

PRE-EXCLUSIVES!

FIRST '86 TEST RIDES:
'86 KX250 • '86 CR500 • '86 YZ250 •
'86 HUSKY 4-STROKE • FIRST LOOK AT HONDA'S WILD NEW FAT CAT 200!

DIRT BIKE

DIRT BIKE

NOVEMBER 1985

WPS 34355

**NEW YORK NATIONAL ENDURO:
SURPRISE! SURPRISE! HONDA
STINGS TEAM HUSKY!**

EXOTIC BIKE TESTS:

- SUPER-FAST XR MINI
- HONDA XLV750
- 200 LB. YZ250
- HONDA'S WORKS 4-STROKE



1986 HONDA CR500

\$2.00
UK £1.60

**HOW
TRAIL RIDING
CAN IMPROVE
YOUR MX SKILLS!**

**NATIONAL CHAMPIONSHIPS GO
INTO SUDDEN-DEATH SHOWDOWNS:
WARD HAUNTED BY "INSTANT REPLAYS"!**



1986 HONDA 4x4

**4-WHEEL-DRIVE 350:
HONDA'S FLOATING BATTLESHIP
SINKS THE COMPETITION!**



0

DIRT BIKE

NOVEMBER 1985 • VOLUME 15, NO. 11



1963 vs. 1971 vs. 1985 SHOOTOUT



'86 YZ250



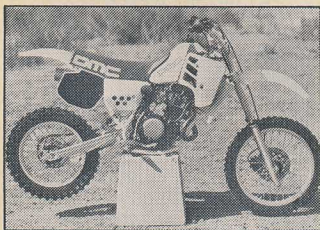
'86 KX250



'86 HUSKY 510TE



'86 HONDA 4x4



RADICAL XR MINI



'86 HONDA CR500

ON THE COVER:—Lots of new stuff for '86. Jeff Hicks twists the latest KX250 production 'crosser while our spy (cleverly disguised as a barm) snaps the shutter. Hard-working Steve Schmitz plows a sandy Hondaland corner aboard the equally hard-working '86 CR500 Honda. Photo by Fran Kuhn. Tom Webb got into his Lewis-and-Clark mode while blazing the Rubicon Trail aboard the incredible Honda Four Trax. Photo by David Gerig, who sneezed profusely because his socks got wet. DeWest stayed late to arrange this startling array of off-road activity into a rather small rectangular layout, and Valley Film did the separations. Thank you, Don Pardo.

DIRT BIKE Magazine, ISSN 0364-1546 (Nov. '85) is published by Daisy/Hi-Torque Publishing Company, Inc., with editorial offices at 10600 Sepulveda Boulevard, Mission Hills, California 91345. Subscriptions \$14.98 for 12 issues (one year). Canada add \$4 per year, and all other foreign add \$5 per year for additional postage. Copyright © 1985 by Daisy/Hi-Torque Publishing Company, Inc. All rights reserved. Nothing in this magazine may be reprinted in whole or in part, by mimeograph or any other means, without the express permission of the publisher. 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, manuscripts, photographs and illustrations 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 Company, Inc. The publisher does not assume responsibility for unsolicited material. Second class postage paid at San Fernando, California 91340, and at additional mailing offices. **POSTMASTER:** Send address changes to **DIRT BIKE** Magazine, P.O. Box 9502, Mission Hills, California 91345-9502.

TESTS

- 22 1986 HONDA CR500**
The latest top fuel motocrosser
- 32 1986 YAMAHA YZ250**
First look at the quarter-liter rev king
- 56 1986 KAWASAKI KX250**
We ride it first!
- 60 1986 HUSQVARNA 510TE ENDURO**
Thunder in the woods

COMPETITION

- 28 NEW YORK NATIONAL ENDURO**
Smith smokes Speedsville
- 38 ROSE BOWL SUPERCROSS**
Which way did he go?
- 50 NATIONAL MOTOCROSS WRAP-UP**
Lechien, Ward and Glover make good

FEATURES

- 27 1986 HONDA PREVIEW**
CRs, XRs and the Fat Cat
- 44 OLD vs. NEW MOTOCROSS SHOOTOUT**
Set coordinates for 1963
- 58 1986 KAWASAKI PREVIEW**
Team Green's dirt weapons
- 64 OFF-ROAD EXOTICA**
Mortgage the house
- 70 TRAILRIDING TIPS**
Johnny O shows, Professor Bailey tells

TECHNICAL

- 73 HOW TO ADJUST XR VALVES**
Ending the backfire blues

DEPARTMENTS

- 11 FROM THE SADDLE**
Kramer vs. KTM
- 12 TANKSLAPPER**
Hindsight
- 14 BITS AND PIECES**
Lechien goes green
- 16 MR. KNOW-IT-ALL**
The doctor is in
- 18 RIDERS WRITE**
...and they get writer's cramp, too
- 46 HOW TO SUBSCRIBE**
You mean you don't know?
- 75 NEW PRODUCTS**
You'll look maahvelous!
- 82 CRASH & BURN**
Even Mary Lou Retton couldn't top this one

WARNING: Much of the action depicted in this magazine is potentially dangerous. Virtually all of the riders seen in our photos are experienced experts or professionals. Do not attempt to duplicate any stunts that are beyond your own capabilities. Always wear the appropriate safety gear.

INTERIOR COLOR PHOTOGRAPHY:—Pages 22, 39, 45, 61, 64, 65—Fran Kuhn; Honda Four Trax, page 65—David Gerig.



Paris to Dakar, Barstow to Vegas, or L.A. to New York: Honda's dual-purpose XLV750 monster will cruise from Philadelphia to Little Rock before hitting reserve.



"You mean I can really buy a works bike?" Well, we won't say it's impossible, but you'll have to pull a lot of strings to nab your own RTL250 trailer. As far as we know, Honda has no plans to market the lightweight machine in the U.S.

IS EVERYTHING YOU WANT EVERYTHING YOU NEED?

OFF-ROAD EXOTICA

If you have to ask, you probably can't afford it

By the DIRT BIKE Staff, with special thanks to Hi-Torque's credit manager

We're not about to say you'll never own any of the machines featured in this special exotica test, but the chances are probably about 99 to 1 against it.

Oh sure, with enough time and several thousand Swiss francs, along with some fancy maneuvering through U.S. Customs, you could probably add an XLV750 Honda to your personal collection of high-performance dual-purpose motorcycles.

And those dogged and relentless souls

with enough savvy and almost \$4000 in small, unmarked bills could almost certainly plunk away with one of the few RTL250 trials machines in existence.

And, busy as he is, we're convinced that Dave Miller could somehow tear himself away from the DMC front office and build you a duplicate of his incredible hybrid XR100—if the price was right.

And while you're on that shopping spree, why not hit the old debit card for a cool 15

grand—and bring home a brand-new Innovation Sports carbon fiber YZ250. After all, it's only money.

If you do find yourself a bit short of working capital, you'll do well to consider the more reasonably priced—though thoroughly exotic—Four Trax Honda.

And, if you're really hitting bottom, you'll just have to make do like the rest of us and cough up two bucks for the pleasure of drooling over the following few pages!



Brace yourself: Innovation Sports' C.Ti. knee brace isn't the only carbon fiber on the track these days. While their light-weight YZ250 project bike may have therapeutic value, Blue Cross still won't pick up the tab.



How much thump can you afford?: DMC's XR100 can handle the two-strokes and drain your bank account at the same time.



Honda's Four Trax 4x4 paddles upstream along the Rubicon Trail. The newest red quad really floats and is capable of conquering the ugliest terrain imaginable.

DMC XR100

Bring on the two-strokes!

If nothing else, Dave Miller is a perfectionist. One lap around his Anaheim shop will leave no doubt in your mind—this guy can build an absolutely awesome motorcycle. Dave's personal XR100 falls neatly in line with his bike-building philosophy; it bristles with enough hand-built, high-tech parts to make a full-size factory motocrosser look dull.

The basis for the white and blue scooter is actually a 1984 Yamaha YZ80 chassis that's been substantially modified to accept the four-stroke Honda engine. Up front, a set of custom billet aluminum triple clamps hold a pair of Kawasaki KX80 forks with optional heavy KX springs. The rear is suspended by a DMC long-travel shock attached to Dave's hand-carved aluminum linkage system. Like the front, the rear of the bike is fitted with a heavier spring (Yamaha) to accommodate the added weight of the four-stroke engine.



If you thought DMC only built two-strokes, guess again. The YZ80-framed XR100 gets enough power to the ground to keep ahead of most minis right on through third gear.

Wheels are another KX/YZ80 combination. The front is fitted with the KX wheel and disc assembly and, like the YZ rear rim, is laced to a custom-machined aluminum hub. Rounding out the chassis package is a set of stock YZ80 plastic and the stock Yamaha seat assembly with a custom DMC cover.

PRE-MIX IS FOR WIMPS

The XR100's engine has received a lot of attention, starting with the carburetion and intake system. Dave modified the intake tract by welding up the port and manifold and reconfiguring their shapes to improve fuel flow. A 24mm Mikuni carb bolts up to the modified manifold. The exhaust is another hand-built item that's based on a design Dave conceived back in 1972 when the XRs still dominated mini motocross. The tubing tapers from 22mm at the face of the



Flying the DMC XR100 is easy—the standard ignition has been replaced with a quick-revving Motoplat unit. A short blip at the base of a jump gets the bike airborne.



In slick, dry, dusty corners, the four-stroke power hooks up quickly. Most of the XR's advantage over the two-strokes is in its ability to accelerate quickly off the line and out of the turns.

exhaust port to 36mm at the megaphone. The megaphone itself is an unusual (for motorcycles) reverse-cone design that feeds into an aluminum silencer unit.

The standard XR ignition system was shelved in favor of a Motoplat item that reduces the heavy flywheel effect of the stocker. The result is an engine that responds instantly to throttle input. To keep excess heat to a minimum, Dave fabricated an oil cooler from a cut-down KX125 radiator. It mounts in front of the gas tank on the right side of the bike. Another reliability-related modification was the addition of two clutch plates to a modified XR clutch basket. This all but eliminates the clutch-fade problems normally associated with hopped-up XR engines.

THE THUMP GETS THE JUMP

According to Dave, the modified XR is actually fast enough to keep ahead of most 80cc two-stroke minis right up through third gear. Its biggest advantage is its ability to get power to the ground and accelerate quickly. The high-strung 80s need more time to pick up speed, but once they get going they fly past the little XR. Still, none of the two-strokes is anywhere near as much fun as the thumper, and if Dave puts his mind to it, we have a feeling that it's only a matter of time until the little white flier is the fastest thing on the track.

HONDA'S RTL250

Up & over & around

Trials is an exotic species of off-road competition that demands feet-up, tree-climbing, wall-scaling, technical skills, as well as moving some of the most unusual machinery on earth. Trials is very popular in Europe and has a growing contingent of enthusiasts in the U.S. As with anywhere else in the motorcycle world, if there are championships to be won, Honda will be there.

There is no simple way to describe a trials motorcycle. It has enough ground clearance for a full-sized tomcat to waltz underneath with his tail up, and yet a seat height so low that a gnome could plant both feet firmly on the ground. It has a fragile-looking, bicycle-type front wheel and a heavy, beefy 4.00×18 meat loaf on the rear rim, with knobs as soft as pencil erasers. Most have powerful 250 or 350cc engines, yet the overall machine is as narrow as a credit card. To a non-trials rider, trials motorcycles are bizarre!

YOU KNOW I CAN DANCE

Honda's exotic RTL250 is specially built by Honda Racing Corporation. The bike is trimmed in red, white and blue competition colors and is exquisitely detailed. It doesn't look mean, but like Honda's CR motocrossers, it's a true off-road war machine. The RTL250 is a gymnast, a technical marvel with the inbred skills and corresponding temperament of a prima ballerina. You need not, however, be a world class trials rider to appreciate the finer points of the world class machine.



Narrow as a credit card and obviously made to do only one thing, and do it well. The Honda RTL250 employs sand-cast magnesium cases and an aluminum skid plate and silencer to cut down on weight. The seat is little more than a thin pad because trials riders never sit down, and the tires are as soft as pencil erasers for maximum traction over slippery terrain.

CLIMBING TREES AND WET ROCKS

The RTL engine is not made for roosting; its purpose is to hook up in slow, tight terrain and produce smooth, usable power at

EXOTICA

CARBON FIBER YZ250

A 209-pound private dancer



This machine will climb over tree stumps, rocks or apartment buildings when used by a skilled trials rider. It's the most fun around and through creek beds where its torque and quick handling characteristics allow a good rider to weave through the gnarliest of slippery rocks with absolutely no problems. Here, Honda's Gary LaPlante cruises upriver on the RTL for the DIRT BIKE cameras.

low rpm. Consequently, the 249cc four-stroke produces a relatively low 13.8 brake horsepower at 6000 rpm, and uses a tiny 22mm carburetor. The cases are sand-cast magnesium, and the motor mounts and silencer are made of aluminum, all to save weight. The motor is narrow and tightly tucked into the frame, adding to the overall slimness of the bike. The Honda develops so much useful torque that, properly ridden, you can literally climb rocks the size of a side-by-side refrigerator/freezer.

SOFTENERS

Creek bed crevices are handled by Showa leading-axle forks up front and Honda's Pro-Link and a single Showa shock in the rear. The front end of the RTL is so light that the forks often have little work to do. But when coming down hills or jumping, the forks proved they were more than up to the task for which they were designed. The Pro-Link rear suspension is superb. We rode the 250 through some of the nastiest rock piles outside maximum security prisons, and we never heard a complaint from the Showa rear shock. We even jumped this "not made for jumping" motorcycle and had no trouble soft landing with the Pro-Link.

RIDING IT, A RELEARNING PROCESS

Speed is not the object in trials riding, skill is. The emphasis is on slow, tight turns within established boundaries, and going over or through (never around) previously considered impossible objects. We were amazed at what the RTL could do. The svelteness and the steep front end of the bike allow it to do U-turns—inside the van! The Honda also comes with super-sticky Michelin X-1 tires that provide traction even over slick, moss-covered boulders. With a knowledgeable trials rider aboard, this bike will climb almost anything. And that, of course, is the name of the trials game!

Jim and Ed Castillo of Innovation Sports have carved a substantial niche in the world of motocross by developing the C.Ti. knee brace. The device, constructed in large part from carbon fiber elements, is used by many of the world's top riders—David Thorpe, Georges Jobe, Eric Geboers, Jeff Ward and Ricky Johnson, to name a few. Jim is a motocross fanatic at heart, and development work on the knee brace led him to attempt a variety of motocross applications for the lightweight carbon fiber material—everything from fuel tanks and airboxes to entire rear subframe assemblies. The main advantage of using carbon fiber components in place of the standard steel items is a drastic reduction in weight, something Jim has managed to accomplish quite successfully on his project YZ250 motocrosser.



Innovation Sports' carbon fiber YZ250 is the ultimate privateer weapon. Overall weight has been cut by 11 pounds compared with the stock machine.

THE INNOVATION SPORTS DIET

The first thing you notice when looking at the carbon flier is the low-rider fuel tank. The tank not only weighs substantially less than the stock unit, but carries the fuel at a much lower point, as well. The advantages of lower weight are obvious, especially when cornering. Jim says that a gallon of pre-mix tips the scales at around seven pounds—getting the liquid down low really helps when pushing the bike through the twisties. The gas is pumped from a location that's about 14 inches lower than stock, and this arrangement makes the use of a fuel pump mandatory. There's a tiny vacuum-activated diaphragm unit located at the base of the tank. The pump transfers fuel from the lower right side to a small tank on the upper left. The smaller half-tank features internal baffles that prevent the mix from sloshing back to the lower reservoir.



Rick Johnson was a bit conservative on the Innovation Sports YZ. The reduced weight of the machine is immediately apparent, especially when throwing the bike from side to side during aerial maneuvers.

The position of the tank allows for a drastically extended stadium-type safety saddle. The seat attaches to a base that's constructed entirely of carbon fiber, which in turn incorporates a monocoque rear subframe. The weight of the entire unit, sans foam and seat cover, is a mere 20 ounces. This includes the integral airbox that rides below the saddle in a position close to that of the stocker.

The motor itself is unmodified, but Jim fabricated a new left-side exhaust system to allow for the revised fuel tank location. Although the direction of the pipe has been altered, the cone dimensions are the same as the standard pipe. Total weight savings with the new parts is nearly 11 pounds, a truly substantial reduction!

Sitting on the bike is reminiscent of being perched atop a trials mount. The slender midsection and lower tank seem almost alien when compared with a standard machine. Once under way, the lowered center of gravity becomes ridiculously apparent—the bike feels absolutely unencumbered by any excess weight when it is being thrown around in the turns and off jumps. It's not just the loss of 11 pounds that's responsible—keeping the fuel weight low is at least as important as the overall weight loss.

Innovation Sports' YZ250 is an incredible bike, but it's just the beginning of what can be done with carbon fiber construction. According to Jim, it's possible to construct most of the major components of a motocross machine, including the frame, swing-arm and major suspension items, from the lightweight material, and the result would be a 250cc bike that weighs in at less than 160 pounds. The major drawback is, of course, the high cost. One pound of the carbon material sells for roughly \$70, and that's just the raw material. Add to that the cost of designing the molds, and you've got yourself quite a bill—one that even the factory accountants would cringe at. Even so, it's good to know the factories aren't the only ones capable of playing the motocross exotic game.

HONDA XLV750

A dual-purpose monster

A rational person would scoff at the idea of a 450-pound, 750cc, V-twin dual-purpose trail bike. He would double over in laughter at the thought of a 43mm forked, Pro-Link single-shock chassis mated to a shaft-driven, twin-carbed, oil-cooled machine fitted with fuel tanks the size of small air conditioners, and a top speed of 120 mph. The *Dirt Bike* staff is not rational. . . .

When we learned that American Honda had a European-flavored XLV750 hidden at its Gardena plant, we conducted ourselves in a thoroughly professional manner and started the necessary footwork to secure the rare machine. Although our phone calls weren't returned, our bribes were sent back and our sobbing pleas were disregarded, Honda finally gave in. They'd deliver a nearly fresh and very precious XLV750 to the well-lit and posh *Dirt Bike* offices.

Our well-orchestrated system of sniveling had worked again.



Just your basic V-twin, shaft-drive 450-pound dual-purpose ride. Front suspension travel is right around eight inches, while the rear Pro-Link delivers just over seven.

IT'S A VERY BIG MACHINE

One of the big trends in European racing is the Paris to Dakar long-course, intercontinental-type event. They usually cover thousands of miles and take several weeks to navigate. The machines are giant hulks fitted with monstrous camel-humped fuel tanks capable of traveling 200 miles between refills. Usually they are big four-strokes. Over the last few years these races have been dominated by the BMW team. Enter the Honda XLV750.

This machine isn't meant to compete in an intercontinental, multi-day race. It's meant to *look* like it could participate. The XLV engine is basically a detuned version of the 750 Shadow street bike. Rather than water-cool the beast, the XLV is oil-cooled and houses a large oil tank that doubles as the front frame tubes. It has mild cam timing, a docile compression ratio, and smaller valves



Though it is possible to get airborne, the XLV is better off with both wheels firmly on the ground. It's best on smooth, fast, dirt roads with few obstacles. The powerful motor makes two-up off-road travel a distinct possibility.

than the more spirited American street version.

Because the motor is rather tame, it will run on low-octane fuel at slow speeds for long periods of time. The five-cog transmission has wide ratios and features a fairly low first gear. Thankfully, the bike does have an electric starter.

The chassis is a network of enormous square tubing, dotted with aluminum pieces. A set of 43mm forks offer just under eight inches of travel, and the rear end is handled via a Pro-Linked system, much like the one found on the XL600R. Probably the most eye-catching part of the XLV is the huge five-gallon fuel tank. The left side of the tank has the petcock mounted firmly on top of the tank, and the right cell houses the filter cap. A fuel pump is necessary to transport gas from the low-hanging tank up to the twin 33mm Keihin carburetors.

Many of the standard parts appear to come straight from the XL lineup. Handlebars, grips, headlight and the front fender exhibit XL/XR heritage. Up front the disc is quite a bit larger than the standard XL, and the rear drum unit appears to be an XL hub on a steroid diet. Both the shifter and rear brake pedal offer nifty folding tips.

RIDING THE HONDA HOUSE

With a full tank of gas, the Honda XLV nearly tops the 500-pound weight limit. Combine this with a long, very fat gas tank, tires with ridges instead of knobs, and the overall bulk of a house, and you'll quickly realize that nimble off-road manners simply aren't in the XLV's repertoire. On a well-groomed and smooth fire road you can motor around with some prowess, but don't plan on playing Lewis and Clark the adventurers.

The Honda XLV750 likes to putt on the occasional piece of dirt, rocket through tight, twisty canyon roads, and gets big-headed over the amount of attention it gets. There's enough power packed in the V-twin to freeze your veins, enough suspension to catch the occasional pothole, and just the right amount of detailing to make it the perfect dual-purpose machine for the *Dirt Bike* staff.

HONDA FOUR TRAX 4X4

*The world's first
true all-terrain vehicle!*

Honda is the pioneer of the ATV world, so it should come as no surprise that they're the first people to actually offer a dual-shaft-driven, four-wheel-drive ATV. In one swipe of the corporate pen, Honda has rewritten the guidelines for the sport/recreation/hunting/utility ATV market. We've just entered the dawn of a new era with the first no-holds-barred, true all-terrain vehicle.

INSIDE LOOKING OUT

The big news here is that the new Four Trax 4x4 features full-time four-wheel drive. Up front the wheels are driven via a torque-sensing, limited-slip differential. Both ends use a drive shaft that's basically maintenance-free and offers superior clearance.

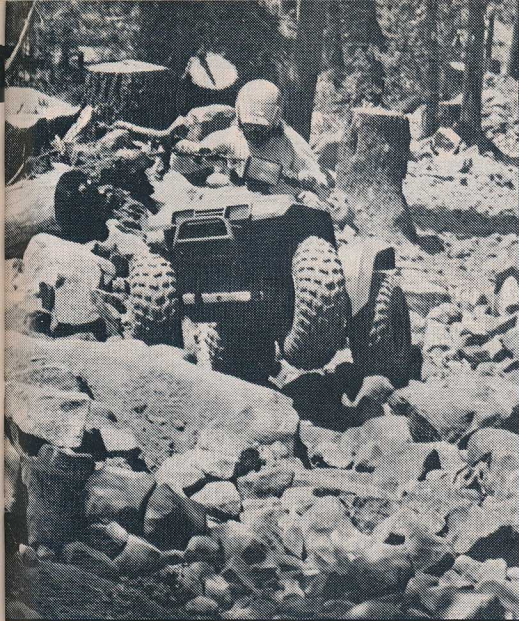


Honda's Four Trax 4x4 features a front differential with a limited-slip drive system. Beefy rock guards help protect the vulnerable front end.

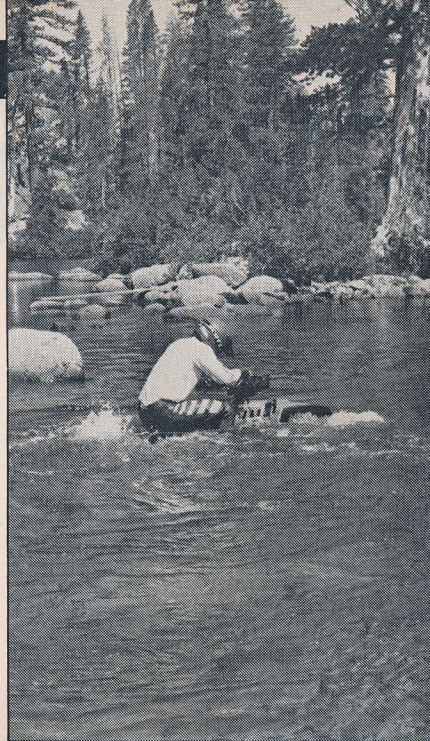
A more or less standard ATC350X jug powers the 4x4. The four-valve, 350cc top end is grafted onto a five-speed, auto-clutch lower end. Since the machine weighs in at a hefty 543 pounds, it's a good thing the design crew opted for the powerful big-bore 350 motor.

Honda packed a beefed-up clutch system into the machine to handle the extra engine load, the weight, and four churning wheels. The transmission spins a super-low first gear, with second through fifth spaced out in a standard fashion. Reverse gear is identical to other Honda models and is engaged with a simple handlebar-mounted release system.

The inner workings of the engine are typical of what we've come to expect from



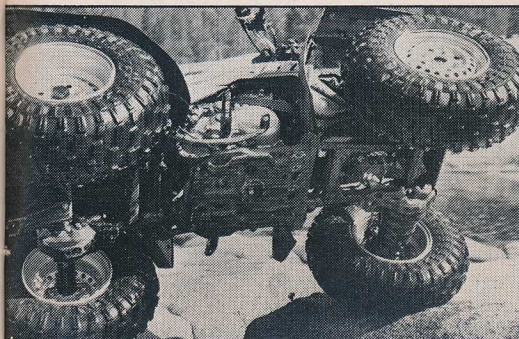
Rugged, gnarly and ugly terrain is where the Honda 4x4 struts its stuff. This miserable rock-infested piece of earth is gobbled up without a whimper from the Four Trax.



With four-wheel drive and same sized rubber, the Honda will pull and churn like a paddlewheeler in deep water.



There's no doubt that Honda has rewritten the rules on the ATV world's concept of true do-it-all machines.



The undercarriage of the machine shows the dual drive shaft, heavily armored side of the 4x4 ATV.

MAGICAL MYSTERY TOUR

The first ride on the Honda Four Trax 4x4 nearly overwhelmed us! It will climb over obstacles, up vertical rises and ford rivers like no machine ever made! We can't really compare the machine to anything, except maybe a King Kong mountain goat. The clawing action of the four-wheel-drive machine flattens out the worst terrain imaginable.

It did take some time to adjust to the mass of the machine. With a wide girth and a scale-ripping 600 pounds, you don't flick the 4x4 around like a toy. It likes to go sloow, ripping and tearing, pulling and climbing like a scaled-down jeep. First gear is nearly useless, it's mainly there for a last-ditch effort at getting out of or over a situation. As we said, the 4x4 will go where no ATV has passed before. In fact, if it can't make it, you'll probably have a tough time walking there.

Although the Honda is fully suspended, it hates to go fast over bumps. Bottom line. The standard dampers are marginal at best, and the 600-pound mammoth will bottom out over the slightest pencil-sized bump. At slower speeds they are acceptable, but get on a rut-riddled fire road or chuckhole-strewn track, and their damping prowess vanishes. It needs some work here.

THE SHOW THAT NEVER ENDS

We believe Honda has filled a void with the Four Trax 4x4. Finally ATV enthusiasts, hunters, workers and play-oriented riders have a machine that laughs at obstacles, scoffs at grim uglies, and chews on violent terrain. Yes, it's a *true* all-terrain vehicle. But, we also feel that Honda's target stretches past the ATV market. They've created a machine that will do anything and go anywhere easier, cheaper and better than any four-wheel-drive machine on the market. Think about all the 4x4 truck owners out there. They spend 10,000 dollars on a vehicle that gets abused quickly, brakes easily, and scars badly. For \$3000 they can have a machine that not only *looks* ready for the rigors of off-road terrain taming, but one that's truly capable of accomplishing the task. □

Honda, which is to say, advanced.

A gear-driven counterbalancer reduces vibration to a mere hum. There's an automatic cam chain tensioner to keep maintenance to a minimum. Honda installed a pacemaker in the heart of the 4x4: A standard oil cooler is mated to a thermostatically controlled cooling fan. This surgery was carefully thought out. Since the 4x4 will often be run at relatively slow speeds, keeping the blood cool will extend engine life and enhance reliability.

The Four Trax 4x4's pulse is perked by a heavy-duty electric start system or, in a pinch, back-up primary kickstarter. A solid-state ignition handles the firing chores, and the starting routine is made easier by an automatic compression release.

CHOICE CHASSIS

There are several unique features found in the 4x4's chassis and running gear design. First off, it's extremely heavy-duty and the frame construction is an all-new double-cradle style. Two rather long shocks are linked to the leading-arm front suspension system.

Out back, the Four Trax uses a swingarm suspension with spindly dual dampers. The actual rear drive assembly comes straight off the Big Red ATC. If you were to turn the

machine up on end, the front and rear drive shaft/swingarm units would appear almost identical. There is, however, a substantial difference—the front drive shaft links to the axle at an 80-degree angle, while the rear shaft joins the axle in a more typical 90-degree position. This may seem like a small detail, but the 80-degree front joint proved to be critical for a tighter turning radius.

Honda fit the Four Trax 4x4 with four 24x9-11 tires. This is unique since standard ATV four-wheelers generally use larger tires at the rear. The reasoning is sound: First off, tires of identical size allow running identical gearing numbers front and rear. Secondly (and more important), the flotation factor of the 4x4 had to be considered. Honda's engineers discovered that by running smaller front rubber the machine had a tendency to nose-dive in deep water. With a full set of identical rubber board, the machine will actually balance in deep water. The result? The Four Trax will churn through slimy bogs without a complaint—it's a regular four-wheel-drive paddleboat.

The braking system is another unique feature of the Four Trax. There's nothing especially trick about the stopper units—they're your typical shoe-type drum brakes. The front is a Labyrinth-sealed dual hydraulic system, and the rear is the standard rod-activated type. What's rather odd is how well they work.

Because all four wheels are hooked together by their drive linkage, applying pressure to the front brakes does in fact apply the rear brakes as well. Same with the rear units; stab the pedal down, and the front brakes are applied. Since all the wheels are hooked up via drive shafts and all are driving together, you can apply either front or rear brakes, and all four wheels are slowed in unison. Odd, but nice.