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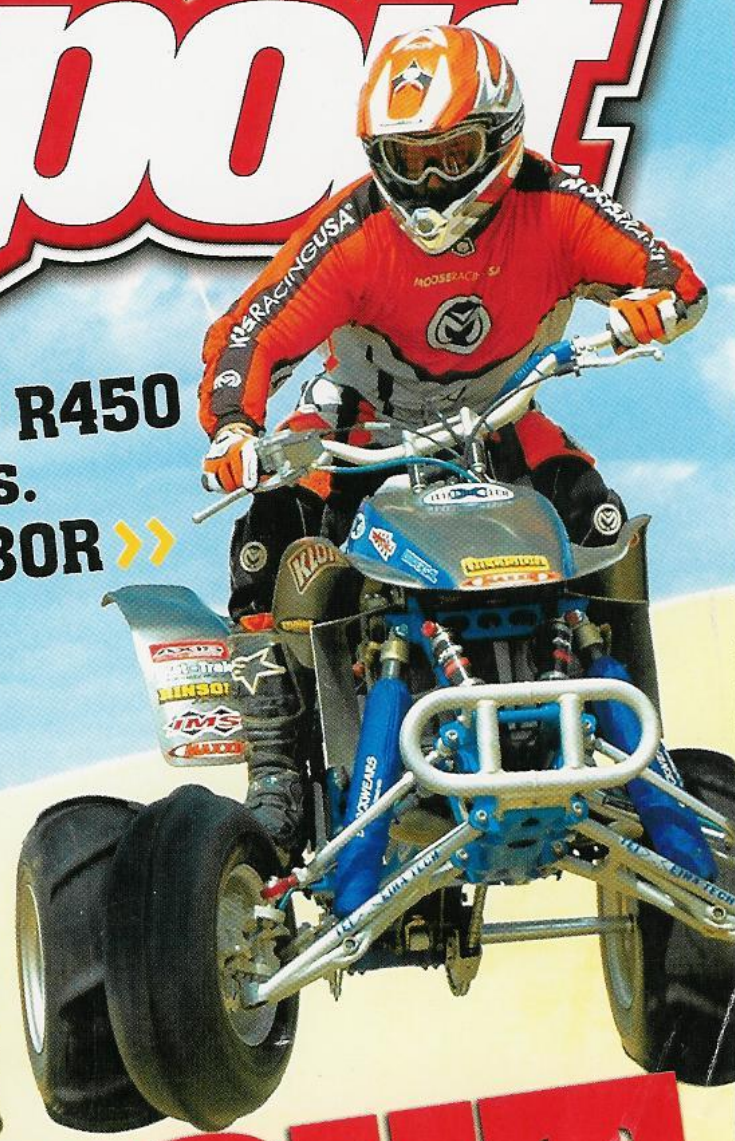
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# KTM 576



BETTER THAN KTM'S NEW QUAD?

**M**agazine guys like me have it easy nowadays. With at least one MX-ready production quad, and a handful of others pretty close, there isn't as much to say when we cover the top racer's rides: "Well, it's got a pipe, A-arms, axle and a few motor mods."

On the other hand, it sure is fun digging inside — and riding — a machine like this KTM. It's got lots of cool stuff going on, all very functional and fast. It gives KTM something to shoot for with the new quad it has promised.

The owner of this machine, Ed Teixeira, focuses primarily on desert racing and has titles in the Best In the Desert and VORRA series. "My goal for this quad," Teixeira explains, "was to have the power to pull 22-inch tires like they were 18s. I also wanted the best suspension I could get. I wanted to be able to hit everything in the desert wide open!"

The chassis is an Arens with stock 250R-type geometry. But Teixeira narrowed the lower front to reposition the lower A-arm mounts, reducing bump steer and allowing more suspension travel. The quad weighs 365 pounds (not bad for a 576!) and, for desert racing, has been stretched out to a 52-inch wheelbase.

Teixeira's own Teixeira Tech A-arms (+1.5" forward) and swingarm (+1" longer) allow the longer wheelbase while keeping the weight bias about the same. The longer stance is important for stability with the high speeds and endless whoops found in desert racing.

In an unusual twist, the lower A-arms have what could be called a reverse gull-wing design. Instead of sweeping downward in the middle like some arms, they sweep upward. Teixeira explains that this gives a little more ground clearance and, if there are any drawbacks, he hasn't discovered them.

In addition to A-arms, swingarms and steering stems, Teixeira Tech, founded in 2002, is also a distributor for shocks, wheels, CT Racing engine mods and other racing products. Teixeira caters to mini quads, as well as full-size high-performance quads.

Custom Axis shocks by Mike Hallock on the KTM provide an astounding range of wheel movement: 14.5 and 15.5 inches, front and rear. "Those are accurate numbers," says Teixeira who, like others, says some manufacturers like to exaggerate.

The Axis triple-rate rear shock is a custom unit built around the shock body from a Honda Pilot, a

discontinued single-seater with a roll cage. "With maybe the exception of Dean Sundahl's crossing A-arms," Teixeira says, "I've never seen that much suspension travel on a quad. And I've never heard of triple-rate in the rear."

"I throw lots of stuff at this machine in the desert and it always lands on all fours. I feel the advantages of that extra travel almost everywhere, particularly in whoops and washouts. It's fine for the lower, high-speed jumps in the desert, but it would bottom out if you got up to 15 feet or so."

I didn't get the KTM that high, but I hammered on it pretty hard for a couple hours. The quad is absolutely unbelievable in the whoops, noticeably better than a stock Suzuki R450 and even Teixeira's own highly modified Honda 330R (page 56).

Even with all that travel, though, the machine doesn't feel top heavy or tippy. For MX, turning manners would be too slow, but in the dunes it turns precisely enough and powerslides well. Ergos are excellent.

### BIG FOUR-STROKE!

Before building this quad, Teixeira already knew the exact engine he was looking for and found a new one on eBay for \$2,000. The 520 EXC is an

#### MACHINE

**Quad:** TRX/KTM 576  
**Wet weight (w/ sand tires):** 365 lbs.  
**Frame:** Arens 250R-style  
**Motor mounts, modified**  
**Front geometry:** Teixeira Tech  
**Wheelbase:** 52 in.

#### ENGINE

**Type:** 2002 KTM 520 EXC liquid-cooled, 4 valve, 4-stroke  
**Starting:** Electric  
**Displacement:** 576cc  
**Bore:** 97mm (stock 95mm)  
**Stroke:** 78mm (stock 72mm)  
**Head porting:** CT Racing  
**Piston:** Wiseco 12.5:1 (stock 11.5:1)  
**Valves/cams/springs:** Kibblewhite/Hot Cams/stock  
**Crank, rod:** Factory KTM 6mm stroker  
**Flywheel:** Trail Tech  
**Ignition:** Vortex X-10  
**Stator:** Trail Tech high-output  
**Carburetor:** Keihin FCR 41mm with Boyesen QuickShot  
**Airbox/filter/filter oil:** CRAWLR Fab/Uni/Uni  
**Exhaust:** CT Racing stainless  
**Fuel:** Sunoco 110  
**Four-stroke oil:** Sunoco 20w-50

**We first saw this machine at the Pismo Dunes Endurance Race. It runs as great as it looks. The two tiny lights (by the steering stem) produce big-time candlepower. For nighttime desert racing, owner Ed Teixeira likes the Trail Tech stator, flywheel and HID lights.**





1. Owner Ed Teixeira runs the quad as an electric start, but a kick starter can be bolted to the shaft at the bottom rear. Teixeira says it's almost as easy to kick over as a Banshee.

2. Teixeira's unique thumb throttle/twist grip controls.

3. An ATV Innovations 250R-type rear brake caliper latches onto a Galfer Wave rotor, which provides better cooling. Head porting and the stainless exhaust is from CT Racing.

4. Teixeira Tech's reverse gull-wing design gives more ground clearance for brutal desert racing. The mega-travel setup gives about 15 inches front and rear! Front width is 52 inches.



Owner Ed Teixeira lets the big KTM 576 loose at the Pismo Dunes. The long quad is set up for desert racing, but it turns precisely enough for high-speed duning. bottom right Jumps like these are no problem for the Arens/KTM quad. Any higher (uphill jumps) and you'd want the Custom Axis shocks set up for MX.

electric start, liquid-cooled, six-speed, originally designed for a KTM enduro dirt bike. With a 97mm bore, Wiseco 12.5:1 piston, and 6mm Factory KTM stroker kit, the four-stroke leaps up to 576cc. Stronger, freer breathing is accomplished with a 41mm Keihin, Hot Cams and CT stainless exhaust.

Trail Tech's stator and lightweight flywheel allows faster revs and powers the Trail Tech HID lighting. The Vortex ignition gives a better timing curve and

allows selecting two presets on the fly.

The self-adjusting, hydraulic clutch that comes stock on the KTM is something you don't see on many quads, and Teixeira's combination twist/thumb throttle is even more unusual. With some careful machining, Teixeira mated a Terry Cable thumb throttle to a Motion Pro Whirpull twist, then welded them together. A quick-remove pin holds the twist in place when Teixeira's desert racing teammate hops off and



#### DRIVE SYSTEM

##### Clutch engagement:

Hydraulic Clutch

##### Basket/plates/springs:

Stock/stock/stock

Quick change clutch

##### Cover:

Factory KTM

##### Transmission:

Stock with

Kawasaki circlips

##### Chain/lube:

Regina 520

O-ring/Sunoco

##### Sprockets:

Dirt Tricks

Ironman

##### Gearing $t/r$ :

14/40

#### FRONT END

##### A-arms:

Teixeira Tech

chromoly, +4 in.,

+1.5 in.

##### Spindles:

TRX450R

##### Front shocks/wheel travel:

Custom Axis 167

Series/14.5"

##### Steering stem:

Teixeira

Tech, +1.5 in. up, +1 in.

forward

##### Steering stabilizer:

Precision Racing Products

#### REAR END

##### Swingarm:

Teixeira Tech,

+1 in over '88 250R

##### Rear axle/width/carrier:

RPM/+4 in./RPM

##### Rear shock/wheel travel:

Custom Axis, Mike

Hallock triple rate/15.5"

#### TIRES/WHEELS/HUBS

##### Desert tires $t/r$ :

Maxxis Razr

2, 23 x 7-10/22 x 11-10

##### Dune tires $t/r$ :

Skat Trak

Edge, 22 x 8-10/20 x

10-10

##### Desert wheels, beadlocks,

reinforcing rings:

Keizer

##### Dune wheels:

Douglas

Blue Label

##### Hubs $t/r$ :

Hardkor

Engineering/Skat-Trak

#### BRAKES

##### Calipers $t/r$ :

TRX

450R/ATV Innovations

250R-type

##### Pads, brake lines:

Galfer

##### Rotors:

Galfer Wave

##### Rear master cylinder

guard: Performance

Carbon Products

##### Brake fluid:

Motul

#### HANDLEBARS/CONTROLS

##### Handlebars:

Universal CR

Hi Bend

##### Throttle:

Teixeira

thumb/twist

##### Clutch lever and perch:



Teixeira gets on.

After some problems with crank and gear fatigue, Teixeira sent his KTM engine off to Performance Cryogenics for the deep-freeze treatment. "Heat treating alone does only half the job," Teixeira says. "Getting the parts down to -300 degrees and then bringing the temp back up very slowly for 48

hours completes the process."

But the big question is, how does the engine run? It defines linear power. If there's an ATV with a more "electric motor" kind of powerband, I'd be surprised. There is no end to the pull. You don't think you're going very fast, but that's only because the power comes on so smoothly. In a 200-yard drag race it smoked a Banshee, Suzuki R450, DS650 and Honda 330R — all of them modified with at least a pipe.

"Compared to the stock 520," Teixeira says, "the 576 has much more torque. But it has more power everywhere and a broader powerband."

Shifting and clutch action are very easy. Engagement is predictable and positive. My first experience with this engine in a quad was several years ago. Now, riding it again and in another nice chassis, I'm more impressed than ever. If KTM builds a four-wheeler anywhere near as good as this one, sign me up. **ATVS**

KTM hydraulic

**Cables:** Terry Cable

**Grips:** Spider

#### DETAILS

**Front bumper, grab bar, skid plates:** Pro Armor

**Fuel tank:** IMS quick fill, 4 gal.

**Lighting:** Trail Tech MR11 HID

**Radiator:** PWR

**Graphics:** Teixeira Tech by SCR motorsports

**Seat cover, foam:** Color-Glo

**Body plastic:** Maier trimmed by Teixeira Tech

**Handguards:** Maier

**Nosepiece/radiator scoops:** Performance Carbon Products

**Shock covers:** Outerwares

**Footpegs:** IMS, back 1", down 1".

**OEM parts:** Carmichael Honda / DH Cycles KTM

**Other special setups:** All motor parts treated by Performance Cryogenics, aftermarket oil cooler plumbed into cases by Teixeira Tech.

**Chromed by West Coast Chrome:** Upper and lower A-arms, steering stem, swingarm, subframe, grab bar, kick starter, front motor mount

**Powder coating:** BWM Inc.

#### SPONSORS/CONTACTS

**Main sponsor:** Teixeira Tech

**Co-Sponsors:** Maxxis, CT Racing, C.L. Bryant Sunoco Racing Fuels, Carmichael, DH Cycles, Galfer USA, Hardkor Engineering, Ironman Sprockets, Keizer Wheels, Moose USA, Precision RP, Pro Armor, PC Products, Skat-Trak, Terry Cable, Trail Tech, Wiseco, Hinson, IMS, Maier, Outerwares, Regina USA, Scott Goggles, Uni filter, Universal, Performance Cryogenics, Anderson Performance Racing, West Coast Chrome, BWM Inc.

**Contact:** Teixeira Tech: (209) 833-9160;

www.teixeiratech.com; info@teixeiratech.com