

MORE CHOICES

2004 ATK 450 QUADS

Three improved versions of
the old Cannondale quads

By the Dirt Wheels staff

❑ There is no question that the demise of the Cannondale ATV product line left a sour taste in almost everyone's mouth. When the company filed for bankruptcy in 2003, Cannondale owners and dealers across the country were in a quandary. What were they supposed to do with the machines they already owned? There are close to 8000 Cannondale owners of ATVs and motorcycles out there. What were they supposed to do? There was also a fairly large inventory of unsold units on former Cannondale dealers' showroom floors.

Few people wanted to purchase a product from a bankrupt company. The existing Cannondale product line also had several engine reliability issues, which left unresolved would result in the motors hand grenading themselves after a very short time. No one knew where they were going to get any spare parts for the existing inventory of Cannondale quads and motorcycles.

ATK TO THE RESCUE?

A small American company by the name of ATK, which builds a line of high performance dirt bikes, looked at the situation and felt that the known issues with the Cannondale quads and dirt bikes could be resolved. The company's owner, Frank White, purchased 480 tons of Cannondale Motorsports inventory. This consisted mainly of engine and OEM parts. They moved this huge parts inventory to a facility near their main manufacturing facility near Salt Lake City, Utah's airport and began to address some of the reliability issues associated with the Cannondale motors.

"I felt strongly that Cannondale was on the right track and had vehicles that were 95 percent there," said White. "We have come up with a variety of solutions to the motor problems on the earlier Cannondale 440 engines and look forward to building

from 500 to 1000 units (dirt bikes and quads combined) from our existing inventory of parts in the coming year.

"We also plan on offering our upgraded parts and service to the nearly 8000 Cannondale owners already out there. We want to continue building and supplying parts for the existing models. We have recently opened a Factory Service Department which will remanufacture and modify Cannondale motors to our new standards, which address all the existing problems we have found. Currently, we take Cannondale components and modify them with new cranks, pistons, gears, and miscellaneous parts and offer complete units for sale," says White.

"We are making our product to satisfy the demand for replacement parts and products for Cannondale's existing models."

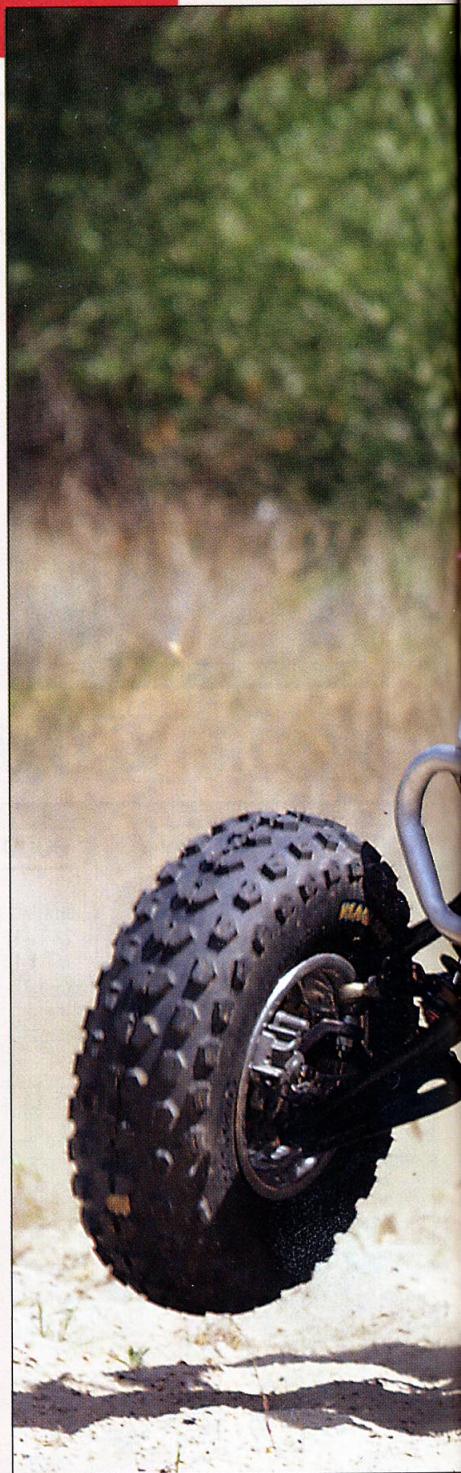
WHAT ABOUT DINLI?

"While Dinli has bought the existing patents and blueprints for the old Cannondale design, we think we have come up with an improved version of it. We will continue to offer our ATK quads for sale in the coming years. I also think our version is aimed more at the high performance crowd. We recently won the overall at the Sparta, Kentucky round of the GNCC series with Jeff Stoess aboard one of our 450 Cross Country models. I think this is the first time an American-made quad has won the overall at any GNCC race."

ATK FIXES

Here is what ATK has done to fix some of the known mechanical issues with the old Cannondale quad's engine.

- **Problem:** Crankshaft. The '02 and '03 Cannondale engines were not balanced at the factory. As a result, they suffered from excessive vibration. This in turn caused the internal engine bolts to come loose, work their way into the gears, and result in a catastrophic engine failure.



- **Cure:** ATK manufactured a crankshaft which they claim is better balanced.

- **Problem:** Piston assembly. The original Cannondale piston/cylinder assembly had a very short life span.

- **Cure:** ATK manufactured a new piston and cylinder assembly, which they say has increased the wear life of the piston to three times longer than the stock piston. In addition, the new ATK piston displacement was increased from 432cc to a full 450cc.



The improved Cannondale 440 motor on the ATK450 gave it a much improved hit from the low-end up. Engine reliability has been drastically improved with the ATK version of the old Cannondale motors.

- **Problem:** Gear ratios. According to ATK, the gap between fourth and fifth gear on the Cannondale quads was too large. The engine would tend to bog down when shifted into fifth gear.

- **Cure:** ATK has manufactured new transmission gears, which they say improve the gear ratios between fourth and fifth gear and allow the motor to pull top gear much better than before.

- **Problem:** Engine noise. There was no doubt that the old Cannondale motors sounded like

they were ready to grenade right out of the box.

- **Cure:** ATK has modified the clutch hub and other engine parts to help reduce the excessive engine noise transmitted by the old Cannondale motors.

- **Problem:** Hard to shift transmission, hard to find neutral, and issues with the transmission cartridge coming loose.

- **Cure:** When assembling the new motors, ATK has modified the shifting mechanisms, which they claim

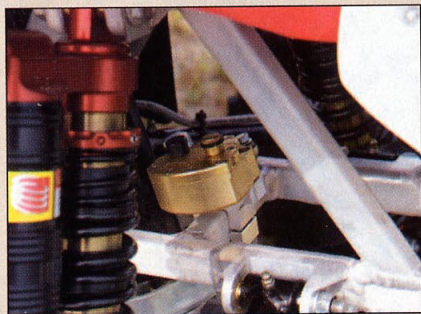
allows for improved shifting and makes it easier to find neutral. They also use their own special fasteners, which are said to keep the transmission cartridge from coming loose.

OTHER DIFFERENCES BETWEEN ATK AND CANNONDALE QUADS

Besides the engine improvements, the new ATK quads have improved fuel injection settings, a new X-ring chain system, new Ohlins shocks, new graphics, and come in red and black plastic.

ATK also offers a variety of options, which can be installed on the vehicle

ATK 450



A long list of rider options are available with the new ATK450s. You can customize the machine with your selection of shocks, steering stabilizers, wheels and tires and a host of other add-ons.

prior to being shipped to a dealer. They offer an auto clutch kit, a steering stabilizer, a Super Motard street racer package, Tire Balls for anti-flat protection, and custom suspension packages to suit differing race or play requirements.

TESTING NEW UNITS

We got together with ATK's Frank White and some of their factory engineers to try out some of their new and improved ATK quads on a recent test outing. Here is what we thought after riding the 450MX unit they brought out for us.

- **POWER:** The new motor package does seem to run much smoother than previous Cannondale quads we have ridden. With its larger 450cc engine displacement, there is now more power on tap and the shifting and gear ratios do appear to be much better than before. Even the irritating engine noise has been reduced somewhat. Acceleration is strong, from the bottom to the top of the powerband, and the new fuel injection settings do seem to help make it smoother running throughout the hefty powerband. There was not as much of a bog when shifting from fourth into fifth gear as well, so the gear ratio change does really seem to help this motor.



Jeff Stoess took ATK's first GNCC overall victory at the Sparta, Kentucky round of the woods racing Championship series. ATK offers a Motocross, Cross Country, and Economy version of the former Cannondale quads.

- **HANDLING:** We have always liked the Cannondale's responsive handling and stable chassis geometry. It will carve a high line or turn inside and steers and jumps extremely well. If it's not broke, don't fix it.

- **SUSPENSION:** While ATK says they have upgraded the Ohlins shocks on their MX and CC (Cross Country) models, we can't say we liked the settings they dialed in on the MX model we rode. The rear shocks were set up with too much sag in the rear with the front end being too stiffly sprung. This gave the machine a too stiff front, too soft rear feel on the track initially. We came back in, told them our complaints and they readjusted the suspension settings to suit us. After taking the machine back out on the MX track, we were more favorably impressed and could slam



through sections we had previously had to back off in.

- **BRAKES:** Cannondale had a good braking system to start with on their MX models. They continue to use Braking Wave rotors and pads, with steel braided brake lines fore and aft. This gives the machine competition level braking that is more than adequate for racers or hard core trail riders.

- **FIT & FEEL:** The seating, handlebar, footpeg, and overall comfort level of the ATK quad are virtually identical to the old Cannondale quads. It still feels a bit awkward at first. But once you adapt to it, an aggressive rider can move around and transition his weight changes from the front to the back with ease.

- **VISUALS:** The full race MX version of the ATK 450 has the clean lines and rugged looks of a serious motocross quad. It comes with a set of



The new ATK piston (right) ups the displacement of the former Cannondale engines from 432cc to 450cc. Piston life has also been drastically improved, they claim.

ATK 450



ATK 450MX

Engine typeLiquid-cooled, 4-valve,
DOHC, 4-stroke
Displacement449cc
Bore & stroke95mmx61mm
Horsepower/RPM.....48 HP @ 11,600 rpm
Compression ratio.....12.5:1
CarburetionElectronic
fuel injection
Ignition.....12 volt battery w/
inductive coil
Starting systemElectric start
Transmission5-speed,
manual clutch,
no reverse
ClutchHydraulic
Fuel capacity.....3.2 gallon
Wheelbase.....49.5 inches
Length/width/seat height73.5"/
50"/32.5"
Ground clearance4.5"

Suspension:
Front.....Double A-arm with dual
Ohlin shocks w/11" travel (MX model)
Rear.....Single shock swingarm
with Ohlins w/10" travel (MX model)
Brakes:
Front.....Hydraulic dual disc
Rear.....Single hydraulic disc
Tires:
Front.....20x6-10 Holesshots
Rear18x11-8 Holesshots
Dry weight370 lb.
Manufacturer suggested
retail price \$9995
(MX) \$9495 (CC) \$7995 (VR)
Address: ATK
1163 West 850 North
Centerville, UT 84014
(801) 298-8288
web site: www.atkusa.com



We thought the initial rear suspension settings on the Motocross ATK450 we rode were way too soft. It was easy enough to stiffen up the Elka shocks on our test unit.

blew up, fell off, or otherwise interrupted our on-track testing. We pounded it as hard as possible, looking for any flaws we could find. The ATK 450 MX never failed to start and ran strong from start to finish.

OVERALL CONCLUSIONS

We had mixed feelings when we first responded to ATK's offer to try out the new 450 MXer. On one hand, we were wary of the implications of testing a machine that has been resurrected from a bankrupt company.

Even though the ATK has addressed a long laundry list of reliability problems with the original Cannondale quad's motor, there is still the perception, especially with Dinli having bought the rights to produce future versions of the Cannondale quad, that this is a transitory model for ATK, until they sell out of the huge parts inventory they purchased.

Will you be able to buy a new ATK quad once they have run through their assortment of remaining parts for the latest model? According to ATK's Frank White, yes. They plan on being around for some time and will continue to produce the improved motor parts for the existing Cannondale quads for some time.

For all the people who loved the original machine and wish to continue racing and riding these units, ATK has stepped up to the plate. They offer a sound platform on which to keep these units around and running for many years to come.

With their recent overall GNCC win, they have proven they have a well thought out plan to improve the old Cannondale quads and make them even more competitive. We wish them well on their commitment to the folks who invested their hard earned money in this American-made product. □

built-in nerfs and aluminum ITP wheels and Holesshot knobbies. The new ATK graphics give it a more distinctive look.

• **RELIABILITY:** While we did not have enough time on the machine to adequately determine the overall reliability, we can report that nothing