

ARIZONA DRIVER

THE ENTHUSIAST'S GUIDE TO LIFE BEHIND THE WHEEL

VOLUME 20 NUMBER 1
JANUARY-FEBRUARY 2021

ARIZONA AUTOMOTIVE INDUSTRY NEWS

/ ATLIS, LUCID, NIKOLA, UBER, WAYMO

DRIVES

/ MID-ENGINE C8 CORVETTE STINGRAY,
FORD F-150 4X4 POWERBOOST HYBRID,
CADILLAC XT5, MERCEDES-AMG GLE 53,
SUBARU CROSSTREK SPORT, NISSAN ROGUE

AUCTIONS

/ EVOLVING SCHEDULES AND DATES

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THE ENTHUSIAST'S GUIDE TO LIFE BEHIND THE WHEEL

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COVER: As the automotive industry grows by leaps and bounds in Arizona, new EV manufacturer Lucid Motors is moving along quickly with both their EV product development and construction of their greenfield vehicle assembly facility near Casa Grande. Full story starts on page 36.



START YOUR ENGINES : FROM THE PUBLISHER

2021 seems on track to continue along the lines of 2020. The big international auto shows have been rescheduled and/or postponed. Drive events—regional comparos and launch drives—showed signs of life a couple of months ago, due to a combination of improving data and/or hopeful thinking. We drove in one carefully staged and sanitized comparo in Texas and were set to travel to a new vehicle launch drive and another comparo. But the world tightened back up, and all such things are back on pause.

The lack of travel does give us a bit more time to drive our weekly vehicles a bit farther. Here at home, Arizona's world famous January Auction Week has been impacted, though on a shorter fuse. In this issue is info on eight events' plans as of late December (any of which may change some more). Most will be online events with limited live participation, and a couple are postponed, all nonetheless keeping the hobby alive and in fact thriving.

Barrett-Jackson is postponed till just March, and Pebble Beach Concours is on track and almost sold out for August (also in this issue)—both promising signs, at least as of now.

Common foundation to the big auto shows, comparo events and launch drives is the greater automotive industry, for whom the challenges of a pandemic run deep—from health on the factory floor, to producing a model year change for hundreds of vehicles against an unpredictable calendar, with or without the usual media participation.

But another significant current in the automotive industry has its own path. Assembly plants (domestic and foreign-based) have expanded through the Midwest and South for years, and, more recently, a couple of newsmakers have relocated to Texas. But a whole range of major startups have chosen Arizona as a business-friendly home for new vehicle manufacturing, technologies, alternative fuels and powertrain evolution. You'll find news in this issue on the progress, efforts, wheels and deals of a growing number of these Arizona-based automotive manufacturing giants or giants-to-be. Interesting times!

Enjoy the ride!

Joe Sage - Publisher/ Executive Editor

ARIZONA DRIVER

MAGAZINE



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- RMAPRocky Mountain Automotive Press
- SAMA.....Southern Automotive Media Association
- TAWATexas Auto Writers Association
- TxMPA...Texas Motor Press Association
- WAJWestern Automotive Journalists

- ACMLeMay—America's Car Museum
- Sturgis....Sturgis Motorcycle Museum & Hall of Fame
- USFRA...Utah Salt Flats Racing Association
- USMA.....United States Motorsports Association

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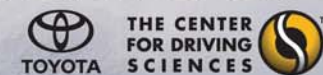
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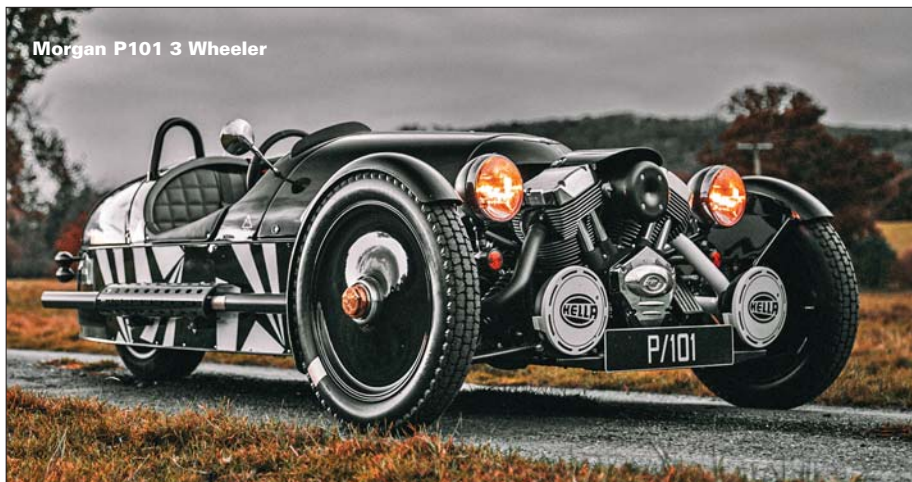
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▼ **Morgan** marks the end of production of one of its well-loved 3 Wheeler—introduced in its current form in 2011—with a P101 edition, pending type approval on its S&S V-twin engine finishes. P101 stands for Project 101, the internal name given to the 3 Wheeler revival project as it underwent development more than a decade ago. The current 3 Wheeler has been one of the company's most popular models of all time, with more than 2,500 built since its launch in 2011. Exported to all corners of the globe, the Morgan 3 Wheeler has received countless accolades. Limited to just 33 examples, the P101 bears a purposeful and utilitarian aesthetic, with components and detailing inspired by Morgan's prior 3 Wheelers. A single-leaf tonneau cover, as seen on Morgan's EV3 concept in 2016, exaggerates an asymmetrical theme for single occupant use. Low-slung Hella 9-inch spot lamps are positioned to reduce turbulence around suspension, also providing an instantly recognizable streamlined and forward-leaning visual. Low-drag Aero-disc wheels bearing torque markers on each front tire match the body color. Black and white straight-cut ceramic-coated exhausts alternate left to right, with other details including a fly screen, louvers, exposed rivet details, and specific P101 markings. The 3 Wheeler P101 is available in Deep Black or Satin White Silver with coordinated decals. Four available P101 art packs—Belly Tank, Dazzleship, Aviator and Race Car—allow customer customization. The limited-run P101 is priced from £45,000

(about \$60,000) plus taxes and destination costs. All 33 production slots have already been allocated to Morgan dealerships in the UK, Europe and USA. Production has begun and will continue alongside bespoke 3 Wheelers during 2021.

▼ The new **Lamborghini Huracán STO**—Super Trofeo Omologata—is a road-homologated super sports car inspired by Lamborghini Squadra Corse's one-make racing



series with Huracán Super Trofeo EVO and by its three-time 24 Hours of Daytona-winning and two-time 12 Hours of Sebring-winning Huracán GT3 EVO. Its naturally aspirated V10 produces 640 hp and 417 lb-ft of torque, for a zero-to-62 mph time of 3.0 seconds, 9.0 seconds to 124 mph, and top speed of 192.6 mph. Entirely new styling and build optimize airflow and minimize weight, with the highest level of downforce

in its class with the best aerodynamic balance for a rear-wheel drive car. Using carbon fiber in more than 75 percent of its exterior panels, the rear fender adopts a carbon fiber "sandwich" technique from the aerospace industry, overall using 25 percent less carbon fiber while maintaining the same structural rigidity. At 2952 lb, the Huracán STO is 95 lb lighter than the already lightweight Huracán Performante. The hood, fenders and front bumper are combined into one single component, a "cofango," inspired by the Lamborghini Miura and more recent Sesto Elemento. New front air ducts increase cooling airflow while generating additional downforce. A new front splitter directs airflow to the newly designed underbody and rear diffuser. The cofango pushes airflow on top of the front fenders, which incorporate louvers to maximize airflow exiting from the wheelhouse, increasing front downforce. The cofango's side profile directs airflow around the front wheels, reducing drag. A new rear fender deriving from the Super Trofeo EVO, reducing the front area of the car and thus drag, while increasing

rear downforce. NACA engine air intakes in the rear fenders have a shortened duct for a 30 percent decrease in static pressure losses. An integrated rear hood air scoop with dedicated air deflectors manages significant incoming airflow according to needs of the engine and exhaust, while a rear hood "shark fin" improves dynamics particularly when cornering. New front brake cooling ducts are dedicat-

ed to cooling the discs and calipers of new CCM-R brakes, working with the cofango louvers that dispel hot air. Overall airflow efficiency is improved by 37 percent, with a significant downforce increase of 53 per-



cent over the Huracán Performante. The Lamborghini Huracán STO arrives this spring, at a suggested price of \$327,838.

▼ **Aston Martin** has created the Vantage Legacy Collection to commemorate one of the most successful periods and race cars in their history, the Aston Martin Vantage. The seasons from 2009 to 2018 brought Aston Martin seven FIA World Endurance Championship titles and two 24 Hours of Le Mans class victories (in 2014 and 2017), as well as numerous international championships in British GT, GT World Challenge (Europe) and the European Le Mans Series. Aston Martin Racing has created a trio of Legacy Vantages based on the V8 Vantage road car launched in 2005, for sale as a collection—a V8 Vantage GTE, a V12 Vantage GT3 and a Vantage GT4. All are brand new chassis, ready to race, and have been identically liveried in sterling green with classic Aston Martin yellow trim lines around the radiator and cant rail. // The V8 Vantage GT4 was the first racing car created around VH-era architecture. It made its debut in 2009 and, by the end of 2018, Aston had built 107 cars, winning races and international championships around the world. Many of these cars still compete today. The GT4 in the collection is the 108th and final car to be made. // The V12 Vantage GT3 arrived three years after the GT4, making its debut in 2012. Over seven years through the end of 2017, 46 V12 GT3 cars were built. Dominant in the British GT championship, the GT3 won outright titles

in 2013, 2015, 2016 and 2018, competitive right up until it was replaced by a new Vantage in 2019. // The V8 Vantage GTE made its debut with the Aston Martin Racing works team in 2012 at Sebring. It

spearheaded Aston Martin's works return to production-based racing following three years of competing in the LMP1 class. The V8 Vantage GTE took its first win at the final round of the FIA World Endurance Championship in Shanghai in October of that debut year. Only six V8 Vantage GTEs were originally built, with the car racing for the last time in the GTE Am class at Le Mans in 2018. During this time, it became the most successful car in the FIA World



Endurance Championship, winning seven titles and two Le Mans class victories, including a famous final-lap triumph in 2017. The GTE in this collection is the seventh and final car to be made, chassis number 007. // Aston Martin Racing president David King says, "For a collector, this trio ... represents the ultimate tribute to a halcyon period for the brand in international sportscar racing. While Aston Martin has

since gone on to record world championship titles with the current generation turbocharged V8 Vantage, the foundations laid by the huge success of the original car won it admirers the around the globe and led to it becoming a firm favorite with racing fans. The Legacy collection is a beautiful sign-off for this wonderful car."

▼ The close link to motorsports in the new **Mercedes-AMG GT Black Series** was demonstrated by GT3 driver Maro Engel on the North Loop of the famous Nürburgring, with an official measured, notarized and certified 6:43.616 time for the 12.8-mile loop and 6:48.047 for the 12.944-mile total track, placing the AMG GT Black Series in the top tier of the street-legal sports cars category and number one among fully standard, unmodified models. Engel, 35, made full use of the new car's potential, from the most powerful AMG V8 series engine ever offered, at 720 hp, to sophisticated aerodynamics and extensive suspension adjustment options. The carbon fiber front splitter was extended to Race position, and lower and upper wing blades of the rear spoiler were adjusted to their middle positions. Adjustable AMG coil-over suspension with adaptive damping was lowered by 0.2 inches at the front and 0.1 inches at the rear to further enhance

the front diffuser's venturi effect. Camber was adjusted to maximum possible values of negative 3.8 degrees front and negative 3.0 degrees rear. Engel opted for the hardest of three possible settings for its adjustable anti-roll bars and ran its nine-stage AMG traction control between positions six and seven, depending on the section



of track—all of these settings and adjustments a customer can utilize. Standard equipment Pilot Sport Cup 2 R MO tires with soft compound were developed in collaboration with Michelin specifically for this



Mercedes-Maybach S-Class

car. Top level stopping performance is ensured by a standard AMG ceramic high-performance composite braking system.

▼ Since its launch in 2015, some 60,000 Mercedes-Maybach S-Classes have been sold worldwide, with a record 12,000 in 2019 led by double-digit growth in China, with the US, Germany, Russia and South Korea also key. Combining high-tech elements of the recently revealed Mercedes-Benz S-Class flagship with the exclusivity and tradition of Maybach, the Mercedes-Maybach S-Class is particularly suited to chauffeured driving. Seven inches of longer wheelbase is applied entirely to the rear of the cabin. Executive seats make the rear a comfortable working or relaxation area, with high-quality wood surrounds giving the feel of a generous lounge. New comfort features include calf massage and neck and shoulder heating. The Maybach S-Class differs from its Benz brothers when viewed from the side: rear doors are wider, while C-pillars feature a fixed quarterlight and Maybach logo. Distinctive two-tone paint is available, applied by hand. The hood bears a chrome fin, and the radiator grille has fine, vertical chrome pinstripes. Available electrically operated rear doors can be opened and closed with little force, even on a grade, and can also be operated from the chauffeur's seat. The interior features active road noise compensation, which reduces unwanted low-frequency noise, using bass speakers of the Burmester High-End 4D Surround

Sound system to produce counter-phased sound waves, much like noise-cancelling headphones. New adaptive rear lighting allows brightness, size and direction to be adjusted from precise working light to

relaxing lounge light. Gen-two learning-capable MBUX networks with vehicle systems and sensor data—for example, integrating Blind Spot Assist for convenience and safety with the electric rear doors. Five brilliant large screens incorporate OLED technology. Standard rear-axle steering of up to ten degrees reduces the turning circle by almost seven feet, making the big Maybach easy to maneuver even in dense urban traffic. Optional E-



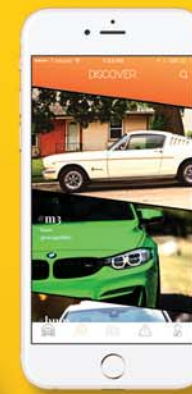
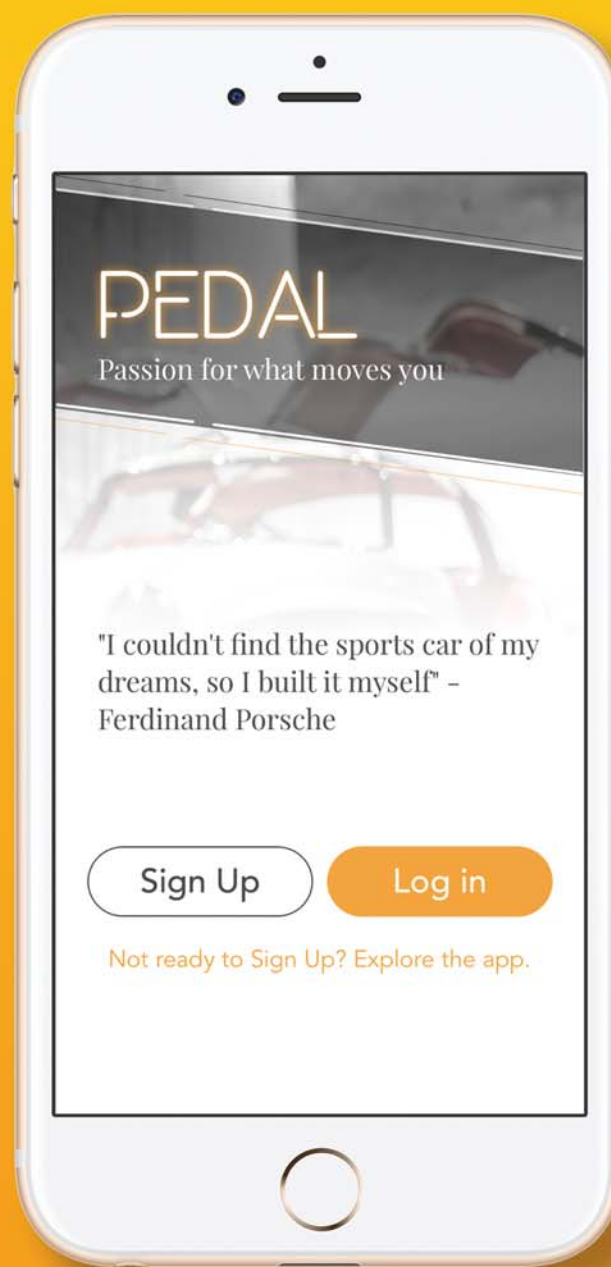
Rolls-Royce Black Badge Neon Nights series

ACTIVE BODY CONTROL active suspension combines with standard AIRMATIC air suspension to control spring and damper forces at each wheel individually and, together with ROAD SURFACE SCAN and a CURVE inclination function, adds comfort and safety (with innovative functions such as raising the vehicle body in a lateral crash). The Mercedes-Maybach S-Class goes on sale in the US in mid-2021.

▼ Rolls-Royce Black Badge variants are now available with a “Neon Nights” trio of vehicles, following their highly successful “Pastel” Collection of 2019. Applied to Black Badge variants of Wraith, Dawn and Cullinan, the “darker and edgier” members of the family, Neon Nights are bold in color and aimed at buyers “who really do dare to be different,” says Rolls-Royce bespoke color and trim designer Sami Coultas. With one of each created for clients in the US, three more of each will be available worldwide, for a limited run of just four each of three colors, inspired by the natural world. The Wraith Black Badge is finished in Lime Rock Green, based on the near-luminous hue of the Australian green tree frog (which Coultas first encountered on a trip to Tamworth, north of Sydney), with its interior in Scivaro Grey leather with Lime Rock Green stitching and piping. A striking Eagle Rock Red created for the Dawn Black Badge mimics the flowers of ohī’a lehua, an evergreen tree native to Hawaii, with an interior in Selby Grey leather with Koi Red stitching and piping details. Cullinan Black Badge echoes the vibrant wings of the exotic Rhetus Periander (or Periander metalmark) butterfly of Central and South America in its Mirabeau Blue finish, over Arctic White leather detailed

in Lime Rock Green. The Technical Fiber fascia on all is embellished with a spectacular graphic. The paint effects provide an intense neon glow evoking the distortion of artificial light with speed. In the US, the Neon Nights commissions are available exclusively at Rolls-Royce Motor Cars Rancho Mirage. Three additional examples of each color will be made available for commission outside the US. ■

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personality shift

by Joe Sage

A mid-engine car is defined as one with its engine behind the cabin, but the engine's center of gravity in front of the rear wheels. Many a supercar has this layout—from the Italians to Ford GT—as do more routine sports cars such as Porsche Boxster or Alfa Romeo 4C. (Rear-engine cars such as the 911 or old air-cooled VWs have engine mass centered behind the rear wheels.)

The Corvette rumor mill has been rife with mid-engine rumors for years. The Chevrolet Engineering Research Vehicle team (CERV) had worked on the possibility since its earliest days, revealing a CERV I Indy-style track concept in 1960, the two-seat race- or potentially roadworthy CERV II concept in 1964, and more beyond those.

Despite America's—and the world's—clear love for and fascination with seven generations of front-engined production Corvettes, the mid-engine possibility has always drawn a high level of interest. Speculation and spy photo activity have led to endless “we think this is it!” camouflaged mule sightings over the years, but all had ultimately proven fruitless.

Until now. Chevy embraced the final stretch of rumors on

the eight-generation Corvette—widely known as the C8—wisely giving in to making its arrival a “worst-kept secret.” This took away none of the excitement of its impending arrival—in this case surely adding to it—with the final reveal of the C8 Corvette a landmark event caught by millions, through every medium possible.

That left one more thrill, however—driving it! We covered the new Chevy mid-engine supercar's launch drive, held at Spring Mountain Motorsports Ranch outside Las Vegas, in a cover feature by Paul Strauss in last year's March/April issue. And our own sample arrived in Arizona this winter.

In a sense, for something so startlingly new, the C8 Corvette is not exactly surprising. We knew it was coming, we knew what it looked like, we knew the advantages of a mid-engine placement, we knew its general impact on the Corvette family tree, we knew its specifications and timeline.

But there ain't nothin' like the real thing.

This new generation brings back one element of an earlier time—from the much-loved 1963 through '67 C2 Corvette (including the famous '63 Split Window)—and that is the other half of its name. Those were named Corvette Sting Ray (two

words); this is the Stingray (one word). One word or two, it's a great name to bring back (although C8 seems to be more widely used so far).

Layout

We thought the seat position and legroom in the C8 might be a little tighter due to the fixed restriction of an engine right behind, but legroom is the same as in the C7 (actually 0.2" longer). Specifications throughout are pretty similar, though fractionally tighter—0.1" less headroom, 0.6" less shoulder room, a notable 2 inches less hip room. The wheelbase is half an inch longer, overall length up by more than five inches, while height is exactly the same. Front track is almost an inch and a half wider, while rear is 0.1" narrower.

Wheel and tire fitment remain staggered, but with the engine moved, all are narrower: the front wheels change from 19x10 in the C7 to 19x8.5 in the C8, and the rear from 20x12 to 20x11, which might seem to attest to less stress and strain at both ends with a well-balanced mid-engine placement. Interestingly, the car's weight is less balanced now, front-to-rear. Depending upon engine, the C7 had close to 50:50 weight distribution,

while the C8 is closer to 40:60.

Weight distribution benefits and tradeoffs are more complex than front-rear—engine weight shifted rearward improves launch performance, while understeer tendencies are vastly reduced.

The interior continues to emphasize a driver-centric cockpit, with a raised rib along the right side of the console (featuring HVAC control buttons along its top edge) defining the look and feel.

Shift is via a set of console-mounted push-pull buttons and levers. While we don't philosophically welcome those—who knows when the unfamiliar may need to take over—odds are lower in this car that you will hand it over to the unfamiliar.

As with other mid-engine cars and many an EV, the C8 Corvette now a “frunk” (front trunk) as well a cargo area in the rear, behind the engine. Both are deep-well affairs—the frunk limited by suspension, steering and such, the rear by the engine. Their layouts are more important than stated volumes, able to carry two golf bags, an airline carry-on and a laptop bag, or all your groceries upright.

around town

The new Corvette Stingray is available only with an 8-speed dual-clutch automatic, a significant departure (figuratively and literally) for manual fans. Drive modes include weather, tour, sport and track. We weren't hitting any weather, nor were we hitting any tracks (though we'd love to give that a try sometime), so we started out in sport, which is

where we end up in most cases, anyway. The C8 tracks true, its 6.2-liter V8 sounds mighty fine, and throttle response is immediate. In tour mode, we sensed the slightest delay in throttle response, as you might expect out of an automatic, but surprising since sport behavior suggests it's not inherent.

We appreciate road feel, and the car's ride is very much in touch with the surface. This is partly due to run-flat tires (necessitated by the staggered fitment), though those have improved tremendously. Suspension feels good even on speed bumps, front and rear. Our C8 had optional magnetic ride control, a GM feature well worth its \$1895. General ride and handling are tight and responsive.

One behavioral oddity we noted repeatedly was when maneuvering slowly into, say, a parking space or garage, or even pulling up to a red light or stop sign—a feeling of being ever so lightly hit from behind combined with a borderline runaway throttle: jerk, pause, thump, all on its own. And its final stop can be as abrupt as throwing out a boat anchor—or letting off the pedal in a one-pedal EV. Our guess is that this is related to new eBoost Assist brake technology (being applied first to a couple of big pickups—and the C8). This is presumably to shave weight by not needing a vacuum booster, instead combining master cylinder and ABS functions. It might be drive mode sensitive, if so perhaps a downside to running sport in town.

KEEP RIGHT >>



SPECIFICATIONS (2020)

FACTORY	.....Bowling Green, Kentucky
ENGINE	.....LT2 6.2L V8 VVT dir inj, cast alum w cast-in iron cyl liners & nodular main bearing caps, cyl deactivation
HP/TORQUE	.....495 hp / 470 lb-ft (with performance exhaust)
TRANSMISSION	.....M1L 8-spd dual clutch (DCT)
ENGINE / DRIVETRAIN	.....mid-engine / RWD
ZERO-TO-60	.....(Z51) under 3 sec
SUSPENSION	.....F: short/long arm (SLA) dbi wishbone, forged alum upper & cast alum L-shape lower control arms, monotube shocks (46mm), Magnetic Selective Ride Control avail w Z51. (Adjustable front lift w memory avail); R: short/long arm (SLA) dbi wishbone, forged alum upper & cast alum L-shape lower control arms, direct-acting stblzr bar, monotube shocks (46mm), Magnetic Selective Ride Control avail w Z51
STEERING	.....Bosch/ZF variable-ratio rack & pinion w elec power assist; (incl Active Steer Stops w avail Magnetic Ride Control)
BRAKES	.....F: (w Z51) 13.3x1.18; R: (w Z51) 13.8x1.06
WHEELS	.....F: 19 x 8.5; R: 20 x 11.5x120mm bolt pattern
TIRES	.....(Z51) Michelin Pilot Sport 4S F: 245/35ZR19; R: 305/30ZR20
LENGTH / WHEELBASE	.....182.3 / 107.2 in
TURNING CIRCLE	.....standard: 38.1 ft; w Magnetic Ride Control: 36.4 ft
GROUND CLEARANCE	.....na
HEADROOM	.....37.9 in
LEGROOM	.....42.8 in
CARGO CAPACITY	.....12.6 cu.ft
FUEL	.....3366 lb
WEIGHT / CAPACITY	.....na
MPG	.....15/27/19 (city/hwy/comb)

BASE PRICE	.....\$58,900
2LT PKG:	Infotainment 3 w nav, Bose Performance 14-speaker audio, wireless charging, performance data/video recorder, heads-up display, HD front curb view camera, rear camera mirror, power heated folding auto-dim mirrors w turn indicators, heated wheel, driver & passenger memory, heated/vented seats, power lumbar control, power seat bolsters, advanced anti-theft, univ home remote, extended SiriusXM trial, rear cross traffic & side blind zone alerts, cargo nets.....7300
Z51 PERFORMANCE PKG:	performance brakes, performance suspension, performance exhaust, performance rear axle ratio, electronic limited slip diff, rear spoiler, HD cooling system, run-flat hi-po tires.....5000
MAGNETIC RIDE CONTROL	.....1895
GT2 BUCKET SEATS	.....1495
WHEELS:	19" front 20" rear 5-trident-spoke machined face Spectra gray painted aluminum wheels.....1495
BRIGHT RED BRAKE CALIPERS	.....595
TORCH RED SEAT BELTS	.....395
DESTINATION CHARGE	.....1095
TOTAL	.....\$78,170



CORVETTE



open road

We took the Corvette up I-17, destination unknown. Climbing toward 3000 feet through Black Canyon, we noted the DCT 8-speed automatic was shifting regularly—between 6th and 7th quite a bit, then back up to 8th. We only know because we looked, and we only looked because it was so smooth, we wondered whether we were shifting at all. We had figured we'd use the paddle shifters through here, but had no overriding reason to do so—the automatic was doing a fine job on its own. Much of the downshifting was in fact due to other traffic being kind of slow through that winding two-lane climb, pushing down our speed. But with or without that, you can hold a higher gear easily.

We exited at Dewey-Humboldt Road, Arizona 169, elevation 4500 feet, among the piñon and juniper. We headed west on the two-lane, perfect sports car driving, then doubled back and took a small side road that brought us to a hidden pocket of Ponderosa forest at an altitude of about 5500 feet. This road offered more than perfect sports car driving, with spectacular curves on top of that elevation change, till the pavement ended and we turned the Corvette around. We'll have to revisit and continue on this in an off-roader sometime.

Back on I-17 and descending below 4000 feet, we again didn't have to use the paddles, but this time we did. Dropping to 7th, then 6th, rpms were below 2000, so we shifted down again to achieve more like 3000 rpm for more control. Before very long at all, we saw it was back in Drive (and reading out as 7th, then 8th). We do generally prefer a such a system, that reverts to Drive if a paddling driver forgets they were paddling, though maybe not so soon. The car was running about 2000-2600 rpm, against a 6000 rpm redline, so instead of just using paddles, we moved the main shifter (those push-pull buttons-levers) into Manual, for those higher rpms and more responsive downhill speed control via throttle. When we hit flatter terrain, we popped it back into Drive. We'd still welcome a manual, but in a grand touring scenario like this, the DCT is well suited to conditions.

As part of our sample's \$7300 2LT Package, we had a feature we've encountered in other recent GM vehicles: a rear-camera inside-rear-view mirror. These are clever because they see past indoor obstructions—whether a crowd in an SUV or the confined over-the-shoulder view in a mid-engined coupe. On the downside, it means shifting your eyes' focus from infinity out the windshield to 20 inches or so to a camera screen in the mirror's position, and split seconds matter here. Its image is superb and covers significant blind spots, but we get hung up on the eyeball refocusing issue.

The rear camera mirror's peripheral blind spot imaging may be extra useful in busy multi-lane

travel, where an over-the-shoulder glance is confounded by reflections on a (surprisingly noise-absorbing) vertical pane of glass between cockpit and engine, which gives the effect of something coming up on your right side at double your speed. Advantage: camera mirror, at least for content.

open roof

Corvette takes two approaches to open-top touring in the new C8—partly familiar, partly new, creating an interesting conundrum.

In the C8 coupe—our car—the roof is a single removable panel. With limited cargo space front and rear, we thought we'd have to remove it at home, leave it in the garage and commit to a day with no top, come what may. We also thought it might be a two-person job. Not so. Pop two levers at the front, one at the rear, angle up and remove. Shift your grip from edges to center (the trickiest move) and pop it into the rear trunk, where push-push, click-click it locks into storage position, leaving a bit of storage volume. It's a clever piece of work, available in body color, transparent, or carbon fiber with body color side rails.

Alternatively, the new convertible is a retractable hardtop, which operates in 16 seconds at up to 30 mph. The convertible has notably different body work from the seats back, with twin nacelles behind the headrests, but without the clear panel that shows off the engine, as in the coupe.

Usually, tradeoffs between a convertible and a removable top involve storage of the top, flexibility as conditions change or on a trip, luggage capacity, overnight security for a ragtop—but the tradeoffs here are minimal, enough so to make it a tough choice. The removable-top coupe loses a little luggage volume to the top panel (unless you leave it at home), but you can show off its clear-cover view of the engine, while the convertible loses that view but consumes no rear luggage space. Neither has ragtop security issues.

We did find significant ear-punching wind buffeting at certain speeds with the top removed and the windows up in our coupe, though windows down generally eliminated it. We haven't experienced the convertible yet.

features

You'll feel right at home in the Corvette's cockpit. If you're tall or have big feet, you'll notice this getting in, but then it basically feels tailor made for anyone with the good fortune to sit in it.

Features and details include the usual mix of delight and annoyance, both of which inspired more notes than usual, from which we'll touch on a few highlights.

From outside, doors are operated (and unlocked) by reaching below the mid-engine's intake

blade, which is a slick design. Door handle operation from inside is awkward, which has long been a Corvette hallmark. But the thing that annoyed us was an inability to touch-lock the car: even after reading all 40 pages in the manual on keys-doors-windows-locks, it appears the only way to lock when you leave is to either rely on waiting for automatic locking, far from ideal in any number of scenarios, or pull the key out of your pocket.

The aforementioned climate controls—all in a long row along the raised right rib of the console—are perhaps decent use of that space, but in no way intuitive to their purpose; you have to specifically look at which is which, at least for awhile.

The audio on-off-volume knob is off the upper left corner of the touchscreen, largely hidden by the wheel and stalks, which is manageable, except that your knuckles are almost surely going to change all the contents of the touchscreen.

The electronic parking brake button is ill-defined and lives in a very low, obscure spot.

You could live with this car indefinitely, pushing both the frunk and the rear trunk lid closed, before discovering that the rear one (but not the front) will power-close and latch itself if you just get it close—a neat feature that may also at least a little bit reduce the inevitable fingerprints you'll leave all over both.

Drive modes are awkwardly below a purposely placed obstruction, using a knob where a multi-position switch would work better, while steering wheel audio volume uses two single switches where a knob would be better.

Things like that.

You also might want to set a few bucks aside to visit the custom audio shop for an upgraded system—sound quality just doesn't live up to the rest of the experience.

"order today"

The rest of the experience is top notch. As far as style and personality, this car has no problem whatsoever going up against cars two to three times its price in the judgmental pecking order of Valley traffic, in both image and performance.

Corvette is one of the rare vehicles that's distinctive from front or rear, and (perhaps rarest of all) boldly distinctive from the side. You will glance back over your shoulder as you walk away.

While refueling during one of our longer drives, a guy pulled up to ask about the car. When we're still developing all the thoughts you've just read, it's easy to be speechless when asked for an insta-review, but this one was easy. "Hey, it's a \$59,000 mid-engine supercar!" He concurred.

The mid-engine layout and restyling earn the C8 Corvette that supercar term—but only if it's done right. And man, is this one done right. ■

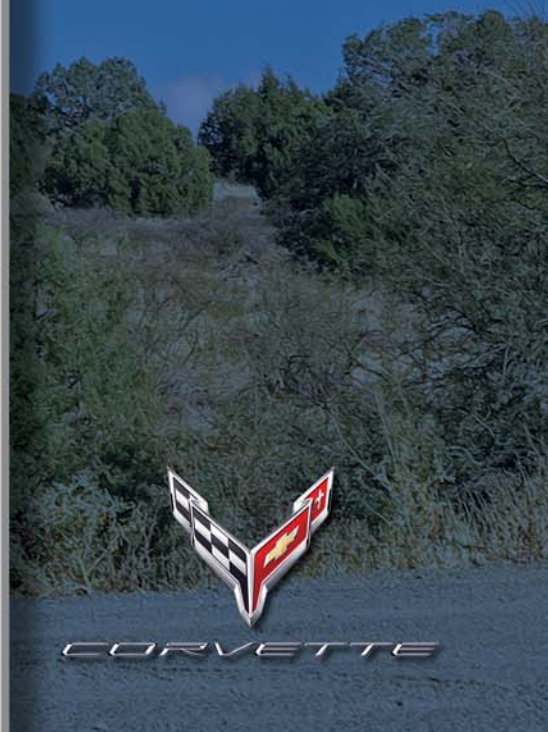
NEW FOR 2021

- **NEW EXTERIOR COLORS:**
Silver Flare Metallic,
Red Mist Metallic Tintcoat
- **NEW INTERIOR COLOR:**
Sky Cool Gray/Strike Yellow
- **NEW FULL-LENGTH DUAL RACING STRIPES PACKAGE NEW COLORS:**
Blue, Orange, Red, Yellow
- **STINGER STRIPE IN THREE COLORS:**
Carbon Flash/Edge Red,
Carbon Flash/Edge Yellow,
Carbon Flash/Midnight Silver
- **Driver mode on-screen visualization and new track digital tachometer**
- **Magnetic Ride Control available without Z51 package**
- **Standard wireless Apple CarPlay and Android Auto capability**
- **Standard Buckle To Drive:**
This feature, when active, prevents the driver from shifting out of Park if the driver's seat belt is not buckled for up to 20 seconds, to remind you to buckle up before driving

2021 CARRYOVER PRICING

2021 Chevrolet Corvette Stingray pricing is the same as the 2020 model!—starting at \$59,995 for the coupe (\$58,900 plus \$1095 destination charge) and \$67,495 for the convertible (including destination charge).

Coupe	
1LT	\$59,995
2LT	67,295
3LT	71,945
Convertible	
1LT	\$67,495
2LT	74,295
3LT	78,945
Z51 Performance Package	+ \$5,995





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Return to Baja

Ford ran their Bronco R race prototype in the SCORE-International Baja 1000 in late November, piloted by Baja champion Cameron Steele and Rebelle Rally winner and seasoned Baja racer Shelby Hall, who rotated with veteran Ford off-road racers Johnny Campbell, Curt LeDuc and Jason Scherer.

The historic race, a platform for the Bronco Built Wild™ Extreme Testing regimen, showcases Ford Performance's race-proven technology transfer, as both race and production Broncos are powered by fully stock 2.7-liter EcoBoost V6 turbo engines (the same performance-driven engine family that won at Le Mans, also available in F-Series pickups and Ford Edge and Explorer ST performance SUVs) with 10-speed SelectShift automatics.

The Bronco R race prototype also shares the new Bronco's second-generation Ford T6 chassis. Both deliver four-wheel torque via Ford transfer cases and Dana Spicer front differentials. The race version uses a Ford electronic shift-on-the-fly unit, while the preproduction Bronco at Baja was outfitted with new



Advanced 4x4 with Automatic On-Demand 4H engagement and 3.06:1 low ratio.

The Bronco R race prototype, designed and built by Ford Performance and Geiser Brothers, has a race version of the Bronco High-Performance Off-Road Stability Suspension (HOSS) System, with redesigned independent front suspension and five-link race-prepped rear setup, longer-travel Fox racing shocks with bypass dampers front and rear, and Fox pneumatic bump stops at all four corners.

A preproduction 2021 Bronco 2-Door Outer Banks series with off-road Sasquatch Package also making its first appearance in the

deserts of Baja, as a support vehicle.

With Ford the official SUV and Truck of SCORE-International Off-Road Racing and official vehicle of the ULTRA4 King of the Hammers off-road competition, the F-150 Raptor and the new 2021 F-Series Super Duty Tremor also support the Bronco R race team.

The Bronco R race prototype finished the 53rd Baja 1000 in Class 2 in just over 32 hours, adding to Bronco's storied history at Baja dating back to 1967, including the first-ever overall production 4x4 class win, in the 1969 Baja 1000—a feat no other manufacturer has accomplished since. ■





NIKOLA PARTNERSHIP CHANGES AND NEW APPOINTMENTS

NIKOLA AND GM

Nikola Corporation has signed a non-binding Memorandum of Understanding (MOU) with General Motors for a global supply agreement related to the integration of GM's Hydrotec fuel-cell technology into Nikola's Class 7 and Class 8 zero-emission commercial semi-trucks for the medium- and long-haul trucking sectors, superseding and replacing the transaction announced in September 2020.

Nikola expects to begin testing production-engineered prototypes of its hydrogen fuel-cell powered trucks by the end of 2021, with testing for beta prototypes expected to begin in the first half of 2022. In addition, Nikola and GM will discuss the potential for the utilization of GM's versatile Ultium battery system in Nikola's Class 7 and Class 8 vehicles.

"We are excited to take this important step with GM, which provides an opportunity to leverage the resources, strengths and talent of both companies," said Mark Russell, chief

executive officer of Nikola.

"Heavy trucks remain our core business and we are 100 percent focused on hitting our development milestones to bring clean hydrogen and battery-electric commercial trucks to market. We believe fuel-cells will become increasingly important to the semi-truck market, as they are more efficient than gas or diesel and are lightweight compared to batteries for long hauls. By working with GM, we are reinforcing our companies' shared commitment to a zero-emission future."

The agreement between Nikola and GM is subject to negotiation and execution of definitive documentation acceptable to both parties. The MOU does not include the previously contemplated GM equity stake in Nikola or development of the Nikola Badger (above).

As announced earlier, the Nikola Badger program was dependent on an OEM partnership. Nikola will refund all previously submitted order deposits for the Nikola Badger.

NIKOLA AND REPUBLIC

Nikola Corporation has discontinued its collaboration with Republic Services on refuse truck development. The goal had been to design and build an industry-first fully integrated refuse truck based on a zero-emissions battery-electric drive platform and body while also integrating multiple new systems into a new state-of-the-art vehicle.

Both companies determined that the combination of the various new technologies and design concepts would result in longer than expected development time and unexpected costs. Thus the program is being terminated resulting in the cancellation of the previously announced vehicle order.

"This was the right decision for both companies given the resources and investments required," said Nikola CEO Mark Russell. "We support and respect Republic Services' commitment to achieving environmentally responsible, sustainable solutions for their custo-



mers. Nikola remains laser-focused on delivering on our battery-electric and fuel-cell electric commercial truck programs, and the energy infrastructure to support them."

NEW BOARD MEMBER

Mary L Petrovich has been appointed to the Nikola Board of Directors as a new independent director. Petrovich is an accomplished business leader and entrepreneur with a passion for disruptive technologies and leading innovation. Over the past 30 years, she has engineered three successful private equity turnarounds and guided start-up ventures.

"I believe in the company's mission that combines zero-emission commercial trucking with an innovative energy infrastructure," said Petrovich. "This company has a great future ahead. I look forward to working with my fellow Board members and management to meet Nikola's milestones while creating shareholder value."

"Mary will be a real asset to Nikola's board," said board chairman Steve Girsky. "Her transformative experience in automotive, and trucking specifically, parallels nicely

with Nikola's needs. We are confident that Mary's valuable perspective and insights will help the Board and management team execute on its strategic and business priorities."

Petrovich is currently chairman of the board of two private companies: DealerShop, North America's largest buying group for dealerships and collision centers, and Traxen, a software developer focused on devising the most useful combination of technologies to promote safe driving and more efficient fuel use for the heavy-duty trucking industry.

Most recently, she served as executive chairman of AxleTech, where she helped shape the company's electric vehicle strategy for the truck and bus markets, positioning it as a technology leader. She also previously held the position of president of Dura Automotive's driver controls unit and served in various roles with increasing responsibility at AlliedSignal, Chrysler and General Motors.

NEW EXECUTIVE

Pablo Koziner has been promoted to president of Nikola's Energy and Commercial Division. Koziner joined Nikola in June 2020 as president of Nikola Energy, to oversee hydrogen fueling and battery charging initiatives focusing on delivering and maintaining the energy infrastructure required to support Nikola's battery-electric and fuel-cell electric vehicle programs. His role has now expanded to include the commercial vehicle business. Within this new capacity, Koziner will maintain his energy responsibilities and lead vehicle business development, dealer development and administration, vehicle sales warranty and service.

"I am excited to have the opportunity to provide leadership to two critical parts of the Nikola business—the commercial operations and the energy business," said Koziner. "I look forward to continuing to work with the great teams within Nikola and with our industry partners to execute on our stated initiatives and deliver value to our customers, shareholders and the communities that we serve."

A 19-year veteran of Caterpillar, Koziner most recently served as vice president of CAT Electric Power and as president of Solar Turbines Incorporated (a Caterpillar Company).

Prior to joining Caterpillar, Koziner practiced commercial law at Hunton & Williams LLP (now Hunton Andrews Kurth LLP) and later at Paul Hastings LLP.

Koziner is a graduate of Boston College and earned a Juris Doctorate degree from Boston College Law School. ■



NIKOLA ROADMAP

Nikola is on track to begin deliveries of Nikola Tre battery-electric semi-trucks in the US during 2021.

Nikola also plans to break ground on their first commercial hydrogen station in 2021.

The company's fuel-cell-electric semi-trucks will be produced at Nikola's Coolidge, Arizona facility beginning in 2023.

NIKOLA CORPORATION

Nikola Corporation (NASDAQ: NKLA) is globally transforming the transportation industry. As a designer and manufacturer of zero-emission battery-electric and hydrogen-electric vehicles, electric vehicle drivetrains, vehicle components, energy storage systems, and hydrogen station infrastructure, Nikola is driven to revolutionize the economic and environmental impact of commerce as we know it today.

Founded in 2015, Nikola Corporation is headquartered in Phoenix.

For more information, visit www.nikolamotor.com or Twitter @nikolamotor.



NIKOLA™

Auction Week 2021

The coronavirus pandemic continues to impact live events worldwide, and Arizona's famous January Auction Week will be no exception, although different approaches are being taken by different auction houses. Here is information as of mid-December. Check with each event for final details as things get closer. (Images are from January 2020; venues this year will be in line with information here.)



Barrett-Jackson
50th Annual Collector Car Auction Event
 Rescheduled to the week of March 22, 2021 (originally January 16-24)
LIVE (LIMITED): Barrett-Jackson's 50th year event, affected by the pandemic, was originally going to follow the format of their Arizona Fall Auction, with bidders, consignors and guests only, in a socially distanced seat plan, or participating online or by phone. Instead, it will be held the week of March 22, along with the Barrett-Jackson Cup Competition, with specific dates and protocols to be announced.

WestWorld of Scottsdale, Loop 101 & FLWright Blvd, Scottsdale AZ 85260
 www.barrett-jackson.com



Gooding & Company
14th Annual Scottsdale Auction
 Monday-Friday, January 18-22, 2021
 (viewing Monday Jan 11 - Friday Jan 22 by appointment)
OFFSITE / ONLINE: Billing it as their Scottsdale Event, Gooding & Company will run this event on their All Geared Online platform. All lots will be available for viewing and inspection, by appointment only, at their Southern California facility. To make arrangements, email clientservices@goodingco.com or call 310-899-1960.

[online]
 www.goodingco.com

	SAT 16	SUN 17	MON 18	TUE 19	WED 20	THU 21	FRI 22	SAT 23	SUN 24
Barrett-Jackson									[postponed until week of March 22]
Bonhams									
Gooding & Company									
Leake Auction									[stated online with no date info]
MAG Auctions									[postponed, dates t.b.d.]
RM Sotheby's									
Russo and Steele									
Worldwide Auctioneers									



MAG Auctions (evolved from Silver Auctions AZ)
January 2021 Collector Car Auction
 To be rescheduled (originally January 22-24, 2021)
POSTPONED: The first news for MAG Auctions is a move back out the Beeline Highway, to the location their forebear Silver Auctions used for years. Newer news supersedes that, however, as they announced by mid-December that the event would be postponed due to pandemic concerns. New dates will be announced later.

[We-Ko-Pa Casino Resort, Fort McDowell AZ 85264]
 (Arizona 87 Beeline Highway northeast of Fountain Hills)
 www.motorsportauctiongroup.com



Russo and Steele
21st Annual Sports & Muscle in Scottsdale
 Saturday, January 23, 2021
 (contact for vehicle check-in times/dates; check-out Jan 25-27)
LIVE, INVITATION ONLY: Russo and Steele's event will be live but private, invitation-only, with no on-site bidder registration. Participants will enjoy an afternoon private vehicle viewing reception, followed by dinner, memorabilia auction and vehicle auction, featuring 80 vehicles in Russo's familiar auction-in-the-round.

7722 E Grey Road, Scottsdale AZ 85260
 www.russoandsteele.com



Bonhams
10th Annual Scottsdale Auction
 Thursday, January 21, 2021 (viewing of most, Tues-Weds Jan 19-20)
LIVE & ONLINE: Registered bidders can bid in real time online while watching the auctioneer and cars by video. Absentee and phone bids are encouraged, with a live bidding option available at the Westin Kierland. Most cars will be on view Tuesday and Wednesday, 9am to 6pm. A "virtual viewing" platform by appointment provides condition reports and one-to-one "walkaround" inspections with a specialist.

Westin Kierland Resort & Spa, 6902 E Greenway Pkwy, Scottsdale AZ 85254
 www.bonhams.com



Leake Auction Co.
2nd Annual Scottsdale Auction
 January 2021 [January event stated online, but with no dates]
Unknown: [Further inquiries unanswered. Recommend checking the website.]
 Salt River Fields at Talking Stick
 7555 N Pima Rd, Scottsdale AZ 85258
 www.leakecar.com



RM Sotheby's
22nd Annual Automobiles of Arizona
 Friday, January 22, 2021
 (viewing by appointment only, week leading up to event)
LIVE, BIDDERS ONLY: RM Sotheby's will also be moving to a private location this year, for a one-night sale as already planned, but open only to registered bidders (who can attend in person within pandemic safety guidelines, or via phone or online). Approximately 80 blue chip collectible vehicles will cross the auction block.

OTTO Car Club & Storage, 15550 N 78th St, Scottsdale AZ 85260
 www.rmsothebys.com



Worldwide Auctioneers
5th Annual Scottsdale Auction
 Saturday, January 23, 2021 (preview Thurs-Fri Jan 21-22 or by appt)
OFFSITE / ONLINE: Worldwide will move this year's Scottsdale Auction to their Auburn, Indiana headquarters, with the sale day moved from Wednesday evening to Saturday daytime, starting at 11am EST (9am MST, Arizona) on January 23. Bidding will be available online, with absentee and phone bidding also available to qualified pre-registered bidders. Auction lots are available for scheduled private preview.

Worldwide Headquarters, Auburn, Indiana
 www.worldwideauctioneers.com

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Pebble Beach scheduled, tix selling fast

The 70th Celebration of the Pebble Beach Concours d'Elegance, postponed last year, is now scheduled for Sunday, August 15, 2021, on the famed 18th fairway of the Pebble Beach Golf Links. To mark the occasion, a wide array of past Pebble Beach Concours Best of Show cars will be featured, and all the overall winners from the Pebble Beach Road Races will be reunited.

The 2021 Pebble Beach Concours d'Elegance will feature the creations of Carrozzeria Pininfarina, which now encompass 90+ years of style, and the Tour will showcase these designs as they are meant to be seen—in motion.

Additional features include Talbot-Lago Grand Sport, Porsche 917, Early Electric Cars, Iso Rivolta, Miller and La Carrera Panamericana—and they even have another surprise or two in the works.

If you purchased tickets for the 70th Celebration originally scheduled for 2020, you may have had them held for this year. If not, now is the time to secure your spot, as these coveted ticket options are already selling out fast.

2021 General Admission Tickets: \$400

Stroll through the show field, visit manufacturer displays, bring or purchase a tasty meal and enjoy al fresco lunch at our Café Seating & Picnic Area.

2021 Club d'Elegance Tickets: \$900

In an elegant tent at Parc du Concours, a short shuttle ride from the show field. *Limited availability.*

2021 The Venue Above the Concept Lawn: \$1,500

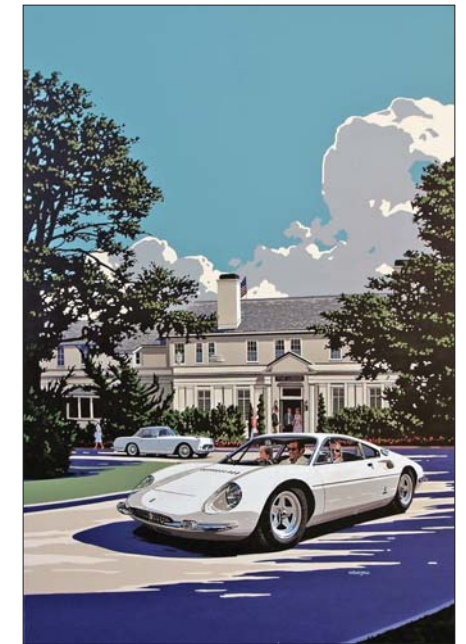
Enjoy walking the show field, then get a sweeping overview of all the automotive industry's latest concept cars while enjoying gourmet luncheon buffet and hosted beverage service inside The Venue, above the Concept Lawn at The Lodge. *Very limited availability.*

2021 Patrons Patio at the Winner's Circle: \$2,750

Hear the roar of the engines, feel the heat of the steam, right next to the action with a seat at our outdoor Patrons Patio, adjacent to the Awards Ramp. VIP luxury full-immersion experience allows you to sit back and relax as each newly awarded winner parades before you as it exits the ramp. *Very limited availability.*

2021 Chairman's Hospitality at the Lodge: \$3,500

The ultimate VIP experience, with seating at the Chairman's Suite inside The Lodge at Pebble Beach. From the comfort of your seat, enjoy a panorama of the show field and a direct overview of all the winners driving up to the ramp. You won't want to miss this spectacular view of the Best of Show presentation! *Very limited availability.*



2021 Pebble Beach Tour d'Elegance Poster celebrates 90+ Years of Carrozzeria Pininfarina, with the innovative Ferrari 365 P "Tre Posti" featured.

www.pebblebeachconcours.net



SIZABLE ACHIEVEMENT by Joe Sage

In the last issue, we outlined the related evolution of Cadillac's current lineup and nomenclature, as we drove the new CT5 V-Series. That CT5 (yes, 5 looks a lot like S, in print or on a vehicle badge, and there used to be a CTS) is the middle of three sedan sizes: CT4, CT5, CT6. The XT5 we are driving here is not quite the middle of the utilities: XT4, XT5 and XT6 add the big Escalade (and longer Escalade ESV) at the top of their size range.

We had originally had the CT4 sedan scheduled for this cycle, a chance to visit those differences. A logistical change brought us the XT5 utility, instead. Rather than comparing 4-size and 5-size sedans, we'd be able to compare the 5-size sedan and 5-size utility. Sooner or later, we hope to try them all, but this is a useful comparison for now.

The whole size thing is pertinent here, as our first thought when we got in the XT5 was, "This is a midsize? It's enormous inside! Spacious isn't even the word. It's big! tall! wide! Expansive, with plenty of legroom. Wow!"

User systems are very intuitive, easily set up. Details, as with all brands always, have some debatable oddities, but we've long noted that Cadillac's options will generally be good indefinitely once you set them, and ones that don't even inter-

est you are easily ignored—sizable plusses.

There is useful redundancy between a control knob on the console (rotate and/or scoot side to side) and touch control on the center screen. Each option has a useful explanatory phrase or paragraph. Binnacle menu options are crystal clear.

Seats are both heated and cooled, the essential setup for Arizona.

Cameras are top-notch, though we generally see little value in a front view on the main screen, basically a repeat of what we see out the windshield at the expense of other information or functions. As in a wide range of current GM vehicles, the inside rearview mirror can be a camera image—useful in an SUV with an interior potentially full of heads, headrests and cargo—though it means an infinity-focus windshield view and a close-focus mirror view, which can cost critical refocus time.

The Bose Performance Series audio system has a lot of tonal headroom, with such an unusually strong low end, we knocked it down below the neutral point, to counter it with enough treble.

So much did we acclimate to the feel of a big pickup or Escalade (at least without real-time comparison), we were surprised upon exiting to realize how relatively low 7.9 inches of ground clearance

can feel. This will be a welcome combination for a great many people—rough road chops and a big interior with easy ingress/egress.

There are three trim levels of XT5, with two engines and front-drive/AWD options varying by trim level. Being Cadillac, even the base level is known as Luxury. That model offers one engine, a 2.0L turbo-four with 237 hp, and starts at \$44,095, or \$46,195 with optional all-wheel drive.

Premium Luxury is next up, the middle of three trims, and is the most adaptable of the three, the only one available with either of two engines and either drivetrain. It starts at \$48,795 with front-drive and the 2.0-liter. The 310-hp 3.7L V6 in our sample adds just \$1000, and its AWD adds \$2000.

The line-topper by price is XT5 Sport, which at \$55,095 includes the V6 and AWD, its only layout. Figured including those apples-to-apples, Sport is just \$3300 more than a V6-AWD Premium Luxury, while also bringing you tighter steering, a performance-adapted chassis with adaptive suspension, dual-clutch Sport AWD and 20-inch wheels.

Our Premium Luxury trim forgoes all that additional performance engineering (and style, in the case of the wheels and some other details), but does of course have a Sport drive mode, as well as

Tour and Off-Road modes.

Whatever vehicle we're driving for a week, we inevitably notice how much presence they have all around us, and we quickly realized we were surrounded by the Cadillac XT5 in traffic. XT5 is in fact Cadillac's top seller, by a healthy margin. Its sales are roughly 25 percent higher than the smaller XT4 and bigger Escalade, while a new XT6, bigger than XT5 and smaller than Escalade, is likely to also do well. In line with industry trends, all the Cadillac SUVs are now well ahead of sedan sales.

While all vehicles in the Cadillac stable are immediately brand-recognizable, the XT4-5-6 have a high degree of style similarity among themselves, while the king daddy Escalade jumps a few levels in visual impact. Escalade has an aggressiveness some buyers may shy away from, possibly another attraction of the XT5 (or new XT6) for some buyers.

We took readily to the XT5 as a daily driver for a week—equal parts user-friendly and proud. Its application of 310 horses to the road was as transparent or as noticeable as you may want, depending upon drive style and conditions—nicely balanced, powerfully responsive without overkill, but with plenty more in reserve if needed. The drivetrain also provides just the right acoustics, and only at the right kind of time—when giving it a little gun, it provides a nice low-key V8-style rumble.

On the edge of town, we found ourselves on a stretch of country highway evolving into new subdivision roads, with just one of two lanes paved at that time, and everyone using that one lane—until

there was some two-way traffic. Even when forced to drop onto the very rough unpaved side (and with no time to switch to Off-Road mode), we found the XT5's ride a perfect mix of firm and smooth.

A few inevitable feature nitpicks aside (as with any vehicle), we found ourselves at the end of the week stating that the XT5 had "no downsides." It handles well—smooth, firm, comfortable, tight-turning—and, as noted, is remarkably spacious.

The middle model in any lineup—size, price, perhaps powertrain or features—could be a compromise of everything above or below, or it could be a perfect synthesis of the best of the full range. The Cadillac XT5 is surely the latter.

For the luxury panache, premium styling and attributes of Cadillac without the in-your-face showiness (or bulk) of an Escalade, with a cabin that feels full-size despite its midsize rating, all at a cost well lower than imports many people would be likely to cross-shop, this XT5 may well fill the bill.

Its price compares dramatically with a similarly outfitted Escalade at \$88,495, although that does bear a 420-hp 6.2-liter V8. (Then again, this XT5's V6 is rated at 26 mpg highway to the V8 Escalade's 20 mpg; then again, Escalade offers a 3.0L diesel rated at 27 mpg.)

The Cadillac XT5 offers a fine package within any set of variables. Our Premium Luxury model, outfitted in our case with the V6 and AWD, with enough performance for most people, surely hits a sweet spot within the XT family.

Tough choices or easy choices? Nice choices. ■



Cadillac SUVs include XT4, 5 and 6, paralleling the CT4, 5 and 6 sedans—basically a classic ascending set of compact, midsize and full-size (with Escalade, of course, bigger still). Size categories and terms increasingly blur these days, so best advice? Just try 'em on for size.

SPECIFICATIONS

ENGINE	.....(optional) 3.6L V6 24v DOHC VVT dir inj, alum block w cast-in-place iron bore liners, alum heads.
HP/TORQUE	.....310 hp / 271 lb-ft (standard: 2.0L I-4 turbo, 237 hp / 258 lbft)
DRIVETRAIN	.....(standard FWD) AWD
TRANSMISSION	.....Hydra-Matic 9-spd auto
SUSPENSION	...F: MacPherson strut w direct-acting hollow stblzr bar; R: indep five-link, specifically tuned coils, hollow stblzr bar
STEERING	.....variable-assist rack & pinion w rack-mounted belt-driven elec assist
BRAKES	.....disc: F: 13.6; R: 12.4
WHEELS	.....(Prem Lux) std 18", opt 20"
TIRES	.....(Prem Lux w opt 20") P235/55R20
LENGTH / WHEELBASE	.....189.6 / 112.5 in
TURNING CIRCLE	.....38.7 ft
GROUND CLEARANCE	.....7.9 in
HEADROOM (F/R)	.....39.7 / 38.4 in
LEGROOM (F/R)	.....41.2 / 39.0 in
CARGO CAPACITY	.....30.2 / 63 cu.ft
WEIGHT	.....3915 lb
TOW CAPACITY	.....(with pkg) 3500 lb
FUEL CAPACITY	.....(FWD 19.4) AWD 21.7 gal
MPG	.....18/26/21 (city/hwy/comb)
BASE PRICE	.....\$50,795
ENGINE: 3.6L V6 DI VVT w auto start/stop	.....1000
DARK MOON BLUE METALLIC	.....625
PLATINUM PKG: semi-aniline leather, leather instrument panel-console-door trim, micro-fiber suede headliner, prem carpeted floor mats, real-time damping performance suspension w modes, illum door sill	.....4850
ENHANCED VISIBILITY & TECH PKG: HD surround vision, rear pedestrian alert, rear camera mirror w washer, 8" color gauge cluster w personalization, colors heads-up display, auto park assist w braking	.....2275
NIGHT VISION	.....2000
WHEELS: 20" six-split-spoke alloy w polished/android finish	.....1700
DRIVER ASSIST PKG: adaptive cruise, enhanced auto emergency brake, reverse auto brake, auto seat belt tightening	.....1300
COMFORT & AIR QUALITY PKG: tri-zone climate, air ionizer, ventilated front seats, heated outboard rear seats	.....1200
CADILLAC USER EXPERIENCE w embedded nav, Bose performance 14-sprkr audio1025
DESTINATION CHARGE995
TOTAL\$67,765



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Dakar Rally returning to Saudi Arabia

Historic king daddy dune-running event update

The planet's toughest test of motorsports endurance returns to Saudi Arabia this year, over a brand new Dakar Rally route. Here are key points:

- ▼ After four decades in the deserts of Africa, then South America, the Dakar moved to the Arabian Peninsula for the first time in early 2020. It returns there in January 2021, with categories including Car, Bike, Truck, Quad and UTV.
- ▼ The convoy departs Jeddah on January 3, from the shores of the Red Sea. Competitors navigate

- their way through Saudi Arabia's expansive deserts for the next two weeks, with a midway rest day in the ancient city of Ha'il on January 9.
- ▼ A hero's reception awaits those who meet every challenge and cross the finish line back in Jeddah on January 15, but all who complete the Dakar have overcome the toughest test of endurance.
- ▼ On behalf of both sporting challenge and participant safety, each stage's roadbook will be handed out just 10 minutes before start, bringing naviga-

tion skills to the fore.

- ▼ New rules mandate no tire changes in the car category during the marathon stage and a total of six rear tires for the entire rally in for bikes.
- ▼ There will be audible warnings ahead of danger zones. Certain hazardous sections will be categorized as "slow zones" (90 kph). Airbag vests will be mandatory and subject to tech inspection.
- ▼ New for 2021 is a Dakar Classic, reflecting the heritage of the rally, a vintage vehicle contest with the same start and finish points, expected to draw vehicles such as Renault 20, Lada Niva, Toyota Celica, Land Rover Defender and Porsche 959. ■



ATLIS powers up key positions, funding, solar partnership

ATLIS Motor Vehicles, an electric vehicle technology startup headquartered in Mesa, Arizona, has announced several recent key hires: executives Chris Dawson as head of XP Platform and Robert Mandrov as VP of operations; and key technical hires, Anirudh Bhokarika as battery cell engineer and Benoit Le Bourgeois as lead connectivity engineer.

The team will lead continued development of ATLIS's proprietary battery technology, the 100 percent electric XP Platform and the 100 percent electric XT Pickup Truck, with production prototypes tracking for completion this year.

"To disrupt the work truck market, we need to deliver a product that's better than the current standard. Today, that's gas- and diesel-powered pickup trucks. We are building out a team of high-horsepower engineers and leaders to do just that," says Atlis CEO and founder Mark Hanchett. "That's how we change the world: electric without compromise."

New XP Platform chief Dawson brings extensive manufacturing, engineering design and process improvement experience from Tesla, where he was responsible for the Robotics and Automation groups for five years. His experience building electric vehicles and batteries brings massive value to ATLIS as they prepare for production in 2021.

New operations VP Mandrov brings 15 years of operations experience from Axon, Roku, Apple, Motorola and Continental Automotive, where he championed customer experience, exceptional quality standards and lean manufacturing.

Battery cell engineer Bhokarika specializes in lithium-ion batteries for motorsports applications, with over four years' experience building custom battery cells at A123 Systems.

Lead connectivity engineer Benoit Le Bourgeois brings another 20 years of automotive experience at large OEMs and EV startups, most recently as head of connectivity at EV startup Byton. At ATLIS, he'll bring his expertise in automotive to the XP

Platform and XT Pickup Truck teams, leading technical teams for infotainment and connectivity.

"At ATLIS, we're revolutionizing the way work is done, and we're building out a team of people who have a track record of disrupting stagnant industries," says ATLIS president Annie Pratt. "With these new team members, ATLIS is well-positioned to keep executing toward production launch in 2021."

Regulation A+ public offering

ATLIS is taking an unconventional approach to funding the continued development of their 100 percent electric XP Platform, XT Pickup Truck and fast-charging battery technology, having obtained SEC qualification of its Regulation A+ offering statement last fall, paving the way for a \$25 million public offering. ATLIS opened the offering to the public at \$8.24 per share.

"We started ATLIS to build a better work truck. We are building trucks for workers, funded by

workers. Our potential customers have always provided us the direction and motivation for our product, so it only makes sense for them to be shareholders in the company," said Hanchett at the time of the announcement. "ATLIS remains focused on execution, and we won't settle for doing things the way they've always been done."

ATLIS prides itself on doing things differently and had maintained independence by being primarily funded via equity crowdfunding, allowing them to take a vertically integrated approach to creating high-quality components in-house and to developing and protecting its proprietary battery technology. The Mesa, Arizona-based company is developing the XT Pickup Truck aiming to outperform gas and diesel-powered pickup trucks in cost, range and towing capacity.

The Jumpstart Our Business Startups (JOBS) Act of 2012 set into motion laws that would allow the general public to invest in startup companies. The first law from the JOBS Act, known as Regulation A+ or Reg A, went into effect on June 19, 2015. With Reg A, companies can raise money by selling equity shares to the general public without having to commit to a formal registration and initial public offering. In order to accept investment, companies file a Form 1-A offering statement and offering circular and address SEC comments until it receives SEC qualification. Once they receive qualification, companies are subject to ongoing reporting requirements, including annual reports, semi-annual reports and event reports.

ATLIS-Workspport solar deal

ATLIS Motor Vehicles has entered into an agreement with Workspport Ltd aimed at configuring the TerraVis™ solar charging system as an OE acces-



sory for their technologically advanced Atlis XT electric pickup truck, currently entering production prototype phase. Atlis and Workspport began working together immediately to integrate their engineering and design departments. The agreement will uniquely configure TerraVis' Solar Truck Bed Power System to provide the Atlis XT Pickup Truck with a meaningful source of recharge power from its own integrated Solar Panels.

This is ATLIS' first agreement with a company developing cutting-edge accessories for the XT truck. ATLIS continues to focus on in-house development of its battery technology and 100 percent electric XP Platform and XT Pickup Truck to prepare for low-volume production in 2021. ■

ABOUT ATLIS MOTOR VEHICLES

ATLIS Motor Vehicles, headquartered in Mesa, Arizona, is building an electric vehicle technology platform for heavy and light duty work trucks to make fleet ownership simple. ATLIS' subscription ownership model provides fleet owners predictable monthly payments with a lower total cost of ownership than traditional work vehicles. Subscribers will experience freedom from fluctuating gas prices and confidence that they'll always have the vehicles they need when they need them. In order to meet the towing and payload capabilities of legacy diesel-powered vehicles, ATLIS is developing proprietary battery technology and a modular system architecture capable of scaling to meet the specific vehicle needs. ATLIS' mission includes improving the charging ecosystem by developing technology to charge ATLIS vehicles within 15 minutes.

For more information visit or email: invest.atlismotorvehicles.com, info@atlismotorvehicles.com.

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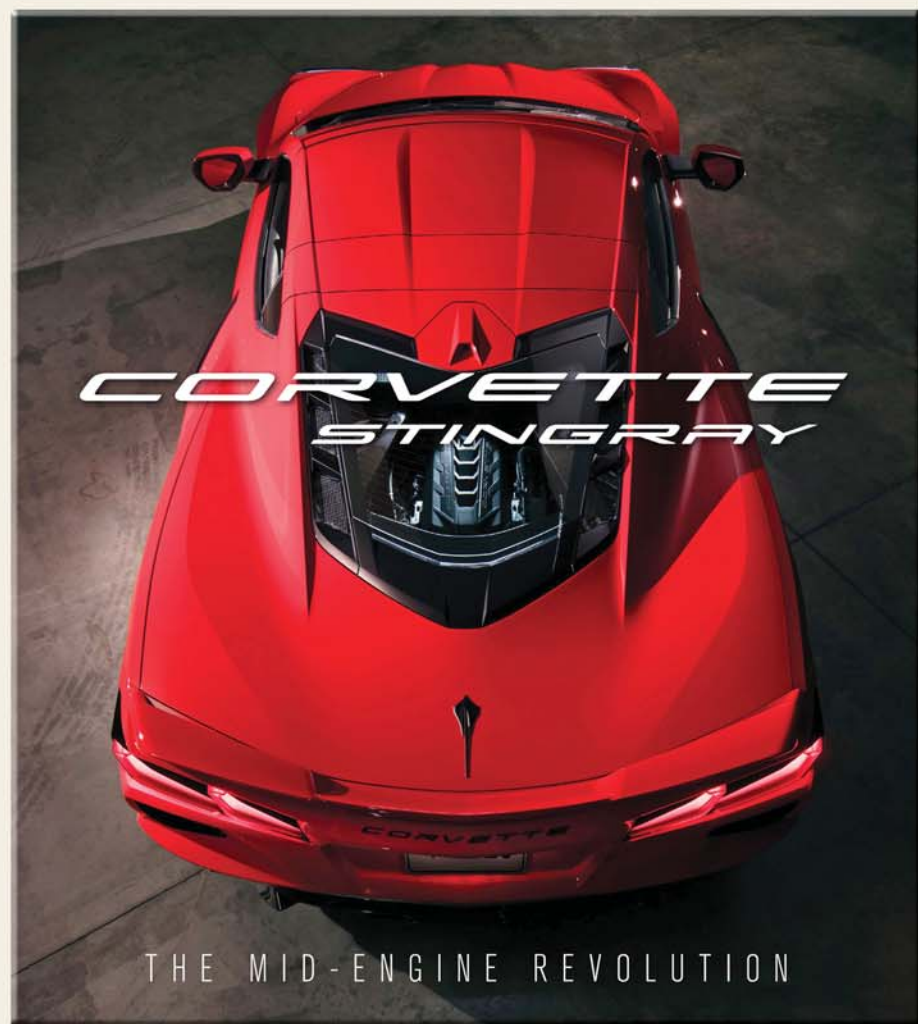
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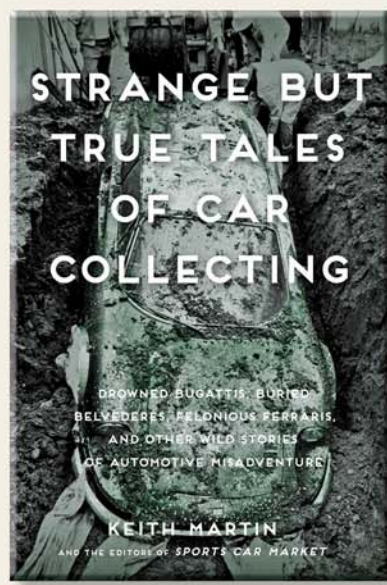
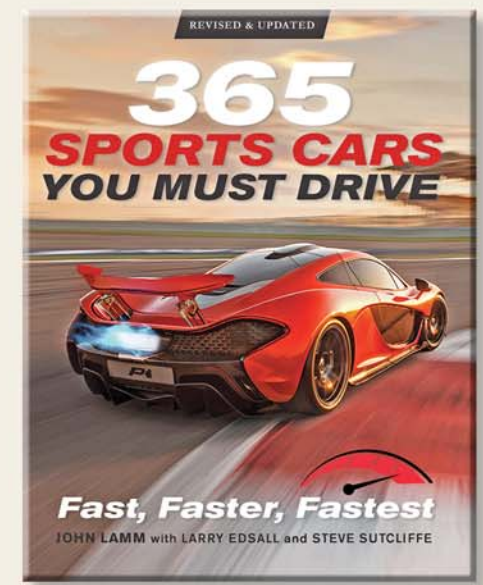
CHEVROLET / FORWARD: MARK REUSS - "It's hard to believe that this is finally happening," said GM president Mark Reuss as he introduced the mid-engine 2020 Chevrolet Corvette Stingray. "It's something we've been looking at for a very, very long time." This officially licensed book chronicles the full development story with engaging, detailed text and photography from GM's archives and Corvette team members. Corvette's importance to the Chevrolet brand cannot be overstated. Thus each new generation is sweated by Chevy's designers, engineers, marketing staff and executives to ensure it sets the bar ever higher. In its eighth generation, Chevrolet has done more than raise the bar or move the goalpost—they've torn down the stadium and started from scratch. Though Corvette engineers had experimented with a mid-engine placement for decades, this was the first time GM committed it to production. Corvette had prodigious power, but its front-engine layout put limits on handling and traction. The mid-engine eliminates any final performance barriers and takes the battle to super-car rivals like Ferrari, Lamborghini and McLaren.

Publisher: Motorbooks
 9.625 x 10.75 in - 208 pp - color photos
 \$45 - hardback - ISBN 9780760367438
 Publishing: February 9, 2021

365 Sports Cars You Must Drive Fast, Faster, Fastest

JOHN LAMM WITH LARRY EDSALL & STEVE SUTCLIFFE - Whoever coined the phrase "getting there is half the fun" must have owned a sports car. Put yourself in the driver's seat of a century's worth of sports car legends. Now, imagine a different sports car every single day for a year! From towering icons like Ferrari, Lamborghini, Porsche and Corvette, to everyman sportsters from Triumph, MG, Sunbeam and Miata, to oddballs like Crosley, Sabra and DB, sports cars inspire passion and strong opinions as few other vehicles on the road can. In one beautiful book, long-time *Road & Track* chief photographer John Lamm, along with other top motoring authors, gives illustrated profiles of every sports car you've ever driven or dreamed of driving.

Publisher: Motorbooks
 6.5 x 8.25 x 0.75 in - 320 pp - 405 color images
 \$24.99 - softback - ISBN 978-760369777
 Published: October 27, 2020



Strange But True Tales of Car Collecting

KEITH MARTIN - Drowned Bugattis, Buried Belvederes, Felonious Ferraris and other Wild Stories of Automotive Misadventure: the wildest car-collecting stories, focusing on tales of the most eccentric and over-the-top collectors and collections from around the world. Most car collectors exhibit a healthy enthusiasm for their hobby, with a tendency to dig into their favorite marques, chase parts, swap stories, and generally live the car-guy lifestyle. Some, however, step over that fine line between enthusiasm and obsession—and that's the dusty place where these legendary car-collector stories come from.

Publisher: Motorbooks
 6 x 9 in - 256 pp - 32 color photos
 \$21.99 - softback - ISBN 9780760353608
 Published: October 24, 2017

FINDING BALANCE IN THE MATRIX

BY JOE SAGE

MERCEDES-BENZ & MERCEDES-AMG UTILITY LINEUP

GLA	
Mercedes-Benz GLA 250 (FWD).....	\$ 36,230
Mercedes-Benz GLA 250	38,230
GLB	
Mercedes-Benz GLB 250 (FWD).....	\$ 38,050
Mercedes-Benz GLB 250	40,050
GLC	
Mercedes-Benz GLC 300 SUV (RWD)	\$ 43,200
Mercedes-Benz GLC 300 SUV	45,200
Mercedes-Benz GLC 300 Coupe	51,600
Mercedes-Benz GLC 350e SUV	51,900
Mercedes-AMG GLC 43 SUV	\$ 59,500
Mercedes-AMG GLC 43 Coupe	63,000
Mercedes-AMG GLC 63 SUV	73,750
Mercedes-AMG GLC 63 Coupe	76,500
Mercedes-AMG GLC 63 S Coupe	84,100
GLE	
Mercedes-Benz GLE 350 SUV (RWD).....	\$ 54,750
Mercedes-Benz GLE 350 SUV	57,250
Mercedes-Benz GLE 450 SUV	62,500
Mercedes-Benz GLE 580 SUV	tbd
Mercedes-AMG GLE 53 SUV (4MATIC+)	\$ 72,350
Mercedes-AMG GLE 53 Coupe (4MATIC+)	76,500
Mercedes-AMG GLE 63 S SUV (4MATIC+).....	113,950
Mercedes-AMG GLE 63 S Coupe (4MATIC+).....	tbd
GLS	
Mercedes-Benz GLS 450	\$ 76,000
Mercedes-Benz GLS 580	tbd
Mercedes-AMG GLS 63.....	\$ 132,100
G	
Mercedes-Benz G 550	\$ 130,900
Mercedes-AMG G 63	\$ 156,450

All Mercedes-Benz are 4MATIC unless noted as FWD, RWD; all Mercedes-AMG are 4MATIC unless noted as 4MATIC+. All information current as of publication, subject to revision or errors and omissions.

The big G-Class aside, you can first get oriented among four primary sizes: GLA, GLC, GLE and GLS-Class, re-named a few years ago (except GLS was always GLS) to correspond with A, C, E and S sedans and coupes.

GLE is the flagship, GLA the smallest (GLB offers another row of seats). In between, GLC and GLE together comprise more models than all other classes combined. GLC and GLE are visually similar if viewed separately, though distinctive in size if viewed side by side.

Your next choice is between Mercedes-Benz models or higher performance Mercedes-AMG models. Pricing is carefully sequenced from GLC to GLE, until you mix in the AMG models, introducing intriguing overlap. You also have the choice (in some cases) of a conventional boxy SUV or a sleek Coupe (SUV).

Powertrains have apples'n'oranges and a few wild cards (such as GLC 350e with a 90kW electric motor) or a different zero-to-60 comparison between 4MATIC and front-drive on the GLA (itself an unusual variant for Stuttgart) versus 4MATIC and rear-drive on the GLE. Most sixes are inline, but you'll spot a V6. AMG engines are "enhanced" or "handcrafted" per model level.

Understanding where the Mercedes-AMG GLE 53 Coupe sits in the grander scheme of things surely proves useful. (The chart at left will help.) Twenty-nine basic choices may seem like a lot, but they inhabit a very structured matrix. Once oriented, you can find the one just right for you.

We've driven most GLE models at one point or another, including the GLE 63 S for a week quite recently (see our Nov/Dec 2020 issue), so were interested in seeing how the 53 slots in, comparatively. (We've also driven AMG GT four-door coupes in recent months—both the GT 53 and GT 63 S—a parallel pairing in fundamental ways.)

If the Coupe variant rings your bell, note that on the GLE it's only available in AMG versions (unlike on the smaller GLC, a model that strikes us as very similar to GLE in style and feel).

All comparisons aside, each speaks for itself. We drove this Mercedes-AMG GLE 53 Coupe in town on the usual mix of surface streets, boulevards and freeways. If you were to drive the 53 and the 63 S back-to-back, you'd surely notice a difference—603 vs 429 hp, 627 vs 384 lb-ft of torque (plus up to 21 hp and 184 lb-ft from EQ Boost in all cases). You'd also notice the difference on the day of purchase—the 63 S costs about \$40 grand (or over 50 percent) more than the 53 (a higher ratio

than the power difference, though there are any number of other differences, too). But when driven individually, either one is mighty rewarding.

The power curve is strong and satisfying, all the moreso in sport mode, with absolutely instant response when the light turns green (we often avoid next-up sport-plus settings in town). Weight and distribution specs are not yet stated for the GLE 53 or GLE 63 S. The 63 S has a V8 to the 53's six, and its rear brakes are an inch larger, but all in all, the feel is similar, with both built atop essentially the same suspension and 4MATIC all-wheel drive.

Cornering and handling are superb. We noted performance comparable (pro rata or better for its height and weight) to a low-slung all-wheel-drive luxury performance coupe. On a lengthy stretch of roadwork stripped down for resurfacing, the GLE was smooth, quiet and blessedly rattle-free—nice in its own right, and also great for enjoying the included Burmester Surround Sound audio system.

We took the AMG GLE 53 into the countryside for a cruise on one of our favorite twisty-hillies, Bartlett Dam Road, here punching it up to sport-plus to great effect. (The road is being prepped for extensive surface work, which gave us more rough surfaces upon which to affirm its smooth ride and quiet cabin.) Suspension is far more sophisticated than even this challenging drive reveals, with phenomenally advanced electronics to handle a variety of driving and crash mitigation scenarios, with even more advanced systems also available.

Of our sample's options (at right), we could live without some, such as a \$1600 alternative headliner. Some will surely prove indispensable, such as heated/chilled cupholders for just \$180 (worth it in our climate, even just for the show-off factor). Driver assistance has the usual collection of love-

em-or-hate-em overrides, but incrementally priced well whether you are a taker or a leaver of these. Two comfort packages total \$3150, but seem irresistible, adding winter warmth, summer cooling and addictive massaging seats. Some may seem they should be part of such a car in the first place (such as the Acoustic Comfort package) or part of an AMG in the first place (from AMG Nappa leather to AMG steering wheel, to AMG wheels—and interestingly enough, some of these are included, while others cost extra). Optioned however you wish, you have can one beautiful and capable vehicle for \$76,000 base, \$96,000 as ours was outfitted, or any number of places in between.

It was good to drive the AMG GLE 63 S and the AMG GLE 53 in fairly close sequence, but not vital. If we drove both on the same day under the same conditions (as does happen sometimes) we'd have maximum comparison, which can be equal parts more enlightening or more confusing. Then again, if that's what it takes to maximally compare them, it underscores the fact that, one at a time on most days, you might be hard pressed to fret the difference. Compared with the AMG GLE 63 S, the AMG GLE 53 at \$40 grand less hits an appealing balance of power and price. Balance is measured more than one way, of course, and the 63 S will deliver other buyers a balance of another sort.

We would not begrudge anybody the \$114,000 (base) AMG GLE 63 S—it's a wondrous machine and no doubt essential for competitive emotional reasons in our plentiful top dog neighborhoods. Or maybe not. You can demonstrate financial wisdom and find plenty of joy to be had in the GLE 53. (And of course there are still the other 27 models in the Mercedes-Benz and AMG utility lineup.) You will easily find your own best balance point. ■

SPECIFICATIONS

ENGINE	AMG-enhanced 3.0L inline-6 turbo with EQ Boost & elec auxiliary compressor
HP/TORQUE	429 hp / 384 lb-ft
+21 hp & +184 lb-ft via EQ Boost =	450-568
ZERO-TO-60 / TOP SPEED	5.2 sec / 155* mph
*[w optional summer tires; otherwise 130]	
DRIVETRAIN	4MATIC+ full-variable AWD
TRANSMISSION	AMG Speedshift TCT 9G-Tronic 9-spd automatic
SUSPENSION	F: indep double-wishbone; R: indep multi-link; F/R: AIRMATIC air suspension
STEERING	speed-dependent electro-mechanical rack & pinion
BRAKES	F: 15.8; R: 13.6; (other info tba)
WHEELS	21" AMG twin 5-spoke F: 10.0x21 cast; R: 11.10x21 cast
TIRES	F: 275 / 45 R21; R: 315 / 40 R21
LENGTH / WHEELBASE	195.3 / 115.6 in
TURNING CIRCLE	tba
HEADROOM (F/R)	40.2 / 37.8 in
LEGROOM (F/R)	tba / tba in
CARGO CAPACITY	27.5 / 63.2 cu.ft
GROUND CLEARANCE	tba
TOW CAPACITY	tba
WEIGHT	tba
FUEL CAPACITY	22.5 gal
MPG	18/23/20 (city/hwy/comb)

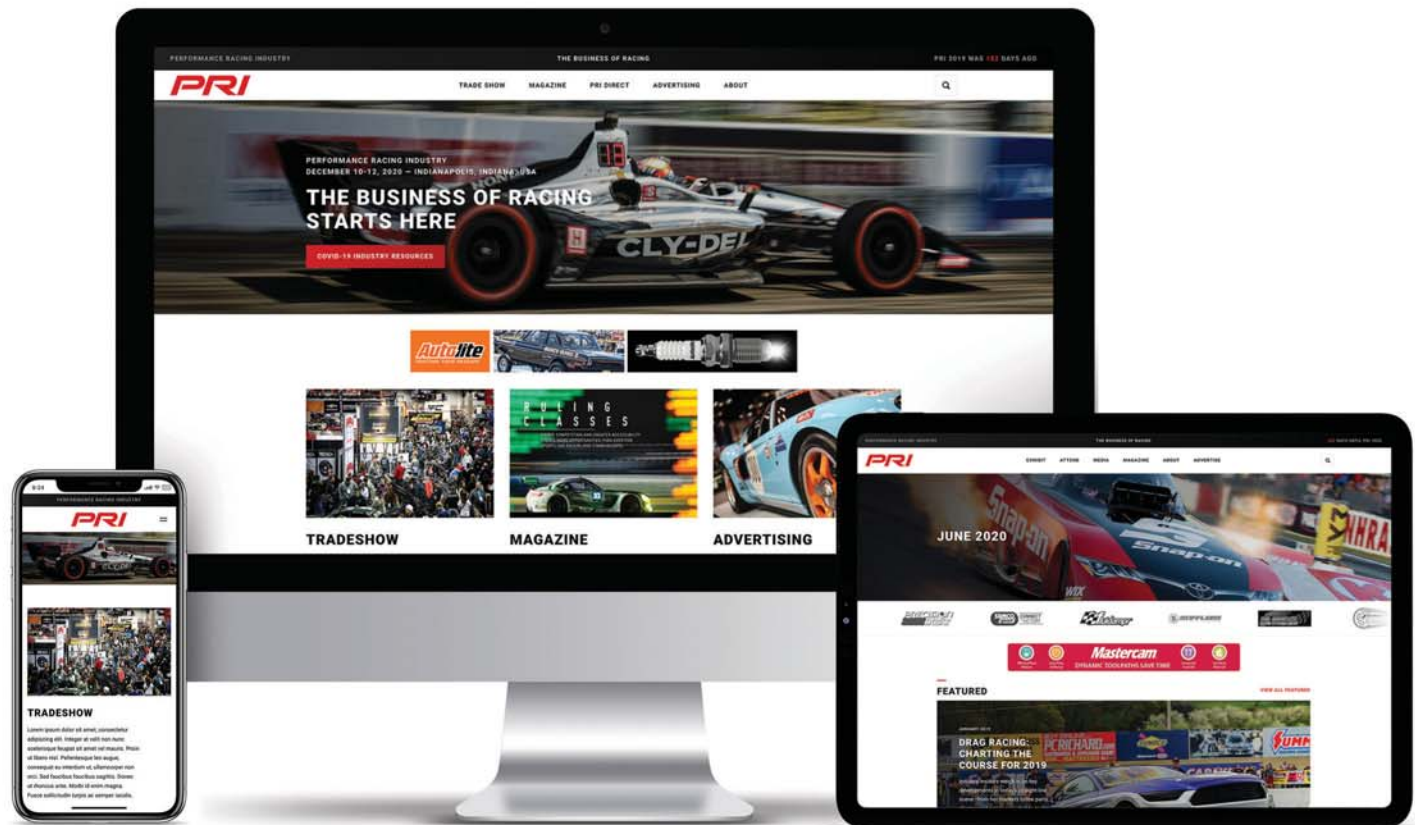
BASE PRICE	\$76,500
DESIGNO® CARDINAL RED METALLIC	1080
AMG BLACK EXCLUSIVE NAPPA LEATHER	4550
BRUSHED ALUMINUM TRIM	nc
STEERING WHEEL: AMG performance steering wheel, Nappa leather / Dinamica	500
NAPPA LEATHER WRAPPED DASHBOARD	nc
WHEELS: 21" AMG twin 5-spoke	nc
AMG PERFORMANCE EXHAUST	1250
REAR SIDE AIRBAGS	700
HEATED-COOLED CUPHOLDERS	180
BLACK DINAMICA HEADLINER	1600
MBUX INTERIOR ASSISTANT	200
REAR SEAT ENTERTAINMENT PRE-WIRING	170
MBUX TECH PKG: MBUX augmented video for navigation; heads-up display	1450
DRIVER ASSISTANCE PKG PLUS: active distance assist Distronic®, active steering assist, active lane change assist, active emergency stop assist, active speed limit assist, active brake assist w cross-traffic function, evasive steering assist, active lane keep assist, active blind spot assist, Pre-Safe® Plus rear-end collision protection, Pre-Safe® impulse side, route-based speed adaptation, active stop-and-go assist, traffic sign assist	1950
PARKING ASSISTANCE PKG: surround view camera system	500
WARMTH & COMFORT: rapid heat front seats, heated front armrests & door panels	1050
ENERGIZING COMFORT PKG PLUS: vented front seats, air balance pkg, active multicontour front seats w massage feature	2100
ACOUSTIC COMFORT PKG: increased cabin insulation, infrared-reflecting windshield film, acoustic & infrared-absorbing side window film	1100
DESTINATION CHARGE	995
TOTAL	\$95,875





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DUCATI DIAVEL 1260 LAMBORGHINI

Ducati of Borgo Panigale and Lamborghini of Sant'Agata Bolognese in northern Italy share core values: performance, attention to design and meticulous devotion to detail. From this common ground, Ducati designers were inspired by one of Lamborghini's most fascinating models, the Sián FKP 37, to create the Ducati Diavel 1260 Lamborghini, a limited edition of 630 units.



Core Sián FKP 37 concepts are transferred to two wheels, redesigning the components that most characterize the Diavel. New lightweight forged wheels explicitly recall those of the car, as do carbon fiber air intakes and radiator covers that suggest floating elements superimposed on the main structure of the bike. Red color more typical of Ducati is referenced by the Brembo brake calipers.

Redesigned by the Centro Stile Ducati for this specific project, each detail of the bike is made of lightweight material. In addition to the radiator covers and air intakes, the silencer cover, spoiler, central tank cover, seat cover, front and rear mudguards, dashboard cover and headlight frame are also carbon fiber.

frame, undertray and forged rims in Oro Electrum. Lamborghini hexagon and "Y" design elements are evident, the former in the exhaust shape, the latter in the seat's aesthetic details. The bike sports a "63"—Lamborghini was founded in 1963, and that multiplied by ten arrives at the 630 numbered units to be produced by Ducati.

Livery is a collaboration between Ducati and Centro Stile Lamborghini. Rich green and gold colors applied to the bike are the same as those used for the Sián FKP 37, with bodywork in Verde Gea, with the

The Ducati Diavel 1260 Lamborghini was scheduled to start arriving at Ducati dealerships around the end of December 2020. ■



Never too young

Then-11-year-old Venicio Caballero of Surprise knew he wanted this 1967 Chevrolet C-10 pickup—enough that he proceeded to earn the money to buy it, then, with help from Sun Devil Auto and lots of quality time with his dad, fully restored the truck to prime working condition.

Love for American classic cars and trucks has long been a passion for Venicio, as his dad well knows. He went to work mowing lawns and performing other tasks, and once he felt he had enough money saved up, he asked his dad Hugo, a locally stationed US Air Force Airman, if he could locate and purchase a classic truck.

After an extensive online search, Venicio and his dad eventually set their sights on a 1967 Chev-

rolet C10 short bed fleetside pickup in Clearlake Oaks, California (in Lake County, north of Napa and Sonoma). The truck had seen better days, if not decades, and was in dire need of a mechanical restoration.

Arriving here in June, the long-neglected vehicle was in immediate need of genuine loving attention under the hood, throughout the interior and bumper-to-bumper.

A truck owner himself, Hugo turned to Sun Devil Auto, who not only helped him source the year- and model-specific suspension and engine cooling parts, but took it upon themselves to perform those installations and servicing at no cost.

"We quickly noticed the passion that Venicio

had and understood how important this father-son project was going to be, so helping them in every possible way was an easy decision for us," said Mike Arana, who manages the new Sun Devil Auto location at 16820 North Civic Center Drive in Surprise. "It's essential that we support young enthusiasts who share our passion for restoring vehicles to their original beauty."

The engine is a Chevy 327-cu.in V8 with four-barrel carburetor. Venicio painted the engine bay and the manifolds, which really makes it pop, but it's the original, as is the transmission. Engine work has been limited to the HEI distributor, spark plugs and wires, cleaning the carb, and setting the timing. The engine runs well but will be rebuilt—Venicio is saving up money at the moment. It has leaks mainly from the crank and rear main seals. The first concern was taking care of all safety and comfort items, like the brakes and such.

Operations performed by Sun Devil Auto were not just drop-off-and-pick-up repairs—the folks at Sun Devil fully involved Venicio in those steps, too.

Work done so far includes:

- Converted front drum to disc brakes with 2.5-inch drop spindles
- Replaced rear drums
- Replaced front brake lines
- Installed a master brake cylinder with a brake booster
- Replaced the upper and lower ball joints
- New tie rods and sleeves
- New front shocks and springs
- New 4 inch rear drop springs and shocks (by Sun Devil Auto)
- New trac bar (by Sun Devil Auto)
- Alignment accomplished (by Sun Devil Auto)
- Installed three-point seatbelts
- New bench seat
- New door and window weather stripping
- New carpet
- New dash pad and retro style Bluetooth radio
- New front windshield and rear window gaskets
- New front wheels and tires 15X8 255/60/15
- New rear wheels and tires 15X10 275/60/15
- New hood bump stops all around
- New sun visors
- New HEI distributor
- Torched and sealed the wood for the bed.

Remaining projects include:

- Install the new wood bed
- Earn money and install power steering
- Earn money and rebuild engine with a mid-cam, headers, and all-around new seals and gaskets.

The original paint is pure white, which is still visible. Somewhere along the way it was painted blue as it became a work truck.

The patina you see here is the original as they received it. People love the finish, and nine out of ten have stated that they should not paint it. The patina is symbolic of the truck's name, Relic. So

far, they have only used mineral spirits and linseed oil to protect the metal, till Sun Devil Auto performs some body work and clearcoats the patina early this year. The overall intent is to have a rat rod appearance, rough and tough, and that is able to be driven at any given time.

Car shows have slowed down a bit this season. Venicio had his truck on proud display at the Oasis Classic Car Show in Westgate in late October, and at the massive 12-acre Dino's Git Down in November. He has support at the shows not only from his proud parents, but from friends at veteran-owned A&R Designs LLC of Surprise, who printed custom T-shirts and created show panels telling the story behind this special father-son restoration. Lately, they've been hitting a show at the Sam's Club parking lot off the Loop 303 freeway and Bell Road, most every Friday from 4pm until about 7pm, and they're keeping their eye out for more shows.

"Relic is part of our family and part of American history and is meant to be driven regularly. America!" says Venicio, who doesn't have his driver's license yet. "Dad is driving it for now. But I have driven it once in a field. Hopefully in the next few years, Dad can get a 1963 Chevy C10, so we can cruise together."

"Sun Devil Auto is dedicating a ton of hours and money as they conduct all body work and clearcoat Relic," said Hugo, a California native whose military career has included stateside and overseas assignments. "In a time in our history where humans are distant and uncertain of the future, Sun Devil Auto is building stronger relationships within the community to facilitate the dream of a young boy while nurturing life skills at an early age. As a father, it made me so happy to see my boy so excited and engaged."

"Not only did the folks at Sun Devil Auto spend days with us to get the C10 in improved working order, they helped Venicio gain valuable knowledge and experience. Special thanks to our mechanic, Edgar Mendez, who took the time to explain everything he had repaired and installed. We are so grateful because they genuinely care about customers, which is not easy to find these days."

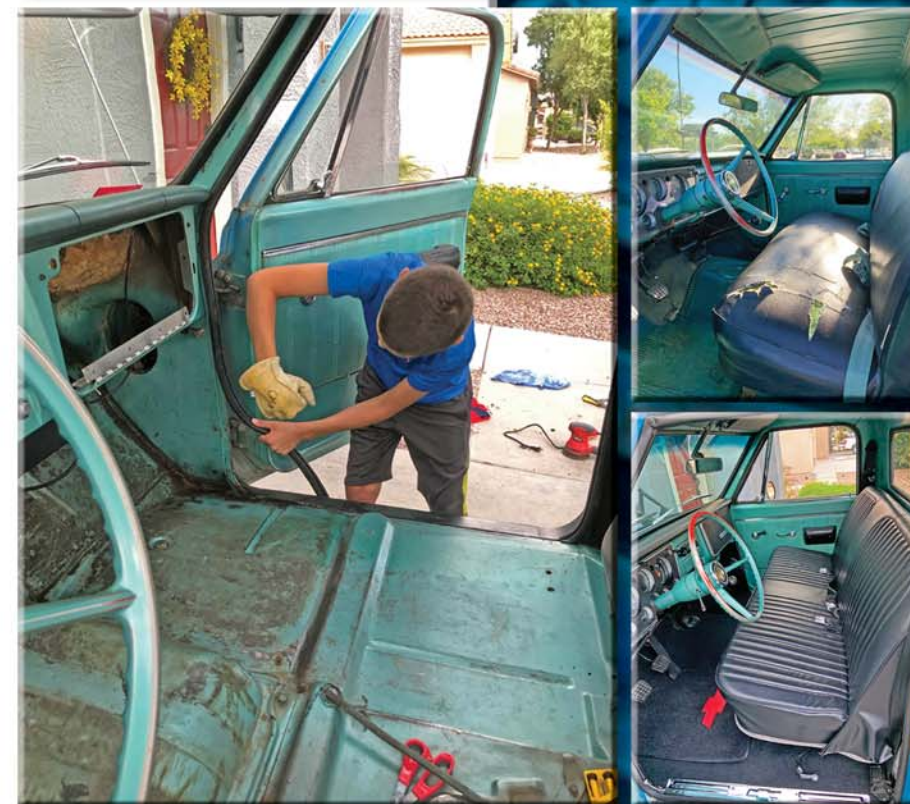
Venicio looks forward to driving Relic into the car shows himself, and to "just cruise with a ton of other classic trucks on the road."

"The best part has been the time my dad and I have spent learning about working on trucks," he says. As always, the machine is the medium, but the people are the magic. ■

Launched in Phoenix in 1978, Sun Devil Auto is an independent auto repair and maintenance company, with 14 locations in greater Phoenix, also now with multiple shops in and around Las Vegas and Austin. All Sun Devil Auto services are guaranteed in writing. For info, visit www.sundevilauto.com.



US Air Force Airman Hugo Caballero, Venicio Caballero, Edgar Mendez (mechanic), Mike Arana (store manager), Sun Devil Auto, 16820 N Civic Center Drive, Surprise AZ 85374



Lucid landmark Arizona plant well underway

Electric vehicle manufacturer Lucid Motors has big news in two major categories—detailed information about their Lucid Air luxury pure electric vehicle (EV) lineup; and progress on their manufacturing facility near Casa Grande, Arizona.

There will be four EV sedan models in the Lucid lineup: a base model Lucid Air, and Lucid Air Touring, Grand Touring and Dream Edition versions.

Built upon ultra-high 900-plus-volt electrical architecture with DC fast charging capability, the car's standard drivetrain is an advanced miniaturized single-motor system. A dual-motor, all-wheel-drive configuration will be optionally available.

The drivetrain's packaging efficiency promises the interior space of a full-size luxury vehicle while maintaining the exterior footprint of a midsize performance sedan, while delivering aerodynamic efficiency and increased agility and maneuverability.

Lucid Air, a well-equipped base model EV starting at \$77,400 (\$69,900 after potential \$7500 Fed-

eral tax credit), will have 480 horsepower and is projected to deliver a range of 406 miles.

The base model Lucid Air interior is finished in PurLuxe animal-free trim and features a curved, floating 34-inch Lucid Glass Cockpit Display. Lucid Air also claims the largest frunk (front trunk) ever fitted to an electric sedan.

Lucid Air is available with DreamDrive, an exclusive advanced driver-assistance system (ADAS). This new first-of-its-kind platform, offered on the full Lucid Air range, combines a comprehensive sensor suite with cutting-edge driver monitoring.

Lucid Air Touring, starting at \$95,000 (\$87,500 after Federal tax credit) boosts power and fitment. Its 620-hp drivetrain (built on the same 900-plus-volt architecture and also projecting 406 miles of range) comes standard with dual-motor all-wheel drive. Interior appointments include the 34-inch Lucid Glass Cockpit Display, an available Glass Canopy Roof and a wide range of choices for inte-

rior materials and finishes.

Either model can now be reserved for \$300. Both are available with three years of complimentary charging at Electrify America's extensive nationwide network of ultrafast charging stations.

Reservations for Lucid Air, Lucid Air Touring and other models in the lineup can be placed online at lucidmotors.com, or at a growing network of retail locations, including the recently opened Beverly Hills Studio and service center. Deliveries for the first Lucid Air models begin this spring.

A tax advisor should be consulted regarding your individual Federal tax credit potential, as well as any state incentives that may be available. Lucid Motors is submitting its certification of credit eligibility to the IRS prior to the start of production.

Vehicle specifications are subject to change as the vehicles enter production.

Projected mileage range is based on an approximation of an EPA test cycle.



Lucid AMP-1 factory in Casa Grande

Lucid Motors, headquartered in Newark, California, has completed the first phase of construction at the new Lucid AMP-1 (Advanced Manufacturing Plant) factory in Casa Grande, Arizona, with the commissioning of production equipment and processes underway ahead of start of production for the Lucid Air in this spring. As the first green-field (on previously undeveloped and unburdened land) dedicated electric vehicle factory in North America, Lucid's innovative AMP-1 was designed with a "Future Ready" focus that allows for additional phases of expansion at the site, with the next phase expected to begin early this year, building toward future production of the brand's first SUV under the name Project Gravity in 2023.

The Arizona site was selected for a number of reasons, including infrastructure, talent, geographic location, and pre-existing automotive supply chain. It also offered space for a large footprint and planned expansions, with key areas of the factory intentionally designed with this in mind. Included are a state-of-the-art water-based paint shop designed to be future-proof, with the necessary footprint and specialized infrastructure to be expandable to meet the needs of all future phases of the factory itself. Four phases planned through 2028 will bring square footage from a current 999,000 sq.ft to 5.1 million sq.ft, with a manufacturing capacity of up to 400,000 units per year.

Advanced manufacturing processes include aircraft-inspired riveted and bonded monocoque body structure replacing spot welds, for structural efficiency. The company had already built its full beta prototype test fleet as part of the factory's commissioning, a phase that tests Lucid's innovative production processes and equipment. They now transition to building a final series of production-representative versions of Lucid Air.

Customer-ordered production cars will start rolling off the Arizona line this spring, with an initial capacity of up to 30,000 units annually to supply global markets, beginning with North America. These will initially consist of Lucid Air Dream Edition, followed quickly by Grand Touring and Touring models. The base model Lucid Air joins the lineup in early 2022, available from \$69,900. ■

ABOUT LUCID MOTORS

Lucid's mission is to inspire adoption of sustainable transportation by creating the most captivating electric vehicles, centered around the human experience. The company's first model range, Lucid Air, is a state-of-the-art luxury sedan with California-inspired design underpinned by race-proven technology. With luxurious interior space in a mid-size exterior footprint, certain models of the Air will be capable of an estimated EPA range of over 500 miles and 0-60 mph in under 2.5 seconds. Lucid Air will be produced at Lucid's new factory in Casa Grande, Arizona, with deliveries beginning in spring 2021.



LUCID



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MOTORSPORTS : PHOENIX RACEWAY NASCAR WEEKENDS 2021

NASCAR PHOENIX 2021

The NASCAR Cup Series returns to Phoenix Raceway, capping off Spring Race Weekend (March 12-13-14) on Sunday, March 14.

Then, having hosted the championship for the first time in November 2020, Phoenix will do so a second consecutive year, November 5-6-7, 2021.

The 2021 NASCAR Championship Weekend will again feature four championship races over three days. Champions will be crowned in the Cup Series, NASCAR Xfinity Series on November 6 and NASCAR Camping World Truck Series, as well as the ARCA Menards Series West.

“It’s an honor to once again be the host track for the most important weekend in our sport, and it’s an opportunity all of us at Phoenix Raceway are extremely excited about,” said Phoenix Raceway president Julie Giese. “With the return of the NASCAR Championship Weekend, coupled with an action-packed spring event weekend, the 2021 schedule at Phoenix Raceway is set to be another memorable year for our fans, our local communities and the entire state of Arizona.”

Tickets for the Spring Race Weekend are available for purchase online at PhoenixRaceway.com,

or by calling the Phoenix Raceway ticket office at 866-408-RACE (7223).

Fans looking to secure their spot at the 2021 NASCAR Championship Weekend as early as possible may do so now by locking in their 2021 season tickets at Phoenix Raceway. Fans can view the full 2021 NASCAR Cup Series schedule and purchase tickets at nascar.com/tickets.

The 2021 schedule for the NASCAR Camping World Truck Series, as well as start times, will be announced at a later date, as will television networks and broadcast times. ■

SPRING RACE WEEKEND MARCH 12-13-14, 2021

**ARCA MENARDS SERIES
SPRING RACE**

FRIDAY, MARCH 12

**NASCAR XFINITY SERIES
SPRING RACE**

SATURDAY, MARCH 13

NASCAR CUP SERIES RACE

SUNDAY, MARCH 14

FALL NASCAR CHAMPIONSHIP WEEKEND NOVEMBER 5-6-7, 2021

LUCAS OIL 150

FRIDAY, NOVEMBER 5

NASCAR XFINITY SERIES CHAMPIONSHIP RACE

SATURDAY, NOVEMBER 6

ARCA MENARDS SERIES WEST CHAMPIONSHIP RACE

SATURDAY, NOVEMBER 6

NASCAR CUP SERIES CHAMPIONSHIP RACE

SUNDAY, NOVEMBER 7



Más caballos

With more horses joined by expanded drive modes, Crosstrek Sport is a nicely juiced-up new version of a sweet-spot model in the Subaru lineup. by Joe Sage

We drove everything from a 495-hp supercar to a 570-lbft 4x4 pickup in this issue—but had a ball in this 182-hp \$26,495 Subaru Crosstrek.

This is one of our favorites in the Subaru lineup, with its simultaneously utilitarian and sporty approach to life. Things that try to be everything to everybody can easily miss them all—but this succeeds at all. If you need a larger cargo volume, they offer several models delivering that (Outback, Forester, Ascent). If you want something sportier, they offer that, too (BRZ, WRX, STI). But whereas those are pretty much specialized in one direction or the other, Crosstrek is the one that hits on both.

Crosstrek has a simple formula that works dramatically well. It's basically an Impreza hatchback on a raised chassis—its 8.7-inch ground clearance rivals or beats many a big SUV. Despite its origins, it comes across as a coupe-like Outback.

Originally the XV Crosstrek, reflecting models in other parts of the world, XV was dropped from the name for its second generation in the US.

In a way, it's a formula many a rally enthusiast daydreams about—take a favorite sedan or wagon, jack it up with bigger wheels and tires, and pop it atop a 4x4 drivetrain. But this has fully developed

factory engineering. And it works like a champ.

It's a favorite among Subaru fans, too, who have wished for just one thing: a little more power. Their wish has now come true.

The gen-two Crosstrek (new in 2018) sexed up its styling in subtle yet collectively effective ways, with a downsloping beltline leading into front wheel arches and hood creases that create a more aggressive stance. Lower Base and Premium trims have a 152-hp 2.0L boxer engine (up 4 hp from gen one). Limited is newly joined by this Sport model in the upper half of the lineup, both bearing a new 182-hp 2.5-liter. If a 30-hp increase doesn't sound like a lot at first, think of this: it's 20 percent more than the base 2.0L (or 23 percent higher than all gen-one trims). For perspective, that's like bumping a 400-hp muscle car up to 480—a very noticeable boost that clarifies the model's mission and proves itself out on the road. Sport also receives a new front fascia, which works with sheet metal just above it to create eye-catching geometry. The interior adds yellow stitching, yellow embossed Crosstrek seatback logos, brightly colored anodized-look trim, and leather in key areas.

The power and build proved themselves around

town, powering up freeway ramps with a healthy growl, or sinking its teeth into tight turns and deep rain troughs. We also took it for a good run along both the smoother and rougher stretches of Castle Hot Springs Road past Lake Pleasant, where it drove steady and true through washboard and dirt-to-concrete bridge seams, like a rally champ.

While there is a six-speed manual available on lower-level trims, the 2.5L Limited and Sport are CVT-only (as of now). CVT models include SI-Drive, with Intelligent or Sport modes, and (except Base trim) an 8-speed manual mode and paddle shifters. After days with the Crosstrek in widely varying conditions, we realized we had thought about the transmission a grand total of not at all. This is very good. We could have analyzed it all the time, but instead were just enjoying the drive, feeling its power, maneuverability and general performance, with no shift deficiencies that might have drawn our attention to the system. That kind of invisible competence is a solid endorsement of performance, as with the best restaurant waitstaff.

All Crosstreks have standard X-Mode and Hill Descent Control. Uniquely in the lineup, Sport has dual-function X-Mode with Hill Descent Control and adds Snow/Dirt and Deep Snow/Mud settings. It's not intended to be a Rubicon-caliber rock-crawler, but between its substantial ground clearance and its modes for challenging conditions, there is little else that it can't handle. ■

SPECIFICATIONS

BUILD	unitized body, ring-shaped reinforcement frame safety structure
ENGINE	DOHC 2.5L 4-cyl boxer w dir inj, 16v, dual active valve control system
HP/TORQUE	182 hp / 176 lb-ft
COMPRESSION RATIO	12.0:1
DRIVETRAIN	Subaru Symmetrical AWD
TRANSMISSION	Lineartronic® CVT w 8-spd manual shift mode, intelligent & sport modes, dual-mode X-Mode w snow/dirt and deep snow modes, steering wheel controls
SUSPENSION	4-wheel indep, raised w Stablex dampers: F: MacPherson-type struts, lower L-arms, coils, stblzr bar, hydraulic engine mounts; R: dbl wishbone, coils, stblzr bar
STEERING	rack & pinion, elec pwr assist
BRAKES	F: 11.6 vented; R: 10.8 solid discs
WHEELS	17x7 alum alloy
TIRES	225/60R17 98H all-season
LENGTH / WHEELBASE	175.8 / 104.9 in
TURNING CIRCLE	35.4 ft
GROUND CLEARANCE	8.7 in
APPR / DEPART / BRKOVER	18 / 28.6 / 19.7°
HEADROOM (F/R)	(w/moonrf) 37.6 / 37.8 in
LEGROOM (F/R)	43.1 / 36.5 in
CARGO CAPACITY	20.8 / 55.3 cu.ft
WEIGHT	3265 lb
TOW CAPACITY	1500 lb
FUEL CAPACITY	16.6 gal
MPG	27/34/29 (city/hwy/comb)

BASE PRICE	\$26,495
OPTION PKG Z2: power tilt/slide moonroof, blind spot detect & rear cross traffic alert, keyless entry/start, Starlink 8.0" Multimedia Plus (NFC, high-res LCD touchscreen, voice activation, Apple/Android, apps, SiriusXM, HD, AM-FM-CD, dual USB, aux, hands-free, text).....	1600
DESTINATION CHARGE	1050
TOTAL	\$29,145

2021 SUBARU CROSSTREK LINEUP

Base.....2.0L 152 hp ...6-spd man	\$22,245
.....CVT.....	23,595
Premium.....2.0L 152 hp ...6-spd man	\$23,295
.....CVT.....	24,645
Sport.....2.5L 182 hp ...CVT	\$26,495
Limited.....2.5L 182 hp ...CVT	\$27,995



The 2021 Subaru Crosstrek Sport offers two new colors: Plasma Yellow Pearl and our sample's Horizon Blue Pearl.



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Uber spins off self-driving biz

Aurora, a self-driving vehicle tech company with offices in San Francisco, Silicon Valley, Dallas, Pittsburgh and Bozeman, Montana, has acquired Uber's self-driving unit, Advanced Technologies Group (ATG), which had been operating in Tempe and other parts of Arizona for the past few years, known for their specially outfitted Volvo XC90 fleet.

Arizona Governor Doug Ducey encouraged Uber to enter Arizona, appointing a committee of eight to welcome them in 2015. By late 2016, Ducey announced, "Arizona welcomes Uber self-driving cars with open arms and wide open roads. While California puts the brakes on innovation and change with more bureaucracy and more regulation, Arizona is paving the way for new technology and new businesses." Sadly, the operation famously led to the first recorded pedestrian fatality involving an autonomous (self-driving) vehicle.

Following the fatal incident, Ducey suspended Uber's testing of self-driving vehicles in the state. Uber suspended testing of self-driving vehicles in its other three locations, as

well: San Francisco, Pittsburgh and Toronto. Uber chose not to renew its permit for testing in California when it expired in spring 2018.

Ripples from Uber's experience have been extensive and have spawned new regulations and new innovations in the autonomous vehicle business.

Uber decided they did not have to branch out into this field and that they would focus on their primary ride-hailing business.

Meanwhile, a new startup—Aurora—was formed in 2017 to focus on only self-driving vehicles. In December, Aurora picked up ATG, with cofounder and CEO Chris Urmson announcing, "ATG's team and technology will accelerate our mission and the delivery of our first product safely, quickly, and broadly. By adding the people and technology of Uber's Advanced Technologies Group to the incredible group we've already assembled at Aurora, we're shifting the landscape of the automated vehicle space. With the addition of ATG, Aurora will have an incredibly strong team and technology, a clear path to several

markets, and the resources to deliver."

Uber's ATG had kept a low profile while continuing development of software, hardware and product design, including advances in rigorous testing and the building of a strong safety culture.

Aurora will be applying this team and its skills to their Aurora Driver core technology—implementing more immediate applications for heavy-duty trucks, while accelerating their work on light vehicles.

Aurora maintains a strategic partnership with Uber, in pursuit of connecting their technology to the world's leading ride-hailing platform, a quick way to deliver the Aurora Driver broadly. While autonomous trucking is where they will deliver product first, the relationship with Uber puts them in a position to be a leading player in autonomous trucking and passenger mobility, both. In support of Aurora's partnership with Uber, Uber is investing \$400 million back into Aurora.

Aurora is backed by Amazon, Sequoia and others, and tests its vehicles in the Bay Area, Pittsburgh and Dallas. It could be awhile before self-driving Ubers hit Tempe again. ■



A new trick up its sleeve BY JOE SAGE

Remember when a hybrid was an oddball little car, highly specialized for the singular bragging point of being a hybrid? You can still get such a thing, but hybrid systems today have become as mainstream a part of a powertrain designer's toolkit as fuel injection and turbochargers, themselves once highly specialized items.

The proof? Meet the nation's best-selling vehicle, the big, beefy, hard-workin' Ford F-150 pickup—now available as a full hybrid.

When Ford first put their efficient turbocharged EcoBoost V6 in the F-150 in 2011, they were cautious about how it might be received by a V8-happy pickup market, not expecting to sell all that many. But sales went through the roof. Thus as the entire industry now embraces "electrification" of all sorts, Ford has plenty of reason for confidence moving forward with a full hybrid F-150 this year.

The familiar 3.5L EcoBoost V6 turbo is tied with the naturally-aspirated 5.0L gasoline V8 at 400 hp and beats its torque at 500 lb-ft to the V8's 410. (A 3.0L PowerStroke diesel V6 beats that with 440 lb-ft, though it's lower on horses, at 250.) Combining

the EcoBoost's top horsepower and torque with hybrid fuel efficiency, the new 3.5L PowerBoost full hybrid V6 powertrain blows them all out of the water, at 430 hp and 570 lb-ft of torque.

All that torque gives the EcoBoost V6 turbo the highest (or tied-highest) tow capacity in the F-150 lineup. The F-150 PowerBoost full hybrid's tow capacity is a little less than EcoBoost or V8 (it carries additional battery weight), but it tops the diesel.

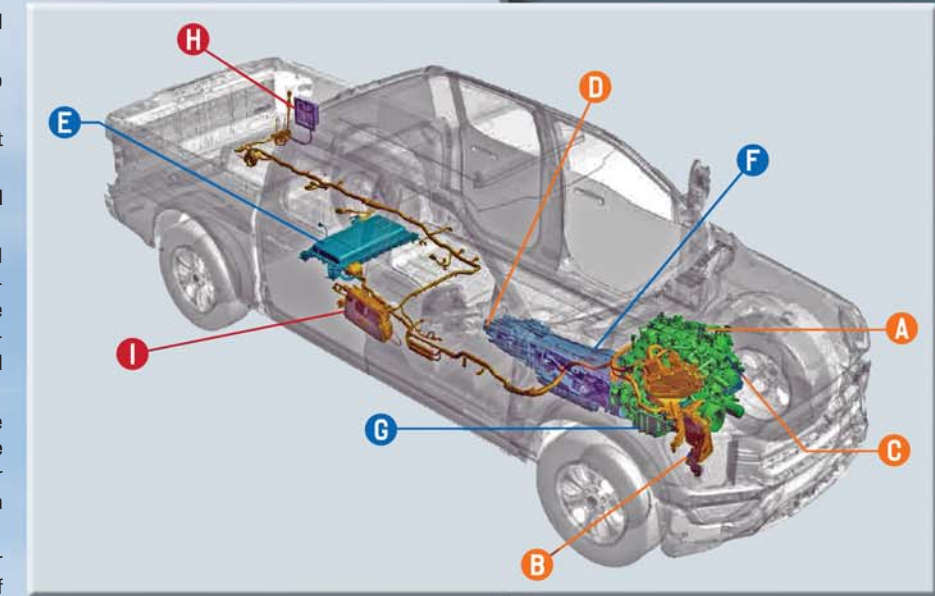
There are two EcoBoost V6 engines in the F-150 lineup—2.7L and 3.5L—both twin-turbocharged and intercooled. The PowerBoost hybrid starts with the 3.5L EcoBoost V6 and adds the full hybrid system shown in the breakaway at upper right.

The hybrid F-150's handsome interior is largely conventional (including the new console-mounted shift lever that flips down electrically to create a flat, open workspace), while adding available data screens in the binnacle to keep an eye on your hybrid virtuousness via color-coded bars and numbers. While hypermiling novelty has begun to wear off, it's a nice reminder of the special powers you have at your fingertips and under your toes.

The F-150's new full hybrid powertrain can be seen as a stepping stone—an evolutionary point on a longer path from liquid fuels to efficient turbos, to a full EV on the horizon. It can also be seen as a destination in its own right—a rock solid proven truck, now specifically engineered to deliver more power, range and tow capacity.

It's enough to make you wonder why you would buy any other. If your towing needs are very specific, you can get 600 to 1600 lb higher capacity from other engines. Or maybe you just like a V8 growl, though the growl of the hybrid is plenty satisfying. The PowerBoost hybrid engine runs \$2500, while a regular 3.5L EcoBoost runs \$600. That \$1900 difference seems very reasonable against \$100-a-tank-or-so fillups the hybrid's extra range may let you skip (until EPA figures arrive, we can only speculate the break-even, although personal driving style and duty variables kick in, anyway—but you know you'll be ahead of the game).

All those little statistical or philosophical riddles aside, Ford has hit the nail firmly on the head with this truck—so firmly, you may be left scratching your chin and thinking, wait, what, they didn't always make one of these? ■



- A** Available 3.5-liter EcoBoost V6 adapted for hybrid driving and mobile generator requirements.
- B** 12V battery powers engine starters while a high to low voltage converter powers low voltage loads.
- C** Belt driven starter is used for water pump and belt starter motor.
- D** Ford designed, engineered and assembled 10-speed modular hybrid transmission.
- E** 1.5 kW-hr lithium-ion battery is liquid cooled and engineered to minimize weight while delivering optimum performance. It is mounted between the frame rails below the load floor with a unique vibration isolation system, leaving passenger space and cargo area uncompromised.
- F** The 35kW electric motor works in tandem with the engine for power and torque, utilizes regenerative braking energy capture, and supports 2.4kW or 7.2kW of available Pro Power Onboard while in generator mode.
- G** Electrically boosted brakes and high voltage air conditioning compressor accommodate engine-off situations.
- H** Power in box 120V and/or 240V outlets capable of supplying 2.4kW or 7.2kW available Pro Power Onboard.
- I** Pro Power Onboard 2.4kW or 7.2kW inverter converts direct current from the high voltage battery to standard alternating current, useful for tools and devices.

Our sample is a King Ranch, next-to-top trim against Platinum, with a nice Western feel to its branding elements throughout. Equipped with an FX4 Off-Road Package we'd always choose, along with Pirelli Scorpion ATR tires, we gave it a good run out to the ends of the Earth.

The F-150 hybrid comes with a 30.6-gallon fuel tank only, notably larger than the 23-gallon base tank in other gasoline models, or its 26-gallon alternative (standard in diesel), though the other gasoline trucks do offer a 36-gallon tank. The hybrid's extended range should catch up with or beat that. And one less decision may be welcome among the complexities of cab-bed-chassis-payload-tow-gas tank variables in truck builds.

SPECIFICATIONS

FACTORY	Dearborn, Michigan
ENGINE	3.5L PowerBoost™ Full Hybrid V6 alum block/heads, port fuel inj w dir inj
HP / TORQUE	430 hp / 570 lb-ft
COMPRESSION RATIO	10.5:1
DRIVETRAIN	4x4
REAR AXLE RATIO	3.73
TRANS	10-spd modular electronic hybrid
SUSPENSION	F: indep dbl-wishbone w heavy duty gas-pressurized coil-over shocks, stamped lower control arm; R: leaf spring / solid axle, heavy-duty gas-pressurized shocks.
STEERING	electronic power-assisted
BRAKES	F: Nitro Tough iron 350x34mm, 2x 51mm sliding caliper power anti-lock vented; R: Nitro Tough iron 336x20mm, 1x 54mm sliding eIPB, power anti-lock vented.
WHEELS(opt)	20" alum alloy chrome-like PVD
TIRES	275 / 60R20 OWL all-terrain
LENGTH / WHEELBASE	243.5 / 157.2 in
BED STYLE / LENGTH	6.5 ft Styleside / 78.9 in
TURNING CIRCLE	51.1 ft
APPR / DEPART / BRKVR	24.0 / 26.3 / 19.0°
GROUND CLEARANCE	8.8 in
HEADROOM (F/R)	40.8 / 40.4 in
LEGROOM (F/R)	43.9 / 43.6 in
WEIGHT	5540 lb
TOW CAPACITY	11,000-12,400 lb
FUEL / CAPACITY	37 octane reg unl / 30.6 gal
MPG	tdb
BASE PRICE	\$60,055
3.5L POWERBOOST FULL HYBRID ENGINE	2500
FX4 OFF-ROAD PACKAGE	1005
EQUIP GROUP 601A: King Ranch Series, power tailgate, tailgate step, power-deployable running boards, Bang & Olufsen Sound System Unleashed	4560
KING RANCH CHROME APPEARANCE	1995
360-DEGREE CAMERA PACKAGE	765
MAX RECLINE DRIVER/PASSENGER SEATS	340
TWIN PANEL MOONROOF	1495
FORD CO-PILOT360 ACTIVE 3.0 PREP PACKAGE	995
PRO POWER ONBOARD	955
INTERIOR WORK SURFACE	165
PARTITIONED LOCKABLE STORAGE	215
SPRAY-IN BEDLINER	595
WHEEL WELL LINER	180
DESTINATION CHARGE	1695
TOTAL	\$77,515

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\$40,000 TO FOUR LOCAL NON-PROFITS

Phoenix Raceway and Arizona Accelerator Charities recently donated \$40,000 to four metro Phoenix non-profits—100 Club of Arizona, Phoenix Children's, Teach For America Phoenix and Veteran Tickets Foundation (Vet Tix)—named earlier last year to be the beneficiaries of funds raised by Arizona Accelerator Charities and the NASCAR Championship Host Committee, the NASCAR Accelerators, leading up to Phoenix Raceway's first-ever NASCAR Championship Weekend in November.

"We're honored to have the opportunity to provide these grants to these four amazing organizations that continue to do so much to improve the lives of many in our community," said Phoenix Raceway President Julie Giese. "This year was a challenging one for everyone, especially for local charities that provide so much to those in need. I'm proud that we are able to support these groups in their

efforts and we look forward to continuing to do so with the NASCAR Accelerators for years to come."

Funds for these grants were raised throughout the year through various efforts such as the 50/50 Raffle presented by Arizona Lottery, Track Laps for Charity, NASCAR-branded Arizona license plates and charitable donations.

Arizona Accelerator Charities is a 501(c)(3) donor-advised fund under The NASCAR Foundation and is dedicated to accelerating our communities in Arizona through charitable investments supporting education, healthcare, families of active duty military and veterans, as well as life enrichment programs for children and families.

Founding members of NASCAR Accelerators, formed in March 2020, represent a wide range of professions across Arizona, including sports, business, the non-profit sector and media. ■



A DONOR ADVISED FUND OF THE NASCAR FOUNDATION



Nothing rascally about it

BY JOE SAGE

Evolution picks up the pace in the midsize Rogue, Nissan's top-selling model in the industry's biggest segment

Nissan is in the process of a thorough model changeover. New or redesigned versions of Altima, Versa, Sentra and Titan have been recently introduced. Here we have a new Nissan Rogue—their top-selling model, in turn their entry in the top-selling midsize crossover segment. And four more new models will go into production this year.

Immediately noticeable is significantly evolved styling. Nissan has moved quite cautiously in this department, working hard to maintain a family face throughout their lineup (and arguably constricting themselves a bit in the process). This year, things move forward more dramatically, while still maintaining familiar cues (its three-sided metal trim now borders and defines the grille rather than randomly inhabiting it, a change we applaud). It's really a comprehensive leap—the new Rogue's shape, stance and general bearing give it, to our eye, a bit of the personality and presence of the lineup's three-row flagship Armada.

From the side, this is a distinctively handsome vehicle. A nice crease runs from a suggestion of a rear wheel haunch (though it's a front-drive-based vehicle) that continues across the taillights as far as the liftgate, an identifying detail in a world of similar rear ends. Beyond the grille's evolution,

Rogue front the front has entirely new lighting (arguably evolved from the Juke, with its combination of functions divided between smaller upper and larger lower fixtures). Compared with generations one and two (plus a refresh of gen two), this third generation effort definitely picks up the pace on styling. It still may not quite have achieved movie star looks, but it is a very good provider.

The new Rogue is built upon an entirely new platform, promising a more dynamic ride quality, while also hosting an ever-expanding range of tech features.

Dynamics include a new powertrain, new rear multi-link suspension, a new steering system and new Vehicle Motion Control technology. Horsepower is up 10 percent, torque three percent, and even atop all that new power, fuel economy is up four percent.

Nissan has led the way with many tech features over the past decade or two, from cameras to advanced driver assist. New here is available ProPILOT Assist enhanced with Navi-link (included on our top Platinum example), for door-to-door navigation that can proactively reduce speed for upcoming freeway curves, interchanges and exits.

Nissan Safety Shield® 360, a comprehensive

suite of increasingly familiar driver assist technologies, has now been added to all trim levels. Additional features include traffic sign recognition, driver alertness tech and rear door alert.

Rogue's family-oriented interior (which Nissan is calling a "family hub") includes tri-zone climate control (driver, front passenger and second row), along with wireless Apple CarPlay and wireless charging, and four-door intelligent key.

We found the Rogue's controls and interfaces well laid out and its cabin comfortable and spacious. The center stack's interrelationship of physical knobs and switches with its touchscreen are almost deceptively clean and simple, as orientation and ongoing access are quick, clear and effective. Virtual-physical integration continues with such basic but vital controls as its cameras (Nissan has been a pioneer of all-around imaging) and mirrors, which together are far more accurate than average for backing into tight spots.

Nissan describes Rogue as versatile, fun, edgy and adventurous. The dictionary says a rogue is a rascal, scoundrel, swindler, knave or worse. The 2021 Nissan Rogue is refined to the point you'll probably have to take on those more questionable duties yourself. It will be too polite to object. ■

SPECIFICATIONS

FACTORY	.....Smyrna Vehicle Assembly, Tennessee
ENGINE	....2.5L 16v DOHC transverse alum/alum inline-4
HP/TORQUE	.....181 hp / 181 lb-ft
COMPRESSION RATIO	.....12.0:1
DRIVETRAIN	.....FWD (AWD avail)
TRANSMISSION	.....Xtronic (CVT) w manual mode w paddles, Eco and Sport modes
SUSPENSION	....F: indep strut w coils, twin tube shocks, 24.2mm stblzr bar; R: indep multi-link, twin tube shocks, 27.5mm stblzr bar
STEERING	.....elec pwr assist, vehicle-speed variable
BRAKES	.....F: 11.65x1.02; R: 11.5x0.63 vented discs
WHEELS	.....7.0J x 19 alum alloy
TIRES	.....235/55R19 all-season
LENGTH / WHEELBASE	.....183.0 / 106.5 in
TURNING CIRCLE	.....35.4 ft
GROUND CLEARANCE	.....8.2 in
APPR / DEPART / BRKOVER	.....19.0 / 23.6 / 17.9°
HEADROOM (F/R)	.....(w/moonrfl) 39.2 / 37.8 in
LEGROOM (F/R)	.....41.5 / 38.5 in
CARGO CAPACITY	.....36.5 / 74.1 cu.ft
WEIGHT	.....3512 lb
TOW CAPACITY	.....1350 lb
FUEL CAPACITY	.....14.5 gal
MPG	.....26/34/29 (city/hwy/comb)

BASE PRICE	.....\$35,430
FLOOR MATS / CARGO AREA PROTECTOR	.....385
DESTINATION CHARGE	.....1095
TOTAL	.....\$36,910

Platinum trim includes quilted Nappa semi-aniline leather, 12-inch TFT instrumentation, heads-up display, wireless Apple CarPlay, wireless charging pad, ProPILOT Assist with Navi Link, and front-side-rear sonar. // Front door pockets accommodate a 32-oz bottle, while the rear cargo area has a well for a one-gallon jug. // Rear doors open almost 90 degrees.

2021 NISSAN ROGUE LINEUP

Rogue S	.....FWD/AWD	.....\$25,650 / 27,050
Rogue SV	.....FWD/AWD	.....\$27,340 / 28,740
Rogue SL	.....FWD/AWD	.....\$32,000 / 33,400
Rogue Platinum	.....FWD/AWD	.....\$35,430 / 36,830



Fully driverless service, new expansions and partnerships

Waymo, an autonomous vehicle (AV) technology company with its primary operations center in Chandler, Arizona, has opened their fully driverless Waymo Driver technology to Waymo One riders—a first for Waymo, the AV industry and the world—eliminating having to share a vehicle during a pandemic, while underscoring how far things have progressed in just a few years.

Five years ago, Steve Mahan, the retired director of the Santa Clara Valley Blind Center, who had lost his sight years before, took the world's first ride in a self-driving car on public roads. This little car, called Firefly, had a top speed of just 25 mph and used a combination of lidar, radar, cameras and massive on-board computing power to navigate the busy streets of Austin, Texas.

Since that first ride, Waymo has been hard at work to bring service to more people. In 2017, they began an early rider program in Metro Phoenix in the Chrysler Pacifica hybrid minivan. Generation-four Waymo Driver, significantly more sophisticated than Firefly's technology, pioneered fully driverless, paid rides on high-speed roads across a service area larger than the city of San Francisco, with a vehicle operator monitoring the ride.

By 2020, five to ten percent of rides were fully driverless for an exclusive group of early riders under non-disclosure agreements, gathering key feedback for further development.

For today's completely driverless experience, enhanced health and safety policies and procedures have been implemented throughout their fleet, with input from their team, partners and rid-

ers, and federal, local and state authorities.

Though motivated by separation, members can also take friends and family along on their rides.

In the near term, all rides will be fully driverless. As in-vehicle barriers between the front row and rear passenger cabin are completed for hygiene and safety, they'll be re-introducing rides with a trained vehicle operator, for more capacity over a larger geographical area.

You can check Waymo's services and become a member through their app (Apple and Android).

Expansion beyond the Valley

While Waymo's current driverless territory is 50 square miles in Chandler, Mesa and Tempe, they have announced two new facilities, one in Ohio and one in Silicon Valley, to advance their Waymo Driver fully autonomous technologies.

With Transportation Research Center Inc. (TRC), a comprehensive independent vehicle test facility and proving grounds in East Liberty, Ohio, Waymo is co-developing an exclusive, first-of-its-kind test environment for fifth-generation Waymo Driver, their most advanced software and hardware yet, incorporating lidar, cameras and radar. The new facility will be built to Waymo's requirements, to model a dense urban environment, able to test longtail challenges they might never encounter on public roads, and using other TRC assets including tracks specifically for truck testing.

Continuing to deepen their investment in truck-

ing, Waymo has also secured a new research and development facility in Menlo Park, California, which they will move into early this year. Here, they will focus on advancing their fifth-generation Waymo Driver on Class 8 semi trucks, while helping to accommodate their growing trucking team and test vehicle fleet in the Bay Area.

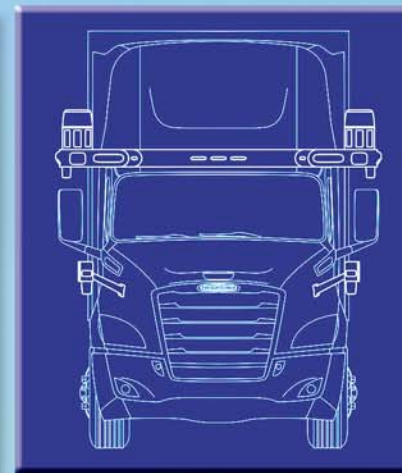
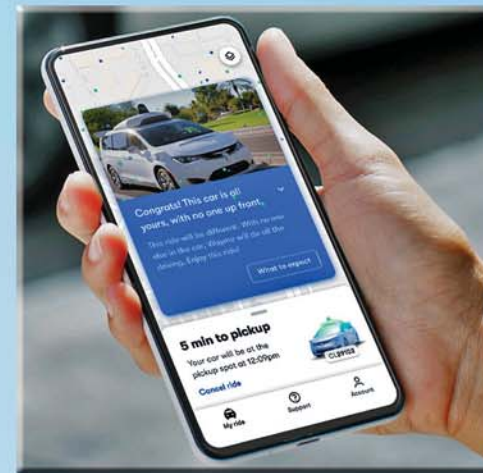
Waymo's latest generation of vehicle platforms includes the all-electric Jaguar I-PACE and Class 8 trucks, as they scale their testing program and operations across a diverse set of geographies and driving environments.

To date, Waymo Driver has been tested on five generations of passenger vehicles, adding Waymo Via on autonomous class 8 trucks in 2017. Waymo Via trucking is currently testing around their headquarters in Mountain View, California, in Arizona along the Phoenix-Tucson I-10 corridor, and across New Mexico and Texas.

Partnering with TRC in Ohio (their tenth US test state) introduces new environments and weather including snow and rain, and offers easy transport from their Novi, Michigan assembly facility.

Overall, this partnership with TRC will enable us to further advance our Waymo Driver on our next-gen platforms, while scaling our robust testing program across a diverse set of geographies and driving environments.

Testing is a never-ending feedback loop that



includes structured testing, simulation and public road operations. After executing a test on their private track, they can then create and run hundreds of variations of that scenario in simulation. While there is a high level of realism in simulation, structured testing allows evaluation of both the software and hardware stack. Recreating scenarios already successfully completed in simulation, they can continuously verify the simulator and assess small nuances that may affect vehicle behavior, an valuable extra layer of testing and redundancy before vehicles drive on public roads.

Daimler Class 8 trucks partnership

Waymo has entered a broad global strategic partnership with Daimler Trucks, market leader in large commercial vehicles, to deploy autonomous SAE L4 technology. The initial effort will combine

Waymo's automated driver technology with a unique version of Daimler's Freightliner Cascadia, to enable fully autonomous driving.

Waymo has driven over 20 million miles on public roads across 25 US cities and 15 billion miles in simulation. Daimler Trucks North America, parent company of the Freightliner brand and US market leader in commercial vehicle manufacturing, provides their experience in developing state-of-the-art Class 8 vehicles.

Fully autonomous trucks, equipped with the Waymo Driver—the World's Most Experienced Driver™—will be available to US customers in coming years, with expansion into other regions and brands in the near future.

Waymo and Daimler Trucks share the common goal of improving road safety and efficiency for fleet customers. ■



ABOUT WAYMO

Waymo started in 2009 as a moonshot project at Google X, developing (L4) autonomous technology as part of the Google self-driving car project, seeing huge potential to make roads safer and save lives. Their mission is to make it safe and easy for people and things to get where they're going. Waymo Driver autonomous technology can be applied across a number of applications, from people-moving Waymo One to Waymo Via, focused on moving goods.

ABOUT TRC

Transportation Research Center Inc. is an advanced, independent mobility testing and research complex, providing leading transportation innovators with a full range of engineering and research expertise and a comprehensive array of transportation testing and evaluation facilities. TRC's 4,500-acre full-service automotive proving ground and laboratory facility in East Liberty Ohio is home to the SMARTCenter, TRC Inc.'s automated and connected vehicle test facility.

ABOUT DAIMLER TRUCKS & BUSES

More than 120 years ago, Gottlieb Daimler and Carl Benz laid the foundation for the modern transport industry. Today, Daimler's Truck and Bus division is one of the world's largest commercial vehicle manufacturers, with more than 35 locations, 100,000 employees and seven vehicle brands: Mercedes-Benz and Setra in Europe; BharatBenz in India and FUSO in Japan (serving Asia, the Middle East, Africa, Europe and Latin America); and Freightliner Trucks, Western Star and Thomas Built Buses in North America—a broad portfolio of commercial vehicles, from minibuses to heavy trucks for specialized transport. Daimler Trucks & Buses is now working to bring emission-free, automated and connected driving to volume series production across brands, divisions and regions, taking its vision of CO2-neutral transport and accident-free driving a major step closer to sustainable global goods and passenger transport. In 2019, Daimler Trucks & Buses delivered a total of around one-half million trucks and buses to customers.



WAYMO



DAIMLER
TRUCKS & BUSES

THE INSIDE TRACK: BRIEFS & RUMORS



▼ From two brands united by a drive for engineering excellence and pioneering design, the unrivalled power and sophistication of the track-focused McLaren Senna GTR combines with LEGO® Group's design precision in a new 830-piece model of the supercar—the first McLaren supercar to be recreated in LEGO Technic form. The 12-inch-long replica promises no compromises in engineering or style—packed with authentic features and design details from a V8 engine with moving pistons, to beautiful aerodynamic curves, opening dihedral doors and its one-of-a-kind blue livery. “This track car (has) unique details, like its silhouettes and the awesome rear spoiler, which differentiates the building experience from others,” says LEGO Technic senior designer Uwe Wabra. “Just like the incredible engineers at McLaren do when designing their supercars, we really pushed things to the max so the resulting model perfectly honors the art form that is the McLaren Senna GTR.” And like every full-scale McLaren Senna GTR, the LEGO replica is designed to be built by hand. This is the latest model to be released as part of a partnership that started in 2015. LEGO builders of all ages have so far been able to create such landmark supercars as the McLaren P1, McLaren 720S in 2017 and Senna in 2019. For ages 10 and above, on sale January 1, the LEGO Technic McLaren Senna GTR is available at LEGO.com, LEGO stores and other retailers globally, and participating McLaren dealers, at a recommended retail price of \$49.99.

▼ Ford Motor Company is making continuous progress in the restoration of Michigan Central Station, long derelict and now being returned to its original grandeur as the centerpiece of a new mobility innovation district within Detroit's historic Corktown neighborhood. Many classic elements of the huge building were heavily damaged or missing, but with Ford's help are no longer called “irreplaceable.” One



recent example is a new 11,500-pound replica of an original capital stone, created with more than 400 hours of work by a mid-Michigan stoneworker and now installed in the Waiting Room facade. John Goodrow Sr of Capital Stoneworks Inc in Bridgeport, Michigan spent 428 hours carving the new capital stone from a 21,000-pound limestone block—a process that started on September 1 and was com-

pleted in late October. “It’s a lot of visualization,” says Goodrow, who has carved nearly 1,000 capital stones in his 37-year career. “I start with a solid square block and work from the outside in. You have to see the finished product done in your mind to be able to do it. You can either do it or you can’t.” Capital stones, the decorative pieces at the top of a structural column, are typically seen in residential home designs and are less common in commercial projects. The stones are a key architectural feature of the Beaux-Arts style train station that welcomed visitors to what was the grand waiting area of the building, which faces north onto Michigan Avenue. The work requires old-school methods and tools—nearly all of the details were created using air-powered chisels, with pneumatic handsaws used to remove excess limestone stock. “I’ve done bigger pieces of stone carvings, but this is by far the largest capital I’ve ever done,” says Goodrow. “It was a lot of work.” Capital Stoneworks recently restored medallions for the Michigan State Capitol Building in Lansing out of carved sand-

stone, among more than 100 carved objects it created over the course of two years for the project. In keeping with Ford's commitment to re-creating the many ornate details of the train station, the limestone was sourced from the same Indiana quarry that was used to build the original piece more than 100 years ago. Dark Hollow Quarry, now closed, provided the raw stone material that was used for

the original capital stones that went on the station when it opened in 1913. Other famous structures that used Indiana limestone in construction include the Empire State Building, the National Cathedral and



the Pentagon. The original capital that was brought to Capital Stoneworks to reproduce was missing prominent portions and features that had fallen off and decayed over the years. The company had planned to use 3D scanning to measure and rebuild the stone, but it turned out those details had to be worked out manually by visualization and sketching, and in the end the stone was completely hand-carved. The new stone was installed atop the columns of the train station in November. Capital will now use the completed piece as a 3D template for three additional capitals for the train station, which will be created using a mix of CNC machining and hand-carving. Ten original capital stones remain intact on the building and will be cleaned and any missing parts replaced. Gary Marshall, Ford project manager, said the stone replacement marks a milestone in the company's four-year renovation project of the building purchased in 2018. “We’re really starting to turn the corner on this historic project,” he said. “The outside of the building is really starting to look like it did back in the train station’s heyday.” Two years into the restoration, crews are putting the finishing touches on the eastern portion of the Waiting Room facade before moving to the west end. The renovation is expected to be complete in 2022.

▼ “And what kind of monthly payment are you aiming for?” **Luxury Lease Partners** (LLP), a North American exotic car lessor headquartered in New Jersey with af-

filates all over the country, has announced the first in a series of new hypercar leases. Designed for fine auto enthusiasts and collectors to make the most of their capital, LLP is making a rare **Koenigsegg** CCXR

Trevita available for one fortunate client. Known for its wintry, diamond-like carbon fiber finish, the Trevita was conceived by the Swedish automaker as a limited edition. The white carbon fiber made the car extremely time-consuming to manufacture. Weighing just under 3,000 pounds, Koenigsegg's most exclusive design combines the company's signature high-performance capabilities with revolutionary design and luxury amenities to develop an



unmatched driving experience. Powered by a Koenigsegg aluminum V8, the CCXR Trevita's powertrain produces an astonishing 1,018 horsepower with a zero-to-60 mph time of just 2.9 seconds and a top speed of 254 mph. The bespoke car also features a carbon fiber intake manifold with optimized intake tracts, has a patented response charge system for optimal engine response, and utilizes power assist-

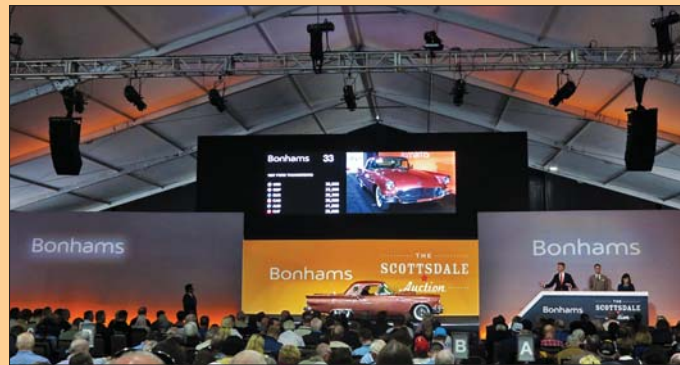
ed Brembo brakes to enhance stopping power. Only two exist in the world today, with only one currently available for lease, for which LLP arranged a special leasing offer through a dealer partner, iLusso of Costa Mesa, California. This rare, unspecified-celebrity-owned CCXR Trevita will run you \$24,000 per month for a 60-month term, after a down payment of \$650,000 (and taxes). More information can be found at www.luxuryleasepartners.com.

▼ **Lamborghini** has partnered with New York-based premium audio brand Master & Dynamic to create MW65 active noise-cancelling wireless headphones and MW07 Plus true wireless earphones, with design elements inspired by Lamborghini's sexy Italian supercars. The MW65 over-ear headphones have two modes of ANC to tailor sound to your environment, with Bluetooth 5.0 with a 100-foot connection and up to 24 hours of battery life. These are available in three color configurations—silver metal with light grey over yellow alcantara; black metal with black over yellow alcantara; and black metal with black over grey alcantara. (Alcantara, an Italian luxury upholstery material, is widely used in Lamborghini interiors.) The MW07 PLUS acetate earphones boast 10-mm Beryllium drivers for brilliant sound and a stainless steel

charging case providing 40 hours total battery life. These draw from Lamborghini's striking exterior finishes including matte paints and come in three colors: polished white with matte silver case; polished black with matte black case; and matte black with matte black case. All variants can be purchased online at lamborghini.com or MasterDynamic.com as well as at related European sites. ■

UPCOMING FEATURES

Arizona Auction Week 2021 results



Global YouTube sensation Sarah-n-Tuned of Tucson



Specialty and personalized plates primer



K1 Speed indoor kart racing



Toyota GR Supra 3.0



Lexus LC 500 convertible



Honda Civic Type R



Volkswagen Atlas 4Motion



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Shown: Vintage Iron Speed Shop Clock / SKU: 09-BKG-VI

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— Many thanks! Jackie B.

♥ I just had the most wonderful buying experience! I only hope my father asks for something from The Busted Knuckle Garage for Christmas so I can do business with such a wonderful company once more.
— Cheers! Michelle

♥ My husband just loves everything, especially me for getting him such cool stuff. I'd have to say we will be lifetime customers, oh ya!! Thank you, Greasemonkeys.
— Sincerely, Pam

♥ First, let me be the one thanking you! I honestly cannot remember such extraordinary customer service.
— Thanks again, "JR" Jean



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