

HONDA'S TRX450R SPORT ATV BUILT FOR 2024

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DUNCAN RACING HONDA TRX450R BUILD

A motocross sport quad for the masses

By the staff of *Dirt Wheels*

□ There's something gratifying that we gain every time we ride an ATV, something that you just can't achieve behind a steering wheel. And, if it's a sport quad, the fun factor and physical requirements more than double. Hanging off the seat through a banked turn, maneuvering 360-plus pounds beneath you as you glide through the air, and lifting the front wheels as you attack terrain at full throttle; you can't get that same thrill and physical reward

from a side-by-side. You can also build a high-performing and race-ready sport quads for the same price as your average side-by-side. When the major players (all but Yamaha) tell us there's no market for sport quads, we've learned to just smile and be patient because, sooner or later, the wind will change directions. Until then, we've got the aftermarket, like Duncan Racing, doing a stand-up job of keeping the sport quads very much alive.

Looking back, it seems we have a Duncan sport quad build in almost every issue of *Dirt Wheels*, but we only see 10 percent or less of the powerhouse builds the Duncan team creates. Duncan puts in long hours and even weekends to keep up with demand. Some builds just take more hours to achieve the desired level of perfection, which brings us to this Honda 450R.



Dirt Wheels and Duncan Racing test rider Josh Row felt right at home on the ground and in the air with this custom Honda.

WORKING-CLASS BUILD

"It's kind of a blue-collar race bike. It's not one of those bikes that you have to tear down and rebuild the engine every moto. There are like 20 people on the planet that want those, and then there's the rest of the world that needs something that's going to perform great. The engine is very solid, but the shocks don't have to be gone through every moto," says Loren Duncan, owner of Duncan Racing International.

Loren has been playing this game as long as anyone and knows the average American ATV consumer wants twice the machine that they can handle. He's a master at talking them down to what they really need and then suggesting a few features that take the build over the top. But, in this case, the customer, Jason Blunt, had been putting this dream together in his head for some time. "He just wanted a really trick bike,

and he wanted a lot of detail," said Duncan. "When Lenny [Duncan] put the chassis together, he spent a little extra time on it. Jason appreciates nice stuff, and he saved a little and waited a while to get to this point. We find a lot of those customers that way, you know. They wanted something for a long time, and they're not against putting a couple of extra dollars towards something to just make it a little nicer."

ENGINE MODS

This Honda is a 2007 model. The gearbox was left essentially stock, but a lot of work went into the top end with Duncan Racing's valve-train HP4 kit. It's fed by a large 41mm FCR carburetor and exhales using Duncan's complete stainless Fat Boy 4 exhaust. Compression is boosted to 13:1 with a custom JE piston built to Duncan specs.

Some might argue that you can get away with running pump gas at this level, but Duncan says to steer clear of your corner gas station. "Yeah, always. I build nothing that turns pump gas," claims Duncan. "If somebody wants to run pump gas nowadays, I tell them to leave it stock. I have no engine packages for anything I do that I would encourage somebody to run pump gas, especially with today's pump fuel." Running race fuel isn't just about boosting horsepower, and today's pump gas has proven to be harmful to components like O-rings and diaphragms, especially in FCR carburetors. Duncan continued: "These engines need good quality

fuel, not to make more power, but just for reliability, for consistency, for the temperatures inside the motor. You don't want ethanol. There are a lot of little factors to running a good-quality Sunoco 110, VP C12 or something along those lines. Your reliability is just going to be considerably better."

INCREASED CLUTCH AND TRACTION CONTROL

Sticking with increased reliability and performance, Duncan installed a Hinson Racing billetproof kit for stronger clutch action with easier pull. The kit includes the billet-aluminum basket, inner hub, pressure plate, fiber and steel plates, springs, and the billetproof clutch cover.

Duncan also went with the Vortex X10 CDI, an invaluable tool for motocross racers and anyone who rides on varying terrain. Think of it as traction control for a multitude of conditions. There are 10 pre-programmed maps inside that are designed for anything from a hard, dry, slick track, to a wet or loamy track. Mainly, it's just timing changes depending on what terrain you're going to ride on.

MAXIMA LUBRICATION

When it comes to consistent lubrication and cooling, Duncan sticks with Maxima Oils. "We go back to Maxima before they were in business," claims Duncan. "When the founder of Maxima, Dick Lechien, first started making his concoctions and two-stroke oils, he used to bring stuff over in the '70s and have me and my dad test it. Over the years, we've always used Maxima products. Lechien taught me a lot of things about two-strokes and oils, and I was always there testing with him."

The "what oil to run" argument will never go away, but Duncan has some solid advice: "Oils are like religion; everybody has got one that works for them. I would be ignorant if I told you that Maxima is the only oil out there, because it's not, but we have great luck with it. I know what to expect when I take a motor apart, and that's why we use this stuff. They just make a very good product, and one thing that they haven't done is jump off the ATV bandwagon. They still make a little different formula here and there just for the ATV guy."

One of our favorite features is the Roll Design swingarm, which is a rare piece that is only available in small batch numbers. It's fitted with a RPM axle and carrier, a Hess brake rotor guard, and a Billet sprocket guard.



MOTOCROSS SUSPENSION

This Honda is more than off-road-capable, but the owner wanted to stick with MX trim just under 50 inches wide so it's legal for AMA-sanctioned events. It received Roll Design A-arms, a Roll Design steering stem with fat bar clamp/GPR stabilizer, and Elka Stage 5 shocks front and rear. This build also got a rarity—a Roll Design swingarm. Doug Roll doesn't build many of these today. "We had one for this build, which was special, so we installed it. It's a motocross swingarm, meaning it doesn't have skid plate mounts." It did get a Hess brake rotor guard and a billet-aluminum rear sprocket guard, which have become more popular for MX, WORCS and dune applications

than traditional skid plates. The Roll/Elka combination provides maximum travel and a ride that's second to none.

THE REST OF THE PACKAGE

Sticking with the motocross design, this Honda received GBC Mini Master tires in 20-inch fronts and 18-inch rears. The tires are mounted on DWT beadlock wheels and equipped with mudguard inserts. A RPM Dominator axle extends stock width and provides far more strength. Duncan's Crown Series brake lines were installed for firm and consistent braking action. Roll Design manufactures the heel guards, stainless footpegs and nerf bars that are fitted with custom netting from JSR.

Fasst Co. Flex Bars eliminate vibration, minimize rider fatigue and are equipped with PowerMadd handguards. A Vortex SE twist throttle was installed for quicker throttle response, and Works Connection simplifies controls with a Pro Perch for the clutch lever and integrated hot start. The entire package is topped off with graphics and number plates from SSI and Duncan Racing.

OWNER IMPRESSION

Building an ATV of this caliber has been a dream for owner Jason Blunt. "I always wanted something like it, but never had the money or the time," said Blunt. Now at age 49, Blunt still has the racing bug and turned to

Railing corners with a fistful of throttle while hanging off of the seat with one leg—these are things you just can't experience from behind a steering wheel.



Duncan Racing to build the machine he always wanted. Blunt continued: "The power is just perfect. I used to drag-race Banshees and Quadzillas, and the power was all on the top end. For this build, I wanted power from bottom to top for track riding, and I love it!" Blunt

has several acres in his home state of Louisiana and built a three-mile track for his Honda. "Now I'm adding some bigger jumps to it because I've got a quad that can handle it. We've also got a local motocross track here that

has a 50-plus ATV class, and I may try that out next year," claimed Blunt. "The suspension is aggressive and more for motocross, and I ride aggressive, so that's the way I had them set it up. It's perfect for the way I ride!" □

The theme of this machine is motocross on a middle-class budget with MX tires and suspension, a strong but reliable engine, nerf bars, and a Vortex CDI with 10 pre-programmed traction maps.



DUNCAN RACING HONDA TRX450R MX TRIM SPECS

Test rider.....Josh Row
 Owner.....Jason Blunt
 ATV.....2007 Honda TRX 450R
 Contributors.....Duncan Racing, Roll Design, Elka Suspension, Vortex, GPR Stabilizer Fat Boy 4 Exhausts, Hinson Racing, RK Chain, Maxima Oils, DWT Wheels, IMS Products, Works Connection, ODI Grips, GBC Tires, Fasst Company, ATV-Talk podcast

MOTOR

Pipe/muffler..... Fat Boy 4 complete stainless exhaust, \$649
 DRI head build
 Head/valves/cam.....DRI valve train HP4 kit, \$1,795 (includes DRI head port, SERDI valve seat machining, billet camshafts, HD valve springs, w/ titanium retainers, HP guides and big valve kit)
 Carburetor.....Keihin 41mm FCR, \$899
 CDI.....Vortex X10 w/ 10 pre-programmed spark maps, \$699
 Piston.....DRI 13:1 custom piston by JE Piston, \$275
 Engine build..... Complete engine build
 Crankshaft.....OEM trued by DR
 Airbox/filter/oil.... Pro Flow Kit/Maxima FTR, \$199

ENGINE ACCESSORIES & DRIVE SYSTEM

Clutch basket/plates/spring/inner hub/pressure plate.....Hinson Racing billetproof kit, \$1,259

Engine & transmission/oil..... Maxima Premium 4 10/40
 Chain/lube.....Maxima chain wax
 Sprockets...Sunstar steel, front \$26.95/ rear \$45.95
 Gearing: f/r.....14T/38T
 Chain.....RK O-ring 520, \$99.95
 Oil cooler.....DR oil cooler kit, \$1,095

FRONT END

A-arms/width.....Roll Design, \$1,895
 Spindles.....Stock
 Front shocks..... Elka Stage 5, \$2,200
 Steering stem.....Roll Design, \$329
 Roll Big Bar Clamp.....\$179.95
 Steering stabilizer.GPR stabilizer, \$549

REAR END

Swingarm..... Roll Design MX w/ guide, no skid plate, \$1,500
 Rear axle/width/carrier.....RPM Dominator, \$659
 Rear shock..... Elka Stage 5 \$1895
 Rear link..... Elka Long Travel \$495

TIRES/WHEELS/HUBS

Tire sizes: f/r..... GBC MX Mini Masters 20x6-10/18x10-8
 Wheels: f/r.....DWT beadlocks, \$699 4-piece set
 Hubs: f/r.....Stock
 Mud guards.....Hardy, \$75

BRAKES

Calipers: f/r.....Stock
 Pads.....Stock
 Rotors..... Stock/DRI rotor guards, \$150
 Rear rotor guard..... Hess, \$165

Sprocket guard..... Billet, \$79
 Brake lines..... Crown Series by Duncan Racing, front \$149/rear \$49.95
 Brake fluid.....Maxima DOT 4

HANDLEBARS/CONTROLS

Handlebars..... Flexx bars, \$399
 Handguards.....PowerMadd, \$79.95
 Throttle.....Vortex SE twist throttle, \$59.95
 Clutch lever..... Works Connection Pro Perch w/ hot start, \$199
 Cables.....MP throttle cable; OEM clutch and hot-start cables

MISCELLANEOUS

Radiator.....Stock w/ dual fan, \$599
 Foot pegs.....Roll footpegs, \$259/ Roll heel guard, \$259
 Front bumper/grab bar Duncan Racing chrome, front bumper, \$249/ stock rear grab bar
 Skid plate..CRF engine skid plate, \$125
 Seat..... DR Pro top seat cover, \$199
 Tank.....STD OEM tank
 In Line Cooler..... Pro Design, \$89.95
 Hood.....QuadTech, \$199
 Graphics.....SSI/DR Graphics
 Number plates.....Red/white, \$199
 Body plastic.....Stock

OTHER SPECIAL SETUPS

Work Connection Hour Meter w/ base mount..... \$65
 Temp gauge..Digital Trail Tech, \$39.95
 Nerf bars.....Roll Design, \$249
 Custom Nets by JSR.....\$99