

UNI-TRAK TINKERING

Service Tips and Hot Tricks for the KDX and KX Unis

By Paul Clipper

In the course of testing and fiddling with the various Uni-Trak equipped Kawasakis, we have come up with a number of maintenance tips, suggestions, and sneaky little things you can do to the Unis to make them live longer and work a lot better. Most of the following was discovered and/or used on the KDX175, the most heavily ridden bike in the DB stables, at the moment. Since the Unis are all relatively the same, most of these ideas can be used on any of the motocrossers with the same results we've had on the KDX.

Rear Suspension Tips

There's no question that the Uni-Trak suspension is a good design. The only real drawback for the average rider is the amount of maintenance it requires. There are five different pivot points on the Uni—seven, if you count the swingarm—and every one of them must be kept clean and greasy. Failure to do so will result in various pieces of the suspension linkage and frame folding up like a used piece of tin foil, and at that point, obviously, the suspension action will not be very good at all.

For all its complexity, the rear end of a Kawasaki isn't all that hard to work on. Once the rear wheel, side panel and air box is removed, it only takes about ten minutes work with a handful of big wrenches to pull the whole mess apart. Use the owner's manual as a guide the first time, and get used to the drill; until you get a feel for how often your particular riding habits make it necessary, you should re-grease after every full day of riding.

After everything's seated and broken in, you need only re-grease when you *know* it's going to be necessary. Like right before and after a particularly wet and muddy event.

Don't be afraid to lay the grease on thick. We have had good results with two products: Bel Ray MC-11 waterproof grease, and Never Seize, a heavy grease and graphite combination, which is messy as hell and works great. The manual calls for a molybdenum disulphide grease, and whatever you wind up using, at least try to get something that claims to be waterproof, or marine quality. Pack it heavily into the little rubber boots on the Trak arms and brake stay arm—if they're full of grease, there'll be nowhere for water to collect.

Once you get it all greased up, you'll want to put it back together, and this is where most folks make their first mistake. Have you looked in the book to find out the torque values for the various nuts and bolts? Didn't think so, so here they are: Swingarm axle nut 65 ft-lbs. Shock absorber bolt

upper 72 ft-lbs.
lower 43 ft-lbs.
Pivot arm center bolt 72 ft-lbs.
Trak arm bolts
upper 72 ft-lbs.
lower 43 ft-lbs.

If you don't own a torque wrench, we would strongly suggest you at least go out and borrow one, if for no other



reason than to find out what 72 foot-pounds feels like. The best comparison would be the last time you pulled a wheel off your truck and had to jump on the lug wrench to loosen the nuts. That may have been nearly 70 foot-pounds you were feeling. Best to use a torque wrench.

That brings to mind a humorous anecdote concerning one of the first owners of a KX125. He dutifully serviced his suspension one Sunday morning, and tightened up all the bolts without straining himself too much. Before too long, the center pivot bolt worked loose and ovoided the frame holes, and the next thing he knew he was down at his dealer trying to buy a new frame.

Get a torque wrench. It's cheaper.

You will find that the points that receive the worst abuse are the lower Trak arm heim joints. Even though they are covered with a little rubber boot, they're right out in the path of all the crap thrown up by the rear wheel. You may want to try to build a little shroud out of inner tube to keep the worst of the muck off, but at the very least, tywrap or safety wire the rubber more snugly around the shaft, as we did in the photos.

Vibration, and the Cure

The only major problem we've had

with the KDXs so far is loosening motor mount bolts. No one mount position is affected more than any other, and it's not too difficult to snap off the stock bolts after you've retorqued them a couple of times. The best thing to do is replace the motor mount bolts before the bike has a hundred miles on it.

On our first KDX, we went all the way. All six mounting holes were drilled out with a 3/8-inch drill bit, and fine thread 3/8 bolts with Nylock nuts were installed. End of problem—or so we thought. Half of the new motor mount bolts loosened up in the first twenty miles of riding. About this time, KDX #2 was having trouble with its stock bolts, so rather than drill out all the mounts (which obviously didn't help much on #1), we went out to our local surplus house and picked up a fist full of 5/16 case hardened bolts and a half dozen Nylocks. The 5/16 bolts will slip right in place of the stockers, and as we installed them, we bathed everything in Loctite.

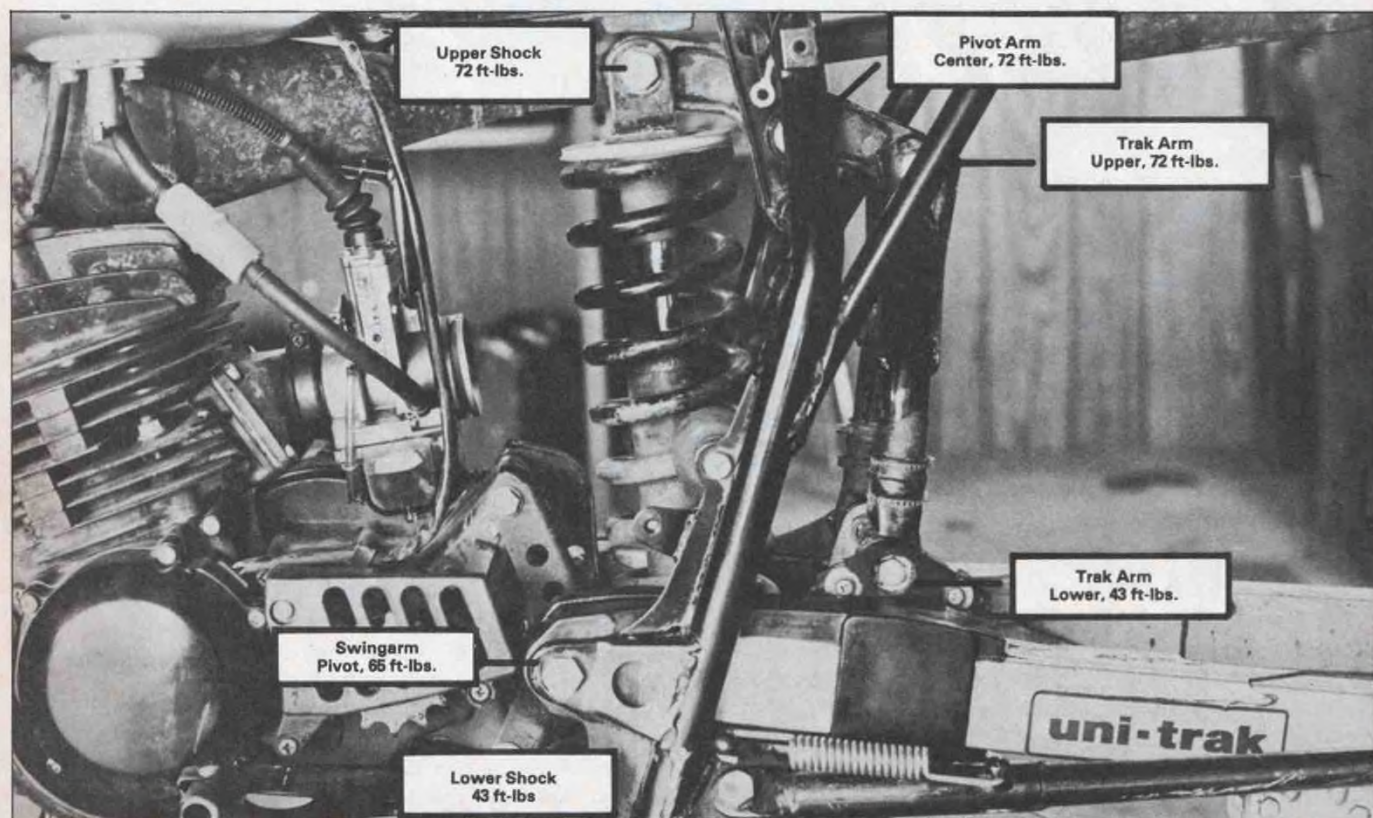
We started having a little better luck using the case-hardened bolts, but they still loosened up a little. About this time we met a gentleman named Paul Peterson, who was in the process of winning a District 37 A200

#1 plate on a KDX. He gave us the scoop on an old CZ trick he used to help keep the vibration to a minimum. We tried it out and had fantastic luck! The next enduro both bikes were entered in saw no motor mounts being tightened.

It's simple to do: Remove the rear motor mount bracket assembly and drill a 5/16-inch hole through one side of the swingarm axle tube. File off the paint in the area of the hole and, at the same time, file a notch in an 8mm nut so that it fits relatively flush over the hole in the tube. Braze the nut over the hole, and then run an appropriately sized tap through the nut to clean up the threads. At this point you can take an 8mm bolt and screw it into the tube, right?

Now here's the trick: When you reinstall the motor mount bracket, slip in the swingarm axle and both motor mount bolts and tighten them finger tight. Run the 8mm bolt into the tube and snug it up against the swingarm bolt. Next, tighten up the swingarm to specs, and then put about 20 pounds of torque on the 8mm bolt you installed. Lastly, tighten up the motor mount bolts and you're done.

All you're really doing by going to all this trouble is taking up the space



Aside from keeping all the pivot points greased, tightening torque is most critical.

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between the swingarm pivot bolt and the tube in the motor mount bracket, which just happens to be the one spot which generates most of the vibration. That little bolt will help keep everything together and rattle free.

You don't have to use an 8mm bolt, either. We used an 8mm on one bike and a 10mm on the other, and we could have used a 5/16 or 3/8 just as easily. Just make sure that whatever you use is fine threaded, and double-nut it against the tube. It's a good idea to use Loctite also. Take a look at the photos if we've done nothing but confuse you.

Forks

The forks on the KDX, and for that matter the KX's too, are fine just the way they are. Nobody should be selling fork kits for the Kawasakis—they just don't need it. A majority of test riders did conclude that the forks on the KDX were slightly soft, so when we changed the oil, we added enough to raise the stock level by about 10mm or so. We used about 13oz of oil rather than 12. This makes the air chamber in the forks smaller, and stiffens up the action in the middle and later part of the stroke. Try it. Works better than air caps.

The front end bites beautifully with the bike in stock condition, but you'll probably find that the front end will start washing out slightly after a couple of hundred miles or so. Before you change the front tire, try cranking up the preload on the rear shock a turn or so. The front end slipping is usually caused by the rear spring sacking out a little, and bumping up the preload will bring it right back up to snuff.

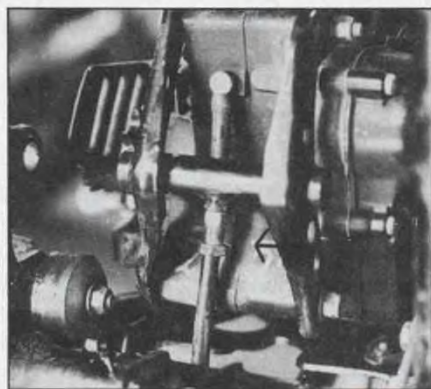
Leaking Gases

We almost forgot the other major problem with the KDX: A leaking exhaust manifold. The pipe has an O-ring around the end of the header, which is supposed to seal around the inside of the manifold. It does a decent job when it's fresh, but don't expect to go more than 150 miles before you have to replace it. There are a number of people with KDXs, and everybody's got a different cure for it, but so far nothing lasts more than 200 miles or so.

One of the cures is to clean everything up and then cover the end of the pipe with high temperature silicone seal, available under a variety

of brand names. Install the pipe, and then don't start the bike until it's well cured—at least overnight—and it'll keep everything tight for a couple hundred miles.

We've had decent luck by adding a second O-ring, in between the stock one and the tip of the pipe. Grease it up real good when installing the pipe because it'll be a tight fit. Best to use the stock O-rings in the groove because they're a high-temperature number. For the outer ring, we used a good quality O-ring with a slightly



This is the hot setup for killing a lot of the KDX's vibration—see the text for details.



Another critical spot is the sealing washers on the pivot arm—replace them as soon as the rubber is cracked or worn.



Swingarm pivot isn't fitted with a Zerk fitting, but is easy enough to pull out when the rest of the suspension is being worked on.

larger inner diameter, about half the thickness of the stock ring. This has also lasted about 200 miles.

We talked to Dane Leimbach of the Kawasaki enduro team, and they had tried everything we did, plus a few more. He suggested pushing a proper size O-ring down inside the manifold before installing the pipe—along with

double O-rings on the pipe—and then adding some extra hooks and springs to the bottom of the pipe. They are working on the absolute cure for the problem, but at the moment it's still being tested.

Why all the noise about a little exhaust leak? Because once the O-rings are blown out, the KDX loses half of its available horsepower, won't hold an idle below 4000 rpm, is obnoxiously noisy, and will probably self-destruct if it isn't fixed. Kawasaki should have done a better job at the factory.

Personal Changes

The #2 KDX has had the most radical changes, while #1 has remained basically stock. We installed a set of Boyesen reeds and picked up more low end response. Soon afterwards, we changed the stock carb in favor of a 36mm Lectron, with a #50 powerjet and a 4-3 metering rod. This combination gave us a lot more bottom end response, along with better power throttle response through the entire range. We also get better gas mileage than the stocker.

The stock throttle will work with the Lectron, but things will be simpler if you install a Magura or Twister straight-pull throttle.

Along with the carb, the air filter was changed in favor of a two stage number distributed by Jim O'Neal, which should filter much better and last longer than the rather cheap stocker.

Both our bikes came stock with different chains. One of them had an excellent DID 520 TR chain, which only needed three adjustments in 400 miles. The other came with a grim DID which wore out completely in 400 miles. The latter has been replaced in favor of a Tsubaki 520 QR, and the other will go the same route once the stocker wears out.

Both bikes are using Oakley II grips and DeHandler shorty levers. One of the bikes, oddly enough, has never been crashed after two 130 mile enduros and countless hours of trail-riding, but when and if it is, the DeHandler will stand up to the abuse much better than the stockers.

All things considered, we've made very few changes to the KDX, and had fewer complaints. It'd be nice if Kawasaki would take care of the vibration and exhaust problems by the time 1981 rolls around, but even if they don't, they still have a damn fine bike to sell. □