

FTF Takes our XR1200 to Stage III

Then it's off to the drag races



After

We're back at FTF Cycles to put more punch into our XR1200 project. We've already got a Zipper's ThunderMax ECM, Zipper's 567 cams and a D&D Bobcat 2-into-1 exhaust. Now it's time to deliver as promised and make our XR breathe a little easier with some headwork then test our results.

In order to take advantage of our new cams, we want to get the heads flowing a bit better. The four-cam speed gurus at Buell Brothers Racing have offered their expertise to port our heads. We start this next stage of work by disconnecting the main fuse and removing the exhaust, fuel tank, air box, and rocker boxes as discussed in Stages I and II. Since the heads are coming off, we'll need to remove the throttle body and oil cooling lines as well.

After carefully packaging the heads up, they are shipped to Buell Bros. for a massage and heavier valve springs. In

the meantime, we'll remove the cylinders, de-carbon the pistons, and renew the base gaskets. It's a good idea to do this anytime the heads are removed. The castings looked a little rough in the throttle body around the injector area so we decided to do a little smoothing to pick up flow. Fast forward four weeks and our heads are back from Buell Bros. With our cylinders ready

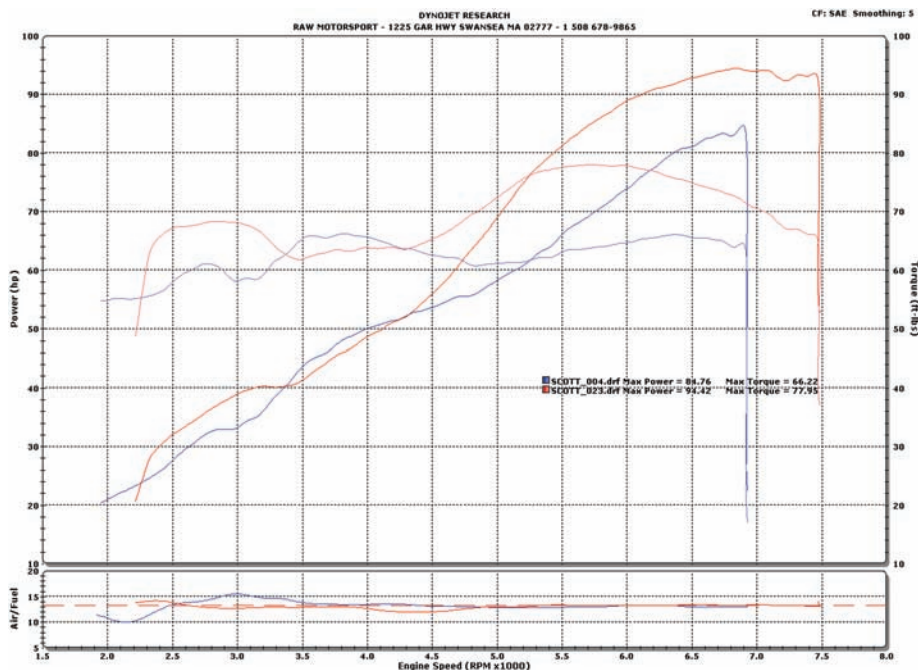


Before

to go, we lower the heads onto some fresh head gaskets and torque the heads down according to the sequence in our manual. Next to go on are the throttle body and rocker boxes. Now we'll

adjust the valves as outlined in Stage II.

Since the engine will be taking in more air, before being installed the air box is fitted with a high flow air filter element from K&N. We'll top off the front with the fuel tank and cover. Next in line is the exhaust. We're using the same D&D header but since we're moving more air in, we've got to let more out—and we have the part we need: a new



high flow muffler from D&D. The standard muffler that comes with the D&D Bobcat 2-into-1 exhaust makes for an exceptional bolt on system, but an engine with bigger cams and higher flowing heads will need greater flow from the muffler than the concentric flow baffle system will provide. D&D has crafted a new muffler specifically for our project with a perforated baffle so we can get the most out of this combination of parts.

After installing our main fuse and going through three 30-second key cycles, we initialize Zipper's ThunderMax ECM. Using our Smartlink software, we check for updates and open the latest map for our configuration. Next we install the map into our ECM and run through the IAC auto calibration. (All of these procedures are explained in detail within the Smartlink software and instructions.)

After some test driving we headed to New England Dragway for street night, to get some test runs in. The guys in tech inspection are big fans of our XR and have

been very helpful with getting us through the line and on the track as fast as possible. Several passes in, Scott was able to run an 11.6 @ 112 mph, a substantial gain over the best time of our stock XR by a full second and eight miles per hour. We were happy to come away with those results, so we headed home.

Over the next few days we ran a series of Auto Map cycles on the ECM. This is a great feature within the Smartlink software that enables you to customize your map when dealing with an exotic combination of parts that don't already have a map available within the ThunderMax library. It allows the user to rewrite the learned fuel offsets as the new base map, with a click of the mouse. In addition, we gave the ThunderMax a little more advance as we will be using this machine for one-up aggressive riding.

Next on the agenda was a visit to our friend Russ at RAW Motorsport in Swansea, MA, for some dyno testing. As with all visits to Russ, the day starts with coffee and a little bench racing. Russ has been at it a long time, and it's always great to talk horsepower with him before we get down to business.

After a quick ride to get the XR up to temp, we strapped it on the dyno to get our new horsepower and torque numbers. Just as in our testing of the stock XR, our dyno results are SAE corrected and pulls were made in fourth gear. The

XR ended up gaining quite a bit more torque after 4300 rpm and carried it to its peak at 5800 rpm, yielding 77.95 ft/lbs, an overall gain of 11 ft/lbs over stock. Our horsepower ended up at 94.42 at 6900 rpm, an overall gain of 9.66 horsepower at peak, although we did see steady gains of up to 15 horsepower in the 5000-6000 rpm range.

Bottom line: this machine is a blast to ride, and at still only 1200ccs it offers a tremendous amount of streetable power for its size. Now that we've managed to bump up the power and improve our driveline, it's time to take a look at the big picture. Tune in for Stage IV when we turn our attention to the rest of the machine. **IW**

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