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### **ON THE COVER**

Today's paint protection films guard vehicle finishes and look good doing it, making them an attractive offering for shops of all types. See article on page 22. (Photo courtesy Avery Dennison)



Customers from coast to coast and around the world trust Motor State Distributing to supply their businesses with the automotive performance parts they need.

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### **DRIVER'S SEAT**





Jef White
Executive Editor
www.theshopmag.com

### **Another Year Like No Other**

favorite descriptor I've seen used for 2021 is "another year like no other," and the last 12 months have certainly posed their own sets of challenges and opportunities.

Most shop owners used the year to attempt a return to pre-pandemic normalcy, even as the industry dealt with a variety of important new issues including employee shortages, supply chain disruptions and decimated new-car inventories. As it always does, the industry turned these potential lemons into lemonade, finding ways to deliver specialty aftermarket upgrades to a public that values its vehicles as much as ever.

From EVs to gas prices, there's plenty in the auto industry to watch closely heading into 2022. Before we move forward, however, let's take time to appreciate all the ground that was covered in the past year with a walk through the pages of *THE SHOP*:

**JAN** – Industry forecasts predict an unbalanced year; *walking* a virtual trade show; and a clear picture of PPF profits.

**FEB** – There's work to be done on commercial vehicles; the aftermarket's OEM influence; and straight talk on drag racing.

MAR – Overlanding's lost generation; ADAS do's & don'ts; and offering vehicle appraisals.

**APR** – Why winches are winners; motivating worried workers; and auto tech at CES.

**MAY** – Rooftop tents are looking up; making vehicle interiors your quiet place; and dealing with dealer preload objections.

JUN – Weed's effect on the workplace; lighting upgrades make the day brighter; and revving-up profits with a dyno.

JUL – A smooth ride for suspensions and shocks; selling made-in-the-USA products; and places to find OEM parts information.

**AUG** – Verified industry suppliers; the AACF's important work; and attracting higher-value clients.

**SEP** – Serving the import market; making a powersports connection; and the sweet sound of high-end audio.

**OCT** – How your brand directs your business; powering through with off-road drive-trains; and a return to in-person events.

**NOV** – Project vehicles display the industry's best; the SEMA Show's origin story; and hitching up to the towing market.

**DEC** – Hosting a customer appreciation event; wheel to wheel with circle track; and the fun of promotional vehicles.

We've learned by now that no one knows what the New Year will bring, but we at *THE SHOP* wish you health and happiness as we all find out together. **IS** 

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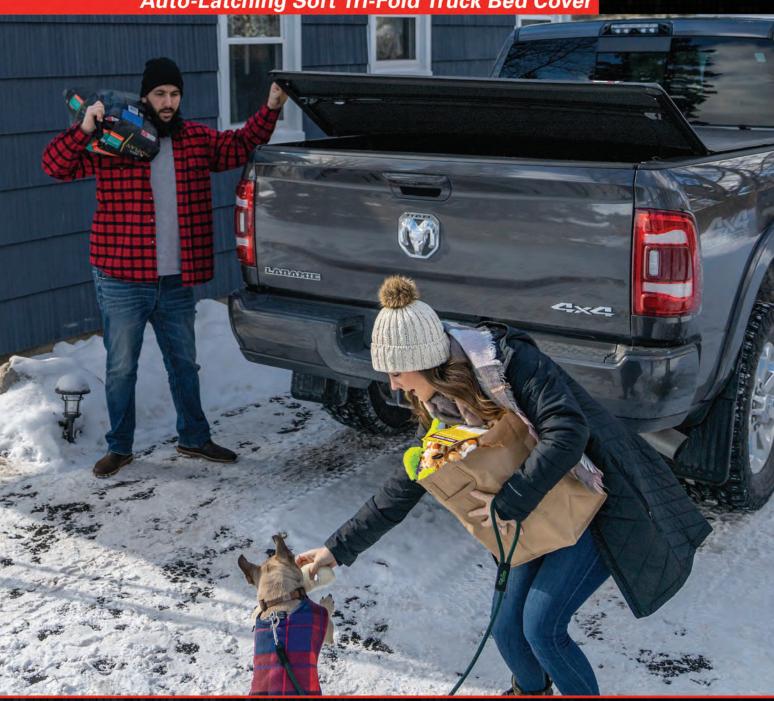






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Bob Phibbs, retail



Scott Hoyt, senior director of consumer economics, Moody's Analytics



Bernard Yaros Jr., assistant director and economist, Moody's Analytics

etailers face a more challenging operating environment in 2022. After a year in which pandemic-sequestered consumers spent heavily on merchandise for the home, they are now expected to shift a greater portion of their disposable income to restaurants, theaters and travel—services that COVID-19 had largely put off limits.

"Our current 2022 forecast is for a 4.5% increase in core retail sales," says Scott Hoyt, senior director of consumer economics for Moody's Analytics (economy.com). "That represents a historically average growth rate. Service spending, in contrast, is expected to grow by 9.4%."

(Note: core retail sales exclude the volatile auto and gasoline segments.)

While the 2022 retail sales forecast represents a considerable drop from the 16.2% spike expected when 2021's numbers are finally tallied, it is also fairly robust given the difficult year-to-year comparison.

Helping to generate sales will be a healthy economy's strong tailwinds of growing employment, rising wages, a booming housing sector and aggressive corporate investment.

"The nation is in the midst of an early economic recovery after the body blow of COVID-19," says

Bernard Yaros Jr., assistant director and economist at Moody's Analytics. "Though growth will decelerate in 2022 due to fading effects from business re-openings and past fiscal stimulus, the economy will remain robust."

The numbers tell the tale: Real GDP (gross domestic product) should grow at a 4.3% rate in 2022, according to Moody's Analytics. While that pace is a bit less aggressive than the 5.8% of the past 12 months, it remains decidedly sunnier than the 3.4% pandemic-fueled decline of 2020.

(GDP, the total of the nation's goods and services, is the most commonly accepted measure of economic growth. *Real GDP* adjusts for inflation.)

Headwinds, of course, are inevitable. The coming 12 months will have their own troubling mix: The peekaboo pandemic. Labor shortages. Crippled supply chains. China tariffs. Nascent inflation. An unsettled consumer.

Yet, economists do not expect negatives to prevail. "While the (COVID-19) Delta variant is continuing to do some damage, we expect this wave of the pandemic to soon subside and for any future waves to be successively less disruptive," says Yaros. "Labor and goods shortages will ease as the domestic and global economies increasingly learn how to live in a new pandemic normal."



Tom Palisin, executive director, The Manufacturers' Association



John Manzella, global business and economic trends consultant



Bill Conerly, Conerly Consulting



### 2022 RETAIL FORECAST



#### **COMPANIES REBOUND**

Business owners tend to confirm the economists' sunny reports.

"Most of our members have seen a healthy return of revenues and are doing about 90% of their pre-COVID business," says Tom Palisin, executive director of The Manufacturers' Association, a York, Pennsylvania-based regional employers' group with more than 370 member companies (mascpa.org). With its diverse membership in food processing, defense, fabrication, and machinery building, Palisin's association is something of a proxy for American industry.

"Many have actually gone into hiring mode," he reports.

Moody's Analytics expects corporate profits nationally to increase by some 4% in 2022. While that figure might seem unre-

markable in isolation, it (again) represents an enviable performance over difficult 2021 comparisons, when profits spiked 36%.

Heftier earnings should also help companies weather the coming year's array of challenges.

"Corporate profit margins have been running somewhat above their five-year average of 11.1%," notes Yaros. "That should provide some ability to absorb price pressures that have developed from rising commodity prices and global supply chain issues."

Everyone was glad to bid adieu to pandemic-battered 2020, when corporate profits declined 3%, and is looking ahead to better times.

"Our members are optimistic and expect current levels of demand to continue well

into 2022," says Palisin. "They're expecting to continue to hire, as well. Our annual wage and salary survey usually projects between 400 and 500 job openings for the coming 12 months. Now, though, the number is more than 1,000. So, we're looking at a doubling of the usual hiring activity."

Aggressive hiring is improving the nation's employment level, a key driver of retail sales and of the consumer sentiment so vital to the nation's overall business health.

"Unemployment has been declining pretty steadily," says Hoyt. "Jobs are being added at a rate that prior to the pandemic would be viewed as astoundingly good."

Unemployment is expected to be as low as 4.6% when 2021 figures are finally tallied, and should decline to 3.5% by the end of 2022, a level close to the *full employment* conditions of the pre-pandemic economy.

A tight labor market is likely to spark wage hikes that put money in shoppers' wallets and drive positive consumer sentiment. Today's economy is no exception.

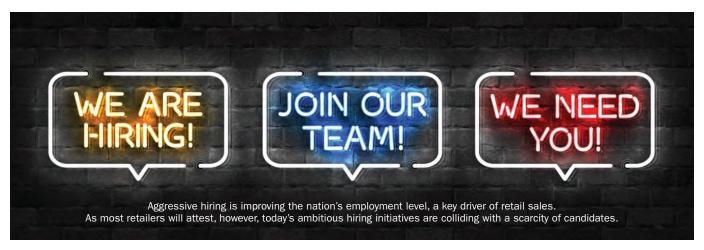
"We have seen a significant increase in wages over the past year—as high as 20% to 25% for lower hourly entry-level employees and machine operators," says Palisin.

Nationwide, increases are running lower, due to normalization of wages in some industries.

"In 2022 we're looking at 2.6% growth in the employment cost index, compared with 2.9% for 2021 and 2.6% in 2020," says Hoyt.

(Economists consider the *employment cost index* as the best measure of actual wage rates).

Hoyt adds that "any risks to the accuracy of those numbers is probably on the upside."





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### **2022 RETAIL FORECAST**



Wage rates aren't the only component of an employer's labor costs. Toss into the mix a greater number of people employed, a greater number of job positions filled and an increased number of hours worked, and the total comes to what economists dub wage and salary income. And it's clear that employers nationwide will be shelling out more of that in the coming 12 months.

"In 2022, we're looking at about 4.6% growth in wage and salary income, coming off a 7% increase in 2021, which was up from 1.3% in 2020," says Hoyt.

All that additional income should encourage greater spending by shoppers. And signs are that people have saved up considerable sums of cash ready to be spent—always a good sign for the specialty aftermarket.

Throughout 2020 and early 2021, after-tax income rose much faster than anticipated prior to the pandemic. The reason was a massive fiscal stimulus in terms of federal economic impact checks and expanded unemployment insurance payments.

At the same time, consumer spending ran lower than anticipated.

"People now have a huge amount of savings," says Hoyt. "Furthermore, consumer credit card borrowing has been weak, leaving consumers more flexibility to borrow money going forward if they choose to."

### **CONSTRUCTION ACTIVITY**

Retailers benefit when businesses invest in capital improvements, and the reports in this area are favorable.

"Our members in general are expanding, building new warehouses and manufacturing facilities and buying new equipment," says Palisin. "We are seeing a special uptick in the automation category because of the labor supply issue."

Nationwide, the picture is the same.

Moody's Analytics expects capital investment to increase 8.2% for both 2021 and 2022—another welcome rebound from the 5.4% decline of 2020. Companies are giving a lot of attention to bolstering their intellectual property infrastructure.

"Investments in information processing equipment and software are well above prepandemic levels as businesses have boosted their IT budgets," says Yaros.

Higher energy prices have fueled aggressive investments in mining exploration, shafts and well structures. The economy should also benefit from more spending on commercial structures.

"We're going to see more non-residential construction next year," predicts Bill Conerly, principal of his own consulting firm in Lake Oswego, Oregon (conerlyconsulting. com). "It will be strongest probably in warehouses and light industrial, but also suburban offices. Early indicators, like the Architectural Billings Index, are looking positive."

This will be a welcome change over recent flat activity, which Conerly attributes to the long lead times characteristic of such projects and a scarcity of new initiatives in the early days of the pandemic.

"Early in 2020, nobody was signing papers to acquire land or do new projects," he says. "So, what we see going on now are projects that were planned pre-pandemic or with short lead times."







### **2022 RETAIL FORECAST**



Fueling the trend: ready money.

"For the most part our companies are able to access funds for hard capital investments and lines of credit," says Palisin. "Financing has loosened up since a year ago when everybody was in a high state of uncertainty."

On the residential side, housing starts have been running about 15% higher than pre-pandemic levels, according to Moody's Analytics. Buyers of new homes tend to shop a lot at retail stores, and the prediction for the housing industry is full steam ahead.

"Annual growth in housing starts will remain strong because of favorable demand-side factors, namely demographics and excess savings," says Yaros.

Increases for 2022 are expected to top 11.9%—very aggressive by historical standards and slightly higher than the previous year's 10.6%.

Eager consumers are bidding up the prices of single-family homes, and a general easing of mortgage lending standards is helping grease the skids. Housing prices for 2021 are expected to jump 17.5%—a considerable improvement over the previous year's 10.4%.

As for 2022, Moody's Analytics expects increases to decelerate to 4.6%, thanks to difficult year-to-year comparisons.

### **SCARCE WORKERS**

The generally favorable economic forecast is not without its clouds. As most retailers will attest, today's ambitious hiring initiatives are colliding with a scarcity of candidates.

"Our members are having difficulty finding enough workers, especially for entry-level jobs," says Palisin. "The average time-to-hire has doubled from what it was prior to the pandemic. This will certainly impact our members' abilities to take on new work or provide on-time deliveries."

Nationwide job openings recently topped a record-shattering 11 million—a huge increase over the 7 million pre-pandemic level.

"The number one concern of businesses going forward will be finding qualified labor," says Yaros. "There have never been so many open positions across every industry and government, but the need for more workers is especially acute in manufacturing, transportation, educational services, healthcare, and leisure and hospitality."

The reasons for the scarcity are diverse.

"There has been a significant drop-off in labor force participation as folks were forced into retirement or are staying home to deal with childcare or other dependent care issues that are more difficult to handle in the current environment," says Hoyt.

Some fear the risk of workplace infections. Others are not finding exactly the job they want. And many pandemic-shocked people are reassessing their life missions and pursuing new ventures.

However, a number of factors may help relieve the labor crisis in 2022. These include the end of bonus unemployment insurance, a declining effect from stimulus payments, an abatement of infections and a return to in-person schooling.

### **SUPPLY CHAINS**

The tight labor market is helping fuel another retail headache—a global break-

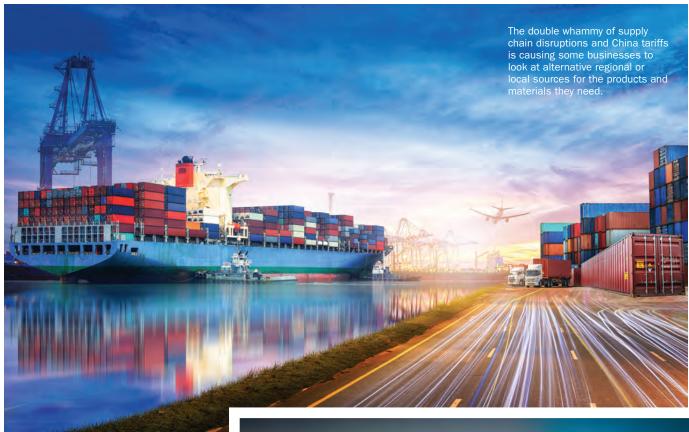




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### 2022 RETAIL FORECAST



down in the efficient distribution of goods.

"The most important problem for retailers is a supply chain that is still broken," says Bob Phibbs, a retail consultant in Coxsackie, New York (retaildoc. com). "Smaller operators who lack buying clout are finding it especially difficult to get product."

A lack of sufficient workers is often the root cause of supply chain disruptions. When people aren't available to do the work, efficient production and transportation fall by the wayside.

Retailers are hurt when cargo ships pile up at ports, causing delivery delays and leading to widespread price increases for supplies. And delivery disruptions may persist for some time.

"Recently a vendor told me they didn't expect production to be back to where it should be until the middle to the end of 2023," says Phibbs. "And the prices for components have gone up so much that in many cases it is no longer profitable to keep making some products."

The increased costs resulting from order



backlogs and delivery delays are exacerbated by the China tariffs. While retailers were expecting some relief from the Biden administration, so far there has been no move to change the status quo.

"Tariffs on Chinese goods will likely continue," says Conerly. "In fact, given the friction between the U.S. and China, it's possible we could even get additional ones."

The double whammy of supply chain disruptions and China tariffs is causing some

businesses to look at alternative regional or local sources for the products and materials they need.

"Many businesses are no longer relying on any single supplier or global region for goods and services," says John Manzella, a consultant on global business and economic trends in East Amherst, New York (johnmanzella. com). "They are building more diversified and reliable supply chains. Instead of buying in scale from two very large Chinese



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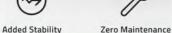


















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### 2022 RETAIL FORECAST



suppliers, they might buy in smaller increments from a half-dozen suppliers located in different regions of the world. They may also utilize more long-term warehousing facilities. This strategy, which adds costs but reduces risk, will be extremely beneficial in protecting against the next pandemic, black swan or trade war."

Finding alternative sources, though, can be easier said than done.

"Many businesses that would like to source domestically can't find any vendor in the United States that can match Chinese prices," says Conerly. "And Chinese companies have improved the quality of their goods significantly."

Adding to this litany of woes is the Chinese government's increasingly heavy-handed control of industry, notes Palisin.

"Some of our members are asking, 'If we have a critical supplier in China, how likely is it that the government will step in and intervene in that company, which could impact us getting access to our components?""

### THE YEAR AHEAD

As retailers enter the early months of 2022, economists suggest watching a number of

leading indicators for an idea of how the year will go. The first is the state of consumer confidence—a vital driver of cash register activity.

Given favorable wages and income trends, one might expect that consumers are feeling fairly good. In the closing months of 2021, though, the attitude of the American public was surprisingly unsettled.

"It really is difficult to get a good sense of consumer confidence in the current environment," says Hoyt.

One reason, of course, is the unclear path of the pandemic. Another is the recent spike in fuel and other prices, sparking fears of inflation.

How the public reacts to the shapeshifting virus should be more apparent in the opening months of 2022. So should changes in currency purchasing power.

"Inflation will be the key financial statistic to follow early in the year," says Yaros.

Moody's Analytics calls for the Core PCE Price Index to moderate to 2.2% in the fourth quarter of 2022 as the effects of past fiscal stimuli fade away.

(The Core PCE Price Index excludes energy and food prices and is the Federal Reserve's preferred measure of inflation).

Businesses should watch for higher levels of persistent inflation that might cause the Feds to increase interest rates—a move Moody's Analytics does not anticipate before 2023.

Yet another leading indicator will be the return-to-work trend.

"More people getting back on the job would confirm a strong 2022," says Conerly. "Are employers getting the workers they need? Are people earning more money to spend?"

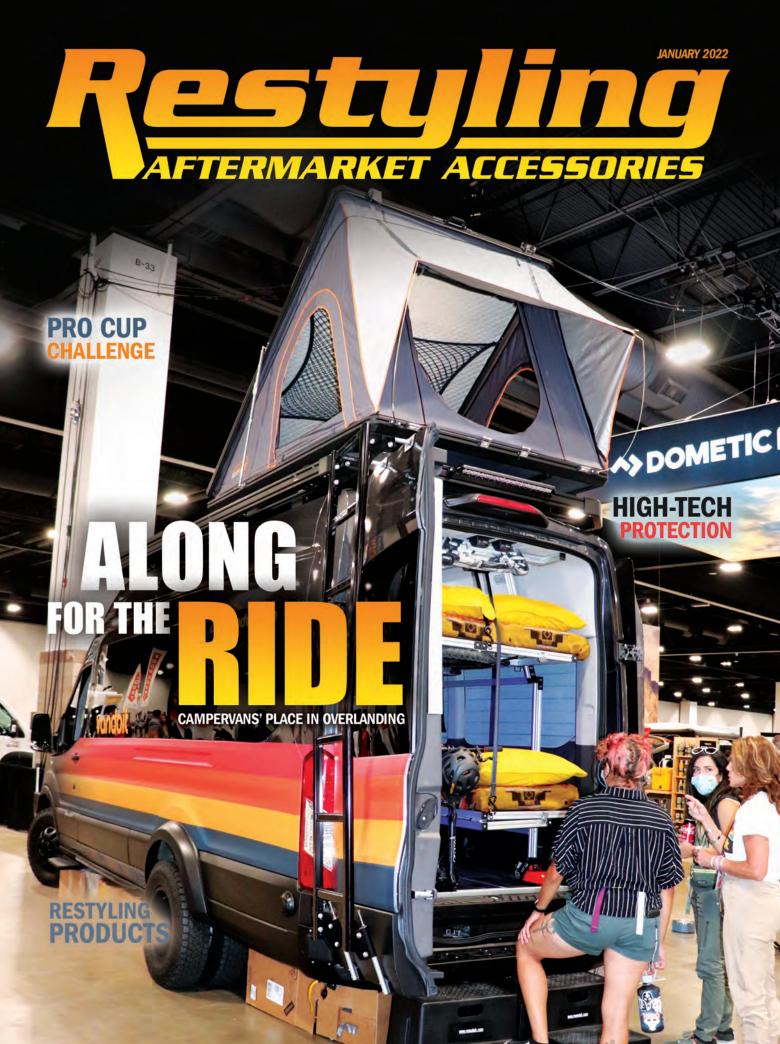
Finally, one nonfinancial force may be more important than anything else.

"The damage done by the Delta variant has taught us that the pandemic is still alive and has the potential to disrupt economic activity," says Hoyt. "Early in 2022, the leading data will be about COVID-19. What are the trends in vaccination rates? Infections? Hospitalizations? Deaths?"

Favorable answers bode well for robust retail sales. **18** 



New York City-based journalist **PHILLIP M. PERRY** publishes widely in the fields of business management and law.



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# Alcours the Riche

When it comes to overlanding, don't forget the campervans.

Story and Photos by Jason R. Sakurai

espite the emergence of adventure vans as the newest set of overland vehicles, these campervans are in essence a throwback. Decades ago, the VW Westfalia, or *Westy*, was the oddity your neighbors with a penchant for the outdoors bought to go camping, at a time when most Americans preferred to travel in station wagons or in trucks or Jeeps with a travel trailer in tow.

In the 1960s, companies such as Man-

chester, Pennsylvania-based Quigley Motor Co. and Sportsmobile of El Paso, Texas started performing four-wheel drive conversions on full-sized domestic vans from Ford, GM and Dodge. Meanwhile, pop culture spawned surfer vans, and a generation headed to the beach in these colorful boxes on wheels, sporting interiors with shag carpeting, shiny mag wheels and wider tires.

When SUVs replaced vans (and station wagons) as preferred family vehicles, full-sized

models were still being converted to 4x4s. And, while most full-sized GM and Ford E-Series vans have traditionally been used as work vehicles and people-movers, some found lives as campervans for outdoor-minded owners.

When Ford debuted its fourth-generation Transit van in 2014 as a 2015 model, it replaced those E-Series cargo and passenger vans. The Transit was brought to market to compete with the Chevrolet Express/GMC Savana, Ram ProMaster, Nissan NV and Mercedes-Benz Sprinter.

In 2018, Mercedes countered with its third-generation Sprinter, which was released mid-year as a 2019 model. Conversions of Sprinters into limousines, wheel-chair-accessible vans and service vehicles aren't the story here, but their emergence in the campervan market is.

To the uninitiated, all of the current crop of campervans are known as *Sprinter* vans—a term used rather loosely and interchangeably. And you could soon be seeing more of them in your shop, looking to be outfitted for adventure.

### **LET'S GET TOGETHER**

Prior to the release of the third-gen Sprinter, a promoter in Lake Tahoe, California coined the name Adventure Van Expo and held the first event in his hometown four years ago.

Buoyed by its success, Neil Morse has since added more gatherings to his series, holding them in Hood River and Bend, Oregon; Logan, Utah; Dillon, Colorado; Homewood and Big Bear Lake, California; and Chattanooga, Tennessee.

The emergence of campervans didn't go unnoticed by other promoters. Canadians Ray and Marianne Hyland have hosted NorthWest Overland Rally in Plain, Washington; BC Overland Rally in Whistler, British Columbia; and Rocky Mountain Overland Rally in Gunnison, Colorado, welcoming these hybrid vehicles.





adventures.

the Class B RV norm. Instead of fairly generic interiors with the same materials and components that could be found in other RVs, campervans are a showcase for the engineering expertise and design artistry of a multitude of builders.

Going through a directory of builders

Going through a directory of builders, they range from small teams of five to groups of as many as 70 craftsmen and women. They can be found in almost every state in the U.S. and many Canadian provinces.

Adventure vans have spawned a cottage industry much like that of craft beer, with exotic, ingenious brand names and wait times as long as a year or more for a completed unit.

While the growth of adventure vans was aided by the pandemic, its trajectory was already exceeding expectations before the shutdown occurred. Travelers' desires to get outdoors and bring everything with them have only been heightened by social distancing and other restrictions.

As of this writing, airline scheduling uncertainties have caused travelers uncertainty, making the idea of traveling in an adventure van even more appealing.

According to the Recreational Vehicle Industry of America (RVIA), Class B RVs





their own versions of adventure vans.

These manufacturers have insinuated that there's a difference between Class B RVs constructed by more established RV makers and those of adventure van specialist builders. Regardless, platforms like rvtrader.com are a resource for establishing campervan values without bias for or against any builder or brand.

### **ADVENTURE VANS & YOUR SHOP**

As a truck, off-road or overland shop, you want to stay on top of the trends—and currently that's adventure vans.

If you have the expertise and the wherewithal to do these conversions, but have held back for one reason or another, you may want to wait just a little longer. Supply chain woes have plagued the industry, and campervans are not immune.

Still, keep a close eye on the market, and make the move when the time is right for you.

Blue Springs, Missouri-based Vandoit has been in the van business for three generations. Van leasing and building vans for commercial use led CEO Jared McCauslin to conceptualize van builds in stages, with components that could be added on over time.

Modularity not only speeds up the process, but results in greater consistency. Vandoit is a Ford Qualifying Vehicle Modifier (QVM), earning the designation after months of scrutiny by the automaker. The company has also achieved RVIA and National Highway Traffic Safety Admin-

istration (NHTSA) approvals.

Vandoit's current campaign, *Close To Home, Far From Ordinary*, calls attention to rediscovering the United States. It has also created a newsletter called *Adventur'r*, highlighting places to visit, camping recipes and outdoor exploits.

Maybe you see this as exactly the right time to start building campervans. There are companies such as Adventure Wagon, Aluminess Products, Backwoods Adventure Mods, Dometic, Thule, Flarespace, Foes Racing/TransitOffRoad.com, Havelock Wool, Hellwig, Lagun, Scheel-Mann, Black Rhino/Wheel Pros, Van Compass, Lithium Pros and countless others that are ready and eager to partner with quality builders.

Whether you decide to build complete adventure vans or just do some upfitting, owners will still need parts, accessories and service. The RV dealer down the road may not be as willing to service specialty adventure vans as opposed to traditional RVs, and campervans are much more in line with your existing clientele.

Keep in mind this is a different segment, with vehicles whose price tags can reach \$150,000-\$250,000. Customers may not have much if any off-road experience, and there's a lot they can learn from a professional like you.

This is also a clientele with very discerning tastes, meaning a preference for premium products.

The U.S. Bureau of Economic Analysis (BEA) recently released statistics measuring the outdoor recreation economy in the





Adventure Van Expo founder Neil Morse (right) knows overlanding can bring families together.

Specialty product suppliers like Rumpl, a maker of outdoor blankets, allow shops and customers to make each campervan unique.



U.S., and while it decreased by 19% from 2019 to 2020, the RV segment increased by more than 5%.

According to Jay Landers, RVIA vice president of government affairs, "the good news is that nearly 20% more RVs will be built in 2021 than in any prior year, and the streak is expected to continue into 2022. This bodes well not only for the RV industry, but for the wider outdoor recreation economy." **TS** 



JASON SAKURAI heads up Roadhouse Marketing, a marketing, advertising and sales solutions firm dedicated to the automotive aftermarket. A frequent contributor to THE SHOP,

Jason's byline appears in many enthusiast and trade publications, in print and online.



teller Overland in Alabama.

### Storyteller Overland Acquires GoCamp

Birmingham, Alabama's Storyteller Overland has acquired GoCamp, a Portland, Oregon-based van rental platform.

GoCamp was started in 2017 along the lines of Airbnb, allowing van owners to make extra income by renting out their campervans when they are not being used. Renters get to experience #vanlife without having to purchase a van.

GoCamp's campervan fleet already included many Storyteller connections and, according to Jeffrey Hunter, founder and chief executive officer, "Storyteller Overland and GoCamp are a perfect match. Both of our teams are passionate about empowering people for grand adventure out on the open road and beyond, and each thrives on fostering connectedness among the growing communities we serve."

Thanks to Storyteller's reach and resources, GoCamp will expand nationally. There are about 150 GoCamp campervan rentals currently available in Arizona, California, Colorado, Oregon, Utah and Washington.

The investment allows Storyteller Overland to provide additional layers of value for its own buyers, according to the company, including a factory-endorsed path for owners to rent their vans through GoCamp with its personalized business model, removing the anxiety of renting their vehicles to strangers.

# HELLA BLACK MAGIC LED REBIRTH OF A LEGEND



### FULL BLACKOUT APPEARANCE POWERFUL PERFORMANCE

Millions of the legendary HELLA Black Magic Halogen Series spotlights have been sold worldwide over the years. Preferred by car enthusiasts and professionals alike, the HELLA Black Magic Halogen Series is the ideal choice of styling and performance for every off-road adventure.

Now, the lighting experts at HELLA have just launched their latest innovation in off-road illumination - the HELLA Black Magic LED Series! With full-size light bars, mini-light bars and cubes designed in full blackout appearance, the new Black Magic LED Series from HELLA shines so bright, they leave the competition in the dark. Key features:

- → Offers some of the toughest dust / water protection on the market (IP 68, IP 69K)
- → Full blackout appearance including mounting hardware
- → Sleek design
- → Specially developed reflector design for homogeneous illumination

For more product details, visit



**New Product Awards:** 



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2021 BEST NEW PRODUCT AUTOMOTIVE LIGHTING

**CUBES LIGHTBARS** KIT **SINGLE** 2.7 "Flood 6.2" Flood 1,600 lm 358176801 358176201 3.2"Flood 6.2"Spot 1,600 lm 358176211 3.2"Spot 6.2" Flood /Flush Mount 358176221 1.600 lm 3.2"Spot/Flush

MINI



Technology with Vision





# PROTECTION

PPF becomes an important part of SS Customs' product mix.

t's said that if Silicon Valley was a country, it would be one of the richest in the world. So, it's no surprise that the region is home to a wide variety of high-end cars and trucks, many owned by people pushing the tech industry into the future.

When those owners are interested in preserving or customizing their vehicle's finish, they can turn to SS Customs in Redwood City, California.

Owner Shareef Khan is a second-generation graphics professional. His father and mother, immigrants from the Fiji Islands, own a sign-making shop (Sam's Signs, which still operates in San Leonardo, California).

Khan started working there as a teenager and witnessed the evolution of the graphics industry over the last couple of decades.

### **FILM PIONEER**

A car enthusiast himself, Khan started SS Customs in 2005. The following year, he appeared at the SEMA Show with what he believes to be one of the event's first wrapped cars.

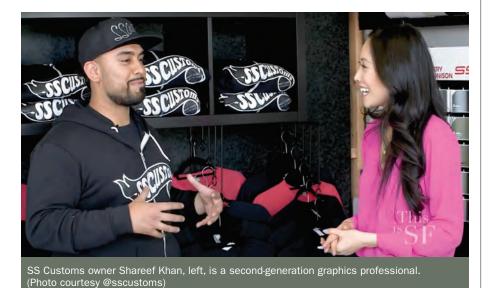
"Our cars would win shows and events, and that told me that people were paying attention," he recalls. "Many who saw our cars first thought our designs were airbrushed, and were surprised to learn they were digitally printed on film. Once solid color films came out, everything kind of grew. I can't believe how big it is now."

Around 2009, Khan learned how to apply paint protection film (PPF). Today, SS Customs focuses mainly on PPF and color-change films—splitting those applications about evenly—while also offering ceramic coating, powder-coating of wheels, and window films.

He notes that while some shops prefer to focus on different types of work (paint, fabrication, etc.) with wrapping as a secondary offering, his is one of the few businesses that puts vehicle films first.

Khan and his team rely on Avery Dennison automotive films for a lot of their work. He refers to it as their number one brand for color-change films, and SS Customs was one of the first in the country to use the company's PPF products.

Noting the Supreme Defense line of high-performance PPF offerings provides scratch resistance and self-healing properties in a choice of gloss or matte finishes, Khan says that many customers are now taking notice of the neo noir product, an innovative hybrid gloss black PPF that provides an OEM paint-like finish while protecting the vehicle from harmful environmental hazards.



"Supreme Defense PPF has less initial tack, so you don't have glue lines, glue failure or anything else that you often see

with these films," he says. "This is espe-

cially true on black cars."

While the films take a little longer to dry, requiring a bit more patience from the installer, they deliver more of a clean cut, he adds.

"You have to give yourself a little bit more time for the post-work, but the overall finish and install quality is superior."

The shop does use "a trickle" of other brands as well, he adds.

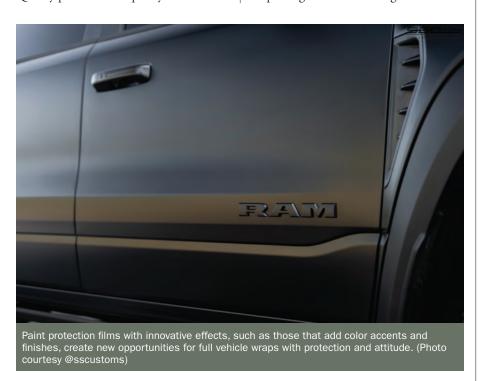
### **CALL FOR QUALITY**

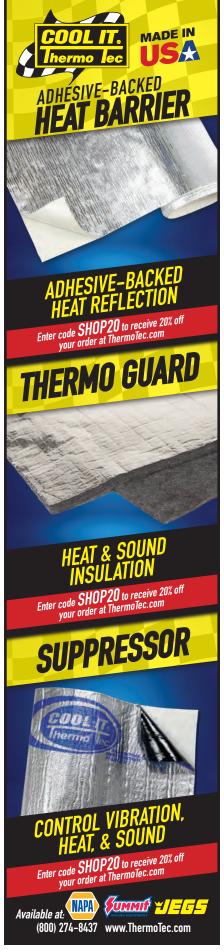
Quality products and quality installs are a

must for a shop that sees its fair share of Lamborghini, Mercedes-Benz, Porsche, Tesla and other high-end makes and rare models.

"There are products that could allow us to move faster," Khan says, "but at the end of the day, our customers want the best quality they can get. The results we get from PPF really mean a lot to our business."

For SS Customs (sscamerica.com), a strict process is the key to consistent results. Cars are first carefully hand-washed and treated with a clay bar to ensure surfaces are decontaminated and as smooth as possible. The post-application process includes inspecting the car under lights to ensure





# Quality products make a positive impression on customers, and particularly owners of high-end vehicles. (Photo courtesy @sscustoms)





### XPEL NAMED EXCLUSIVE PPF OF THE MERCEDES-BENZ CLUB OF AMERICA



XPEL Inc. has announced a multi-year designation as the exclusive paint protection film, ceramic coating and

window film sponsor of the Mercedes-Benz Club of America.

The sponsorship is intended to drive increased brand awareness and usage among the tens of thousands of Mercedes-Benz enthusiasts who participate in club-sponsored activities and events, according to the company.

"XPEL is thrilled to begin this new journey with the Mercedes-Benz Club of America," says Robert Bezner, vice president - brand at XPEL. "Our exclusive sponsorship will create engagement opportunities with the Mercedes-Benz enthusiast community on countless levels."

XPEL's paint protection film portfolio includes ULTIMATE PLUS, ULTI-MATE PLUS BLACK and STEALTH.

"We know that our club members have extremely high expectations when selecting brands and products to protect their vehicles," said Mike Regennitter, executive director of the Mercedes-Benz Club of America. "XPEL's product offering is unrivaled, and with a far-reaching network of trained and certified installers, I know our members' expectations will be exceeded."

### A LOOK AT PPF PROFIT POTENTIAL

Unsure about adding paint protection film services to your shop? Here are some photos to give you a clearer picture of what it all entails. (Photos courtesy Avery Dennison)







**1.** Installing PPF such as Avery Dennison Supreme Defense gloss paint protection film protects vehicles from dings, dents, road debris, insects and weather. Quality films are self-healing and provide a sleek, gloss finish. **2.** PPF appeals to high-end vehicle clients. **3.** A pigment-rich black paint protection film provides protective accents and contrasting effects. This BMW showcases Avery Dennison neo noir PPF.

there are no air bubbles or other blemishes in the work.

When it comes to bringing on new PPF installers, Khan says the Supreme Defense line again has its benefits.

While it may be slightly more technical than a dry install film, "it's a bit more forgiving, with the lower initial tack," he says. "That helps a lot of the newer installers understand the film a little bit better."

He also appreciates and takes advantage of installer training available from Avery Dennison.

"They've always had our backs when it comes to teaching us about the film, educating us about the process and more," he says. "The customer service you get from any brand you carry is a direct mirror of what you're able to give to your clients... it's a win-win on all sides."

While SS Customs is used to dealing with high-end vehicles, Kahn and his team remain down to earth and grateful for their success.

"We're one of the oldest and highest-rated shops in northern California, and we have a lot of cool things happening here," he admits, "but I still think of us as the *humble little wrap shop on the West Coast.*" **15** 



### RESTYLING **PRODUCTS**

### **Digital Car Key**

HELLA, Peachtree City, Georgia, introduces Smart Car Access, a digital, smartphone-based car key based on ultra-wideband (UWB) technology. Designed to allow drivers to lock and unlock their cars or start their vehicles completely



hands-free, the system is activated at a distance of approximately 160 feet, and unlocks the vehicle when the user is within approximately six feet. The engine can only be started when the smartphone is inside the vehicle. The system solution is compatible with both Android and iOS operating systems.



### **TRX Lift Spacer System**

ICON Alloys, Riverside, California, presents a Lift Spacer system for 2021 Ram TRX pickups. The latest addition to the IVD Leveling Suspension product line, the modular design of the lift spacer allows ride height increases of 0.625, 1.5 or 2.125 inches and does not require shock disassembly. Built to work with existing components, the system is made from CNC-

machined aluminum with a black anodized finish.



### **Sierra Front Mounting System**

WARN Industries, Clackamas, Oregon, introduces the new Trans4mer Gen III modular mounting system, available for 2020-current GMC Sierra HD 2500/3500 applications. Offering a minimal way to mount a winch and add front end protection, the system uses custom brackets that attach to the vehicle while retaining the factory bumper. The brackets are made from durable 1/4-inch steel, and the system is thoroughly pull-tested for strength and durability up to 12,000 pounds. It fits most WARN mid-frame winches including VR EVO, ZEON, ZEON Platinum and others. J-hooks are also included.

### **Jeen Roof Rack**

**Quadratec,** West Chester, Pennsylvania, presents an Aluminum Roof Rack for 2018-'21 Jeep Wrangler JL and Gladiator JT applications. The versatile rack features a sleek design and has a load rating of 150 pounds evenly distributed.



Measuring 52-inches-long-by-54-inches-wide, the rack adds just 7.5 inches of height to the Jeep. It is built from lightweight aluminum with three extruded aluminum crossbars for the floor, and steel mounting hardware is included. The rack fits both 2- and 4-door applications, and is finished in a light textured powder coat.



### **Classic Car Stereo**

Retro Manufacturing, Henderson, Nevada, presents the RetroSound Redondo Radio. Winner of the Best New Accessory Item award at the ARMO Hot Product Showcase last spring, the sound system is modeled after classic vehicles that had separate display and pushbutton assemblies in the dash. The Redondo is available in two

configurations—a classic two-shaft design with period-correct knobs and bezels for vintage Ford, Mopar and Volkswagen vehicles; or with Mopar-style thumb rollers in place of control shafts for classic Mopar restorations.



### Wrangler Unlimited Interior Protection

MasterTop, Golden, Colorado, presents its Wind Stopper Plus & Tonneau Cover two-piece kit for 2018-'22 Jeep Wrangler Unlimited JL four-door applications. Designed to provide protection from the elements for both the front and rear portions of Jeep Wrangler Unlimited models, the kit uses innovative MasterTwill and features a unique, easy-to-install wraparound design that seals around the door surrounds. The customdesigned tonneau attaches to the Wind Stopper Plus with a heavy-duty zipper and hook-and-loop fastening system.





### QUADRATEC® GEN II LED HEADLIGHTS FOR WRANGLER JL & GLADIATOR JT

- Solid State Photometic Technology Delivers a Brighter and Whiter Light Output
- Distinct Customized Appearance
- Powerful LED's are Protected by Water Tight Epoxy Seals
- Exceed DOT and Federal Motor Vehicle Safety Standards



### QUADRATEC® FLASHLIGHT HOLDER WITH FLASHLIGHT

- Conveniently Store your Flashlight Within Easy Reach
- Installs Fast & Easy by Clipping to Your Seat Bracket
- 12x Cree LED Power with Long Beam
- 1000 Lumens, Uses About 3.7V for Each Setting



### ROVE™ REAR STORAGE ORGANIZER FOR JL

- Convert the Space Above Your Wrangler
  JL Wheel Wells Into a Secure Location to
  Store Your Gear
- Organizers Fit Contours of JLU's Wheel Wells Perfectly, Leaving No Gaps for a Clean Look
- No Drilling or Modification Required

QuadraTop



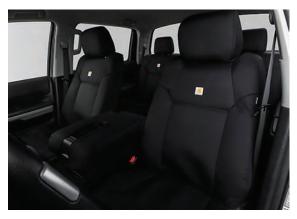






Sign Up Today!





### **Heavy-Duty Seat Cover Fabric**

Covercraft, Pauls Valley, Oklahoma, introduces Carhartt Super Dux fabric featuring heavy-duty Cordura to its SeatSaver and PrecisionFit seat cover lines. Offering added protection for trucks, SUVs, crossovers and vans, Super Dux is initially available in black only.



### **Bronco Speedometer Calibrator**

Hypertech, Bartlett, Tennessee, presents its new In-Line Speedometer Calibrator Module for use on all 2021 and newer Ford Bronco vehicles with gasoline engines. The device corrects the speedometer and odometer for non-stock tire

sizes and non-stock gear ratios. The module accounts for tire sizes from 24 inches to more than 40 inches and is internet updateable.



### **Honda CR-V Lift**

Air Lift Co., Lansing, Michigan, presents its Air Lift 1000 lift system. now available for 2017-'21 Honda CR-V applications. By working with the vehicle's existing suspension, Air Lift 1000 helps with vehicle squat, poor headlight aim, unresponsive steering, trailer sway, body roll and bottoming-out. The system is airadjustable from 5 to 50 psi and improves overall ride quality, whether loaded or unloaded. Installation requires minor air line access drilling with minimal special tools, but no frame drilling.



### **Durable PPF**

### **Eastman Performance Films,**

St. Louis, presents LLumar Valor paint protection film. Designed to repair surface scratches using heat from the sun or a car engine, Valor protects vehicles and helps them look newer longer. The PPF is easy to clean and features improved stain and environmental resistance.

Using Eastman Tetrashield technology, it blends paint protection and ceramic coating benefits into a single durable product.



Continental, Allentown, Pennsylvania, presents the ProViu 360 2nd Generation Surround View System, designed to deliver full digital capability that gives drivers even sharper and higher-quality images in HD resolution so they can easily and safely monitor their entire vehicle and its surroundings at a single glance. The system's



360-degree capability maximizes the field of view and eliminates blind spots. Using four high-performance HD automotive cameras to cover every direction, it creates a virtual bird's eye view of the entire vehicle in real time.



### **Proximity Automation Device**

VAIS Technology, Englewood, Colorado, presents the SEER fully customized proximity automation device. A winner of the SEMA 2020 Best Mobile Electronics award, the system is designed to trigger factory or aftermarket electronic devices based on driver proximity or events. Compatible with virtually any vehicle, SEER can initiate up to 10 outputs to turn the lights on or off, lock/ unlock doors, lower running boards, chirp the horn or power any other electronic accessory when drivers approach or exit a certain perimeter around the vehicle.

# THE INTERSECTION OF LEGENDS & ADVENTURE



### **ALL NEW STEALTH SERIES** BY ROAD ARMOR FOR **FORD BRONCO**

- Proudly Made in Texas, USA
- 3/16" Heavy Duty Steel Construction
- 1/4" Gusseting and Internal Bracketry
- CNC Laser Cut
- Precision Brake Formed
- Welded by Craftsmen inside and out
- Direct Bolt On Design

- Superior Foot Forward Winch Mount (\*\*fits up to a 12K winch)
- Recessed light ports for auxiliary lighting
- Premium 5-stage Satin Black powder-coat finish
- Lifetime Structural Warranty
- \*Winch and Lights are not included

### BRONCO STEALTH SKID PLATE

- 3/16" Heavy Duty Steel Construction
- CNC Laser Cut
- Precision Brake Formed
- Welded by Craftsmen inside and out
- Direct Bolt On Design
- Premium 5-stage Satin Black powder-coat finish
- Lifetime Structural Warranty

### BRONCO A-PILLAR LIGHT BAR MOUNTS

- 1/20" Heavy Duty Steel Construction
- CNC Laser Cut
- Precision Brake Formed
- Welded by Craftsmen inside and out
- Direct Bolt On Design
- Premium 5-stage Satin Black powder-coat finish
- Lifetime Structural Warranty





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### RESTYLING **PRODUCTS**

### **Air System**

Kleinn Air Horns, Tucson, Arizona, presents its new Universal Spare Tire Location System that allows the attachment of a train horn, waterproof compressor and 3-gallon air tank in the space usually reserved for a spare tire. The custom bolt-on mounting bracket installs easily, and the system includes a remote mount quick-connect tire inflator with air hose and storage bag.



All components needed for installation are included.

### **Bronco Sport Springs**

### **H&R Special Springs**,

Bellingham, Washington, presents adventure-raising Springs for the Ford Bronco Sport. Suitable for off-pavement exploring and overland excursions, the springs provide a mild lift of approximately 1.2 inches while retaining ride comfort and control. Made in Germany, the springs are pre-set or blocked to prevent sagging.





### Ram A-Pillar Light Mount Kit

RIGID Industries, Gilbert, Arizona, presents an A-Pillar Light Mount Kit for 2019-up Ram 2500/3500 pickups. Made with stainless steel, the mounts feature a UV- and abrasion-resistant powder-coat finish. They offer a clean install of the company's high-output LED lighting.



### **Yukon Grilles**

### T-REX Truck Products,

Corona, California, introduces two new Billet Grilles for 2021 GMC Yukon and Yukon XL applications. Available with highly polished and black finishes, the three-piece grille overlays mount easily over the factory grille and include a complete hardware kit and installation instructions.



### **TRX Carbon Fiber Components**

Anderson Composites, City of Industry, California, presents eight new Carbon Fiber Components for Ram 1500 TRX truck applications. Available products include the Type-OE hood with removeable hood scoop and integrated vents, hood scoop, hood vents, front upper grille trim, front lower grille trim, front fender side vents, headlight surrounds and taillight surrounds. The hood scoop, hood vents, grille components, fender vents and taillight surrounds are made with an autoclave process with 3k, 2x2 carbon fiber cloth and have a highgloss finish.

### **Car Care Products**

Jay Leno's Garage, Burbank, California, presents three new Car Care products. Ceramic Wash Shampoo is a slick, high-foaming wash soap with the shine properties of ceramic that offers improved durability, gloss and beading. Heavy-Duty Rubber Cleaner works on the dirtiest tires and rubber surfaces and removes any ugly brown blooming. And Ceramic Tire Dressing is a new formula that combines a high-gloss tire and trim dressing with the durable surface protection of ceramic.







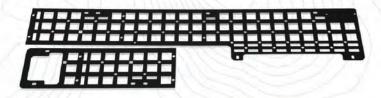




FRONT BED MOLLE SYSTEM



SIDE BED MOLLE SYSTEM













#### **Supra Wind Diffuser**

AWE, Horsham,
Pennsylvania, presents the
new Foiler Wind Diffuser
for Toyota MKV GR Supra
models. Designed to
alleviate wind buffeting
when the windows are
lowered, the diffusers are
cost-effective and easy to
install while providing an
OE-like aesthetic.

#### Dashcam

M2M in Motion, Clearwater, Florida, an AAMP Global brand, presents a 2-Channel HD Telematics Dashcam. The advanced high-definition (1080p) dash camera with a wide-angle view (150 degrees) includes LTE video transmission, built-in tracking and telematics data. The dashcam provides impact, motion and breakin alerts in real-time on the M2M in Motion software platform, available on PC or mobile device. An optional add-on Driver Facing Camera (ACSVA050B) with built-in IR for night vision recording is available.

#### **Expanded Off-Road Tire Line**

Mickey Thompson Tires & Wheels, Stow, Ohio, presents its expanded line of Baja Boss A/T off-road tires, now featuring 11 new popular sizes to fit today's light trucks and SUVs. Offering an aggressive look and smooth performance, the







asymmetric tread design of the Baja Boss A/T is optimized for reduced noise, and increased off-road traction and on-road handling. Highlights include PowerPly XD 3-Ply construction and Extreme Sidebiters blended with a silica-reinforced tread compound for all-weather performance.

#### **Subwoofers**

MB Quart, Libertyville, Illinois, presents two Reference RW1 subwoofers—a 12-inch, 2,000W model and a 10-inch, 1,600W model. Designed to bring out more bass impact from every song and genre of music, both subwoofers deliver deeper, steadier bass while providing clean levels of undistorted listening. They include a double-stitched surround and a dual-polycotton spider with double-centering. Features include oscillating voice coils, push and insert-style terminals and a non-pressed paper cone with coating.



#### **Amplifiers**

Hifonics, Libertyville, Illinois, presents ZEUS Theta amplifiers that utilize compact space with higher sound-quality components. Seven models are available: four mono-blocks, two fourchannels and one five-channel amplifier. Every ZEUS Theta

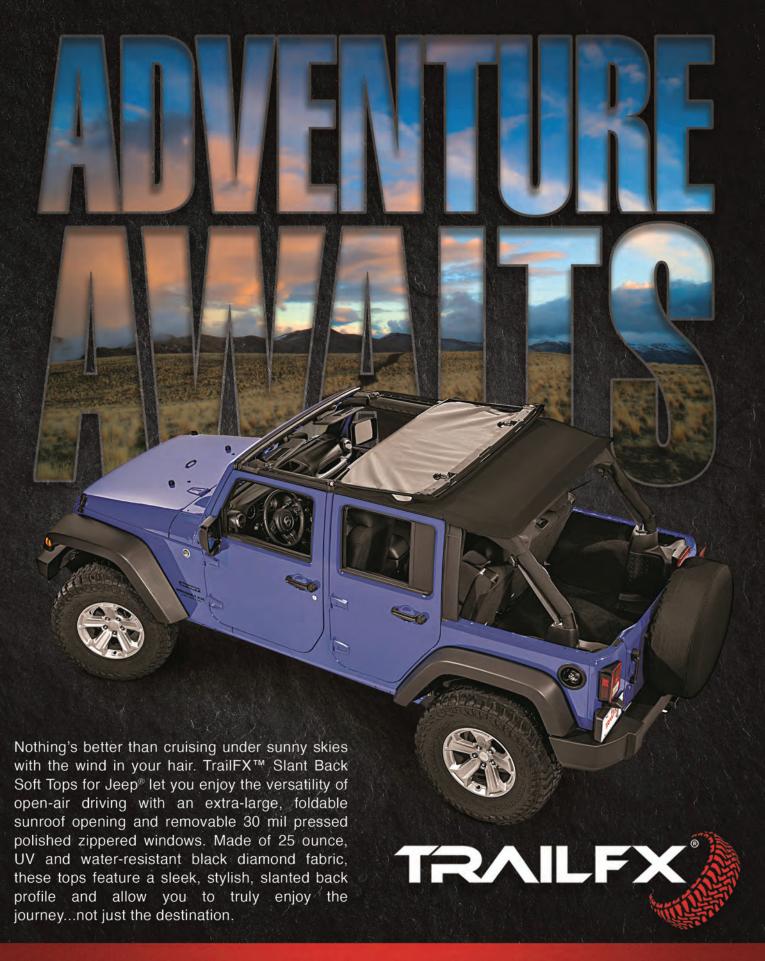


amplifier features a compact footprint and an aluminum heat sink. Other features include a low-noise pre-amplifier circuit, RCA inputs, electronic equalizer and more.



#### **Pre-Wax Prep**

Meguiar's, Irvine, California, presents Hybrid Ceramic Pre-Wax Prep, designed to quickly remove minor paint defects and blemishes while adding polishing oils to enhance the depth of color and shine on vehicle finishes. It prepares the surface, enhances gloss and leaves a foundational layer of advanced SiO2 Hybrid Ceramic protection behind. **75** 





# Fahrvergnügen Triumphs at SEMA

A chat with PRO Cup Challenge winner Tom Waitzman of DPS Automotive Group.

#### By Josh Poulson

he competition was fierce on Wednesday, Nov. 3 at the 2021 SEMA Show, but ultimately the judges chose the 2021 Volkswagen Atlas Cross Sport created by Tom Waitzman and DPS Automotive Group from Chicago as the winner of the PRO Cup Challenge.

The contest featured 10 restylers from across the country who put together accessory packages designed to sell at dealerships. The goal wasn't to create the most outlandish vehicle, but something that would appeal to new-car buyers

and their budgets.

Afterward, I had a chance to talk to Tom about his time in the industry and the ideas behind his matte satin blue showstopper.

Tell me a little bit about the history of DPS. What year did you open the shop and when did you start in the business?

I started DPS in 2009 after working in the industry since 1995. I worked my way from sales support at Best Buy to installer at a couple of local 12V shops, to tech support at a remote start manufacturer to running the installation operations for one of the largest restylers in the country.

I had the opportunity to work for some great people who taught me a lot. I started DPS with a very simple mission—great service, great products and always do the right thing. I live by that every day.

What were the three main products you focused on starting out that made DPS successful?

I offered mainly 12V electronics, doing remote starters, mobile video and radar detectors for local car dealers in the Chicago area that I had serviced for many years. I began out of the trunk of my vehicle and used a closet in my apartment as my stockroom.

The business grew quickly and I moved into a small shop for a few years. Recently I bought a facility that is 11,500 square feet and we are using all of it.

# How has your product mix changed over the years? What are your three main products now?

With vehicles coming with more and more electronics from the factory, we've had to diversify, like most restylers.

Today, the main products we focus on for our dealerships can be classified into three categories—films (window tint, paint protection film and vinyl wraps, including chrome deletes), coatings (undercoatings, ceramic coatings and spray-in bedliners) and electronics (remote starters, mobile video and radar detectors).

I see this trend continuing over the next few years, with films and coatings becoming an even larger percentage of my sales.

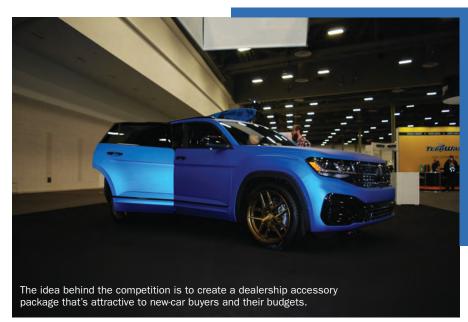
# Your VW Atlas Cross Sport was a beautiful build. What made you choose that particular vehicle for the PRO Cup Challenge?

When we started thinking about the vehicle we wanted to do, we knew that there would be a lot of Wranglers, Broncos and pickup trucks (entered into the competition), so I wanted to do something outside the norm. The VW Atlas Cross Sport has a really unique look and is a newer model that can be transformed into an amazing vehicle.

I also knew that Volkswagen in general is not a popular customized vehicle lineup. So, by choosing this vehicle we thought we could bring attention to the fact that restylers can customize any vehicle and make it better with our upgrades.

# Was it hard to convince the VW dealership that you would need the vehicle for 3-4 weeks and that it would be traveling cross-country?

Not at all! Not every dealer will react the same way, but when you find the right one, they are all-in. I took the time to explain the program and, fortunately, they were

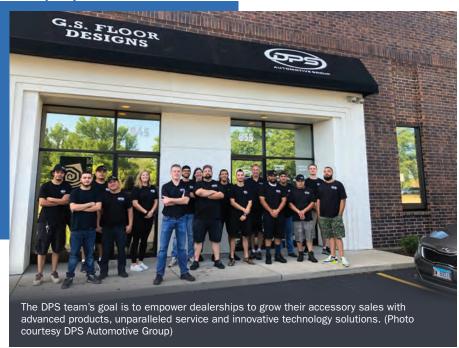


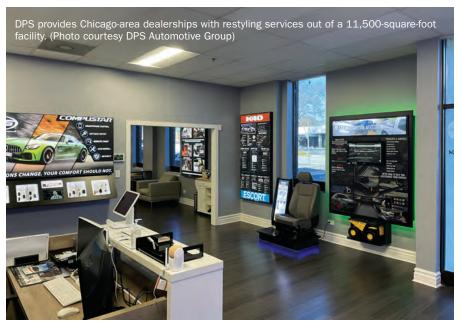


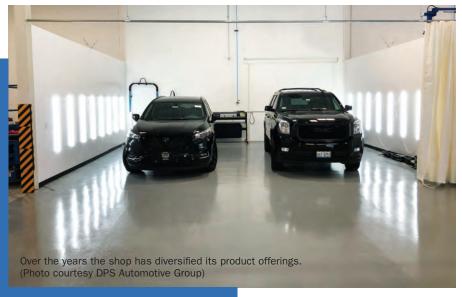
Back at the dealership, the salespeople and managers were excited to have a SEMA awardwinning vehicle on their showroom floor. (Photo courtesy DPS Automotive Group)



#### Fahrvergnügen Triumphs at SEMA







familiar with the SEMA Show and the prestige that comes with having a vehicle there.

There really is no other way for a car dealer to have a vehicle at the show, so when I presented my idea and described the package we wanted to do, they were very excited and actually wanted to give me a vehicle right then and there, despite the shortage of inventory.

# What went into the design? Explain the color wrap, the interior wrap, the wording under the wrap, and the wheel size and color.

I went over all the design aspects with the dealership and then brought my team into the mix to make some tweaks. We wanted to do a little more than just the wrap, but not too much so it would still appeal to the masses.

We added our logo to the gas door and *Fahrvergnügen* (the German word for *driving pleasure*) to appeal to the VW fanatic. To make them stand out, we put these raised additions on the original paint and then wrapped over our logo and the wording to give them a kind of embossed look.

We decided to do a satin wrap to bring out the bodylines and knew it needed to pop more than just a dark color like gray or black, which have been popular. When we looked at color swatches, we came across the satin blue and loved it right away.

We knew that the blue would look amazing, but only if we blacked out the chrome on the grille and around the windows. We ran out of budget (PRO Cup Challenge packages were capped at \$12,500 MSRP) so we decided to keep the factory tires, even though we added lowering springs to bring the vehicle down some

Then we upgraded the wheels using a bronze color, again trying to be different than just black.

# What was the dealer's response to the vehicle package? Did it sell right away?

They loved it! The salespeople and the managers were all very excited to not only have a great-looking vehicle on their showroom floor, but also for the fact that it was an award-winner at the SEMA Show.

A week after the show it hadn't sold yet, but it will very soon and the dealer will make a good profit on the package. They are excited to do more projects and keep the momentum going, which is why this program was started to begin with.

#### What did you like about the PRO Cup Challenge?

I really enjoyed the sportsmanship of all the other builders. You can tell that everyone has a lot of passion for the industry and wanted the event to be successful.

I was very impressed by the creativity and the quality of the other builds and felt extremely fortunate to have won. The other vehicles also gave me ideas to take back to my market and try to duplicate. It's a great thing to come away with not only a trophy, but also six other good packages that I can add to my offerings.

If I am fortunate enough to be a part of the competition again next year, I realize that we need to start planning now and begin thinking of how to build something even better.

## What do you expect the next five years and beyond to be like for restylers?

The future is definitely bright, but I do think we need to diversify and not just stick with products that may have gotten us to this point.

In the short term, I see all of our products being strong while the OEMs scramble to build whatever they can. Consumers love our product offerings and car dealers make a good profit on our products and services, so I see that continuing for a while.

For the long term, and especially as we start to see electric vehicles gain more market share, I think the films and coating products will remain very strong. These products are unaffected by what is under the hood, yet they still allow a consumer to make their vehicle different or, at the very least, protect their investment. **15** 



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 chairman of the SEMA PRO council and was named 2015-'16 Person of the Year at the 2015 SEMA Show.



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# JANUARY 2022

Desert Rat p.44



Performance oils & fluids go with the flow.

By Jef White



Purpose-built lubricants for racing and enthusiast end-users provide the best engine protection. (Photo courtesy Champion Brands)

rom measurable performance gains to the reputation that comes with providing specialty products for specialty vehicles, shops can't go wrong carrying and using today's high-quality oils and fluids.

These slick offerings provide the opportunity to develop individualized treatment packages and build trust with repeat customers. And, while current supply chain challenges are real, they can't offset the mechanical and emotional benefits customers enjoy when buying and using these products.

Performance oil and fluid makers share their thoughts on the industry, the supply chain and ways to help your shop go with the flow.

#### **REAL BENEFITS**

Some customers may question whether performance-oriented oils and fluids truly



make a real difference. Manufacturers say the results speak for themselves.

"Purpose-built lubricants for racing and enthusiast end-users provide the best engine protection and the assurance that the manufacturer understands the nuances of all the different types of competition applications," notes Scott Baubie, director of business development/motorsports for Champion Brands LLC.

Many suppliers partner with high-performance end-users to create real-world solutions.

"We constantly work with race teams and engine builders to make sure we are meeting their demands," says Duane LaFleur, business development of high performance, Lucas Oil Products. "Mainstream products are made to meet a standard, whereas performance fluids are designed by our chemist to exceed customers' expectations."

And yes, high-quality offerings do provide better results.

The products "go above and beyond industry requirements for product performance," says Rusty Waples, director of brand and product marketing for Calumet Specialty Product Partners L.P. and the Royal Purple brand. "Many consumers are willing to invest in premium products that keep their vehicles running longer and stronger."



WASTEGATE HEAT PROTECTION

WASTEGATE HEAT PROTECTION

SAME CONSTRUCTION AS OUR

TITANIUM TURBO SHIELDS

REDUCES UNDERHOOD TEMPS

RIVETED TIE DOWNS FOR SECURE FIT





Increased demand coming out of the pandemic is pushing the need for just-in-time inventory, improved speed of delivery and top-tier quality. (Photo courtesy Champion Brands)

Performance oils and fluids usually start with higher-quality base oils and improved additive packages, explains Eric Trimble, marketing & product manager, Hot Shot's Secret.

"This means better protection for extreme use and/or heavy loads from improved thermal resistance, less oil oxidation and deposit formation, and lessened overall engine wear," he says.

#### **DO YOUR OWN THING**

Performance oils and fluids provide builders with versatility to meet the unique demands of engines that are pushed to the limits.

"With our range of oils and additives,

Today's difficult supply situation has had a significant impact on the market.

(Photos courtesy LIQUI MOLY USA - Canada)

shops may easily create individual treatment packages," says Sebastian Zelger, CEO, LIQUI MOLY USA - Canada. "For example, they can offer a performance oil change that includes cleaning the oil system with Pro-Line Engine Flush, the right oil from LIQUI MOLY and Cera Tec for wear protection. The shop can create dozens of these packages, tailor-made to the individual needs of each customer. This is a customized service and eases the price pressure from standard services like an ordinary oil change."

It's a chance for businesses to prove the quality of their work and extent of their knowledge to consumers who understand and appreciate the benefits.

"Top performance shops not only have a selection of performance oils for any vehicle, but they also know the ins and outs of performance vehicles," says Kyle Neal, national sales, Red Line Oil. "They will not have a one-size-fits-all approach, because they know each vehicle has its own service needs."

Add it all up, and the products make sense for many specialty aftermarket companies.

"Often, performance oils and fluids provide increased margins to the shop," says Richard E. Glady, lubricant sales manager for VP Racing Fuels. "In addition, they appeal to a loyal customer base and present an opportunity to cross-sell other products."

#### **WEAKENED LINKS**

It's no surprise that supply chain challenges are affecting the performance oils and fluids market—much as they are every other aspect of the industry, of course. The issues stretch from top to bottom.

"There are increased costs throughout the supply chain for manufacturing, and increased costs for logistics to multiple channels," Baubie explains. "Plus, increases in racer and enthusiast demand coming out of the pandemic have caused demand for just-in-time inventory, improved speed of delivery and top-tier quality."

The reasons for the slowdowns are varied.

"The supply chain challenges have affected the performance oils and fluids



## Top Oil & Fluid Offerings

HOT PRODUCTS: Royal Purple High-Performance Street (HPS) Motor Oil Line FEATURES & BENEFITS: Meets demands of high-performance and modified engines; high levels of zinc/phosphorus anti-wear additive and proprietary Synerlec additive technology; exceptionally high film strength; improved sealing between the piston ring and cylinder wall.

Calumet Specialty Product Partners L.P. Rusty Waples Director of Brand and Product Marketing

HOT PRODUCT: Champion FullSynthetic Racing Power Steering Fluid
FEATURES & BENEFITS: Ensures
hoses, pistons, valves and the power
steering pump work optimally and don't
start to deteriorate; reduces temperatures; delivers consistent steering
response in competition applications;
improved low-temperature flow reduces
initial drag.

Champion Brands LLC Scott Baubie Director of Business Development/ Motorsports HOT PRODUCTS: Hot Shot's Secret Adrenaline PAO Racing Engine Oil Line

FEATURES & BENEFITS: Engineered to be 100% pure synthetic using only Group IV base oils; FR3 nano carbon technology and a high-zinc additive package offer anti-wear protection; increases oxidation and thermal stability; prevents sludge and deposits; reduces oil breakdown.

Hot Shot's Secret Eric Trimble Marketing & Product Manager

HOT PRODUCTS: VP Professional-Grade Full-Synthetic Racing Oils

FEATURES & BENEFITS: Available in SAE 0W-20, 5W-30, 10W-40 and 15W-50; designed for high-horsepower, high-rpm big- and small-block race engines; unique friction and viscosity modifiers reduce fluid-to-fluid friction and metal-to-fluid friction for horsepower increases.

VP Racing Fuels Inc. Richard E. Glady Lubricant Sales Manager ■ HOT PRODUCT: FL-O Full-

Synthetic Engine Oil

**FEATURES & BENEFITS:** Low-viscosity racing oil for the drag racing market; Tribofilm technology; delivers maximum horsepower; race-level protection for high-performance, tighter-tolerance engines.

Lucas Oil Products
Duane LaFleur
Business Development of High
Performance

**HOT PRODUCT:** High-Performance Engine Oil

**FEATURES & BENEFITS:** Performance and protection capabilities; superior base oil that outperforms on the street or at the track; resists thermal breakdown.

Red Line Oil Kyle Neal National Sales

HOT PRODUCT: Cera Tec Wear Protection Additive

**FEATURES & BENEFITS:** Provides both physical wear protection with tiny ceramic particles, and chemical wear protection through friction modifiers; improves emergency running properties in case of oil loss.

LIQUI MOLY USA - Canada Sebastian Zelger CFO



## Bottle Service



market in many ways including major shortages of Group III and Group IV synthetic base stocks; refineries reducing production in response to fewer people flying and driving, leading to shortages in additive feedstocks, plastics and base stocks; and six industry-wide price increases, with a seventh on the way," notes Glady. "Force majeures were implemented by a number of major oil and additive companies, and the labor force shortage to unload parked ships, plus truck driver and rail car shortages are leading to delays and increased shipping costs."

Manufacturers are trying to control all they can to get customers what they need.

"Fortunately, we do our own blending, bottling and packaging of our oils and fluids. So, from an inventory standpoint, we have not seen much of an impact on that end," LaFleur notes. "What we have experienced is longer lead times on raw



Performance products are designed to exceed customers' expectations. (Photos courtesy Lucas Oil Products)

materials. And, as far as the performance industry, we have seen many shops' sales staying very consistent or even growing over the past year-and-a-half."

Some companies were able to plan ahead.

"We see that today's difficult supply situation has had a significant impact on the market. Some shops run the risk of running dry," Zelger says. "We were able to supply the industry all the time without major interruptions. We took action months ago and stocked up on our top-selling items."

The bottlenecks are forcing shops to be better prepared.

"Customers are having to plan their service needs further out—not just for lubricants, but the entire performance industry," says Neal. "Red Line has not seen supply issues, but we have seen shipping/logistic delays. Customers have taken for granted getting everything when they want or need it, but now due to shipping delays, customers just have to plan farther out and stock a little heavier to avoid running out."

That means increasing orders.

"Manufacturers and distributors/ shops alike are being forced to buy in large quantities just to keep product available while they wait for addi-



zelger of ucts are a water duct ddi-





Top performance shops can carry a selection of performance oils for any vehicle. (Photos courtesy Red Line Oil)

tional supply," Trimble observes.

All in all, it seems like a good time to accept what you can't control.

"Creative thinking and good relationships with partners are keys to navigating through this unprecedented time," Waples recommends.

#### **BY YOUR SIDE**

While the results can be proven, it may still take some educating on the shop's part to get customers to try high-performance oils and fluids. Various supplier programs are designed to help.

"Our distributors and engine builders have seen sales increases by promoting our sponsorship, contingency and rebate programs," notes Baubie of Champion Brands.

Shops that offer these products set themselves apart from the competition.

"Most retail stores do not offer performance oils and fluids," says LaFleur of Lucas Oil. "When professional shops carry hot rod oils, racing oils and fluids such as performance transmission fluids, it benefits both the consumers and the shop with increased sales."

Zelger of LIQUI MOLY agrees the products are a win-win.

"To the car owner they offer extra performance when extra performance is needed. Also, under regular conditions, high-quality fluids protect their investment," he says. "For the shop, they offer a significantly higher margin and better customer support."

Many consumers are willing to invest in premium products that keep their vehicles running longer and stronger. (Photos courtesy royalpurple.com)

And also promote loyalty, according to Waples of Calumet.

"The Royal Purple consumer is one of the most loyal in the business, to our brand and to the shops that offer our products," he reports. "They are willing to pay more because they want the best of the best. We also have national advertising that builds brand and product awareness to drive foot traffic to the stores, along with knowledgeable direct and distributor sales representatives."

And, if the performance gains aren't enough for some customers, then the resulting efficiency upgrades might be.

"Customers are trying to save money on fuel due to rising prices, and since performance fluids often reduce the coefficient of friction that can mean better mpg," notes Neal from Red Line. "Better protection also helps components last longer, at a time when many customers are keeping their vehicles longer, since there are fewer used and new vehicles available in the current market."

Finally, there's the respect that comes with offering a high-end product line.

"The amount of profit that can be realized is greater when compared to mainstream products," says VP's Glady. "Shops often also see an uptick of traffic from word of mouth, as enthusiasts learn that your shop handles performance oils and fluids."

Hot Shot's Secret's Trimble agrees that customers quickly recognize the benefits and value the prestige of using high-end products in their race and collector vehicles.

"While the wear protection really cannot be seen without doing oil analysis, the performance increases should be identifiable early on—such as increased power,



Better protection also helps components last longer. (Photo courtesy Red Line Oil)

improved fuel economy, lower operating temps and improved torque," he reveals. "By offering high-quality proven performance fluids and oils, a shop has the opportunity to upsell, build a valuable new revenue stream and serve as a trusted advisor for repeat business." **75** 

#### **API Offers Protection & Monitoring Programs**



By Jeffrey Harmening

The American Petroleum Institute (API) works across the auto industry to develop motor oil standards that meet changing lubrication

demands as engine technology advances. We have been licensing engine oils for almost four decades through the Engine Oil Licensing and Certification System (EOLCS).

However, there is more to EOLCS than developing and licensing engine oils. There are a number of other programs that benefit shop owners and operators by providing protection and monitoring programs, including:

#### **Engine Oil Licensing & Certification System**

The most recognizable program from EOLCS is the voluntary licensing and certification program that authorizes engine oil marketers that meet specified requirements to use the API Engine Oil Quality Marks.

Recently updated, API 1509 - Engine Oil Licensing and Certification System governs how engine oil marketers certify that gasoline and diesel engine oils meet API's performance standards. The system provides assurance that shops, vehicle dealers and consumers are receiving the high-quality motor oil they are expecting.

#### **Aftermarket Audit Program**

The API Aftermarket Audit Program (AMAP) supports the licensing and certification program through the sampling of API-licensed oils in the marketplace. Samples are tested to verify compliance with engine oil specifications. This ensures that oil marketers, distributors, shops and consumers can have confidence in the quality of API-licensed motor oils in the marketplace.

#### **Counterfeit Oils**

We also investigate oils that falsely claim to be certified by API. Unscrupulous manufacturers producing low-quality oils may add API marks to confuse distributors, shops, retailers and consumers.

API hosts an Unauthorized Oil listing of oils that are not licensed by API and displays product labels. This listing is continuously updated as API works with infringing companies to remove their unauthorized products from the marketplace and alter their marketing materials accordingly.

#### **Motor Oil Matters**

Motor Oil Matters (MOM), API's program for licensing the rest of the engine oil supply chain, provides benefits for distributors, installers and their customers. MOM-licensed oil-change locations and distributors certify that they meet the API 1525A standard that provides bulk oil chain-of-custody and quality documentation guidelines throughout the supply chain.

The standards and programs established by API are continuously evaluated and updated as needed with input from OEMs, oil marketers, distributors, shop owners and other stakeholders in the industry. If you have questions or need additional information, contact the API Engine Oil Licensing and Certification System (EOLCS) at eolcs@api.org.

Jeffrey Harmening is manager – EOLCS/DEF/MOM for the American Petroleum Institute.

# AN OFF-ROAD OASIS

Inside Desert Rat Off Road Centers.

By Mark C. Bach

chance comment during a SEMA Show afterparty resulted in Tim Furrier stepping into a management role at his family's business, Desert Rat Off Road Centers. That step became a journey to where he now manages all seven of the company's popular 4x4 shops in the Southwest.

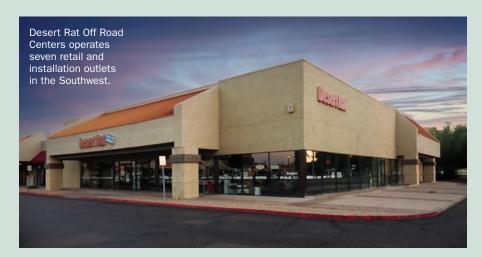
Desert Rat Off Road Centers started as an offshoot business of his father's tire shops. Jack Furrier opened his tire business in 1960 with one shop in Tucson. The company has since grown to 14 stores in Southern Arizona, offering not only tires and wheels but full-service automotive repairs.

Jack and the Furrier family were friends with Dick Cepek, a tire businessman and well-known off-roader. Cepek convinced them that there was a market for off-road equipment, so the family started up a subsidiary, Desert Rat Off Road Centers, in 1975.

Initially, the off-road business used space at one of the Tucson tire stores, in the era before the internet that led to a catalog business and a toll-free 800 number phone line selling products.

Tim's older brother Mike started the mailorder business and continues to manage the internet site for the company today.

Eventually, a separate Tucson shop was opened to help focus on installations. Later, Giant Petroleum sold its Giant Off-Road 4x4 outlets to the family, which included shops in Phoenix and Albuquerque, New Mexico.







Later, when Cepek's company closed its local retail stores, Desert Rat Off Road added three more shops to the lineup.

Tim Furrier was always involved in the family business, starting as a youngster. He graduated from the University of Arizona in 1993 and went to work at the Phoenix store. Although he loved sales, his goal was to transition to the marketing side of the business.

One night in 1997 at the SEMA Show, however, Tim volunteered to move to Albuquerque to reorganize a struggling store there. His family members quickly agreed and in one year that store became the company's leader in sales and service.

After returning to Arizona, he became the manager for all seven Desert Rat service centers.

#### **CHANGES**

As Desert Rat has evolved, Furrier has observed several trends. With online sales now available, it is more challenging to reach out to first-time customers, he says, who can now buy globally from a computer or smartphone.

It was easier, Furrier recalls, when his competition was across town, as he could meet the customer in person and let them see firsthand the differences in the shops and equipment.

To connect with clients these days, he sponsors a monthly get-together at his Tempe shop. Vehicle owners gather for the traditional coffee and donuts and a vendor representative is usually on hand to talk about products and provide detailed advice.

The events allow consumers to check out the store without any sales pressure, while offering a chance to talk shop with other vehicle owners about their off-road adventures and vehicle upgrades.

Furrier believes that recent changes in sales tax rules have leveled the selling field to some degree. Online competitors now should include sales taxes when quoting prices. This makes his prices at the shop much more competitive, he explains.

Social media has also created more issues for the business, he adds.

"One bad review can make a situation larger than it was. It is hard to make some customers happy, and a mistake with one customer can open up a complaint all can see," he notes.

To offset any concerns, Furrier encourages his managers to focus on customer ser-



Tim Furrier stepped into the family business and later became manager of the seven shops, stressing a commitment to customer service.



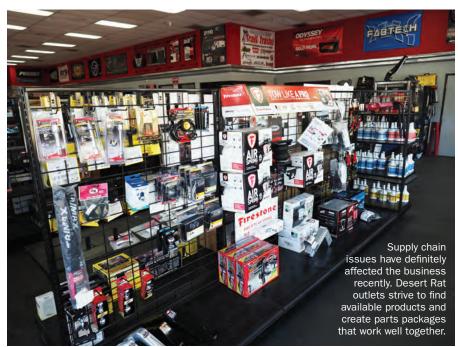
The overlanding trend has been visible in Arizona over the past decade, but definitely surged during the pandemic.



Internet shopping makes customer connections more difficult. Once off-roaders visit the shops and meet with fellow enthusiasts, however, the passion begins to grow.

#### **AN OFF-ROAD OASIS**







vice. He wants the staff to treat customers better than his competitors do. Customers have also recognized that some retail 4x4 companies have gone out of business and that those remaining must be doing something right.

In another notable achievement, the shop recently became the authorized repair center for WARN winches in New Mexico and Arizona. Furrier is proud to offer this service and thinks it helps set his company apart.

#### **BUSINESS HURDLES**

Furrier has no magic potion for hiring successful employees.

"It can be a struggle to get others to work on your dream," he says.

His approach is to seek out passionate people who enjoy off-roading and people. He does not try to hire employees from the competition. Instead, he encourages staff members to enjoy their lives outside of the company and is willing to flex schedules to accommodate an employee who wants to see their child's game or school activity.

Treating the staff as family and recognizing their lifestyle and family needs keeps them motivated and fosters loyalty, he believes.

As one might expect, the pandemic has had a definite impact on the business. The stores created safety barriers between customers and staff at the counters and enforce social distancing. Outside events and demonstrations were shut down.

Supply issues have also arisen, but playing the dual role of warehouse/distributor has minimized some of those concerns for Desert Rat. Some suppliers, of course, have canceled orders or left them on backorder with no fill date. The challenge now, Furrier explains, is knowing what inventory he does have or can get, allowing his teams to sell the right equipment that is readily available.

Overall, COVID-19 actually increased the shops' customer base. Consumers wanted to go outdoors and soon recognized that their stock vehicles had limitations, he explains.

Typically, the Desert Rat locations are booked out 4-6 weeks for major installations. Customers, for the most part, are willing to wait, Furrier reveals.

#### **UPGRADES**

Furrier finds that most customers have a general idea of what they are looking to do with their vehicles. The staff at Desert Rat works to figure out what the intended use and demand will be, with the "ultimate outcome being to achieve the customer's goal in the best way possible," he says.

A major struggle is blending parts from various companies and making sure they work together cohesively and seamlessly.

Furrier notes that the overland trend has actually been in place in his area for the past 10 years or so, but definitely surged during the pandemic. In addition, new models from the OEMs have broadened the reach and opportunities for off-road aftermarket sales and installations.

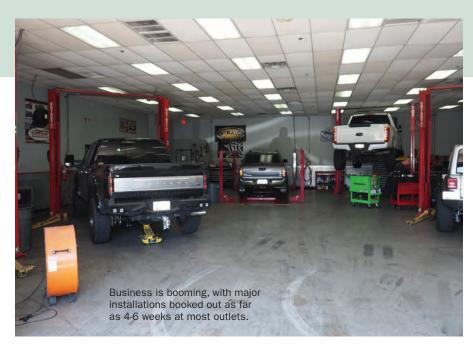
For instance, he expects a strong demand for upgrades to the new Ford Bronco model, as well as increased interest in earlier generations. Likewise, he notes that the Ford Raptor truck is a good platform to offer consumers personalized upgrades.

"There are always going to be drivers that aren't satisfied with a stock appearance and want to personalize everything to suit their tastes," he says.

Jeeps have been a mainstay in the offroad market and projects typically start with lift kits and bigger tires. From there, owners have a myriad of options to choose from, based on what they expect their Jeeps to do and where they want to go.

Furrier has seen tremendous changes in the industry over the years, but a focus on customer service and expert knowledge has always been at the core of Desert Rat Off Road Centers. His next step is involving his children in the business, and says he can't wait to see what new trends emerge next. **18** 

MARK C. BACH is a well-preserved automotive junkie with 30W oil in his veins who remembers feeler gauges and brake springs. He has a love for all things that move, especially old-school muscle cars. Bach covers car auctions and the automotive scene and writes for a variety of outlets, including Chevy Classics, Round-Up Publications and eBay Motors, and maintains Route66pubco.com.







#### PERFORMANCE **PRODUCTS**

#### F-150 Exhaust

**Borla Performance**,

Oxnard, California, introduces a new line of vehicle-specific Exhaust Systems for 2021 Ford F-150 models. Delivering aggressive sound and improved performance and durability, the company's



branded Cat-Back systems use durable T-304 stainless steel and are offered in Touring, S-Type or ATAK sound level options with no droning. Features include split-rear or dual side exit options, and 4-inch tips available in chrome or black.

#### **Beetle Firewall Insulation**

Design Engineering Inc. (DEI), Avon Lake, Ohio, presents its Firewall Heat Protection Kits, including an application specifically designed for Volkswagen Beetles. Customcut for a direct fit, the threepiece kits are made from DEI's Black Floor and Tunnel material and replace the Beetle's





heavy, fragile factory tar boards. They install easily for superior heat and sound protection.

#### DOT 5.1 Brake Fluid

Champion Oil, Clinton, Missouri, presents DOT 5.1 Brake Fluid. A glycolbased product similar to DOT 3 and DOT 4, but with higher dry and wet boiling points, DOT 5.1 fluid is widely used in highperformance and related OEM gas



and diesel applications. It has a low compressibility level, ensuring stability and consistency in the brake system. The fluid can be used in all brake systems, including disc, drum, ABS anti-skid applications, electronic stability control systems (ESCS) and anti-slip regulation (ASR).

#### **GM A-Body Chassis Braces**

Ridetech, Jasper, Indiana, presents GM A-Body Chassis Braces. Designed to connect the upper trailing arm crossmember to the lower trailing arm frame bracket for added strength in high-horsepower applications, the braces feature a double-adjustable design that allows for fine fitment adjustments and omits the need for slotted holes that can slip. Constructed from 1.125-inch OD by 0.219-inch wall tubing, the systems include brace ends that are



counter-sunk and angle-cut, allowing for the use of shorter bolts.

#### **Wide Five Hubs**

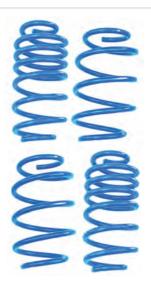
Wilwood Disc Brakes, Camarillo, California, presents its expanded Starlite 55 Wide Five Hub product line to meet the needs of modern racers. The industry standard in circle track racing, the line includes new Starlite 55 Long Stud versions that use 5/8-inch-11tpi-by-4-inch wheel studs in place of the traditional studs (1-3/8 inches longer than standard). Options include standard bearing races or 1-ton races. New Starlite 55 1-Ton Bearing models have larger-diameter bearing races installed for 1-ton axle tubes. The new 1-ton version is available in a standard-length gun-drilled 5/8-inch-11tpi stud configuration, as well as a long stud option.



# Permetex 500° High Heat Epoxy | Washington | Washington

#### **High Heat Epoxy**

Permatex, Solon, Ohio, presents Permatex 500 Degree High Heat Epoxy for under-hood repairs that need to survive extremely hot temperatures. Formulated to withstand temperatures up to 500 degrees, the epoxy is designed to bond and seal against liquids, gases and common automotive fluids. It has a holding strength of 2,500 psi, sets in 10 minutes and has a twohour cure time.



#### **Escape 1-Inch Lowering Springs**

**Steeda**, Pompano Beach, Florida, presents 1-Inch Lowering Springs for 2020-'21 Ford Escape models. Featuring a progressive spring rate, they can be used to lower and level the vehicle for improved handling, performance and styling, without compromising comfort or greatly reducing ground clearance. Features include less brake dive and reduced fender well gap.



#### **Performance Tire**

Pirelli Tire North America, Rome, Georgia, presents the Pirelli P Zero Trofeo R sporting street tire, which recently set a record with the new Audi RS 3 at the Nürburgring circuit in Germany. The tire features compound, structure and tread pattern improvements for performance on the road and track. The tread pattern design is created to favor stability on the straights as well as to shorten

braking distances and improve lateral grip through corners.

#### **8-Inch Race Torque Converters**

**ProTorque**, Yeadon, Pennsylvania, presents its X8 Series Race Torque Converters for 600 to 2,000-plus-hp applications. The 8-inch covers include a lightweight 7075 T6 billet aluminum bolt-together drive cover and are fully CAD/CAM designed and CNC machined. Features include integral strengthening struts that provide extra support in critical areas to prevent flexing or ballooning. Rotating mass is reduced by removing material from non-critical areas, and six mounting locations accommodate large and small bolt pattern flex plates.





#### PERFORMANCE **PRODUCTS**

#### **VW ID.4 Springs**

**H&R Special Springs**,

Bellingham, Washington, presents special progressive Sport Springs for the new Volkswagen ID.4 all-electric crossover. Designed to refine handling for a more dialed-in driving experience and improved ride comfort, the springs lower the ID.4 Pro and Pro S (2WD) approximately 1.4



inches in the front and 1.2 inches in the rear. They are 100% made in Germany.

#### **Catalytic Converters**

ACAT Global, Charlevoix, Michigan, presents its Metallic Series Catalytic Converters, recently CARB-approved for use on select vehicles. Available for both domestic and import models, the emissions control technology can be an important tool in slashing climate-damaging greenhouse gases. The systems use proprietary technology to significantly reduce emissions and increase fuel economy without sacrificing performance.





#### **Multi-Pump Relay Module**

Snow Performance, Wichita Falls, Texas, presents a new Multi-Pump Relay Module. Designed for multiple fuel pump upgrades, the module combines three individually fused, 30-amp relay circuits into an attractive and easy-to-install package. The modules are fully potted for vibration and condensation resistance, and inputs, outputs and trigger terminals feature a set screw-style design. Fewer crimped connections means fewer potential wiring failures.

#### **Accord Intercooler**

Mishimoto, New Castle, Delaware, presents a Performance Intercooler for 2018-up Honda Accord 1.5T/2.0T applications. Delivering maximum power gains of 13 whp and 14 pound-feet of torque on the stock 2.0T and 22 whp and 29 pound-feet of torque with upgraded intake/exhaust and ECU tuning,



the intercooler provides maximum intake air temperature drops of 28 degrees compared to the stock unit with its 27.95-by-7.34-by-3.54-inch bar-and-plate core. Features include durable cast-aluminum end tanks and a replacement 0-ring.



#### **BMW Titanium Exhaust**

Akrapovič, Horsham, Pennsylvania, presents its Slip-On Line (Titanium) Exhaust System for BMW M3 (G80)/M4 (G82) applications that offers proven power gains. The high-grade, lightweight titanium system is finished with hand-crafted carbon fiber tailpipes and features a pair of collectors cast in the company's in-house foundry. The system comes with a specially developed control kit for a complete sound experience that offers a rich tone at normal cruising levels and rises to a deep, sporty sound when driven more dynamically.



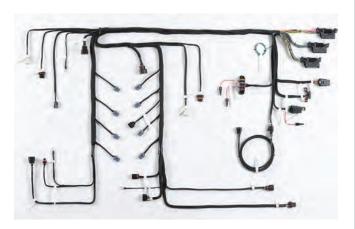
#### Coolant

Rislone, Holly, Michigan, presents Hyper Cool Super Coolant. The cooling system additive has been improved to further reduce engine temperatures and offer even greater protection against overheating, especially when vehicles are operating under load, towing, racing or climbing steep grades. Made in the USA, the coolant reduces engine coolant temperatures up to 30 degrees and can lower cylinder head temperatures by up to 75 degrees to enhance engine efficiency, contributing to better fuel economy, power and performance.



#### **Gasket Kits**

PerTronix Performance Brands, San Dimas, California, presents Seal-4-Good Header Flange and Collector Gasket Kits. The affordable, reusable, blow-proof flange gaskets feature multi-layered, malleable dead soft aluminum to conform to the flange again and again. Seal-4-Good reusable flange gaskets can also be easily and precisely port-matched for uninterrupted flow.



#### **Muscle Car Wiring Harnesses**

Howell EFI, Marine City, Michigan, offers plug-and-play LT1/ LT4 and EcoTec3 wiring harnesses for classic muscle cars, Corvettes and trucks. Available for automatic and manual transmissions, as well as supercharged classics, the harnesses are customized to the customer's specifications and include fuse block, Check Engine light, GM diagnostic connector and electric fan control in a complete street rodtype, standalone design to control engine functions. There is one ground for the entire system and three points of power battery, ignition and fuel pump.

#### **Fox Body Hydraulic Clutch System**

American Powertrain, Cookeville, Tennessee, introduces the new HYDRAMAX true bolt-in, under-dash Hydraulic Clutch System for 1979-'93 Fox body

Mustangs. Designed to eliminate the need for a cable-actuated clutch pedal, the system features an integrated under-dash hydraulic master cylinder and a bolt-in clutch pedal. The included clutch pedal allows for an easy conversion of a cable clutch-equipped car to hydraulic, or an automatic car to manual. 15

#### **SPONSORED**

# **PRODUCT** LAUNCH





#### **Summit Racing Pro LS Pistons at Atech Motorsports**

Atech Motorsports, Tallmadge, Ohio, says: Forged from 2618 alloy aluminum, Summit Racing Pro LS Pistons have skirts profiled for tight piston-to-wall-clearances to maximize ring seal. The pistons have extra-thick ring lands to handle power adders, valve reliefs that work with cathedral and rectangle port heads, and 2.250 inch pin forgings to clear reluctor rings on stroker cranks. Summit Racing Pro LS Pistons are available for popular crank strokes, connecting rod lengths, and bore sizes, with compression ratios starting in the mid-9:1 range for boosted engines and up to 11.5:1 for naturally aspirated or nitrous-fed motors.

https://www.atechmotorsports.com/search/ product-line/summit-racing-pro-ls-forged-pistons

# PRODUCT LAUNCH GALLERY



#### **Wastegate Heat Shield**

Design Engineering Inc, Avon Lake, Ohio, says: We incorporated all our experience to build the absolute best turbo shield on the market, and we used that same experience to build the best Wastegate Heat Shields, with a Titanium LR outer layer with multiple stainless steel and silica inner layers. Without a doubt, this is the strongest, most heat-resistant shield available with a precise fit. DEI Wastegate/Blow Off valve covers help reduce underhood temperatures and reduce the chance of burns when working under the hood. Includes stainless wire for an easy install.

■ https://www.designengineering.com/ wastegate-heat-shield/



#### **Ford Tilt Column Shift Steering Column**

**IDIDIT LLC,** Tecumseh, Michigan, says: The Ford Tilt Column Shift column is available for 1965-1979 half-ton Ford Trucks and is designed so the original Ford truck steering wheel can be used. This column is proudly made in the U.S.A. and comes standard with the following features:

- 8-position tilt
- Ford splined top-shaft
- Ford self-cancelling turn signal switch
- Ford style, billet aluminum knobs and stainless-steel levers
- Ford wiring connectors
- Pre-welded under dash mount
- · Will work with your stock box or rack and pinion systems
- · Lifetime warranty

■ https://www.ididitinc.com/p-36996-retrofit-seriessteering-column.html



#### **PRO-TRUCK-LIFT STAGE 2**

**Eibach,** Corona, California, says: The Eibach PRO-TRUCK-LIFT System Stage 2 combines PRO-TRUCK COILOVER 2.0s and PRO-TRUCK sport shocks to create a perfectly tuned suspension system engineered for both on- and off-road performance. The front 2.0 coilovers were developed utilizing our extended-travel monotube design and variable-force valving that delivers control during on-road transit and compliance for maximum traction on the trails.

■ https://eibach.com/us/



#### **Tri-Ball Trailer Hitch Ball Mount**

**Draw-Tite,** Plymouth, Michigan, says: Pull the steel pin and rotate to get ready for towing with the most common hitch ball sizes. The tri-ball has a fourth side which features a handy step with rugged lug cleats for a firm grip. Fits 2-in. square receiver tube opening. Adjustable cast shank with variable height capability. Knurled bolt pin with secure lanyard. Height adjusts up to 10-1/2 in. Just like you, this product's always ready to get the job done.

■ https://www.draw-tite.com/Product/63070\_ tri-ball-trailer-hitch-ball-mount



#### **Truck Gear Retractable RS Tonneau Cover**

**LINE-X,** Huntsville, Alabama, says: Featuring integrated T-Slot rails for additional hauling capability and customization, the Retractable RS allows for secure truck bed protection plus the strength to carry over 500 lbs. of outdoor gear, coolers, bikes, storage baskets, carriers and more on top of the bed cover.

- · Compatible accessories mount to T-Slot Channel
- Will support a rooftop tent with corresponding rack or crossbars
- T-Slot rails can be adjusted to accommodate different size cargo
- Frees up the hitch to allow trailer or RV hook up
- www.linex.com



#### **Meyer Ramps Up Their Powersports Lineup**

Meyer Distributing, Jasper, Indiana, says: With various manufacturers offering accessories and upgrades for powersports, it was natural for Meyer Distributing to expand into this division. Meyer has a wide assortment of products for all the top UTVs in stock and ready to ship nationwide. Tires, wheels, suspension and drivetrain upgrades, bumpers, doors, rock sliders, winches, lighting, exhaust, performance accessories and much more are available.

■ https://www.meyerdistributing.com/marketing/ Email/Interactive/PSC/Powersports/2021/mobile/ index.html



#### **GM LS Coolant By-Pass/Crossover Plugs**

**Allstar Performance**, Watervliet, Michigan, says: Plugs provide a location to bleed air from the cooling system of most GM LS engines. Replace factory original plugs or use in place of factory crossover steam tubes. Kit includes two plugs with o-rings.

■ https://allstarperformance.com/search-results-page?q=31170



#### **Let NPW Put You on the Map!**

**National Performance Warehouse,** Miami, Florida, says: Grow your business with proven marketing tools. NPW has teamed up with The AAM Group to give you better access to tools and services to help grow your business.

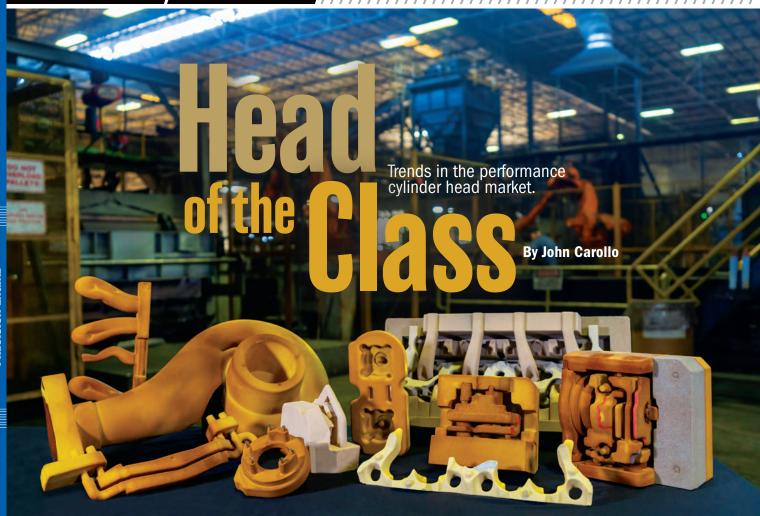
All you have to do is have an account with NPW and sign up with AAM as an NPW customer; it's FREE to you. Once signed up, you will be given exclusive access to all the great tools and services The AAM Group has to offer. Join for free!

■ https://theaamgroup.com/

# PRECISIONENGINE

Cylinder Heads p.54

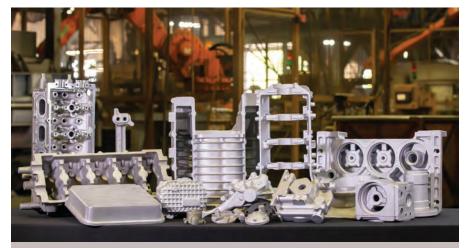
**Engine Products p.60** 



s installing performance cylinder heads a gateway to a total engine makeover? It's a trick question because it works both ways.

Customers looking to throw on a new set of heads can do just that, maybe add a new intake and/or exhaust as well, and walk away satisfied. Others, however, buy their heads as part of a total engine makeover with a new rotating assembly and on and on.

Either way, performance cylinder heads are a shifting market from both sides. For sales, they are steady movers, as enthusiasts want the latest and greatest. From the manufacturers' side, they are a constantly evolving product in areas such as construc-



Performance cylinder heads are a constantly evolving product in areas such as construction materials, machining approaches and power gains. (Photos courtesy Edelbrock Group)



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815-10-21 P2

## Head of the Class



Selecting cylinder heads based on flow numbers can lead to choices that turn out to be too big for the intended application. (Photo courtesy Edelbrock Group)



Bigger isn't always better when it comes to cylinder head port volumes. (Photo courtesy Dart Machinery)



Modern technology has allowed performance cylinder head advancements made at speeds never seen before. (Photo courtesy Dart Machinery)

tion materials, machining approaches and power gains.

Just like heads breathing more power into an engine, the market for performance heads can breathe more sales into shops. Suppliers explain.

#### **TECH TALK**

You can't talk about today's performance cylinder heads without talking about the technology behind them.

"The biggest changes in the performance heads market appear to be better out-of-the-box horsepower and better CNC porting programs offered to the public," says Jeff Brotherton of Brodix Heads. "The consumer can buy an awesome cylinder head over the counter for a great price."

Michael Sanders, product manager, cylinder heads and engine blocks at the Edelbrock Group, says one of the biggest changes he's witnessed in the market is engine builders testing their manufacturing capabilities.

"I am seeing more and more business owners investing in CNC machining centers, buying unfinished or semi-unfinished cylinder head castings and CNC machining them in-house to fit their specific needs and attention to detail," he says.

For a performance part that must meet clearly defined measurements, it's amazing how much creativity can go into the inner workings of a performance cylinder head design, notes Kyle Scheel, assistant sales manager at Dart Machinery.

"The use of technology to develop cylinder heads, and specifically port and chamber designs, is the biggest change in the last 10 years," he says. "With advancements in computer programming we are able to model numerous runner





Modern tools like computational fluid dynamics (CFD) analysis software can help engineer a head design for maximum flow with a minimal amount of turbulence in a short time. (Photos courtesy AFR – Air Flow Research)





An efficient head with better low- and mid-lift flow numbers usually shows its stuff up top. (Photos courtesy AFR - Air Flow Research)



and chamber designs, have model heads 3D-printed, and then test them on a flow bench in ways and timeframes that were never possible in the past."

That same process has been used to make improvements in valvetrain stabilization as well, he adds.

"There will always be a need for handson work to develop new products, but the advancements in technology have made it easier, and given us more tools at our disposal."

Bill Mitchell, president of Bill Mitchell Products, sees the same progress.

"I'd say the biggest change in the last 10 years is in the equipment available for CNC-porting of heads," he observes.

Alex George, coordinator, marketing & sales at AFR – Air Flow Research Inc., explains that while hand-porting performance cylinder heads used to be the norm, "we have since seen several technological booms that have brought welcome changes to both manufacturing equipment and computer technology. Modern tools like computational fluid dynamics (CFD) analysis software can help engineer a design for maximum flow with a minimal amount of turbulence in a considerably less amount of time."

With the advent of CNC machinery, high-performance cylinder heads are being flow-optimized with greater accuracy and consistency from port-to-port or seat-to-seat, he continues.

"Numerical techniques (CFD) offer the



#### MAHLE Motorsport Ford EcoBoost PowerPak Pistons

When you want to push the envelope, MAHLE Motorsport's 2.3L Ford EcoBoost 4032 Alloy pistons turn up the horsepower. PowerPak pistons are manufactured and inspected to the highest standards in the industry. Now added to the Ecoboost 2.3L and 2.0L kits is the new 1.6L PowerPak+ piston set.

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#### Head of the Class



Technological booms have brought changes to manufacturing equipment and computer technology. (Photo courtesy AFR – Air Flow Research)

opportunity to carry out repetitive studies with clearly defined conditions in order to investigate various configurations," he says. "By eliminating the need to shape each port by hand, CNC machines have allowed us to vastly increase our unit production numbers."

#### THE RIGHT FIT

At the counter or before the build, selling performance cylinder heads is a skill that takes knowledge and practice. The most common mistake suppliers see is starting with the highest numbers you can find and thinking they will deliver the most power.

"Most often, people think bigger must be better, and select a cylinder head with port volumes that are too large for the engine they are building," Scheel observes. "Too big of a port for a given engine combo kills port velocity, which hinders power production and hurts drivability."

Sanders agrees.

"A lot of builders choose cylinder heads based on flow numbers, which unknowingly leads them into choosing a cylinder head that is way too big for their intended application."

He proposes the most important factor when choosing a cylinder head is properly matching the port volume to the cubic inches, rpm range and application.

"If you have a properly sized intake port for your application, the air velocity in the cylinder head will provide maximum cylinder fill during the duration that the valve is open and will generate high cylinder pressures that will produce large amounts of torque through the intended rpm range." Mitchell states that it can be frustrating for manufacturers and builders when customers ignore quality cylinder head offerings solely on the basis of peak numbers. And the trend seems to be growing.

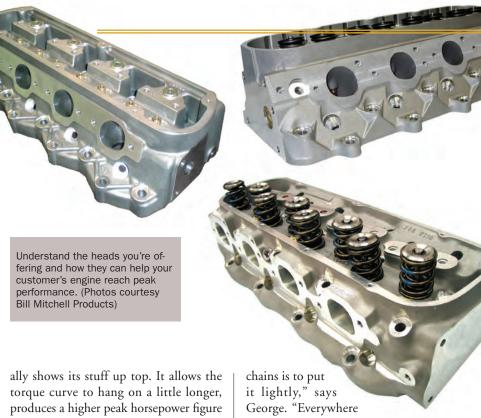
"People shopped by flow numbers for years, even though they did not understand them," he says. "Over the last few years, people are now shopping for heads not even by flow numbers, but just by the widest pinch point. There is such a misunderstanding in cylinder heads these days. If you don't have the biggest numbers, they won't sell."

George agrees that the right fit requires digging a little deeper.

"You want to know what the low- and mid-lift flow numbers are for a set of heads," he says. "An efficient head with better low- and mid-lift flow numbers usu-



Today's quality cylinder heads deliver impressive performance. (Photos courtesy Brodix Heads)



and doesn't roll over as quickly past peak flow."

That's because at higher rpm, when there is less time to fill and evacuate the cylinder, the airflow demand of the engine is at a premium, he notes, "and any little extra you cram in there (and remove) ends up paying big dividends. More often than not, you will find a cylinder head that has the highest average will outperform the cylinder head with the higher peak lift numbers."

Brotherton suggests directing stubborn consumers to the manufacturers for additional information on proper cylinder head fitment, reinforcing that "bigger isn't always better."

#### **SUPPLY CHAIN WOES**

So, how are today's well-publicized supply chain issues affecting the performance cylinder head market?

"It's killing it, just like the rest of the industry," says Mitchell of Bill Mitchell Products.

Brotherton of Brodix Heads cites specific areas.

"Some problems have been occurring with supply chains, such as valve delivery and sleeve delivery," he explains. "This has extended delivery dates by several weeks and even months."

It may be difficult, in fact, to overstate the struggles.

"To say that recent disruptive events had a huge impact on global supply

you look, the global supply chain is a mess-material shortages, epic port congestion and a serious lack of truck drivers. The world's delicate supply chains are under extreme stress."

In response, he reveals, AFR recently increased inventories on a number of components and the team "is constantly evaluating and making informed decisions to help anticipate and resolve issues before they impact our customers or their businesses. We do our best to safeguard our environment throughout our supply chain by networking with other suppliers who share the same standards we do."

Sanders notes that the Edelbrock Group owns its aluminum foundry, allowing the company to manufacture a steady supply of cores and raw castings.

"This vertical integration gives us the ability to navigate around some of these supply chain issues that are affecting everyone in the performance cylinder head market," he says.

Even as we wait for resolution of supply chain woes, Dart's Scheel reminds us that the engine building market is not in this alone.

"The entire automotive aftermarket industry is struggling with the same set of issues—fewer employees willing to work, outside supply chain shortages, the myriad of COVID-related issues, and, in many cases, more demand than ever," he says. "Fewer available products and longer lead times are the results, industry-wide." **18** 

## **Cylinder Heads**

- HOT PRODUCTS: Mongoose LS3 Rectangle Port Cylinder Heads
- FEATURES & BENEFITS: Peak flow numbers of 384 cfm (intake) and 255 cfm (exhaust) with no change in port volume; 95cc exhaust port; 69cc combustion chambers; 2.165/1.60 valve package; 0.750-inch deck thickness; 450-pound PAC Racing Springs; titanium retainers.

AFR - Air Flow Research Inc. Alex George Coordinator - Marketing & Sales

- HOT PRODUCTS: Performance Cylinder Heads
- FEATURES & BENEFITS: Improved performance; standard and high-end offerings available for SBC, BBC, SBF and LS1/LS7 applications.

Bill Mitchell Products Bill Mitchell President

- HOT PRODUCTS: Dragon Slayer Series
- FEATURES & BENEFITS: Big-block Chevrolet-compatible cylinder heads; out-of-the-box performance; competitively priced.

**Brodix Heads** Jeff Brotherton

- HOT PRODUCTS: SHP Series Cylinder Heads
- FEATURES & BENEFITS: Brand new; available for small-block Chevrolet and small-block Ford engine platforms; high-quality cylinder head at an affordable price; utilize the latest developments in casting technology; high-quality materials; consistent machining tolerances.

Dart Machinery Kvle Scheel Assistant Sales Manager

- HOT PRODUCT: Victor CNC LS7
- FEATURES & BENEFITS: New addition; fully ported; available with 291cc or 307cc intake port volumes; features 0.220-inch raised intake ports & 0.100-inch raised exhaust ports; copper-infiltrated powder metal valve seats; accepts OEM or aftermarket intake manifolds.

Edelbrock Group Michael Sanders Product Manager, Cylinder Heads and Engine Blocks





#### **Chevy Cylinder Heads**

Dart Machinery, Warren, Michigan, introduces a redesigned SHP Series Cylinder Head for smallblock Chevy muscle car and street rod applications. Based on the popular 23-degree valve angle configuration, it features revised port designs to deliver affordable power. Manufactured using a proprietary process employing permanent molds and a dense aluminum alloy, the head is available in bare form or completely assembled. Bare heads come with powder metal seats, multi-angle valve jobs, magnesiumbronze valve guides and 0.530-inch seals.

#### **Duramax Tuning**

**Edge Products**, Ogden, Utah, presents the EvoHT2 tuning solution, now available for 2017-'19 GM Duramax diesel truck applications. Offering a simple, easy to use



interface and a color screen. the system is pre-loaded with tunes that provide increases of up to 150 hp and 350 poundfeet of torque. Multiple power levels deliver performance gains for all types of uses including towing. Adjustments involve timing, duration, fuel pressure.

management and airflow to attain optimal performance while keeping the emissions systems intact.

torque

#### **Spark Plug Boot Protectors**

Heatshield Products, Escondido, California, introduces patent-pending Pro-Boot Shield spark plug boot protectors, designed to protect spark plug boots from under-hood heat. Pro-Boot Shield is rated for 1,200 degrees radiant heat and 2,000 degrees intermittent heat, featuring specially formulated Lava thermal-barrier material and additional heat insulation from the inner Tac Armor Liner. Sealable ends prevent heat from becoming trapped inside the boot's airspace. The protectors come in pairs or sets of eight, with Stealth Black or Lava carbon fiber-style finishes.



#### **Piston Kits**

#### **MAHLE Motorsport**,

Fletcher, North Carolina, introduces 12 new PowerPak Piston Kits for performance, domestic and import applications, with a heavy emphasis on Cummins diesel offerings. The new kits provide performance gains and durability



for a variety of engines, from small-block Chevy, Ford EcoBoost and Volkswagen projects to diesel and even Top Alcohol builds.

#### Ford TFI Distributor Cap & Rotor Kit

PerTronix Performance Brands, San Dimas, California, presents its Flame-Thrower Ford TFI Distributor Cap and Rotor Kit. The kits meet or exceed OEM specifications and serve as direct replacements for 1980-'97 Ford, Mercury and Lincoln applications with TFI ignitions. Flame-Thrower dust covers provide a larger air gap around the coil for cooler operating temperatures, and nylon rotor hold-down screws are included. The systems are molded from PBT compound for superior protection from voltage arc-through and crossfire.



#### **Small-Block Ford Billet Distributor**

MSD, Bowling Green, Kentucky, a Holley brand, presents a Billet Distributor with Bronze Gear for small-block Ford applications. Just under the brass terminals of the cap and rotor is an easy-to-adjust mechanical advance assembly that has been fine-blanked from chromoly steel and TIG-welded for strength, and has received a QPQ coating. The precision weights glide on nylon bushings for smooth advancement, and different springs and stop bushings allow tuning with a variety of advance curves.



#### **Duramax Coolant Thermostat Housing**

PPE, Montclair, California, presents a high-strength, castaluminum Thermostat Housing for 2001-'07 GM 6.6L Duramax LB7, LLY and LBZ applications. The direct-



replacement upgrade fits onto the OEM cylinder heads and is compatible with factory thermostats, temperature sensors and stock thermostat covers. It can be paired with the PPE 304 stainless steel Thermostat Housing Cover.



#### **Performance Oil Filters**

VP Racing Fuels. San Antonio. introduces a line of Racing Oil Filters through a licensing agreement with Champion Laboratories Inc. Designed for racing and high-performance passenger cars, the premium synthetic oil filters are engineered to be compatible with all oils and fuels, delivering advanced oil protection for up to 1 year or 20,000 miles under normal driving conditions.

## **Cummins Common Rail Injectors**

BD Diesel, Abbotsford, British Columbia, presents Common Rail Injectors for 2003-'07 Dodge 5.9L Cummins diesel applications. The performance injectors are assembled to tight tolerances with new Bosch solenoids, nozzles and control valves. They are fully tested and calibrated to a flow tolerance of plus/ minus 2%.



#### **Ford 7.3L Fuel Rails**

Aeromotive Inc., Lenexa, Kansas, introduces Fuel Rails for Ford Godzilla 7.3L gasoline V-8 applications. Delivering increased fuel flow, the rails come with mounting brackets and hardware.



#### **Octane Booster**

BOOSTane.

Memphis. Tennessee. introduces BOOSTane Professional Octane Booster. Engineered to be a race fuel alternative by transforming regular pump gas to as high as 116 octane, it unlocks the performance and tuning of race fuel without the expense and inconvenience.







#### **Expanded Motor Oil Line**

Driven Racing Oil, Memphis, presents its expanded GP1 line of high-performance motor oils. New applications include SAE 40, SAE 50, 85W-140 gear oil and a 20W-50 break-in oil. The unique blends offer protection and performance for a wide variety of vehicles, ranging from classics and antiques to powerful race motors and supercharged engines.



**Moroso Performance Products**, Guilford, Connecticut, presents its SBC 4.5 ROX Billet Aluminum

Valve Covers. CNC-machined from solid billet aluminum, the covers fit small-block Chevy 4.5 ROX bore space cylinder heads. They are designed to clear **Jesel** and **T&D** rocker shaft assemblies



and include notches at each mounting location for easy installation and removal.

#### **Coyote Supercharger Kit**

Kraftwerks USA, Norco, California, part of Group-A Engineering Inc., presents a Supercharger Kit for 2018-'21 Ford Mustang 5.0L Coyote engine applications. Designed to make horsepower while maintaining reliability, the kits have been shown to offer verified gains of 150-plus wheel hp and 115-plus pound-feet of torque on a stock Mustang. A unique frictional planetary-drive



supercharger unit delivers boost efficiently with zero boost lag or spiking.



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#### **Locking Fasteners**

**Stage 8**, San Rafael, California, presents its complete line of Automotive Locking Fasteners. Available products include fail-safe mechanical locking fasteners for headers, turbos, oil pans, timing covers, manifolds, valve covers and more. The fasteners are designed to eliminate loose bolts caused by thermal expansion or vibration. The products are made in



the USA, and all necessary hardware is included for each application.

#### **GM Truck Supercharger Package**

#### Lingenfelter Performance Engineering,

Wixom, Michigan, presents a Supercharger Package for 2019-up Chevrolet Silverado and GMC Sierra 5.3L and 6.2L pickups, designed in partnership with **Magnuson**. Magnuson's TVS 2650 GM DI truck intercooled supercharger (CARB-pending) is paired with Lingenfelter Performance Engineering's integrated control system, adding 150-plus rwhp and 100 pound-feet



of torque for better acceleration, improved towing performance and enhanced off-road ability while retaining drivability. The supercharger utilizes advanced **Eaton** TVS technology for maximum efficiency throughout the rpm range. **TS** 

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## **Awards Cap Return of In-Person SEMA Show**

ndustry awards capped the return of the in-person SEMA Show, Nov. 2-5 in Las Vegas, after the pandemic forced the show to go virtual in 2020.

Celebrating the brand-new West Hall exhibition space and the resumption of face-to-face business interactions, many of the awards were announced at the SEMA Industry Awards Banquet on the Thursday night of the show.

Honorees included:

- SEMA Person of the Year Sara Morosan, vice president, LGE-CTS Motorsports
- SEMA Gen-III Innovator of the Year Matt Kossoff, founder, chief product officer, Driven Lighting Group
- SEMA Warehouse Distributor of the Year – Turn 14 Distribution
- SEMA Manufacturer of the Year ORACLE Lighting

SEMA recognized Morosan, vice president of LGE-CTS Motorsports and president of BAJA Forged, for forming BAJA Forged, a company specializing in off-road products and custom builds, during the pandemic. She also dedicated hours of her time to volunteer for SEMA and the industry, most recently as chair-elect of the SEMA Businesswomen's Network (SBN), as a member of the SEMA Truck and Off-Road Alliance (TORA) select committee and as a SEMA Cares committee member, SEMA announced.

Meanwhile, Robert Matranga of Matranga Hot Rod Fabricators took the top prize in the eighth-annual SEMA Battle of the Builders. His 1955 Chevy Bel Air *Brute Force* beat out more than 240 entries in the internationally recognized competition, including three other category winners:

- Sport Compact Eddie Pettus 1961 Austin Healey Sprite
- Truck/Off-Road Bryan Thompson 1934 Ford Pickup



The Battle of the Builders Top 12 included Mike Fillion, Mark Giambalvo, Robert Matranga, Samantha Frazier, Eddie Pettus, Simo Veharanta, Jeremy Miranda, Kamaka Pocock, Bryan Thompson, Dayton Jacobson, Chelsie Lesnoski and Cole Marten (*not shown in order*).



Robert Matranga of Matranga Hot Rod Fabricators took the top prize in the eighth-annual SEMA Battle of the Builders with his 1955 Chevy Bel Air *Brute Force*.

- Young Guns Dayton Jacobson 2000 Chevrolet S10
- Hot Rod Robert Matranga 1955 Chevrolet Bel Air

The four finalists of this years' competition will be highlighted along with other featured builders in a new TV special 2021 SEMA: Battle of the Builders, scheduled to premiere on the History Channel in early 2022.

In another competition, DPS Auto-

motive, an automotive restyling shop in Arlington Heights, Illinois, was the winner of the second SEMA Professional Restylers Organization (PRO) Cup Challenge. The winning entry was an accessory package for the 2022 Volkswagen Atlas that included a full satin

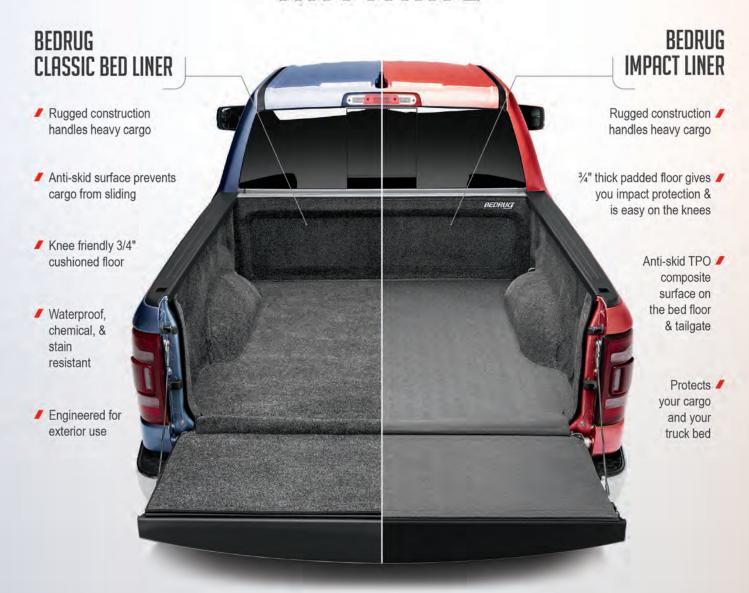
blue wrap and dealer-friendly accessories. (See interview on page 34.)

Finally, SEMA announced its annual Hall of Fame inductees last summer. They were Jessi Combs, Rick Love, Bob Moore and Carl Schiefer. **15** 

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