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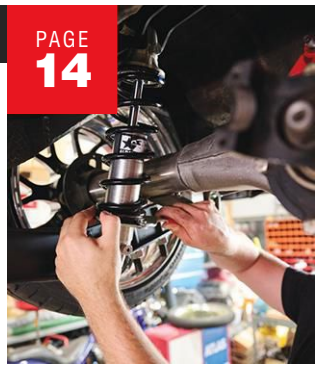
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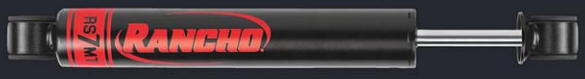
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Jef White
Editor in Chief
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Vehicle Personalization Part of Young Drivers' Budgets

Not only are younger drivers leading the charge when it comes to planning for car maintenance, but more are also budgeting for vehicle customization, according to the Hankook Tire Gauge Index.

The latest edition of the ongoing consumer survey indicates a shift toward financial preparedness, preventive maintenance and personalization, as Americans consider their automotive spending habits heading into 2025.

According to the Gauge Index, one-quarter (25%) of U.S. drivers say they plan and save each year for routine car maintenance and unexpected repairs. Additionally, 18% of drivers say they plan to create a dedicated maintenance budget for the first time this year.

The trend is especially evident among younger generations. Nearly one-third (31%) of Gen Z drivers and 29% of millennials report they regularly plan for maintenance costs, outpacing Gen X (23%) and baby boomers (16%).

Younger drivers are also embracing financial preparedness at a higher rate than their older counterparts, with 28% of millennials stating they will create a maintenance budget for the first time this year, compared to 16% of Gen Z drivers, according to the index.

As drivers plan for the year ahead, many are bracing for higher costs across several aspects of vehicle care:

- Overall, 44% of drivers expect to spend more than $500 on routine maintenance in 2025. More than one-third (36%) of Gen Z and 28% of millennials plan to spend over $1,000 on essentials like oil changes.
- More than half (54%) of all drivers expect to spend more than $500 on unexpected repairs. Similarly, younger drivers expect to spend even more—nearly half (47%) of Gen Z and 38% of millennials expect to spend over $1,000 on unexpected repairs this year.
- Nearly two-thirds (65%) of all drivers plan to replace one or more tires during the year. Among these drivers, 54% expect to spend up to $999 on replacements. The most common reasons cited for replacing tires include eroding tread (28%) and handling concerns (22%), emphasizing the importance of safety and performance.
- Finally, of importance to the aftermarket, vehicle personalization is becoming increasingly popular, with 55% of drivers planning to invest in aftermarket upgrades in 2025, according to the Gauge Index. Younger generations are especially drawn to customization, with 37% of Gen Z and 35% of millennials expecting to spend more than $1,000 on enhancements such as custom wheels or interior modifications.

Drivers' growing attention to vehicle care also extends to road trips. According to the index, 30% of drivers cited concerns about under-hood issues as a worry when preparing for a trip of 500 miles or more. On those trips, comfort is a top priority for nearly half (49%) of drivers when choosing a vehicle for long journeys, while 31% emphasize cost efficiency.

"These findings highlight the importance of balancing planned and unplanned vehicle expenses. With both preventive maintenance and budgeting a priority, drivers are increasingly recognizing the value of investing in vehicle care to avoid costly surprises and ensure safety and performance," says Brooklyn Emery, brand communications manager of Hankook Tire America Corp.

The Hankook Gauge Index is a survey of Americans' attitudes and opinions about driving. The latest survey conducted Dec. 10-14, 2024, polled 1,123 randomly selected Americans aged 18 and older. ***TS***

THE SHOP

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REPORTS & TRENDS

Snapshots of industry performance by the numbers.



The SEMA Future Trends 2025 market report looks to predict driving forces in the specialty automotive aftermarket.

A new year brings plenty of studies, surveys and analyses examining the industry from many angles. The following is a roundup of recent findings, as they relate to the specialty automotive aftermarket.

SEMA

FUTURE TRENDS POINT TO MARKET STABILITY

Recent research by the Specialty Equipment Market Association (SEMA) sheds light on future and emerging trends impacting the automotive aftermarket, a key driver of the American economy with a $337 billion economic impact annually.

The yearly SEMA Future Trends 2025 market report, designed to deliver critical insights to the association's 7,500 member businesses, projects stability and even some growth when looking at important market segments. Here are some of its findings:

Industry & Economic Outlook

What's trending: Moving further from the volatile pandemic era of sales growth spikes and downshifts, industry insiders expect to see a more normal growth rate of around 3%-4%, driven by:

- Increased consumer spending on vehicles.
- A jump in sales and revenue expectations as interest rates improve and inflation cools.
- Investments to diversify supply chains that pay dividends by preserving market stability.

Challenges emerge from stagnant vehicle costs and interest rates, coupled with consumers fiscally stressed by cost increases for auto insurance and repairs:

- Motor vehicle insurance jumped 14% for the 12 months preceding October 2024.
- Costs of motor vehicle repairs increased by 7.3% over the same period.

Tariffs are an X factor and could dramatically increase costs and exert pressure on the automotive aftermarket.

"A whole lot of our consumers took on vehicle projects and modifications during COVID, so you used up some of the demand that might have come a year or two later," says Gavin Knapp, SEMA director of market research. "Obviously, continuing inflation and high prices have also affected people, and there will be questions going forward about how long that will continue with possible tariffs and things like that. The expectation is we'll stay at current growth levels in



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Moving past the volatile swings of the pandemic era, the specialty automotive aftermarket expects a return to a "more normal" growth rate.

2025 and then return to our industry's usual 4%-5% growth rate next year and going forward."

Vehicle Trends in the U.S.

What's trending: Vehicle prices have stabilized, albeit at elevated levels, meaning continuously climbing inventory could drive down prices. In October 2024, the average transaction price for a new vehicle was $48,117.

Demand for electric vehicles (EVs) is predicted to stall, with manufacturers adjusting accordingly.

Meanwhile, more cars will be equipped with advanced driver-assistance systems (ADAS) and sensors, impacting how vehicle owners interact with their vehicles (including modifications and accessorizing).

"As of last year, vehicle inventories had been climbing for a while, but there hasn't been much demand," notes Matt Byun, SEMA market research manager. "If you keep getting cars on the lot, eventually you're going to have to start selling them. But the surprise is OEMs aren't lowering their costs. Instead, they're scaling back their production a bit."

Potential Tariff Impacts

What's trending: Tariffs are a looming specter, with the potential to increase costs for OEMs, parts manufacturers and consumers. Most of the exposure is likely to focus on small- and mid-sized parts manufacturers that rely on international supply chains for some of their components and materials.

- Prices for parts affected by tariffs would be more extreme because of supply chains built around imports from Mexico and Canada, both of which are highly integrated into the U.S. auto industry.
- Between 2020-23, prices for parts imported to the U.S. increased 9% due to higher prices for electrical and electronic equipment.

Tariffs disproportionately impact businesses that pay upfront for goods and services, with small- and medium-sized companies potentially experiencing cashflow issues, delayed payments and reduced capacity and inventory.

"It's important to understand how President Donald Trump has historically used tariffs, which he sees as negotiating tools to create leverage against other nations on issues unrelated to trade, like immigration and defense spending," says Karen Bailey-Chapman, SEMA senior vice president, public and government affairs. "Tariffs with big numbers, like 25% or higher, are often introduced by President Trump at the negotiating table, or even publicly, but he also has shown a willingness to withdraw or suspend them when a deal is within reach. As a result, what you see in the headlines does not always materialize."

Consumer Demographics

What's trending: America is getting older, but drivers are increasingly younger:

- There are more licensed drivers under the age of 25 today than there were two decades ago.
- Younger drivers are tapping into the used car market more frequently, due to rises in the cost of new vehicles.

Young people drive the automotive accessories market and tend to live more enthusiast-oriented lifestyles. More than 60% of specialty equipment sales in 2023 came from accessorizers under the age of 45.

"If you look at the nation's demographics, we are getting much, much older, and the 65-plus demographic is getting much larger," Knapp says. "How that plays for our market is interesting. It keeps more cars on the road because there are more drivers over time. But that older demographic is also a lower-spending segment for our market. They have money but are less likely to wrench on their car."

Alternative Powertrains & EVs

What's trending: Automaker investments in electric vehicle (EV) powertrains persist, but consumer demands are spurring cuts



EVs continue to be viewed as luxury products, with the high upfront costs outweighing incentives in consumers' minds.

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in EV production. EVs continue to be viewed as luxury products, with the high upfront costs outweighing incentives in consumers' minds.

"The EV hype has been a bit overblown and some of the electrification market's growth has shifted into hybrids," Knapp explains. "As Toyota Motor Corp. Chairman Akio Toyoda has said, for everything it takes to build one pure EV, you can make 10 hybrids, but it's still an open question whether hybrids are an interim step or a long-term play."

ADAS & Autonomous Vehicles

What's trending: While fully self-driving vehicles remain a long way off, ADAS features are becoming increasingly prevalent in Americans' vehicles.

For instance, while very few vehicles had automatic emergency braking capabilities in 2015, well over 90% of new vehicles from model year 2023 featured such systems. And automatic emergency braking, which was nonexistent before 2015, can now be found in more than 67 million vehicles on the road.

"ADAS is really affecting the vehicle market," Byun says. "There is a broad mass of cars and trucks already on the road that have these features onboard. For example, as of May 2018, all new OEM passenger cars and light trucks were required to have back-up cameras. In model-year 2022, more than 90% had collision warning systems."

Industry professionals can find the full SEMA Future Trends 2025 market report at: https://sites.sema.org/market-research/.

BRING A TRAILER

MARKET DIVERSITY DRIVES RECORD AUCTION YEAR

Automotive auction platform and enthusiast community Bring a Trailer (BaT) celebrated a milestone year in 2024, setting a new high-water mark with $1.5 billion in sales. The site also saw its highest volume of listings, with nearly 45,000 auctions featuring cars, trucks, motorcycles, memorabilia and parts.

"BaT continued evolving as a business in 2024—both as an organization and as a leader in the market," says Randy Nonnenberg, co-founder and president of Bring a Trailer. "This marked another banner year as we continued to grow while maintaining our overarching goals of bringing transparent auctions to enthusiasts and giving our community the opportunity to interact with special cars, their owners and subject matter experts."

The year saw BaT averaging more than 800 auction listings per week, with highs of over 1,000 on multiple occasions. The BaT community also continued to grow, gaining 219,000 new registered users and bidders for a total of 1.36 million users.

As more millennial and Gen Z buyers enter the market, the trend toward more recent classics grew in 2024, with vehicles from the 2000s leading the auction listings for the second consecutive year.

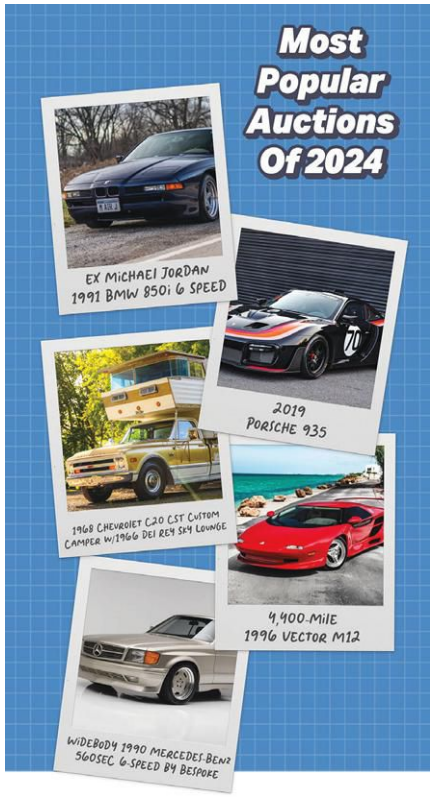
In order of volume, the most listed model years on BaT in 2024 were 2006, 2004, 2007, 2008 and 2005.

"We're seeing an increased interest in cars that mark the end of the analog era," says Nonnenberg. "Not only are some of these cars generational hallmarks for those born in the late 1980s and early 1990s, but their tactile nature and relative simplicity offer buyers a more driver-focused experience."

BY THE NUMBERS

Top 5 Most Popular Auctions in 2024:

1. Ex-Michael Jordan 1991 BMW 850i 6-speed
2. 2019 Porsche 935
3. 1968 Chevrolet C20 CST custom camper w/1966 Del Rey Sky Lounge
4. 4,400-mile 1996 Vector M12
5. Widebody 1990 Mercedes-Benz 560SEC 6-speed by Bespoke



Top 5 Car Sales by Price in 2024:

1. 2022 Bugatti Chiron Pur Sport – sold for $4,100,000
2. 2018 Bugatti Chiron – sold for $3,075,000
3. 85-mile 2022 Lamborghini Countach LPI 800-4 – sold for $2,500,000
4. Special-Roadster-Style 1934 Mercedes-Benz 500K – sold for $2,012,000
5. 1955 Mercedes-Benz 300SL Gullwing w/ Factory Rudge Wheels – sold for $1,825,000

Top 5 Motorcycle Sales by Price in 2024:

1. 1930 Indian Four – sold for $205,000
2. 1975 MV Agusta 750S America – sold for $151,000
3. Single family-owned 1932 Indian Four – sold for $135,000
4. 1955 Vincent Black Shadow – sold for $86,000
5. 137-mile 2022 Combat Motors P51 Combat Fighter – sold for $81,500



Online auction company and automotive community Bring a Trailer enjoyed a record sales year in 2024. (Photo & graphic courtesy Bring a Trailer)

Top Project Vehicles of 2024:

- Alloy-bodied 1965 Lamborghini 350 GT project
- 1967 Lamborghini 400 GT 2+2 project
- Stridsvagn 74 Light Tank project
- 1951 Chris-Craft Riviera 18-foot Runabout project
- c.1946 H.K. Porter Company 0-4-0 Steam Locomotive project

For more information visit bringatrailer.com.

COMMERCIAL VEHICLES

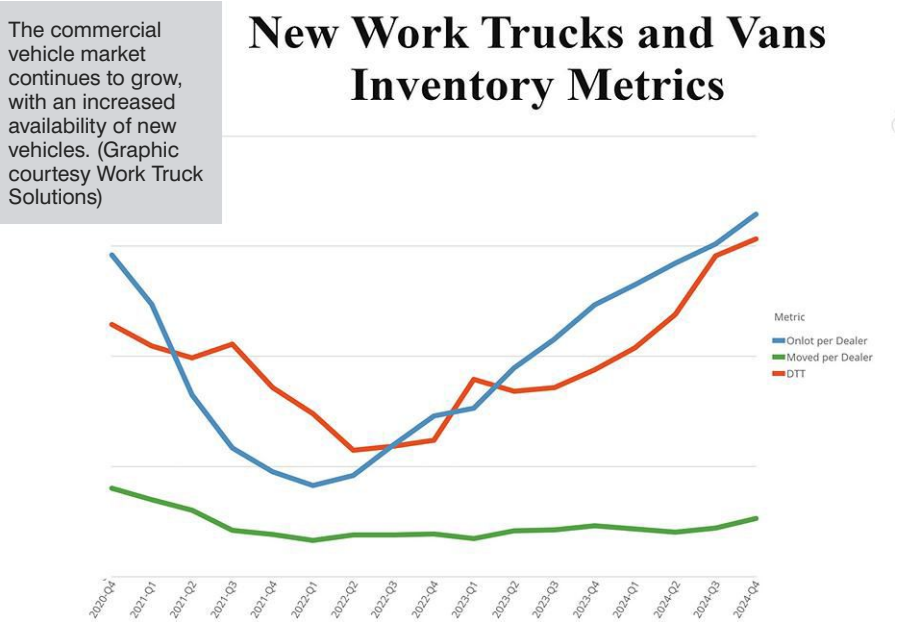
DEMAND FOR COMMERCIAL VEHICLES REMAINS STRONG

A new study from Work Truck Solutions shows that, in a year shadowed by regulatory uncertainty, the commercial vehicle industry has defied expectations. This year's analysis offers a detailed account of a year that saw increased new commercial vehicle sales in a market that remains dynamic and resilient amid challenges.

Work Truck Solutions' 2024 Annual Commercial Vehicle Market Analysis paints a nuanced picture of the commercial vehicle market's current landscape and trajectory. At the top of the list is the flatlining of new vehicle prices.

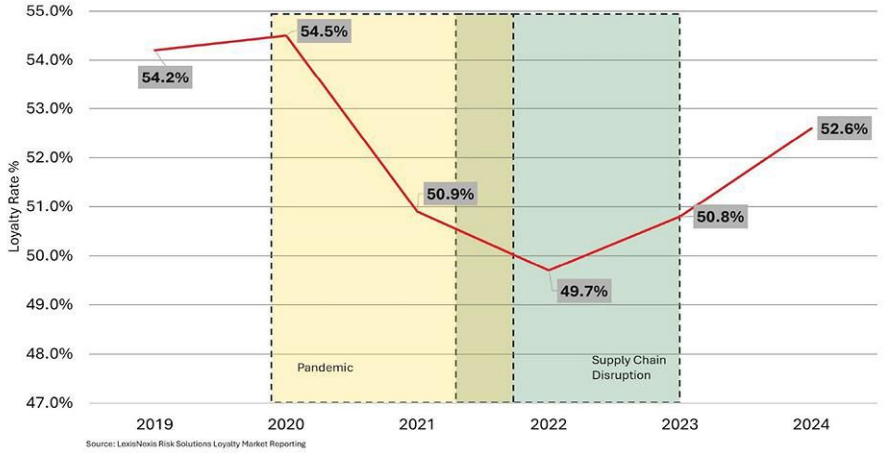
Despite various market dynamics, the cost to purchase new vehicles has remained consistent, reflecting a period of stability amid fluctuating economic conditions, according to the report.

Also of note is an increase in new vehicle availability. The uptick suggests OEMs have overcome supply chain bottlenecks, resulting in a replenished stock of commercial vehicles.



The commercial vehicle market continues to grow, with an increased availability of new vehicles. (Graphic courtesy Work Truck Solutions)





A study showed that U.S. consumer automotive brand loyalty increased in 2024, trending toward pre-pandemic baselines. (Graphic courtesy LexisNexis Risk Solutions)

"Right now, the commercial vehicle business is where F&I was for dealers 10 or 12 years ago; not all dealers were in it. They weren't depending on F&I for profit," explains Jim Press, former COO of Toyota North America, and current senior adviser for Work Truck Solutions. "Now, they're beginning to see that commercial business is the next big income producer, because it provides revenue, multiple sales and increased fixed operations. This is a time for dealers to embrace technology to increase their profit margins, their customer retention and penetration of the commercial business in their market area."

The report does show that these positive developments come with a twist: the Days to Turn (DTT)—the time it takes for a vehicle to be sold once on-lot—has also increased. In what may seem counterintuitive against the backdrop of increased DTT, sales of new commercial vehicles have actually surged.

This suggests that, despite a longer dwell time on dealers' lots, the demand for commercial vehicles is robust and that competition for commercial customers is heating up.

"The commercial vehicle market continues to see demand for work trucks and vans, with many commercial dealers looking to level up their digital presence and maximize online merchandising tools," says Aaron Johnson, Work Truck Solutions CEO. "For those previously focused only on the retail market, it's a time to look at the B2B sector as an opportunity and a path to another revenue stream, and one that's quite strong."

New Commercial Vehicles in 2024

- Movement, or sales, of new vehicles increased appreciably, up 19.4% quarter over quarter and 14.2% year over year.
- Average new vehicle prices were flat, with virtually no change QoQ, and a 1.1% increase YoY.
- On-lot per dealer work truck inventory continued to grow, up 8.9% QoQ and a significant 33.1% YoY.
- Average Days to Turn (DTT) for new vehicles continued climbing with a 5.3% QoQ increase and a rise of 62.9% YoY.

Used Commercial Vehicles in 2024

- Sales increased 1.3% in Q4, but decreased 2.6% YoY.
- Median mileage of used work trucks and vans rose 3.7% QoQ and 9.4% YoY.
- Average used vehicle prices decreased 3.9% QoQ and 10.8% YoY.
- On-lot inventory remains the same QoQ, but is down 10.8% YoY.
- Average DTT decreased by 3.5% QoQ and showed an 11.4% drop YoY.

Although new vehicle sales are improving, it's still too early in the vehicle life cycle for used vehicle on-lot inventory to be increased by trade-ins, the report noted. It's likely that it will be some time before used on-lot numbers begin to rise.

For commercial vehicle shoppers, the overall new vehicle trends suggest that the availability and prices of used inventory will continue to decline in 2025.

COMMERCIAL BATTERY ELECTRIC VEHICLES (BEVS) IN 2024

In the alt-fuel category, data has become statistically relevant, and Work Truck Solutions shared its fledgling BEV data from last year:

- Average new commercial BEV prices increased 2.3% QoQ, but fell by 8.6% YoY.
- Average used commercial BEV prices fell by 1.3% QoQ and 21.6% YoY.

"The commercial BEV sector is still in the relatively early stages," says Johnson. "Many businesses have been struggling with fleet plans as they continue to monitor technological advancements, infrastructure development and recent election results. However, we have seen growth in the alt-fuel commercial vehicle segment, which is also why we recently launched the CEV Hub with tools for businesses to assess their potential for transition to BEVs."

BRAND LOYALTY

BRAND LOYALTY INCREASED IN 2024

A recent study released by insurance and automotive data and analytics provider LexisNexis Risk Solutions showed that U.S. consumer automotive brand loyalty increased in 2024, trending toward pre-pandemic baselines.

The study also examined shifting consumer preferences regarding engine type, as traditional reliance on internal combustion engines (ICE) dropped slightly in favor of hybrid and electric propulsion.

Key takeaways of the study include:

- The automotive brand loyalty rate rose 1.8% in 2024 to 52.6%, approaching the pre-pandemic benchmark (54.2%) observed in 2019.
- Out of the 47 brands analyzed, 11 surpassed the industry average in brand loyalty, improving over 2023 findings where only nine brands achieved the same result.
- As consumers transition to EV and hybrid powertrains, legacy ICE powertrains have steadily fallen since 2019 (97.6%) to 85.2% in 2024.

To track fuel type migration, LexisNexis Risk Solutions studied new vehicle owners who replaced one new vehicle with another. Fuel type loyalty was determined when the fuel type of the replaced vehicle matched that of the new one.

- ICE loyalty dropped from 97.6% in 2019 to 85.2% in 2024. Compared to 2019 (97.6%), ICE has fallen 12.4 percentage points.
- Electric vehicle loyalty saw a slight dip, declining from 77.7% in 2023 to 74.7% in 2024.



While affordability remains a headwind for many consumers seeking new or used vehicles, the industry's upward trend in brand loyalty is a positive signal of brand strength.

- Hybrid vehicle replacements jumped 5 percentage points from 2023 to 52% in 2024.

"In light of 2023, the increased inventory on dealer lots is providing consumers with a wider range of options, which is a significant shift from the challenges they faced in 2023, when limited supply often led to brand switching," says Dave Nemtuda, AVP, Connected Car, LexisNexis Risk Solutions. "While affordability remains a headwind for many consumers seeking new or used vehicles, the industry's upward trend in brand loyalty is a positive signal of brand strength. This is especially critical as automakers navigate rising inventories and evolving consumer preferences, particularly toward EV and hybrid powertrains in the post-pandemic market."

DEALERSHIPS

HAVE US VEHICLE SALES REACHED 'PEAK TRUCK' LEVEL?



Dave Cantin Group presented its biannual Market Outlook Report predicting the U.S. auto industry has reached "peak truck" level. (Graphic courtesy Dave Cantin Group)

A study released during the 2025 National Automobile Dealers Association (NADA) conference predicts the U.S. auto industry has reached its "peak truck" level.

Automotive mergers and acquisitions advisory company Dave Cantin Group presented its biannual Market Outlook Report (MOR), presented in partnership with Kaiser Associates.

The report delivered a comprehensive analysis and forecast of the automotive climate headed into 2025 by combining Dave Cantin Group's automotive research and data with Kaiser's industry analysis.

"The Dave Cantin Group Market Outlook Report identifies and reports on key industrywide trends and issues that auto dealers, consumers and the global industry are facing headed into 2025," said Dave Cantin, president and CEO. "Last year, the industry found its new normal, post-COVID. That's all out the window as we start 2025, because of U.S. and global uncertainty around politics and regulations. Our report identifies and explores the key trends and issues dealers need to understand as they make strategic business decisions in an uncertain environment."

MOR is based on data from a variety of current sources, including unique research and modeling, as well as surveys and interviews conducted among U.S. consumers, dealership executives, OEMs, supply chain players and industry analysts, report officials explain in a press release.

Key takeaways include:

We're at Peak Truck: "U.S. consumer preferences are finally moving away from trucks and SUVs toward more affordable sedans, driven by concerns over vehicle affordability. This trend promises to challenge manufacturers lacking competitive sedan offerings."

Korean Automakers Are Making Gains: "Consumer preference for Korean brands is outpacing all others; they have achieved a balance of product design, technology, pricing and reliability, leading to increased market share and positive consumer sentiment. The improvements and affordability have found a sweet spot with consumers."

Hybrid & Electric Vehicles Have Arrived: "Last year, this report said EVs would be just fine, now we're saying they are undeniably here to stay. Together, hybrid and electric vehicles are undeniably a growth driver and with dealers becoming more receptive to selling these models, we can expect the combined segment to continue to steadily gain market share for the foreseeable future. This growth is supported by maturing infrastructure, decreasing battery costs and new battery chemistries, potentially leading to the launch of lower-cost EVs in the coming years. It has also driven surprisingly strong fixed operations for dealers."

Technology Will Drive Top- and Bottom-Line Growth: "Fresh out of CES 2025, it's clear that the automotive industry is experiencing a technological renaissance, with innovations in vehicle features helping to reignite consumer excitement. Technology is also driving more efficient dealer operations in every part of the store as dealers implement and use new technologies, such as AI and robotics, efficiently to drive profitability."

Consumer Sentiment Is Ruling the Market Until the Political & Regulatory Environment Becomes Clear: "There's a bullish sentiment around automotive, but the unpredictability of political decisions—particularly regarding U.S. trade policies and tariffs, as well as any retaliatory actions—is creating challenges for the automotive sector. Post-COVID predictability just returned and now manufacturers and dealers must navigate this political uncertainty to make informed strategic decisions."

Global Nationalistic Competition Intensifies: "International competition is intensifying, with foreign governments providing substantial support to their automotive industries (think China, Korea, Japan, Germany). This dynamic poses challenges to a U.S. automotive industry without similar government backing and whose new president previously criticized U.S. government intervention."

White-Glove Dealer Service Gains Prominence: "Dealers are introducing premium, personalized services—such as at-home mobile service and prime appointment times—to enhance customer satisfaction, increase customer retention, differentiate themselves in a competitive market and drive more revenue."

The full report is available online at: davecantingroup.com/getmor. ***TS***

PERFORMANCE

Clutches p. 20 / Performance Products p. 28

A Feel FOR THE ROAD

By Jef White

Today's performance street suspensions deliver quality & control.

For auto enthusiasts, nothing is better than climbing behind the wheel of a vehicle that provides immediate feedback and complete control. Whether racing into the next turn or cruising down the highway, a true connection between car and driver goes far beyond simply steering in a chosen direction.

Quality aftermarket street suspension systems enhance that relationship between man/woman and machine, offering ride, handling and even safety improvements. For shops, they are vital upgrades to popular Pro-Touring projects, taking any vehicle's feel for the road to the next level.

Technological advancements and new system designs means there's always something happening in the street suspension market. Suppliers offer professional updates on industry trends, the hottest new components and sales tips for shops looking to provide an enhanced motoring experience.

CHANGING WITH THE TIMES

Many of today's street suspension systems are designed with the goal of making traditional hot rods more appealing.

"While there will always be a place for factory restored automobiles, the recent restomod craze of converting older muscle cars and classics to a more modern suspension setup is really driving this segment," says Scott Adcock, creative services manager for Specialty Products Company (SPC Performance). "Most of these cars were originally



Just about any restored vehicle built to be driven hard can benefit from a quality suspension upgrade. (Photo courtesy Ridetech)

designed to work with bias-ply tires and, with all the upgrades being done to other parts of the car, it only makes sense to have a vehicle that drives as well as it looks while taking advantage of today's modern tire technology."

Gary Nelson, who performs R&D for Aldan American, traces the market back to the 1970s, when tire technology advanced to the point that factory suspensions originally designed for those bias-ply tires became outdated.

"Today's automotive industry produces far more advanced vehicles compared to those of the 1960s and '70s. Take the 1965 Mustang, for example—while it was an incredible car in its time, imagine what a modern buyer would think of it today," says Nelson. "Our customers expect modern performance from their vintage hot rods and muscle cars. We've developed bolt-on kits that upgrade classic cars to meet the demands of today's high-performance tires. Plus, the ability to fine-tune the stance is a major advantage."

STREET SUSPENSION PRODUCTS

■ **HOT PRODUCTS:**
Bolt-On Adjustable Coil-Over Kits
■ **FEATURES & BENEFITS:**
American manufactured for more than 40 years for American hot rods and muscle cars; designed for DIYers and professionals; grade 8 hardware includes factory-style washers and mechanical lock nuts; shocks and laser-cut brackets built in-house.
Aldan American
Gary Nelson
R&D Development

■ **HOT PRODUCTS:**
Bolt-On Performance Coil-Over Systems
■ **FEATURES & BENEFITS:**
Available for late-model cars and trucks; adjustable ride height; monotube Fox Factory coil-overs; adjustable damping; adjustable 24-position rebound; improved ride quality and sharper handling; bolt-on installation; made in the USA.
Ridetech
Jason Brady
Marketing Coordinator

■ **HOT PRODUCTS:**
Adjustable Upper Control Arms
■ **FEATURES & BENEFITS:**
Available for muscle cars including a variety of GM applications; designed to adjust the camber and caster settings without having to deal with the old shims or arm removal; arms feature a ball stud that is 1/2-inch taller than stock to improve camber curve.
Specialty Products Company (SPC Performance)
Scott Adcock
Creative Services Manager

■ **HOT PRODUCTS:**
Pro-Touring Suspension Packages
■ **FEATURES & BENEFITS:**
Available for Novas, Camaros, Mustangs and pickups; offer the ride and performance of a late-model vehicle; competitive edge for real street cars in Drag & Drive and autocross events; lightweight design improves braking performance and fuel mileage.
Total Cost Involved
Jason Wilcox
Marketing Supervisor



Yokohama Tire is the Official Tire of Mustang Cup, a new six-round race series sanctioned by USAC. (Photo courtesy Yokohama Tire)

YOKOHAMA NAMED OFFICIAL TIRE OF NEW MUSTANG CUP SERIES

Yokohama Tire is the Official Tire of Mustang Cup, a new six-round race series sanctioned by USAC.

The series debuts April 11-13 at NOLA Motorsports Park in Avondale, Louisiana. Each 500-plus-hp Ford Performance-engineered Mustang Dark Horse R will drive on Yokohama's ADVAN A005 slicks or A006 wet racing tires, according to a press release announcing the partnership.

"Yokohama is proud to be the exclusive spec tire and supplier for the inaugural Mustang Cup season," says Andrew Briggs, Yokohama Tire's VP of marketing and product management. "This new partnership with Ford Performance highlights our shared commitment to motorsports excellence. It's exciting to see how our ADVAN A005s enhance the performance and handling of the extraordinary Mustang Dark Horse R."

Unique to Mustang Cup is an optional two-driver format. Each race in a doubleheader format will count toward separate championships—the Miles Cup and the Parnelli Cup—allowing two-driver teams to pursue separate championships or one driver to compete in both.

Each Mustang Cup stop on the schedule will feature two 15-minute qualifying sessions and two 40-minute races with one qualifying session and one race dedicated to each championship.

"We are very excited to continue our long-standing partnership with Yokohama Tire as the exclusive tire provider for the new Mustang Cup Series," said Kevin Miller, president & CEO of USAC. "Yokohama has consistently delivered exceptional performance, reliability and innovation, which are critical to the competitive edge and safety of our drivers. Their commitment to excellence aligns perfectly with the spirit of the Mustang Cup, and we look forward to building on this collaboration as we embark on this exciting new chapter."

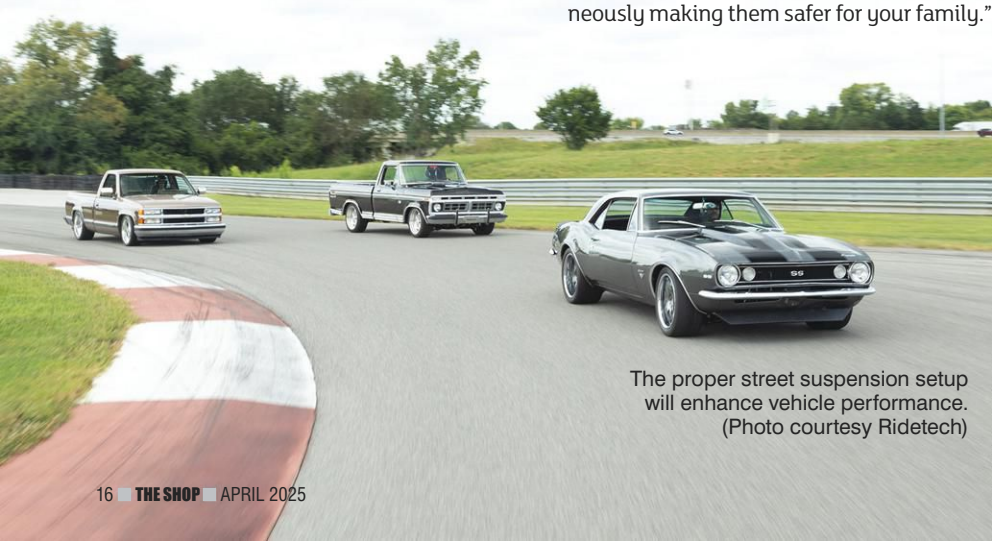
The 2025 Mustang Cup schedule:

- April 11-13, NOLA Motorsports Park, Avondale, LA
- May 16-18, Circuit of The Americas, Austin, TX
- July 4-6, Ozarks International Raceway, Gravois Mills, MO
- Aug. 8-10, Road America, Elkhart Lake, WI
- Oct. 17-18, Lime Rock Park, Lakeville, CT
- Nov. 7-9, Virginia International Raceway, Alton, VA

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The technology that goes into quality Pro-Touring suspension systems is ever-evolving, spurring constant research and development, says Jason Wilcox, marketing supervisor for Total Cost Involved.

"In just a few short years we have seen a huge influx of dual-clutch transmissions, traction control and even ABS on these old cars and trucks," he observes. "This constant evolution has helped raise the bar on what these old vehicles can achieve while simultaneously making them safer for your family."



The proper street suspension setup will enhance vehicle performance. (Photo courtesy Ridetech)

Of course, the market isn't all older vehicles. Jason Brady, marketing coordinator for Ridetech, explains his company's street suspension systems can be found as standard equipment on recent specialty builds such as the 2024 Shelby F-150 Super Snake and the Hennessey MAMMOTH 400 Ram Sport Truck.

He notes that more than 5.3 million new full-size truck platforms across the Big Three were purchased over the past three years, providing a fertile market.

"Each year, some of these vehicles end up coming out of their manufacturer dealer warranties as well, opening up the likelihood that they'll start to see performance modifications," he says.

COMPLETE CONTROL

As more and more builders turn to street



Wally Logan's 1970 C10, built by Barry's Speed Shop, is an example of the drive-hard nature of today's street suspension customers. (Photo courtesy Total Cost Involved)



Technological advancements spur constant product research and development. (Photo courtesy Total Cost Involved)

suspension setups, the market naturally attracts additional suppliers. Reputable companies warn shops of the detriments of low-quality systems.

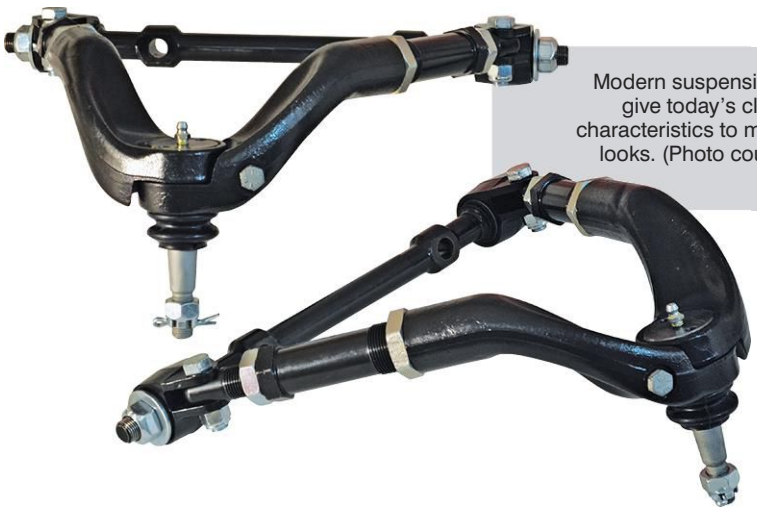
"Understanding the full scope of what's available, ensuring the components work as intended and having confidence in the brand they're selling is crucial," says Nelson. "That's why reliable support, fast shipping and well-designed kits—like Aldan's—make a difference in helping shops deliver quality results without unnecessary headaches."

Brady notes that the proper setup will enhance overall vehicle performance.

"A common misconception performance shops face when selling or installing modern street suspension systems is that all aftermarket lowering systems have a poor ride quality and decrease load capacity of the vehicle," he says.

Adcock offers a list of performance upgrades these setups provide to convert nonbelievers:

- Adjustment is far easier than shimming.
- Taller ball joints allow for improved suspension/steering geometry.
- Systems are readily adaptable for transplanted front "clips," which may not be located quite right and have caster issues.
- The complete suspension and steering package is designed to work correctly together.



Modern suspension components give today's classics handling characteristics to match their good looks. (Photo courtesy Specialty Products Co.)

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A Feel FOR THE ROAD

HEMMINGS TEAMS WITH CHIP FOOSE

Collector car marketplace Hemmings announces a partnership with renowned automotive designer and builder Chip Foose.

The collaboration brings together two respected names in the collector car world to deliver exclusive content, expert insights and new opportunities for automotive enthusiasts, according to a press release announcing the collaboration.

"We're thrilled to welcome Chip Foose to the Hemmings family and look forward to working with him to strengthen and support people's enjoyment of car collecting," said Jonathan Shaw, president of Hemmings. "His deep passion for cars, design expertise and connection with enthusiasts make him the perfect person to help us elevate Hemmings among the collector car community."



Collector car marketplace Hemmings is partnering with automotive designer and builder Chip Foose. (Photo courtesy Hemmings)

As part of the partnership, Foose will curate "Chip's Picks," a monthly selection of standout vehicles for sale on hemmings.com that he identifies as exceptional finds.

He will also contribute unique content to Hemmings, sharing his expertise in design, restoration and investment-worthy automobiles, the organization reports.

Hemmings and Foose will also partner on key initiatives to enhance the collector car community, provide enthusiasts with valuable resources and develop exclusive collaborations.

"Hemmings is the original go-to resource for car enthusiasts and I'm excited to be part of its continued growth," said Foose. "I look forward to sharing my perspective on the market, helping collectors find great cars and working together to support this incredible community."

This article originally appeared online at theshopmag.com. Visit today and sign up for the free daily e-newsletter.



Customers often expect modern performance from their vintage hot rods and muscle cars. (Photo courtesy Aldan American)

"Adjustments not possible with OE parts are now possible, such as positive caster for older cars, which were designed for low/negative caster due to bias-ply tires and lack of power steering," he says.

The ability for drivers to use—and sometimes abuse—these systems is a market catalyst, Wilcox notes.

"The one thing that the last 20 years has shown is our primary customers want to use their vehicles, not just have them sit in a climate-controlled garage," he says. "That means we have to make sure our parts are capable of pretty much everything. Otherwise, we pigeonhole ourselves with 'Race Only' or 'Not Recommended for Race Use' parts. We have found an excellent middle ground with parts and setups that can be used for anything from daily commuters to competitive track cars."

UP & RUNNING

Shops can be confident selling the latest street suspension parts and systems because the upgrades really do improve performance, safety and handling characteristics.

"Many shops are not aware that an adjustable upper control arm is available," says Adcock from SPC Performance. "In addition, excellent selling points are that the arms can be adjusted while on the car, without removal and without using shims, and the clearance gained from the original shim configuration is a plus with vehicles that require additional header clearances."

The ability to quickly get the kit they need with the confidence to know it will work as expected helps shops stay productive and ahead of projects.

"Profitability is also key, which is why having the option to buy through a local WD or directly from the manufacturer at a fair profit margin is crucial to keeping the lights on," says Nelson from Aldan American. "We have strong distrib-





Quality products will improve appearance and performance. (Photos courtesy Aldan American)

utor partnerships and offer direct wholesale pricing to qualified retailers and shops. Our team is available to provide both technical support and dealer assistance. Additionally, our website features a comprehensive product catalog, along with an online catalog link for easy research—and, for those who prefer a physical copy, we still offer printed catalogs upon request."

For shops looking to get involved with the market, the first step is just that—getting involved, says Wilcox from Total Cost Involved.

"Build some cool vehicles that will make a statement about your potential. The firsthand knowledge gained from enjoying a properly suspended vehicle will provide real emotion to potential customers," he says. "Take those vehicles to events, engage in conversations, listen to people and build long-term relationships. We call them 'raving fans' and if we've done our job properly, that's exactly what they'll be. I have worked somewhere around 500 shows over the last two decades and the highlight for me is hearing the build stories from customers."

Finally, a real-life example will help develop trust from first-time buyers, says Ridetech's Brady.

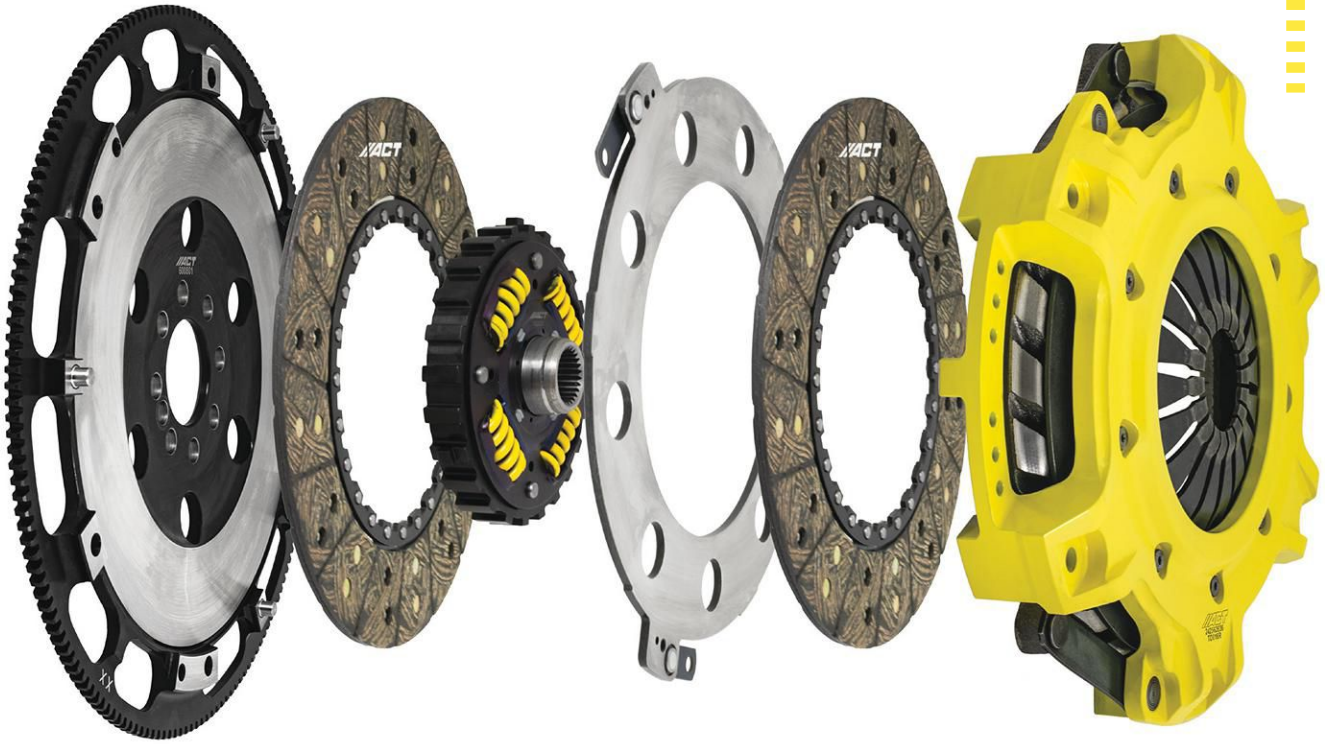
"Build a shop vehicle to give customers a firsthand experience using the product you sell," he recommends. ***TS***



The World at Your Feet

The performance clutch market keeps that third pedal going strong.

BY JOHN CAROLLO



There is a "loud pedal" in performance cars and a "whoa pedal." If those are the gas and brake pedals, respectively, what is the nickname of the clutch pedal?

Most people call it the "third pedal," and professionals understand it can help shift them to a better bottom line. Why? Because clutches and their related parts are a big constant in the street and racing industries, even if you don't see them nearly as often in today's passenger vehicles.

Big horsepower numbers and the dual demands of the street and racetrack are driving the modern performance clutch market. Suppliers offer updates on other industry influences, plus selling tips and hot new parts to give that third pedal the attention it deserves.

HOLD THE HORSEPOWER

Several key factors are currently driving the performance clutch aftermarket.

"One is the growth of motorsports and enthusiast communities—Formula Drift, Time Attack and drag racing are gaining traction, increasing demand for high-performance clutch systems," says Rich Barsamian, vice president sales & marketing for Advanced Clutch Technology. "Grassroots motorsports and track day events encourage enthusiasts to upgrade from stock clutches."

But it doesn't end there. Barsamian identifies other driving factors, including:

Highlighting features and benefits such as maintenance and longevity can help secure performance clutch sales. (Photo courtesy Advanced Clutch Technology)

- Rising power and torque levels in modern vehicles.
- Aftermarket performance boom (tuning culture).
- Growing off-road and overlanding segments.
- Electric vehicle and hybrid influences.
- Stricter emission regulations and manual transmission preservation.
- Social media and content creators driving trends.

While the automotive landscape may be

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CLUTCH PRODUCTS

■ **HOT PRODUCT:**
10.5-Inch Mod-Twin Clutch
■ **FEATURES & BENEFITS:**
Available for domestic applications; 225mm Mod-Twin Clutch serves the sport compact market; holds high power up to 1,500 pound-feet of torque at the crank; better pedal feel than stock; handles high heat temperatures and hard launches.

Advanced Clutch Technology (ACT)
Rich Barsamian
Vice President Sales & Marketing

■ **HOT PRODUCTS:**
Hyper Series Clutches
■ **FEATURES & BENEFITS:**
High transmitted torque; high heat resistance; quick acceleration response; handle a lot of power and last a long time; rebuildable; many twin-plate clutches can be upgraded to triple plates.

Exedy Globalparts Corp.
Teddy Jernigan
Technical Coordinator

■ **HOT PRODUCT:**
Solid Street Twin (SST) Clutch
■ **FEATURES & BENEFITS:**
Entry-level twin disc with high holding capacity at an attractive price point; anti-rattle floater system; discs with solid hubs for more positive engagement; street friendly; includes a lightened steel flywheel; holds up to 925 pound-feet of torque.

Centerforce Clutches
Trent McGee
Marketing Manager

■ **HOT PRODUCT:**
9000 Series Twin Disc Clutch
■ **FEATURES & BENEFITS:**
New for the 2024-25 Dark Horse Mustang; light aluminum flywheel, hydraulic bearing and hardware included; torque capacity good for 820 pound-feet at the tires; drives like the OE clutch in effort and ease of drivability; lighter mass to rev up quicker.

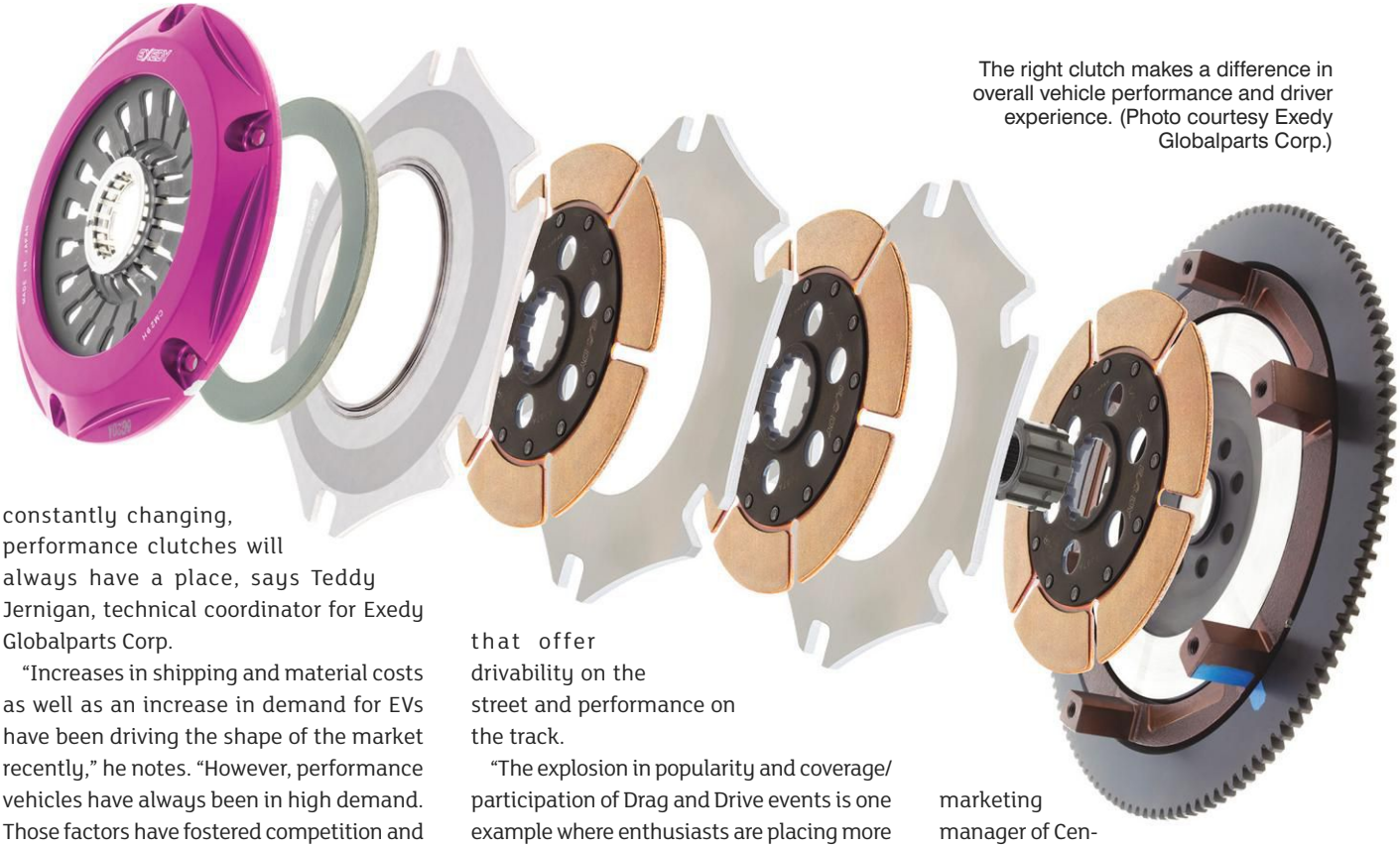
Mantic Clutch USA
Geoff Gerko
Owner

■ **HOT PRODUCT:**
Concept 10.5 Dual-Disc System for Mustang GT350
■ **FEATURES & BENEFITS:**
All-inclusive packages include all components and a RAM hydraulic bearing that provides a more linear and much better pedal feel and release point than the factory hydraulic slave cylinder; sprung hub top disc helps dampen initial engagement.

RAM Clutches
Mike Norcia
Marketing Manager

■ **HOT PRODUCTS:** Competition Clutch 184, 200 & 245 Series
■ **FEATURES & BENEFITS:**
Performance clutch lines; 184 and 200 Series are billet design available in single-, twin- and triple-disc variations with a holding capacity up to 2,500 hp; new 184 Series clutches have already set new speed and ET records.

Wharton Automotive Group
Will Baty
Off Road/Engineering Specialist/ Product Development/Sales



The right clutch makes a difference in overall vehicle performance and driver experience. (Photo courtesy Exedy Globalparts Corp.)

constantly changing, performance clutches will always have a place, says Teddy Jernigan, technical coordinator for Exedy Globalparts Corp.

"Increases in shipping and material costs as well as an increase in demand for EVs have been driving the shape of the market recently," he notes. "However, performance vehicles have always been in high demand. Those factors have fostered competition and innovation, and because of this, consumers will find more options than ever in the performance clutch market."

Many of today's performance clutch customers are seeking versatile setups that offer drivability on the street and performance on the track.

"The explosion in popularity and coverage/participation of Drag and Drive events is one example where enthusiasts are placing more and more emphasis on performance parts that will get them quicker ETs, but also be able to withstand hundreds of road miles and be mild-mannered enough to be at least somewhat streetable," says Trent McGee, marketing manager of Centerforce Clutches, a division of Midway Industries. "In the clutch world, this is a challenging set of demands to meet—being able to provide the holding capacity of high-horsepower applications





Many drivers want the visceral connection with the vehicle they get through a manual transmission. (Photos courtesy Mantic Clutch USA)

while still providing the drivability needed for street use. Autocrossing is also extremely popular these days. These are among the reasons why we've seen a big rise in the popularity of our twin-disc product lines."

A trend in upgrading to 5- and 6-speed manual transmissions is also increasing demand, says Mike Norcia, marketing manager at RAM Clutches.

"This could be folks restoring older cars and doing upgrades to the driveline or just cars being built from scratch. We are also seeing a huge increase in Drag and Drive cars using manual transmissions."

Many drivers love an upgraded clutch because the products make a noticeable difference, says Will Baty, off road/engineering specialist/product development/sales at Wharton Automotive Group, which includes McLeod Clutches, FTI Performance, Silver Sport Transmission and Competition Clutch.

"There are several factors contributing to the demand of a performance clutch. Some are simply inadequate OEM clutches," he says. "From A to Z, the industry has found ways to build and produce engines that achieve power levels that far exceed the OEM clutch capabilities."

And let's not forget, they're just plain fun.

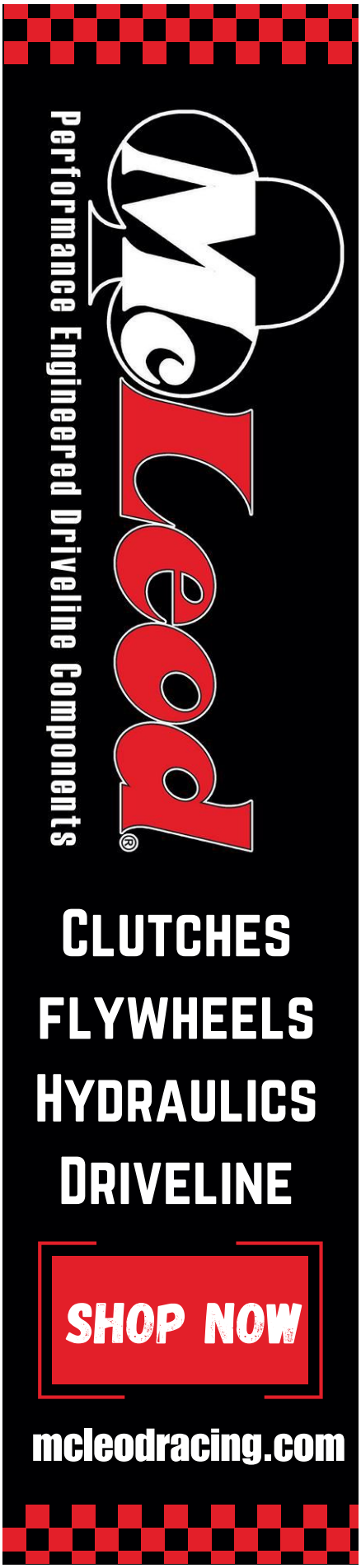
"More people are seeking more manuals to drive for the experience—the visceral connection with the vehicle," says Geoff Gerko, owner of Mantic Clutch USA.

ACCURATE INFORMATION

McGee notes that, years ago, auto-related magazines were a main source of information about the performance clutch market. That role now goes mainly to content creators and social media influencers.

And, while interest and excitement are high, the information being shared may not always be 100% accurate. That makes the shop's role as a local clutch expert even more vital.

"In terms of selling, it's extremely important to educate the customer about



The World at Your Feet



It's important to educate customers on the benefits and potential drawbacks of various performance clutch designs. (Photos courtesy Centerforce Clutches)

the benefits and potential drawbacks of various performance clutch designs," McGee explains. "For example, a twin-disc clutch is going to be a little noisier and may be a bit 'grabbier' than a traditional single-disc clutch, but they can offer double the holding capacity. Managing a customer's expectations is an important factor in the selling process."

As such, shops need to be asking questions regarding the driver's plans.

"The most common mistake shops make when selling or installing a performance clutch is selling the wrong clutch for the application. Many shops focus only on horsepower and torque ratings, ignoring other critical factors like driving style, vehicle weight, gearing and intended use (street, track, off-road, etc.)," says Barsamian. "Customers often end up with a clutch that's too aggressive for daily driving or too weak for high-performance use, leading to complaints about drivability, premature wear or failure."

Gerko warns against shops "choosing the wrong clutch for the application" and "not getting enough torque capacity for the power goal" as common issues to avoid.

Norcia recommends being intentional when quizzing potential customers about their applications and expectations.

"If we don't properly understand how the customer intends to use the vehicle and how they want the car to drive, it is very easy for them to purchase the wrong parts and not be happy with the end results."

That can also carry over to installations, such as not taking time in the beginning to measure and fit the clutch to the car, he adds.

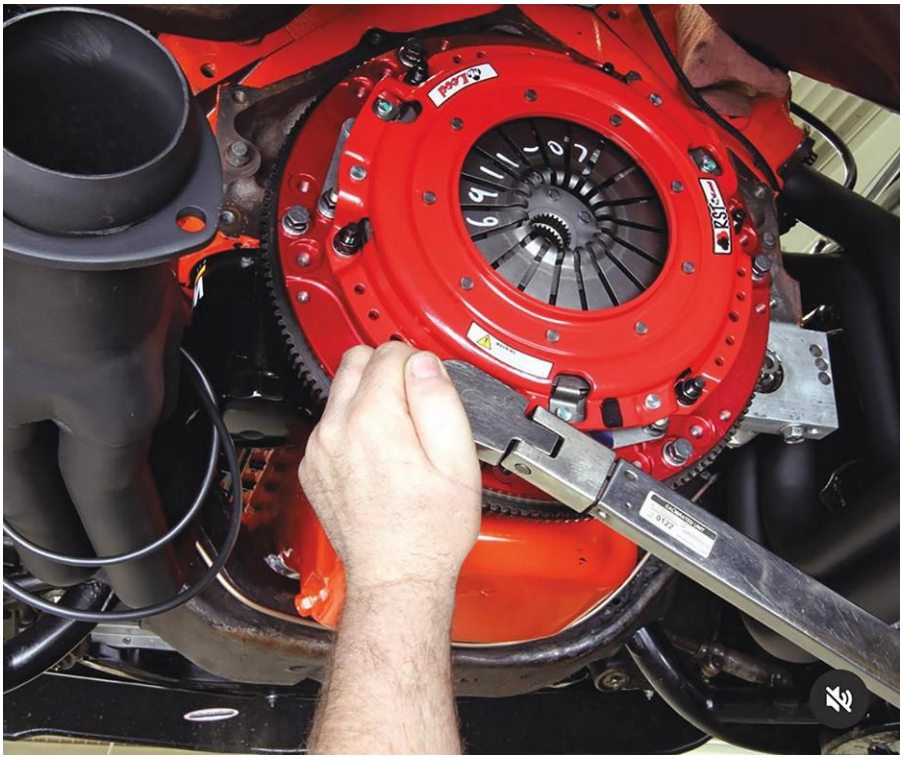
"Aftermarket clutches, along with transmission swaps, are not always bolt-in items, and with today's internal hydraulic slave cylinders or aftermarket hydraulic bearings, it is critical to get the setup height correct to avoid having to go back in a second time and troubleshoot the installation," Norcia explains.

Jernigan notes that when selecting the



proper clutch, some of the decisions that need to be made include single or multi-plate, sprung hub or rigid disk, and organic or metallic friction.

"Understanding the torque output and intended use of the vehicle are the keys," he says, providing an example. "I was recently contacted by a shop that installed a Hyper Twin Disc in a mostly stock vehicle. Their customer was having difficulty shifting at low rpm without stalling the vehicle and this led to them shifting at high rpm and eventually the transmission input shaft broke. The



Today's performance engines achieve power levels that far exceed the OEM clutch capabilities. (Photo courtesy Wharton Automotive Group)

clutch was engaging too hard for the stock drivetrain. I helped them to choose a Stage 1 organic clutch that was a much better fit for the vehicle."

One positive, Baty says, is that when issues arise, retailers and installers don't have to go it alone.

"Regardless of product, we believe a shop should truly know the components they are providing and, more importantly, know the overall intended use of their customers' builds," he says. "We are only a phone call away if a shop needs any additional guidance when suggesting products for their customer's vehicle. Work with us to help provide the correct product."

A PERFECT MATCH

When it comes to sales strategies for performance clutch systems and components, professional speed shops begin in a good place knowing the upgrades will make a real difference.

"Always stress to customers that the right performance clutch will perform better than an OE clutch. It can take advantage of the lighter mass. You just have to choose the right one," says Gerko from Mantic Clutch USA.

Exedy's Jernigan says that, while a clutch may not affect the torque output of the engine, it can make a big difference in overall performance and driver experience.

"Many stock clutches operate at or very near their limit, so depending on the vehicle, even a minor performance upgrade would benefit from a performance clutch," he says.

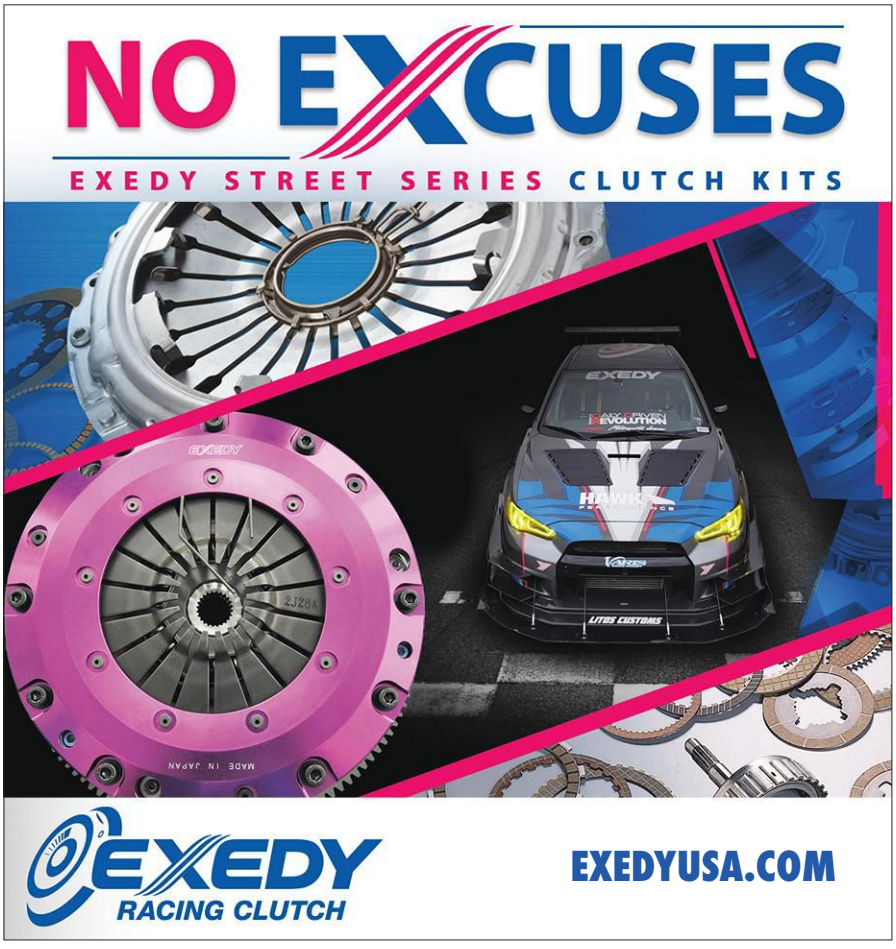
Baty from Wharton Automotive Group proposes sharing testimonials from other customers that have used the particular product or brand you're recommending.

"People like to know that others have had success using the same clutch/product they are interested in. I would also suggest having knowledge of the product and the brand. The more you know and understand about a particular product, the easier it is to sell."

Sales become simpler once shops get to know specific vehicles, their clutches and their release systems, says Norcia from RAM Clutches.

"If you understand the application, it is much easier to explain and sell a clutch system and have the customer be confident in your recommendations and abilities," he says. "Also, keep good notes on each vehicle installation for future reference."

Barsamian from Advanced Clutch Technology offers a list of steps to ensure a successful sale:



FORMULA DRIFT UPDATES 2025 PRO-AM LICENSING OPTIONS

Formula DRIFT series organizers have enhanced the route for amateur drivers to reach the big leagues. The new system will allow drivers looking to embark on a career in drift to see a path to a full Formula DRIFT license, allowing them to make plans for success at the start of the season.

There are three routes to obtain a Formula DRIFT competition license for the 2026 season, officials note. The most common is by winning one of seven affiliated, regional, multi-round drift series.

The different series cover a large part of the United States and drivers in the western provinces of Canada can also gain eligibility via the Spec D series. The winner of each 2025 series is guaranteed a Formula DRIFT PROSPEC license for the 2026 season.

The winning driver of California's HOTPIT Autofest drift series will now be eligible for a Formula DRIFT PRO license for the first time as well. The promotion of HOTPIT Autofest reflects the hard work of series organizers to create a highly competitive, five-round drift series that offers drivers both a lucrative prize purse and a competitive entry list to develop their skills and cars, according to a press release.

Next, prospective drivers can earn a PROSPEC license by winning two shootout events organized by Evergreen Drift in Washington. Finally, they can enter via the Formula DRIFT Scouting Program, which allows affiliate programs to petition for a driver's license.

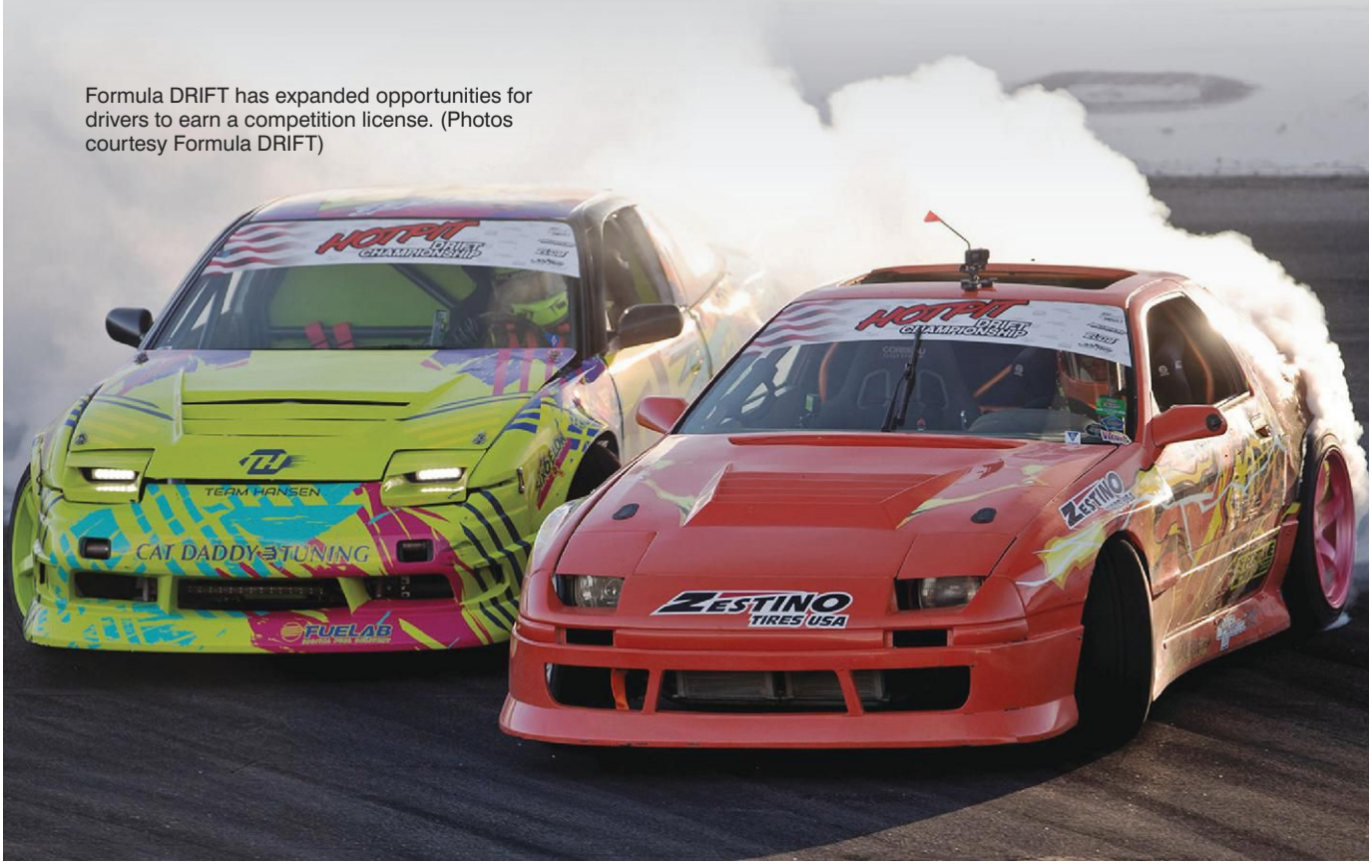
New for 2025 is the addition of the Klutch Kickers Pro-Am drift series, Drift Buffet and Drift School USA as part of this Scouting Program.

"As the leading drift series in North America, we've always understood and valued our role in driver development. Not only do we want fans to enjoy competitive drift events, but we want to ensure the very best drivers are rewarded with a pathway that recognizes their skill and enables them to compete against the very best drift drivers in the world," said Ryan Sage, president of Formula DRIFT. "We're excited to welcome Klutch Kickers into the fold, reflecting the incredible job the organizers have done to elevate their series. And at the same time, we have to acknowledge the stature HOTPIT Autofest has gained in preparing drivers for the big game. And that's why we're excited to consider their most successful driver from the 2025 season into our PRO Championship."

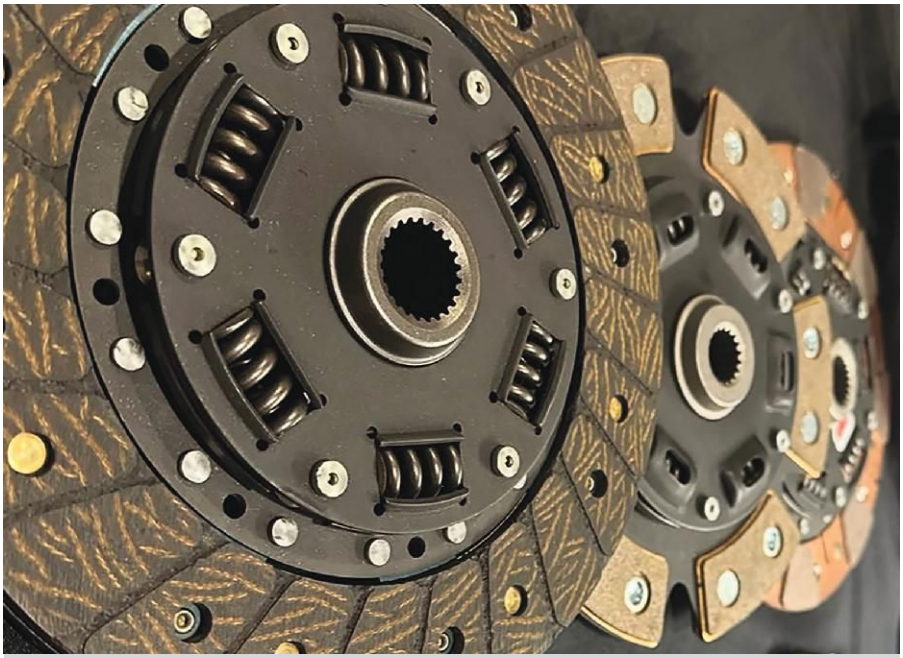
The Formula DRIFT PRO Championship kicks off its 2025 season April 4-5 on the Streets of Long Beach.

This article originally appeared online at theshopmag.com. Visit today and sign up for the free daily e-newsletter.





Formula DRIFT has expanded opportunities for drivers to earn a competition license. (Photos courtesy Formula DRIFT)



Don't forget—vehicles with manual transmissions are just plain fun to drive. (Photo courtesy Wharton Automotive Group)

- Ask the right questions.
- Showcase real-world performance through testimonials, case studies and dyno results.
- Offer clutch packages that bundle a clutch, flywheel and hydraulics for a complete upgrade.
- Highlight maintenance and longevity.
- Leverage social media and content marketing such as short videos, Instagram reels or blog posts.
- Partner with local racers or influencers.
- Train your team.



Shops can keep good notes on each vehicle installation for future reference. (Photo courtesy RAM Clutches)

"Ensure your staff understands torque ratings, friction materials and engagement characteristics so they can confidently recommend the best clutch for each customer's needs," he says.

Never be afraid to reach out to a wide customer base, says McGee from Centerforce.

"Many shops tend to specialize in a particular niche of the market, such as late-model muscle or sport compact. They might even specialize in a particular vehicle make. That's perfectly OK and even advantageous in many ways, but taking steps to appeal to customers outside of a particular specialty niche is a good idea," he states. "If you can access clutches for domestic muscle or a particular make, it's a safe bet you have access to clutches that work for a variety of other niches and makes as well. Just because you specialize in one particular niche doesn't mean you can't be the go-to in your area for parts that appeal to other outside niches." ***TS***



PERFORMANCE **PRODUCTS**

Stock Your Shelves With These Go-Fast Components



Acura & Honda Clutch Kits

Advanced Clutch Technology (ACT), Lancaster, California, presents Performance Street and Race Clutch Kits for Acura CL/TL J32 and Honda Accord EX/EX-L J30 applications. Designed for durability, improved torque capacity and enhanced drivability, the kits include a heavy-duty pressure plate that incorporates hardened diaphragm fingers for decreased wear. Street kits provide a 34% increase in torque capacity over stock OEM, and Race kits deliver a 74% increase in torque capacity over stock.

Toyota Camry TRD Cat-Back Exhaust



BORLA Performance Industries, Johnson City, Tennessee, presents its Cat-Back Exhaust System for 2022-24 Toyota Camry TRD models that improves horsepower and torque. System 140934CB features active exhaust valves and delivers the classic S-Type sound without any drone or resonance inside the vehicle. The system is made from T-304 stainless steel with black chrome on T-304 stainless steel tips and features all-welded construction for durability and long life.



Swing-Mount Brake Pedal

Wilwood Engineering, Camarillo, California, presents its Swing Mount Tandem M/C Brake Pedal with adjustable ratio. The new pedal assembly and bases accommodate popular tandem master cylinders in both swing and floor-mount applications. Pedal assemblies include all necessary hardware for mounting most master cylinders. Adjustable pedals allow the pedal length and ratio to be optimized for the vehicle application. The package includes black e-coated base and lever with bright finish stainless steel waffle-style pedals.

Camaro Coil-Overs & Sway Bars



Ridetech, Jasper, Indiana, presents Performance Monotube Coil-Overs and Adjustable Rear Sway Bars for 2016-24 Chevrolet Camaro applications. The coil-over systems provide an aggressive-yet-functional muscle car stance through ride height adjustability, and a rubber isolated spherical bearing design minimizes NVH. The new, larger (1.125-inch diameter) rear bar allows for fine-tuning of vehicle balance with a three-position design and increased bar rate. The bar is powder-coated in a durable black finish that stands up to the elements.



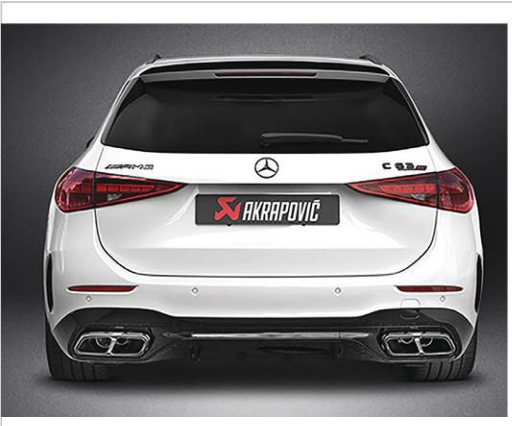
Corvette Bushing Kit

BMR Suspension, Lakeland, Florida, presents its Front and Rear Control Arm Delrin Bushing Kit for 2006-13 Chevrolet Corvette Z06 and 2009-13 Corvette ZR1 models. Designed to reduce wheel hop and add cornering consistency, the kit is comprised of internally fluted, greaseable Delrin bushings with 6061 aluminum inner sleeves. It replaces the factory upper and lower control arm bushings at the front and rear, eliminating control arm bushing deflection during normal and aggressive maneuvering. Made in the USA, the kit is available in black for a durable finish, with an installation time of 5-6 hours.



GM Truck Rear Brake Kits

LEED Brakes, Cheektowaga, New York, presents its Rear Disc Brake Conversion Kits tailored specifically for 1988-98 C/K 1500 GM trucks. Designed to elevate the performance and safety of OBS GM pickups, the kits are engineered for seamless installation onto the factory rear axle. Featuring a one-piece mounting design, they offer versatile caliper orientation in three positions, ensuring compatibility with a wide range of aftermarket suspension and frame modifications. Key features include an 11.65-inch vented brake rotor and 54mm single-piston caliper.



Mercedes-AMG Exhaust Systems

Akrapovič, Horsham, Pennsylvania, presents its 2023-newer Mercedes-AMG C 63 S E Performance and C 43 4MATIC Slip-On Line and Evolution Link Pipe exhaust systems. The Akrapovič Sound Kit is also available, allowing the driver to remotely control the valves and resulting sound. The lightweight exhaust systems are made from high-grade titanium, have been shown to improve horsepower and torque, and include twin bumper-mounted tailpipes.



Tilt Steering Column

Rad Rides by Troy, Manteno, Illinois, presents a mechanically driven Tilt Steering Column. Designed for five different tilt positions and offering approximately 40 degrees of tilt function, the column is made of 6061 billet aluminum and stainless steel and includes bronze bushings, high-temp ball bearings, stainless steel hardware and chromoly U-joint.

Brake Booster Kits



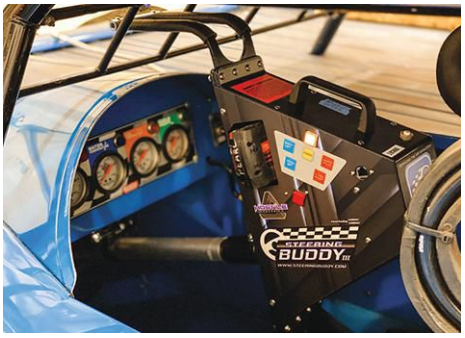
Classic Performance Products, Placentia, California, presents its new Midnite Series Booster Combo Kits. Available for street rods, custom cars and vehicle-specific applications, the kits include a vacuum booster in black-coated finish available in 7-, 8-, 9- and 11-inch single- and dual-diaphragm sizes, an aluminum Corvette-style master cylinder with a black lid and bails and a black anodized GM-style proportioning valve, with all the mounting brackets and hardware needed for an easy install.



1987-93 Mustang Digital Dash

AutoMeter, Sycamore, Illinois, presents its InVision Direct Fit Digital Dash System, available for 1987-93 Ford Mustang Fox Body models. A one-model solution for the entire dash, the system monitors the speedometer, tachometer, fuel level, oil pressure, water temperature and volts, all in one place, through a vibrant 12.3-inch LCD display with four user-selectable screens. Each kit includes a universal wiring harness and sending units for water temperature and oil pressure, along with an integrated joystick for easy customization.

Race Car Pit Steering System



Steering Buddy, Anniston, Alabama, part of Hostile Industries, presents the Steering Buddy race car pit area steering system that eliminates the need for an extra crew member to steer a race car when it's powered off. Designed to attach directly to the steering shaft or column in seconds to provide instant control, the system is powered by a tool battery and can be operated manually, with a tethered remote, via smartphone or through an all-new wireless remote. Steering Buddy works on drag racing, dirt track and asphalt race cars and is made in the USA.

Rust Prevention Kit



KBS Coatings, Valparaiso, Indiana, presents its All-In-One Kit that provides everything needed to stop and prevent rust and obtain a high-quality, durable finish. The DIY user-friendly all-inclusive kit uses the KBS Coatings 3-Step System consisting of KBS Klean to clean surfaces, RustBlast to remove rust and RustSeal to seal metal and prevent rust. KBS Top Coater is included for a durable final finish. The kit covers up to 50 square feet. *TS*

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Finishing a Crate Long Block, Part II

Tackling the fuel pump, carburetor, water pump & more.

BUILD, TEXT & PHOTOS BY MIKE MAVRIGIAN



Mike Mavrigian owns and operates Birchwood Automotive in Creston, Ohio, where he builds custom engines and street rods and performs vehicle restorations. He has written thousands of technical articles as well as nine books on automotive technology during the past 30 years. Mike can be reached at (330) 435-6347 or birchwdag@frontier.com. Visit Birchwood's website at birchwoodautomotive.com.

Editor's note: *The following is the second installment in a series outlining a crate long-block engine build. Part I appeared in the January 2025 issue of THE SHOP.*

FUEL PUMP

Rather than installing an OE mechanical fuel pump, we had a choice of two mechanical pumps.

Holley's high-performance aluminum pump, P/N 12-833, features 1/4-inch NPT female threads for fuel in and fuel out ports and is rated at 80 gph, with rated fuel pressure at 7.5 psi, which may require an adjustable pressure regulator (we prefer to keep about 5.5-6 psi to a carb). Meanwhile, Edelbrock's 1725 mechanical pump is rated at 6 psi and 110 gph, and features 3/8-inch NPT inlet/outlet ports, requiring no pressure regulator.

While either pump is an excellent choice, since the vehicle at hand is not intended to be used on the racetrack, we kept it simple and installed the Edelbrock pump, simply to avoid remote mounting a regulator.

The crank was slowly rotated until the fuel pump eccentric cam was positioned with the base circle facing downward, to ease pump installation (to avoid fighting pump arm spring pressure).

The contact surface of the pump arm was coated with CMD assembly lube and both sides of the Fel-Pro pump gasket were lightly coated with Permatex Optimum Max Torque RTV.

The pump was secured with a pair of ARP 6-point stainless bolts (3/8-16 x 1.125-inch) and lock washers. A small dab of anti-seize was applied to the bolt threads prior to installation to avoid any potential galling.

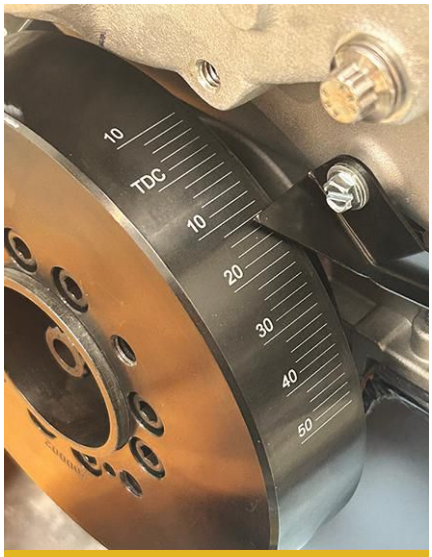
Installed bolt torque was 13 pound-feet.

Feeding the pump from the tank is a 45-degree 3/8 NPT to 3/8-inch barb nipple. The outlet from the pump is equipped with a 90-degree male 3/8 NPT to male -6 swivel fitting from Earl's, P/N 922166ERL.



The Holley carb fuel feed included a 120-degree hose end at the fuel pump outlet port, an Earl's in-line filter and -6 Earl's Pro Lite 350 braided hose.

Note: *If the clock position of the inlet/outlet ports needs to change for ease of fuel plumbing, before installing the pump, remove the six button-head Torx screws that attach the lower section. This requires a Torx wrench, size T25. Without disturbing the rubber diaphragm, rotate the lower section to the desired position and begin to reinstall the screws, but do not tighten. To remove the*



In preparation for first firing, we set initial timing at 12 degrees BTDC.

pressure load from the rubber diaphragm, the pump arm needs to be pushed to the full stroke position. You'll need a bench vise and a bit of patience. Tighten all six screws in a crisscross pattern to avoid body distortion. Once snugged by hand, with the two body sections mated together, torque the screws to 25-30 pound-inches. The pump arm may now be relaxed and the pump may be installed.

CARBURETOR

The fuel setup depends on the carburetor of choice. We performed two different comparison setups, one with a Holley Brawler 4-barrel carb, 650 cfm, P/N 67212, and one with an Edelbrock AVS2 4-barrel, 650 cfm, P/N 1906-BP, to illustrate two popular choices.

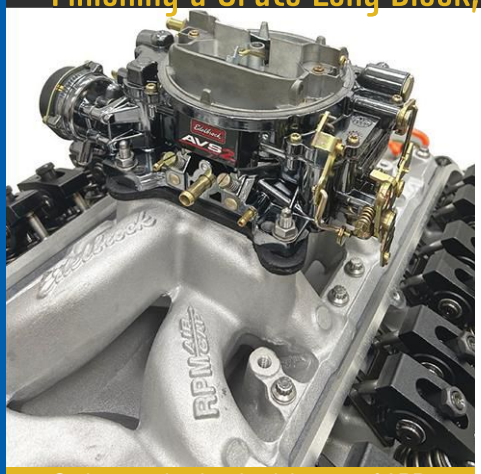


We tried both Edelbrock and Holley carbs. Highlights of the Edelbrock AVS2 included a square-bore, 650 cfm, a black plasma exterior coating on the aluminum body and the company's annular flow booster technology that provides crisp response.

The Holley Brawler featured the 4150 format, 650 cfm, mechanical secondaries and electric choke. Highlights included black billet aluminum metering blocks and billet throttle bodies, down-leg boosters, dual fuel inlets, 70 primary jets, 74 secondary jets, 1.300-inch primary and secondary venturi and 1-11/16-inch throttle bores. It is designed for street performance applications.

The Edelbrock AVS2 carb also featured 650 cfm, a black plasma exterior coating on the aluminum body and the company's annular flow booster technology that provides crisp response, designed for optimum





Carb mounting involved the use of ARP stainless steel studs, flat washers and hex nuts. Carb studs make carb installation easy, as the studs provide secure gasket-and-flange-to-manifold alignment.

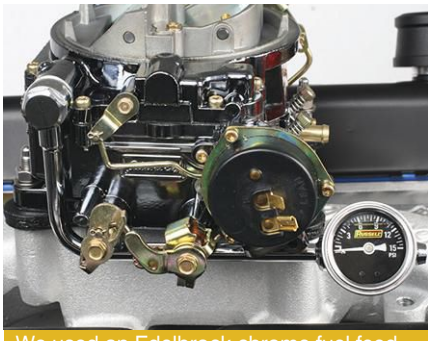


Rather than using the provided chrome Blueprint valve covers, we opted for a pair of Edelbrock steel covers in satin black. The left cover was fitted with an Edelbrock breather, and the right cover featured an Edelbrock PCV.

street performance. Highlights included square mounting flange, 0.070 x 0.037-inch metering rod, 0.101-inch primary jet size, 0.098-inch secondary jet size, 1.19-inch main venturi diameter, 1.44-inch primary bore and 1.75-inch secondary bore.

Plumbing the Holley involved running a -6 AN braided hose (Earls' Pro-Lite 350) using straight -6 swivel hose ends at the carb -6 feed log and each side of the in-line Earl's filter, and an Earl's 120-degree full-flow -6 hose end at the fuel pump outlet port. The in-line Earl's fuel filter was supported (to avoid potential fuel hose vibration) by a fabricated aluminum bracket and a 1-inch-diameter Adel clamp.

For the Edelbrock setup, we swapped out the carb's original fuel inlet fitting with a banjo fitting, connected to an Edelbrock chrome fuel feed tube, using 3/8-inch fuel hose and in-line Russel filter. This allowed the fuel line to run under the right side of the carb, providing clearance needed for our Edelbrock air cleaner. The connection at the fuel pump outlet was made using a Russel -6 female-to-3/8-inch barb fitting. Connections at the fuel filter and to the fuel feed tube involved slip-on barb-to-hose attachments.



We used an Edelbrock chrome fuel feed that routes the tube under the electric choke.

At the fuel pump inlet port, we installed a -6 male to 3/8-inch NPT straight fitting to the pump, followed by a full-flow 45-degree -6 male/-6 female fitting. The fuel line from the tank connected using a -6-female-to -3/8-inch barb adapter.

WATER PUMP

For this build we chose a high-volume Edelbrock aluminum P/N 8841 standard rotation water pump in satin/natural finish. The Victor pump features heavy-duty roller bearings, a CNC-machined housing and CNC'd curved impellers for higher volume coolant movement and higher coolant velocity, even at low engine speeds.

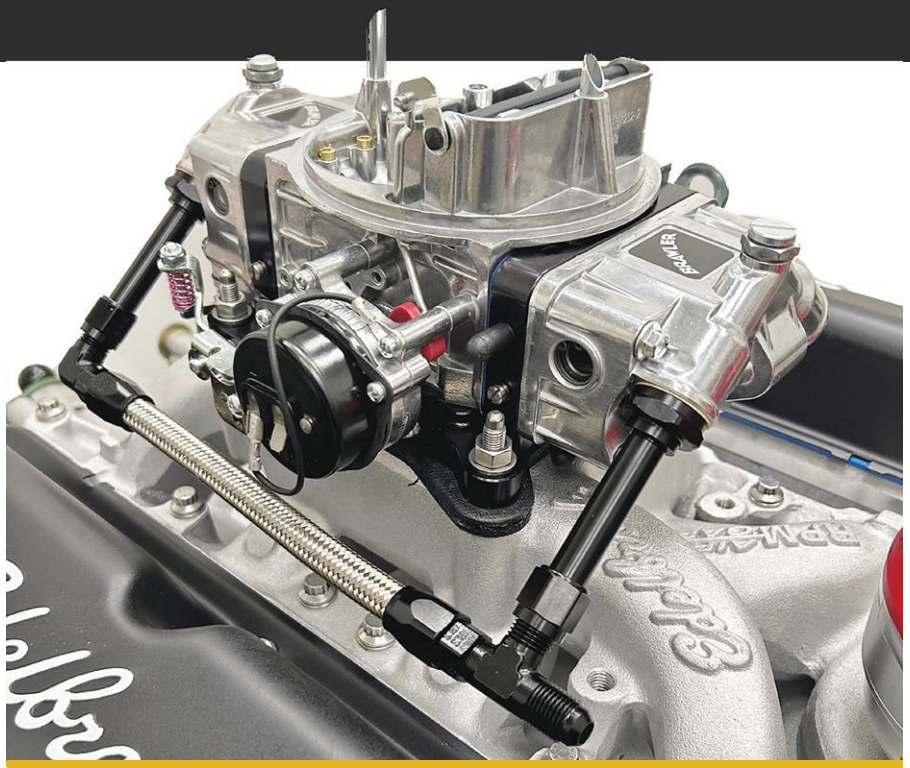
This was mounted to the front cover using Fel-Pro pump gasket 35211, secured with a water pump kit from ARP, P/N 454-1503. All bolts were 12-point 5/16-18 polished stainless steel. Nine bolts secured the pump, including one 5-inch, three 3-1/2-inch, one



The AVS2 carb mounts with a Russell in-line fuel filter, plumbing with 3/8-inch fuel hose.



Holley's Brawler carb featured 650 cfm, mechanical secondaries, dual-feed and electric choke.



The Holley carb was fed using an Earl's -6 fuel line kit AT101185ERL, designed for 4150 format carbs (fuel bowl centerline distance of 9.5 inches).

2-1/4-inch, one 1-1/2-inch and three 1-1/4-inch sizes.

The rear pump cover was removed first and the cover gasket was lightly coated with Permatex Max Torque RTV and reinstalled, with thread locker 242 applied to each of the two button-head screws. The pump-to-front-cover gasket was also treated to a light skin coat of the same RTV.

To avoid future potential galling, a dab of Permatex High Performance thread sealant was applied to the threads of each bolt. While all bolt holes into the block appear to be blind, applying a thread sealant protects against any (although unlikely) leaks.

The OE bolt torque spec for the 5/16-inch bolts is listed as 12-15 pound-feet. We snugged to 13 pound-feet using a 1/4-inch-drive digital torque wrench, using a three-step torque application (starting at 7 pound-feet, followed by 10 pound-feet and finishing at 13 pound-feet) and employing a criss-cross tightening pattern to avoid warping.

The heater hose and bypass coolant hose ports on the water pump feature 3/8-inch NPT threads. Straight fittings with 5/8-inch hose nipples were installed for the bypass hose location and heater hose.

The threads on both fittings were coated with Teflon thread sealer from Permatex.

Note: The Fluidampr balancer is thicker than the OE balancer, adding an extra 5/16-inch. As a result, we installed the water pump pulley using Moroso water pump pulley spacers (two 1/8-inch spacers and one 1/16-inch spacer) to achieve a perfect pulley-to-pulley belt alignment. The water pump was secured with four ARP polished stainless 12-point 5/16-24 x 1-inch bolts, washers and Loctite 242 threadlocker.

INTAKE MANIFOLD

For this application we chose Edelbrock's RPM Air-Gap dual plane intake manifold. The Air-Gap design separates the intake runners from engine heat and is tuned for a power band of 1,500-6,500 rpm.

Mating surfaces on the manifold and heads were cleaned with alcohol to remove any residual oils. Manifold decks were verified for straightness with a machinist's precision straightedge. Four 5/16-18 x 3-inch studs were loosely installed to the heads (two studs per head), simply to serve as guide pins, allowing the manifold to be lowered into place in register to avoid needing to move the manifold when placed onto the heads, to maintain port and bolt hole alignment and to prevent disturbing any RTV.

Prior to installing the manifold, we masked off the front and rear at the rail areas. The block was also masked just outside of the rail areas, allowing any excess RTV to be wiped off without staining the manifold or block after torquing.

A 1/4-inch bead of RTV was placed on the front and rear block rails (we never use cork or rubber rail seals). Both sides of the Fel-Pro intake gaskets were treated to a film of RTV around the water ports and the gaskets were positioned onto the heads using the temporary studs for gasket alignment.

The manifold was then carefully lowered, using the guide studs to provide easy alignment, and secured using a set of ARP polished stainless steel 12-point bolts and washers (bolt size is 5/16-18 x 2-inch). The bolt threads were lightly coated with Permatex high-performance thread sealer and a small dab of ARP lube.

After eight ARP bolts were positioned, the studs/guide pins were removed and the remaining four ARP bolts/washers were installed.



The fuel pump outlet port was fitted with a -6-male-to-3/8-inch-male NPT straight fitting and a -6 120-degree hose end.

Following Edelbrock's instructions, the bolts were tightened in stages, following the specified tightening pattern in order to evenly spread the clamping force. Bolts were torqued initially to 8 pound-feet, followed by 12 pound-feet and a final 18.41 pound-feet.

Once all bolts were fully tightened, the small amount of RTV at the front and rear rail areas was wiped off using a clean finger, followed by removing the masking tape. This provided a clean and tidy appearance.

Next time we'll tackle the distributor and coil, headers and more. ***TS***



GOING WITH THE FLOW

By Jef White

High-performance fuel pumps power today's advanced builds.

FUEL PUMPS

■ **HOT PRODUCT:**
DW810 Brushless In-Tank Fuel Pump
■ **FEATURES & BENEFITS:**
High-flow in-tank brushless fuel pump; brushless reliability with class-leading performance.

Deatschwerks
Brandon McDaniel
Senior Technical Product Specialist

■ **HOT PRODUCT:**
Mighty Mite Fuel Pump
■ **FEATURES & BENEFITS:**
Made and assembled in the USA; designed to fit cars, trucks and off-road vehicles; 10,000-hour operational life; up to a 60-inch vertical lift rating; handles a wide array of fuels including gas, diesel to HVO diesel, alcohol blends, B100 and E85.

Holley Performance Brands
Jesse Gronenthal
Product Manager
Carburation & Fuel Systems

Image credit: stock.adobe.com

Today's high-horsepower engine builds require quality fuel pumps to meet increased flow demands. Today's pumps feature the technology and versatility required for a variety of track, street and trail applications.

A wide variety of models and features can mean some research is needed before selecting the best model for the project at hand. To help shops make the right choice, Brandon McDaniel, senior technical product specialist for Deatschwerks, and Jesse Gronenthal, product manager, carburation & fuel systems for Holley Performance Brands, share their thoughts on common issues driving the performance fuel pumps market.

WHAT OUTSIDE FACTOR IS HAVING THE GREATEST EFFECT ON THE PERFORMANCE FUEL PUMP MARKET?

McDaniel: More forced induction and increased horsepower applications are making more power than ever before, requiring more fuel than ever. The additional increase of forced induction applications results in higher base and total fuel system pressures.

Typically, fuel pumps deliver less fuel at higher pressures, so the aftermarket is compensating with higher-flowing and higher-pressure fuel pumps to meet these demands.

Gronenthal: In today's world, where the demand for quality products is growing but the supply is shrinking, consumers are feeling the effects of outsourcing and cost-cutting measures.

With many companies opting for cheaper, faster manufacturing, the result is a surge in subpar products offered at premium prices—leaving customers hesitant to try anything new.

At Holley, we're committed to providing the best product possible for our customers' value, and the Mighty Mite fuel pump is a prime example of what can be achieved through proper sourcing, rigorous testing and thoughtful development.

WHAT IS A COMMON MISCONCEPTION SHOPS FACE WHEN SELLING AND/OR INSTALLING PERFORMANCE FUEL PUMPS?

McDaniel: Fitment. Most OEM applications use small, efficient proprietary fuel pumps. Typically, performance fuel pumps are larger and draw more current. This makes installation difficult into OEM applications, while retaining all the OEM functions and features.

Deleting or bypassing the siphon system,



When choosing a fuel pump, the best approach is to step back and do your research. (Photos courtesy Holley Performance Brands



If a customer comes in asking for a higher-flowing fuel pump, make sure the rest of the fuel system can support their power goals. (Photo courtesy Deatschwerks)

fuel filters and pressure regulators to install a higher-flowing performance fuel pump can result in poor drivability, loss of usable fuel capacity and potential fuel starvation issues, which could lead to engine damage.

Gronenthal: Not asking the right questions or doing your homework. The key to success lies in three critical questions to consider:

- What are the customer's needs?
- What are the vehicle's needs?
- What key features and benefits does the product provide?

Far too often, shops make the mistake of either underproviding or overproviding for the vehicle, leading to unnecessary costs, performance issues and frustration. To avoid this, it's crucial to understand the engine's demands in all conditions, the best mounting location for the pump, the electrical requirements and the type of fuel being used.

The best approach is always to step back, do your research and ask these three important questions. Not only will this help you form a stronger relationship with your customer, but it will also expand your knowledge in a vital area of your field, ensuring you're delivering the best solutions every time.

WHAT'S A TIP FOR SHOPS LOOKING TO INCREASE THEIR PERFORMANCE FUEL PUMP SALES?

McDaniel: Suggestive selling—having and suggesting complementary products to support the current fuel system product the customer is interested in. If a customer is purchasing higher-flowing fuel pumps, make sure the rest of the fuel system can support their power goals.

Gronenthal: Fuel pumps are often an overlooked component—until they fail. And when they do, many opt for the cheapest replacement just to get the job done. However, to truly engage your audience and educate your customers, it's crucial to highlight the risks of cheap, low-quality products.



Fuel cuts at high rpm can wreak havoc on an engine's lifespan. (Photo courtesy Holley Performance Brands)

Get yourself out there. Social media is a powerful tool for spreading awareness, whether through posts or videos, to show the importance of investing in quality and dispelling the myth that "one size fits all."

A solid performance build starts with a strong foundation, and choosing the right fuel pump is just as vital as upgrading your brakes when building a 600-hp Camaro. Fuel cuts at high rpm can wreak havoc on an engine's lifespan.

As a shop owner, it's your responsibility to provide the best for your clients, and if you ever need guidance on fuel pumps or any other system, don't hesitate to reach out to the tech service providers at your suppliers for expert advice. ***TS***

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Slim LT Engine Supercharger Kits

ProCharger, Lenexa, Kansas, presents its Billet Intake Manifold for LT applications featuring an integrated air-to-water intercooler that allows maximum charge air cooling with a slim design for compact engine bays. The setup is capable of cooling 1,250-plus-hp engines and engineered to accept a supercharger and stock accessory drive and fit nearly all component packaging. It is compatible with GM Gen V LT engines.

Electric Fan & Adjustable Controller

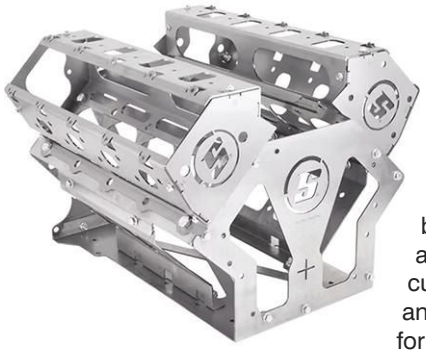
Flex-A-Lite, Burlington, Washington, presents its combination Flex-Wave LoBoy Electric Fan and Adjustable Compact Electric Fan Controller. The LoBoy puller fan moves 3,000 cfm of air with its patented Flex-Wave blade. It measures just 2-5/8 inches thick at the motor to fit into tight engine bays. The electric fan controller provides the ability to adjust the fan-activation temperature. The fan will automatically come on when the A/C is turned on and the wiring has a provision to add an optional override switch.





Extreme Pressure Greases

Hot Shot's Secret, Mt. Gilead, Ohio, presents two new Multipurpose Extreme Pressure Organoclay-Based Greases—7460EP and 7150EP. Available in two base oil viscosities, the greases are specially formulated for use in automotive and heavy-duty equipment operating under extreme pressures or adverse conditions across a wide range of temperatures. The series delivers a 400 KG weld load and an operating range of 16 to 608 degrees. The greases work on ball joints, kingpins, bearings, drag-lines, fifth wheels and more.



Godzilla Mock-Up Engine Swap Dummy Block Kits

Speedway Motors, Lincoln, Nebraska, presents its SoloSwap Ford 7.3L Godzilla Mock-Up Engine Swap Dummy Block Kits. Made of mild steel and compatible with all 7.3L and 6.8L Ford Godzilla engine bolt-ons such as intake manifolds, headers and oil pans, the dummy blocks allow accurate engine mock-ups and can be lifted in and out of the vehicle easily without the need for an engine hoist. A long-block version comes with bolt-on fabricated steel mock-up heads and the short-block version accepts all factory and aftermarket Godzilla heads.



Ford Small-Block-Compatible 427 Engines

Blueprint Engines, Kearney, Nebraska, presents a comprehensive range of Ford Small-Block-Compatible 427-ci Crate Engines. The new engine lineup is available as a long-block or dressed with either a Holley Sniper II EFI system or a Holley carburetor. Designed for power and reliability, the engines are dyno-tested to reach 500-600 hp and 519 pound-feet of torque. Highlights include forged crankshaft and rods, hydraulic roller cam, fully forged steel crank and rods, aluminum cylinder heads and four-bolt main with one-piece rear main seal.

Performance Camshaft Kits

Elgin Industries, Elgin, Illinois, presents five precision-matched, made-in-the-USA Performance Camshaft Kits engineered to help optimize an array of racing and street-performance engines. Offerings include Sloppy Stage 1, 2 and 3 camshaft kits and two GM LS performance camshafts. Each Elgin PRO-STOCK Camshaft Kit includes camshaft; superfinished beehive valve springs; hardened OE replacement push rods; hardened, black oxide-coated valve spring retainers; machined valve locks; and valve stem seals.





Hemi Fuel Filter Performance Module

DeatschWerks, Oklahoma City, presents a Performance Filter Module for 2006-19 Dodge Charger/Challenger applications. Offering OEM tank fitment, the module keeps the factory level sender, capacity and surge features and delivers a 50% flow improvement over a high-mileage filter and an 18% flow improvement over a new OEM filter. Features include an ethanol-compatible filter element, drop-in fitment and 100% plug-and-play installation.

Godzilla Fastener Kits



ARP, Ventura, California, presents a series of Fastener Kits to bolster the performance potential and reliability of Ford's 7.3L Godzilla engine. Available packages include a head stud kit, main stud and bolt kit, rod bolts and a harmonic damper bolt. The damper bolt comes with a large-diameter 1/8-inch-thick washer for improved load distribution. Manufactured in-house, the head and main studs are made of proprietary ARP2000 alloy that is nominally rated at 220,000 psi tensile strength. They are centerless ground to ensure concentricity with threads.



Engine Supplement

Rislone, Holly, Michigan, presents its Hy-per Lube High Mileage Treatment Engine Supplement, designed to improve oil performance to eliminate dry starts, reduce friction and wear, prevent oil breakdown and extend engine life. The concentrated formula comes in a compact, easy-to-use, shelf-friendly bottle. The premium additive blend is formulated to work with all motor oils including conventional, high-mileage and synthetic to make older, high-mileage and high-performance engines run better and last longer.



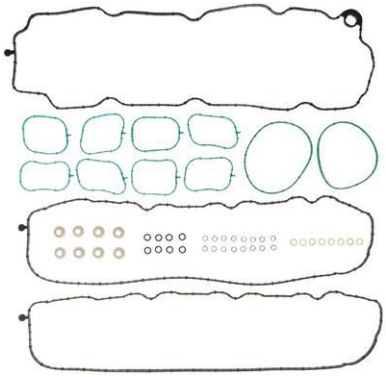
Small-Block Chevy Heads

Air Flow Research (**AFR**), Valencia, California, presents its new 200cc SBC Enforcer Heads. Featuring the company's permanent mold "as-cast" technology surfaces on the intake runners, exhaust runners and combustion chambers that allows for extremely accurate and repeatable port location/performance, the budget-friendly head can be used on 350- to 400-ci small-block Chevys operating below 6,000 rpm. It comes fully assembled with the identical components found in higher-end CNC ported cylinder heads.

F-150 Supercharger



Roush Performance, Livonia, Michigan, presents its popular 705-hp TVS R2650 Supercharger, now available for 2024 Ford F-150 models equipped with 5.0L V-8 engines. Boosting output to 635 pound-feet of torque, the Roots-type positive-displacement supercharger system utilizes four-lobe rotors twisted 170 degrees, resulting in enhanced thermal efficiency, higher volumetric capacity and improved airflow into the engine. Larger bearings and thicker timing gears further increase durability.



GM Gasket Manifold Installation Sets

MAHLE Lifecycle and Mobility (formerly **MAHLE Aftermarket**), Farmington Hills, Michigan, presents its MAHLE Manifold Installation Sets (MIS), now available for GM 5.3L and 6.2L engines in various Cadillac, Chevrolet and GMC vehicles. The sets include all the gaskets and seals needed to properly reinstall the intake manifold, such as valve cover gaskets, plenum gaskets, coolant gaskets, injector O-rings, water and emissions connections and miscellaneous gaskets. ***TS***

Restyling AFTERMARKET ACCESSORIES

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GRABBING AHOLD OF THE WINCH MARKET



By providing expert guidance and tailored product recommendations, shops build a reputation as trusted off-road specialists. (Photos courtesy Warn Industries)

Suppliers offer tips to becoming better connected. By Jef White



Successful sales are often based on solid connections, and that's certainly true in the winch market.

Shops that offer professional direction on size and capacity, can competently explain features and benefits and carry complementary products to create total recovery kits soon build a reputation as the local winch expert. Safety and security blend with appearance and utility to bring peace of mind to off-roaders and others that may one day find themselves in a sticky situation.

Suppliers are available to help retailers and installers take their winch game to the next level, offering sales and installation tips, sharing market trend observations and highlighting the latest products and designs.

A MEASURED APPROACH

Shops seeking a successful winch project should start by choosing a product size based on the vehicle's weight and intended use.

"A good guideline is that the winch capacity should be at least 1.5 times the vehicle's gross vehicle weight rating (GVWR)," says Tom Paasch, product manager for Warn



Finding the right winch for each application can be the first step to attracting repeat customers. (Photos courtesy Rough Country)

Industries. "Too small and it may struggle to recover the vehicle when it's stuck. Too big and the customer sacrifices line speed and rope length and is paying extra for added capacity they may never use."

Meanwhile, a frequent installation mistake is improper grounding, he adds.

"The ground wire must be securely connected to the vehicle's negative battery post to avoid performance loss."

Nupesh Patel, new product manager for Overland Vehicle Systems (OVS), agrees on the importance of properly assessing the vehicle's weight and typical usage scenarios.

"Selecting a winch with insufficient capacity can lead to inadequate performance during critical recovery situations," he says.

Katherine Abraham, senior manager, B2B marketing for IRONMAN 4X4, also recommends matching winch capacity based



GRABBING AHOLD OF THE WINCH MARKET

WINCH PRODUCTS

■ **HOT PRODUCT:**
The Ironman 4x4 Frontier
■ **FEATURES & BENEFITS:**
12,000-pound winch with synthetic rope; built with over a decade of engineering and real-world testing; high-performance, waterproof and durable; designed to withstand extreme conditions; superior efficiency, power, ease of use and value.
IRONMAN 4X4
Katherine Abraham
Senior Manager, B2B Marketing

■ **HOT PRODUCT:**
OVS SCAR 12S Winch
■ **FEATURES & BENEFITS:**
Powerful 7-hp motor, providing robust pulling capabilities for challenging off-road recoveries; lightweight design without compromising performance; durable synthetic rope; ease of installation.
Overland Vehicle Systems (OVS)
Nupesh Patel
New Product Manager

■ **HOT PRODUCT:**
Res-Q Teton Series Winch
■ **FEATURES & BENEFITS:**
Powerful 4.9-hp series wound waterproof motor geared for maximum pulling power with minimal effort; amber LED winch spool light strip; removable clutch handle; aluminum cooling fins; 10K or 12K line pull ratings; synthetic rope or steel cable.
Quadratec
Matthew Konkle
Managing Editor – Content

■ **HOT PRODUCT:**
XV95 Synthetic Rope Winch
■ **FEATURES & BENEFITS:**
A 9,500-pound line pull capacity and fast line speed; 94 feet of synthetic rope; a wired remote with a 12-foot lead; built for durability with IP67 water and dust resistance; includes a Hawse fairlead and clevis hook for secure load pulling.
TrailFX
Sara Ford
Marketing Manager

■ **HOT PRODUCTS:**
ZEON XP & VR EVO Winches
■ **FEATURES & BENEFITS:**
ZEON XP offers wired and wireless control, live feedback on winch status, dynamic winch lighting and remote clutch; VR EVO combines wired and wireless control, fast line speed and reliable performance, all at an affordable price point.
Warn Industries
Tom Paasch
Product Manager

■ **HOT PRODUCT:**
The Mission Winch
■ **FEATURES & BENEFITS:**
Fully submersible, military-grade, super-thick plate steel drum; top-quality solenoid; 92 feet of synthetic rope; low amp draw.
Mile Marker Industries
Justin Moore
CEO

■ **HOT PRODUCT:**
13K Pro Torque Series Winch
■ **FEATURES & BENEFITS:**
Powerful 7-hp motor; durable 1/2-inch synthetic rope; wired or wireless 2-in-1 controller featuring a load indicator; LED color-changing RC logo; integrated torque limiter helps prevent winch burnout and damage.
Rough Country
Tim Watts
Vice President Sales



Off-roaders often participate in forums, social media groups and clubs where they exchange tips, experiences and recommendations. (Photo courtesy TrailFX)



Winch sales start with demystifying the products to make them more accessible. (Photo courtesy Quadratec)

on GVWR, taking aftermarket accessories, cargo and terrain resistance into account, and advises shops to avoid issues caused by improper electrical setups as well, such as:

- Using undersized power cables, which can lead to voltage drops and overheating.
- Not securing ground connections properly, which can cause intermittent failures.
- Overlooking battery capacity.

"Winches like our Frontier 12,000-pound model can draw up to 360 amps at full load, meaning shops should verify that the vehicle's battery and alternator are sufficient for heavy-duty use," she says.

When it comes to winch sales, it's important to explain that buyers get what they pay for, says Justin Moore, CEO of Mile Marker Industries.

"Often, we have seen heavy-duty users paired with a low-cost import, off-the-shelf brand that simply isn't designed to have the duty cycle that heavy users need," he says. "Matching a user's budget with their use case is the key to delivering the right value to customers."

Safety and maintenance accessories should also be included at the time of purchase, says Sara Ford, marketing manager for TrailFX.

"Shops that neglect to offer such recommendations may leave their customers unprepared for the long-term care and safe operation of their new winch, potentially leading to accidents, malfunctions or additional repair costs down the road," she notes.

Finding the right winch for each application can be the first step to attracting repeat customers, says Tim Watts, vice president of sales for Rough Country.

"Beyond the immediate sale, winches

open the door to a world of additional sales opportunities," he says. "Even if customers don't opt for all the add-ons right away, by providing them with the perfect winch for their needs, you're creating a long-term relationship. Winches are rarely purchased without a specific purpose in mind, which provides the perfect opportunity to upsell related products that complete the job."

Educating the customer should be a top priority, says Matthew Konkle, managing editor – content for Quadratec.

"Sometimes we all forget that most customers have limited knowledge about winches—how they work, what size and type is best for their needs, how to maintain the winch, etc.," he says. "And many could simply be at the shop just because one of their friends or coworkers has a nice winch, so they want one as well. Providing education and training will not only help with a buying decision but—let's be honest—winching can be dangerous, so the more someone knows, the more likely an accident can be prevented."

MORE TO GIVE

Shops that install winches often see increased customer loyalty and repeat business.

"Winch buyers frequently return for additional recovery gear and accessories as they gain experience in off-roading and use their winch more and more," says Paasch. "Additionally, by providing expert guidance and tailored product recommendations, shops build a reputation as a trusted off-road specialist, attracting more customers looking for expertise and guidance as they outfit their vehicles."

Patel has seen how winch sales and installations can lead to enhanced customer trust and expanded service opportunities.

"Customers often seek additional accessories and services related to off-road recovery, such as recovery kits, training sessions and maintenance packages, thereby increasing the shop's revenue streams," he says.



GRABBING AHOLD OF THE WINCH MARKET

NISSAN CANADA INTRODUCES TWO PROJECT BUILDS





"Project Trailgater" (left) adds almost everything needed for camping and tailgating outdoors. Meanwhile, the "Frontier TARMAC" concept is a one-off street build embodying the spirit of sport and muscle trucks of the past. (Photos courtesy Business Wire/Nissan)

Nissan celebrated its 60th anniversary in Canada with a pair of truck-based project vehicles presented at the 2025 Canadian International Auto Show (CIAS).

Designed to responsibly bring the fun of tailgating into the great outdoors, "Project Trailgater" was built in partnership with PowerNation TV's "Music City Trucks."

Based on a 2025 Nissan Frontier PRO-4X, the build begins with NISMO Off Road accessories, including a lift kit and high-performance suspension, bed rack, cargo cases, off-road lighting and 17-inch beadlock-capable wheels.

In addition, "Project Trailgater" adds almost everything needed for camping and tailgating outdoors, including two 43-inch weatherproof TVs, powered coolers, grill and even the proverbial kitchen sink.

Meanwhile, embodying the spirit of sport and muscle trucks of the past, the "Frontier TARMAC" concept is a one-off street truck built through a collaboration between Nissan Motorsports, Nissan Design America and Forsberg Racing.

Its new-for-2025 Afterburn Orange paint is complemented by carbon fiber accents, an aggressive widebody kit, vented hood, roof cap, spoiler, wheels, aero upgrades and more.

A healthy injection of performance comes courtesy of a Roots-style supercharger, prototype NISMO cold-air intake and custom NISMO exhaust system added to "TARMAC's" standard 3.8L V-6 engine, resulting in 400-plus hp.

Keeping the added performance in check is a high-performance big brake kit featuring custom 15-inch floating two-piece rotors and mounts, and utilizing brake calipers from the Nissan Z NISMO. Putting the power to the asphalt are carbon-barreled NISMO TARMAC 20-inch wheels wrapped in Yokohama Advan tires and a prototype NISMO high-performance suspension kit with adjustable coil-overs.



Matching a user's budget with their use case is the key to delivering the right value to customers. (Photo courtesy Mile Marker Industries)



Shops want quality parts that match the quality of their installations. (Photo courtesy Mile Marker Industries)

Watts suggests capitalizing on the potential for incremental sales.

"Winches are rarely purchased without a specific purpose in mind, which provides the perfect opportunity to upsell related products that complete the job," he says. "By understanding the customer's intentions, you can easily recommend complementary items like winch mounts, bumpers, hidden winch mounts and essential recovery gear—think shackles, snatch blocks, recovery rings, tow hooks, tree savers, tow straps, traction boards and more. Even small upgrades like purpose-designed cleats and thimbles versus the standard clevis hook can make a big difference."

First-time buyers truly appreciate a professional taking the time to explain how all of the products work together, Konkle believes.

"A winch really pairs well with quite a few recovery products, and many of those items are seriously important for anyone planning off-road/overlanding excursions. Things like soft shackles, a winch line damper, D-rings, tow hooks and tree saver straps are all excellent items that can and should be included right when selling any winch," he says. "A winch's value and performance only increase when a customer tacks on quality recovery items, so it can't be understated just how important add-on selling can be for off-road shops."

Having confidence in the products they offer is important for businesses looking to establish themselves as local winch experts.

"By using a top-quality brand, shops can



Selecting a winch with insufficient capacity can lead to inadequate performance during critical recovery situations. (Photo courtesy Overland Vehicle Systems)

trust that the quality of the parts will match the quality of their installation," says Moore.

Put it all together and shops can build a solid reputation for serving the local 4x4 community, says Ford.

"Off-roaders often participate in forums, social media groups and clubs dedicated to the sport where they exchange tips, experiences and recommendations," she says. "These communities trust the advice of fellow enthusiasts over traditional advertising. When a shop becomes known in these circles for having solid winches and doing great installations, the word gets around fast."

Plus, shops can grow their reputations beyond the off-road community. Abraham notes how winches appeal not just to hardcore off-roaders but also:

- Work truck and fleet operators who need reliable recovery solutions.
- Overland vehicle builders looking for safety and self-recovery capabilities.
- First responders and utility workers requiring heavy-duty winching solutions.

"Offering winch installations also increases revenue through accessory up-sales, such as recovery kits, winch bumpers, suspension upgrades and more, boosting each customer's total purchase," she says.

LET'S GET ACQUAINTED

Shops looking to increase winch sales can start by demystifying the products to make them more accessible, says Quadratec's Konkle.

"Hold events with winch demos that can be



GRABBING AHOLD OF THE WINCH MARKET



Offering winch installations also increases revenue through accessory up-sales, such as recovery kits, winch bumpers, suspension upgrades and more. (Photos courtesy IRONMAN 4X4)

pulled apart to show how each facet works. Make sure the customer understands the difference between electrical and hydraulic, and let them feel synthetic and cable lines," he suggests. "Give them the chance to connect and play with the remote and show off different ways to safely attach the line to a vehicle, tree or some other point before attempting a recovery. Also, talk about line pull ratings and why a bigger winch size is not always better, depending on the gross weight of a customer's vehicle as well as his or her overall needs. A smarter customer is a more comfortable customer—and those are the ones more likely to make a higher-dollar winch purchase."

Abraham from IRONMAN 4X4 recommends a comprehensive approach by educating customers on real-world recovery scenarios, explaining the role the winch plays and highlighting important safety procedures. Shops can then boost winch sales by:

- Offering hands-on winching demonstrations and training at events or in-store.
- Bundling winches with bumpers or recovery kits to provide a complete solution.
- Highlighting the safety advantages of synthetic rope.

"By positioning winches as a key recovery tool rather than an accessory, shops can increase sales while helping customers stay prepared for any off-road challenge," she says.

Patel from OVS suggests holding educational workshops or demonstration events that showcase the practical applications and benefits of winch systems.

"By providing hands-on experiences and highlighting real-world scenarios, shops can effectively engage potential customers and drive interest in winch products and related services," he says.

One true benefit? A knowledgeable buyer is a confident buyer.

"Focus on educating customers about why they need a winch—not just what it does," recommends Paasch from Warn Industries. "Many vehicle owners, especially first-timers, don't realize the importance of a winch until they're stuck without one. Since new users can feel intimidated about using their winch, offering demos, tutorials, hands-on seminars or group trail rides can help build confidence. Customers who understand how to use a winch properly are more likely to see its value, use their winch safely, and purchase other recovery gear and winch accessories."

An advantage shops have over online outlets is a chance for the buyer to get a true feel for the product. Moore suggests highlighting winches in eye-catching showroom displays.

"Take advantage of point of purchase offers," he says. "Mile Marker Industries offers several solutions for our installer customers—everything from counter mats, window clings, winch trees and stackouts are available to let customers know they can get their install done at your shop."

Then, once interest is established, if you have the selected winch on hand and ready to install, all the better, says Rough Country's Watts.

"One of the easiest ways to increase your winch sales is by keeping a few units in stock. While you don't need to invest heavily in a large inventory, having a variety of winches readily available can make the difference between ringing it up or watching it walk," he explains. "Winches might not be impulse buys, but they're often purchased at a time of need. By having a solution on hand, you prevent the risk of customers shopping elsewhere or looking for alternatives."

And if the vehicle isn't quite winch-ready, be sure your shop offers solutions for that as well, he adds.

"An interesting shift we're seeing is the increasing popularity of hidden winch mounts over traditional winch bumpers. While a bold, heavy-duty winch bumper is perfect for many truck and Jeep builds, more and more customers are opting for a more discreet solution."

A solid inventory will include top models and various price points, concludes Ford from TrailFX.

"Since most winches are universal, shops can boost sales by stocking a variety of winches across different price points and with different features to cater to a wider range of customer needs," she says. "Offering a selection, from budget-friendly options to premium models, allows customers to choose based on their specific use." ***TS***

FRESH AIR, FRESH SAVINGS

TrailFX Window Vents are the perfect all-weather accessory for any customer looking for an enjoyable windows-open driving experience. Constructed from durable acrylic with a smoke tint, these vents are designed to match the contour of the window for a sleek, low-profile look that reduces wind noise and enhances side mirror visibility. They allow fresh air in while keeping rain and weather out, ensuring a more pleasant driving experience. Whether you choose the 3M tape-on style vents or our NEW in-channel option, each set is easy to install with no tools required! Backed by a limited lifetime warranty, TrailFX window vents create comfort that lasts through every season.



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$30 REBATE

WITH THE PURCHASE OF (3) QUALFYING RAINGUARDS. NO LIMIT.

2025 Auto Tech at CES

A sampling of technological advancements that keep the wheels turning.

BY BRETT SOLOMON



The annual Consumer Electronics Show is earning a reputation as the place to see the latest automotive technology innovations. (Photo courtesy Consumer Technology Association/CTA)

Brett Solomon is a freelance writer based in New York City, specializing in the mobile electronics market.

The Consumer Electronics Show (CES) is always luring the latest technologies to Las Vegas.

The big event happens a few months after the SEMA Show and is building its own reputation as a must-see event for the latest in automotive advancements.

Take autonomous driving. This year the technology was on full display through Tesla self-driving upgrade demonstrations, by way of the Waymo taxi fleet and via a buzzworthy Zoox autonomous taxi—a four-passenger pod with no steering wheel in which riders face each other.

Zoox is among the first autonomous automotive designs not adapted from a car (such as the Jaguar iPace vehicles favored by Waymo) but built from the ground up. The large windows and Rolls-Royce-inspired illuminated starry headliner provide a relaxing atmosphere, with the understanding that heavy traffic is one of the few situations in which car enthusiasts won't mind letting the robots take over.

Meanwhile, aftermarket upgrades can start inside. Will our industry now possibly hire interior designers, just like they do in the executive jet industry? We'll have to wait and see.

MODERN BRAT ATTACK

Back to cars with steering wheels, when it comes to cutting-edge automotive creations, Italdesign and its co-founder, Gior-



Italdesign's Quintessenza project vehicle is designed to embody the prowess of a GT and the adaptability of a pickup. (Photos courtesy Italdesign)



Afeela, an automotive technology collaboration between Sony and Honda, will introduce the Afeela 1 model in California later this year. (Photo courtesy Sony Honda Mobility/Afeela)

getto Giugiaro, have produced their share of impressive designs, including the Ferrari 250 GT and the BMW M1.

Giugiaro has also designed more mundane vehicles such as buses, and even comfy interiors for vehicles such as the Buick Park Avenue. (Heck, the first car stereo I ever purchased was an aftermarket JVC massaged by Italdesign to look cool in the dashboard.)

The company chose CES 2025 as the place to show off its new Quintessenza project vehicle that looks like a modern take on the Subaru Brat.

The design comes from Italdesign's Detroit office, according to the company, and the Quintessenza was created to embody the prowess of a GT and the adaptability of a pickup. It is positioned to serve a global market and falls within the performance pickup and sport activity vehicle categories.

Italdesign partnered with Elaphe, an in-wheel technology pioneer, to integrate Elaphe's advanced propulsion architecture.

The quad-motor system fitted on the vehicle showcases the scalability of Elaphe's latest-generation Sonic family of in-wheel propulsion technologies (the 21-inch motor fits within the 24-inch rim). It is supposed to help the vehicle shift effortlessly between off-road driving conditions and sporty on-pavement motoring.

Inside, most of the infotainment can be adjusted by the large center console display or via a smartphone app that includes all the vehicle's controls and the option to customize the driving experience. Drivers can change the interior lighting, choose a preferred audio track and scent, and purchase accessories made especially for the Quintessenza.

It was a hit at the show, and now we'll see if its design concept will be sold to an automaker or if it gets the financing to potentially produce the cool ride in-house.

SONY & HONDA = AFEELA

A collaboration between Sony and Honda was introduced at last year's CES, and now sales of the new Afeela brand are projected to debut in California later this year. The Afeela 1 will be available in two trims, with prices starting from $89,900 including a three-year subscription for certain functionality and features.

Online reservations through the Afeela website are open, with a fee of $200. It is one of the first vehicles designed with a cabin tailored to entertainment over driving pleasure and, again, it may not be the enthusiast's first choice for the track, but it would be cool in a traffic jam.

According to Sony, the cabin of the Afeela 1 is designed with the concept of "Mobility as a Creative Entertainment Space." Each occupant can enjoy a variety of apps and content provided by entertainment partners.

Sony Honda Mobility's proprietary noise-canceling technology and expertise provide an ultra-quiet environment, and the interior experience is optimized through unique sound systems and displays for each seat. Optimally placed speakers feature Sony's 360 Spatial Sound Technologies, and the partners are working on creating unique entertainment experiences using driving and vehicle data through collaborations with external creators and developers.

HARMAN'S DRIVER ENGAGEMENT

At CES 2025, Harman had a private space off to the side of parent company Samsung, where Samsung technology has entered the connected car realm. Harman is a Tier 1 supplier of automotive technology, with a lot of its latest tech found in new BMW vehicles. But the company is happy to sell to any OEM brand.

Harman touts its technology as a car enhancement that doesn't just respond to



commands but, more importantly, understands the driver's needs and adapts to preferences to create a unique, personalized driving environment. "Driver Engagement" is Harman's buzzword phrase for paying attention and keeping drivers' eyes on the road.

Among the tech on display was a suite of sensors in the seat and seatbelts that monitors the driver's heartrate and breathing—a real-time in-car stress test. The technology also uses a 60-GHz in-cabin radar feature that keeps an eye on the driver and can measure drowsiness and driver distraction.

Officials believe Harman Driver Engagement has enticing opportunities for fleet vehicle and business owners who want to have a cadre of safe drivers. Armin Prommersberger, chief technology officer, notes, "The Ready Care in-cabin monitoring product takes empathy to the next level, using AI and neuroscience to monitor a driver's cognitive and visual load as well as breathing rate to detect distraction or drowsiness, offering real-time, tailored interventions to reduce stress and enhance focus. Harman is pioneering the next frontier in automotive technology by translating user states and situational understanding into truly contextual in-cabin experiences."

BMW DISPLAY TECH

Some might ask, "Hey, what's up with BMW's upside-down steering wheel?" Turns out, the latest wheel design is actually shaped to give more room to show the company's newest display technology.

A new head-up display (HUD) concept developed by BMW is all about projecting content. It reflects visible information onto a black printed surface from A-pillar to A-pillar in the lower section of the windshield.





The new BMW Panoramic Vision head-up display (HUD) concept reflects visible information onto a black printed surface from A-pillar to A-pillar in the lower section of the windshield that the driver can then further personalize. (Photos courtesy BMW Group)



Sonatus showcased a range of unique products and solutions to help OEMs realize the full potential of SDVs. (Photo courtesy Business Wire/Sonatus)

While the information is visible to all occupants, officials note the most important driving information is projected directly into the driver's line of sight on the left-hand side of the BMW Panoramic Vision above the steering wheel. The driver can then personalize related content in the central and right-hand areas using the central display, as desired.

The integration of BMW Panoramic Vision creates a 3D effect for the driver and passengers. On a fully loaded BMW model, the optional 3D HUD can show navigation and automated driving information directly in the driver's field of vision.

Adrian van Hooydonk, senior vice president of BMW Group Design, notes, "technology and customer preferences are changing more quickly than ever. The design of digital experiences and sound is playing an ever-more-important role. The new BMW Panoramic iDrive not only makes our vehicles smarter and more user-friendly, it also enables much more extensive personalization, which turns every new BMW into a car that is very much the user's own."

Even the steering wheel itself gets in on the action. Only relevant buttons are illuminated during normal driving to highlight available functions, making navigating the vehicle and its tech easy.

For example, an incoming call initially brings up a graphic on the BMW Panoramic Vision display. At the same time, a symbol on the relevant steering wheel button that was not previously visible is illuminated in green, indicating the option of taking the call by pressing the button or rejecting it with a swipe on the right-hand side of the steering wheel.

SDV INNOVATIONS

Sonatus showcased a range of products to help OEMs realize the full potential of software-defined vehicle (SDV) technologies. The global SDV company highlighted how generative AI enhances service experiences and developer productivity, and showcased Sonatus Updater, a next-generation OTA solution tailored for complex SDV demands.

Part of its exhibit was the new Sonatus SDV demonstration vehicle—a classic 1970 Ford Bronco restored and converted to an EV. The unique demo vehicle allows personalization using the Sonatus Automator AI vehicle personalization system that dynamically adapts vehicle settings based on road conditions and users' preferred drive modes.

More than 3 million passenger vehicles

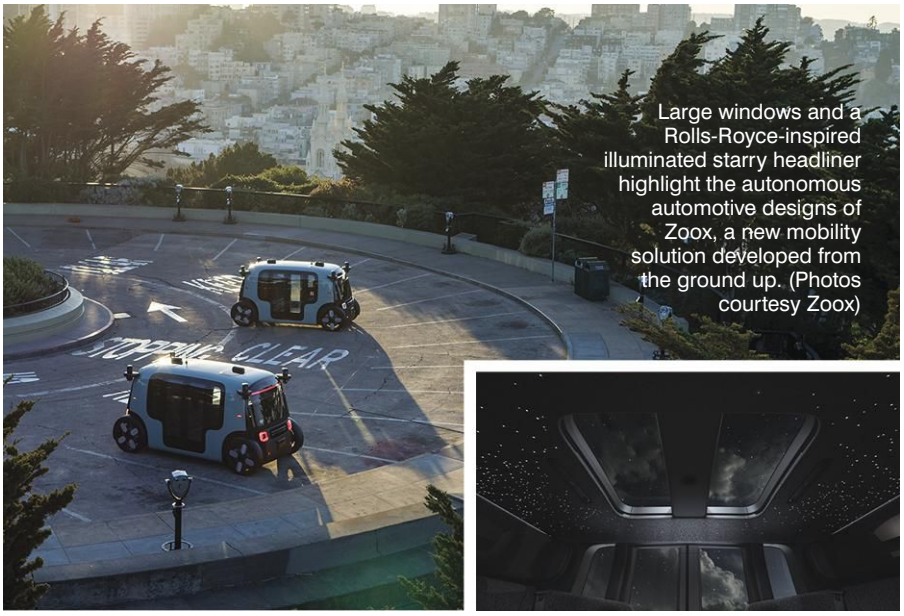
now incorporate Sonatus technology, the company noted, and to build on the milestone, officials also demonstrated Sonatus Collector AI running on a construction vehicle as an example of how the products can work together to unlock new after-sales services for OEMs and fleet service providers in trucking, construction, mining and other commercial vehicle segments.

CHINESE ELECTRICS

We don't always hear about them here in America, but Chinese automakers brought some of their latest electric vehicle innovations to the show.

For instance, BYD has significant investment from Warren Buffet's Berkshire Hathaway and is starting to enter the U.S. bus market. Meanwhile, Zeekr is owned by the Geely Group that also owns Lotus, Polestar and Volvo.

Zeekr's 001 FR could one day be a competitor for Tesla's Model S Plaid. Highlighted by a quality interior and impressive OLED infotainment system, the model features the company's all-new self-designed intelligent driving domain controller—a first for an OEM that integrates the NVIDIA DRIVE AGX Thor system-on-a-chip (SoC) running on the safety-certified DriveOS, according to officials. The setup can handle multiple intelligent driving scenarios and parking capabilities.



Large windows and a Rolls-Royce-inspired illuminated starry headliner highlight the autonomous automotive designs of Zoox, a new mobility solution developed from the ground up. (Photos courtesy Zoox)



In addition, Zeekr announced it will extend its partnership with Qualcomm to bring a more immersive infotainment experience to global customers.

It is also working with Waymo in preparation for a future public robo-taxi launch, officials reveal.

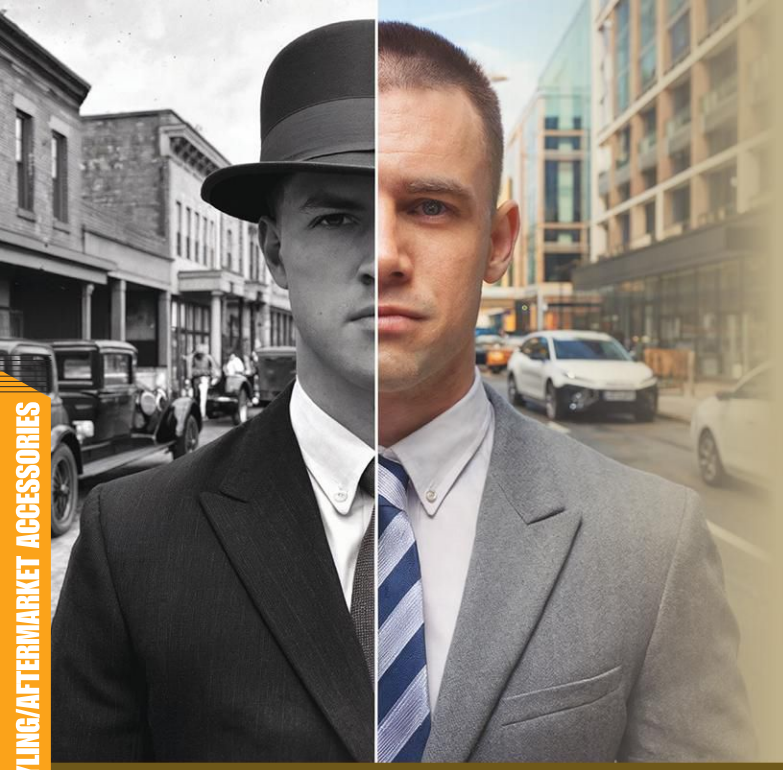
Zeekr cars use an 800V ultrafast charging e-powertrain and the company unveiled a global fast-charging network strategy to deploy thousands of Zeekr-branded charging piles in key international markets, starting in Thailand and Australia.

How fast are they? Zeekr says it can take the battery from 10% to 80% in under 12 minutes.

That kind of performance, from 1,200 hp at the wheels and charge times just slightly more than what it takes to fill up a dually, could have the world taking notice. Of course, it could be years before we see it in the United States, but that's what CES is all about—the future. ***TS***



Chinese automaker Zeekr's 001 FR, with advanced infotainment and intelligent driving characteristics, could one day compete with Tesla's Model S Plaid. (Photo courtesy Zeekr)



The Good Ol' Days Are Now

Find those positive feelings & apply them to your business today.

BY JOSH POULSON

Image Credit: Rhoda - stock.adobe.com



Named the 2022-23 SEMA Person of the Year, Josh Poulson is the principal of Auto Additions in Columbus, Ohio, which was named Restyler of the Year, 2012-13. Auto Additions offers a complete line of product upgrades including 12V and appearance packages with a specific focus on the dealership segment. Josh is immediate past-chairman of the SEMA PRO council.



Remembering the "good ol' days" when things were going well always brings a smile.



It's true that, in the past, even when things were going well, there were still challenges and hurdles to overcome.

"Oh, the good ol' days" is a phrase that has meant so much to so many people in so many ways. Thinking back on a period of time when things were fun, enjoyable or just easier, and the rush of memories that comes with that fleeting moment simply brings a smile.

In business discussions, the "good ol' days" can refer to a time when business was good, profitable and even a bit fun.

The restyling business, like any business, has its share of ups and downs. I was recently talking to some friends about how rough the Great Recession was in 2008-09 compared to the 1990s, when accessories were being residualized at the banks and car dealers would use our products to lower a person's car payment while upgrading their vehicle. Crazy times, for sure, but very good for business.

The thing is, we look back at good times and don't always remember that, often at the height of those positive experiences, there were also some difficult moments, challenges and even catastrophes that filled out the entire context. Still, we refer to them as "good times" because, despite the hurdles, the overall result was positive.

THE BIG PICTURE

I bring this up because, from time to time, it's healthy for us to take a moment to reflect

on the big picture of our businesses. Yes, I'm sure you've had some issues or problems at the shop today that required your attention, and there will no doubt be some tomorrow that will cause anxiety.

But, overall, how are things really going?

Compared to many people, I'm sure you are doing well. In fact, if you take a big step back and reflect, would you say that most things are positive on a daily basis?

Along with your personal experiences, there are also positives that affect our entire industry that we can take a moment to appreciate.

For instance, think of the core products we work with every day. For the most part, the quality of aftermarket products is as good as it has ever been. There was a time when overall quality wasn't nearly as high, and many people looked upon our offerings as vastly inferior to OEM and factory options.

Another positive is that our industry now has decades of history and proof that car dealers and the retail public can have confidence in us and the value of accessorizing.

And consider the fact that, despite certain challenges, what we do is enjoyable. There are many worse ways to make a living than by helping vehicles look and work better and bringing people pride and joy. I doubt you have anyone picketing or attacking you on social media simply because of the type of business you operate.



Making today one of the "good ol' days" involves recognizing and appreciating the gains made by your company and the industry.



When you feel happy and confident, pass on those feelings to the people around you.

CONTAGIOUS OPTIMISM

So, how can these observations help your business now? I suggest starting by making sure you use your personal reflections to encourage the people around you.

Positivity and optimism can be contagious when it comes to sales, production, problem solving and the outlook of your employees. Consider:

- Taking time to remind your staff how appreciative you are of their efforts.
- Finding opportunities to praise them in front of others and one on one.
- Making sure they know their hard work makes a real difference.

Many times, we are quick to look for issues and correct problems, like plugging a hole in a boat. Yet, we don't always take time to perform basic maintenance on the other parts of that same boat.

Some shop owners don't give praise or commendations as often as they should because they are fearful employees won't work as hard, could start to slack off or may even ask for more money.

Studies have shown, however, that the exact opposite is true. Employees that are regularly commended are more loyal, work harder and become more efficient looking for other ways to help the company. Some even prefer commendations and recognition over money.

Sales can also benefit because, when you are positive and optimistic with your customers and your sales and service staff, it becomes contagious. When people are in a good mood they buy more, and we all prefer to do business with happy, joyful people.

So, think about ways you can bring more positivity to the sales side of your business. How can you make things more enjoyable while remaining productive? Perhaps a fun competition that doesn't just revolve around numbers.

Whatever it is, be sure you highlight your appreciation—chances are, your employees will then soon understand what it is they appreciate about working with you, and the cycle will continue.

The next time you're feeling beat up or a little down because of the constant grind, take a few minutes to reflect on what you're accomplishing and the positives you enjoy. Yes, the good ol' days really are today! **TS**



Premium Tonneau Covers

Worksport Ltd., West Seneca, New York, presents its new flagship AL4 Tonneau Cover. Engineered for durability, security and functionality, the cover is designed with robust American aluminum. Precision manufacturing allows for full bed access for a variety of truck applications.



In-Vehicle Infotainment

Stinger, Clearwater, Florida, presents the HORIZON12, an automotive-grade, 12.8-inch in-vehicle infotainment system that combines technology, audio performance and customization. Designed as a premium aftermarket upgrade that brings older vehicles into the modern age with a large touchscreen, the multimedia system offers wireless and wired Apple CarPlay and Google Android Auto; SiriusXM-Ready, HD radio and Bluetooth 5.1 with dual phone connections; multiple USB inputs (2 USB-A, 1 USB-C); HDMI input; and customizable display colors.

Portable Overlanding Power

REDARC, Lonsdale, South Australia, presents the GoBlock by REDARC overlanding power system. Purpose-built to thrive in the harshest conditions, the GoBlock is both a portable power station and a flexible in-vehicle dual-battery system capable of powering electronics and accessories while on the road. Featuring proprietary DC charging technology, the system is capable of a rapid 50-amp recharge rate and the intelligent charging platform maximizes solar panels by using the latest in-built MPPT technology for an efficient charge.





Truck Bed Extension

Overland Vehicle Systems (OVS), Santa Fe Springs, California, presents the OVS Bed Extension. Designed for both mid- and full-size short bed trucks, the extension is constructed from a composite base material with a rubberized diamond plate overlay for durability and weight savings. Offering a 1,250-pound max load capacity, the preassembled system highlights include 2-inch roller bearings, adjustable anchor points, T-rail and 304 marine-grade stainless steel hardware. An ergonomic handle provides easy, single-handed operation.



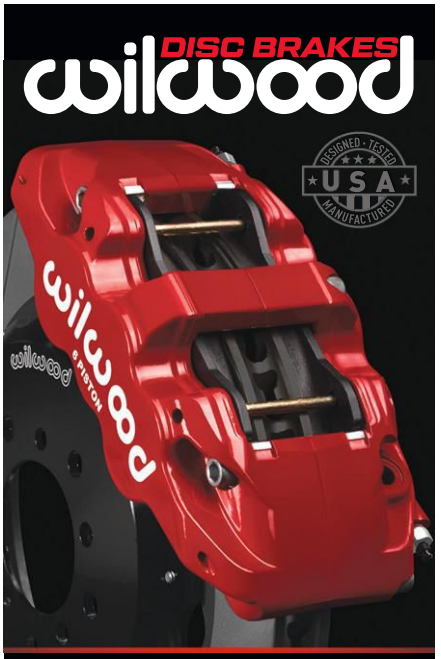
Tundra Bumpers

Addictive Dessert Designs (ADD), Mesa, Arizona, presents its new Black Label Front and Rear Bumpers, available for Toyota Tundra models. Offering an aggressive steel design that closely contours to the truck's factory bodylines, the bumpers include integrated light mounts that provide supplementary front and rear lighting options to elevate the Tundra's sleek exterior styling. The bumpers are crafted from heavy-duty American steel and finished in a resilient hammer black powder-coating. ***TS***

Coil-Over Kits

Air Lift Performance, Lansing, Michigan, introduces Coil-Over Suspension Kits, now available for a variety of cars. Designed to achieve maximum drop without sacrificing performance, the kits combine handling and steering response with a comfortable ride. Vehicle-specific mounts, valving and internal pressure deliver an accurate bolt-on installation and tailored setup. The coil-overs are equipped with 32-way damping adjustment, monotube dampers, anodized aluminum damper bodies, top mounts, locking collars and spring perches.





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New Exhibit Celebrates Ken Block's Legacy



A first-of-its-kind exhibit celebrating the life and legacy of motorsports icon Ken Block debuted in February at the Petersen Automotive Museum in Los Angeles.

"People's Champ: The Impact of Ken Block," marking the most comprehensive public display of Block's extensive collection, is housed in the museum's Meyer Gallery.

Viewed as an industry trailblazer, Block transformed the car culture landscape and inspired a generation of automotive enthusiasts with his innovative vehicles, videos, brands and stunts. With his groundbreaking "Gymkhana" videos, he combined extreme driving with cinematic storytelling, captivating millions and setting a new standard for automotive content.

His racing career was equally impressive—he was a five-time X Games medalist in Rally and RallyCross, as well as one of only four American drivers to score points in the top class of the World Rally Championship.

Beyond racing, Block founded Hoonigan, a lifestyle brand that embodies speed, rebellion and passion, uniting fans worldwide. He was also the co-founder of DC Shoes, which became a globally recognized icon in action sports apparel.

Through initiatives like 43 Institute, Block's legacy continues to empower a new generation of "motivated misfits" to pursue their passions in action sports, motorsports and the creative arts.

"People's Champ" features the automotive stars of the viral "Gymkhana" videos, Block's personal vehicles and cars campaigned during his rally career, as well as extensive multimedia displays and never-before-seen photos and memorabilia from Block's collection. Highlighted vehicles include:

- 1965 Ford Mustang RTR "Hoonicorn" – Featured in "Gymkhana SEVEN," "Gymkhana TEN" and "Climbkhana"
- 2022 Porsche 911 SVRSR "Hoonipigasus" – A 1,400-horsepower Porsche built for the 2022 Pikes Peak International Hill Climb
- 2005 Subaru IMPREZA WRX STI – Featured in "Gymkhana: Practice (or Gymkhana ONE)"
- 2008 Subaru IMPREZA WRX STI – Featured in "Gymkhana TWO"
- 1994 Ford Escort RS Cosworth WRC "Cossie V2" – A classic rally racer updated to modern World Rally Championship specifications
- 1978 Ford Escort – Block's first Ford rally car, later converted for "Gymkhana GRID" competition

An exhibit celebrating the life and legacy of motorsports icon Ken Block debuted in February at the Petersen Automotive Museum. (Photo by Larry Chen)



Viewed as an industry trailblazer, Block transformed the car culture landscape and inspired a generation of automotive enthusiasts. (Photo by Ron Zaras)



"Ken Block transformed motorsports content and captivated audiences with his high-performance cars and fearless driving, leaving a lasting impact on the automotive industry and pop culture," says Terry L. Karges, executive director of the Petersen Automotive Museum. "This exhibit is a tribute to his legacy, and we are honored to share it with the public."

The Petersen Automotive Museum will team up with 43 Institute to celebrate National Ken Block Day on April 3. Plans include a large cruise-in event on Saturday, April 5, and events throughout the week.

"This exhibit is such a meaningful way to celebrate Ken's legacy and I can't think of a better place than the Petersen to bring it to life. It's not just about the cars—it's about Ken's lasting impact and the inspiration he brought to motorsports and car culture," said Lucy Block, Ken's wife. "Through 43 Institute, we're committed to carrying forward the opportunities that fueled his passion and creativity, and we're thrilled to collaborate with the Petersen to continue that work."

The exhibit will run until October 2025. TS

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