

What Gearhead Dreams are Made of

There is no need to park between the lines with a LetzRoll-built vehicle.



From monster trucks to racing buggies, rally cars to rock crawlers, the off-road market is teeming with the ultimate overland vehicles for traversing the roughest terrains of rocks, cliffs, sand or all of the above. But let us not forget the first true off-road vehicle—none other than the Jeep.

Off-road racing began as a hobby after World War II when the Jeep was typically purchased for light utility purposes. Today it reigns as one of the leading off-road vehicles and the original off-road vehicle of obsession for the owner of LetzRoll Offroad Fabrication and Racing, Andrew McLaughlin. LetzRoll became an official LLC in 2008 while operating from McLaughlin's garage. Now, LetzRoll operates from an almost 4,500 sq. ft. space in Mesa, AZ, that is full of equipment for custom vehicle fabrication.

Among the key pieces of equipment for the fabrication side of McLaughlin's business are the ESAB Crossbow mechanized CNC plasma cutting system and Rebel multi-process welder. LetzRoll Ultra4 Racing has partnered with ESAB as its official sponsor and continues to rely on ESAB's cutting and welding support for successful race finishes.

"We are known as a finishing team—definitely a worthy claim to fame in this sport," said McLaughlin. "A big part of that is the way we build, how we build, prep and maintain. We test everything, for every race, down to the welds."

Lifestyle and Business

Even as an LLC, McLaughlin was still working full-time for another company and selling off-road parts from the internet as a side gig. On his days off, he would take side jobs, such as doing axle swaps and installing steering kits on off-road Jeeps. Word of mouth helped McLaughlin grow his business, and in 2010 he teamed up with a buddy to start his full-time business. Reselling parts in a down economy gave McLaughlin the opportunity to establish good relationships and pricing from companies he still deals with today, including Yukon Gear & Axle, ADS Shocks, Raceline Wheels, Eibach suspension components, PAC Racing springs,

Goodyear tires, Jimmy's Outback 4x4, Artec Industries, JM Rigging Supply, Certified Inspection Services, Torco Race Fuels, ComeUp Winch and Arizona RV Salvage.

LetzRoll specializes in Jeeps, but Jeeps are only half of the business; the other half is custom fabrication of Ultra4 racing vehicles. For Jeeps, LetzRoll offers in-house performance suspensions, steering axle swaps and full fabrication.

"In the Jeeps, we build the suspension around the existing chassis, versus in the custom Ultra4 vehicles where we fabricate the chassis and the suspension specifically for the demands of Ultra4 Racing," said McLaughlin. "Since you cannot find these components off the shelf, we fabricate them ourselves."

McLaughlin started by simply doing some work for friends, but, from his garage, his business and reputation grew.

"Today we are building some of the coolest race cars and Jeeps in the country," said McLaughlin. "From my passion for off-road came my fabrication business, which then developed into full-fledged, world-class racing. My passion and my business go hand-in-hand."

It is clear that McLaughlin's off-road fabrication business, while it came before the racing, grew as a result of his knowledge of and passion for the off-road industry and off-road vehicles in general.

"I have been into the off-road thing since I was a kid," said McLaughlin. "I still have the first Jeep I bought when I was 16. My friends and I liked working on our vehicles and taking them out to play. But the problem with the off-road sport is that you essentially build things to break them. So, I needed good strong equipment and the ability to fix my own stuff."

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LetzRoll fabricated this vehicle with 2" diameter, .120" wall chrome-moly tubing. It ran in the 4800 class at King of the Hammers.

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In 2010, when the “now or never/all-in” time approached, McLaughlin had a baby girl, a side business selling parts and a full-time day job.

“The off-road industry has always been a lifestyle for me. I was the kid in the back of the class reading four-wheel drive magazines,” said McLaughlin. “I studied and lived and breathed everything about this industry, but fabrication is what ultimately took me from my hobby to my full-time job.”

Moving Parts

With the Jeeps, LetzRoll takes a factory suspension and builds what the industry calls a long arm suspension, raising the height of the vehicles to account for ground clearance, tire size and performance. When the distance between the axle centerline and chassis is lengthened, the suspension is more balanced and the roll center is lower, providing more off-road stability. With these suspensions, using different types of shocks, the vehicle rides more smoothly at speed, handles better on- and off-road, can take jumps, crawl over boulders and more.

The main structure points on the frame of the suspension are 1/4" to 1/2" thick. Common parts, from basic brackets and tabs up to 4' wide skid plates, are cut from sheet metal in house with the Crossbow plasma cutting system, purchased by McLaughlin when it was introduced at SEMA 2014. While he had a fear of a steep learning curve, he knew early on that an automated plasma system was going to be a key component.

“Automation has really taken off in our industry,” said McLaughlin. “Because we work on different vehicles using different processes, being able to go back and duplicate something is very important. The files we have built are used



When LetzRoll holds an open house/customer appreciate event, it draws hundreds of visitors from around the Phoenix area.

on different applications over and over again. Now, we cannot live without it.”

McLaughlin values not only the increased production but also his fabricators’ ability to execute their visions.

“They are able to visualize what they want to design, put it on the computer and create a DXF file, transfer it to the Crossbow with a thumb drive and cut it out. The CNC also lets them manipulate a library of standard shapes to fit exactly what they want,” said McLaughlin. “A CNC plasma system speeds up production, but it is also a morale boost, and our overall brand is better as a result.”

The younger generation in particular appreciates having these tools at their fingertips. The backside of fabrication is now a highly valued skill in many fabrication shops.

“Many of our really advanced designs have not been drawn by me or any of my full-time guys,” said McLaughlin. “Often they are just guys who want shop time, and I get it. It is a great investment. It builds up the industry.”

In addition to automated cutting, the shop houses plenty of other equipment to accommodate the precision required in the off-road industry: vehicles lifts, welders, grinders, drill presses, benders, etc. Particularly for Ultra4 Racing, which combines desert racing and rock crawling, LetzRoll brings a fully outfitted welding truck for support. The ESAB Rebel, a portable multi-process welder, is McLaughlin’s favorite.

“This machine has been a blessing for us,” said McLaughlin. “We used to have to bring the big generators and machines just to do what the Rebel can do even better.”

The team at LetzRoll provides all the welding and cutting support people need at events throughout the year. At King of the Hammers alone, there might be 60,000 people out there watching but also taking their buggies on the rock trails.

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LetzRoll specializes in axle swaps.

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"People come from thousands of miles to this place in the middle of nowhere," said McLaughlin. "It is kind of intimidating when you do not have support. We offer it."

For events such as King of Hammers, the hardest off-road race in the U.S., the Rebel is running all day. "These things get kicked around in the dirt, fully abused, and still get the job done," said McLaughlin. "I sometimes have to stop my guys from using it in the shop because they love it so much. This is our go-to machine for working in small spaces or out in the field."

McLaughlin's team welds a lot of 2" diameter 0.120-wall chrome-moly tube, as well as on thicker A-arms (a hinged suspension link between the chassis and the suspension upright or hub that carries the wheel). In the shop, they weld anything from really light gauge to 1/2". "The Rebel is our go-to unit, especially when we are dealing with bracketry in the 1/4" range," said McLaughlin.

The Rebel's small footprint makes a difference when it comes to starting a small shop. "I started out of a little two-car garage," said McLaughlin. "I did not have space. I wish there



Andrew McLaughlin, Founder and Owner of LetzRoll Offroad Racing

was something like the Rebel when I started. I was tripping over a welder the whole time. Not only is it small, but the Rebel also does everything. And it runs off 110, 220, dirty generator power. This thing is a little beast—at a great price point."

Performance-Based Builder

Clients do not come to McLaughlin looking to save a buck on basic work. "I am not looking for the guy who wants force-fed suspension kits, the simple bolt-on stuff," said McLaughlin. "I do not want to bad mouth other companies, but I am not the McDonald's of the off-road industry. I am the guy you come to after you check out all those fast-food shops. Our clients are the ones who want to advance in the sport and want to have the best."



The right CNC plasma system can "take the hard part out of CNC cutting," said Andrew McLaughlin.

McLaughlin believes in providing his customers with exactly what they need and is known for making sure they understand the process from start to finish.

"I am going to help build and design vehicles so they work in the future," said McLaughlin. "For just a little more money, I can get you in something superior that is re-buildable, rides better and will last longer because it is designed for what you are trying to achieve. It is not just for looks; I am a performance-based builder."

The off-road industry is a passionate one, but with passion often comes success and longevity. McLaughlin believes that time is the most important factor, something he is willing to give more than most—personally and professionally.

"I always say, I am not looking to get rich doing this; I am looking to do it for the rest of my life." If money is the primary driver for opening a shop, McLaughlin says to think twice. "You better love it, because you will not always love your paycheck, but when you look at the final product, it is a piece of you and that makes it all worth it," he said.

For LetzRoll Racing, which has finished five of six King of the Hammers, three in the top 20, the bumpy ride is more than worth it. "We will just keep going," said McLaughlin.

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