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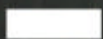
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“THE DEFENDER’S CABIN STAYED CALM AND COMFORTABLE AS WE REACHED A VISTA THAT SHOULD PROBABLY HAVE BEEN ACCOMPANIED BY BAGPIPES. OR, PREFERABLY, SOMETHING MORE MUSICAL.”

—Mike Duff, “Slow Going”

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We've got (fewer) issues, and you've got questions, comments, and concerns about our annual track test.

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The legendary Toyota off-roader finally meets an obstacle it can't conquer.



Backfires

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

ALADDIN'S HELMET

The February/March 2021 cover is absolutely the worst ever. I didn't look closely and, thinking it was a women's magazine, put it with my wife's mail before she handed it back to me.

—Doug Raver
Leland, NC

Aladdin Sane? More like Grateful Dead.

—Greg Wojtusiak
Kew Gardens, NY

If you're going to copy something, you might as well copy the best! David Bowie is gone but not forgotten. It made me smile.

—Michael Dyer
Livermore, CA

A racing helmet on the cover of a car magazine? Is that a first? But more important, why do I suddenly have a hankering to drink Gatorade while watching old episodes of *Speed Racer*?

—Bill Craft
Fort Russell, IL

IF 10 WERE 12

When did you announce you were no longer publishing 12 issues a year?

—Alex Llorente
Yorktown, VA

Surprise!—Ed.

Ten issues might be okay if they were bigger, but the latest magazine looks like it's been on a low-carb diet. The first half was full of ads for *Road & Track*. Does this mean a merger might be coming? I don't know if I'll extend my subscription if it's for *Road and Driver*.

—Randall Richert
Oracle, AZ

What if it's for Car and Track?—Ed.

A slap in the face. Only 10 issues per year? Sharon Silke Carty didn't think that tidbit was worth mentioning in her editor's letter? I hope Steven R. Swartz took a commensurate 17 percent pay cut with the reduced output.

—Mark Zimmer
St. Louis Park, MN

After flipping through the issue, I realized the problem. You ain't got no advertisers paying the bills for the print side of things. Why not charge readers more? I don't mind paying for a good product, and you still have a loyal following of gearheads. A reasonable charge would be \$8.99 per month or \$99 per year. In that fee, you could also include an online version or other benefits, like discounted track days.

—L. Roy Pfeifer
Novato, CA

My second issue of 2021 was February/March. So is *Car and Driver* like Charmin now? Squeezing twice as much into the same package?

—Don Mitchell
Atlanta, GA

Well, they are our biggest competition in the bathroom—Ed.

TRACK MARKS

In "Lightning Lap No. 14" [February/March 2021], you tested two Mustangs



Backfires

but no Camaros or Challengers. Why?

—Steve Bohan
Humboldt, IA

We've already tested all the interesting track variants of the Challenger and the Camaro. If something new comes up, we'll test them too—Ed.

Would a gift box addressed to K.C. Colwell and packaged with a few cases of Titleist Pro V1 golf balls, a stack of Great Clips gift cards, a pair of New Balance golf shoes, and a Yeti trucker hat get me and my backside into the passenger's seat of whatever engineering marvel he pilots around Virginia International Raceway in 2022? The pot can be sweetened with doughnuts for the entire C/D team. Please advise.

—Greg Sandman
La Grange, IL

How can the overhyped C8 Z51 with 495 horsepower be almost two seconds slower than the 460-hp C7 Grand Sport parked in my garage? The C8 should destroy the Grand Sport. Even with the crap all-season tires, it should easily win on power and balance alone. I have a C8 on order, but unless you can give me a reasonable explanation, I may cancel it.

—Rian Flourens
Las Vegas, NV

You know how we go on and on about the importance of tires? Well, give a lot of credit to the amazing Chevy-spec Michelin Pilot Sport Cup 2 ZP gumballs on the C7 Grand Sport—Ed.

David Beard's analysis of the Mustang Shelby GT500

had me in stitches. In fact, I'm still laughing while I write this. And there's painfully little to be laughing about these days.

—Will House
Media, PA

Oh, so you're saying Beard's a clown? That he amuses you?—Ed.

Had to give credit for one of the best lines I've seen in your magazine in years: "tires that are stickier than an IHOP syrup dispenser." Brought tears to my eyes.

—Bob Locke
Glendale, AZ

Beard lives up to his picture.

—Steven Durfey
Savanna, IL

You detail some notable improvements that the 2021 Toyota Supra 3.0 has over its 2020 counterpart. I'm curious why such significant improvements weren't incorporated into the initial release. Did Toyota just run out of development and testing time before launch?

—Gary Snoonian
Northridge, CA

Blame development time and BMW for not hooking them up with the good stuff—Ed.

A \$65,000 Subaru?

—Ed Kennedy
Worcester, MA

Fun fact: Seinfeld has one—Ed.

Best issue of the year, as always. I love to see the historical context and great advancement in "The Pace of Progress." But for the first time, no LL1s in the Lightning Lap bake-off? Is this a sign

EXPLAINED



In "Lightning Lap No. 14," the tire specs of the cars you tested included the following designations: ★, TPC, FP, J, N1, L, NA1, MO1, NFO, and MC1. What do they mean?

—Randy Kuchinski, Plano, TX

These sidewall markings indicate a tire was developed for a specific auto-maker. For instance, you may see TPC (for tire performance criteria) on GM rubber. The tire may share a name with and look like its off-the-shelf brother, but the code means engineers have tailored the construction, tread pattern, or compound to deliver desired performance. If you want your car to ride and handle as intended, be sure to buy replacement tires with the manufacturer specification code—Ed.



BMW

TPC

GENERAL MOTORS

FP

FORD

J

JAGUAR

N1, NA1, NFO

PORSCHE

L

LAMBORGHINI

MO1

MERCEDES-BENZ

MC1

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MAKES YOU



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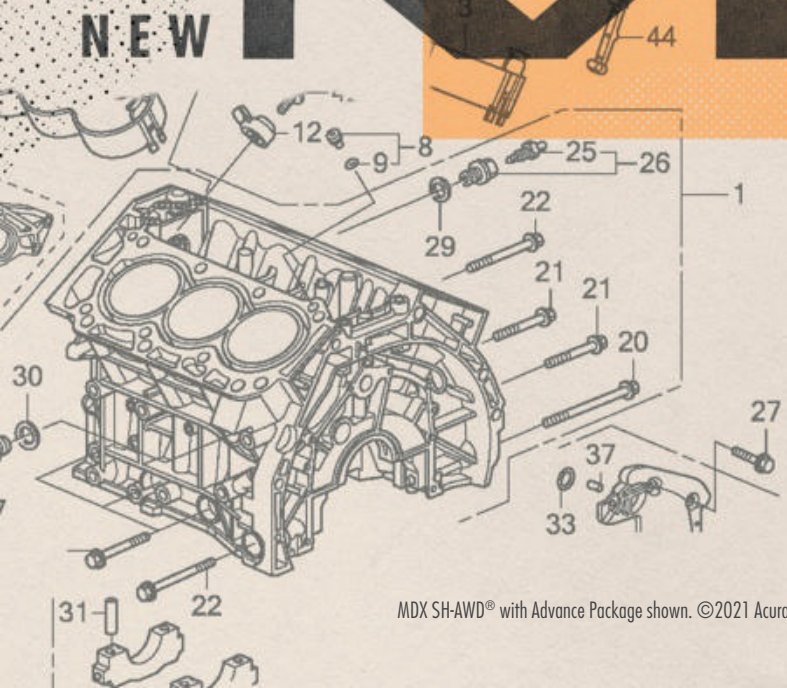


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Backfires

What's in a name? For the Mustang Mach-E, a whole lot of controversy, plus a totally unnecessary hyphen.



of the times or just wimpy manufacturers unwilling to put their affordable sports cars up to the challenge?

—Michael Petersen
Deephaven, MN

"Hey, everybody, I'm thrilled to say that the annual Lightning Lap issue is here," said no C/D subscriber ever. Get rid of the issue. It's lazy journalism and boring.

—Kelly Van Rijn
Washington Township, NJ

I am still waiting to see an LL1 car run a sub-three-minute lap. Is there any upcoming model that you think could be the first to pull off this feat?

—Jason Hinkle
Reading, PA

Breaking 3:00 in a \$35K car is a tall ask. The current class leader, a \$35K Camaro 1LE that turned a 3:04.0, will be tough to beat. But we expect a bumper crop of LL1 cars next year—Ed.

C/D's motto must be "A thousand words are better than a picture." Film too expensive? [Film hasn't been used for nearly 20 years—Ed.] At least when a picture was incorporated, you made sure the unimportant background dominated the car. And you wisely chose obscure angles that hide most of the car's character and detail. I showed the magazine to my wife. No connoisseur of cars, she said the photos are terrible and suggested I cancel my subscription.

—Dave Miller
Elkhart, IN

C/D readers invented cancel culture—Ed.

Your description of the GT4 fitting like a 12th pair of New Balance 624s for dads in the 50-to-70 range struck a chord. I immediately thought of my father, which put a smile on my face.

—M. White
Alexandria, VA

Do you have any idea how much time the PDK would have shed off the GT4's lap? Would you consider doing a Lightning Lap comparo of manual versus automatic and show the differences in times, speed-driving technique, effort, fun factor, etc., at points along the track?

—Scot Kelley
Denver, CO

Porsche's dual-clutch automatics make track work much easier but would likely reduce times by no more than a second—Ed.

Has anyone ever taken a modern F1 car with a data logger around VIR? It would be interesting to see how wide the gap is between the best street-legal machines and the ultimate race beasts.

—Bob Woolley
Asheville, NC

You state that the CLA's base price is \$69K, while the Mercedes site says \$55K. I'm sure you'll have a good explanation for that.

—David Whitney
Chicago, IL

The Lightning Lap base price includes all the performance-enhancing options necessary to replicate the lap time—Ed.

MONEY PROBLEMS

The Bugatti Chiron Sport costs around \$1.4 million

more than the entire Lightning Lap field ["Money. Power. Respect," February/March 2021]. Its options alone cost more than the most expensive car in that test. I think I'd prefer a C8, GT500, 765LT, and \$3 million worth of track time.

—Jerry Birchmore
Springfield, VA

Thank God the Chiron was kitted out with carbon-fiber windshield-wiper arms. Without them, its weight would have been greatly compromised and the \$275,000 upgrade to Sport spec would have been way overpriced.

—David M. Sasso
Boise, ID

I received a subscription to your magazine for my 14th birthday, and after nine months, it's about time a Bugatti appeared. My fellow devotees of true automotive craftsmanship must be rejoicing with me about the return of a quality machine to your pages.

—Rick Gaal
Columbus, OH

I no longer dream of ordering a Bugatti Chiron Sport. It's not the \$3.3 million base price but the \$275,000 for the Sport enhancements. Having to pay extra to get the signature four exhaust tips was the breaking point.

—Don Tenerowicz
Ellington, CT

The blue carbon-fiber body is \$315,000. So if you don't opt for that, then you don't get a body?

—Ed Pavone
Vancouver, WA

You get Wonder Woman's invisible Bugatti—Ed.

NAMING RIGHTS

After reading your road test of the Ford Mustang Mach-E 4 ["A Very Different Animal," February/March 2021], I can only say: WTF? Didn't Ford learn anything from the '70s Mustang II debacle? Were they paying attention in the late '70s and early '80s when Oldsmobile discovered that the Cutlass name sold well and then proceeded to plaster it on every model in their lineup? Of course, we all know how things turned out for Olds.

—Don Marty
Verona, WI

I think you're saying it's not your father's Mustang—Ed.

So you say the Mustang-E is not Mustangy enough?

—Larry Neumann
Leominster, MA

Tony Quiroga suggested renaming the Mustang Mach-E as the Galaxie 300. What happens next year, when its range increases?

—Steve Stewart
Reno, NV

When they build one with 500 miles of range, the Galaxie 500 returns—Ed.

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What in hell was Ford thinking with the Mach-E? The thing is Aztek ugly!

—Jerry Ritter
Springfield, OR

I'm certain many readers are delighted you called it a Mach-E and not a Mustang—Ed.

As a Mustang lover, I cannot accept an SUV named after this automotive icon. I'm okay with the EV evolution, but the idiots at Ford took Jim Farley's instructions to "think Mustang" too literally. Sure, use that as motivation, but don't put the iconic pony on it. Mustangs are not to be used to drive four kids and all their junk to soccer practice.

—Tom Janning
Jacksonville, FL

TUGBOATS

I haven't laughed so loud reading a C/D article since the '70s ["The World's Strongest Truck," February/March 2021]. Beard nailed this one. In 1997, I purchased a new Dodge Ram Cummins based solely on its crushing performance at the Teeswater Fall Fair truck pull. Now I get truck advice from my Blue Oval sons, and they agree that the Chevy Duramax is the one to beat. Watching a truck pull can be like swallowing a bottle of Viagra if your brand makes it to the kitchen.

—Alec Martin
Ripley, ON

We thought for sure you were going to end that with "Full pull!"—Ed.

On page 74, Beard spoke about saving the axle shafts of the F-250 from turning into rotini pasta. Then, on page 80, Maxwell B. Mortimer mentioned avoiding turning the Redeye's Pirellis into fusilli ["Seeing Red"]. Coincidence, or a new trend in auto journalism? Perhaps

GO THE DISTANCE

Like many great adventure stories, the first successful American cross-country car trip began with a bet. After listening to a bunch of stuffy elites in a San Francisco clubhouse declare automobiles a passing fad and that they were good only for local trips, Horatio Nelson Jackson bet a man \$50 that he could get to New York City in 90 days. This was in 1903, when we as a society still weren't sure what to call drivers. Chauffeurs? Automobilists? Motorneers?

Four days later, Jackson set off on the first epic American road trip. He'd hired a mechanic named Sewall K. Crocker to come along for the ride, purchased all the provisions he thought he'd need, and took off. The car blew a tire just 15 miles outside Oakland. Many more roadside repairs would follow.

If you are someone who likes taking off on adventures in your car, Ken Burns's 2003 documentary, *Horatio's Drive*, is worth the \$2 rental charge from Amazon Prime. The trip is well documented; Jackson brought a camera and wrote long, detailed letters to his wife back home. He, Crocker, and Bud, a pit bull they picked up in Idaho, became media sensations as they rolled into tiny towns across the West and the Midwest.

Their biggest challenge was the dirt roads, which punctured tires, sent important survival items flying off the car, and left their vehicle stuck in streams and buffalo wallows. Even on smoother terrain, the Winton touring car that Jackson had bought for the trip tended to break down in spectacular fashion, resulting in a few long stops in small towns as the team waited for new parts to arrive by stagecoach or train.

This issue of *Car and Driver* is dedicated to adventures, the kind you find by putting some distance between yourself and your home. We normally spend a lot of time celebrating the machines that move us, but this month is a chance to appreciate where those vehicles bring us. We've got a bucket list, naturally, and if you check off any of the items, we want to hear about it. It's so much easier to get out and experience the world today than it was for Jackson, so get out there and do it.



SHARON SILKE CARTY
EDITOR-IN-CHIEF

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both writers were finishing up their work just before lunch. Hmm, should I have the penne or the linguine? Now I'm hungry!

—Gary Rogier
Sarasota, FL

Try the radiator—Ed.

NOT SO SMART

You state that the 2021 Hyundai Elantra has a continuously variable transmission ["Sharpen Up," February/March 2021]. That is not correct. As a sales consultant for Hyundai, I can tell you that it has an Intelligent Variable Transmission. Although similar, they are much different. Readers may misconstrue that the boring CVT is on the new Elantra.

—Sent from Jeff's iPhone

They aren't different.

It's a CVT with marketing spin—Ed.

CAR VAC

It's ironic (and disappointing) that in the same issue that you declared "an objective number is the best way to determine if your subjective opinion is wrong," you didn't deliver objective tests in the most important categories of "These Vacuums Suck" [February/March 2021]. Is "a great job picking up deep-seated pet hair" better than "makes quick work of pet hair"? Is it better to be "called the Pet Hair Terminator" or to scrub away "all evidence of canine fur"? Our canine companions crave complete cleaning disclosure!

—J. Fine
Ann Arbor, MI

Seriously? My 2.5-gallon shop vac is less expensive and more effective than any

specific-purpose toy vacuum and can also suck up melted ice from my garage floor.

—Thomas S.
Idaho Falls, ID

DRIVE TIME

Congratulations, Carty, on taking up a quest to improve your performance-driving skills ["A Race Against Time," February/March 2021]. I cannot say enough good things about classes from Bondurant and Spring Mountain. I wish you the best of luck.

—Wes Burmark
Fox Island, WA

Driving fast at any track is an art form. The people on your team who can create quick lap times are artists. Frankly, to think you can keep up with

them on a whim while learning new languages shows a bit of disrespect for the art. That said, go for it. Listen to the instructors. Drive the Cadillac every time. Focus on smooth driving. If you can get within 10 or 15 seconds of your testers, I will be first in line to shake your hand.

—Jeremy White
Sausalito, CA

THE ENGLISH

Elana Scherr's column on the Rolls-Royce and Bentley was a freaking riot ["Lobster out of Water," February/March 2021]. I was laughing out loud for most of the article, from these "entry-level cars" totaling over \$725K to having the Continental's wood dash visit its cousins at Sequoia National Park. I don't know

a lot of female hot-rodders. This one just hooked me.

—D.J. DeFrancesco
Millstone, NJ

THE BIG END

How many issues do people buy after they cancel to see if their letter was published? I have three in the pool.

—M. Thomas
Surprise, AZ

Please stop sending *Car and Driver* as I don't read it.

—Walter Weir
Albion, PA

Look what you're missing—Ed.

Is Audi aware that étron is French for "turd"?

—Thomas A. Susala
Wisconsin Rapids, WI

They are now—Ed.



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You know that daydream list of things you want to do that never gets any shorter? We have a few items to add. But unlike bungee jumping or seeing the Great Pyramid of Giza, these tasks will build on a hobby you already love. This is the *Car and Driver* bucket list—the cars you need to own, the roads you need to drive, and the automotive moments you need to experience. No rush; just make sure you check these off before you're dead.

PART 1: THE OPEN ROAD

1. Drive across the country. Slowly. It may not feel this way when you hop on a plane in Los Angeles at midnight and are enjoying brunch in Manhattan the next morning, but we live in a big country. Driving across it is the opposite of convenient, and at some point in Nebraska, you will definitely start to think you should have flown. But a road trip offers many possibilities that aren't available in 16C. For one, you can pull into a campground late at night and wake up to views of mountains you didn't know were there. Or maybe make a three-hour detour to pick up a snack from Federal Donuts in Philadelphia. And when you're behind the wheel, you can sing at the top of your lungs without worries of being charged with a crime for disobeying a flight attendant. We realize a week on the road isn't a great plan each time you want to travel ocean to ocean, but everyone should do it at least once. Take your time and consider stopping at the following highlights along the way.
—Annie White



— 2 —

Wrestle all 318 turns and 11 miles of the Tail of the Dragon in Tennessee.

3. See how a car is made on a tour of Ford's Rouge factory in Dearborn, Michigan, or Nissan's assembly plant in Smyrna, Tennessee.

4. Attend the Woodward Dream Cruise, which clogs Metro Detroit's main artery with vintage muscle cars, hot rods, and contemporary classics on the third Saturday in August each year.

6. Watch the world's most perfectly restored and beautiful cars motor into the Pebble Beach Concours d'Elegance during Dawn Patrol.

7. Make a pilgrimage to Carhenge in Alliance, Nebraska. Go on the summer solstice if you can.

8 DRIVE THE ANGELES CREST HIGHWAY IN THE SAN GABRIEL MOUNTAINS JUST NORTH OF THE LOS ANGELES BASIN.

9. Explore Alaska's Denali National Park and Preserve via Park Road. This one takes a little luck. Every September, the road opens to permitted users for just four days. Only 300 vehicles are allowed each day, and to score a permit, you have to enter a lottery in May with roughly a one-in-seven chance of success. Lucky winners are assigned a date when they can drive as much of the road as the weather and their vehicle will allow. Good luck.

10. Drive slower than you can walk while off-roading in Moab, Utah.

5 VISIT THE BONNEVILLE SALT FLATS IN THE UTAH DESERT, ESPECIALLY DURING SPEED WEEK IN AUGUST.





PART 2: GET LOST

11. Blaze Your Own Trail

→ **Sam Correro didn't mean** to create the Trans-America Trail, a backcountry passage across the United States referred to as the TAT by those in the know. In 1984, the pharmacist and motorcycle enthusiast just wanted to find a pastoral route for riding his dual-sport motorcycle across his home state of Mississippi, one that largely avoided highways and big cities. In his deep Southern accent and paced diction, he says that when he hit the Mississippi River, "I liked what I saw there. So then I started in Arkansas."

It took truckloads of detailed maps to manage the challenges. Keeping off main roads made finding gas, motels, and water crossings difficult. Working state by state in his spare time, Correro spent 12 years laying out the original trail: about 4500 miles of rural pavement, dirt, and gravel roads from Tennessee to Oregon's coast. Then he kept going.



"I said, 'Well, these riders living in the East, how in the hell are they going to get back home?'" He didn't want them to simply repeat the TAT in reverse, so he started building a route back toward the East.

In the past 25 years, the TAT has grown by a few thousand miles. It now runs in a partial loop from West Virginia down into Georgia, west to Utah, and north to Idaho, then turns east and ends at the Wisconsin state line. The Oregon leg of the original route has since become a spur trail off the loop for those looking to hit the Pacific. Other spurs go from West Virginia to the Atlantic and from Wyoming to Texas.

If there's a road that will get you lost, Correro has found it, then found the way back out. The landscapes include tiny country stores and gravel roads running past lowland farms out east, Dust Bowl trails (and deep mud, depending on the weather) through Oklahoma, and high-altitude farms and plains in Colorado.

"My driveway connects to the TAT," Correro says. "Riders come to my yard, and sometimes they have laundry to do. I've got a gas grill if they want to cook some burgers or steaks or whatever they want. It's turned out to be real good."

He does what he can to help maintain the routes. When he gets word from a rider that a bridge is out somewhere, for instance, "I call the sheriff of that county and get the people who work on the roads and bridges and ask them about the bridge."

The TAT isn't limited to motorcyclists. People have navigated the trail in Jeeps and other overlanding 4x4s. Just make sure you bring a spare, as AAA will never find you.

When we catch him, Correro is in his truck scouting a connector from Arkansas to Minnesota. "My goal now is to have a loop all the way around the United States," he says, which he hopes to finish by this autumn.

"It's turned into a wonderful adventure," he says. "You see parts of this country that people never ever see, all these mom-and-pop convenience stores and little restaurants and motels, and you just get a feeling of what this country is all about." —*Jonathon Ramsey*

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PART 3: INTERNATIONAL AFFAIRS

12. Experience the Nürburgring. On public days, tourists with \$30 (\$36 on weekends), a roadworthy car (even a rental), and the wherewithal to get to Nürburg, Germany, can live out their racing dreams on the world's longest and most enduring track. If you don't trust yourself, you can pay an expert to drive you around. While you're there, dine like the racing greats at Restaurant Pistenklause, where steaks are cooked on hot stones, and make the run to the nearby A1 to find your rental car's top speed on an unrestricted stretch of autobahn.

13. Dress for the Goodwood Revival, a September weekend when the coolest and most historic vintage cars race one another at Goodwood Motor Circuit in the south of England.

14 CAMP OUT IN FRANCE DURING THE 24 HOURS OF LE MANS.



— 15 —
Visit Maranello, Italy, and tour the house that Enzo Ferrari built. Eat at Ristorante Montana, where the Scuderia's F1 drivers carbo-load.

16. Attend a Formula 1 race at a track with historical significance (Silverstone in the U.K., Spa-Francorchamps in Belgium, Monaco) or where passions run deep (Imola or Monza in Italy, Suzuka in Japan).

PART 4: THE SHOPPING LIST

At some point in your life, you need to own . . .

17. A beater. Some call it automotive necrophilia, but there's something fun about loving a rotting car that ordinary people consider trash.

18. A car with a manual transmission. If you buy it new, you can proudly claim that you did your part to #SaveTheManuals.

19. A track car. It doesn't have to be expensive (a Mazda Miata will do), but fit it with tires and brakes that are up to the task of hot-lapping.

20. A car that's older than you.

21. Something with a V-12, as the late David E. Davis Jr. used to prescribe.

22. Your dream car. Are you waiting for a sign? Something to tell you to buy that car you've long dreamed about? Here it is. Go do it. You deserve it. Whether or not you subscribe to the YOLO philosophy, if you have the means, why wait to enjoy that air-cooled 911, '59 Eldorado, or GMC Syclone? To mitigate risk, find one that's clearly been loved—clean brake fluid, matching name-brand tires, and a binder full of receipts are a good start—and have it inspected by an expert. Old cars are often fully depreciated, so don't worry too much about the financial side of things. Plus, the experience will justify the outlay. Trying to go back is generally unsatisfying, but unlike a high school reunion where everyone is fat or bald or both, old cars are frozen in time. Driving one can transport you to a place where your younger self lived or wanted to live but missed out on. There are always millions of reasons not to do something, but chances to go back are rare. Buy the best car you can afford and enjoy your time machine. —Tony Quiroga





PART 5: UNFORGETTABLE EXPERIENCES

23.

Push the limits on a closed course.

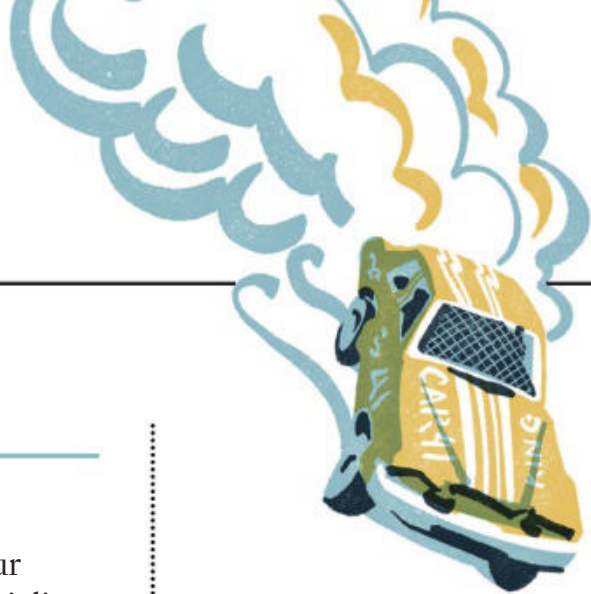
Driving is dominated by rules. Long before we get our license, we observe and absorb the basics of lane discipline, speed limits, and traffic lights. The stricture is so fundamental that the phrase “rules of the road” is applied to any basic set of inviolable guidelines. And that’s why closed courses are so thrilling. Whether it’s an autocross or a track day or the Silver State Classic Challenge—wherein 90 miles of public road in Nevada is shut down for gleeful speeding—a closed course gives you temporary permission to disregard that voice that says “Keep it to 10 over.” Go ahead, drive 100 mph. Or maybe 150. Make the tires howl. Use every inch of pavement, one side to the other. It feels wrong at first, like you should get in trouble for having this much fun. The thing is, you won’t, unless you crash. —*Ezra Dyer*

Drive . . . **24. An open-wheel race car. 25. A Porsche Cayman or Boxster, preferably one with a flat-six. 26. A Corvette. 27. An honest pickup truck. 28. A mid-engine car. 29. An EV.**



— 30 —

Jump a Ford F-150 Raptor. Or a Ram 1500 TRX. Or both.



— 31 —

Enter a demolition derby.

32. Grab some friends and join a 24-hour race for crapcans. Your track-prepped car can cost no more than \$500 for 24 Hours of Lemons, while ChampCar and World Racing League accept slightly more expensive jalopies.

33. Attend a performance driving school. It will pretty much ruin driving on the street. But if you want to get the most out of your vehicle, a racing school that teaches the fundamentals of car control, the heel-toe downshift, and the fast way around is a far better investment than after-market parts. Consider starting at one of these reputable outfits.

- Skip Barber Racing School, \$995-\$6999
- DirtFish Rally School, \$499-\$3999
- Radford Racing School, \$1899-\$6999

34 COMPETE IN THE BAJA 1000.

35. Try ice racing. If you live near lakes that freeze over, this is one of the less expensive ways to race. Because grip on the ice (and thus speed) is so low, you can typically enter the lower classes with only a helmet and winter tires, plus a car whose sheetmetal you’re willing to wrinkle.

36. Earn a competition license from the SCCA or NASA.

37. Drive in a rally.



PART 6: LIFE SKILLS

38. Tackle a repair that's beyond your abilities.

For wrenching to become truly enjoyable, first you have to survive the trials of scraped knuckles, stripped nuts, and sheared bolts. To get to that end goal quicker, take on a project that's far bigger than any you've done before. The good news is, if you can change your oil, you can replace an engine. I know because in 2013, I swapped a new-old engine into a Mazda Tribute with little know-how beyond "righty tighty, lefty loosey." There will be setbacks and moments of doubt, but you'll get through.

It helps to have someone who will push you along when you're feeling stuck. My engine swap was derailed by a CV joint that spilled its insides across the floor as I separated the driveshaft from the transaxle. It took hours of trial and error before photo assistant Charley Ladd slipped the grease-covered Rubik's Cube back together. Every time I declared a bolt was never coming out, Ladd or technical editor David Beard stepped in to prove I was just being a wimp.

If you see the repair through, the rewards are immense. I'll always remember when the Tribute's new engine fired for the first time. And once you've tackled something as ambitious as an engine swap, rounded-off nuts and broken bolts will never again be so daunting. —Eric Tingwall

39

RESTORE A CLASSIC CAR.

40. Be a hero to a person in need. Use your expertise for good by changing a flat tire, jump-starting a battery, or deciphering a repair estimate for someone who knows nothing about cars.

PART 7: THE AMAZING RACE

41.

Attend the Indy 500.

The Indianapolis 500 bills itself as "the greatest spectacle in racing," and the marketing hype isn't far off. If you think you know Indy having seen it on TV, you're wrong. Experiencing it live is the only way to understand its enormity: a 2.5-mile oval track too big to take in from any one vantage point; 250,000 fans in the stands; an infield vast enough to contain a lake, a museum, a road-racing circuit, and part of a golf course—plus an additional 50,000 racegoers and their RVs and tailgating gear. Race cars that sound like hyperventilating buzz saws flash by at 225 mph. And then there are the traditions: The race runs on Sunday of Memorial Day weekend, 33 cars take the green flag, the morning's pre-race festivities climax with the singing of "Back Home Again in Indiana," and the winner swigs milk from a bottle. Go early and feel the excitement build. Then watch the race from as close as you can get and feel the rush. —Rich Ceppos





The Y2K Bug

America in 2021 looks a lot like the America of 20 years ago, with one exception: the cars.

Each decade in the 20th century eventually developed a defined identity. And usually, a 20-year buffer provided a lens through which we gained perspective on the period. That was reflected on TV—*Happy Days*, *The Wonder Years*, and *That '70s Show* all debuted 20 years after the decade they depicted. You could have a '70s theme party in the '90s because life was drastically, hilariously different. That's no longer true. Sometime around the turn of the millennium, we all bought stainless-steel appliances and culture got stuck.

I recently unearthed a song buried deep in one of my playlists: Groove Armada's "Superstylin'." It sounds like something you'd hear next to a pool in Miami now. It was released in 2001. One of the top shows on Netflix last year, *The Office*, was conceived in 2001—which is also when Tom Brady embarked on a Super Bowl MVP season. Sound familiar? Twenty years ago, the trendiest food was cupcakes. Where I live now, one of the town's two bakeries is a cupcake place. How will we make fun of the 2000s if we keep living them? A 2001 theme party would look just like now but with worse phones and more guys with their shirts tucked in. We barely had a year or two to laugh at mom jeans before they returned to unironic popularity.

Thank God for the PT Cruiser.

If there's ever a *Bill & Ted* movie where they time-travel back to the early 2000s, there is no better visual shorthand for setting the scene than a PT Cruiser. And I'm not saying the PT Cruiser was bad—in fact, it was on our 2001 10Best list. But it seems ancient and dated now, which is how 20-year-old

pop-culture objects are supposed to work. And cars are, by their nature, cultural touchstones. They're a highly visible part of everyday life but always subject to a product cycle that firmly places them in a defined time. Unlike clothes or music or TV, they're anchored to an era. When you see an undated photograph of a city streetscape, how do you figure out when it was taken? You look at the cars. If *That '70s Show* had an '00s spinoff, the family station wagon would be replaced by a yellow Nissan Xterra. Or maybe a Pontiac Aztek.

Certain cars are iconic in their own right, but there are also broader trends that come to signify each automotive age. Around 20 years ago, retro was hot: The Chrysler PT Cruiser, Volkswagen New Beetle, Jaguar S-type, Mini Cooper, Ford Thunderbird, and Chevrolet SSR all looked back rather than forward, accidentally time-stamping their own era in the process. Every decade needs a fad that's cool at the time but eventually runs its course, and retro was that—although the SSR, at least, seemed mildly dubious even in its own day. Back when it was new, I was attending a media drive event when another writer, his hair a mess, pulled up in an SSR with the top down. The guy next to me grumbled, "I guess we have to drive that thing once A Flock of Seagulls gets out."

But now? Chevy's strange roadster truck, which graced our April 2000 cover in concept form, is generally worth way more than a Mercedes S-class from the same period—even though it cost less than half as much when it was new. And part of the reason is because the SSR epitomizes those years when car companies would sometimes say, "Hell yeah, let's build that concept car and see what happens!" The Y2K period didn't generate crazes like disco or acid-washed jeans, but it did give us the Plymouth Prowler.

Cars dare to have a point of view, even when we might think it's misguided. The new BMW grille is going to mark an era, I tell you. Gaudy grilles and crossover "coupes"—that's today, which will seem goofy tomorrow and then cool again next week. I predict that in 2041, you'll look out the window, see a gray Audi e-tron Sportback drive past, and say "That's so '20s." Then you'll hike up your mom jeans, peel the paper off your cupcake, and go back to watching *The Office*.

Magazine Making 101: Always write a headline with two possible meanings so that the cover ages well even if the car doesn't.



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Interesting Points

You're probably aware that your car can find you a gas station, but did you know it can also suggest an adventure on the way?



Car manufacturers know you're stressed and bored.

To calm and amuse you, some offer spa-like audio tracks and peaceful animations across their ever-larger screens, and at least one provides games, karaoke, and fart sounds. If repeatedly making it seem like your passenger just ripped one gets old—I suppose it's possible—try entertaining yourself with the suggestions in the in-car navigation.

Many modern nav systems have a list of points of interest (POI). I always assumed it was just restaurants, hotels, gas stations, and maybe major tourist stops that everyone already knows such as Disney World or the Everglades gator show, but internet connectivity means that infotainment systems can offer a broader, constantly updated list of nearby attractions. Recent exploration of the POI list in a couple of cars surprised me with quirky suggestions. On a trip through Mojave, an Audi RS7 suggested the Tehachapi Loop, an engineering marvel of railroad technology, where a train can be seen passing through a tunnel and then up and over itself. Far off the beaten path, it's not at all a mainstream attraction. Closer to home in Los Angeles, a BMW M8 offered up a Victorian carousel and the Wildlife Learning Center, where I got to hold an owl. It also listed Weedology Tours and a surprising number of escape rooms. Quite a day you have planned for me, Bim.

It's almost the automotive equivalent of a friend who knows the area and says, "Oh, turn down this street; there's a bush shaped like a dog on the next corner, and

it's really funny," or "At the top of that hill, there's a hiking path that leads to an abandoned Project Nike missile site." Brands should lean into it, add more detail, get even weirder. In my perfect infotainment system, there would be a menu option that says R U Bored? You'd press it to get a list of oddities in the area, from cellphone towers that look like giant pineapples—I think it's supposed to be a palm tree—to that one house in the neighborhood that has all those naked *David* sculptures in the yard.

The technology to do this already exists. One of my favorite websites is Atlas Obscura, whose What's Near Me? button has led me to a slot-car-racing venue in Brooklyn, a bunny museum in Altadena, a self-taught topiarist in Bishopville, South Carolina, and a Prohibition museum in Savannah. The Prohibition museum's interactive tour ends in a bar, as all the best tours should. For drive-by experiences, Roadside America lists all the Route 66-type classics, from neon signs to 25-foot-tall muffler men. If your tastes skew to even more esoteric and possibly less legal adventures, there are numerous urban exploration forums, with instructions on finding holes in fencing to explore "sunken cities" and boarded-up haunted mansions. "Warning, possible murder by restless spirits," the car would say, in the same font it uses to tell you to check the back seat for forgotten children.

Until someone on the Ford Sync team makes use of this supergood and not-at-all-likely-to-result-in-lawsuits idea, I'm just going to have to continue finding weird adventures the old-fashioned way—by looking out the window while I drive and getting lost a lot. Really, the secret to a good time auto-exploring starts with the same words any racing driver will tell you: Eyes up. Look far ahead. Things are bound to get interesting if you make a left here where everyone else is making a right.

I understand that occasionally you actually have to be somewhere by a certain time, and there's no guarantee that you'll be out of the escape room by then, especially not if you started at Weedology Tours. Still, I recommend adding a mini road trip to your weekly driving routine. Take a new route. Roll down all your windows and look at what's outside. Ask your car what's cool to do. Become the kind of person who can tell a visitor to your city, "Oh, turn here, there's an SR-71 Blackbird on a stick just down the road and an abandoned miniature golf course where you can still see the freaky clown." Just try not to anger the ghosts. ■

MYSTERY SPOT

In my perfect infotainment system, there would be a menu option that says R U Bored? You'd press it to get a list of oddities in the area.

Risque Up



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PORSCHE'S NEW GT3 IS A DEVASTATINGLY QUICK COMMUNICATION DEVICE.
By Tony Quiroga ~ Photography by Marc Urbano



No

NATURALLY ASPIRATED IS THE NEW AIR-COOLED.

Just as the efficiency and proliferation of water cooling squeezed out air-cooled engines, the popularity of turbochargers is bringing an end to naturally aspirated engines. Like the final air-cooled flat-sixes, Porsche's latest naturally aspirated flat-six, with its distinctive sound and feel, seems marked for extinction. To showcase this special engine, Porsche is putting it exclusively in the new-generation 911 GT3, which costs about \$18K more than the last. That's a big number to rationalize to your accountant, so here's what you say:

The latest GT3 is a winged distillation of what makes a sports car great to drive. Taken as a whole, it offers a 180-proof experience, an intoxicating, thrilling adrenaline-jag reminder of what a driver-focused car powered by a sizzling engine can do to our senses.

Quick, linear reactions are a signature of the best naturally aspirated engines, and

the GT3's spins up as if unencumbered by a flywheel. Bolted into the back of the car with the new-gen 911's revised mounts, the high-revving 4.0-liter flat-six is closely related to the limited-production 911 Speedster's engine. As in the Speedster, each cylinder has a throttle body to enhance the engine's breathing and response.

An exact, almost rheostatic command of the throttles and the ability to kiss 9000 rpm are why this engine exists. If you're not into wringing out engines or you prefer a heartier low-end shove, Porsche will gladly draw up the paperwork on a 911 with a turbocharged flat-six. You'll undoubtedly live a boost-filled, happy life, but somewhere in the back of your mind will be the gnawing question of what those jerks in the GT3s are up to.

What they're up to is 502 horsepower at 8400 rpm and the music of intake noise. Pumping fake or real engine sounds into the cabin has become a thing because turbochargers inhibit the characteristic growl of an intake. Engineers and product planners understand that this is what sports-car customers want to hear, so they head into the

Thanks in large part to this wing, the new GT3 makes up to 150 percent more downforce than the last. A wingless GT3 Touring is coming.



studio and lay down some electronic tracks to simulate it. No fakery is needed in the GT3. To save 26 pounds, Porsche removed the rear seats and some sound deadening, but the real benefit is a front-row ticket to the flat-six's guttural chortles, which build to a 99-decibel sawing whine as you approach redline. An exhaust 22 pounds lighter than its predecessor sings backup with a deep, bass-filled roar. It barks, snarls, and shouts "Move! I am a race car!"

Dual-clutch automatic buyers get launch control and the ability to crack off consistent 2.7-second runs to 60 mph. The 6500-rpm launch is perfectly orchestrated violence. With 60.5 percent of the weight over the drive wheels and more shifting rearward as the car thrusts forward, the GT3 just grabs and goes.

Compared with the regular 911's automatic, which has eight speeds, the GT3's has seven and is 40 pounds lighter. It is closely related to the last GT3's, which allowed Porsche to carry over the more conventional shift lever instead of the eight-speed's goofy electronic toggle. Not only do you get to grip it and rip it in manual mode,

but the shifter itself looks like it belongs to a manual gearbox, which is sure to fool at least a few of the curious folks who peer through the window.

Although it's possible to select gears via the shifter or steering-wheel paddles, the automatic is programmed with infallible situational awareness that always puts it in the right one. Just as you'd do with a manual, the automatic downshifts under braking to prepare you for an upcoming corner, and it'll hold off on upshifts if you're working hard. When an auto is this good and does exactly what you'd do, it removes some of the disappointment of not being able to master your own shifts or heel-and-toe.

Fortunately, a six-speed manual remains optional. In the last generation, manual cars accounted for 70 percent of American sales. According to Porsche's numbers, the three-pedal version adds 0.5 second to the new GT3's time to 60, a minor penalty for what will likely be greater driver involvement—and greater involvement is what this car is all about.

Plus

Throttle feel, steering feel, brake feel, handling feel, all the feels.

Minus

A much higher price than the last one, occasional ride jitters, the self-control needed to drive one on public roads.

Equals

A TED Talk with a 9000-rpm redline.

Like a siren song, the incredible flat-six has distracted us from discussing the big changes to the GT3's front suspension. Bolted to the 992 generation's wider front end and unique to the GT3 is an unequal-length control-arm setup made of forged-aluminum components. Control arms are nothing new, and their advantages over a strut are well known. Adding an upper control arm reduces friction, keeps longitudinal forces from affecting the dampers, stabilizes the tire under cornering load, and minimizes brake dive without using stiffer springs.

Wider Michelin Pilot Sport Cup 2s are fitted all around, and the rear wheels grow an inch in diameter. Porsche sent us a GT3 on the stickier,





Name another new car that offers 500-plus naturally aspirated horsepower, a six-speed manual, and this much driver engagement. We'll wait.

dealer-installed Cup 2 Rs. Grip on the skidpad comes in at 1.11 g's, but it's the way the GT3 conquers turns that will impress even a prior GT3 owner. Turn-in is sharp but without nervousness or edginess. A standard rear-steering system is tuned to keep the big 315/30ZR-21 Michelins working in concert with the 255/35ZR-20s in the front, shrinking or stabilizing the car depending on your cornering speeds. Even as you exceed the lofty cornering limits, the GT3 lets go with a gentleness that puts you at ease. Keep adding speed; there is no fazing the GT3.

Ball joints replace most of the rubber in the suspension. Little vibrations that would be absorbed in a normal 911 ripple through the steering and right past the light padding of the \$5900 Full Bucket seats. You're suddenly keenly aware of the size and shape of the aggregate used in the asphalt rolling underneath—definitely a medium, coarse, rounded granite with notes of limestone. The vibes aren't annoying either. They enhance the connection between you and the car.

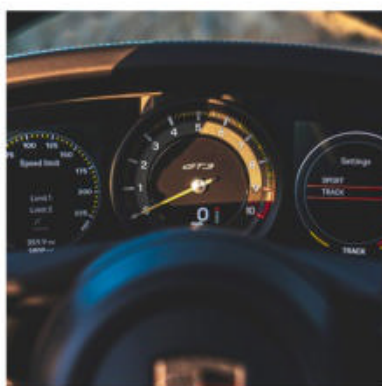
The standard adaptive dampers keep the feedback from becoming too harsh. Revalved and reprogrammed, they can take a bit of the sting off cracked, lumpy pavement provided you leave them in their least aggressive setting, Sport. Switching to Track mode moves you up on the damping curve and will jiggle your untuned bits on concrete freeways. You're better off in Sport, since the suspension automatically firms up in response to cornering loads, wheel travel, and body motion.

All of those changes culminate in the best steering feel of any car on the market. Kicks from the pavement course through the helm and offer a detailed picture of the Michelins' stress levels. There's so much information going into your hands, it seems like there's no assist at all.

Look through the rearview mirror and you get an eyeful of the manually adjustable carbon-fiber wing, which blocks out model-identifying features of following cars like a black bar in a medical textbook. The new airfoil and the rear diffuser increase downforce by up to 150 percent over the last GT3. A wingless Touring version is in the works, but unlike the last, it'll offer a dual-clutch automatic or a manual transmission.

In keeping with the car's upgraded power and suspension, Porsche fits the GT3 with correspondingly giant brakes. The standard rotor size grows to 16.1 inches in front and 15.0 in back, nearly as large as the \$9210 carbon-ceramic discs on our car. Designed for merciless track use, they never showed any signs of distress or fade. Be sure to check your six before you go hard on the brake pedal. The GT3 stops from 70 mph in a mere 133 feet and from 100 in 262.

Some rearward blindness aside, the rest of the GT3 bumrushes your senses. Perhaps it's best to think of it as a communication device, a rolling conduit stripped of the things that muddy the rapport between car and driver, but masterfully tuned and edited to keep it from going full race car. Appreciate the sharpness of the engine, the naturally aspirated flat-six canto, the padding of the seat, the physical rawness of the steering and chassis, and the way each element blends to heighten your awareness of the moment, big speeds, g-forces, and these miraculous machines that harness the combustion of long-chain hydrocarbons. Raise your consciousness while you raise hell. 🇩🇪



2022 PORSCHE 911 GT3

Price
As Tested (C/D est) **\$200,270**

Base (C/D est) \$163,450

Vehicle Type: rear-engine, rear-wheel-drive, 2-passenger, 2-door coupe

Options: Porsche Ceramic Composite Brakes, \$9210; leather interior with blue stitching, \$6230; Full Bucket seats, \$5900; Shark Blue paint, \$4220; front-axle lift, \$3670; Michelin Pilot Sport Cup 2 R tires, \$3200 (C/D est); satin-black wheels with blue lip, \$1950; LED headlights, \$1630; ambient lighting, \$580; extended-range fuel tank, \$230

Infotainment: 10.9-inch touchscreen, Android Auto and wireless Apple CarPlay, satellite radio (3 months included), 2 USB-C and Bluetooth inputs, Wi-Fi hotspot (1 month included), 8 speakers

Engine

flat-6, aluminum block and heads

Bore x Stroke 4.02 x 3.21 in, 102.0 x 81.5 mm

Displacement 244 in³, 3996 cm³

Compression Ratio 13.3:1

Fuel Delivery: direct injection

Valve Gear: double overhead cams, 4 valves per cylinder, variable intake- and exhaust-valve timing and variable intake-valve lift

Redline/Fuel Cutoff 9000/9000 rpm

Power 502 hp @ 8400 rpm

Torque 346 lb-ft @ 6100 rpm

Drivetrain

Transmission: 7-speed dual-clutch automatic

Final-Drive Ratio 3.42:1, electronically controlled limited-slip differential

GEAR	RATIO	MPH PER 1000 RPM	MAX SPEED IN GEAR (rpm)
1	3.75	5.3	48 mph (9000)
2	2.38	8.3	75 mph (9000)
3	1.72	11.5	104 mph (9000)
4	1.34	14.7	132 mph (9000)
5	1.11	17.7	159 mph (9000)
6	0.96	20.5	185 mph (9000)
7	0.84	23.4	198 mph (8450)

Chassis

unit construction

Body Material: aluminum and steel stampings and carbon-fiber-reinforced plastic

THE LAST GASP?

Porsche won't say this is its last naturally aspirated flat-six, but here it is just in case. The circled motor controls the linkage for the left bank's three throttle bodies.



Steering

rack-and-pinion with variable ratio and variable electric power assist

Ratio 14.2-11.2:1

Turns Lock-to-Lock 2.3

Turning Circle Curb-to-Curb 34.1 ft

Suspension

F: ind, unequal-length control arms, 2 coil springs per side, 2-position electronically controlled dampers, anti-roll bar

R: ind; 2 diagonal links, 2 lateral links, and an active toe-control link per side; 2 coil springs per side; 2-position electronically controlled dampers; anti-roll bar

Brakes

F: 16.1 x 1.4-in vented, cross-drilled carbon-ceramic disc; 6-piston fixed caliper

R: 15.4 x 1.3-in vented, cross-drilled carbon-ceramic disc; 4-piston fixed caliper

Stability Control: fully defeatable, competition mode, launch control

Wheels and Tires

Wheels: forged aluminum

F: 9.5 x 20 in **R:** 12.0 x 21 in

Tires: Michelin Pilot Sport Cup 2 R

F: 255/35ZR-20 (97Y) N0

R: 315/30ZR-21 (105Y) N0

Dimensions

Wheelbase 96.7 in

Length/Width/Height 180.0/72.9/50.4 in

Track, F/R 63.0/61.1 in

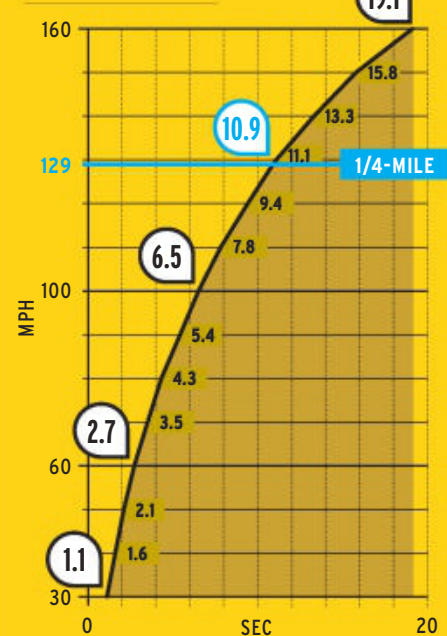
Ground Clearance 3.9 in

Passenger Volume 49 ft³

Cargo Volume 5 ft³

TEST RESULTS

Acceleration



Results in graph omit 1-ft rollout of 0.2 sec.

Rolling Start, 5-60 mph 3.6 sec

Top Gear, 30-50 mph 2.1 sec

Top Gear, 50-70 mph 2.1 sec

Top Speed (mfr's claim) 198 mph

Handling

Roadholding, 300-ft Skidpad 1.11 g

Understeer: minimal

Braking

70-0 mph 133 ft

100-0 mph 262 ft

Fade Rating: none

Weight

Curb 3222 lb

Per Horsepower 6.4 lb

Distribution, F/R 39.5/60.5%

Fuel

Capacity 23.7 gal

Octane 93

EPA Fuel Economy (C/D est)

Comb/City/Hwy 17/15/19 mpg

Interior Sound Level

Idle 58 dBA

Full Throttle 99 dBA

70-mph Cruising 76 dBA

COMPETITORS

IQ test: Find the pattern in middle 10, middle eight, front eight, and rear six.

Lamborghini Huracán Evo

631-hp 5.2-L V-10, 7-sp auto

McLaren GT

612-hp 4.0-L V-8, 7-sp auto

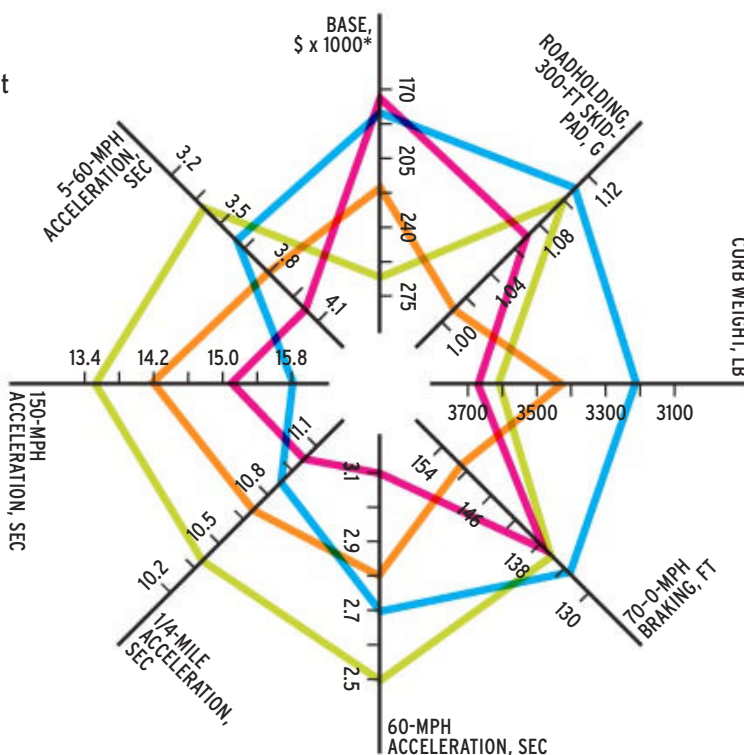
Mercedes-AMG GT R

577-hp 4.0-L V-8, 7-sp auto

Porsche 911 GT3

502-hp 4.0-L flat-6, 7-sp auto

*Includes performance-enhancing options. Porsche pricing estimated.



DOES ANYBODY REMEMBER LAUGHTER?

THE NEW GTI TAKES ON THE BENDS
OF LITTLE TUJUNGA.

By Tony Quiroga ~ Photography by James Lipman





GOOD CARS MAKE YOU SMILE. THE GREAT ONES MAKE YOU LAUGH.

A bout of the giggles overcame us as the 2022 Volkswagen Golf GTI carved its way through Little Tujunga Canyon Road. Built in the 1930s, Little Tujunga and the adjoining Sand Canyon Road encompass 17 miles of coiled asphalt over the San Gabriel Mountains on the western edge of the Angeles National Forest. The tight, twisting two-lane climbs gradually to 2750 feet and connects Lake View Terrace on the south end with an In-N-Out Burger in Santa Clarita.

Less popular than the famous Angeles Crest and Angeles Forest Highways to the east, Little Tujunga has switchbacks and low-speed corners that favor nimbleness as well as steep drop-offs that test a driver's trust in the vehicle and commit-

ment to speed. Small, light cars work best here, which is probably why Mazda engineers used this road to dial in the final tuning of the current Miata.

If you're coming from L.A., take the Osborne exit off the 210 freeway and head north. As houses give way to equestrian stables, Osborne becomes Little Tujunga. Enter Limerock Canyon and the view changes to mountain vistas and empty road. The new GTI charges hard, its turbocharged 241-hp four-banger unfazed by the thinning air. A 4.3-psi increase in boost pressure, now at 26.1 psi, adds 13 horsepower for '22, and the new gen's 3154-pound curb

weight is 28 pounds lighter than its predecessor's. A six-speed manual transmission is standard, but our Euro-spec test car arrived with the blink-and-you'll-miss-it-shifting seven-speed dual-clutch automatic. Equipped with launch control that raises revs beyond 4000 rpm before engaging the clutch, the GTI runs to 60 in 5.1 seconds (0.7 second quicker than the last automatic-equipped, all-season-shod Rabbit edition we tested), and the quarter passes in 13.6 seconds at 105 mph.

Little Tujunga's sun-parched asphalt provides a good test for ride quality. With the adaptive dampers in Comfort mode, the suspension sops up the sharpest

hits despite a 5 percent spring-rate increase in front, a 15 percent bump in the rear axle, and our car's optional 19-inch wheels (18s will be standard). VW homologated six tires for the GTI; it remains to be seen which will be on U.S.-spec models, but the Bridgestone Potenza S005s on our test car strike a great balance between ride comfort, steering feel, and easy grip.

Cycle through the drive modes to Sport and the dampers' baseline stiffness rises, shaking occupants more. VW redesigned its adaptive dampers for the latest GTI, and new programming makes adjustments up to 200 times per second in response to what you or the road throws at them. With 15 possible settings, best practice calls for leaving the suspension in Comfort and letting the software firm things up as necessary. Wheel and body control remain taut, and the GTI seems stabler, less skittish, and less affected by midcorner bumps. That's the great thing about adaptive dampers—they adapt.

After a few more miles, the road rises to hug the mountainside. The vistas go from dusty sagebrush to a Bob Ross painting. Around Dillon Divide, Little Tujunga coils up into a series of corners with 10- to 15-mph recommended speeds. Guardrails painted by drivers who ran out of talent loom ominously, but the GTI's sure-footed handling seemingly widens the lane. Again and again, the little box on wheels dispatches everything the driver asks of it. Corners fall with such unerring ease that it's possible to flirt with all the available grip. On the skidpad, we measured 0.97 g of giant-killing stick.

Although the GTI is easy to master, it's never bor-



ing. The variable-ratio rack quickens the farther you turn off-center and goes from lock to lock in only 1.9 turns of the steering wheel. The upper spokes on that thick-rimmed wheel have capacitive buttons for various controls. Start hustling the car and you'll find your hands sweating, not because of the work, but because your palm accidentally switched on the heated steering wheel. Turn-in response is natural and builds confidence in the front-end grip. To help toss itself into and through a turn, the GTI will drag the inside rear brake, but the real joy comes when you roll into the throttle on corner exit.

The switchgear lacks the tactility and simplicity of the outgoing GTI's buttons and knobs. These 19-inch wheels are an option; 18s come standard.

The GTI's handling and ability to put the power down are so impressive that you're left giggling like a

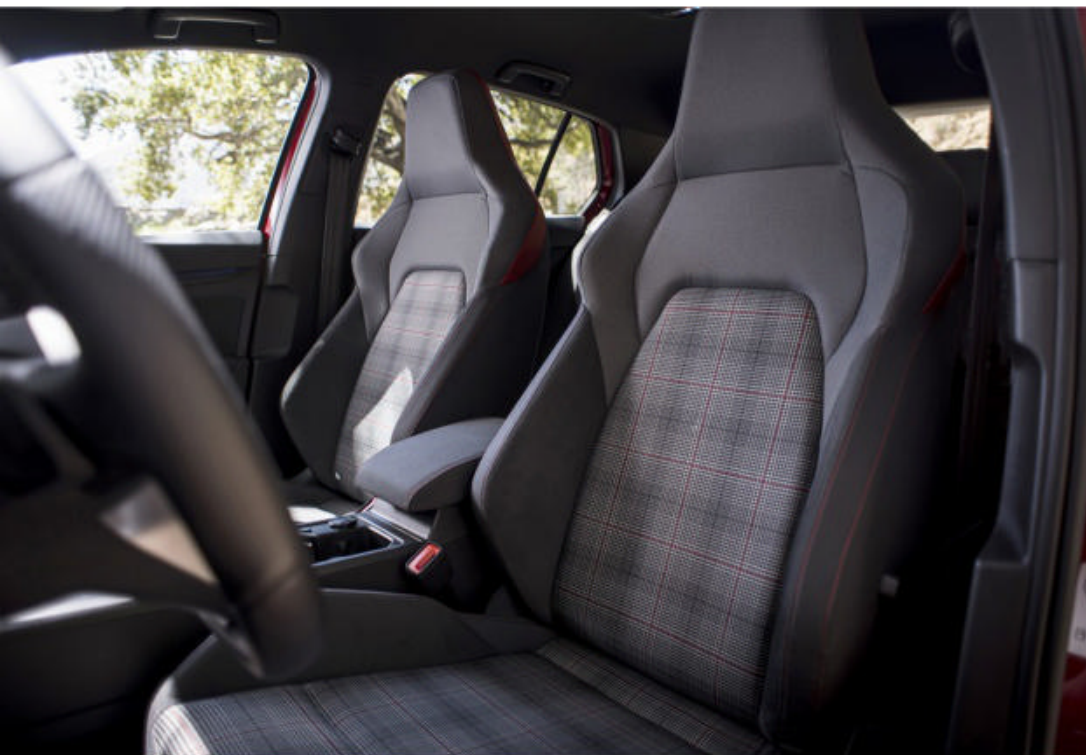


There are better choices for turning donuts in Little Tujunga's pullouts. The GTI is, however, perfectly scaled to this mountain road's curves and switchbacks.

The cargo area appears to rival those of small crossovers, and the rear seat remains family-friendly, should you want to use Little Tujunga and the GTI as an emetic. Ahead of the steering wheel is a 10.3-inch screen that displays virtual gauges, navigation, or a host of other information. Like an Apple Watch, the bright, legible screen has a lot to say, but we miss the simple clarity of the old analog gauges.

We also strongly prefer a volume knob, which the GTI lacks. Adjusting the audio system's volume is done via capacitive buttons on the steering wheel or below the 10.0-inch center touchscreen, which controls a number of functions and settings buried in a dizzying menu structure. We never did find a trip odometer. Fortunately, cars coming to our shores will have Apple and Android phone-mirroring capability, which will allow owners to mostly avoid VW's obtuse infotainment system.

Traditionally, GTI customers have enjoyed interior appointments from the next class up, but the finishes in the latest generation aren't good enough for an Audi. While the dashboard is more modern than the upright minivan-like design of the old car, the materials lack richness and disappoint when you touch them. Plaid cloth seats are one tradition that hasn't been forgotten. They don't adjust as far down as before, but the car's cowl seems lower and the view out more expansive. At a steady 70 mph, there are 71 decibels of four-cylinder hum. Add a little speed and the droning engine resonance disappears by 80; kick it up to triple digits and there's virtually no wind rush. All of this is in



Plus Punchy engine, smart automatic transmission, easy-to-use grip, handles so well that you'll find yourself giggling. **Minus** Cost-cut interior appointments, puzzling infotainment system, engine booms at legal highway speeds. **Equals** In the battle of Volkswagen GTI versus Little Tujunga, the winner is clear: the driver at the wheel.

fool. Credit the electronically controlled limited-slip differential for pulling this front-driver out of corners with supernatural zeal. Selecting Sport mode increases the enthusiasm with which the differential locks up its clutch pack. All you have to do is stomp the accelerator and let the diff and brake-based torque vectoring figure out the rest. The GTI surges out of bends with unbelievable ambition and confidence. Limited-slip diffs on front-drive cars can create unwanted tugs and noise at the steering wheel as load shifts from one side to the other, but the GTI's allows the car to maintain its path without drama and without disturbing steering precision or feel. You're left in awe of its magic.

There's no magic to the practicality of the hot hatch's shape. It's a box. (There's a reason Amazon doesn't ship your stuff in teardrop-shaped packages.)

keeping with the GTI's "go faster" mantra.

On the back side of the mountain past the Bear Divide parking lot, Little Tujunga's name changes to Sand Canyon and we work the brakes harder. The GTI shares its rotors and single-piston calipers with its predecessor, but VW tuned the new electrically powered brake booster to maintain a firm pedal—something the old car struggled with. Stops from 70 mph take a sports-car-like 151 feet, and given the brakes' lack of fade, we never feared the GTI would lose to the mountain.

The road opens up for the final approach into Santa Clarita and ends, for us, at the In-N-Out Burger just before the 14 freeway. We turn around and head back. We're hungry not for a Double-Double with cheese and raw onion, but for the happiness that comes from driving a great and willing car over a tough mountain road. We all could use a good laugh right about now. 🇺🇸

2022 VOLKSWAGEN GOLF GTI

Price
As Tested (C/D est) **\$38,000**

Vehicle Type: front-engine, front-wheel-drive, 5-passenger, 4-door hatchback

Infotainment: 10.0-inch touchscreen; wireless Android Auto and Apple CarPlay; satellite radio (3 months included); 4 USB-C (2 for power only) and Bluetooth inputs; Wi-Fi hotspot (1 month included); Harman/Kardon audio, 9 speakers

Engine

turbocharged and intercooled inline-4, iron block and aluminum head

Bore x Stroke 3.25 x 3.65 in, 82.5 x 92.8 mm

Displacement 121 in³, 1984 cm³

Compression Ratio 9.6:1

Fuel Delivery: direct injection

Turbocharger: Garrett MGT1754

Maximum Boost Pressure 26.1 psi

Valve Gear: double overhead cams, 4 valves per cylinder, variable intake- and exhaust-valve timing and variable intake-valve lift

Redline/Fuel Cutoff 6600/6600 rpm

Power 241 hp @ 6500 rpm

Torque 273 lb-ft @ 1600 rpm

Drivetrain

Transmission: 7-speed dual-clutch automatic

Final-Drive Ratios 4.17:1, 3.13:1*, electronically controlled limited-slip differential

GEAR	RATIO	MPH PER 1000 RPM	MAX SPEED IN GEAR (rpm)
1	3.40	5.2	34 mph (6600)
2	2.75	8.5	56 mph (6600)
3	1.77	13.3	88 mph (6600)
4	0.93	19.1	126 mph (6600)
5	0.71	25.0	155 mph (5000)
6	0.76	31.1	
7	0.64	37.0	

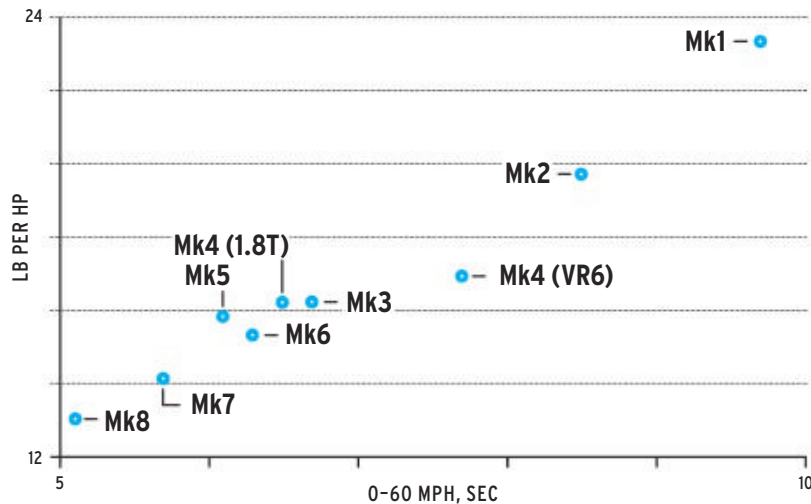
Chassis

unit construction with a rubber-isolated rear subframe

Body Material: steel stampings

Steering

rack-and-pinion with variable ratio and variable electric power assist



Hotter Hatches

From 16-valve heads to narrow-angle V-6s to turbochargers, with few exceptions, the GTI has steadily become quicker and improved its power-to-weight ratio since 1983.

Ratio 14.1:1
Turns Lock-to-Lock 1.9
Turning Circle Curb-to-Curb 35.8 ft

Suspension

F: ind, strut located by a control arm, coil springs, 15-position electronically controlled dampers, anti-roll bar

R: ind; 1 trailing arm, 2 lateral links, and a toe-control link per side; coil springs; 15-position electronically controlled dampers; anti-roll bar

Brakes

F: 13.4 x 1.2-in vented disc, 1-piston sliding caliper

R: 12.2 x 0.9-in disc, 1-piston sliding caliper

Stability Control: fully defeatable, competition mode, launch control

Wheels and Tires

Wheels: cast aluminum, 8.0 x 19 in

Tires: Bridgestone Potenza S005

235/35R-19 91Y ⊕

Dimensions

Wheelbase 103.4 in

Length 168.8 in

Width 70.4 in

Height 58.2 in

Front Track 60.8 in

Rear Track 60.0 in

Ground Clearance 5.2 in

TEST RESULTS

Acceleration



Results in graph omit 1-ft rollout of 0.3 sec.

Rolling Start, 5-60 mph 5.5 sec

Top Gear, 30-50 mph 2.7 sec

Top Gear, 50-70 mph 3.8 sec

Top Speed (mfr's claim) 155 mph

Handling

Roadholding, 300-ft Skidpad 0.97 g

Understeer: minimal

Braking

70-0 mph 151 ft

100-0 mph 311 ft

Fade Rating: none

Weight

Curb 3154 lb

Per Horsepower 13.1 lb

Distribution, F/R 62.9/37.1%

Fuel

Capacity 13.2 gal

Octane 91

C/D Fuel Economy

Observed 25 mpg

EPA Fuel Economy (C/D est)

Comb/City/Hwy 27/24/32 mpg

Interior Sound Level

Idle 40 dBA

Full Throttle 76 dBA

70-mph Cruising 71 dBA

COMPETITORS

In the dwindling hot-hatch segment, the mildly seasoned GTI is competitive with other brands' spiciest.

Honda Civic Type R

306-hp 2.0-L I-4, 6-sp man

Hyundai Veloster N

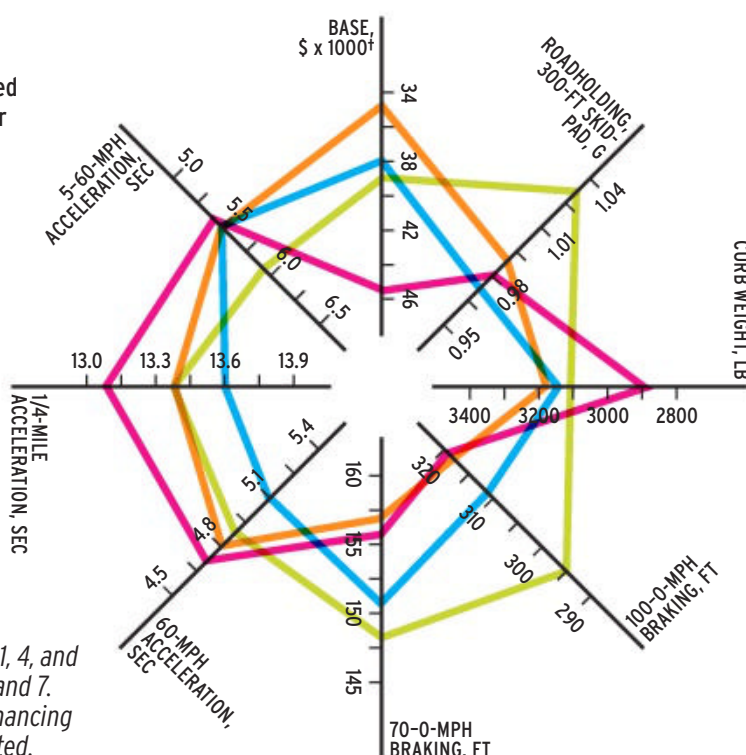
275-hp 2.0-L I-4, 8-sp auto

Mini John Cooper Works GP

301-hp 2.0-L I-4, 8-sp auto

Volkswagen Golf GTI

241-hp 2.0-L I-4, 7-sp auto



*The first ratio is for gears 1, 4, and 5. The second is for 2, 3, 6, and 7.

†Includes performance-enhancing options. GTI pricing estimated.



SLOW GOING

THE TWO-DOOR LAND ROVER DEFENDER 90
CRAWLS, WADES, AND CLIMBS
THROUGH THE SCOTTISH HIGHLANDS.

By Mike Duff ~ Photography by Greg Pajo





B

British adventures are rarely spontaneous. This is a society that likes to prepare, with the intrepid among them bringing packages of sandwiches and insulated flasks of hot, milky tea—plus Arctic-spec clothing—when tackling the limited wilderness available on their densely populated small island.

That careful approach to the outdoors carries into the off-roading scene in the U.K., which lacks dunes and deserts that can be attacked at high speeds. With a tradition of vehicles like early Land Rovers that needed two-speed transfer cases to multiply the meager torque of their weedy engines, the Brits arrived at a gentle form of all-terrain driving prioritizing slow, steady progress rather than the adrenalized excitement of screaming engines and roostertails of dirt. The result is a tranquil experience.

We found that feeling on an excursion with a 2021 Land Rover Defender 90 in a remote and spectacularly beautiful corner of the Scottish Highlands. Land Rover's connection to this region goes back to the brand's origins. The Land Rover name was coined in 1947 during testing of a modified Rover 12 on a Highlands estate owned by Rover Car Company managing director Spencer Wilks. His Laggan Estate also served as a proving ground throughout the late '40s as the automaker developed a four-wheel-drive vehicle to compete with the war-surplus Jeeps that many

British farmers were using. That vehicle eventually evolved into the Defender.

Nearly 75 years on, the new Defender 90 is very different from the original Land Rover, but with a clear design connection to the past. We brought it to the Highlands for a jaunt across a bigger, more demanding estate than Wilks's. This one belongs to the Duke of Atholl, who—fun fact—has the right to raise a private army, a privilege Queen Victoria bestowed on his family in the 1840s. The estate covers 145,000 acres of hills, moorland, and forest—an area just smaller than the city of Chicago. The Land Rover Experience Scotland off-road driving school has access to parts of it, which is how *C/D* gained permission for a tour over (and sometimes through) some of its most rugged topography.

Despite its diminutive stature, the two-door Defender 90 does not look like



lands could offer. We were hoping one of these trials would involve the sloppy mud that makes SUVs look sporty and utilitarian, but we arrived during an unseasonable spring drought (in a country that usually sees more than 60 inches of rain a year), which meant the stickier trails had dried out and become nothing more than tests of ground clearance and axle articulation. The Defender even managed to raise dust clouds over some of them.

Fortunately, our guide from Land Rover Experience Scotland, Cameron Allan, was happy to suggest a fun alternative: “You could always drive through one of the rivers.”

So we did. Several, in fact—getting close to the Defender’s 33.4-inch maximum wading depth as it scrambled its way over slippery underwater rocks. Aquatic progress was drama-free beyond a swampy exhaust note as the rear muffler filled with water (it soon dried out back on solid ground).

The new Defender’s competence makes everything seem almost too easy. In the old version—still venerated in the U.K. as the ultimate off-roader—demanding terrain meant carefully considering gear-ratio selection and whether to lock the center diff. The new

It’s been a long time since Americans were able to buy a new Land Rover as basic as this one with two doors, steel wheels, and a tailgate-mounted spare tire.

one’s Terrain Response system does all the thinking for you, requiring only that you select the most appropriate mode: Auto; Grass, Gravel, Snow; Mud Ruts; Sand; or Rock Crawl. The eight-speed automatic and two-speed transfer case never found a wrong gear. And like in its posher Range

a poor relation of the four-door Defender 110. It sits on a shorter wheelbase (actually 101.9 inches, despite the 90 moniker), but its bluff sides and minimal overhangs mean it looks both cute and capable. Our model is powered by the P300 entry-level four-cylinder engine and rides on steel coils instead of the optional height-adjustable air springs. It did feature the available locking rear differential that’s part of the \$1550 Off-Road pack in the United States. Land Rover also had the sensibility to downgrade our 90 from aluminum wheels to the base car’s 18-inch steel rims shod in Goodyear all-terrain tires. Mechanically, this is about as basic a Defender as you can buy, regardless of which side of the Atlantic you’re on.

Yet even this lowly 90 quickly proved capable of conquering every challenge this rugged part of the High-





On the standard coil springs, this Defender couldn't high-step every obstacle it encountered, but the underbody wears enough armor to protect the vital bits from impacts.

Rover siblings, the Defender's auto-braking Hill Descent Control system now incorporates both a selectable target-speed function—from crawl to trot—and All Terrain Progress Control, which serves as a sort of off-road cruise control.

The turbocharged 2.0-liter inline-four isn't particularly refined, but it compensates with abundant enthusiasm, feeling impressively potent considering its position at the bottom of the range. Off asphalt, the 295 pound-feet of peak torque spread from 1500 to 4000 rpm is much more relevant than the headline 296 horsepower. The throttle response can be a bit too sudden with the transfer case in low range and prone to surging at low speeds, but overall, the Defender felt close to unstoppable when crawling.

The durable, well-designed cabin mostly impresses too. Accessing the rear seats requires an awkward contortion around the B-pillar, but legroom is adult viable in back. Our car did without the strange "signature graphic" that blocks the rear windows with a body-colored square and adds a small storage locker in the cabin. We didn't miss it. The available fold-up central jump seat in the front is a fun throwback in theory, but the more time we spent with it, the less we liked it. With the seatback raised, the view rearward is almost entirely obscured, pretty much necessitating our car's optional ClearSight camera-based rearview mirror. Lowering the backrest creates an uncomfortably wide and awkwardly tall armrest that limits elbowroom when you're

THE NUMBERS

Vehicle Type: front-engine, 4-wheel-drive, 5- or 6-passenger, 2-door wagon

Base \$47,450-\$59,150

Engines: turbocharged and intercooled DOHC 16-valve 2.0-liter inline-4, 296 hp, 295 lb-ft; supercharged, turbocharged, and intercooled DOHC 24-valve 3.0-liter inline-6, 395 hp, 406 lb-ft

Transmission: 8-speed automatic

Dimensions

• **Wheelbase** 101.9 in

• **L/W/H** 180.4/78.6/77.5-77.7 in

• **Curb Weight** 4800-5100 lb

Performance (C/D est)

• **60 mph** 5.9-6.7 sec

• **1/4-Mile** 14.5-15.4 sec

• **Top Speed** 119-130 mph

EPA Fuel Economy

• **Comb/City/Hwy** 18-19/17-18/20-22 mpg

working the steering. The 90's standard surround-view camera system was a definite boon, especially in the Off-Road mode, which shows you both front wheels and really helps with positioning.

Yet a little bumping and grinding was inevitable. Our coil-spring 90 was the first to encounter Land Rover Experience Scotland's rock climb, which was designed to demonstrate the maximum 11.5-inch ground clearance offered by the optional air springs. With 8.9 inches of clearance, our Defender made it over the biggest steps with an expensive-sounding metallic screech from the underbody. The gouge across the substantial skid plate that protects the transmission was the day's only battle scar.

Having proved its mettle over the obstacles we could find, the 90 had one last thing to do: deliver us to the finest view in one of the most scenic parts of Scotland. We set out on a slow climb toward a rocky crag several hundred feet above the broad Tay Valley. This included several miles of bumpy dirt road, followed by a shepherd's track, whose narrow ruts had been cut by ATVs, and then a careful traverse of moorland at a sub-walking pace. Temperatures fell and wind speeds rose through the ascent—it was blowing a gale at the summit—but the Defender's cabin stayed calm and comfortable as we reached a vista that should probably have been accompanied by bagpipes. Or, preferably, something more musical.

By the time we got back down, the Defender's trip computer revealed an average speed of 5.7 mph, proving that you don't need to go fast to have a driving adventure. ■

Now, THIS is a Knife!

This 16" full tang stainless steel blade is not for the faint of heart — now **ONLY \$99!**

In the blockbuster film, when a strapping Australian crocodile hunter and a lovely American journalist were getting robbed at knife point by a couple of young thugs in New York, the tough Aussie pulls out his dagger and says "That's not a knife, THIS is a knife!" Of course, the thugs scattered and he continued on to win the reporter's heart.

Our Aussie friend would approve of our rendition of his "knife." Forged of high grade 420 surgical stainless steel, this knife is an impressive 16" from pommel to point. And, the blade is full tang, meaning it runs the entirety of the knife, even though part of it is under wraps in the natural bone and wood handle.

Secured in a tooled leather sheath, this is one impressive knife, with an equally impressive price.

This fusion of substance and style can garner a high price tag out in the marketplace. In fact, we found full tang, stainless steel blades with bone handles in excess of \$2,000. Well, that won't cut it around here. We have mastered the hunt for the best deal, and in turn pass the spoils on to our customers.

But we don't stop there. While supplies last, we'll include a pair of \$99, 8x21 power compact binoculars, *and* a genuine leather sheath **FREE** when you purchase the *Down Under Bowie Knife*.

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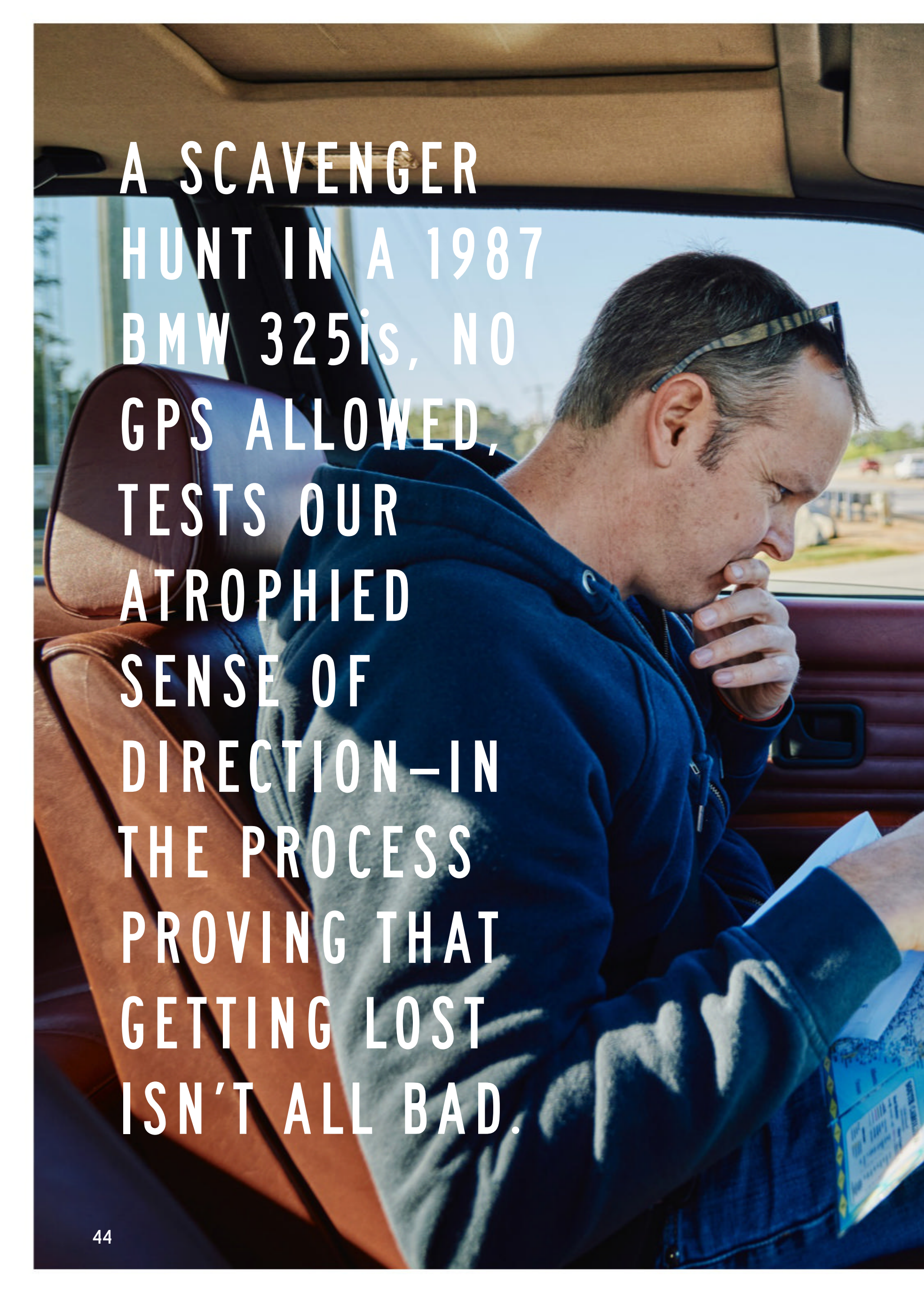
— J., La Crescent, MN



"The feel of this knife is unbelievable...this is an incredibly fine instrument."

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A man with short dark hair and sunglasses on his head is sitting in the driver's seat of a car. He is wearing a blue hoodie and is looking down at a map or document he is holding in his hands. The car's interior is visible, including the brown leather seats and the dashboard. The background shows a bright outdoor scene with trees and a building.

A SCAVENGER
HUNT IN A 1987
BMW 325is, NO
GPS ALLOWED,
TESTS OUR
ATROPHIED
SENSE OF
DIRECTION—IN
THE PROCESS
PROVING THAT
GETTING LOST
ISN'T ALL BAD.



ALL OVER THE MAP

~
By Ezra Dyer
Photography by Tom Griscom



Somewhere near the Lake Murray Dam in South Carolina, I squint out the windshield and try to decipher a road sign on the other side of the intersection. Traffic rolls past on Highway 6, and it occurs to me: I’m squinting because the sun is in my face. It’s morning. The sun rises in the east, and therefore if I want to go north toward the dam, I’ll take a left. About a minute later, I’m at the dam, one of the checkpoints on a fiendish scavenger hunt. You wouldn’t think a dam—or anything else, for that matter—would be hard to find, but I’m hewing to a single rule that, not so long ago, applied to everyone: I can’t use GPS. I’m rediscovering my sense of direction in a 1987 BMW 325is, and among many startling realizations is that it’s easier to navigate early in the morning or near dusk. When the sun’s near the horizon, you might not know where you are, but at least you’ll know where you’re going.

I bought my first GPS, a TomTom, in 2006. That purchase marked the beginning of the end for my innate navigational abilities, a set of skills honed from childhood until the moment I outsourced part of my brain to a small computer suction-cupped to my windshield. Now I fire up Waze even when I know where I’m going, ostensibly for information on traffic and cops but really because I no longer trust my own instincts. When I hear about people whose navigation system routed them into a lake, I don’t judge. If Waze told me to hang a left down a boat ramp, I’d probably be like, “There must be a good reason for this lake shortcut.” *Burble burble, glug glug.*



To find out whether I can regain my bearings, print director Eric Tingwall handed me a list of locations in South Carolina and gave me two days to find them without help from Google and the satellites floating over our heads. My steed in this project, period correct in the extreme, is a gray 325is out of BMW’s collection stashed near the Spartanburg factory. It’s a driver in extremely fine fettle with a few old-car foibles. Most notably, the odometer doesn’t work. I don’t think BMW is too concerned about the resale-value implications of that little flaw, but it does reduce my distance calculations to dead reckoning. Ahoy! Can somebody tell me if this is the Bahamas or Asia?

My first stop is a gas station, where a guy at the opposite pump immediately offers to buy the 325is. “Just those center caps on the wheels go for \$75 each on eBay,” he says. It’s reassuring to know I can start selling off pieces of the car if this conceit goes too far awry. But for now, on to my first waypoint: a ZF transmission plant at 2846 North Old Laurens Road, Gray Court, South Carolina. If I can find a map.

I stop at multiple gas stations in search of one. Eventually, at the Laurens town line, a cashier scrounges up a laminated map of South Carolina and a big folding paper map of the East Coast. She

It took approximately five minutes for someone to offer to buy the BMW 325is. QuikTrip had atlases but no detailed maps.





has to ask the manager how to ring them up because they're not in the computer anymore. "I should just give them to you," she says, then doesn't.

Armed with these new tools, I proceed to get lost for an hour. As I soon learn, if I have a 50-50 chance of driving in the correct direction, I will go the wrong way. Eventually, after much backtracking and one more stop to ask for directions, I spy a small sign pointing to a side road off the main drag: ZF Transmissions. One challenge down, eight to go.

Now I'm heading for Columbia and the day's remaining destinations: Riverbanks Zoo and Garden, a dessert place, the world's largest fire hydrant,

Top: Remember doing this? Above: The ZF assembly plant in Gray Court is as easy to find as second gear in a manual with blown synchros.

the Cocky statue on the University of South Carolina campus, and the Hootie & the Blowfish Monument. My gas-station maps make no references to Mr. Darius Rucker.

It would be easy to hop on Interstate 26 and blaze on down to Columbia, but in the spirit of moving at a slower pace, I decide to follow U.S. 76, a two-lane. This promptly creates its own miasma of confusion, as the signs on U.S. 76 that point toward Columbia actually direct me to I-26, regardless of whether that's in the opposite direction. Fool me once, signs for Columbia, shame

THE NO-GPS ROAD TRIP

Dyer's analog scavenger hunt started outside Spartanburg, South Carolina, and took him to Columbia and Clemson on his way to the twisty Falling Waters Scenic Byway near the North Carolina border. He found seven of his nine checkpoints.





The next morning takes me back north, toward Clemson, and after I traverse the Lake Murray Dam, I figure I've earned the right to some highway miles. On I-26, the 325is easily keeps pace with traffic doing 90 mph, its hearty 2.5-liter inline-six happy to hum along in the high reaches of the tachometer. I employ a speeding strategy I honed during my formative Camaro years: find someone crazier than me, then hang back far enough to see whether they hit the tripwire of a speed trap. I wish I had my old Fuzzbuster.

I'm heading to a bakery near Clemson, then on up to Highway 107 to get the 325is on some fun roads. It's more driving than yesterday,

on me. Then fool me a bunch more times, too, because I can't figure out which way is south.

U.S. 76 meanders through the town of Irmo, where I'm greeted by signs bragging of the Okra Strut. I have no idea what that is, and since I'm staying true to my 1987 bubble, I resign myself to not knowing. Pre-smartphone, you'd see a sign about the Okra Strut and wonder if that was maybe a suspension part made of plants, and then you'd forget about it because you also didn't know where you were or what time it was, really, or where you might stay or eat if and when you got to where you hoped to go. It's frustrating, not knowing, but it's also liberating: Questions can go unanswered.

I overshoot my target, the zoo, and end up northeast of downtown. Now on urban surface streets, I realize that short-term memory is another brain function I've outsourced to my phone. I'll need to stop every few miles, or even blocks, because there's no way I can memorize more than three turns at once. Luckily, I blunder past the huge fire hydrant purely by accident. I'll end up finding everything on the day's list except the Hootie monument. There's another thing we used to do: give up.

day, but now I'm feeling confident, tuned in to my surroundings. When I notice Clemson stickers on cars, I figure I'm getting close. But the 50-50 rule comes into play, and when a right turn would immediately take me to the Pound Cake Man Bakery, I instead go left and lose the trail. Once again, I boldly and angrily give up and continue out of town, north toward the mountains. I need corners more than cookies.

I find the road I'm hunting for 24 miles outside Clemson. Falling Waters Scenic Byway runs to the North Carolina border in a series of corners perfect for an E30-chassis BMW—third gear, one after another, climbing toward the Smokies. The little 14-inch tires howl as the door handles angle toward the pavement, providing quality drama at a pace that would bore a modern M4. Most of us love old cars precisely because of this earnest tactility, the low-stakes fun of exaggerated speed. But if you want the full throwback experience, add the frisson of seat-of-the-pants navigation. Getting lost used to be a purely bad feeling. Now it's exhilarating.

Back at BMW's visitors center, I trade the 325is for its spiritual heir, a 2021 M2 CS. My drive home is three and a half hours. I reflexively fire up Waze—and then turn it off. I'm pretty sure I can find my way back the same way I got here. And if I don't, I'll just keep driving. 🇺🇸



Finding Cocky at the University of South Carolina involved asking for directions, since he's not next to a road. Right: Great car, great road, somewhere north of Walhalla.





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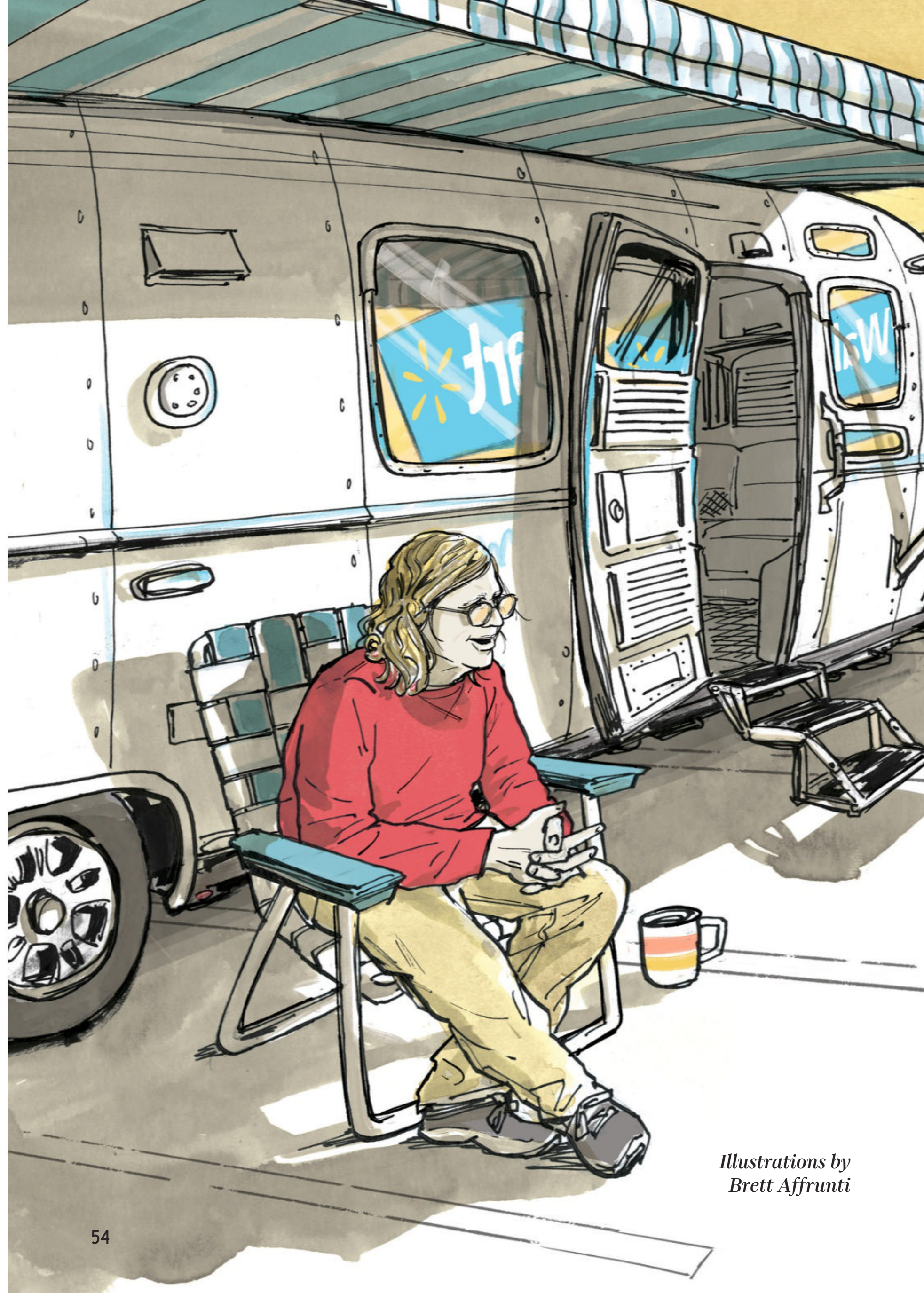
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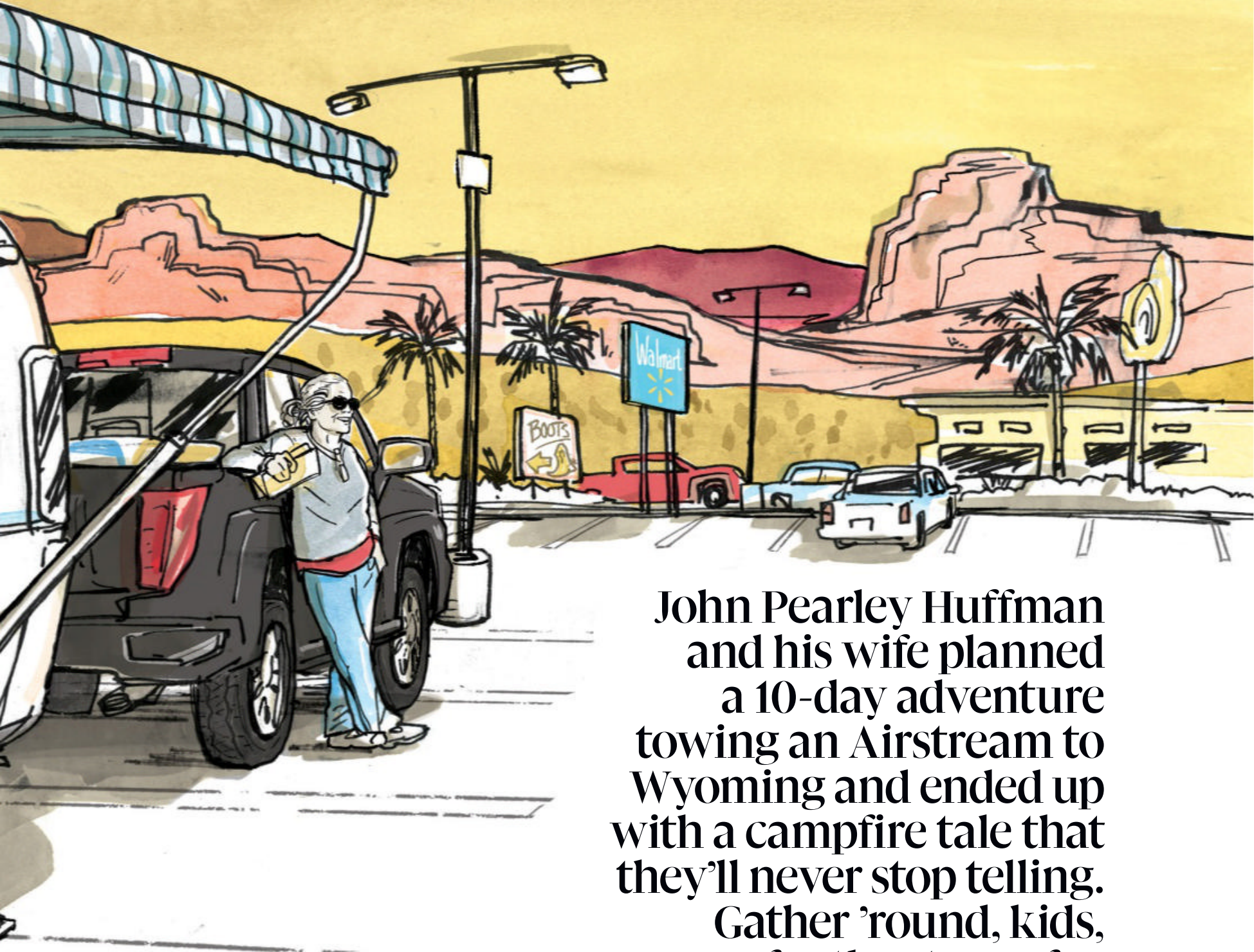
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*Illustrations by
Brett Affrunti*



John Pearley Huffman and his wife planned a 10-day adventure towing an Airstream to Wyoming and ended up with a campfire tale that they'll never stop telling. Gather 'round, kids, for the story of...

A Spin across the West

“

This isn't working,” said my wife, Dana, as the Airstream filling our rearview mirror waved like a flag in the absurd winds that often blow across this stretch of desert interstate. “Small movements. Don't fight it,” I replied as if I knew what to do. But the massive pendulum hitched to the GMC Sierra 1500 had already found a swinging rhythm. “Shit,” my reliably imperturbable, confident life mate exhaled while fruitlessly sawing at the steering wheel. “Oh shit ...”

There's a pandemic. Go Google it. Whole dang year long and still going. And like everyone else's, my family's lives feel stalled. Cabin fever, boredom, irritability, and generalized anxiety seep from the unchanging walls that confine us every second, every hour, every day. The sheer frustration of immobility drove us to do something drastic.

"It's about time we did this," Dana remarked after I persuaded *C/D* that borrowing an Airstream trailer and heading up through the Mountain West would be worthwhile. "You never want to go anywhere. I want to go everywhere." She drew up an itinerary that called for 10 days on the road from Santa Barbara, California, to the gates of Yellowstone National Park in Wyoming and then back home. We were headed to one of America's great treasures by way of another great American treasure: the interstate system and all it has inspired. Along the way, we'd stay in Walmart lots as often as possible. Or at Cracker Barrels. Or whatever was free, cheap, or easy.

"We're going to hit the wall," Dana groaned with resignation as the GMC's tires broke traction and the combined contraption pivoted around the trailer hitch and across three lanes. "Stay loose," I advised. The noise barrier that borders the freeway loomed large in the windshield. "Let the airbags do their job." I imagined a mile-long pileup back to the Carl's Jr. in Barstow where we'd waited out the winds minutes earlier. We should have waited longer.

The Airstream Classic is the polished-aluminum embodiment of American wanderlust. The top of Airstream's travel-trailer line, the model I borrowed stretches 31 feet, three inches long; has a claimed dry weight of 7788 pounds; can sleep up to five; and, with a base price of \$161,900, is decidedly not free. It's a condominium on four alloy wheels. The Classic looked majestic waiting for us at Airstream Los Angeles. Neither of us had ever been RVing before, much less towed such a lengthy beast for so long.

Deputy director of testing K.C. Colwell warned that a half-ton truck wouldn't be enough mule to pull the Classic,

but nevertheless I borrowed a \$66,320 GMC Sierra 1500 AT4 powered by a new turbo-diesel inline-six to lug the portable Marriott. At an Idaho truck stop, our traveling circus weighed in at 14,380 pounds. While that is below the GMC's gross combined weight rating of 15,000 pounds, the trailer-tongue weight had overloaded the GMC's rear axle, a condition that certainly contributed to Dana's spin. Please don't tell her it was my fault.

"We didn't hit anything!" Dana exhaled. Sure, the truck was facing the wrong way, but everyone behind us had seen what was happening and prepared accordingly. "I'm done driving," Dana declared.

"There's city water, which is the hose going into the unit," our neighbor Larry patiently explained on our first night, which we spent at Malibu Beach RV Park. "And you got greywater, which is wastewater from the kitchen sink and

shower. Then there's blackwater, and that comes from the toilet. There's battery power, generator power, and shore power, which is electricity you plug into."

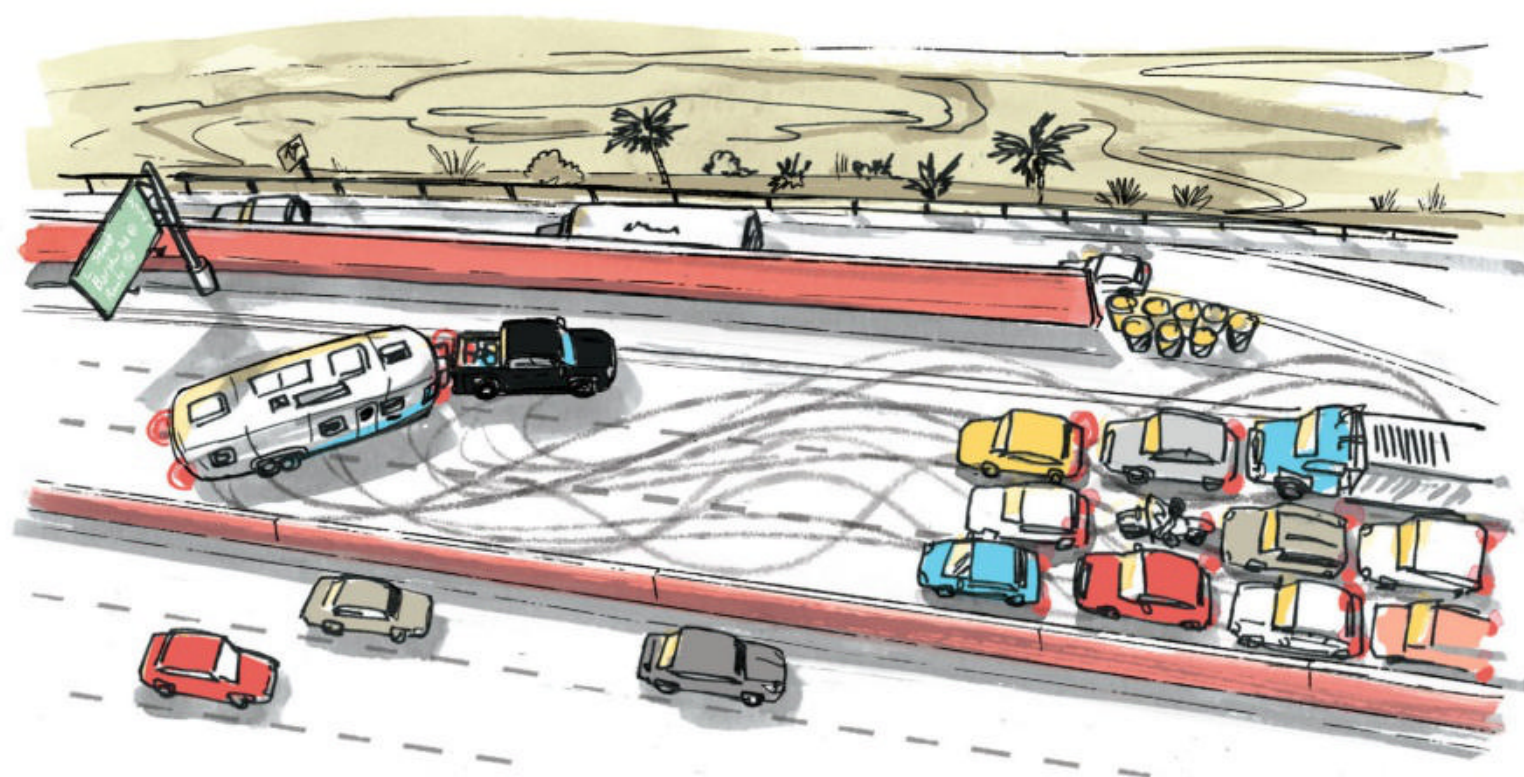
You don't just own an RV or a travel trailer. You go RVing, similar to how you might go kayaking or climb Denali. This is a hobby, and if you're going to enjoy it, you have to overcome a learning curve, because even in the Taj Airstream, you're responsible for the sewage.

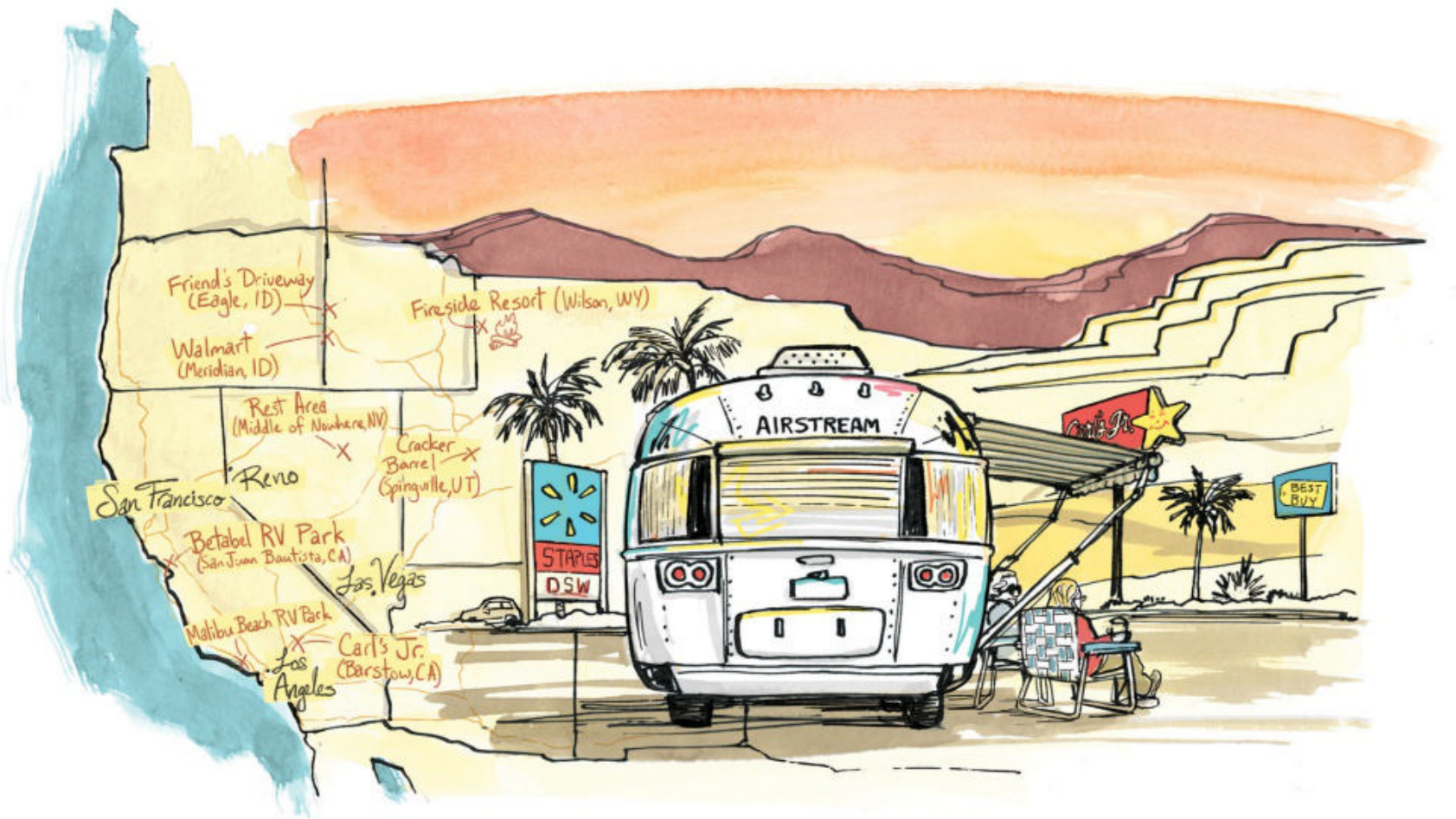
"Look, the screen in the trailer says the tire pressures are screwed up," Dana noted that first night. "I'll handle that. You take care of draining the blackwater."

With traffic-control help from the gracious people who witnessed our

Towing the Line

Safe towing isn't just about keeping your trailer below the vehicle's weight limits. Pearley's truck-and-trailer combo came in under the Sierra's 15,000-pound gross combined weight rating, but he still surpassed the trailer-weight limit by not using a weight-distribution hitch. Don't pull a Pearley. Read the owner's manual and check your axle weights before you're 1000 miles from home.





Where We Stayed

- **Malibu Beach RV Park (Malibu, California):** The cheapest way to live like Cher.
- **Carl's Jr. (Barstow, California):** It was there when we needed it.
- **Cracker Barrel (Springville, Utah):** Woke up to a full lot.
- **Walmart (Meridian, Idaho):** "The best thing about Walmarks," Dana concluded, "is that the lots are flat."
- **Friend's driveway (Eagle, Idaho):** Household current barely kept the Airstream's lights on.
- **Fireside Resort (Wilson, Wyoming):** After we roughed it without hookups, the shore power and city water were luxurious.
- **Rest area (middle of nowhere, Nevada):** The Airstream was a silver hot dog parked in a tractor-trailer bun.
- **Betabel RV Park (San Juan Bautista, California):** This sweet spot was right where we pulled off when the winds got nasty.

By the time we made it to Wyoming four days later, I was getting pretty good at truck-and-trailer management. And Dana had knit a sweater. Nerves had settled as we put miles between us and Barstow, but disconnecting the Sierra AT4 from the trailer still felt utterly liberating. We bounded along fire roads with the Tetons as a backdrop and thumped through small towns to hit up the shops that fascinate my wife and befuddle me.

pirouette, I took the driver's seat and swung the rig across three lanes, righting the ship. Heading to the first exit, I tried to break the lingering tension. "You know," I said to Dana, who was holding her head in her hands, "you won't be able to criticize my driving for the rest of the trip." With an incredulity perfected over 22 years of marriage, she shot back, "The hell I won't."

After a night enjoying the same Malibu view that Leo DiCaprio has, we continued on our way, hoping to make it beyond Las Vegas. But our J-turn on the highway in Barstow kept us away from the glowing temptations of the Strip. Instead, we boondocked under a giant Carl's Jr. sign and between two semis. The romance of the road.

We returned to the highway the next morning, setting the gun-shy pace of a rookie spooked by snap oversteer. Driving a truck with a heavy trailer is the opposite of lapping a sports car. Instead of diving into every corner, braking as late as possible, rotating at the apex, and then bolting out, this dance requires braking way early, circumnavigating the apex, and crawling out, in our case using every last one of the 460 pound-feet of torque from the 3.0-liter diesel.

We should have spent less time on the road and more time parked and exploring without the trailer. With its queen-size bed, two TVs, full kitchen, and radiant-heating system, the Classic was always comfortable, even though we never managed to get it to spit out anything other than lukewarm water.

It was a spin and win. A walkaround revealed that the truck and trailer were undamaged. We'd had our miracle. But our cups and dishes were now shards. "Hey," Dana exclaimed, "let's go to Pottery Barn!"

The winds picked up as we headed down the California coast toward home. Having learned this lesson already, we waited them out in San Juan Bautista. Opening the Classic unleashed a small flood from inside. The kitchen faucet had fallen off and spewed nearly the entire contents of the freshwater tank. Fortunately, we were next to the Betabel RV Park, which offered the luxury of full hookups.

In all, we averaged 14 mpg over 3049 miles, which left us feeling as smug as a Prius driver. The Sierra may have been operating beyond its intended limits, but the turbo-diesel inline-six and 10-speed automatic performed brilliantly.

Days earlier, at the Fireside Resort in Wyoming, our neighbor Kathleen had been sleeping alone in her Nissan Rogue. "It's enough for me," she told us, sitting in a chair as the snow came down.

There's an axiom that Americans buy vehicles to do what they hope to do, not for what they actually do. That's unfair. The country is full of people using everything from Nissan Rogues to Newell motor mansions to do exactly what they want. Americans work hard for a reason, and it's not so they can afford to commute in leather-lined frustration. A hunger for adventure runs through the cars and trucks and toys we buy. Because Americans have two homes: the one where we park and the road. ■

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BMW M340i

A RELATIONSHIP REKINDLED. BY DAVID BEARD



Ask a *Car and Driver* editor what vehicles they own, and you'll get answers ranging from an Aston Martin Vantage to a Geo Tracker. Ask enough of us that question, though, and you'll notice which car comes up most often: the BMW 3-series. For decades, when we committed our own money to a long-term purchase, we were repeatedly drawn to the compact Bimmer—across generations, body styles, and engines—for its consistently rewarding character.

That long love affair cooled with the arrival of the sixth-gen (F30 chassis) 3-series in 2012. We felt betrayed as the magic from prior generations slipped away with the adoption of unfeeling electric power steering, a turbo four-cylinder base engine, and a general tuning philosophy at odds with the model's sporting roots. After a 23-year run, the unthinkable happened: The 3-series failed to make the 10Best cut. Despite our disap-

pointment, we held out hope for a reconciliation. Maybe the seventh-generation (G20) 3-series would earn a place in our hearts and homes.

When that 3-series launched for 2019, our early dalliances with it suggested that this relationship could be rekindled. BMW renewed its attention to the chassis, and we had learned an important lesson. After our long-term test of the 2012 BMW 328i, we knew not to settle for the standard 2.0-liter inline-four this time around. It's a strong performer with impressive refinement, but to capture the spirit of BMW's glory days in its newest vehicles, you have to shell out for the more expensive models. So we waited a year for the debut of the M340i, with a 382-hp turbocharged 3.0-liter inline-six under the hood.

In pursuit of the most driver-focused model, we ordered our M340i with adaptive dampers (\$700) and the aptly named Cooling and High

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—RICH CEPPOS, DEPUTY EDITOR, BUYER’S GUIDE



Rants and Raves

I'm in love with this BMW. It transitions from relaxed to rowdy with simple right-foot adjustments.

—ERIC STAFFORD

The seats are fine for short stints, but as the hours tick by, your body starts to ache.

—MICHAEL AARON

The engine is amazingly quiet and smooth, even when starting up in single-digit temperatures.

—JOEY CAPPARELLA

Definitely a 3-series I would enjoy owning. It has the right balance of livability and performance.

—MICHAEL SIMARI

You can't deny the fidelity of the chassis or the body control. This car is so predictable and informative.

—EDDIE ALTERMAN

Performance Tire package (\$1500), which includes an additional engine oil cooler, a more powerful cooling fan, and summer tires. All-wheel drive is available for \$2000, but we passed; powering all four wheels would be sports-sedan sacrilege. Because we'd be spending 40,000 miles in the M340i, we indulged in several options that drove the bottom line from \$54,995 to \$67,070. Among them were all the driver-assistance and safety systems, heating for the front seats and steering wheel, remote start, a power trunklid, wireless phone charging, a Harman/Kardon stereo, and Portimao Blue paint, which is worth every penny of \$550.

If you demand a do-it-yourself gearbox, you'll have to stretch further to the \$70,895 M3. That's a shame because this car deserves a manual transmission—needs one, really. An engine that's this full of thrust, this quick to rev, and this polished all the way to redline is best appreciated when you're playing an active part in the performance. However, among automatics, the standard ZF eight-speed is superb. It shifts quickly and fluidly and intuits your intentions, making the shift paddles redundant with its excellent logic. With the cylinders' crosshatched finish still fresh, the straight-six shoved the 3827-pound M340i to 60 mph in 3.8 seconds and through the quarter-mile in 12.3 seconds at 115 mph. Note that those times mean this car keeps pace with or outruns every prior-generation base M3. And remember, this thing makes less than 400 horsepower, if you believe BMW's claims.

2020 BMW M340i

Vehicle Type: front-engine, rear-wheel-drive, 5-passenger, 4-door sedan
Base/As Tested \$54,995/\$67,070
Engine: turbocharged and intercooled DOHC 24-valve inline-6, aluminum block and head, direct fuel injection
Displacement 183 in³, 2998 cm³
Power 382 hp @ 6500 rpm
Torque 369 lb-ft @ 1800 rpm
Transmission: 8-speed automatic
Dimensions
 • **Wheelbase** 112.2 in
 • **L/W/H** 185.7/71.9/56.4 in
 • **Curb Weight** 3827 lb
Warranty
 4 years/50,000 miles bumper to bumper
 12 years/unlimited miles corrosion protection
 4 years/unlimited miles roadside assistance
 3 years/36,000 miles scheduled maintenance
Model-Year Changes
2021: BMW hangs a 48-volt motor-generator on the 3.0-liter inline-six, adds Android Auto, and makes other minor trim changes.

TEST RESULTS

	New	40,000 miles
60 mph	3.8 sec	4.0 sec
100 mph	9.1 sec	9.4 sec
1/4-Mile	12.3 sec @ 115 mph	12.4 sec @ 114 mph
130 mph	16.1 sec	16.2 sec
150 mph	24.1 sec	23.7 sec
<i>Results above omit 1-ft rollout of 0.3 sec.</i>		
Rolling Start,		
5-60 mph	4.7 sec	4.7 sec
Braking, 70-0 mph ..	155 ft	155 ft
Roadholding,		
300-ft Skidpad	0.96 g	0.93 g
Top Speed (gov ltd)	156 mph	
C/D Fuel Economy		
• Observed	27 mpg	
• 75-mph Hwy Driving	33 mpg	
• Hwy Range	510 mi	
EPA Fuel Economy		
• Comb/City/Hwy	25/22/30 mpg	

Of course, we didn't treasure past 3-series just because they were quick in a straight line. When the road weaves, the M340i feels at home. You might find yourself using trees as braking markers as the chassis sucks you into a faster pace. When you're exiting a corner with the inline-six on boil, the BMW seamlessly maximizes the available traction by automatically varying the lockup force in the standard electron-

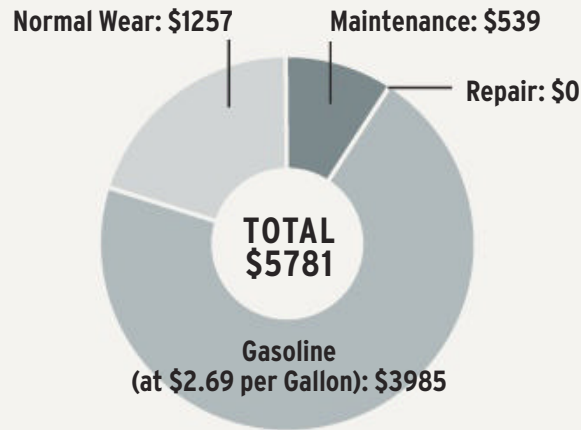


Fix Our Damn Roads

SERVICE

- Dealer Visits
 - Scheduled 4
 - Unscheduled 1
- Days out of Service 2
- Unscheduled Oil Additions 4 qt
- Damage and Destruction \$1026

OPERATING COSTS FOR 40,000 MILES



LIFE EXPECTANCIES

- Tires
 - Front 25,000 miles
 - Rear 25,000 miles
- Brake Pads
 - Front >100,000 miles
 - Rear >100,000 miles

WHAT BITS AND PIECES COST

- Headlamp \$3602
- Engine Air Filter \$63
- Oil Filter \$23
- Wheel \$791
- Tire, F/R \$275/\$270
- Wiper Blades \$73
- Front Brake Pads \$381

FIVE-YEAR DEPRECIATION

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



ically controlled limited-slip differential. We had hoped for more dramatic improvements with the second attempt at electric power steering in a 3-series, but there's still more information delivered through the seat of the pants than the steering wheel. "It's not that bad," wrote deputy testing director K.C. Colwell, owner of multiple 3-series, in one of the highest compliments anyone paid to the steering. Though the steering is responsive to inputs and the Michelin Pilot Sport 4S rubber sticks to the skidpad at 0.96 g, there's just no feel as the tires break away.

The M340i has a softer side too. Aided by a longer wheelbase than the previous car, this 3-series maintained its composure on our nation's derelict interstates. It traversed plenty of them over 18 months, going as far east as Connecticut and as far south as Daytona Beach, plus taking three trips to the Rockies or beyond. We refueled in 27 states. Those miles on the open road certainly factored into our stellar 27-mpg average. The inline-six is an absolute ripper when you ask for it and a marvel of efficiency when you don't. In our 75-mph

highway fuel-economy test, the BMW returned 33 mpg, beating the EPA estimate by 3 mpg.

The digital gauge cluster is hard to read and offers limited adjustability. We'd prefer analog gauges, but BMW doesn't offer an alternative.

Throughout its long-term evaluation, the M340i was mostly obedient, but not without flaw. During our first trip out west, the active grille shutters that contribute to the M340i's aerodynamic slipperiness became stuck in the open position, illuminating a check-engine light. When we returned to Michigan, the dealer replaced the lower shutter assembly under war-

SERVICE TIMELINE

September 13, 2019
180 miles
Long-term test begins.

September 26, 2019
1138 miles
A pothole eats the left rear tire. \$378

October 30, 2019
2891 miles
We swap to Pirelli Winter Sottozero 3 tires. \$979

December 3, 2019
4567 miles
We add one quart of oil. \$11

March 6, 2020
10,384 miles
We add one quart of oil. \$11

March 18, 2020
10,863 miles
Dealer performs an oil change and inspections. Tech reprograms the rear camera and applies anticorrosion wax to the front-axle supports as part of a recall campaign. \$0

April 21, 2020
11,172 miles
We refit the Michelin Pilot Sport 4S summer tires. \$0

July 8, 2020
15,218 miles
We lose a front tire to another pothole. \$321

August 10, 2020
17,904 miles
In response to a check-engine light, dealer discovers the active grille shutters are stuck in the open position and replaces the lower shutter assembly under warranty. \$0

August 21, 2020
18,071 miles
We replace the key fob battery. \$3

August 21, 2020
18,114 miles
We add one quart of oil. \$11

September 17, 2020
19,816 miles
Dealer performs an oil change, inspects the vehicle, and replaces the cabin air filter. \$0

October 26, 2020
25,972 miles
A flat rear tire requires a tow to dealer, who claims we need to replace it. We disagree. Dealer swaps summers for winters, destroys one Michelin in the process, and covers replacement cost. \$135

Local tire shop patches flat summer tire. \$13

November 6, 2020
26,739 miles
Another front tire bites the dust. \$314

January 12, 2021
29,300 miles
We add one quart of oil. \$11

January 28, 2021
29,719 miles
Dealer performs an oil change and inspections. \$0

February 24, 2021
35,374 miles
We download an over-the-air update that includes improvements to the navigation and Apple CarPlay systems and adds wireless Android Auto capability. \$0

March 22, 2021
41,741 miles
Dealer performs an oil change, inspects the vehicle, and replaces the cabin and engine air filters. \$539

Per our request, dealer investigates suboptimal cabin cooling. Tech discovers a malfunctioning baffle and repairs it under warranty. We ask to have the bubbled trim on the steering wheel fixed, but a backordered part means we'll never see it. Dealer also performs a recall for the rear camera. \$0

March 24, 2021
41,750 miles
We refit the summer tires. \$0

March 24, 2021
41,751 miles
Long-term test ends.



Rants **and** **Raves**

The Lexus ES-ification of the 3 has finally stagnated. Give me a stick, BMW, and we can discuss replacing one of my E90s.

—K.C. COLWELL

Most cars become tiresome after logging 5500 miles in eight days. Not this one, though.

—DAVE VANDERWERP

Go ahead and call it a comeback. The 3-series is once again the sports-sedan benchmark.

—ERIC TINGWALL

BMW's used to have elegant gauges. The M340i's digital setup is difficult to read and overdesigned.

—TONY QUIROGA

ranty. During our 40,000 miles, we also added four quarts of oil to the engine at the computer's direction. While needing to add oil to any modern engine might sound alarming, BMW insists that our car's consumption was normal.

The car calls for maintenance as indicated by the oil-life monitor at roughly 10,000-mile intervals, and the cost is covered for the first three years or 36,000 miles. Our fourth stop, outside that window, included cabin and engine air filters as part of the routine service and set us back \$539. During the car's final checkup, we had the dealer inspect the climate-control system, as multiple drivers had noted its inability to adequately cool the cabin. The technician discovered that a baffle within the ductwork had malfunctioned and was restricting airflow. Fixed under warranty, the system was back to blowing with polar-vortex force. The dealer also agreed to replace the bubbled trim on the steering wheel, but with the part backordered from Germany, our car was gone before that could happen.

Michigan's cratered roads damaged our landing gear a few times. We blew out three tires and tweaked one of the 19-inch wheels (the latter didn't cause a problem, so we left it). The dealer also destroyed one of the Michelins during a tire change and paid for its replacement.

For the most part, the M340i's log-book was thick with praise. A couple of

The M340i won us over with its honeyed engine, smart transmission, and well-rounded athleticism.

staffers complained about the relatively thin, firm seat-bottom cushions. After a 1000-mile day, they'll have you reaching for Preparation H. (To be fair, not many seats leave you feeling fresh after 14 hours at the wheel.) Others griped about the digital instrument cluster, with its limited adjustability and awkward C-shaped gauges. And we could easily live without the driver-assist options. Our drivers took little issue with the adaptive cruise control, but most found the lane-keeping assist too jerky. Nearly every staffer's first move before a drive was to disable all the digital helpers. We were happy to take matters into our own hands; this is a sports sedan, after all.

Our year and a half with the M340i rejuvenated our passion for the 3-series. In times of isolation, having the M340i parked in the driveway meant a welcome escape whenever we needed it. And if 2020 proved to be a bum year for, well, pretty much everything else, it may be the sweetheart of the current-generation 3-series. For 2021, BMW saddles the M340i's inline-six with a 48-volt motor-generator that adds weight and complexity but no performance gains. The 3's sleeper looks and traditional kidney grille are still more appealing than the buck-toothed maw of the 4-series and new M3, and we think it's only a matter of time before that design finds its way to the lesser 3-series models.

For decades, we turned to the 3-series because it was engaging to drive yet practical for daily use. The M340i largely reestablishes that balance, returning much of the excitement that was lost with the previous model. Give it a few years and you just might find an M340i or two among our staff's many 3-series. 🇺🇸



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DANIEL STEIGER

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THE RUNDOWN

An expert look at the newest and most important vehicles this month.

← Kia has the Rio, so it makes sense that it would also have a minivan called the Carnival, page 76.



2021 FORD MUSTANG MACH 1 ~ BY NELSON IRESON

Bullitt with GT350 Wings

The Mach 1 returns for a 480-hp flyby.

This year marks the return of the Mach 1 badge, which adorns the fenders of a new special-edition Mustang focused on lap times. Think of it as a replacement for the discontinued GT350, Bullitt, and GT Performance Package Level 2. Those cars provide many of the Mach 1's track-focused parts, but don't get your hopes up—the GT350's 8250-rpm screamer isn't among them.

This Mach 1 has the Bullitt's 480-hp 5.0-liter V-8, making it 20 horses stronger than the regular-grade

GT. What the Mach 1 does get from the GT350 is a Tremec six-speed manual transmission (instead of the GT's Getrag box). A track-ready suspension, complete with adaptive magnetorheological dampers, bolts to front and rear sub-frames borrowed from the GT350, while the GT's Performance-package brake hardware—15.0-inch front rotors pinched by six-piston calipers—puts a leash on the Coyote V-8. Also inherited from the GT350 is a gas-guzzler tax, but only for the manual-trans Mach 1, effectively making the 10-speed automatic a \$595 option instead of \$1595.

The \$3500 Handling pack—consisting of 305/30ZR-19 and 315/30ZR-19 Michelin Pilot Sport Cup 2 rubber from the GT350R, an extended splitter, adjustable camber plates, and a rear wing with a Gurney flap—shows its worth on the track. All Mach 1s come with enhanced



THE NUMBERS

Vehicle Type: front-engine, rear-wheel-drive, 2- or 4-passenger, 2-door coupe

Base \$53,915

Engine: DOHC 32-valve V-8, aluminum block and heads, port and direct fuel injection

Displacement 307 in³, 5038 cm³

Power 480 hp @ 7000 rpm

Torque 420 lb-ft @ 4600 rpm

Transmissions: 6-speed manual, 10-speed automatic

Dimensions

• **Wheelbase** 107.1 in

• **L/W/H** 188.5/75.4/54.3 in

• **Curb Weight** 3900-3950 lb

Performance (C/D est)

• **60 mph** 3.8-4.3 sec

• **100 mph** 8.3-9.8 sec

• **1/4-Mile** 11.9-12.5 sec

• **Top Speed** 155-168 mph

EPA Fuel Economy

• **Comb/City/Hwy** ... 17-18/14-15/22-23 mpg

brake ducts and cooling upgrades for the engine, transmission, and rear differential.

Compared with the Mustang GT, the Mach 1 has a stiffer steering shaft and retuned electric power steering to improve precision and feel. It turns in with ease and rotates gracefully as you lift off the gas or trail off the brakes. But as you increase power while exiting a corner, the balance initially tends toward understeer rather than oversteer, something the Shelby GT350 didn't do. Aside from the lower overall grip offered by its narrower

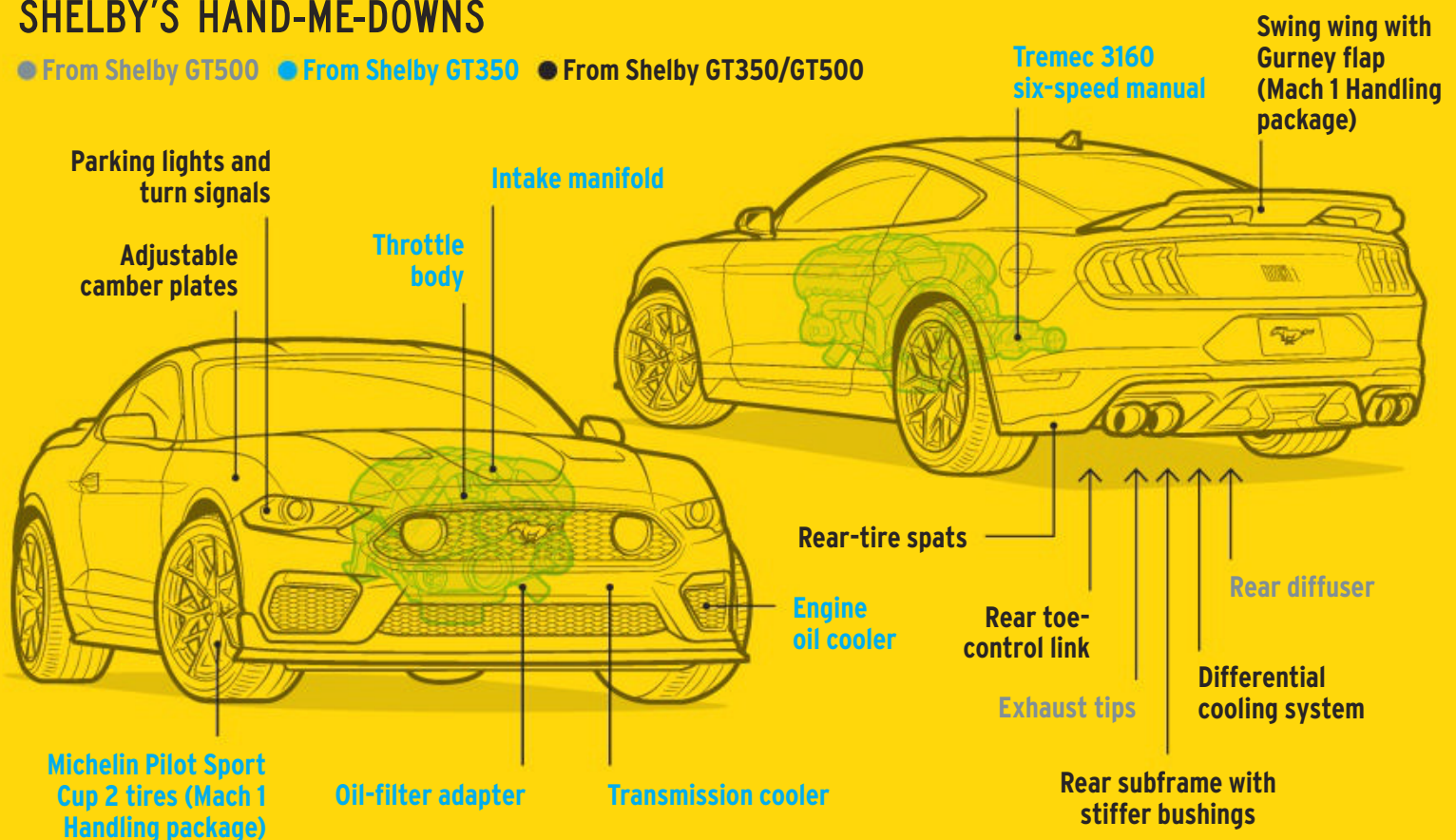
Pilot Sport 4S tires, the base Mach 1 isn't palpably different from the one with the Handling package in terms of street dynamics.

For those who pride themselves on perfecting the choreography of three-pedal track driving, a 10-speed-equipped Mach 1 won't feel as engaging. But it's quicker in a straight line and lets you focus more effort and attention on actually nailing the lap. While the paddle shifters are a handy feature, the automatic's algorithm is smart enough to call up and hold the right gears for corners.

Details such as a model-exclusive Fighter Jet Gray paint option, retro logos on the fenders, low-gloss stripes on the hood and sides, a unique grille, and a rear diffuser borrowed from the Shelby GT500 balance nods to Mach 1s of the past with modern style and aerodynamics. The \$53,915 base price isn't exactly cheap, but the Mach 1 may strike just the right chord for those who missed out on the GT350 and Bullitt and don't want to search the classifieds.

SHELBY'S HAND-ME-DOWNS

● From Shelby GT500 ● From Shelby GT350 ● From Shelby GT350/GT500



Cross Fit

Even in its base form, Porsche's electric wagon is an extreme athlete.

The wagon is alive, well, and kicking its way into the future with Porsche's Taycan 4 Cross Turismo. There's some implication of crossover-ness and light off-road credibility: the Cross in the name, a 1.2-inch increase in ride height over the Taycan sedan, a Gravel mode for the stability-control system, the contrasting body cladding. But during a drive that never saw the tires touch dirt, we discovered that this electric four-door wagon has a 911's appetite for winding roads.

In the \$92,250 4 Cross Turismo, an 83.7-kWh battery pack powers front and rear motors that are good for a combined 469 horsepower when launch control is activated or 375 horsepower in normal use. As in all Taycans, a two-speed automatic transmission on the rear axle enables brisk off-the-line acceleration and more efficient high-speed cruising. Porsche will reach deeper into customers' wallets with a 562-hp 4S, a 670-hp Turbo, and a 750-hp Turbo S, but the entry wagon is no slouch. We predict the 4 will hit 60 mph in 4.5 ticks. On L.A. freeways, its swift acceleration exceeded our expectations. Need to pass a dawdling left-lane day-dreamer? It's already done.



THE NUMBERS

Vehicle Type: front- and rear-motor, all-wheel-drive, 4- or 5-passenger, 4-door wagon
Base \$92,250
Motors: 2 permanent-magnet synchronous AC
Combined Power 469 hp
Combined Torque 368 lb-ft
Battery Pack: liquid-cooled lithium-ion, 83.7 kWh
Transmissions, F/R: direct-drive/ 2-speed automatic
Dimensions
• **Wheelbase** 114.3 in
• **L/W/H** 195.8/77.4/55.5-55.9 in
• **Curb Weight** 5200 lb
Performance (C/D est)
• **60 mph** 4.5 sec
• **100 mph** 9.8 sec
• **1/4-Mile** 12.7 sec
• **Top Speed** 136 mph
EPA Fuel Economy (C/D est)
• **Comb/City/Hwy** ... 76/73/81 MPGe
• **Range** 225 mi

Those freeways carried us toward Big Bear Mountain Resort and onto twisting canyon roads where the Cross Turismo showed off its road manners. You might think the Taycan's weight (north of 2.5 tons) would rear its head as the terrain grew steep and the road turned squiggly, but you'd be wrong.

The accuracy and feel of the steering foster a sense of confidence. Our car's optional Michelin Pilot Sport 4S summer tires deserve some of the credit. While the Cross Turismo lacks the man-machine connection of Porsche's GT sports cars, it handles remarkably well for a vehicle of its size and heft.

The official EPA range estimate should land at about 225 miles. We covered roughly 200 miles (60 of them driven hard on mountain

roads) with no perceptible loss of performance as the battery drained and no need to hunt for a charging station or stress about range. At the end of the drive, the battery still had 21 percent of its charge and an estimated 62 miles of range.

Compared with the Taycan sedan, the Cross Turismo adds a minor 0.4 inch of headroom up front and a major 3.6 inches in the back seat. Rear cargo space also grows by two cubes, to 16 cubic feet.

The Cross Turismo's shape and driving dynamics position it in the same realm as the gas-powered Mercedes-AMG E63 S and Audi RS6 Avant super-wagons. Based on its range alone, Porsche's electric family truckster will not dethrone the Tesla Model S as the car of choice for an EV road trip from Chicago to Walley World. That's okay though. The Cross Turismo makes up for it by turning any curvy road into a roller coaster.



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— Mike Valentine



V1 Gen2 brings new detection tools

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Label Makers

The Mercedes E-class has long been the very definition of a mid-size luxury sedan, but Genesis is not content to accept the status quo with its new G80.

Surprises from Mercedes-Benz are rare. Every new E-class is an evolution of the last, familiar and connected to its forebears. That calculated incremental change has allowed the E to become the archetype of mid-size luxury sedans.

Genesis, on the other hand, is so new to the luxury game that this is only the third time we've put one of its cars in a comparison test. Although the G80 mid-size sedan is now in its third generation if you count its Hyundai-badged predecessors, the 2021 model was developed to be a Genesis in a ground-up reset. The result is a vehicle that takes a credible step into a segment that Benz helped create.

To see whether the new Genesis sedan is ready for the bigs, we pitted a 2021 G80 with a twin-turbo 3.5-liter V-6 against the updated 2021 E450, which has a new turbocharged inline-six. Although Genesis offers all-wheel drive for the G80, our test car is a rear-driver, as that's how we'd buy it. The Mercedes comes exclusively with all-wheel drive.

Genesis has wisely taken its upstart status as permission to stray from the E-class template, and the deviation starts with size. In nearly every dimension, the G80 is larger than the Mercedes, with a 2.8-inch-longer wheelbase and front and rear tracks that are 1.3 and 1.5 inches wider. You feel the differ-

You can't fully appreciate the attention to detail in the Genesis G80's interior until you've run a hand over the supple leather, the tight seams, and the knurled controls.





ence in the plush back seat, which borders on S-class territory in terms of comfort and space. While the E450 looks subdued, designers gave the G80 an imposing grille and a winged badge that attracts attention, curiosity, and even confusion. Owners will just have to get used to the G80 being mistaken for a Bentley or a Chrysler.

The current E-class generation has been around since 2016, and the interior's design doesn't feel as modern as the G80's, even if the cabin remains beautifully assembled. Updates for 2021 include a wonky and frustrating touchpad

2nd Place: Mercedes-Benz E450 **Plus** Powertrain perfection, creamy ride quality, pedigreed badge. **Minus** Staid design, long stopping distance, frustrating infotainment touchpad.

1st Place: Genesis G80 **Plus** Gorgeous interior, impressive noise isolation, amazing value. **Minus** Engine can't match the Benz's refinement, a bit floaty at the limit, having to explain the brand to everyone.



infotainment interface that replaces the old car's more intuitive controller knob. The Benz's wood and leather are nice, but the G80's details create a next-level experience. Dressed up in the Prestige pack's quilted leather and microsuede headliner, the G80's cabin looks like it belongs in a six-figure car. We marveled at the exquisitely knurled knobs, the look and action of the window switches and shift knob, the door-panel

The E450's interior feels expensive, but the experience is tainted by the infotainment system. The trackpad controller is clumsy, and using the touchscreen requires a long reach.

material that begs to be touched, and the crisp and futuristic gauge-cluster and infotainment displays. As tested, the G80 cost \$66,645—nearly \$9000 less than the E450 [see “The Five-Figure Discount”].

Driven sedately, the Genesis has the supple ride to match its cushy interior. It wafts around doing its best Rolls-Royce impression, with aloof steering, soft damping, and excellent noise insulation. Only 66 decibels enter the cabin at 70 mph. The E450 registers 68 decibels, which is hardly cacophonous but nonetheless notable given our test car's \$1100 sound-deadening package. Tire thrum and road noise on the highway are far more apparent here than in the G80. At least the Benz is more composed over

rough roads thanks to its better-balanced ride and stiffer-feeling structure.

At the track, the G80's soft side didn't hurt it a bit. The G80 outgripped the E450 on the skidpad with an impressive 0.87 g and stopped from 70 mph in 174 feet. The E450 managed 0.84 g of grip and stopped from 70 mph in a long 195 feet. The Mercedes, though, wins handily in the engine room. Despite the cars' nearly identical weight and similar power output, the Benz's 362-hp turbocharged 3.0-liter inline-six crushed the Genesis's 375-hp twin-turbo 3.5-liter V-6 in just about every acceleration metric (it ties in 50-to-70-mph passing) and returned better fuel economy. The straight-six is smooth and torquey enough to make an electric motor jealous, and the G80 can't match the E450's silky power delivery.

We were pleasantly surprised by how well the Genesis performed when we picked up the pace. Switching into Sport mode changes the G80's demeanor as steering effort rises and the dampers tighten up wheel control. The eight-speed automatic transmission downshifts responsively, and finding a quick rhythm on a curvy road is easy. Keep pushing and the suspension acts a bit floaty and unpolished near the limit, although we did find that it'll hold a Ken Block-worthy drift if you're so inclined. In contrast, the Mercedes maintains its syrupy feel even in Sport Plus mode. Body motions are buttoned down no matter how hard you push, but we wish the steering effort would build and respond more to cornering forces.

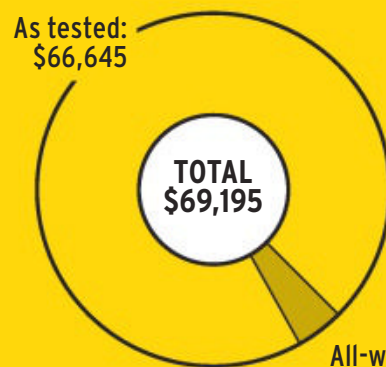
Maybe it's because Mercedes doesn't have anything to prove in this segment, but the E450 lacks the chutzpah of the upstart. It fulfills expectations for comfort, quality, mechanical refinement, and acceleration. While the G80 falls short of the Benz in a few areas, it wins with its price, silent day-to-day manners, and more upscale interior and back seat. The G80 is an authentic luxury sedan that has what it takes to outshine the establishment. Genesis has arrived.

	2021 Genesis G80 3.5T	2021 Mercedes-Benz E450 4Matic
Base/As Tested	\$60,145/\$66,645	\$63,050/\$75,390
Dimensions		
Wheelbase	118.5 in	115.7 in
Length/Width/Height	196.7/75.8/57.7 in	194.3/73.7/57.8 in
Track, F/R	64.2/64.5 in	62.9/63.0 in
Passenger Volume, F/R	56/48 ft³	52/45 ft ³
Trunk Volume	13 ft³	13 ft³
Powertrain		
Engine	twin-turbocharged DOHC 24-valve V-6 212 in ³ (3470 cm ³)	turbocharged DOHC 24-valve inline-6 183 in ³ (3000 cm ³)
Power, hp @ rpm	375 @ 5800	362 @ 6100
Torque, lb-ft @ rpm	391 @ 1300	369 @ 1600
Redline/Fuel Cutoff	6200/6200 rpm	6250/6250 rpm
lb per hp	11.5	11.9
Driveline		
Transmission	8-speed automatic	9-speed automatic
Driven Wheels	rear	all
TEST RESULTS		
Acceleration		
30 mph	1.9 sec	1.6 sec
60 mph	4.9 sec	4.3 sec
100 mph	11.8 sec	11.0 sec
120 mph	17.4 sec	16.5 sec
1/4-Mile @ mph	13.4 sec @ 106	12.9 sec @ 108
	<i>Results above omit 1-ft rollout of 0.3 sec.</i>	<i>Results above omit 1-ft rollout of 0.3 sec.</i>
Rolling Start, 5-60 mph	5.7 sec	5.2 sec
Top Gear, 30-50 mph	2.9 sec	2.8 sec
Top Gear, 50-70 mph	3.6 sec	3.6 sec
Top Speed	155 mph (C/D est)	129 mph (gov ltd)
Chassis		
Braking, 70-0 mph	174 ft	195 ft
Roadholding, 300-ft Skidpad	0.87 g	0.84 g
Weight		
Curb	4321 lb	4318 lb
Distribution, F/R	52.3/47.7%	54.7/45.3%
Fuel		
Capacity/Octane	19.3 gal/91	21.1 gal/91
EPA Comb/City/Hwy	22/19/27 mpg	26/23/30 mpg
C/D 200-mi Trip	25 mpg	27 mpg
Sound Level		
Idle/Full Throttle	35/72 dBA	40/74 dBA
70-mph Cruise	66 dBA	68 dBA

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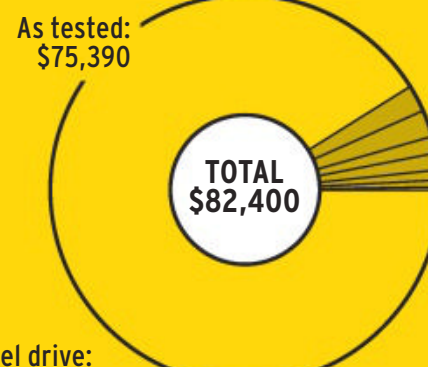
Genesis bundles all of the G80's most desirable features into a single \$6000 Prestige option package (\$5400 for all-wheel-drive models). To load an E450 with comparable equipment requires several stand-alone options beyond what was on our test car. Building both models to similar specs would have extended the price gap between these cars to \$13,205.

GENESIS G80 PRESTIGE



All-wheel drive: +\$2550

MERCEDES-BENZ E450



- Massaging front seats: +\$1770
- Nappa leather upholstery: +\$1720
- Head-up display: +\$1100
- Heated rear and ventilated front seats: +\$1030
- Rear side airbags: +\$700
- Power rear-window shade: +\$440
- Heated steering wheel: +\$250



2021 BENTLEY FLYING SPUR V8 ~ BY DAVID BEARD

Got Coin?

Highs: Makes the W-12 redundant, phenomenal acceleration and handling. **Lows:** Regretting the day you laughed at crypto buyers.

A decade ago, it would've been hard to imagine a little bit of digital currency mined by computers ever amounting to anything. But if you'd had the foresight to buy some in 2011, back when one bitcoin cost a dollar, you might be in the market for a new Flying Spur today.

Starting at \$199,725 (less than a \$4 bitcoin buy in April 2011), the V-8-powered Spur makes 542 horsepower, well short of what you get with the optional 626-hp twin-turbo W-12. You won't miss that extra power, though. On the back of a high-rpm launch-control start made possible by its eight-speed dual-clutch automatic, the Flying Spur V8 catapults to 60 mph in 3.5 seconds, matching the 12-cylinder sedan's time. The quarter comes up in 12.0 seconds at 115 mph. Without our VBox test gear, we'd never know the eight-pot car is 0.2 second and 5 mph behind its brawnier sibling.

The supple, leather-lined Flying Spur floats serenely along interstates like a yacht skimming a calm sea. True to Bentley's motorsports heritage, the Flying Spur will transform from a rolling day spa to a back-road racer on command. The steering feels as if it's been plucked from a proper sports sedan, and the optional \$7730 active anti-roll bars keep the body Nebraska flat. Lean into this 5474-pound beast and the rear-biased all-wheel-drive system will even allow you to partake in lurid drifts.

After a week of living the 1 percent lifestyle, we're wishing we'd gone long on crypto a decade ago. If only we'd placed a fiver on bitcoin back then, we could justify our test car's \$65,840 list of options and afford its \$265,565 as-tested price.

THE NUMBERS

Vehicle Type: front-engine, all-wheel-drive, 5-passenger, 4-door sedan

Base/As Tested ... \$199,725/\$265,565

Engine: twin-turbocharged and intercooled DOHC 32-valve V-8, aluminum block and heads, direct fuel injection

Displacement 244 in³, 3996 cm³

Power 542 hp @ 6000 rpm

Torque 568 lb-ft @ 2000 rpm

Transmission: 8-speed dual-clutch automatic

Dimensions

• **Wheelbase** 125.7 in

• **L/W/H** 209.3/77.9/58.4 in

• **Curb Weight** 5474 lb

TEST RESULTS

60 mph 3.5 sec

100 mph 9.0 sec

1/4-Mile 12.0 sec @ 115 mph

130 mph 15.7 sec

150 mph 22.8 sec

Results above omit 1-ft rollout of 0.2 sec.

Rolling Start, 5-60 mph 4.6 sec

Top Speed (mfr's claim) 198 mph

Braking, 70-0 mph 168 ft

Braking, 100-0 mph 342 ft

Roadholding, 300-ft Skidpad ... 0.94 g

C/D Fuel Economy

• **Observed** 17 mpg

EPA Fuel Economy

• **Comb/City/Hwy** 17/15/20 mpg

BENTLEY BLOWER CONTINUATION
~ BY MIKE DUFF

NEWBORN NONAGENARIAN

Beyond the lack of 90 years of wear, the Bentley Blower Continuation is a facsimile of the original. A mere dozen will be made, each costing \$2.5 million and pulling off the unique trick of offering both a new-car smell and a prewar driving experience.

Based on the Blower that raced at Le Mans in 1930, the Continuation features a perfect copy of the original's 16-valve 4.4-liter inline-four complete with twin-spark ignition, aluminum pistons, and a magnesium crankcase. With 240 horsepower in race trim, the Blower was one of the most powerful cars at the time and could hit 125 mph.

Mastering the double-clutched gearchanges and rev-matched downshifts demanded of the nonsynchronized transmission takes practice—the throttle is between the clutch and brake—but the rest of the experience feels, if not exactly modern, certainly less old-fashioned. The big four has little enthusiasm for revs, *thump, thump, thump*-ing its way to a 4500-rpm redline. Low-end torque is plentiful. At a steady 80 mph, the steering is seriously heavy, but more accurate than in many cars that followed the original. Peak cornering forces are modest, a fact not respected by the feeble cable-operated brakes. The biggest limitation on a winding road is the driver's ability to fight the Blower through turns.

The Continuation is as untamed and woolly as the period car. Here's hoping it gives the upper echelons of the market an appetite for equally impressive, newly built anachronisms.



FLYING SPUR PHOTOGRAPH BY MICHAEL SIMARI



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2022 HYUNDAI TUCSON
~ BY JOHN PEARLEY HUFFMAN

Sharper Image

A larger Hyundai Tucson is dressed for success.

Hyundai's confidence in its styling department is on display in the new Tucson compact crossover. In a segment dominated by play-it-safe, forgettable shapes, the Tucson's bulging fenders, hard creases, and faceted grille with integrated daytime running lights are going to get noticed. Love it or hate it, the Tucson isn't boring.

The design work is even stronger inside, where a mélange of Honda, Lexus, and Audi cues play well together. Two 10.3-inch screens stand out as stars of the top trim level: The one in front of the driver displays the gauges, and the touchscreen to the right controls the info-

tainment system, which features Apple CarPlay and Android Auto phone mirroring. Interior space bests that of the Honda CR-V, a juggernaut in this segment. Larger than before and riding on a wheelbase within a half-inch of the Santa Fe's, the Tucson is now as big as the CR-V on the outside too.

A 187-hp 2.5-liter inline-four pairs with an eight-speed automatic for the default powertrain. The combo moves the Tucson well, if not hastily. Hyundai will also offer a hybrid and a plug-in hybrid. Both electrified versions have a turbocharged 1.6-liter four-banger that makes 180 horsepower on its own. The hybrid couples the engine with a 59-hp motor for a combined output of 226 horsepower, and the plug-in upsizes to a 90-hp motor for a total of 261 ponies. That extra oomph should make the hybrids quicker than the nonhybrid. Hyundai estimates that the plug-in, which qualifies for a \$6587 federal tax credit, will cover up to 32 miles on electricity with a full charge.

The suspension tuning, at least on initial impression, is pretty good.

THE NUMBERS

Vehicle Type: front-engine, front- or all-wheel-drive, 5-passenger, 4-door wagon

Base (C/D est) \$26,135-\$34,500

Powertrains: DOHC 16-valve 2.5-liter inline-4, 187 hp, 178 lb-ft; turbocharged and intercooled DOHC 16-valve 1.6-liter inline-4, 180 hp, 195 lb-ft + AC motor, 59 hp, 195 lb-ft (combined output: 226 hp); turbocharged and intercooled DOHC 16-valve 1.6-liter inline-4, 180 hp, 195 lb-ft + AC motor, 90 hp, 224 lb-ft (combined output: 261 hp)

Transmissions: 6-speed automatic, 8-speed automatic

Dimensions

• **Wheelbase** 108.5 in

• **L/W/H** 182.3/73.4/65.6 in

• **Curb Weight** 3350-3900 lb

Performance (C/D est)

• **60 mph** 7.4-8.5 sec

• **1/4-Mile** 16.1-16.6 sec

• **Top Speed** 125-135 mph

EPA Fuel Economy

• **Comb/City/Hwy** 26-38/24-38/29-38 mpg

Rambling down gravel roads, the Tucson does a fine job isolating harshness and chatter without feeling soft or disconnected. The steering is decently weighted, and turn-in is reasonably crisp. Hyundai engineers put more care and spirit into the chassis than is common in this class.

The 2022 Tucson will hit dealerships this summer, with prices ranging from \$26,135 for the base SE model with front-wheel drive to \$37,285 for the top-dog Limited with all-wheel drive. We suspect most people will choose the SEL, which has more than enough convenience, comfort, and driver-assist features to justify its \$1550 increase over the SE. Hybrid models will begin at \$30,235, and plug-ins around \$34,500.

The Tucson is the company's worldwide bestseller. Hyundai can't afford to screw this up. And it hasn't.



MORE SHOW THAN GO

The \$31,785 N Line trim spiffs up the Tucson with 19-inch wheels, a dual exhaust, and red interior accents, but unlike the N Line Elantra and Sonata, the Tucson doesn't get an engine upgrade.



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2022 KIA CARNIVAL
~ BY JOEY CAPPARELLA

The Vanguard

Highs: Refined ride and handling, attractive design, nice price.
Lows: Few cubbies, quixotic captain's chairs in top model, no all-wheel drive or hybrid.

The shrinking minivan segment is more proof that only the strong survive. The Toyota Sienna is now a 30-plus-mpg hybrid, the Honda Odyssey drives better than most crossovers, and the Chrysler Pacifica comes in a plug-in-hybrid version with freakin' throw pillows in its top trim. Plus, both the Chrysler and the Toyota offer all-wheel drive. Sporting a new name and logo, the Kia Carnival enters the fray with a fresh, modern design that makes it the best-looking van of the bunch.

While Kia designers did their best to make the Carnival look like an SUV, there's no hiding the high roof and low floor of a van. The Kia's square profile pays dividends inside, with a class-leading 167 cubic feet of passenger space and 40 cubic feet for cargo behind the third row. However, the Carnival could use larger cubbies, and more of them.

Vans usually ace our ping-pong-ball test, wherein we pack a vehicle's storage bins with the spheres and count 'em, but the Carnival scored low. It holds just 37 percent of the balls that the Sienna does.

Kia's crisp displays and upscale materials take the interior to near-luxury-car levels. It's so nice, we're left wondering how the rich leather and gloss-black plastic trim will hold up to children. The top-of-the-line SX Prestige model comes with nonremovable recliner-style captain's chairs. These heated, ventilated, and power-operated seats appear opulent, but they have clunky adjustment controls and are impractical, heavy to slide, and not all that comfortable. We'd choose one of the lesser trim levels, which feature more conventional seating setups for seven or eight passengers.

Space and comfort are good in the second and third rows, but the driver's seat is the place to be. The steering is properly weighted, and the suspension tuning strikes the right balance between pillowy and firm. Among minivans, the Carnival's skidpad grip (0.82 g) and braking distance from 70 mph (173 feet) are second only to the Pacifica's.

A new naturally aspirated 3.5-liter V-6 provides a smooth 290 horsepower and is well matched to this 4644-pound minivan. Acceleration is strong for the segment, with

THE NUMBERS

Vehicle Type: front-engine, front-wheel-drive, 8-passenger, 4-door van
Base/As Tested \$33,275/\$42,770
Engine: DOHC 24-valve V-6, aluminum block and heads, port and direct fuel injection
Displacement 212 in³, 3470 cm³
Power 290 hp @ 6400 rpm
Torque 262 lb-ft @ 5000 rpm
Transmission: 8-speed automatic
Dimensions
• **Wheelbase** 121.7 in
• **L/W/H** 203.0/78.5/68.5 in
• **Curb Weight** 4644 lb

TEST RESULTS

60 mph 7.0 sec
1/4-Mile 15.3 sec @ 93 mph
100 mph 17.8 sec
Results above omit 1-ft rollout of 0.3 sec.
Rolling Start, 5-60 mph 7.4 sec
Top Speed (gov ltd) 118 mph
Braking, 70-0 mph 173 ft
Roadholding, 300-ft Skidpad 0.82 g
EPA Fuel Economy
• **Comb/City/Hwy** 22/19/26 mpg

60 mph arriving in 7.0 seconds; that puts the Carnival ahead of all-wheel-drive versions of the Sienna and Pacifica and just half a second behind the Odyssey.

The Carnival comes only with front-wheel drive, and there's no hybrid option. Instead, Kia makes a value play. While a fully trimmed Chrysler or Toyota van will top \$50,000, the Carnival SX Prestige starts at \$47,275. If you're shopping for a minivan right now—and if you have kids to haul around, we highly recommend one—the Carnival is a worthy competitor to consider. ■

Jackpot! Hoard of 1881-S Morgan Silver Dollars Found & Secured

Mintage accounts for only 1.94% of all Morgan Silver Dollars Struck!



The Morgan Silver Dollar is the most popular and iconic vintage U.S. coin. They were the Silver Dollars of the Wild West, going on countless untold adventures in dusty saddlebags across the nation. Finding a hoard of Morgans doesn't happen often—and when it does, it's a *big deal*. So when we came across a recent hoard of 549 Morgan Silver Dollars—all struck at the San Francisco Mint in 1881—it was like hitting the jackpot!

Morgans from the San Francisco Mint

In 1859, Nevada's Comstock Lode was discovered, and soon its rich silver ore made its way across the nation, including to the respected San Francisco Mint—the U.S. Mint branch known by collectors as the source of some of the finest U.S. coins ever struck. That includes the 1881 Morgan Silver Dollar, which exhibits crisp details, blazing luster, and the iconic "S" mint mark of the San Francisco Mint. Now you have the chance to add these historic, 90% pure U.S. silver coins to your collection!

1881-S Date

The Morgan Silver Dollar was struck from 1878 to 1904, and again in 1921. In the 100 years since, most of these beautiful U.S. Silver Dollars have been worn out or melted down for their silver. It's estimated that as little as 15% of all Morgans struck exist today in any condition. Even fewer come from this particular mintage.

Here's the breakdown: in 1881, just 4.25% of the total Morgan series was struck. Less than half of those coins came from San Francisco. In the end, the 1881-S Morgan Silver Dollar accounts for just 1.94% of the entire series—and that's *before* the mass meltings that have left so few coins for collectors to secure. And we can expect that even fewer of the survivors are of collector grade...

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Coins are graded on a 70-point scale, with a 70 representing perfection. Through hard work and diligence, the collector who first assembled this hoard managed to find 1881-S Morgans graded as quality Mint State-63 (MS63) condition by the world's two leading third-party grading services, Numismatic Guaranty Corporation (NGC) or Professional Coin Grading Service (PCGS)! Grading service varies. The condition of these coins are as though they were struck yesterday, despite being minted 140 years ago to circulate in commerce! And yet they have survived with a quality level of eye appeal that won't cost you an arm and a leg.

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LOSING THE LAND CRUISER

THE LEGENDARY TOYOTA OFF-ROADER FINALLY MEETS AN OBSTACLE IT CAN'T CONQUER: MEAGER U.S. SALES.

The Toyota Land Cruiser didn't earn its go-anywhere reputation in the United States. "One nice thing about a Land Cruiser is that it has 4-wheel drive and nine-inch clearance and is meant for cross-country bush-busting," *New York Times* correspondent Charles Mohr wrote in 1972 about driving in Africa. "This means that you can drive it off a road and over the veldt to get close to a lion."

Getting over the veldt—the open grasslands of southern Africa—is a no-sweat task for Land Cruisers. So is trudging through the mud of Asian forests, crawling over the crud of the Amazon basin, and persevering in the brutal, dusty heat of the Australian Outback. Land Cruisers made inaccessible parts of the world accessible, and a white Cruiser with "UN" stenciled along its

flanks became an iconic image of international aid finally getting to where it was needed. Jeep will always be American and Land Rover British, no matter who owns those brands. But the Land Cruiser belongs to the world.

This SUV owes its origins to UN-sponsored "police action" in Korea. The U.S. military, which provided 1.8 million troops for the Korean War and was also still occupying Japan in the wake of World War II, needed a vehicle to use in Asia. So in 1950, it commissioned Toyota to build a version of the Willys Jeep. Regular production of the Toyota Jeep one-ton truck started in 1953, at which point Willys, enforcing its trademark,

demanding a name change; thus, the Land Cruiser was born.

The vehicle came to the U.S. in 1958, and through 60-plus years of variations, a few things have remained constant: It excels in off-road environments, never sacrifices ability for style, and is always built to a ridiculously high standard. The Land Cruiser morphed into a V-8-powered luxury liner in America around the turn of the millennium. Big, expensive, and intimidating, it sold in modest numbers to the elite few who wanted one of the world's most rugged vehicles but also ultimate comfort. When Toyota stops selling Cruisers here after the 2021 model year, it will isolate America in a particular way. Elsewhere in the world, the Land Cruiser will soldier on. A vehicle as significant as this one shouldn't be gone from our shores forever. —John Pearley Huffman



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