

## 1. May 2016 — Bike Review — Endeavor Trike Conversion — Take The Right Turn



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**By Bruce Mike**

My thinking when I was on my way to New Prague to pick up the Endeavor test bike was, it's got to be a lot like a Can-Am Spyder. I was so wrong. I've ridden the Spyder and it was fun but the Endeavor conversion I rode was a whole different level of fun.

The bike I rode was a converted Victory. My current road bike is a BMW R1200R but I've had my fair share of cruisers and sometimes I like floor boards and a kicked-back riding position. Adding the two wheels to the front of this Victory seemed to just add more comfort. The bike handled great and cruising down the interstate at 75 mph made me think it would be a great bike for a long distance rally.



A Gold Wing that has been coast-to-coast for testing.

Norm told me it was great fun on twisties and dirt roads so that's where I went when I got off the highway. He wasn't kidding. Again, I was surprised by this bike. I rode it pretty hard on twisty asphalt and dirt and not once did I experience any limitations.

On asphalt I expected the ride to be a lot of upper body work, kind of like a Ural, but it wasn't at all. It took a while to get used to not needing to lean and once I got that down riding it was even easier. The braking and suspension seemed to be really dialed in and worked great.

This bike on dirt was a blast. Sideways through turns at 40 mph, flingin' dirt, I couldn't stop smiling. I've ridden 4-wheelers on dirt roads and they don't even come close to the stability and comfort I felt on this Victory.

I've never been a big fan of traditional trikes. The ones with VW motors, kegs for fuel tanks, coolers for saddle bags, and the Windjammer fairings, I've always viewed as ridiculous. These new generation trikes with two wheels in front, these trikes are pretty cool.

I had the bike for a couple of days and I rode it all over the place. At every stop I got asked a lot of questions.

### **How do you back it up?**

You push it just like a regular motorcycle. It was really easy. You don't have to hold it up so that helps. You can also have reverse installed.

### **How much does it cost?**

It depends on the bike. Between \$9200 and \$9600, depending on trim and fitment. Norm will happily give you a quote.

### **Can I install it myself?**

Due to liability issues, no.

## Can I put it on any bike?

Yes you can.

The website has a ton of information. Check it out — [ido-endeavor.com](http://ido-endeavor.com).



Tearin' it up on gravel.

I'm not an engineer but Norm is. He told me his vision for Endeavor Trikes and here it is.

“Over the years trikes have been stereotyped as motorcycles for older folks with limited physical abilities. While this is quite true for all trikes, including the wheels forward design, I believe my type of conversion is more suited for a much wider spectrum and wider demographic. While a standard wheels back trike is functional and safe it is hardly sporty.

The new wave of wheels forward trikes are designed and built with 4 major engineering concerns in mind.

1.

Steering – wheels forward conversion address steering and handling as a priority. The steering geometry is basically the same used on cars, trucks and sport vehicles.

2.

Aerodynamic profile – The design layout is narrow and allows air to pass by without added resistance. Air is allowed to flow through, further nullifying air resistance. Only the wheels add drag so mileage and general efficiency is not greatly affected by the design.

3.

Functionality – Motorcycles are fun and exciting, a standard trike in my opinion is a compromise, as they are not well suited for sport riding. The current breed of sport trikes offer a non-leaning twist to the sport of motorcycling. Once acclimated to the steering and handling these trikes can be pushed into corners, run off the paved roads into gravel or onto those minimum maintenance roads. Pulling a trailer adds a transparent feel, there is added storage space. It is not a compromise rather an alternate style of riding much like a snowmobile or ATV is an alternate to dirt bikes.

4.

Custom design – My patented design is one of universal fit and will do virtually any large motorcycle. At the same time each unit is unique, I hand craft each conversion to fit the personality of the owner and machine so no two are ever exactly alike.

Now that is the easy part, the hard part is convincing people that the demographic spread for this type of conversion is wider than old guys with bad knees. I envision younger riders using this as an alternate to sport touring bikes. Ride 100 miles down the freeway, then jump off onto some gravel road to a back woods trout filled stream. Also new riders and ladies who don't wish to muscle a large Harley, but at the same time don't wish to ride a smaller bike.

I started riding bikes when I was just 8 years old and in 2007 I crossed the 1 million mile mark. Since then I have logged 142,300 miles on my trikes. I understand the thrills involved in leaning into a corner or charging up a dirt cliff but at the same time I also understand the excitement of charging through the snow on a snowmobile and grabbing some air with a four wheeler.

To me sport trikes are just one more thing, just another turn in the road to fun.”

I think Norm has the trike thing figured out and if you're in the market for something new and cool for your motorcycle, check out Endeavor Trikes. They're a Minnesota company run by a guy who rides. What more could you ask for?

**MMM**

**By David Soderholm**

I approached Norm's shop in New Prague, Minnesota not exactly sure what to expect. It seemed like an interesting idea. But honestly, how much fun could a converted motorcycle-to-trike be? I figured I'd go through and put in an honest and



Matched up just right for each application.

fair review. After all I had a fun time in 2006 riding the final pre-production test mules for Can-Am and their Spyder, but that was designed as a trike from the start. Surely Norm Kokes (Owner and creator of Endeavor Trikes) wouldn't be able to approach the competence of Can-Am and their Spyder.....right?

5 Minutes into my test ride, giggling inside my helmet; I thought I couldn't have been more wrong!

I knew after meeting Norm that his project was the real deal; real engineering, real prototype development; real patented technology and real smart solutions for the whole concept of a convertible trike kit. When I knocked on the door and walked in Norm was working on a bike that was being converted. He immediately smiled, walked up and gave me a warm greasy handshake. Cool – the owner and inventor with the greasy hands. I like that! He gave me the quick tour, showed me the shop and stopped to talk about a main frame he had just gotten done welding up. This is where his magic is.

Endeavor Trikes use a 2 part frame mounting system. There is a main frame which the steering and suspension parts bolt up to. This is a universal part and all bikes use the same proven design. The magic is in the second mounting frame. It is unique to each motorcycle model and allows the same kit to bolt to just about any motorcycle. This means that not only can you convert your bike back to two wheels easily for selling it, but you can keep the main kit and bolt it to any “new to you” motorcycle you purchase. Pure genius! It's almost a “for life” type of purchase as the main kit itself can be re-used with a different mounting frame. As I said before; real smart solutions.

I also said real prototype development and real engineering. Check and Check. Norm talked a lot about his solutions to various issues he encountered and worked out along the way. He accomplished this in a couple of ways. First of all, a sound engineering physics study with regards to steering, suspension and handling. Secondly, with running those ideas through a number of different prototypes that were built and tested extensively in the real world. He came up with some novel solutions to things that are really brilliant. Even gaining advice from Chuck Yeager's aerodynamic engineer! I take the time to tell you all this to impress upon you that this

kit is thoroughly thought out and tested. Norm is a really sharp intellectual guy who knows his stuff and my test rides would prove that.

Norm WANTS you to come and ride his Endeavor test Trikes. He is very confident that after riding them you will be impressed. He had 3 available for me to ride. They were in essence his last prototype, and a pre-production and production line unit. Wanting to get a feel for his final development settings, I decided on the production unit first. This was based upon a late model Victory V twin. Before leaving; Norm emphasized how fun they were on back and dirt roads. Nodding, I snapped down the face shield, let the clutch out and rumbled out of the parking lot.

Cruising down main street New Prague (30 mph) my first impressions were remarkable stability and agility. Turn the handlebars (no counter-steering here) a little and it responds immediately. Not darty, just responsive. Brakes were excellent. Good feel and 1 or 2 finger powerful. No abs or linked brakes here. Use the one you want and it's the one you get. Use it well and you stop well. Remember – 2 contact patches up front now. Riding the old streets and railroad tracks gave me a feel for the suspension. Intentionally hitting man hole cover depressions, railroad tracks and bumps showed a complete lack of bump steer and nicely compliant weighty feeling suspension. Nicely calibrated settings! Rolling out of town let me up the speeds. Agility stayed as did the stability, still no dartiness, just lively responsive and fun handling. Steering was tight with no apparent slop in the front end. Confidence soared..... It's hard to describe the feeling of invincibility you get from his 3 wheeled settings. It's empowering. I was having a great time and noted a few dirt roads I would hop on with the next ride.



Norm and his “dirt-tracking” prototype.

After returning, I switched to prototype #2 which is built on a well-used Valkyrie chassis. Norm referred to it as his dirt tracking exploration machine. It's a prototype – have fun and get dirty! That is exactly what I did. The differing feeling between this prototype and the production Victory I had just rode was obvious. Clearly showing the progress made in front end set-up between the two. Moving from a V-twin to a flat six was compelling also, completely changing the experience between them. Turning onto the dirt roads, fun, giggling and hilarity ensued. With no electronic nannies to impede you, you could slide around corners with the rear tire hanging out Dukes of Hazzard style to your hearts content. I actually laughed out loud inside my helmet!

It felt like a super powered ATV. Charge into corners way too fast and the front end sticks, power out and wag the rear on the throttle – try that on a standard Valkyrie!

The third bike was an 1800 Gold Wing that's been coast to coast for testing, his Pre-production model. I decided to treat this as the touring model and just inhaled some miles running down the road. Spot on and stress free. Not quite as well sorted as the Victory (as you would expect given its pre-production status), but still eminently capable of doing what late model Gold Wings do. Throw in the added versatility of running down dodgy, dirty or truly dirt roads and you have an extremely capable and flexible machine to explore where ever you want to. Heading down places or parking in fields you would NEVER do on a regular Gold Wing. Hell, throw Blizzaks on it and have fun in the winter to.

In a nutshell, that's the brilliance of the whole thing – versatility. The Endeavor kit is not only reusable, allowing the owner to easily move it to a new bike, but allows motorcycles to do things in places they or their riders would never attempt otherwise. It turns your ride into a go anywhere, stress free experience. Throwing in the fact that it's so brilliantly engineered is just icing on the cake. Make sure to visit Endeavors website <http://ido-endeavor.com/>. It's information rich so do some clicking. Remember they are local – so stop and visit! MMM thanks Norm Kokes for the invite!