



If this car looks familiar, Rick Anderson has owned the '88 since it was new, and it has appeared in numerous magazines throughout the years. Likewise, it has been run with several different combinations. Rick's latest mission is to see how much power his coupe can make with 93 octane from the corner gas station. Suffice it to say, his goals for the car were anything but modest, and the results were staggering.

Pump-Gas

Brags

MIXING BIG BOOST, BIG CUBES, AND A HINT OF METHANOL MAKES FOR MORE THAN 750 THINGS TO BRAG ABOUT

When someone says they want to build a fast street car, that can mean a lot of things. Of course, the more open road and racetracks available, the more likely you are to keep pushing the envelope of streetable performance. In the Midwest, where the roads are flat, straight, and surrounded by corn, having a car that goes fast in a straight line is great fun when the weather is warm.

As you know, we often peek in on the goings on at the inconspicuous dyno room at Anderson Ford Motorsport. The main man,

Rick Anderson, loves to test parts. Whether he's building a Power Pipe for the latest Mustang or trying to squeeze a few more horsepower out of an NMRA race car, he enjoys learning. When he's not testing on the dyno, he likes to have a fun. And to Rick, fun is a fast street car.

When it came time to freshen up his longtime project car—the famous red '88 Mustang coupe—Rick hatched the idea to see just how much power he could make with pump gas. Yes, all gas comes from a pump, so it would be easy to hedge on that bet. To be more specific, he wanted to see

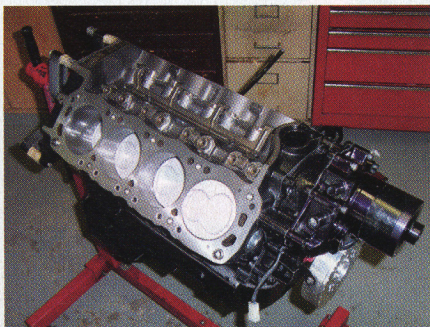
how much he could make on 93 octane. For most of us, that's the best we can do at the corner gas station. In California, 91 octane is all you can get. *[Right, KJ?—Ed.]*

With that goal in mind, Rick began putting together a Vortech YSi-blown 347 combination that he thought would do the trick. He asked if we'd be interested in following along. Knowing that odds were the results would be good, we obliged before we even heard his power goal. It turns out his goal was north of 700 hp, and that would be enough to get anyone's attention. You probably already looked at the dyno sheet, so you

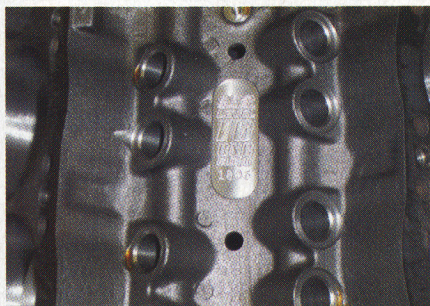
By **Steve Turner**
Photos courtesy of
Anderson Ford Motorsport

Horse Sense: Vortech's YSi-Trim supercharger is an iteration of the V-7 supercharger designed for big performance in a relatively compact package. By big performance, we're talking up to 1,200 hp and 30 psi, depending on the pulley combination. YSi superchargers are primarily seen in the NMRA Renegade class, which gives you an idea of the kind of street cars they build in the Midwest.

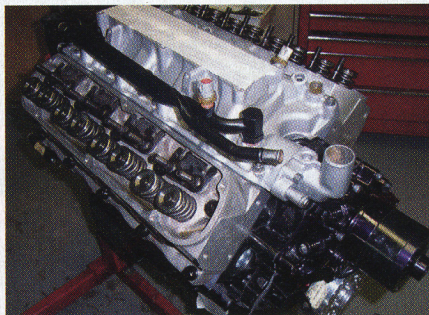
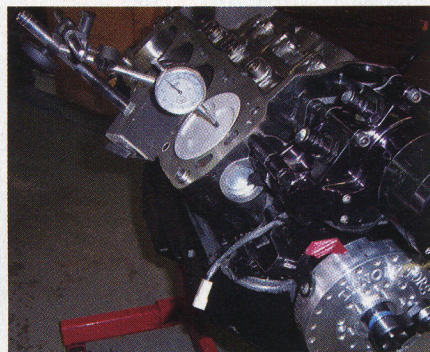
know the result was more than 700 hp. How Rick got to those numbers is just as compelling. Check out the photos, and we'll show you what it takes make the big numbers without race gas.



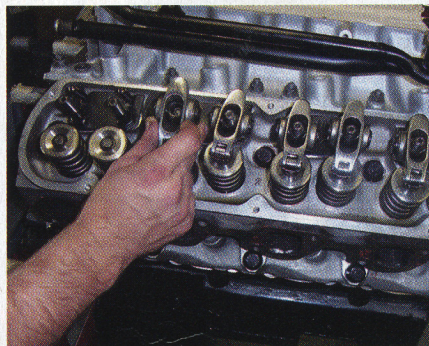
▲ It was time for a fresh engine in the coupe, and that got Rick on this path down the road to ultimate pump-gas power. As he usually does, Rick turned to D.S.S. Competition Engines in nearby St. Charles, Illinois. If you don't know about D.S.S., it's a longtime Ford-engine specialist refined in the process of building Ford engines in batches, so they build them in a supply ample enough to send them across the country. Rick ordered one of the company's Extreme XR short-blocks (\$5,900), based on an FRPP R302 four-bolt main block. It's filled with a 4340 forged crank, H-beam rods, and D.S.S. Pro-X pistons. These short-blocks are good for 1,000 hp and 8-second e.t.'s.



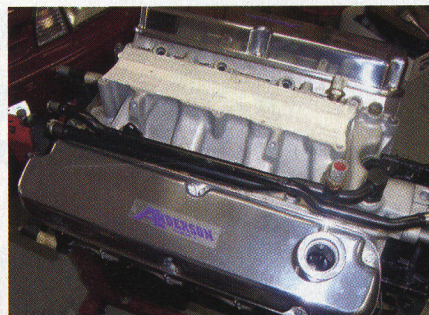
▲ In recent years, D.S.S. has invested significantly in Computer Numerically Controlled (CNC) equipment and puts it to good use prepping blocks, porting cylinder heads, and building main support systems. CNC-prepped blocks are the latest rage at D.S.S., as it is believed a properly prepped block results in good ring seal and more horsepower. Rick's R302 received the Level 10 treatment, which includes 35 blueprinting operations and promises 40 hp compared to a standard block. For stock two-bolt blocks, D.S.S. also offers a Level 20 prep package that makes these blocks as strong as possible.



▲ With TDC confirmed, Rick installed his Trick Flow Twisted Wedge heads featuring AFM Stage III porting (\$2,388). These are the standard TW heads with healthy porting—no race heads here. Remember, this is a street car. The lower intake also in place is a Trick Flow R lower, which Rick will top with a Vortech Mondo Box upper intake. That package goes for \$788, but it supports big power.

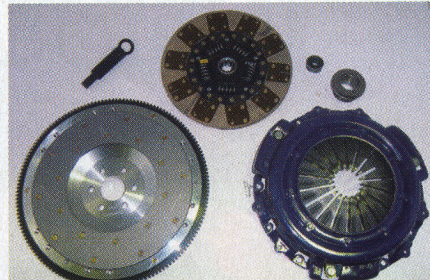


▲ Rick has taken a liking to the affordable line of roller rocker arms from PRW. For this combination, he chose the stainless steel in the 1.7:1 ratio (\$222.75). These lightweight rockers aren't only strong, they also provide extra valvespring clearance, coming in handy when you want to rev to 7,000 rpm. The rockers that work with AFM's B-451 (\$299) camshaft won't cause any problems. This cam is one of the company's Hi-Rev versions and is designed for up to 20 pounds of boost and 6,800 rpm on stroker small-blocks. Naturally, these heads have AFM's Hi-Rev valvespring package as well.

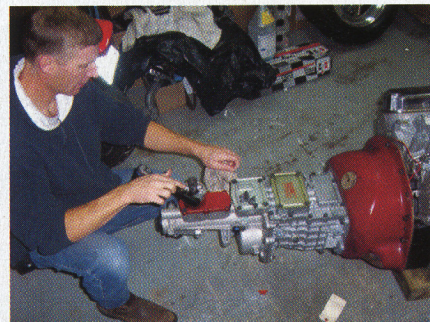


▲ Rick couldn't help but top off the rockers with a set of AFM's polished valve covers (\$113.56). If you long for those chrome stock covers from the old Ford Motorsport SVO catalog, these will make you smile.

◀ After installing the Meziere electric water pump and an Innovators West damper, Rick made sure the timing pointer was truly at Top Dead Center. This is critical when you're playing with timing on a blower car. If your timing pointer is out of whack with true TDC, you could end up chasing your tail and breaking parts.



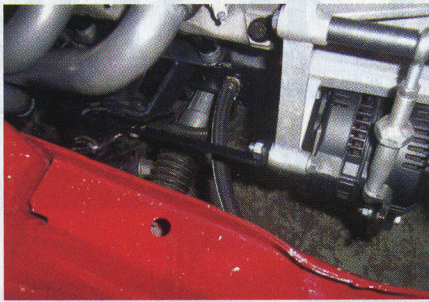
▲ High rpm isn't all about the valvetrain and intake; you need a lightweight clutch and flywheel to let the engine rev freely. The setup must offer enough grip to put more than 600 lb-ft to the ground. As such, Rick commissioned AFM's own line of Hi-Rev clutches designed to allow shifting as high as 7,600 rpm without the pedal sticking to the floor. For his car, Rick opted for the Stage III unit (\$550) and one of AFM's Superlight flywheels (\$329), which is 14 pounds lighter than a stock flywheel.



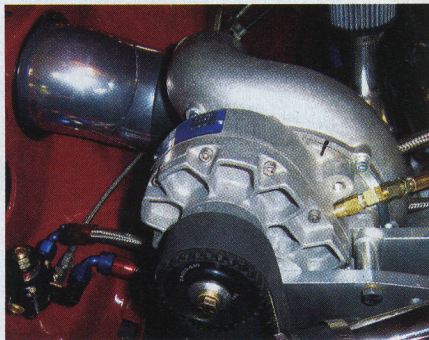
▲ Similar to many Mustangs, Rick still loves to bang gears in his fast street car, but a T5 isn't going to live in this one. As such, he turned to the crew at ProMotion Powertrain for one of the company's prepped Tremec TKO 600 five-speeds (\$2,990). These Pro-Shifted TKOs feature a face-tooth gearset, which allows shifting at 7,000 rpm and withstands up to 850 hp. These transmissions are standard equipment on many of the race cars in our NMRA Real Street class. For more information, see our Dec. '05 issue ("Rock the Gearbox," p. 134).



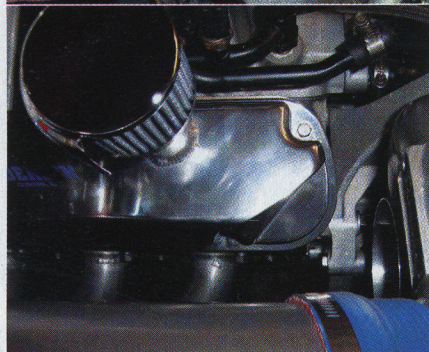
▲ Finally, Rick is ready to drop the engine in place. Unlike most of us, he actually takes the time to use a level to ensure the motor goes in straight. We're not sure if Rick is just a stickler for right angles or if he's trying to eek out that last horsepower by reducing driveline bind. Maybe he's just trying to freak us out.



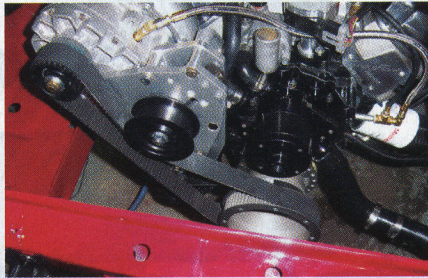
▲ Since Rick knew the belt was going to put a steady load on the blower bracket, he constructed this extra support that ties the blower bracket into the K-member. You need some fairly rigid motor mounts in place to use this kind of setup. Rick employed solid mounts in his street car. So *that's* why he used the level.



▲ Rick puts AFM Power Pipes on all his cars, but they don't all get rigidly mounted YSi-Trim superchargers driven by cog belts. This setup is only for cars that Rick wants to drive to work.



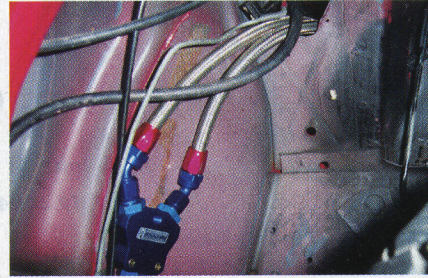
▲ Moving to a larger blower such as the YSi means you're bound to have some bumps in the road. It became clear that Rick's pretty valve covers wouldn't allow his experimental 5-inch Power Pipe fit on the blower's inlet—the standard 4-inch Power Pipe fits fine. As such, Rick did some customizing with a hacksaw and a welder. This trick didn't interfere with the rocker arms and left plenty of room for the 5-inch Power Pipe.



▲ Here's the finished product, which kicked out more than 24 pounds of boost on Rick's combination. This is an AFM Stage 1 YSi kit (\$3,450), which is a tuner-style kit that leaves out a lot of the parts you might already have but includes the parts you need for big power. The Stage 1 kit includes 30-tooth upper and 73-tooth lower Cogged Pulleys, an AFM Power Bypass Kit, a Vortech Mondo bypass, and all the necessary bracketry and hardware. Rick added an adjustable alternator bracket to allow tensioning the accessory belt in the absence of a water-pump pulley.



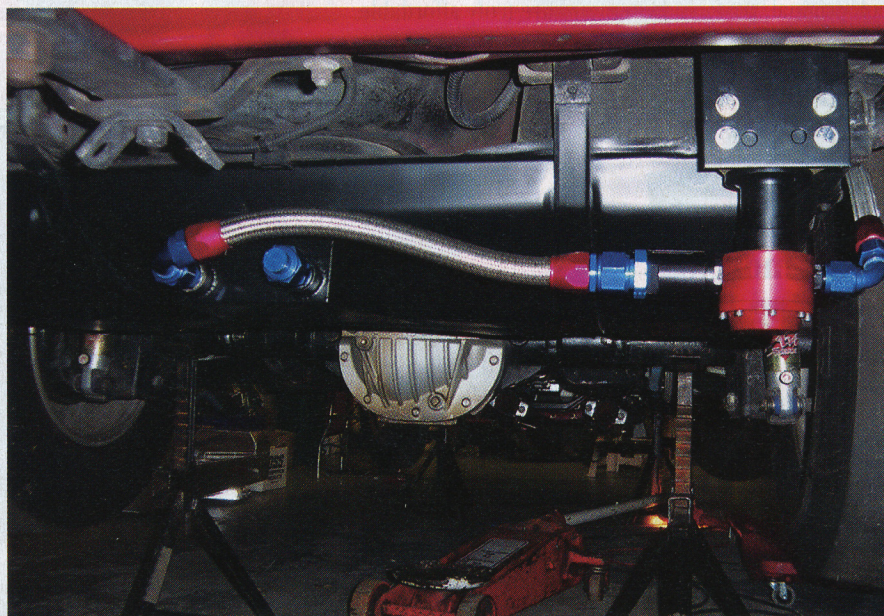
▲ Driven by the fuel needs of a project like this, Rick created a new AFM/Mallory Starter Fuel System (\$1,120), built around Mallory's 5160 electric fuel pump. The kit includes the AN fittings, hoses, rails, a Y-block, and a regulator. He says this system is good for up to 1,200 rwhp. The included fuel rails have extra clearance around the injectors so they work with a lot of different intake manifolds.



▲ As is typical of big fuel-system installs on Fox Mustangs, Rick mounted a Y-block inside the passenger-side inner fender, then routed the lines to the fuel rails, and on to the regulator. This monster fuel system feeds eight Delphi 85-lb/hr injectors (\$565), which proved easily up to the task of fueling the pump-gas combo. The injectors get the proper instructions from the PMS, thanks to a like-calibrated mass air meter from PMAS (\$449).



▲ You can tell how long it's been since Rick's car has been together, because he hadn't upgraded the car's PMS to the latest Series IV spec. He did so with this upgrade kit (\$200). It includes the cool new handheld controller and access to new PMS functions such as tuning by boost, tuning by air-charge temp, individual cylinder tuning for timing and fuel, and much more. If you aren't familiar with the PMS, it plugs in between the factory wiring harness and factory engine-management computer and delivers the power of a stand-alone computer with the ease of a preprogrammed flash tuner.



▲ You'll have to provide your own sumped tank to properly set up this type of system. Rick couldn't speak highly enough about this fuel pump, saying it delivered 160 gallons per hour through 16 feet of fuel line, even at 60 psi. That's a lot of flow. Another reason he chose the pump was its compatibility with alcohol—thus E85, should he wish to try alternative fuel testing.