These days, affordable custom wheels are readily available for most styles of vintage cars, from highboy roadsters to street Gassers to Bellflower cruisers. We’ve highlighted a range of styles offered by Rocket Racing Wheels and E-T Wheels. Pictured are (top row) E-T Wheels’ Fueler and Five Window, (middle row) E-T’s Sebring with knock-off, Vintage V, and Dragmaster, and (bottom row) Rocket Racing’s Injector, Igniter, Launcher, Fuel, and Strike.

By Curt Iseli | Photography by Geoff Miles

Wheels play a defining role in the look of a hot rod. Take any car riding on steel rims and replace them with mag-type wheels and you’ve instantly changed its character. Wheels set stance and attitude, but safety and structural issues are just as important. Today, manufacturers like Rocket Racing Wheels and E-T Wheels combine the benefits of modern construction materials and methods with classic vintage designs.

Prior to the 1960s, custom rolling stock options were limited to wheelcovers, chrome-plated steel wheels, and cast magnesium wheels. Magnesium alloy, like heavier aluminum and iron alloys, is strong enough for use in structural, load-bearing applications. It was an attractive option for early wheel designers because of its strength-to-weight ratio, which is superior to aluminum and steel. Unfortunately, it is also extremely susceptible to corrosion and highly flammable. Initially, this wasn’t a concern since early mags were designed for racing without much regard for lifespan.
By the 1960s wheel manufacturers were capitalizing on the popularity of drag among hot rodders by producing mag-style wheels that despite being commonly referred to as "mags" actually contained no magnesium whatsoever. The first non-magnesium mags were sand cast from aluminum in one-piece design. These were followed by two-piece "composite" wheels, which were constructed using sand-cast aluminum centers that were screwed, riveted, or welded to a steel rim. The industry exploded, and throughout the '60s companies emerged and produced classic wheel styles that remain popular today. Many of those companies didn't survive, and in time the wheels became available only to those with the patience and resources to scrounge swap meets and online auctions for usable sets of originals.

Although the current incarnations of Rocket and E-T were established within the last two decades, they both have roots in the industry's formative years. Each company has its own distinct philosophy and each serves a specific niche within the hot-rodding community. But there are some manufacturing practices that are common within the industry and are worth examining. Virtually all aluminum wheels are made from A356 alloy, which has become the standard primarily due to its strength. Although sand casting was once common practice, low-pressure casting, in which aluminum is forcibly injected into steel molds, has taken its place entirely for Rocket and E-T (with one exception at E-T). The porosity inherent in sand casting and the quality of finishes that can be achieved using low-pressure casting makes it both efficient and economical. Both manufacturers use independent firms to rigorously test their wheels to ensure industry strength and safety standards.

RIDING THE ROCKET

Rocket Racing Wheels and its parent company, Rocket Performance Machine, were started by David Coker five years ago in Chattanooga, Tennessee. After cutting his teeth in the family business, Coker Tire, David launched Newstalgia Wheel, a custom wheel retailer, in 2003. As the realization of many major wheel brands, he was able to see first hand the strengths and weaknesses of various aftermarket wheel operations. He paid particular attention to the cost and lead-time considerations and at the same time developed a database of popular styles, sizes, bolt spacing, and offsets. Armed with this information, David had the idea to offer a line of custom wheels that were both affordable and readily available by manufacturing popular traditional designs within a specific range of sizes and specifications. "We wanted the average guy building his own hot rod in his garage to be able to afford our wheels," he explains. "We developed a line of wheels that are on the shelf and ready to ship when that guy picks up the phone and calls his Rocket dealer."

The Rocket brand of custom wheels was originally started by Ray Bleiweis in California's San Fernando Valley. Ray first owned Keystone Automotive, one of the early producers of chrome-plated reverse steel wheels. He and his wife started Rocket Industries in 1965, producing wheels into the '70s. In the years that followed, production ceased and the Rocket name lay dormant until 2008 when it was adopted by David Coker and his new venture, Rocket Performance Machine.

Although the two companies are linked in name only, the goal of bringing some really cool custom wheels to hot rodders is common ground. "There's so much hot rod heritage that focuses on the wheels, and there are some really great vintage styles that we've brought back because the originals aren't available today," David says. He has an image archive with hundreds of vintage wheel design inspiration. Rocket currently has seven different designs that are geared specifically toward hot rodders (with others aimed at additional specialty niches), but David resists the urge to move too fast. "There is a lot more that we're going to introduce," he says. "I'm just kind of pacing myself."

All of Rocket's wheels are cast, one-piece designs. "People treat original mag wheels like baseball cards," says David. "But you've got to get out there and drive these things. We're building wheels that were originally available in magnesium but are built to be driven on the street today." One example is the sought-after kidney bean-style, which typically carries a hefty price tag. The Rocket Igniter replicates that classic slotted, ribbed design at an affordable price. Most Rocket hot rod wheels are available as-cast or polished and the Igniter is also offered with a machined lip and grey painted center. It is currently available as a 15-inch wheel in various widths, but David will soon be adding 16-inch diameters.

Over the last few years the idea of adapting the look of 12-spoke spindle mounds to a 10-spoke bolt-on design has gained popularity. Answering that call is the Rocket Launcher, a spindle mount-style designed as a bolt-on wheel suitable for street use. Like the Igniter, the Launcher is available as-cast, fully polished, or painted with a machined lip. While the Launcher could be paired with any number of wheels, we would opt for a set of Injectors. Like the Launcher, these wheels are reminiscent of the large five-window wheels seen on the Altereds, Gassers, and Top Fuelers from drag racing's golden age. The '60s also saw a number of ribbed five-spoke designs. While the tri-rib design has survived, David noticed that no one was making a single-rib five-spoke and designed the Rocket Strike to fill that void. We've seen polished Strickers on '60s-style custom cars for years. Rocket plans to broaden the line with the introduction of narrow 15x4.5- and large 15x10-inchers.

All of the designs introduced to date, only the Rocket Fuel draws from the original Rocket Industries offerings of the '60s. The Fuel is a peaked five-spoke design that has earned its status as a classic. The Fuel is one of the few vintage-style Rocket manufacturers in 21-inch sizes. In addition to being available polished or painted grey with a machined lip, Rocket offers a chrome-plated version that is easier to maintain than its polished aluminum counterpart.

E-T ARRIVAL

The link between E-T Wheels of the 1960s and those of today is fairly linear, despite the company having ceased operations for several years. Scott Russell is the current owner of Team III Wheels, the company that manufactures E-T in the San Francisco Bay Area suburb of San Leandro, California. As a kid, Scott grew up hanging around with Dick Berth, the founder of E-T. Dick was a metal shop teacher at Hayward High School just a few miles south of San Leandro. Years earlier as a student at Hayward, Dick became friends with (and later mentored under) Scott’s father, Jim, who taught industrial arts.
Dick made the molds for the first E-T wheel, a five-spoke design, in the Hayward High metal shop while teaching there in 1961. That year they were shown on a '55 Chevy at the Oakland Roadster Show with Dick standing alongside handing out flyers. Orders began rolling in, and he manufactured a variety of wheels, including the famed E-T IIIIs, until 1970 when he sold the company and went into car racing. Over the next decade or so, demand for the wheels diminished and E-T Wheels disappeared in the early-'80s. A decade later a more nostalgic look began to gain traction within the rodding community. Dick started getting calls for the E-T IIIIs, and before long he was back in the wheel business.

Throughout the years, Dick and Scott remained friends. Scott pursued a career as a production manager at an aerospace company just a mile down the road from Dick’s shop. In 1998 Dick and his wife had a three-week vacation planned and needed someone to manage the shop while he was gone. Scott took some time off and held down the fort—and had a fun time doing so. Six months later, Dick retired and Scott bought the company. They currently make wheels for a variety of specialty automotive markets under the Team III banner, but their hot rod wheels carry the E-T name.

Scott operates Team III with his wife, Jin, a metallurgist who oversees wheel production. They have built the E-T line by manufacturing wheels that are aerodynamically in line with the nostalgic designs they replicate, but can be easily modified for a variety of widths and offsets. “I think of them as ‘hand-made production wheels,’” Scott told us. He has also successfully forayed into one-off custom wheel projects—embarking on a journey that keeps his design and engineering appetite fed.

As the designer of each E-T wheel, Scott takes care to remain faithful to the original wheels his modern iterations are based on. Once a drawing is completed, a prototype is machined before any molds are made or aluminum is cast. “After I put a design in the computer and refine the 3D model, I machine one wheel to see that it physically fits like it’s supposed to, that the lip and the transition angles look right, and that it retains the proper proportions,” Scott explains. “That’s the stuff you can’t tell in the computer.”

The most recognizable original E-T design is the iconic E-T III that was seen on all manner of Altereds and dragsters since its introduction in the late ‘60s. The E-T IIIIs were comprised of two halves that bolted together, making it easier to change tires at the drag strip between passes and the drop center was eliminated, creating a flat surface from lip to lip. This prevented slicks from walking off the rim as the inner and outer beads moved toward the center when centrifugal force caused the tires to grow in height. Scott still has the tooling Beith created for the two-piece E-T IIIs, and he will do a production run of them whenever he has orders to cast 20 pairs—which we hope will be in the near future.

In addition to the limited production E-T III, Scott designed the Fueler and Five Window as an E-T III-inspired street wheel. Both are a one-piece design, which eliminates the need for the inner tube created by the two-piece construction of the E-T III. Unlike the E-T III, which is only available in a variety of finishes, including polished, cast, and grey painted center with a machined lip, the Fuel is also available direct plated Polished lighter (top), polished Ignitor (middle, left), polished Launcher (middle, right), as-cast Injector (bottom, left), and polished lip with grey painted center Strike (bottom, right). Visit www.rocketracingwheels.com for available sizes and offsets.

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16x10-inch size, the Fueler and Five Window are available in a range of sizes. The Fueler is the most directly derivative. It is a one-piece casting with a drop center and provisions for five non-functional bolts that mimic those on the bolt-together E-T III. The shape of the large windows, with their ribbed edge interrupted by the inner rim of the wheel, also closely resembles the original E-T III design. Most E-T wheels are available in either polished or cast with a machined lip, and custom lip finishes, such as satin or fully polished.

The Five Window maintains the large, ribbed window design of the E-T III and Fueler. The main differences are that the rib forms a complete, uninterrupted line around all four sides of the window, and the wheel does not have the cosmetic bolt provisions found on the Fueler. Scott designed a low angle and high angle version of the Five Window. The low angle has a two-inch deep window, moving the center as far out toward the street side of the wheel to maximize fender clearance. The high angle version is 3.5 inches through the window to create a deep-dish appearance for rear wheels where clearance isn’t a concern.

The Sebring is E-T’s version of the classic 1960’s road racing wheel. They are a true pin drive knock-off design, and can be used with a knock-off hub or E-T’s knock-off adapter that fits a variety of popular five-pin systems. However, for those who want the look of these early race-inspired wheels, Scott can machine them for a variety of bolt-on configurations. In keeping with the style of the original mag wheels on which the Sebring is based, these are only available in a cast finish with a machined lip.

Most custom wheel manufacturers have their own unique version of the classic five-spoke design, and in the case of E-T they actually have two. The Vintage V features a rounded spoke that is a perfect fit for early-’60s era Gassers, Altereds, hot rods, and muscle cars. A variation on the Vintage V is the Classic V, which substitutes an A-spoke for the milled spoke of the Vintage line.

Another example of the versatility Scott designs into E-T wheels can be seen on the Dragmaster. It captures the small-window spindle-mount mag look perfectly, but in addition to offering them as a true spindle mount, E-T can make modifications for direct mount as well. Using your hubs, Scott’s team blind drills the back of the wheel and attaches the hub with cap screws and an axle nut on the spindle. This avoids having to machine the bearing race to fit into the wheel, and it also leaves open the option to easily change wheels down the road. For those interested in a standard bolt-on application, the lack of the shorter ribs radiating toward the center of each window often seen on this style of wheel leaves room to drill the wheels for virtually any bolt pattern.

CLASSICS NEVER DIE
It wasn’t that long ago that many of the styles offered by companies like Rocket Racing Wheels and E-T Wheels were either difficult or downright impossible to find. It is exciting to see the resurgence of these classic nostalgic styles. Modern hot rods can indeed have arootedge, look.

E-T Wheels are available in cast or polished finishes, and they will also custom machine the lip finish to order. Polished E-T Dragmaster (top, left); as-cast Vintage V (top, right). E-T III available as-cast only (middle, left); polished Five Window High Angle (middle, right). Custom 20-inch E-T III as-cast with polished lip and knock off (bottom, left); as-cast Fueler (bottom, right). Visit www.team3wheels.com for sizes and offsets, or call to discuss custom diameters.

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