performs brake- and transmission-fluid changes that should have been included in previous routine service visits, \$298

**November 6, 2017**  
**40,673 miles:** Long-term test ends.

**OPERATING COSTS (FOR 40,000 MILES)**

<b>MAINTENANCE</b> .....	\$1932
<b>NORMAL WEAR</b> .....	\$0
<b>REPAIR</b> .....	\$0
<b>DIESEL (@ \$2.53 PER GALLON)</b> .....	\$6747
<b>DEF (@ \$6.00 PER GALLON)</b> .....	\$278

**SERVICE**

<b>DEALER VISITS (SCHEDULED/UNSCHEDULED)</b> ...	5/8
<b>DAYS OUT OF SERVICE</b> .....	52
<b>UNSCHEDULED OIL ADDITIONS</b> .....	0 qt
<b>DIESEL EXHAUST FLUID</b> .....	44 gal





NO<sub>x</sub> emissions. A fuel injector in our truck's engine had also failed—a separate, known problem with the Cummins V-8 engine—which the dealer replaced under warranty along with the Titan's full exhaust system. The service techs also pressure-tested the Cummins's cooling system and EGR heat exchanger but curiously found no evidence of leaks.

We retrieved the truck from Nebraska a week later, returned home, and then dispatched it to Virginia International Raceway in support of our annual Lightning Lap event [October 2017]. The Titan made it to VIR, but the 5.0 began to run rough while at the track, and more engine repairs and inspections parked the XD at various Nissan outlets in Virginia, Ohio, and Ann Arbor. The truck's troubled running finally subsided when a new EGR cooler was installed under warranty at 36,000 miles—the *sixth* pit stop related to the original problem. While Nissan says that construction of the EGR cooler was beefed up on diesel XDs built after September 2016, we have since read of other EGR-related issues from Titan owners on the internet.

Although the malfunction of its Cummins engine and the subsequent trouble it took for Nissan's service network to correct it were enough to earn our long-termer an F on its report card, that problem was merely the final straw for

drivers already frustrated with the Titan's many day-to-day issues. As an extra-large tweener that can disappoint even on its good days, Nissan's big rig left us unconvinced that its quasi-heavy-duty niche is really in need of filling.

Below: See! No warning lights (at least not at 39,823 miles). Below right: Fender badge is not a vent but a branding opportunity. Bottom: Why the long face?



### Rants & Raves

"This truck feels as if it's already falling apart—lots of rattles and vibrations from the interior and we're not even at 10K miles yet!"  
—Joseph Capparella

"The Titan makes noises that should have given Nissan's NVH engineers fits."  
—Josh Jacquot

"Overall, an underwhelming-from-the-ground-up effort on a new full-size pickup."  
—Dave VanderWerp

"This transmission is horrible. It feels like it has a street racer's shift kit."  
—Rusty Blackwell

"I often find myself surprised at how easy it is to fit a Ford F-150 or Chevrolet Silverado into my daily life. This truck just feels unwieldy."  
—Annie White

"Access to the bed is difficult for people of average height; the easiest way up is to use the rear tire as a stool and try not to rip the crotch out of your pants."  
—Rusty Blackwell

## 2016 NISSAN TITAN XD PRO-4X DIESEL

**\$57,155**

PRICE AS TESTED .....	<b>\$57,155</b>
BASE PRICE .....	<b>\$52,165</b>
VEHICLE TYPE: front-engine, rear/4-wheel-drive, 5-passenger, 4-door pickup	
ENGINE: sequentially turbocharged and intercooled DOHC 32-valve diesel V-8, iron block and aluminum heads, direct fuel injection	
DISPLACEMENT .....	305 cu in, 4997 cc
POWER .....	<b>310 hp @ 3200 rpm</b>
TORQUE .....	<b>555 lb-ft @ 1600 rpm</b>
TRANSMISSION .....	6-speed automatic with manual shifting mode
WHEELBASE .....	151.6 in
LENGTH .....	243.6 in
WIDTH .....	80.7 in
HEIGHT .....	78.4 in
CURB WEIGHT .....	7280 lb

### WARRANTY

3 years/36,000 miles bumper to bumper  
5 years/60,000 miles powertrain  
5 years/unlimited miles corrosion protection  
3 years/36,000 miles roadside assistance

### MODEL-YEAR CHANGES

**2017:** Bumper-to-bumper and powertrain warranties extended to 5 years/100,000 miles. Single Cab and King Cab configurations added to the lineup.  
**2018:** Minor trim changes.

## CAR AND DRIVER TEST RESULTS

### PERFORMANCE

<b>ZERO TO 60 MPH:</b>	
NEW .....	9.4 sec
40,000 .....	8.9 sec
<b>ZERO TO 100 MPH:</b>	
NEW .....	28.9 sec
40,000 .....	28.3 sec
<b>ROLLING START, 5–60 MPH:</b>	
NEW .....	10.1 sec
40,000 .....	10.2 sec
<b>1/4-MILE:</b>	
NEW .....	17.3 sec @ 82 mph
40,000 .....	17.0 sec @ 82 mph
<b>BRAKING, 70–0 MPH:</b>	
NEW .....	204 ft
40,000 .....	197 ft
<b>ROADHOLDING, 300-FT-DIA SKIDPAD:</b>	
NEW .....	0.66 g
40,000 .....	0.71 g
TOP SPEED .....	104 mph (governor limited)
C/D-OBSERVED FUEL ECONOMY .....	15 mpg
C/D-OBSERVED DEF CONSUMPTION .....	1.2 gal/1000 mi

### LIFE EXPECTANCIES

(ESTIMATED FROM 40,000-MILE TEST)

TIRES .....	65,000 miles
FRONT BRAKE PADS .....	more than 100,000 miles
REAR BRAKE PADS .....	more than 100,000 miles

### WHAT BITS AND PIECES COST

HEADLAMP (LEFT/RIGHT) .....	\$994/\$980
ENGINE AIR FILTER .....	\$33
OIL FILTER .....	\$10
WHEEL .....	\$504
TIRE .....	\$218
WIPER BLADE (LEFT/RIGHT) .....	\$20/\$22
FRONT BRAKE PADS .....	\$97

## FIVE-YEAR DEPRECIATION

Depreciation data from ALG. Based on 15,000 miles per year.











# Fleet Files: Here's how our other long-term vehicles are faring in their 40,000-mile trials:



## 2017 Porsche 718 Boxster S

Arrival: Apr/2017  
Miles: 17,910  
Observed mpg: 22

During Michigan's sunless season, driving the Boxster is nearly as therapeutic as sitting in front of our SAD lamps. The stock Pirelli P Zero summer tires began their protest well before temperatures collapsed into the single digits, with grip suffering in moderate autumn weather. We braced ourselves for winter with Porsche-spec Michelin Pilot Alpin PA4 tires that transformed our Sapphire Blue Metallic Boxster into four-wheeled Prozac to counter the interminable gray pressing down from the sky. The Michelins claw through snow without compromising the Porsche's responsive steering and sharp turn-in. And the Boxster's sports-car purity is a virtue even when the roads are slick, as long as the snow falls just a couple of inches at a time. "Its precision, balance, and poise are just as welcome—if not more so—in low-grip conditions," wrote deputy online editor Dave VanderWerp. Hell, our spirits are buoyed just reading that sentence. —Eric Tingwall



## 2017 Ford F-150 Raptor SuperCrew

Arrival: Apr/2017  
Miles: 26,863  
Observed mpg: 15

Car signout at C/D world headquarters has never been easier. Consider the following text-message exchange:

**Josh Jacquot:** Call me and I'll walk you through your choices.

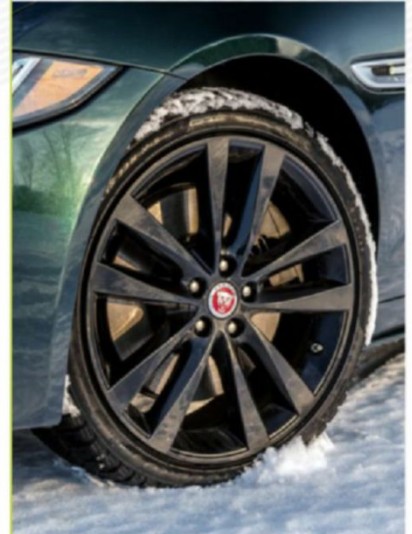
**Jared Gall:** You know me. First priority is horsepower. Stupidity after that.

**Jacquot:** Done. Raptor. All week.

**Gall:** Boom.

On the other hand, the Raptor, a.k.a. the Canadian Sports Car or the Brap-tor, is the most difficult long-termer to get for a weekend, its combination of rut-eating poise and domestic-duty grace being suited to a range of life phases.

We've done a little maintenance: We had the BFGoodrich All-Terrain T/A KO2 tires rotated at 10,000 miles then replaced at 24,000, just as winter wrapped its cold, dark hands around southeastern Michigan. We've had the oil changed twice, but the Raptor remains the picture of stoic, if sideways, reliability. Boom, indeed. —Josh Jacquot



## 2017 Jaguar XE 35t R-Sport AWD

Arrival: Sep/2016  
Miles: 39,880  
Observed mpg: 23

Our BRG XE is a whisker away from finishing its long-term loan. After a few staffers schedule a final romp in this once ballyhooed sports sedan, the Jaguar will simply vanish from our parking lot without fanfare, like a TV show that doesn't get picked up for another season. There were some good episodes, sure, especially those country drives where its hooligan power and playful steering could be appreciated without the grumbling of passengers who found riding in the car less luxurious, quiet, and comfortable than expected. Having given up its dealership frequent-flier status many miles ago, the XE has mostly been keeping calm and carrying on in our hands—except for flattening tires with the regularity of commercial interruptions. We've experienced nine of these plot twists. Spoiler alert: An Alfa Romeo Giulia Quadrifoglio will soon replace the Jag in our daily programming. —Jeff Sabatini

2017 FORD MUSTANG SHELBY GT350  
19,600 MILES

2017 BMW M2  
25,568 MILES

2016 MAZDA CX-9  
SIGNATURE  
33,000 MILES

2017 CHRYSLER  
PACIFICA  
TOURING-L PLUS  
38,770 MILES





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# Swedish Robotica

With the **XC40**, Volvo gets playful. *\_by Tony Quiroga*

▼  
**AREN'T WE FULL?** Do we have the appetite for yet another sub-compact luxury crossover? After all, human civilization survived all the way to 2009 without any of these things. By our count, there are more than 10 brands competing in this 160,000-vehicle segment. Yet sales are forecast to grow because, to many buyers, the premium badge, the design, and the high seating position of these small luxury crossovers are far more important considerations than their nonpremium transverse-engine architectures and their compact accommodations.

The new Volvo XC40 doesn't overtly challenge the class norms. These little vehicles may be useful, inoffensive, and loved by customers, but to those of us who value driving dynamics, they're as quickly forgotten as a double dose of Nyquil, and they're almost all terminally dull to pilot. Volvo hasn't disrupted the segment with a V-12, gullwing doors, or even rear-wheel drive. Look at it on paper, and the XC40 appears to be as conventional as the rest of its ilk. But—and this is the major differentiator—the XC40 isn't boring.

"Tough little robot" is how Volvo characterizes the XC40's exterior styling. Unlike the larger XC60 and XC90, which feature

**[+] Fun to drive, strong turbo four, clever details, orange carpet.**

**[-] Cumber-some shifter, seat comfort below Volvo's usual standards, gritty engine note.**

sculpted, smooth, and dynamic forms, the XC40 is a little goofier-looking, especially when fitted with the available white roof that unfortunately puts us in mind of a Toyota C-HR. More successful design elements include a clamshell hood with a tiny Swedish flag flapping out from under it, a punched-in grille, scalloped doors, and a kicked-up beltline. Aside from the massive taillights and the "Thor's Hammer" elements in the headlights, the XC40's design ensures that the small Volvo stands out from the rest of the showroom; it isn't simply a homunculus of its larger kin. You

can avoid the white roof—and you should, as the XC40 looks better with a black or body-colored one—but there's no removing the elongated rectangular trim piece in the C-pillar that hides the seam between the roof and the rest of the body, and there's no ignoring the impression that the rear doors have been pulled off a previous-generation Jeep Compass.

# Drivelines



# How To: Restore Your Body

One of 2018's more interesting innovations came when Dr. Rand McClain, the Los Angeles based "Doctor to the Stars," released his new technique for what some are calling the **Body Restore formula**.

And the reason everyone's talking about it is because his method is based on technology that was actually partially banned by a U.S. Establishment in 2001. However, Dr. McClain and his partners have found a way that allows them to go and take this discovery straight to the American people.

Dr. McClain revealed he's already offering this to his celebrity and pro-athlete clients with incredible results.

In the video presentation – he details how some very big name athletes are achieving **increased strength, healthier**

**bodies, and even more energy.**

But what's really turning heads is that the method involves one simple thing: A drink.

McClain believes the technique works best for people over 40, particularly those who may be experiencing fatigue, weaker bodies, and even "foggy" thinking.

And when Dr. McClain dropped the final bombshell — video footage of the results he experienced after using the method on himself — it became clear that the discovery is nothing short of incredible, of course your individual results will vary.

But the latest development in this story came when the video version of the presentation was made available to the public online.



As of this writing, the video has over 3 Million views and is quickly becoming "viral".

This is the video that many might not want people to see, but if you want to learn more watch the shocking presentation at [www.LCR27.com](http://www.LCR27.com)

Dr. McClain calls out both the medical industry and certain agencies. One viewer commented: "Why did I not know this before? Rand is telling it like it is...we need more doctors like this!"

You can watch his presentation at [www.LCR27.com](http://www.LCR27.com)

## OAKLAND SUPPLY CO.



The pale-blue-body-and-white-roof combo is very of the moment. We're not; we prefer the black top.

The first version of the XC40 to arrive will be the T5. Under its aluminum hood is Volvo's turbocharged 2.0-liter inline-four with 248 horsepower and 258 pound-feet of torque. An eight-speed automatic does the shifting, and all-wheel drive is standard. A few months after the T5 arrives, it will be joined by the T4, which will have a smaller turbo, 14.2 psi of boost instead of 20.0, 184 horsepower, front-wheel drive, the same eight-speed automatic, and a lower price. With the 248-hp engine, the XC40 punches hard and moves the estimated 3800-pound T5 along briskly—the claimed (and believable) zero-to-60-mph time is 6.2 seconds. There's no word yet on fuel economy, but we estimate that the T5's EPA ratings will land around 24 mpg city and 31 highway.

The XC40 is built on Volvo's new CMA platform, which stands for Compact Modular Architecture (not Brad Paisley's favorite awards show) and is smaller and lighter than the SPA platform that underpins the 60- and 90-series Volvos. CMA will also be the basis for the next S40 sedan and V40 wagon as well as other products for Volvo's Chinese parent company, Geely.

For our drive in Spain, Volvo made available only the XC40 T5 with the top-of-the-line R-Design package. The Momentum trim level is standard, as it is with the XC60 and the XC90. In addition to a black roof and mirrors, R-Design features include a different grille, metallic exhaust tips, slightly stiffer springs, monotube instead of twin-tube dampers, thicker anti-roll bars, and standard 19-inch wheels. Our test example wore 20-inch wheels on 245/45R-20 Pirelli P Zero summer tires.

With this setup, the XC40 drives like a lifted Volkswagen GTI. It's nimble and lively, with tightly controlled body motions. There's no slop in the chassis responses, the quick steering is alive, and the engine—although a bit gritty—pulls the tough little robot hard out of corners without a whiff of turbo lag. Volvo will offer

### 2019 VOLVO XC40 T5 AWD

**VEHICLE TYPE:** front-engine, all-wheel-drive, 5-passenger, 4-door hatchback

**BASE PRICE:** \$36,195

**ENGINE:** turbocharged and intercooled DOHC 16-valve inline-4, aluminum block and head, direct fuel injection

**DISPLACEMENT:** 120 cu in, 1969 cc

**POWER:** 248 hp @ 5500 rpm

**TORQUE:** 258 lb-ft @ 1800 rpm

**TRANSMISSION:** 8-speed automatic with manual shifting mode

**DIMENSIONS**

**WHEELBASE:** 106.4 in

**LENGTH:** 174.2 in

**WIDTH:** 73.3 in

**HEIGHT:** 65.3 in

**PASSENGER VOLUME:** 98 cu ft

**CARGO VOLUME:** 21 cu ft

**CURB WEIGHT:** 3800 lb

**PERFORMANCE (C/D EST)**

**ZERO TO 60 MPH:** 6.2 sec

**ZERO TO 100 MPH:** 18.5 sec

**1/4-MILE:** 14.7 sec

**TOP SPEED:** 143 mph

**FUEL ECONOMY (EPA COMBINED/CITY/HWY):** 27/24/31 mpg (C/D est)

adjustable dampers later in the year for \$1000, but our time with the R-Design setup made us very happy.

Switch the driving mode from the standard Comfort to Dynamic (there are also Eco and Off Road modes, along with a customizable Individual mode), and the throttle response sharpens, the transmission holds gears longer and locks out eighth gear, and the brakes allegedly become more responsive, although we couldn't detect any difference. The improved throttle response wakes up the XC40, encouraging you to hustle it—something that rarely happens when driving anything in the XC40's competitive set.

On those sticky Pirellis, we even managed to keep ahead of an aggressively driven GTI in the Montserrat mountains. In the U.S., 18- and 19-inch wheels will be available with Michelin Primacy MXM4 all-season tires, and all trims will have the option of 20-inch wheels with Pirelli Scorpion Verde all-season rubber. Dealers will offer a 21-inch wheel with a summer tire as an accessory option. It remains to be seen





The XC40's interior is beautifully designed and nicely finished. It is our position that when orange carpet is offered, you always get the orange carpet.

how U.S. versions will compare in terms of handling with the summer-tire-shod cars we drove, but we're assured that the suspension tuning will be identical.

Unlike the exterior, the XC40's clean interior design is largely shared with Volvo's more substantial crossovers, albeit in size small. There's no wood trim as there is in Volvo's larger vehicles, but collision-warning and lane-departure systems are standard. The instrumentation, the switchgear, and the vertically oriented 9.0-inch touchscreen are nearly clones of what's in the XC60 and the XC90 and give the XC40 an upmarket ambience. The touchscreen does require some time to learn, but its response time is quicker than we remember. To lighten the mood, be sure to select the R-Design's Lava carpeting (\$100) that brings a bit of a '70s fondue party along on every drive.

The XC40's narrower width places the front-seat occupants closer together than in the larger XC utes, but Volvo made a point of showing us the large door pockets made possible by relocating the subwoofer to the top of the dashboard. There's also a big cubbyhole below the armrest, drawers under the seats, and a removable trash bin behind the shifter. Two USB ports sit below the touchscreen; one serves as a power source while the other connects to Android Auto or Apple CarPlay. The back seat is comfortable for two adults, and if the rear doors look like an old Compass's, at least they're large and open wide enough to make loading a child's car seat easy.

Select the right option, and you can open or close the hatch with a quick kick under the rear bumper. There are 21 cubic feet of cargo space

with the seats up, and available integrated grocery-bag hooks will keep your eggs from wandering around. Rear seats fold 60/40 and have a small pass-through for long, narrow objects.

We never got used to the annoying shifter that requires two separate tugs to move from park to drive, or the front seats that lack the supple padding we've come to associate with larger and more expensive Volvos. We'd also turn down the volume on the four-cylinder engine; when it's revved, altogether too much buzz makes it inside for this kind of money.

How much money? Pricing will start at \$34,195 for the 184-hp XC40 T4 with front-wheel drive. The more powerful all-wheel-drive T5 opens at \$36,195. The top-of-the-range T5 R-Design, the version we drove on the launch program, starts at \$38,695. Loaded with options, the Volvo can exceed \$45,000. But we were charmed by the XC40. Both in design and dynamics, it is far more entertaining than we have come to expect from such vehicles. Volvo's decision to have some fun was the right one. It gives the brand a bright beacon in a practical and often dreary segment.





# Down the Hatch

Buick's **Regal Sportback** attempts to span the middle ground between mainstream and premium with a dose of hidden-hatch practicality. *—by Joseph Capparella*

▼ **“SPORTBACK,” THE SURNAME BUICK CHOSE** for its latest Regal, you might notice, is the same word that Audi uses for its new four-door-hatchback variants of the A5 and S5. And Buick would have you believe that the Regal provides much of the charm of that sleek Ingolstadt looker for considerably less coin. While we doubt that many Audi intenders will set foot in a Buick dealership, the Regal Sportback really does look great. Its low-slung silhouette and wide stance project athleticism, and the tasteful detailing avoids the chrome-heavy, porthole-festooned contrivances on which Buick once prided itself. The sleek new Sportback is also smart business because crossovers, which are really just lifted hatchbacks, have sabotaged the conventional trunk.

Buick, GM's long-standing sub-Cadillac “premium” brand, says that 81 percent of the vehicles it sells in the United States are crossovers. Sales of big, comfy sedans like the LaCrosse, formerly Buick's bread and butter, have dwindled sharply over the past few years. In 2017, the pint-sized Buick Encore, essentially a tall subcompact hatch, outsold the LaCrosse by more than four to one. Having run out of ideas for how to Make Sedans Great Again, Buick wisely decided to flip the script for the new Regal. Like the previous Regal sedan, a sort of budget-priced Audi A4 that arrived here in 2010, the new Regal is closely related to the European Opel

**[+] Crossover-like space, doesn't look or drive like a crossover.**

**[-] Low-rent interior, limp steering, no paddle shifters.**

Insignia. Only this time, America is getting it in a choice of two Euro-chic hatchback body styles: this Regal Sportback and the Regal TourX, a bona fide station wagon with Subaru Outback-like body cladding and standard all-wheel drive.

It's inside where Buick's Audi baiting falls flat. Even in top-trim Essence models, hard plastics, obviously fake stitching, and plain-looking leather abound, to say nothing of the visible mold cutlines and sharp edges on the center console. While GM has made strides in interior quality lately, this cabin fails to match the best from Honda and Mazda, let alone the European luxury brands. The Regal, though, is not priced like an Audi—not even a little bit. With a 250-hp turbocharged 2.0-liter inline-four and a nine-speed automatic as standard equipment, the Buick starts at a decidedly



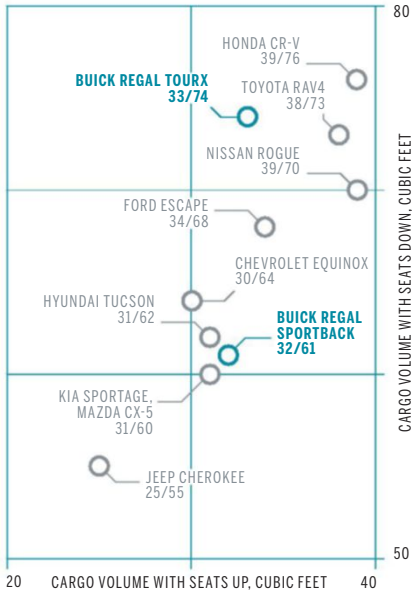
## Drivelines



tale of the tape

## SPACE RACE

We've argued the merits of wagons and hatchbacks over their crossover brethren, but the Regals' cargo-space numbers speak for themselves. We stacked the Sportback and the TourX wagon up against popular compact crossovers, and whether you're measuring with the rear seats up or folded, they're fully in the hunt.



mainstream \$25,915. That undercuts the previous Regal by \$2075, and it's \$5285 less than the cheapest turbo-2.0-liter-powered Honda Accord. Decently equipped front-wheel-drive Regals ring in at around \$33,000, while a fully loaded all-wheel-drive car barely crosses the \$40,000 barrier. Audi won't even talk to you about an A5 Sportback unless you're willing to part ways with at least \$43,575.

At those prices, the Regal isn't expected to drive like an Audi. And it doesn't. The lazy steering is aloof on-center, and relaxed spring rates make for a fair amount of body roll, although the grip threshold is surprisingly high. This car is willing but not eager to hustle on a twisty road, left wanting for the sharp turn-in and flat cornering that make the A5 so lovely to hustle. GM's turbo 2.0-liter four-cylinder, though similar in output to the VW Group's, is neither as smooth nor as punchy, even if it provides more than enough mid-range grunt for the Regal to execute highway passes with authority.

The Buick's best quality is its refined drivability. Ride motions are suitably damped and the cabin is impressively hushed at speed. And it's yet another GM vehicle with near-ideal brake-pedal feel: firm and progressive, with



### 2018 BUICK REGAL SPORTBACK

**VEHICLE TYPE:** front-engine, front- or all-wheel-drive, 5-passenger, 4-door hatchback  
**BASE PRICE:** \$25,915–\$32,605  
**ENGINE:** turbocharged and intercooled DOHC 16-valve inline-4, aluminum block and head, direct fuel injection  
**DISPLACEMENT:** 122 cu in, 1998 cc  
**POWER:** 250 hp @ 5400 or 5500 rpm  
**TORQUE:** 260 lb-ft @ 2000 rpm or 295 lb-ft @ 3000 rpm  
**TRANSMISSIONS:** 8-speed automatic with manual shifting mode, 9-speed automatic with manual shifting mode  
**DIMENSIONS**  
**WHEELBASE:** 111.4 in  
**LENGTH:** 192.9 in  
**WIDTH:** 73.3 in  
**HEIGHT:** 57.3 in  
**PASSENGER VOLUME:** 98 cu ft  
**CARGO VOLUME:** 32 cu ft  
**CURB WEIGHT:** 3450–3600 lb  
**PERFORMANCE (C/D EST)**  
**ZERO TO 60 MPH:** 6.2–6.4 sec  
**ZERO TO 100 MPH:** 15.7–15.8 sec  
**1/4-MILE:** 14.7–14.8 sec  
**TOP SPEED:** 130 mph  
**FUEL ECONOMY**  
**EPA COMBINED/CITY/HWY:** 24–26/21–22/29–32 mpg

just the right amount of bite. The nine-speed automatic in front-wheel-drive versions is smooth and responsive; the heavier all-wheel-drive Regals feel more sluggish due to their eight-speed auto that's reluctant to downshift.

Further cementing the Sportback's lack of sportiness is the absence of paddle shifters, although the shifter itself offers a manual mode. (A zestier all-wheel-drive GS model with a 310-hp V-6 and sharper chassis tuning is available for a starting price of \$39,995.)

We can't fault Buick for falling short of Audi, given the Regal's cost, but the bigger headache is the 10Best-winning Honda Accord. The Honda's interior is considerably better assembled than the Buick's, and the Accord drives more crisply, too. Simply put, the new Accord with its turbo 2.0-liter four pulls off a more convincing impression of an entry-luxury car than the Buick does, and it offers more equipment for the money. What the Accord doesn't have is the conversation piece: the Regal's cavernous and versatile cargo area. Not only does the Sportback have as much space as many compact crossovers [see "Space Race"], it's also nicely packaged with available 40/20/40 split-folding rear seats that can be lowered effortlessly via switches in the trunk. You can easily fit a bicycle back there without removing its front wheel, and two reasonably sized humans could even sleep in the cargo hold in a pinch—#sportbacklife, anyone?

Buick is hoping that this enhanced practicality will help reel in would-be crossover shoppers. And we'd easily choose this Regal over any number of those high-riding hatches. It looks better, drives better, and gets better fuel economy. But Buick's attempt to fill the space between mainstream mid-size sedans and entry-luxury cars is less convincing.

The Regal Sportback is an attractive, quiet, inexpensive, and practical car. Too bad it doesn't look more like an SUV so that people might notice it.



# No Lump of Col

From the vantage point of one of the greatest French Alpine roads, it's clear that the **911 Carrera T** is more than the sum of Porsche's parts bin. *—by Josh Jacquot*

▼ **THIS IS A PLACE OF LEGENDS**, where the best drivers ever have done some of their best work. It's the most infamous, daunting, and exposed stage on the Rallye Monte-Carlo. It's called the Col de Turini, and it's terrifying.

That Porsche chose this road to debut yet another of the now 23 variants of 911 demonstrates the outsize dimensions of its *cojones*. Because sending the Carrera T, a lowered version of its brand-defining sports car, for evaluation on a road utterly unsuited to lowered sports cars takes big ones.



**[+] A highly effective preselected mix of the base 911's best hardware.**  
**[-] Less stuff for more money.**

The T (for Touring, and a nod to the early-series cars' base trim) is a spartan model equipped with only dedicated driving hardware. Its engine, shared with the base Carrera, is a twin-turbocharged 3.0-liter flat-six making the same 370 horsepower and 331 pound-feet of torque. It is bolted to a standard seven-speed manual transaxle fitted with a 3.59:1 final-drive ratio—slightly shorter than the base Carrera's 3.44:1—and a mechanical limited-slip differential. Porsche's dual-clutch automatic is optional and offers the same gasket, although it uses the taller of the two final drives.

The standard two-mode PASM Sport suspension brings the car down 0.4 inch relative to a standard Carrera. Every 911 T gets a "lightweight" version of the Sport Chrono package, which includes a steering-wheel-mounted driving-mode selector and dynamic engine mounts but not the dash-mounted chronometer. The T shares its thinner rear window and rear side glass with the GT2 RS (saving about eight pounds) and its 20-inch wheels with the Carrera S. Equipping the T with the optional (\$5200) carbon-fiber Full Bucket Seats—because of their limited adjustability and tight dimensions, they aren't for everybody—deletes the rear seats, saving 44 pounds relative to a base Carrera. Iron brake rotors are standard, but as

## 2018 PORSCHE 911 CARRERA T

**VEHICLE TYPE:** rear-engine, rear-wheel-drive, 2- or 2+2-passenger, 2-door coupe  
**BASE PRICE:** \$103,150  
**ENGINE:** twin-turbocharged and intercooled DOHC 24-valve flat-6, aluminum block and heads, direct fuel injection  
**DISPLACEMENT:** 182 cu in, 2981 cc  
**POWER:** 370 hp @ 6500 rpm  
**TORQUE:** 331 lb-ft @ 1700 rpm  
**TRANSMISSIONS:** 7-speed manual, 7-speed dual-clutch automatic with manual shifting mode  
**DIMENSIONS**  
**WHEELBASE:** 96.5 in  
**LENGTH:** 178.2 in  
**WIDTH:** 71.2 in  
**HEIGHT:** 50.6 in  
**PASSENGER VOLUME:** 70 cu ft  
**CARGO VOLUME:** 5 cu ft  
**CURB WEIGHT:** 3250–3300 lb  
**PERFORMANCE (C/D EST)**  
**ZERO TO 60 MPH:** 3.4–3.9 sec  
**ZERO TO 100 MPH:** 8.5–9.0 sec  
**1/4-MILE:** 11.9–12.3 sec  
**TOP SPEED:** 180–182 mph  
**FUEL ECONOMY EPA COMBINED/CITY/HWY:** 23–25/20–22/29–30 mpg (C/D est)

on all other Carreras, carbon ceramics are optional. Likewise, Porsche's rear-steer system costs extra.

If the 911 Carrera T sounds like a parts-bin special, that's because it is. But this truth does not diminish the car's capabilities or its appeal. This is a hard-line driver's car, which is vital on the Turini. The road is rough, and the higher it climbs, the gnarlier it gets. A fine and frequently invisible layer of dirt lurks at many corner entrances, waiting to turn your moment of wonder into an obituary. And while Porsche might have balls, it also has brains, which is why it put the 911 T on Pirelli winter tires here. The winter rubber compromised braking performance, but the T remained a predictable partner.

So we gave the Turini hell, driving faster than we should have in a car that at first seemed wholly out of place here—a smooth-asphalt specialist in a rally-car lair. But as we ascended, the Turini became a 911 playground, a place where the rear-engine layout demonstrated its on-power stability.

Turns out, the 911 T is low but not too low. And its damping control is a thing of stunning grace. Its steering is downright magical for a car with a rear weight bias of over 60 percent. But it's the T's engine that is its greatest asset. Relatively small turbos dump enough boost (13.1 psi peak) into the 3.0-liter that torque reaches its zenith at 1700 rpm. And that, in combination with the limited-slip diff, makes this 911 benign and tractable exiting switchbacks.

Porsche will ask \$103,150 for the T, \$11,000 more than a base Carrera, when it hits dealerships in early spring. Although it might be a simple collection of familiar parts, it's a shrewdly assembled, highly sorted, and well-chosen one. It's a machine we want in our own garage. And we would not mind if that garage were at the bottom of a legendary pass in the French Alps.





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TESTED

# The Mid-Size Reprise

Simple makes its comeback in Honda's 1.5-liter **Accord**. *by John Pearley Huffman*

**▼ WRY, GENTLE, AND COMFORTING**, the voice of actor Burgess Meredith sold America on Honda back in the 1970s. He'd dribble on about the virtuous, straightforward engineering of the Civic or Accord, and each commercial would end with the tag line "We make it simple." It was totally convincing, as if Hondas didn't have moving parts. Sales exploded.

Fully 40 years later, Honda's simplicity now includes turbocharging. Even the lowliest Accord LX sedan is powered by a 192-hp turbocharged 1.5-liter inline-four that spreads torque like a hot butter knife. And while a six-speed manual transmission is standard on Sport models with the 1.5T, most Accords will come with their edges dulled by a continuously variable automatic transmission, just as our \$34,690 Touring test car did.

Despite the 1.5T's single-scroll turbo, VTEC variable valve timing, and direct fuel injection, this engine isn't meant to be exciting. It's an everyday companion for buyers who don't know what a turbo does and would consider the fundamentals of internal combustion voodoo were they aware of them. It replaces the stalwart naturally aspirated 2.4-liter engine that had been the base powerplant in the ninth-generation Accord. Slightly different versions of the boosted 1.5-liter are available in some Civics and CR-Vs.

While the 1.5T is down 60 horsepower from the turbo 2.0-liter four that hogs the new Accord's glory, it has a similar character. Peak torque arrives at a low 1600 rpm, and the engine maintains 192 pound-feet all the way to 5000 rpm. There's no turbo



**[+] Creamy, torquey engine; sweetheart chassis; solid fuel economy. [-] Rarely thrilling, never quick, still a CVT.**

lag, and the plateau of torque is forgiving in traffic. It also minimizes the lazy drone that's often present in CVT-equipped cars during acceleration. This engine never feels compromised as long as it's not asked to do anything athletic.

The smaller-engined Accord hits 60 mph in 7.3 seconds and slips through the quarter-mile in 15.7 seconds at 91 mph. That's way behind the 6.1-second zero-to-60-mph run of the six-speed-manual-equipped turbo 2.0-liter Accord or the Accord 2.0T with the 10-speed automatic, which needed only 5.5 seconds to hit 60 and blitzed the quarter-mile in 14.1 seconds at 102 mph. But it's better than the 7.6-second and 15.9-second times the last-gen four-cylinder, CVT-equipped Accord needed to reach those milestones.

Operating quietly and with nary a perceptible vibration, the 1.5T-CVT combination doesn't inspire bloodlust, but it fits with the simple sophistication of the new Accord very well. The car's steering is informative though light enough that it can be operated with fingertips. The interior is roomy; it's quiet at speed thanks to excellent air management around the car's skin. And despite C/D's best attempts to consume as much fuel as possible, our test car returned 30 mpg during our time with it in California.

Honda will sell Accords equipped with this powertrain in vast numbers starting at \$24,460. The 1.5T does lack the turbo 2.0-liter's effortless speed, but the Accord for the masses is a gentle and comforting throwback to the simple, straightforward virtues Honda once again embodies.

## 2018 HONDA ACCORD TOURING 1.5T

**VEHICLE TYPE:** front-engine, front-wheel-drive, 5-passenger, 4-door sedan

**PRICE AS TESTED:** \$34,690

**BASE PRICE:** \$34,690

**ENGINE:** turbocharged and intercooled DOHC 16-valve inline-4, aluminum block and head, direct fuel injection

**DISPLACEMENT:** 91 cu in, 1498 cc

**POWER:** 192 hp @ 5500 rpm

**TORQUE:** 192 lb-ft @ 1600 rpm

**TRANSMISSION:** continuously variable automatic with manual shifting mode

**DIMENSIONS**

**WHEELBASE:** 111.4 in

**LENGTH:** 192.2 in

**WIDTH:** 73.3 in

**HEIGHT:** 57.1 in

**PASSENGER VOLUME:** 103 cu ft

**TRUNK VOLUME:** 17 cu ft

**CURB WEIGHT:** 3298 lb

## C/D TEST RESULTS

**ZERO TO 60 MPH:** 7.3 sec

**ZERO TO 100 MPH:** 19.1 sec

**ZERO TO 110 MPH:** 24.7 sec

**ROLLING START, 5-60 MPH:** 8.0 sec

**1/4-MILE:** 15.7 sec @ 91 mph

**TOP SPEED:** 121 mph (governor limited)

**BRAKING, 70-0 MPH:** 163 ft

**ROADHOLDING, 300-FT-DIA SKIDPAD:** 0.89 g

**FUEL ECONOMY**

**EPA COMBINED/CITY/HWY:** 31/29/35 mpg

**C/D OBSERVED:** 30 mpg



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# Magic Show

Lamborghini's **Huracán Performante** leverages physics into something more. *—by Jared Gall*

▼ **SCIENCE AND REASON** tend to marginalize our awareness of it as we age, but there is magic left in the world. A rich vein of it can be mined from the very name “Lamborghini,” and the Huracán Performante crackles with the stuff.

Lamborghini used no magic in creating the Performante, just a practical and reliable methodology of adding power, removing weight, and improving aerodynamics versus the regular Huracán. The first of those is largely thanks to airflow improvements, netting 29 more horsepower and 30 additional pound-feet of torque, for totals of 631 and 443, respectively. The Performante's lower weight is the result of a simplified exhaust system and wider application of Lamborghini's Forged Composite, a resin reinforced with short, chopped carbon fibers.

All angles and creases, the mini-Murciélago look is great on any Huracán, but not even in the steamiest math-teacher fantasies does geometry look so good as on the Performante. The majority of the rear view consists of purposeful grille mesh for exhausting heat generated by the 8500-rpm V-10, accented by the awesome black-marble appearance inherent in Forged Composite's manufacture.

It's the inevitable result of multiplying 443 pound-feet through a seven-speed dual-clutch transmission then through four Pirelli P Zero Trofeo Rs, but what happens when you engage launch control certainly feels like magic. The Performante accelerates so hard, you're not sure if your eyes are widening because your brain is desperate for more input or if it's simply the g-forces packing your eyelids deep into your skull. Either way, 60 mph passes in 2.3 seconds, an improvement of 0.2 over the regular Huracán. After the gut-punch launch, the quarter-mile whooshes past in just 10.2 seconds, at which point the Performante is wailing beyond 136 mph.

So narrow is the focus of the Trofeo Rs that driving in the rain is legitimately scary. Caught on a winding road in a downpour, we were outrun by an animal-control truck. But on dry pavement, the grip is astounding, with the Performante joining an elite club, posting 1.11 g's on the skidpad. More amazing is how the utter flat-

## 2018 LAMBORGHINI HURACÁN PERFORMANTE

**VEHICLE TYPE:** mid-engine, all-wheel-drive, 2-passenger, 2-door coupe

**PRICE AS TESTED:** \$317,285

**BASE PRICE:** \$279,185

**ENGINE:** DOHC 40-valve V-10, aluminum block and heads, port and direct fuel injection

**DISPLACEMENT:** 318 cu in, 5204 cc

**POWER:**

631 hp @ 8000 rpm

**TORQUE:**

443 lb-ft @ 6500 rpm

**TRANSMISSION:**

7-speed dual-clutch automatic with manual shifting mode

**DIMENSIONS**

**WHEELBASE:** 103.1 in

**LENGTH:** 177.4 in

**WIDTH:** 75.7 in

**HEIGHT:** 45.9 in

**PASSENGER VOLUME:**

46 cu ft

**TRUNK VOLUME:** 4 cu ft

**CURB WEIGHT:** 3429 lb

## C/D TEST RESULTS

**ZERO TO 60 MPH:**

2.3 sec

**ZERO TO 100 MPH:**

5.4 sec

**ZERO TO 180 MPH:**

23.2 sec

**ROLLING START,**

**5–60 MPH:** 3.1 sec

**1/4-MILE:** 10.2 sec

@ 136 mph

**TOP SPEED:** 202 mph

(drag limited, mfr's claim)

**BRAKING, 70–0 MPH:**

135 ft

**ROADHOLDING,**

**300-FT-DIA**

**SKIDPAD:** 1.11 g

**FUEL ECONOMY**

**EPA COMBINED/CITY/**

**HWY:** 16/14/19 mpg

**C/D OBSERVED:**

10 mpg



ness of the body conspires with that grip to make 1.11 g's feel so anticlimactic. A stop from 70 mph takes 135 feet. And in non-extreme use, near-perfect pedal feel makes modulation easy.

The air vents, door pulls, shift paddles, and center-console trim bring the Forged Composite black-marble look into the cabin, where it's surrounded by other special touches. From the toggle switches for the windows and other controls to the contrast-color perforations and striping on the seats to the fighter-jet-style flip-cover over the start/stop button, the Huracán never lets you forget that you're not just in a car, you're in a Lamborghini.

There are drawbacks, sure. The single-piece carbon-shell racing seats are so narrow and hard that, for many of us, the bruising on our hips became visible in an hour or less. Ingress and egress require such feats of contortion that your author kneed himself in the face getting out. And it's loud inside. The exhaust does have a (relatively) quiet mode, but let's be clear: One thing you're not going to be in a Performante is comfortable. So why bother? Let it feel special. Let it feel like magic.

**[+] A drivable special occasion that feels capable of warping space-time. [-] Exactly how scrawny do you have to be to fit in these seats?**





TESTED

# Blister in the Sun

The University of Michigan's solar car, **Novum**, is as impressive as it is expensive. *—by Josh Jacquot*

AS A METAPHOR FOR LIFE, solar-car racing is not without merit. “The goal is to hit the finish line with zero power remaining,” says Clayton Dailey, engineering director for the University of Michigan’s Solar Car Team, which finished second in the Bridgestone World Solar Car Challenge last October—the best finish ever for an American student team. The route is a brutal 1877-mile haul across the Australian outback between Darwin and Adelaide, during which the teams race for nine-hour days on public roads using only the power of the sun. The 70-student-strong organization’s locus is its 420-pound carbon-fiber car called Novum, which is Latin for “new thing.” It’s the smallest, slipperiest solar car in the program’s 29-year history.

The team won’t say precisely how slippery it is, except that the drag coefficient is under 0.10 and the car’s frontal area is smaller than 10.8 square feet. As a rough comparison, we measured a 2012 Tesla Model S as having a 0.24 drag coefficient and 25.2 square feet of frontal area. But Novum carries a crew of only one under its bubble canopy in considerably less comfort than the Model S.

We drove the car last summer before it was shipped to Australia and before it was ready to race. With half the power it used in the race—only one of its two in-wheel motors was operational in our test—it took 38.7 seconds to make the run from zero to 60 mph. We’re told that time is roughly halved with both motors in play. But half power was just fine by us because—in its early state of tune, at least—Novum was about as stable as Kim Jong-un after a weekend of amphetamines and Pabst. Which is to say, we have tremendous respect for the students who kept it on the road during its trek across the island continent.

But this hand-built one-off, which is registered in Michigan as a roadster with no VIN, gets a pass on account of all the hair splitting and risk taking that went into its design and construction. The three-part body and chassis are made of prepreg carbon-fiber components. The suspension bits are gloriously minimalistic CNC-machined aluminum pieces supported by ZF coil-over

## 2017 UNIVERSITY OF MICHIGAN NOVUM SOLAR CAR

**VEHICLE TYPE:** rear-motor, rear-wheel-drive, 1-passenger, 1-canopy race car

**PRICE AS TESTED:** \$800,000 (mfr’s est)

**BASE PRICE:** \$800,000 (mfr’s est)

**MOTORS:** two permanent-magnet AC, in-wheel

**POWER:** 4.8 hp

**TORQUE:** 118 lb-ft

**BATTERY:** air-cooled lithium-ion, 5.0 kWh

**TRANSMISSION:** none

**DIMENSIONS**

**WHEELBASE:** 76.0 in

**LENGTH:** 196.0 in

**WIDTH:** 38.0 in

**HEIGHT:** 35.0 in

**PASSENGER VOLUME:** 1 underweight freshman

**CURB WEIGHT:** 420 lb

## C/D TEST RESULTS

**ZERO TO 60 MPH:**

38.7 sec

**TOP SPEED:** 85 mph

(sanity limited)

**FUEL ECONOMY**

**HIGHWAY OBSERVED:**

250 miles/8 hours of sunshine (mfr’s est)

**Top:** The Novum looks like a ’60 Impala’s rear fender. Details: Yoke, movable wheel spat, spindly suspension. The solar panels were not fitted for our test.

dampers. Brembo motorcycle calipers do the stopping. Even the steering yoke, a removable job festooned with switches, buttons, and accelerator and regenerative-braking paddles, is made from carbon fiber. And the fully shrouded front wheels actuate windows in the bodywork that pop out to accommodate full-lock steering. Aero, man.

Novum’s decisive resource, however, is its multijunction gallium arsenide solar cells made by the German firm Azur Space. They yield a 10 to 12 percent efficiency advantage over less costly silicon cells and represent a disproportionate amount of Novum’s total expense. And it is a wildly expensive thing. The solar array alone is roughly a \$200,000 proposition. Add in the rest of the components, and Novum represents about \$800,000 in parts. The program’s budget is \$1.2 million all in, but that doesn’t include the more than 30,000 student hours it took to build it.

Next up for Novum is the American Solar Challenge in July between Omaha, Nebraska, and Bend, Oregon. It’s an event Michigan has won nine times, six of them consecutively. Odds are good Novum will finish with no power remaining.



# Drivelines



# Strip Steak

Hyundai's redesigned **Accent** is quicker and better equipped than before, but you'll still want the stripper. *—by Alexander Stoklosa*

**WHEN HYUNDAI LAUNCHED** the original 1995 Accent, it did so quite literally. The marketing team luridly punted one airborne in a commercial in which five-foot-three Tyrone “Muggsy” Bogues, the NBA’s shortest guard, dunked over taller players, mirroring the Accent’s street jump. This high-flying underdog masterpiece aired in Korea, so you probably missed it. As probably did most of the 1.2 million Americans who have purchased Accents since.

Hyundai has sold this many because, like Bogues, the Accent is more than its stature might suggest. And the fifth-gen model continues punching that value card, particularly in the base SE trim driven here.

Without the Accent’s newly available automatic climate control, proximity key entry, heated seats, and forward-collision warning with automatic emergency braking, the base model demands only \$15,880. That’s just \$250 more than the 2017 sedan’s entry price, despite cruise control, Bluetooth, and larger 15-inch wheels joining standard essentials such as A/C, keyless entry, and power windows, mirrors, and locks. We’d celebrate even a lightly changed car’s price increase were it so low, but on the Accent, it brings a full redesign, too. Hyundai stretched the wheelbase 0.4 inch and the overall length by 0.6 inch, netting greater legroom throughout and much-needed headroom in back. The new dimensions also help the Accent avoid the stubby, bubble-headed appearance common to most small sedans. Its mini-Elantra look is almost snappy. Good thing, since the Accent hatchback is dead. We mourned losing its vast cargo hold, even as we finagled a fireplace mantel into the sedan’s trunk and yawning pass-through opened by the 60/40 split-folding rear seats. The few rubs and bumps we gave the inside door panels and trunk lining in the process left no trace, which is a nice way of saying that every Accent shares the same hard plastics. Even the \$19,780 Limited’s door armrests are unupadded.

The material parity between Accent trim levels leaves Apple CarPlay and Android Auto integration as the only worthwhile carrots that Hyundai dangles

## 2018 HYUNDAI ACCENT SE

**VEHICLE TYPE:** front-engine, front-wheel-drive, 5-passenger, 4-door sedan

**PRICE AS TESTED:** \$16,005

**BASE PRICE:** \$15,880

**ENGINE:** DOHC 16-valve inline-4, aluminum block and head, direct fuel injection

**DISPLACEMENT:** 97 cu in, 1591 cc

**POWER:** 130 hp @ 6300 rpm

**TORQUE:** 119 lb-ft @ 4850 rpm

**TRANSMISSION:** 6-speed manual

**DIMENSIONS**

**WHEELBASE:** 101.6 in

**LENGTH:** 172.6 in

**WIDTH:** 68.1 in

**HEIGHT:** 57.1 in

**PASSENGER VOLUME:** 90 cu ft

**TRUNK VOLUME:** 14 cu ft

**CURB WEIGHT:** 2523 lb

## C/D TEST RESULTS

**ZERO TO 60 MPH:** 7.5 sec

**ZERO TO 100 MPH:** 21.9 sec

**ZERO TO 120 MPH:** 40.3 sec

**ROLLING START, 5–60 MPH:** 8.1 sec

**1/4-MILE:** 16.0 sec @ 88 mph

**TOP SPEED:** 122 mph (governor limited, mfr’s claim)

**BRAKING, 70–0 MPH:** 173 ft

**ROADHOLDING, 300-FT-DIA**

**SKIDPAD:** 0.81 g

**FUEL ECONOMY**

**EPA COMBINED/CITY/HWY:** 31/28/37 mpg

**C/D OBSERVED:** 30 mpg



from the higher SEL and Limited versions. Opting for either requires tolerating a sluggish-shifting six-speed automatic. So buy a phone mount, because the SE-exclusive six-speed manual is the best we’ve experienced in any Hyundai. Plus, its shorter final-drive ratio offsets the seven horsepower and four pound-feet of torque Hyundai excised from the carryover 1.6-liter four. The lowered figures are said to be sacrifices for better tractability, though the power and torque peaks come at the same engine speeds as before. We didn’t notice a difference, nor is there anything to complain about: Sixty mph arrives in a segment-leading 7.5 seconds, a full 1.1 seconds sooner than the old manually shifted Accent hatchback and 1.4 seconds ahead of its current automatic-equipped counterpart.

Stir in the Accent’s stiffer body, better-tuned front struts, and torsion-beam rear axle, and the SE is nearly as much fun as the Mazda 2–based Toyota Yaris iA. Hyundai erased the old Accent’s ropy body control but retained its creamy ride, and the sedan’s steering even directs some road feel into the driver’s hands. The base Accent is as satisfying as the pricier Yaris iA and Honda Fit, and it comes loaded with essentials you’re forced to pay extra for in the cheaper Nissan Versa and Mitsubishi Mirage.

Muggsy is long out of the game, and the Accent is now an over-achiever by reputation. Even without jumping, the latter’s combination of driving character, performance, space, and comeliness lands it on good footing among subcompacts. ■

**[+] More room, easy on the eyes, quickness.**  
**[-] Granitic armrests, best features chained to worst transmission.**

# What I'd Do Differently

## Matt LeBlanc, 50

He'll always be Joey from *Friends*, and he has his *Man with a Plan* sitcom on CBS. But what matters is that he's entering his third year as the American on the BBC's *Top Gear*.

► interview by JOHN PEARLEY HUFFMAN



### **C/D:** What was your first car?

**ML:** It was in 1985 and it was a 1984 Nissan pickup truck. It was brand new and my dad gave it to me. I was, on the one hand, excited but, on the other, disappointed because I wanted something that needed some work done. I wanted that hands-on experience. So I sold that and I got a '78 Blazer that had a four-inch lift kit and big 36-inch mudders on it. And Hooker headers and glasspacks and a big air cleaner. I changed the cam in it—a little higher lift and a little longer duration, but not too crazy because I wanted it to idle. It was a great car. I did everything myself. Did the body work and painted it in school. I went to a tech school and was a carpentry major.

### **How did you go from carpentry to acting?**

Have you ever pounded framing nails in the winter in New England?

### **Do you still wrench?**

I love to work on dirt bikes. A dirt bike has the absolute essential shit to run. It's as stripped down and bare basic as there is. Taking them apart and putting them back together, it's like *Zen and the Art of Motorcycle Maintenance*. It evacuates my mind of things that I love to not spend time thinking about.

### **When the *Friends* money hit, what did you spend it on?**

I bought a Pantera. It was a labor of love eventually. I ended up spending a lot of money on that thing. My third motor was a 420 Windsor block that made about 600 horsepower. The first motor had 30,000 miles on it and was clean as a whistle. Completely stock, and the guy said, "I've never

even had the valve covers off." And I was like, "So you never adjusted the valves?" He goes, "What?" So sitting at a red light—*rump, rump*—one of the valve hats broke off, the piston hit the valve, split the piston, split the block, and she died at the light. Just at idle. So I built a Boss 351 Cleveland; basically the same motor with a roller valve-train. I spent five grand on it. I didn't want to go crazy. I put it in the car, and I was disappointed in the power. I was like, "You cheap-skate!" But there was nothing wrong with it, so I couldn't justify taking it out. So I did a track day in Vegas in the summer when it was, like, 120 out. I was like, "I'll just go to this track day and I'll keep pounding laps until this motor pops." Round and round and round... then I hear this pop! But it keeps running. And one side [of the engine] is just pissing black smoke. "Okay," I thought, "she's burning a little oil." So I drove it from Vegas all the way back to L.A. I stopped at a gas station and bought a case of oil and I used every bit of that oil to get home. Pulled the motor. A piece of a piston right on the dome on the corner had come off, slightly smaller than a Hershey's Kiss, made it past the valve and out the tailpipe. I could not find it.

### **You set the low time with the Kia Cee'd on *Top Gear* as a guest. Why are you so fast?**

I've been to a couple of racing schools. I do a lot of track days on my bike—road-race days. On a motorcycle, your line choice is crucial. You can't put the power down until the bike is upright. So that and the driving schools and, to be totally honest, the talent pool in the "Star in a Reasonably Priced Car" is not very deep. Let's call a spade a spade. It's not like I was battling with the F1 guys. Chris Harris can drive circles around me. That guy is quick. I love Chris Harris. They can be racing wheelbarrows in Sweden and he'll tell you who's leading the points.

### **Are you becoming more British?**

Oh, I don't know, mate.

### **Are you working constantly?**

I had yesterday and today off. I took my GT2 RS out and beat the shit out of it along Malibu Canyon.

### **What do you drive every day?**

I don't have a car in the U.K. I sit in the back of an S-class because I'd never find my way around London. At work, I drive on the racetrack so I don't feel the need to get anything out of my system. Here, I drive myself everywhere. My daily driver is between a 2012 ML63 and a 2014 911 Turbo S, or I have a 2012 Carrera 4 GTS that's great, stick shift, silver over black.

### **You have any air-cooled 911s?**

I had a 964. An RS America.

Without spending a lot of money on a 964, I don't like the way they turn in. That's what Singer starts with—a 964. It's a good car if you spend a lot of money, but I wanted to keep it bone stock. That RS America was a marketing scam: There's nothing RS about that car. But I have an '88 Carrera and an '87 930 that's mint. Only 10,000 miles and black over cashmere.

### **Is there anything you'd do differently?**

Yeah, probably. I think back on all the times I've gotten hurt on a motorcycle. I would have gone left instead of right and maybe not gone into that tall grass and hit the log and broke my back. Stuff like that. But for the most part? The big stuff? I'd have done it all the same. It's your memories that make you who you are, right? ■

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