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Christini project gains traction

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Twice the traction, doubles the action

The Christini double drivers could drag us to a new era

Story and photos by Trevor Wideman

Technology continues to march forward so it was only a matter of time before someone figured out an effective way to put power to the ground through the front wheel of a motorcycle. Christini has, and it works!

Our invitation to test ride the Christini was for the same weekend as the Beagle Bash Enduro. However when they said we would be riding at the Bearcreek Sportsman property in Hancock, NY, the decision was clear. Thankfully, the BB will be back next year. Hancock is a true off-roaders' paradise. The Bearcreek Sportsmen are a group of riders who got together to buy 1,000 acres in the mountainous area just outside of town and then laced it with challenging

trails. They only hold two or three competition events per year. The rest of time it's off limits to the general public for the enjoyment of the owners and special guests. Again this year they will host the US round of the World Enduro Championships. Our ride was part of their annual spring trail ride, in other words, an ideal venue for this unique machine.

Yamaha messed around with a front wheel drive motorcycle a few years ago with limited success. Its system was based on hydraulics transferring the power to the front end. Though it worked, it was not very reliable.

Steve Christini is the mastermind behind this AWD motorcycle and his patented system not only works, it's proving very reli-

able. The bike has been raced in some of the toughest off-road races including Last Man Standing, Endurocross and some World Enduro rounds with no failures arising from the AWD system. There are even some plans to race one in a future Dakar rally.

Christini's two-wheel, AWD business developed from similar system for mountain bicycles. It was a short step to applying the technology to motorcycles. Once the first fully-functional motorcycle was built investors took notice and got behind him and they haven't looked back since.

The system is conceptually similar to AWD in cars. Power is only transferred to the front end when the rear starts spinning. First power runs via a chain off the counter sprocket to a gearbox in the frame, and





Up to 70% of the engines' power can be delivered via a system of chains, drive shafts and differentials to the enclosed chains that run from the modified steering head to the front hubs.



then through a driveshaft that runs under the tank to gears located in the heavily modified steering head.

In the lower part of the triple clamp there is a small chain and sprocket system that drives the two counter-rotating shafts that run alongside the forks to the front-wheel drive hub. The shafts are telescopic so they don't affect the front suspension's action and counter-rotate to eliminate any torque effects.

A dry clutch is used to keep the engagement of front wheel smooth and precise and as much as 70% of total power can be transferred forward. In a situation where you don't want the front end pulling there is a switch on the handlebars to turn it off and return to normal rear wheel drive.

The motorcycle we tested was a 2006 Honda CRF250X. In addition to this model Christini has kits for the MX version CRF250 and will perhaps by this fall have kits for the 450X and some KTM models.

The system is said to only add 15lbs to the bike and absorb less than 1/10th horsepower to operate, so you don't even notice a difference – until it starts to do its job.

The trails in Hancock provided perfect conditions to test the capabilities of the AWD. Chris Smith, one of the landowners,

laid out an exceptional 18-mile Intermediate/Expert loop. It had a great mix of brand spanking new single track, rock gardens, a little bit of soft bog and lots and lots of climbs.

Initially, over the first few miles of flat, tight trail, there was no noticeable difference to a normal bike. That soon changed when the trail hit some steeper sections strewn with rocks and nasty roots where the difference became stark. While climbing, the pulling effect of the front end allowed me to hold a straighter line and keep accelerating so the back end didn't wash out.

When the power starts to transfer to the front the motorcycle definitely handles unlike others and it takes some operator adjustment. Fortunately, we were riding with two guys with a lot of experience on these motorcycles. Paul Clipper (former Dirt Bike associate editor and current bossman of Trail Rider Magazine) was one of the first guys to test one and liked it so much he bought one; our other guide was current Christini support racer Smith. They instructed me to shift my weight farther forward than would be typical on a traditional dirt bike, and it really helped.

The knack is to just trust the traction

when turning while accelerating and let the front drive pull the wheel up or through stuff impossible for a rear-driven motorcycle. These things are absolute cheaters and once you get used to the quirky surefootedness the issue becomes getting overly cocky on them!

During our ride the Honda stalled a number of times in some tricky spots that allowed the AWD advantage to really shine. One situation was mid-stream of a narrow river with the front wheel against a two-foot high ledge and no way of building any momentum. By just letting out the clutch with a bit of extra throttle, the bike pulled itself out almost effortlessly from a standstill.

Flat sweeping turns are an absolute riot. The traction advantage allows a tight inside line while applying a generous dose of throttle. The term "cornered like it was on rails" applies here. It made for some fun passing action. It could only be more fun wringing one of these attached to a 450cc on wide-open trails!

In some cases the clawing action of the front can pull you in a direction you hadn't intended to go, or faster than expected in a direction you did want to go. Be careful where you're pointing the wheel.



The company has plans to enter the Paris-Dakar Rally in the future. Meanwhile, they are looking for Honda and KTM dealers in Canada interested in adding the Christini to their showrooms.

upcoming KTM 400 versions.

Production models are now available through Christini Authorized Dealers. Christini has a supply of frames in production that can be swapped for the stock frame (like a core) to get the bike to a customer quickly. If a person wants to add the AWD to a used bike it will take longer because they will have to wait until their frame is rebuilt.

Christini is currently looking for qualified Honda and KTM dealers to retail their product in Canada. Dealers in the US have started to come on board and the future is looking bright.

Everyone who tries the AWD has the same response, "These things are fantastic!" however at an MSRP of \$5,995 (US) for a kit, they are not for everyone. For the discriminating rider, Novice or Expert, who wants the ultimate in off-road capability there is nothing better.

For more information or to find a dealer, go to www.christini.com.

In the muddy sections, where you would normally keep the front end light, having your weight forward and letting the front end do some pulling felt strange but worked well. It was cool to see roost coming off the front wheel.

This Honda 250 four-stroke is a game, strong and smooth little fellow. The only fly in the ointment was the gearing. First was too short and second was too tall so it didn't like being lugged. Those too lazy to be shifting often may prefer to wait for the