

Building the Ultimate KTM 500 EXC Lightweight Adventure Bike

A KTM 500 that can crush road miles but hasn't sacrificed off-road capability



It's been almost 13 years since *KTM* hit on the simple-yet-brilliant idea of adding a few bits to its enduro bikes to create barely-street-legal dual sport machines. It didn't take much—different lighting, brake switches, keyed ignition, turn signals, bare bones emissions—to turn the whole segment on its head. *EXC* buyers who lived where it's possible to plate a dirt bike had been making them street legal for years anyway, so why not capitalize on the demand while making it easier for people?

Despite the naysayers who claimed high-power, lightweight singles were ticking time bombs, the *KTM*s have proven remarkably durable. Check Adam Riemann's [Motonomad film series](#), or Aaron Steinmann's [77,000-mile around-the-world journey](#) if you still doubt it. The *KTM 500 EXC* is a proven platform.



Kurt Forgé, the co-owner of **Black Dog Cycle Works** ([BlackDogCW.com](#)), understood the appeal of a featherweight, go anywhere adventure bike. He's been dreaming of building one for 10 years. He wasn't after a pavement queen, but needed something that would do more than just survive the highway. The perfect bike would do longer journeys and retain the agility and performance of a lightweight enduro. His goal was a bike that's much more versatile than a standard *500 EXC*, but with better performance off-road than a *KTM 690 Enduro R*, a bike Kurt could use to explore the vast expanses of Baja. This is how he built it.



IMPROVE COMFORT & RANGE

The stock 500 EXC is many things: ultra-capable dual sport, single-track weapon, tire-shredding supermoto, commuter in a pinch. But a comfortable mile muncher it is not. The seat is narrow and hard; fuel capacity is limited and vibration, while less of an issue than it used to be, will still add to your fatigue. In stock form the bike has little wind protection, anemic lighting and short oil-change intervals. As fixes Forgét added:

[MotoMinded Rally Kit & Baja Designs Lights](#)



This single product solved several issues at once. The bolt-on rally tower increases dashboard space for a USB charger, extra switches and a mounting spot for a phone or GPS. The windshield is a clear unit from a KTM 450 Rally bike, with fairing lowers, that will punch a better hole in the elements for increased rider protection. And the lighting gets a huge upgrade to dual Baja Designs LED lights: the Squadron Sport for the low beams and the Squadron Pro for the high beams. Together they put out a paint blistering 8,050 lumens.

[Kimpex Handlebar Grip Heater Kit](#)



Cold hands add to rider fatigue, so Forgét added grip heaters from Kimpex. The inside design allows riders to use whatever grips they prefer. It uses 26.8 watts on the high setting and 21 watts on low, and uses a simple-but-effective rocker switch control.

[Renazco Racing Custom Seat](#)



KTM singles come factory-equipped with vinyl-covered 2x4s for seats. It's been that way for years, and the factory isn't giving your backside a break on the latest models. You're supposed to be standing up anyway, otherwise you're not "ready to race." But anyone who dual sports an EXC will spend seat time on the saddle and quickly realize the need for something more comfortable. Renazco Racing builds quality seats, one at a time, keeping the bike's intended purpose in mind. Their enduro models are wider than stock in the rear, but taper in front so riders can grip the tank with their knees in the standing position. Kurt opted for the full suede model, which is grippy, good looking and durable.

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[Black Dog Throttle Lock](#)



It makes sense that this throttle lock ended up on the build; it's the company owner's bike, after all. But this mod fits with the mission of the bike no matter whose name is on the title. Having a throttle lock significantly decreases fatigue by allowing the rider to rest their right wrist during the extended on-road stints necessary to get Forgét to the good stuff. As we noted when [we tested the Black Dog Throttle Lock](#), the unit is easy to install, is inconspicuous, takes up very little space on your handlebars and works consistently every time via a simple on/off "click" mechanism. When engaged it will hold an opening but still allow for emergency throttle chops. When disengaged the throttle snaps closed like it should.

[Fasst Company Flexx Handlebars](#)



The "flex" part sounds strange, but you can't actually feel any movement in the bars while you ride. What you do feel is a noticeable reduction in vibration thanks to a bushing that eliminates any metal-to-metal contact between the part you grip and the part connected to the handlebar clamps. That means less fatigue and no cramped wrists at the end of a long ride.

[Acerbis 4.1-Gallon Fuel Tank](#)



The stock tank on an *500 EXC* is 2.25 gallons, a nod to the bike's hardcore off-road genetics. But when you press the bike into adventure service, you'll quickly note there are many places that lack gas stations every 100 miles or so. The *Acerbis* nearly doubles your range, maintains the bike's slim profile, works with the radiator fan and seat, and is made out of tough polyethylene. The translucent color makes it easy to see how much fuel you have left.

[Twin Air Auxiliary Oil Cooler](#)



Another clue to the bike's nature is its 1.5-liter oil capacity. That's not a lot, and it means frequent oil changes if you rack up a lot of miles. Forgét addressed this issue by adding a *Twin Air* auxiliary cooler. It bolts on behind the left radiator so it's out of harm's way, keeps oil temps down and increases capacity by 10 percent.

[Mosko Moto Reckless 40L Luggage System](#)



Overpacking a lightweight off-road bike like the *500 EXC* can make it handle like a boat. *Mosko's Reckless 40L System* attaches directly to the bike via a harness that stays in place and rugged, removable, waterproof dry bags. The design is light, secure and easy to take off for packing/moving into your tent. The 14-liter dry bags (two), eight-liter tail bag and stash pockets add just enough capacity for overnights if you take your minimalism seriously.

PERFORMANCE MODS

The *KTM* is no slouch right off the showroom floor, but Forgét added a few pieces that tailored the bike more to his mission of on-road capability without sacrificing off-road prowess.

[Scotts Stabilizer With BRP SUB Mount](#)



A steering stabilizer is like insurance for nasty surprises: the rock you hit that tries to rip the bars out of your hands, the sand-induced weave you didn't see coming, the sudden head shake from the air blast of a passing semi. Stabilizers smooth out the feedback and help you stay pointed in the

right direction. Scotts is an industry leader, and the *BRP SUB* mount fits under the bars, leaving space to mount a GPS or phone up top. They also use the stock handlebar mounts and triple clamps.

[Black Dog Traction Footpegs](#)



You need to stand up off road. Unfortunately, manufacturers often see footpegs as a place to trim costs rather than a means of providing a stable, comfortable way to increase control of your bike. Kurt addressed the issue on his bike with *BDCW's Traction Footpegs*. They're made of aluminum alloy, 2.5-inches wide and 4-inches long with traction cleats around the perimeter and removable spikes for additional grip on your boot soles. The voids are large and widely spaced so the pegs shed mud and snow.

[Galfer Brake Rotors and Pads](#)



Galfer's Tsunami discs are grooved to allow more air flow to the pad, keeping brake temps down and performance consistent. The advantage is twofold: increased braking power and, more importantly off road in slippery conditions, better ability to modulate that power. Forgét coupled them with sintered pads, which are heat resistant and long wearing in a variety of conditions.

[Rekluse RadiusCX Clutch](#)



Think about the hundreds of times you'll pull the clutch lever on a ride. Now think about riding long distances day after day in situations that demand good clutch control. You're expending a lot of mental and physical energy on a single aspect of bike control. An auto clutch frees up that energy so the rider can concentrate on momentum, line choice, weight distribution, body positioning, etc., all of which come into play as soon as you leave the pavement. Forget those the *Rekluse RadiusCX* for this *500 EXC* build, which incorporates the company's latest technology for optimized power delivery and long life. *Rekluse* clutches eliminate stalling, but the clutch lever still functions normally in situations where you might need it, such as popping the front wheel over a log.

[Konflikt Motorsports Level III Suspension](#)



Properly setting up the suspension is one of the best ways to improve a bike's performance. And while the *KTM 500 EXC's* suspension is very good off the showroom floor, it is biased toward racing and some riders may find the ride harsh or choppy in slower, less aggressive riding. *Konflikt* takes riding style, anticipated terrain, rider weight and ability into account in their suspension work, tailoring the bike to the purpose. The *Level III Service* includes complete disassembly of forks and shock, polishing certain components, replacing worn parts and re-valving to suit the rider's needs.

BIKE PROTECTION

It's one thing to damage a bike in a race and lose time or points; it's another to break something 100 miles from anywhere and have to figure out how you're going to get back to civilization. With remote riding in mind, Kurt did the following to armor his hardcore adventure bike:

[Doubletake Enduro Mirror](#)



The simple, nearly indestructible design holds steady on the road or trail, thanks to the *RAM Mount* you can crank down hard, and it neatly folds away behind the headlight when the trail gets tight. It will give way instead of break if you fall with it extended, and if you do manage to break the glass part, *Doubletake* sells replacements.

[Black Dog Ultimate Skid Plate](#)



Small bikes go places big bikes can't, or shouldn't, and that means more exposure rocks, roots, sticks and other nasty stuff that can break things. *BDCW's ULTIMATE Skid Plate* covers the engine block, water pump, clutch cover and ignition cover. It's frame mounted and made out of an aluminum alloy designed to absorb hits, not transmit them. And we learned **during our own testing** that it goes on and comes off easily, a good thing given the shorter oil-change intervals on the *KTM 500 EXCs*.

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[Cycra Probend Handguards & BRP Mounts](#)



In stock form the *KTM 500 EXC* comes with flimsy plastic handguards that aren't going to protect your fingers, or levers, in a crash. Kurt Forgé replaced them with beefy *Cycra Probend CRM* (Center Reach Mount) units that put billet aluminum between your fingers and tree branches or rocks. The center-mount design leaves more room on the bars for other things, like *RAM* mounts, and plenty of clearance for levers. The *BRP Handguard Mounts* provide additional room on the bars for controls and cables, and integrate well with the *Scotts SUB Mount Steering Stabilizer*.

[Limited Edition Kurt Caselli Clutch Cover](#)



Made out of tough billet aluminum and deeper than stock, the *Rekluse* clutch cover will stand up to abuse and provides a small increase in engine oil capacity, a good thing on a bike that doesn't hold much oil in the first place. The *Kurt Caselli Limited Edition* honors the legacy of the late Baja racer. *Rekluse* donates \$125 from every sale to the *Kurt Caselli Foundation*, which promotes off-road rider safety.

KTM 500 EXC BUILD PARTS LIST

AFTERMARKET PRODUCT	PRICE USD
MotoMinded Rally Kit & Baja Designs Lights	from \$2,090
Kimpex Handlebar Grip Heater Kit	\$36
Black Dog Throttle Lock	\$160
Fasst Company Flexx Handlebars	\$360
Renazco Racing Custom Seat	\$400–\$425
Acerbis 4.1 Gallon Fuel Tank	\$289
Twin Air Auxiliary Oil Cooler	\$405
Mosko Moto Reckless 40L Luggage System	\$490
Scotts Stabilizer With BRP SUB Mount	\$544
Black Dog Traction Footpegs	\$229
Galfer Brake Rotors and Pads	\$393
Rekluse RadiusCX Clutch	\$1,049
Konflikt Motorsports Level III Suspension	Price Varies
Doubletake Enduro Mirror	\$48
Black Dog Ultimate Skid Plate	\$225
Cycra Probend Handguards	\$170
BRP Handguard Mounts	\$75
Limited Edition Kurt Caselli Clutch Cover	\$189



Author: [Bob Whitby](#)

Bob has been riding motorcycles since age 19 and working as a journalist since he was 24, which was a long time ago, let's put it that way. He quit for the better part of a decade to raise a family, then rediscovered adventure, dual sport and enduro riding in the early 2000s. He lives in Arkansas, America's best-kept secret when it comes to riding destinations, and travels far and wide in search of dirt roads and trails.

