IND
34355

MONO BULLET: YAMAHA YZ125G

JUNE 1980
$1.25
UK60p

DIRT BIKE

KAWASAKI KDX175

1500 MILES ON A HONDA XL250

FIRST TEST: YAMAHA FIVE-STROKE TT250

SUPERCROSS: MID-BATTLE

ISSN 0364-1546

DIRT BIKE

JUNE 1980 VOLUME 10, NO. 6

TESTS

20 **YAMAHA YZ125G**
Mono bullet

26 **CAN-AM 400 MX**
Orange crusher

34 **KAWASAKI KDX175**
Uni-enduro

50 **YAMAHA TT250**
The first five-stroker

55 **1500 MILES ON A HONDA KL250**
Extended test

60 **SUZUKI TS250**
Dual purpose tool

FEATURES

32 **PLASTIC FANTASTIC**
Vesco tanks

48 **DUCK POSTERS**
Legal update

COMPETITION

39 **SUPERCROSS**
Houston—the halfway mark

41 **AMATEUR SUPERCROSS RACING**
Houston weekend

TECHNICAL

45 **TOP END TECH**
Barreling right along

DEPARTMENTS

5 **FROM THE SADDLE**
Watch out, Howard Cosell

6 **LAST OVER**
Clipper again

8 **BITS AND PIECES**
By George

10 **MR. KNOW-IT-ALL**
Yes, Virginia, there is a Santa Krause

12 **RIDERS WRITE**
Mostly with Crayons

14 **NEW PRODUCTS**
And some old ones

74 **CRASH AND BURN**
Off the wall

ON THE COVER:—Zahrt the Dart shows the effects of watching too much winter olympics, as he gets a 9.86 in the 80-meter bike jump. Rick Sieman photo.

DIRT BIKE ISSN 0364-1546 (June '80) is published monthly by Daisy/Hi-Torque Publishing Co., Inc., with editorial offices at 16200 Ventura Blvd., Encino, California 91436. Subscriptions $9.98 for 12 issues (one year). Foreign subscriptions add $3 per year and Canada $2 per year for additional postage.

CONTRIBUTORS: Photographic submissions must be 5x7 or 8x10 glossy black and white, or 35mm and larger color slides. Please mark each photo with owner's name and address. Manuscripts should be typewritten. Unsolicited contributions must be accompanied by a stamped, self-addressed envelope. Unless special arrangements are made in advance, all published material becomes the sole property of Daisy/Hi-Torque Publishing Co., Inc. The publisher does not assume responsibility for unsolicited material.

Second class postage paid at Van Nuys, California 91408, and at additional offices. **DIRT BIKE**, P.O. Box 317, Encino, California 91316.

KAWASAKI KDX175

STAA TAAK

Get in Line for The Main Feature—It's a Shocker!

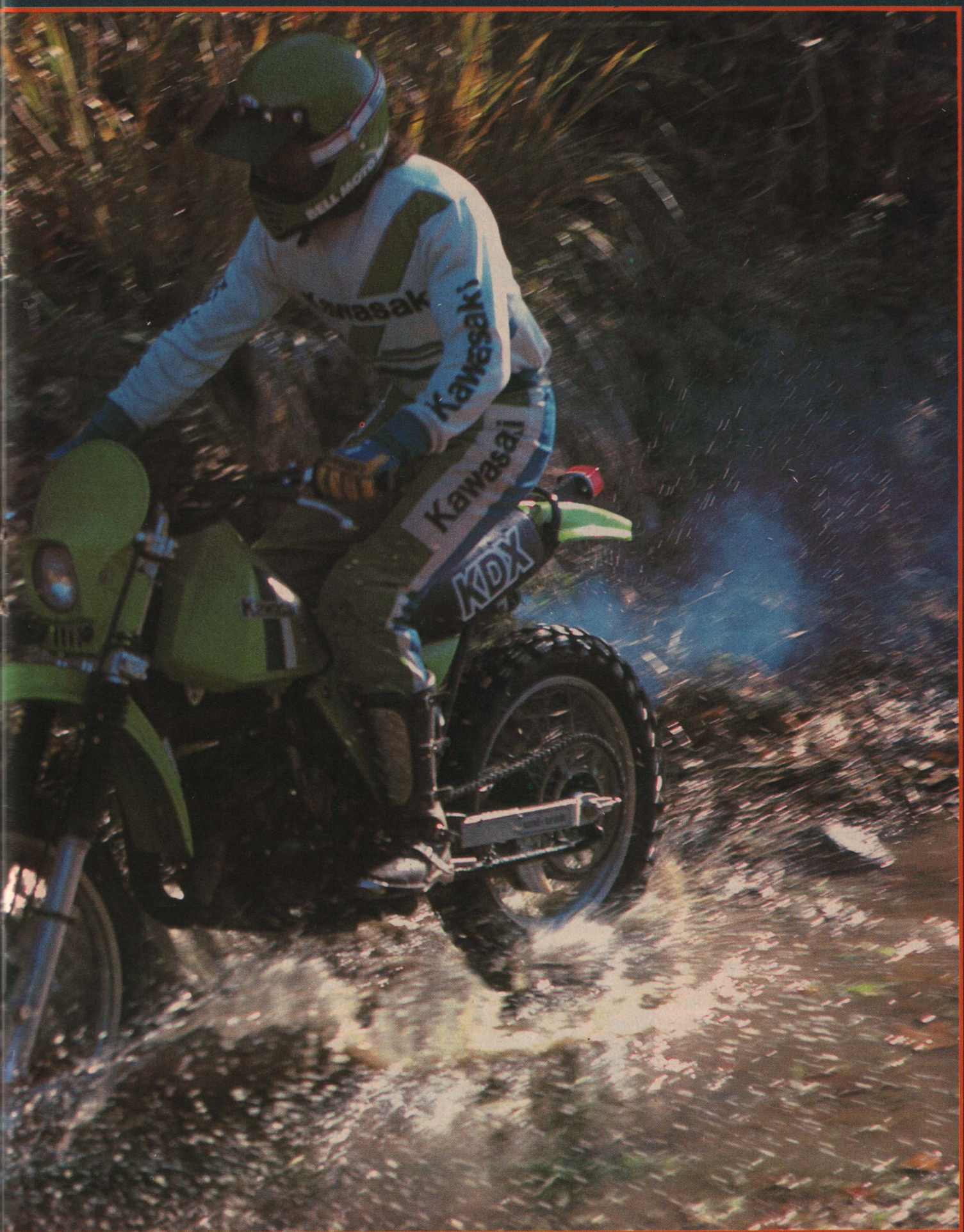
By the Editors of Dirt Bike

Very often, people we meet will drop the casual observation that, in their opinion, we've got the best job in the world. And in many respects, they're right. We don't have to get up at seven and punch a time clock, we do a lot of traveling, and get to ride practically wherever and whenever we want. On that level, it's pretty plush.

But, things can and do get miserable. Compound jet-lag can take a lot of snap out of a trip out of town. A few weeks of rain—not uncommon at all in the winter—can foul up our schedule so badly that we're in a state of panic for weeks. And not every bike we ride is all that much fun. Every now and then, we'll get a real dog, or something we just don't get along with, and when we do sit down to write a test it's like pulling teeth to finish the job.

Well, the KDX175, we're happy to report, has been a pure joy to spend time with. We've been riding and working on the KDX for about a month now, and have nearly nothing but good news

Jack Penton churns the KDX175 through a peaceful stream.



PHOTOS BY NED OWENS

to report. It's light, quick, good-handling, an absolute ball to thrash around, and the first bike we've had this year that we really will hate to return!

Once Around The Block

Well, folks, what we have here is probably the best-suspended production bike we have ever ridden—next to the KX. This suspension is head and shoulders above any design we've encountered to date.

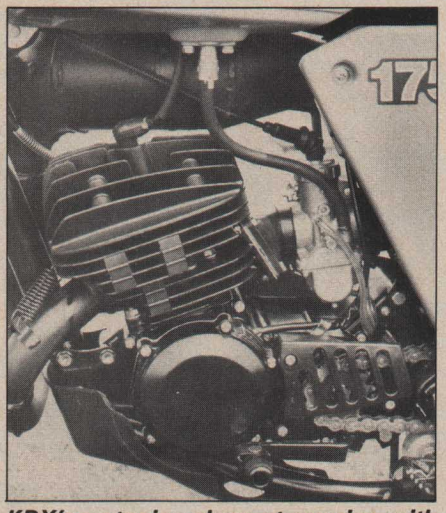
The KDX has such a neutral, forgiving, no-surprise chassis that it seems uncanny. Its straight-line performance through absolutely miserable terrain is not to be believed. It will take a field of whoop-de-dos and never get kicked sideways—not even a little bit. If the rider does come off a bump crooked, the chassis is virtually self-correcting.

It won't pitch you out of shape on a jump, or over off-camber mounds. Even when the rear suspension bottoms—on a foot-deep, square-edged hole at high speed—the bike still tracks straight. Over ruts that would kick a *normal* rear end out to either side, the Uni just soaks it up, kicks up and comes right back down in line.

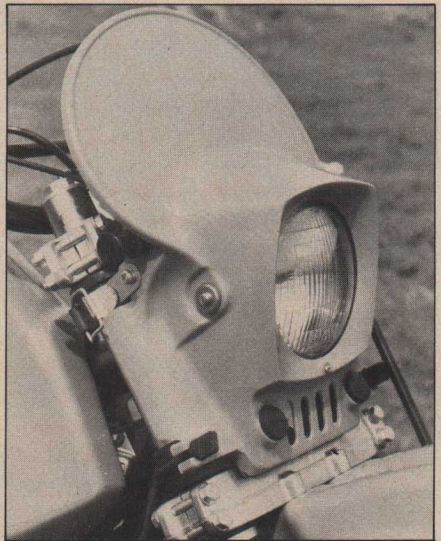
It's not just suspended properly for the heavy-duty stuff, but for the little, choppy stutters that usually keep the back end skipping and losing traction. It is comfortable, and, more importantly, delivers braking and accelerating traction.

After a three-rider, non-stop thrashing on an MX course we couldn't get the rear shock to fade at all. None.

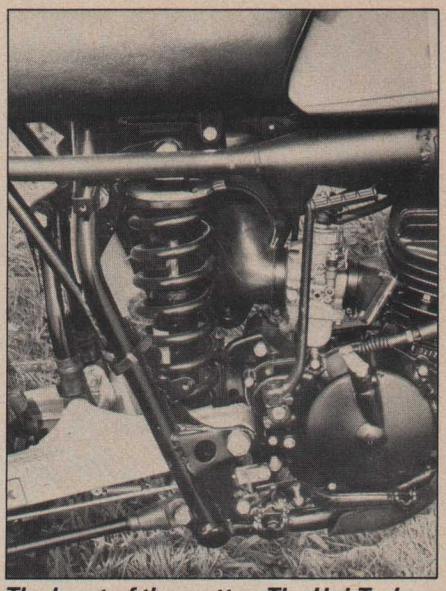
So it goes well in a straight line, but will it turn? Despite the longish wheelbase, the KDX turns exceptionally well.



KDX's motor is a pleasant surprise, with a wide range of power for a 175. Keep an eye on the motor mount bolts—they're a little wimpy.



Front headlight/number plate made its debut on the KDX400, is light, well-mounted and functional.



The heart of the matter: The Uni-Trak shock rides down low and tucked in, making the KDX one of the narrowest bikes we've tested.

Part of this is due to the 28-degree caster angle of the steering, but it is also due to the fact that the rear suspension is not doing strange things to the driving wheel.

Even on dry, tractionless surfaces, the front wheel gets excellent bite. It steers well through very tight wooded stuff at slow-to-medium speeds.

The KDX175 is an excellent power-on slider. It will hang out where the rider puts it without getting twitchy. When you roll off the gas it just straightens up—no highside.

In the rough stuff, the forks seem a little mushy, and we could get them to bottom occasionally. Perhaps air caps would add just enough to the spring rate to prevent this condition. Although one of our testers thought the forks were just fine, almost everyone else felt they should be stiffened up some.

At this point, we are so pumped on the super suspension, that we'd go buy the KDX without a motor. For the record, though, the engine starts easily, and the jetting was good and crisp for our area. It is not a screamer like a 125, but with a claimed 24 hp, it is by no means a slug. Some of this lack of top rpm is supplanted at the other end with some good, usable, wide-ranging torque. This torque is especially helpful on steep stuff, through traffic, or through snotty, rock-strewn stream beds.

A few of our testers were surprised when the KDX would move off in first gear without slipping the clutch. The bike gives you the feeling that it's not going to have enough power higher up in the rpms, but it starts at the bottom and just keeps building. This comes in

very handy on long uphills—when sections are reached where most bikes are happiest in one gear, the KDX will rev out in that gear, and then let you reach for another one. Keep it up, and pretty soon the Kawasaki is traveling at an outrageous speed.

Of course, in a situation like this, it's very difficult to completely separate the motor from the suspension action. The Uni-Trak gives the rider maximum power to the ground, so the motor is wasting as little energy as possible.

Shifting the six-speed box was smooth and tight, and we had no complaints of missed gears. All the cogs are well-spaced, and we estimate the top speed to be right under 70 mph.

Getting Technical

At the heart of the matter is a 173cc, reed valved, two-stroke powerplant. Kawasaki claims that the reeds are actual Boyeson articles, although they are *not* the two-stage Boyeson reeds we've all come to know and love. They are single-petal fiber reeds, similar to the thick primary reed Boyeson uses, but without the advantages of the two-stage design.

The KDX's engine porting is similar to the KX125's, but without the power-robbing peculiarities of the 125 cylinder. Bore and stroke are oversquare at 66mm x 50.6mm (the same stroke as the 125).

Carburetion comes from a 34mm Mikuni, which breathes through an oiled foam air filter found deep within the left-side air box. Waterproofing is very good, but there's one little problem with the air box: Make sure you use a #4 Phillips (large) on the cover screws, or the heads will bugger up quick as lightning.

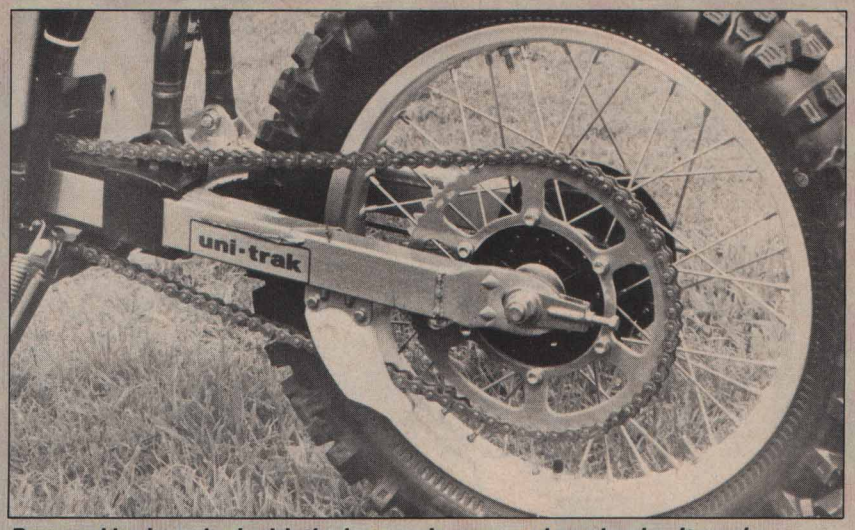
Primary drive, transmission layout and clutch design are all normal stuff: gear-driven; rotary drum-shifted six-speed; and wet, multi-plate clutch. Sparks come by way of a magneto/CDI unit.

A radially finned head tops off a large-fin barrel with an Electrofusion cylinder. This is Kawasaki's version of a hardened steel surface on an all-aluminum cylinder. This lack of steel liner provides better heat dissipation from the bore.

All of this has been standard fare for Kawasaki for the last couple of years on their competition machines, but the hot stuff is the chassis.

First off, the bike isn't small, like an IT or PE. The wheelbase is as much as 50mm (two inches) longer than its com-

UNI-TRAK SUSPENSION: AN INSIDE LOOK



Rear end looks naked with the long swingarm and no shocks. It works fantastically, though.

The new Uni-Trak suspension is taking the dirt world by storm. Kawasaki's KX motocrossers and the KDX175 have proven themselves able to pound through the roughest terrain easily as well as, if not better than, the trickest aftermarket systems going. What's the secret behind their phenomenal success? Basically, it's a lot simpler than you might think.

The design has a lot going for it, and very little going against it. First off, it reduces the amount of unsprung weight—the weight that is attached directly to the moving part of the suspension. Also, it moves the weight of the single large shock down around the centerline of the engine.

Making this move also results in better housekeeping. Since there are no shocks hanging off each side of the frame, the area around the rider's legs can be kept very narrow and free of humps, bumps, bulges, hoses and assorted pieces.

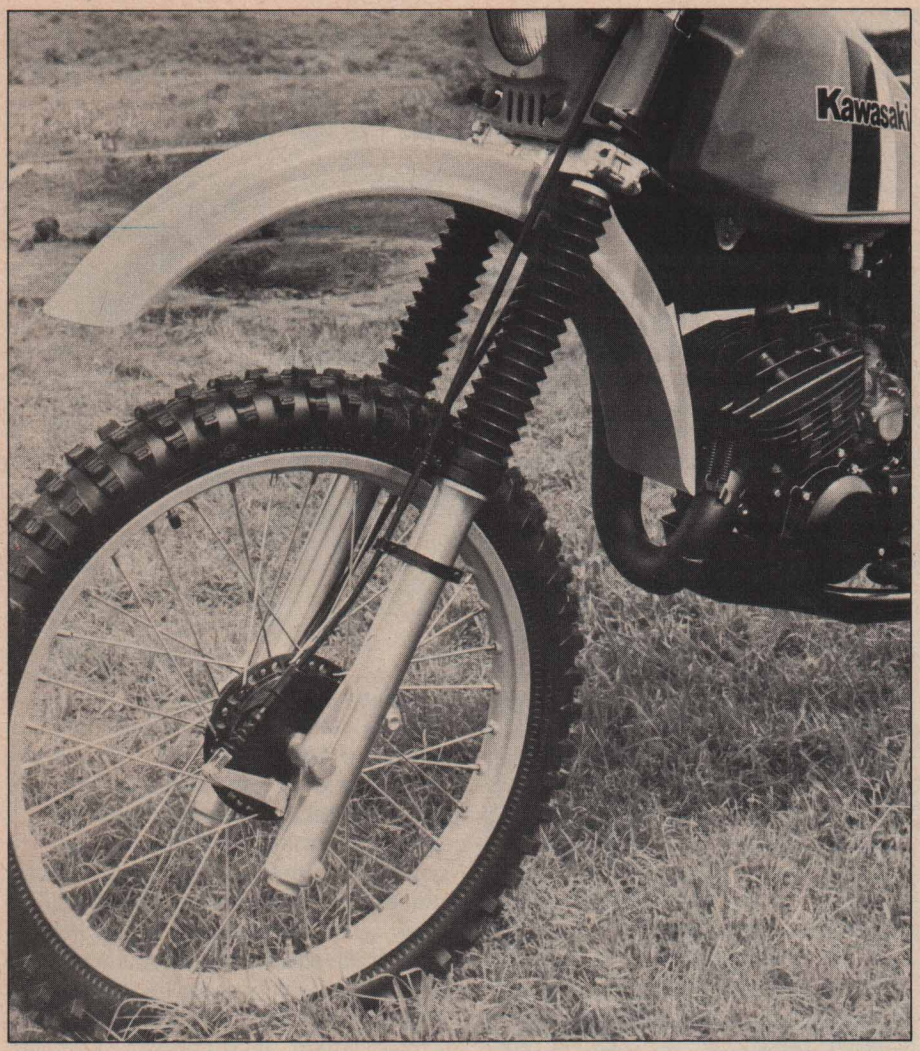
Since there are no shock loads distributed at the center of the swingarm (as found in current cantilever designs), the arm can be straight and need not be heavily gusseted. Also, compared to the cantilever design, the suspension forces aren't distributed up and forward into the frame area under the seat. In the Uni-Trak the forces are contained in a very rigid part of the frame, which utilizes the engine and swingarm pivot bolt for strength.

Compared to any twin shock design, the Uni can't suffer from very slightly mismatched dampers—and as any suspension expert will tell you, it is very difficult to have perfectly matched damping units, especially on mass-production shocks. Shaft travel is very short on the Uni, which means that there is less piston movement and friction.

A lot of this sounds very much like a Yamaha monoshock design, but there are big differences. The shock and its heavy spring aren't up under the tank, resulting in weight high up in the frame. The air circulation around the Uni is better, and the suspension forces aren't directed into the steering head. Additionally, the mono requires a more complex swingarm.

The only disadvantage—a very slight one at that—of the Uni is that the rocker arm and the pushrods must be bushed with Heim-type joints, which means that it is another maintenance area. But, considering the performance, it is well worth the additional small maintenance required.

And the performance is nothing less than excellent. Consider this, too: Soon, aftermarket manufacturers will have accessory shocks for the Uni, and any number of modification services for the stocker. We just can't wait to see what a *better* Uni-Trak works like! □



The forks work well with the rear suspension, but most testers agreed that they could use a touch more preload.

petition (based on last year's IT175 and PE175). Travel at each end is matched at 250mm (9.84 inches), and the 175 sports a whopping 300mm (11.8-inch) ground clearance.

Leading axle forks—familiar Kayaba units—function without the addition of air caps. Fork boots help protect the tubes and seals from the elements. The front brake backing plate is bolted to the left fork slider, and the hub is a conical unit. A 3.00x21 Bridgestone is wrapped around a WM-2 aluminum rim.

A fully floating rear binder, rod-operated, provides the stopping power out back. The actuation rod and lever are tucked up out of the way, but the torque arm is a little vulnerable. A Heim joint pivots the floating arm at its attachment point on the frame.

A 4.00x18 Bridgestone puts the power to the ground. Suspending it in place is a WM-3 rim with a single rim lock.

While the rear wheel assembly is not a quick-change type, the spacers would stay with the hub and backing plate when the wheel was removed. Unfortunately, the wimpy chain adjusters would usually fall off during the exercise.

Footpegs are attached by a bolt-on bracket. They are wide enough and have a pretty good bite, even when wet. The brake lever is tucked in close to the frame—too close for some riders. On the other hand, the shifter sticks out and the folding tip on it is bogus-looking. It occasionally gets in the way. A plastic skid plate provides good protection for the narrow cases and doesn't interfere with gear oil changes.

While it may appear to be aluminum, mostly because of the aluminum paint job, the long, straight swingarm is chrome moly. The heavily gusseted pushrod wishbone has rubber-covered Heim joints at the swingarm attachment. The rocker shaft has a Heim at the same end and a full Heim joint is mounted in the shock eye. At the fulcrum point of the rocker shaft, a large phenolic, rotating bushing keeps the shaft rocking.

KAWASAKI KDX175
Specifications

NAME AND MODEL	Kawasaki KDX175
ENGINE TYPE	Reed-valve two-stroke
BORE AND STROKE	66x50.6mm
DISPLACEMENT	173cc
HORSEPOWER (CLAIMED BY FACTORY)	24 at 9500 rpm
CARBURETION	Mikuni VM34SS
FACTORY RECOMMENDED JETTING:	
MAIN JET	137.5
NEEDLE JET	Q-4/8
JET NEEDLE	6DH7-3
PILOT JET	40
SLIDE NUMBER	2.0
RECOMMENDED GASOLINE	Premium
RECOMMENDED OIL (MFR.)	Kawasaki two-stroke
FUEL TANK CAPACITY	10.5 liters (2.8 gallons)
FUEL TANK MATERIAL	Plastic
GAS/OIL RATIO	20:1
LUBRICATION	Pre-mix
AIR FILTRATION	Oiled foam
CLUTCH TYPE	Wet, multi-disc
TRANSMISSION	Six-speed, constant mesh
GEARBOX RATIOS:	
1	2.69
2	1.69
3	1.29
4	1.04
5	0.87
6	0.75
GEARING, FRONT/REAR	12/52
IGNITION	CDI
PRIMARY KICK SYSTEM?	Yes
RECOMMENDED SPARK PLUG	NGK B9ES
SILENCER/SPARK ARRESTOR/ QUALITY	Yes/yes/decent silencing
EXHAUST SYSTEM	Up-pipe, right side
FRAME, TYPE	Single downtube
WHEELBASE	1460mm (57.5 inches)
GROUND CLEARANCE	300mm (11.8 inches)
SEAT HEIGHT AT TANK	37 inches
STEERING HEAD ANGLE	28 degrees
TRAIL	120mm (4.72 inches)
WEIGHT WITH ONE GALLON GAS	228 pounds
RIM MATERIAL	Aluminum alloy
TIRE SIZES:	
FRONT	3.00x21 Bridgestone
REAR	4.00x18 Bridgestone
SUSPENSION:	
FRONT, TYPE AND TRAVEL	Leading axle forks, 9.84 inches
REAR, TYPE AND TRAVEL	Uni-Trak swingarm, 9.84 inches
INTENDED USE, MFR.	Off-road, enduro
COUNTRY OF ORIGIN	Japan
PRICE, APPROX.	$1339
PARTS PRICES, HIGH-WEAR ITEMS:	
PISTON ASSEMBLY, COMPLETE	$31.08
RINGS ONLY	$10.20
CYLINDER	$142.50
SHIFT LEVER	$11.52
BRAKE PEDAL	$16.40
FRONT SPROCKET	$10.62
DISTRIBUTOR:	Kawasaki Motors Corp. 2009 E. Edinger Avenue Santa Ana, California 92705
OVERALL RATING, FROM 0 TO 100, VARIOUS CATEGORIES, KEEPING INTENDED USE OF MACHINE IN MIND:	
HANDLING	99
SUSPENSION	98
POWER	97
COST	98
ATTENTION TO DETAIL	94
EFFECTIVENESS, STONE STOCK	98

The large, single shock features a threaded preload ring on the body, which is easy to get to for changes in the springing. No damping adjustments are available, and Kawasaki engineers figured the gas shock didn't need a reservoir on the KDX. The lower shock mount is attached to a very large diameter frame and cross-member which is the mating point for the front cradle and the rear downtubes.

[*Continued on page 64*]

[*Continued from page 37*]

With this large tube, the motor mount bolts, the torsional rigidity of the cases and the swingarm pivot bolt, this area is the most rock-solid part of the bike.

Nylon guides keep the chain off the top of the swingarm and help guide it onto the sprocket at the bottom. Two sealed bearing poly-rollers are used as the stationary chain tensioning system. It is very effective, and there is almost no drag on the chain.

Binders at both ends are good, progressive units. The floating rear brake offers good feeling and is easy to finesse on silty downhills. The rear never faded under heavy abuse. Slowly, our front brake got weaker, but we traced the problem to some slimy stream growth that had fouled the shoes. After a little maintenance, our brakes were respectable again.

Bits and Pieces

One potential trouble spot on the bike is the motor mount bolts. On our test bike, they loosened up regularly, about every 30 miles of hard running. If you want to be sure, replace the stock bolts with some high-quality items.

The stickers on the tank and side covers are much more durable than the things Kawasaki was using in the past —which would fall off at a sideways glance.

Another nice feature of the Uni rear is the narrowness of the bike. After you've been used to riding bowlegged to clear the top of the shocks on a cantilevered bike, the KDX is sheer heaven.

The bar-seat-peg relationship is excellent, making the bike very comfortable on a long run. The seat feels a little hard at first, but after a 100-mile enduro, it felt just great to us.

Summing It Up

If you've read up to this point, then you know how we feel about the Uni-Trak suspension in particular. The design is already being copied, and others are working on similar single-shock designs, proof that we're talking about a new state-of-the-art here.

Considering the state of Kawasaki's art, we feel that it will be difficult for the competition to stay in the game this year, unless last year's efforts are drastically improved. Driven by a competent, willing engine, with good gear spacing and excellent power characteristics, this enduro version of the Uni-Trak is going to be hard to beat. You'd better get in line now, if you want one. Yes, it's that good. ☐