Rinehart Racing Xtreme True Dual Exhaust for 2009-2010

story and photos by Neil Taylor

Rinehart True Duals set the market on fire when they were first introduced in 2003. But the advent of the redesigned 2009 Harley Davidson Touring chassis and its new under-transmission crossover exhaust demanded a complete revision to the now classic Rinehart True Duals. Gerald Rinehart answered the challenge with the all-new Rinehart Racing Xtreme True Dual Exhaust. Incorporated into this new system are innovations that surpass previous Rinehart true dual designs.

We went to Tilley Harley-Davidson to perform the install and dyno testing. Don Tilley graciously provided an almost brand new, totally stock, 2010 Ultra Classic to use as a test bed. Upon opening the box we noticed both new features and old favorites. Two improvements found on the Xtreme are internal anti-reversion louvers and dual O2 sensor bungs per pipe. The new anti-reversion louvers are welded internally, directly inside the exhaust flange. While the louver probably doesn't do much for our bone stock, short overlap cam test bike, its benefits should be apparent on larger, more aggressively cam'ed bikes in the form of a reduced bottom end torque dip. The real surprise for me, and probably the most useful improvement in the pipe design, was the inclusion of dual O2 sensor bungs.



Dual O2 sensor bungs allow for fitment on either '09 or '10 motorcycles. They also offer a convenient way to sample air/fuel ratios with out removing the bike's O2 sensors by utilizing the unused bungs.

These bungs accommodate the "standard size" '09 and earlier O2 sensors along with the new smaller 10mm O2 sensors found on stock 2010 motorcycles. Included in the hardware kit are plugs for each style of sensor so the unused bungs can be plugged. While dual O2 bungs have the practical manufacturing benefit of making one exhaust package that fits both 2009 and 2010 bikes, there are also some interesting side benefits. The unused O2 bungs could be used for easy air/fuel sampling on a dyno. Any dyno operator will tell you that sampling directly from the head pipe is much more accurate than sampling remotely with sample tubes.

Familiar technology like the trademark stepped header design is still there, it's just redesigned to work with the larger power plant and unique tuning requirements of the under-frame rear cylinder exhaust pipe. The rear cylinder exhaust pipe crosses underneath the transmission and is a full sized pipe, whereas on the factory head pipe the crossover is squashed down and significantly restricted. Cosmetics are typical Rinehart: the chrome looked perfect on our system. The chrome heat shield protecting the rear exhaust pipe is a two-piece affair, and the fitment between these two shields was perfect. The heat shields are thick, substantial covers retained with stainless steel barrel clamps. The pipes are routed



The anti-reversion louvers prevent exhaust reversion from disrupting cylinder fill. These low restriction louvers are exclusively found on Rinehart Xtreme pipes.



for peak performance, but the one drawback to that is the limited access to the engine oil and transmission dipsticks. Care must be exercised when accessing either. A cold exhaust pipe is a safe exhaust pipe.

On to installation. First, read the instructions! If you're like me, the instructions are those pieces of paper that float around, unopened, in the bottom of the box. If you're not like me, I don't have to tell you to read them, because you already have. For you non-instruction readers, install the rear pipe first, and then install the rear pipe heat shields. Do this *before* you install the front pipe. Clearance is so tight between the front and rear pipe where they cross each other that there is a cutout in the rear cylinder heat shield to provide additional clearance. If you install the front pipe out of order, you can't install the rear shield. Other than that, it's pretty easy. There's even a new set of exhaust gaskets included.

Along with the installation of the new Xtreme True Duals and a high flow air filter, we installed another new, cutting edge product, Zippers' new ThunderMax Wide Band Tuner for '08 and later "fly-by-wire" touring bikes. For those unfamiliar with the



Fit and finish of the Rinehart Xtreme exhaust is first class.



73.8 HP and 91 ft/lbs of torque. The horsepower numbers are good, but the torque numbers are really impressive!

terminology, fly-by-wire bikes are 2008 and later H-D Touring bikes. (Bikes without throttle cables.) Zippers has been selling the Thunder-Max Tuner for years but this tuner was specifically designed for fly-bywire applications. It's no small feat to engineer a tuner to be compatible with this state of the art technology, but Zippers has done it. Now I'll be the first to admit that installing this tuner is probably a bit of overkill on a stock bike with only a high-flow breather kit and Xtreme exhaust, but today's combination is rarely tomorrow's. Someday, this bike might be a 103ci, or maybe even a bigger fire breather, and spending the money on a quality wide band tuner now is money saved in the long run. Installation of the ThunderMax is truly plug and play. Remove the seat, unplug the stock ECM, install ThunderMax and plug in the O2 sensor leads, cycle the ignition switch, and you're done. Because we were installing a ThunderMax ECM I plugged the stock 2010 O2 bungs with the included



The Zipper's ThunderMax EFI Module is the first "plug and play" wide band auto tuning ECM for '08 and later touring bikes. It takes only minimal installation.

plugs and installed the ThunderMax wide band O2 sensors in the 18mm bungs.

So, how's it run? Well, unless you've been living under a rock the last seven years, you've probably already heard a bike with some kind of Rinehart true duals. The Xtreme continues the tradition of a great sounding Rinehart pipe. Power is exceptional, with 73.8 HP and a whopping 91 ft/lbs of torque (4th gear, SAE correction) recorded on Tilley's dyno. The Zipper's ThunderMax automatically kept the air/fuel right where we wanted it with no additional programming. Rideability and throttle response was snappy and responsive. All in all, a great pipe/breather/ECM upgrade, done in approximately 2 1/2 hours.

As icing on the cake, each Rinehart Racing exhaust is now backed by an 18-month manufacturers warranty. Rinehart's Xtreme True Dual exhaust retails for \$989.95. The Zipper's ThunderMax will soon be available as part of a Rinehart Performance Package. **w**

Resource

Rinehart Racing 877-264-8282 www.rinehartracing.com

Zipper's Performance Products 410-579-2828 www.zippersperformance.com

Tilley Harley-Davidson Statesville, North Carolina **704-872-3883** www.tilleyhd.com