



**MADE IN
NORTH AMERICA**

MOOTS

Words and Photos by Adam Newman

Clockwise from this page: Welder Matt Pronovost lays down a bead of Moots' famous stack-of-dimes double-pass welds. Once welded, Sam Gordon faces a frame's bottom bracket shell. Cariveau puts the MootoX RSL through its paces in its natural habitat, high above Steamboat Springs. The logo has come a long way—this decal adorns an early-'90s steel time trial frame.



For thirty years, Moots frames have been handbuilt not just in America, but “in the Rockies,” as each one proudly states across its flanks. Founded in 1981 by Mountain Bike Hall-of-Famer Kent Eriksen, Moots began like many brands—a small operation housed in the back of a local bike shop. The name was inspired by a recurring character in Eriksen’s life: a pencil eraser adorned with a top hat-wearing alligator called Mr. Moots. His likeness appears on every Moots frame to this day.

In 1983, a passion for the backcountry trails surrounding Steamboat Springs, Colorado, led to the first Mootain-eer mountain bike, and Steve Tilford promptly won the first NORBA National Championship aboard one. The early excitement surrounding mountain bikes is more widely associated with California, but took off in Colorado too. “Almost the same time it was happening here, with Moots. It was just much further off the map,” says Moots marketing and social media director Jon Cariveau. “The terrain around here really prompted the need for a mountain bike.”

Only four short years later, they debuted their YBB (Why Be Beat?) soft-tail design, which is still used to this day. With no pivots, and only a small shock incorporated into the wishbone seatstays, it allows for 1.125 inches of rear wheel travel.

Eriksen eventually left Moots in 2004 to start his own custom frame shop, Eriksen Cycles in 2006. (Read our interview with Eriksen in issue #123.)

But wait, you say, was Moots really making titanium frames way back in 1981? Well, no. Lugged and TIG-welded steel was the material of choice until 1991, when titanium quality and technology finally reached the company’s



This page clockwise from top: Pronovost skillfully doing a pass around the head tube. Serial numbers are stamped into the bottom bracket shell by hand. Decals are applied one at a time by hand, though mostly white, owners can choose from colored trim choices. All the tubing is sourced from domestic suppliers and custom drawn to Moots' specifications.





Moots' famous yellow ID tags accompany each frame in its journey through the factory. Each is signed by all the employees who crafted it before being stamped "Moots Approved."

standards. The company made an almost overnight switch in materials. Titanium's unique ride quality perfectly meshed with the company's design philosophy.

"It's the ride experience. It's the feel of the bike," says Cariveau. "That's our driving force, the ride quality."

That signature satin tubing is sourced entirely from domestic companies and is always seamlessly drawn in a 3/2.5 blend, allowing for custom-spec'd, proprietary tubes designed just for bicycles. Ti frames will not fatigue, loosen or deaden over time like other materials. Moots can also refinish their frames to make them look like new through the company's refurbishing program.

THE PROCESS

Moots owners—or even just wishful owners—are welcome to visit the factory each Monday, Wednesday, or Friday at 10 a.m. for a step-by-step look at how the frames are crafted. The transformation from tube to bicycle begins in the mitering room. Here tubes are cut and shaped by hand, then mitered and drilled as needed. A jig allows for test fitting of each piece before it moves on. Each miter and cut must be perfect to ensure a clean weld and a solid joint. Excess material or imprecise fittings are simply not tolerated. Small batches of stock-sized bikes are often cut at once to save time down the line. Each size frame uses size-specific tubing, used to fine-tune the ride quality.

Once cut, the tubes are polished, cleaned near the weld points to remove any dirt, grease, or cutting fluid, and then placed in an ultrasonic cleaner for additional cleaning. From now until welding is complete, the tubes will not be handled without gloves. The welder then arranges the tubes in a jig, then seals off any holes or openings. Because titanium requires an oxygen-free environment to be welded properly, argon gas is pumped into the frame and expelled from the welding torch to shield the frame from contamination. The Moots factory has a

beautiful system of gas lines and custom-made jigs that keep the floor clear of clutter and allow the welders to work unimpeded.

The first step is to tack-weld the frames to hold their shape. Small size runs are often paused at this stage, allowing final details, like braze-ons, to be added as needed after an order has been placed. Moots' trademark "stack-of-dimes" welds are made with a double pass. Not the fastest way to get things done, but it results in a high quality juncture.

"We make sure every little detail is paid attention to," says Cariveau. "Cutting corners is not what we're about."

Once complete, the frame travels to the finish department, where burrs are removed, headtubes and bottom brackets are faced, and careful inspection for defects takes place. The signature Moots satin-silver finish is applied—or rather, removed—by a particle blasting of tiny glass beads. Then decals are applied and each frame is boxed up for a trip to its new owner.

The factory produces about 1,400 frames a year. In fact, every Moots product, including the stems, seatposts, headset spacers, and TailGator rack, is produced in Steamboat Springs. Almost all of the sub-pieces—binders, cable guides, etc.—are also produced in house.

CUTTING CORNERS IS NOT WHAT WE'RE ABOUT



After the tubes are cut and mitered, Brice Daviess double checks their alignment in a jig before they are cleaned and sent to the welding station.

DIVIDE



MX DIVIDE



THE EXPERIENCE

When you purchase a Moots frame you enter an exclusive club. Between the nature of the tubing, the lifetime warranty, and the refinishing service, a Moots frame really is expected to last a lifetime. Yes, they are expensive, but you're paying for the finest materials, handled by the finest craftsmen.

The collective knowledge and experience in working with titanium—20 years and counting—has led to the development of the RSL family of frames designed as zero-compromise machines. The road, mountain, and cyclocross frames offer the most advanced tubing shapes and were designed from the ground up around modern frame standards such as 44mm inset headsets and press-fit 30 bottom brackets.

"We've challenged ourselves and had a bit of a re-awakening with Moots," says Cariveau. "We can look forward, we can design these modern day bikes with modern day features and still hold our titanium line... It was very much a collective effort within Moots to push ourselves."

While the frames are by no means heavy, Cariveau stresses that eliminating grams was not the driving motivation. "We could make a much lighter road frame, but the ride quality starts to diminish very quickly."

I got to experience that ride quality first hand when I visited Steamboat Springs to ride with Cariveau in the thin air of northern Colorado. Steamboat is a bike lover's paradise—in the summer, at least—with a flat, bicycle-friendly downtown surrounded by picturesque mountains coursing with veins of sweet singletrack. I worked the MootoX RSL as hard as I could to keep up with Cariveau, though there was little chance I could catch the defending two-time CrossVegas "Wheelers and Dealers" race winner.

Titanium may not be de rigueur in the industry these days, but Cariveau sees the pendulum swinging back towards traditionally made, metal bikes. "If you ask a Moots customer, a Moots rider, if they would switch to another bike, the constant response is 'Nothing rides like my Moots. Nothing.'"

NEW BIKES FROM MOOTS

Moots continues to expand their mountain bike offerings with the pending release of the full-suspension Divide family of frames, available in both 26 and 29-inch versions. Designed around an all-new single-pivot suspension, they will offer four inches of travel in a racy package. The frame, swingarm and seatstays will be made in-house of titanium and the chainstays from 6061 aluminum.

The new models will also incorporate the larger, 44mm inset headtubes and press-fit 30 bottom bracket shells first seen on the RSL frames. They will undoubtedly be light, but again, ride quality is paramount at Moots.

"Concentrating on, and keeping that durability very high was on our brain the whole time. We don't want to make a mountain bike that goes out there in a very abusive world and doesn't hold up," says Cariveau.

The Divide bikes will join Moots' already diverse line of mountain bikes, including the MootoX RSL, which gets a new, double-curved downtube for 2012. Look for complete Divide bikes to be ready in the spring, and keep an eye on dirtragemag.com for the latest details. ☪



To see a photo gallery of the Moots factory and hear Cariveau discuss the company and the bikes, scan this code or enter "104" at dirtragemag.com.