

IT'S ALIVE!



BY MICHAEL GALIMI
PHOTOS THE AUTHOR

Zombie Coupe shows signs of life with some baseline numbers and a lot more to come

This month we landed in Massachusetts to check-in on our resident living-dead project car, Zombie Coupe. Last installment the capable crew at Dez Racing bolted on Edelbrock heads, intake, custom Dez camshaft (by Comp Cams), Probe rocker arms, Moroso oil pan, and all the other odds and ends that go along with a long-block build. The Coast High Performance bottom-end displaces 363ci thanks to a Scat steel crank and rods, and Probe pistons. The rest of the car features UPR suspension front and back, Dynamic Mighty Mite C4 and TCT torque converter, and an Aeromotive fuel system. With the engine in, Dez Racing's Doug Paradise bolted on all of the ancillary items as we got the new powerplant fired up and dyno tested.

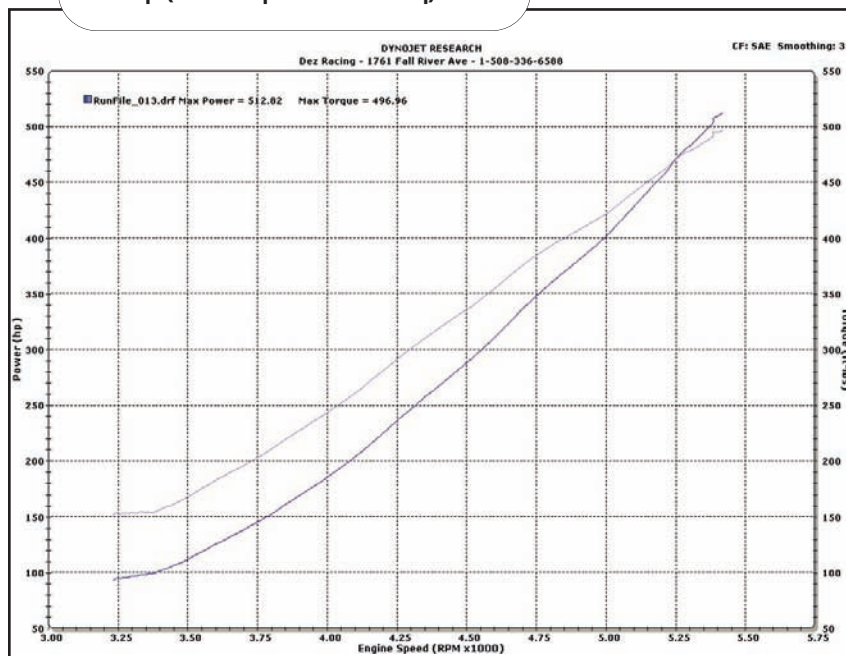


The first step was to slide in the completed engine and we bolted it to the UPR tubular K-member with a set of their solid motor mounts. With the engine firmly in place the fun began, Kooks Headers and Exhaust was tapped for a set of long-tube headers. Kooks offers a variety of off-the-shelf headers for Fox-body applications in different sizes and shapes to fit most cylinder heads on the market. We went with 1-7/8-inch primary tubes and a three-inch collector given the size of the engine and its supercharged nature. We are cramming an extreme amount of air into the motor, so there has to be a way to get it back out. A Flowmaster three-inch H-pipe and after-cat exhaust system completes the setup, which also includes tail pipes. Paradise had to some modifications to get the mid-pipe to mate with the Kooks headers but the finished product sits tight under the car for excellent ground clearance and isn't as loud and raspy as one would think given the aggressive camshaft profile and large diameter pipes.

Next was to install a ProCharger D-15C supercharger system, complete with a front-mounted air-to-air intercooler. Paradise installed it before the other accessories so he could configure everything around the centrifugal blower head unit and drive belts. Unlike some of the new Mustang supercharger kits, Fox-body blower systems all utilize a dedicated drive system separate from the factory serpentine belts. But given the blower itself hangs off the driver's side of the engine, the



Cutting right to it—Zombie Coupe's stock ignition limited us to 5,300 rpm. Despite that challenge it still produced 512 rwhp in back-to-back dyno pulls. That is 138 rwhp and 134 rwqt higher than our baseline with a different engine and blower setup (374 rwhp and 362 rwqt).



The completed long-block was bolted into the engine bay and then Paradise began bolted on everything else including the ProCharger D-15C kit, Kooks headers, Meziere water pump, Anderson Ford Motorsport Power Pipe, Pro-M MAF-sensor, Ford Racing Cobra Jet fuel injectors, and Flowmaster exhaust system.



The first step to installing the stainless-steel Kooks long-tube headers was to bolt on the adapter plates for the diagonal bolt-pattern header flanges. The Edelbrock E-205 heads feature a standard header bolt-pattern while the Kooks long-tube headers utilize a diagonal bolt-pattern.



Once the tubes were snaked through into the engine compartment the car was lowered and Paradise bolted each one to the adapter plate. Note the excellent fit on our engine, there weren't any clearance issues with the strut towers, K-member, or even the steering shaft.



The Kooks headers can be disassembled and Paradise installed one tube at a time, from under Zombie Coupe.



The 1-7/8-inch header tubes are joined together via a three-inch collector, complete with a Kooks-exclusive spike. The internal spike is designed to enhance exhaust scavenging.

IT'S ALIVE!

accessories have to be moved around to get it all to fit. The ProCharger blower brackets have provisions for the re-organized engine accessories.

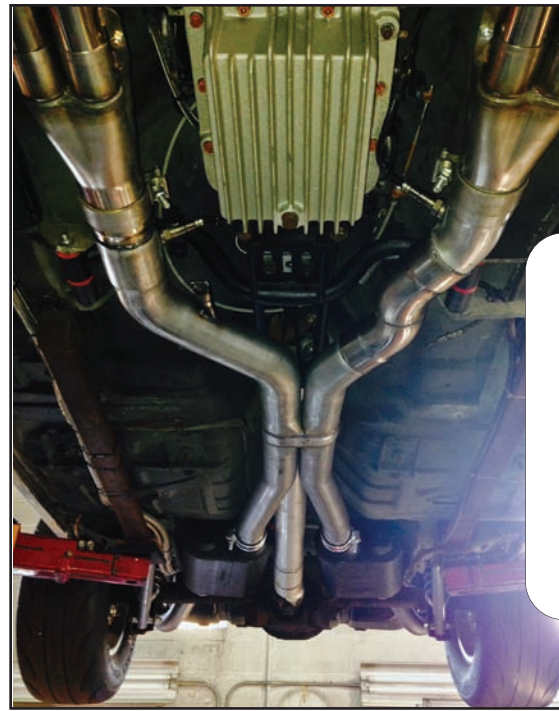
Once the supercharger was bolted on Paradise pulled a Meziere WP312B electric water pump out of the shop's inventory. Meziere offers the pump in several different colors and we went with a black anodized version to go with our black valve covers and intake manifold. This version of the popular Meziere pump features a freewheeling idler pulley in order to run inline with our other accessories. Those who don't need an idler pulley can run the WP311B, which is a similar pump minus the pulley. The WP312B flows 55 gallons-per-hour, which is the volume Meziere recommends for turbocharged and supercharged engines. Naturally aspirated applications can run one of the company's 35 gallons-per-hour water pump. We've worked with this water pump on other project cars over the years and it has proven to be reliable and quite capable of moving enough water to keep your engine cool in street applications.

Powering up the Zombie Coupe and keeping the water pump running hard, the big Aeromotive fuel pump flowing, and everything else associated with a street machine is the job of a PA Performance alternator. Naturally we selected a black finish on it to go along with our Darth Vader motif. The 1619 alternator from PA Performance features a maximum output of 160 amps and 80 amps at idle. The alternator was built as a direct bolt in for Fox-body Mustangs albeit a minor mounting modification when used with stock brackets thanks to a slightly larger body. We didn't have any clearance issues with the ProCharger mounting location, which differs than the stock setup.

Pulling all of this together and making it run effortlessly is the job of the Pro-M Racing stand-alone EFI, which is a plug-and-play system. We also added a Pro-M Pro-Tube (three-inch diameter) MAF sensor in a blow-through setup as per Dezotell's strict instructions. One of our first modifications when we kicked off the Zombie Coupe project last year was adding the Pro-M stand-alone EFI system. We were attracted to the system for a few reasons, first was its simple plug-and-play capabilities. The other was the self-tuning feature that allows us to modify and test parts on Zombie Coupe without relying on a shop for a re-tune.

Zombie Coupe initially made 374 rwhp with the supercharged combo that featured a stock bottom-end, Trick Flow heads, custom cam, and a Vortech S-trim blower. The dyno results were impressive considering the AOD transmission. Here we were several months later and we are putting the Pro-M fuel injection system to the test with a new 363ci engine, larger supercharger system, blow-through MAF sensor, and a set of Ford Racing Cobra Jet fuel injectors. Essentially, it is completely new setup from the engine to the induction system. The only adjustment to the EFI system was to inform the ECU about the new fuel injector sizing and MAF sensor.

Dezotell fired up the car with one twist of the key—the idle was smooth and even



Once the headers were in place, Paradise added the Flowmaster H-pipe and after-cat exhaust system. The H-pipe didn't mate properly with the driver's side collector, so Paradise cut off the H-pipe end, welded on a new, angled end, and bolted it all together.

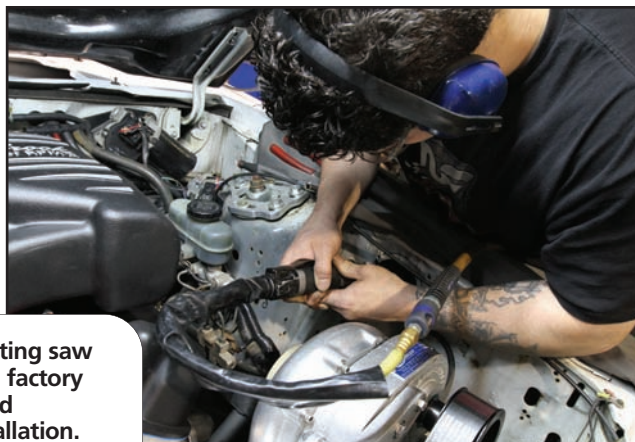
With the exhaust buttoned it was time to work under the hood, first order of business was to get the ProCharger D-15C supercharger kit on the stroker motor. Dezotell selected the Renegade brackets for this installation because he likes the thicker mounting brackets and tensioner setup.



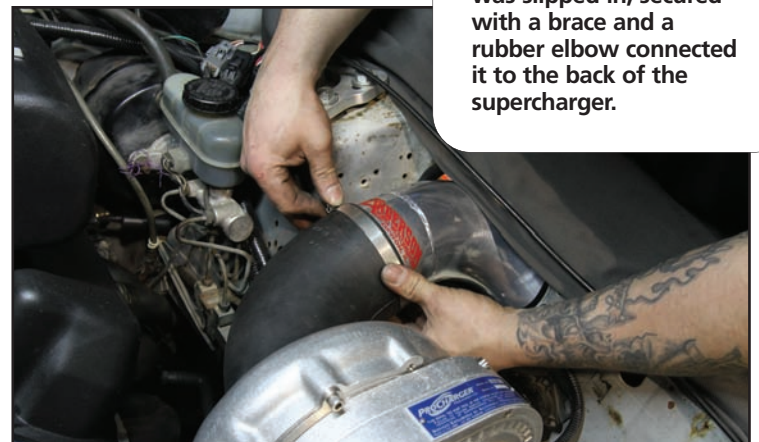
A SFI-certified balancer is required for any vehicle running 10.99 or quicker. It is also helpful to have an excellent damper to eliminate harmful harmonics in our stroker engine. We tapped ATI Performance Products for a 28-ounce Super Damper.



Providing fresh air is an Anderson Ford Motorsport Power Pipe. The inner-fender hole had to be enlarged for the addition of the Power Pipe so Paradise outlined the pipe and made a cut.



An air-powered reciprocating saw was used to cut open the factory sheetmetal for a clean and effective Power Pipe installation.



Once the inner fender was opened, the pipe was slipped in, secured with a brace and a rubber elbow connected it to the back of the supercharger.

IT'S ALIVE!

thanks to the self-tuning Pro-M ECU. We were surprised but Dezotell commented that the quick-reacting ECU is to credit for the excellent idle and part-throttle characteristics. We didn't waste any time and strapped the car down to the dyno. Our hopes were high but Dezotell expressed concern with Zombie Coupe's stock ignition system—our MSD 6AL (installed in the mid-'90s) stopped working during our baseline runs with the old motor. Hindsight, Dezotell was right and the engine would only pull to 5,300 rpm, where it began to break-up. The Dynojet showed Zombie Coupe was producing 512 rwhp and 496 rwtq in its shortened run. Boost buzzed up to 13 psi and Dezotell is confident it will reach around 15-16 when we make a clean pull to the 6,600-rpm redline.

So what's next? One call to Pro-M remedied our problem. The engine harness was removed and sent back for an upgrade. The company offers a coil-pack add-on to the ECU system, which will give us a serious upgrade in ignition capacity. Tune in next month as we install this new ignition system and let the stroker engine and ProCharger spin to redline in hopes of achieving big power. ■



The ProCharger kit comes with an air-to-air intercooler that mounts behind the front bumper. This where experience comes into play, Paradise built new spacers and moved the intercooler rearward to avoid having to cut up the LX front bumper cover.

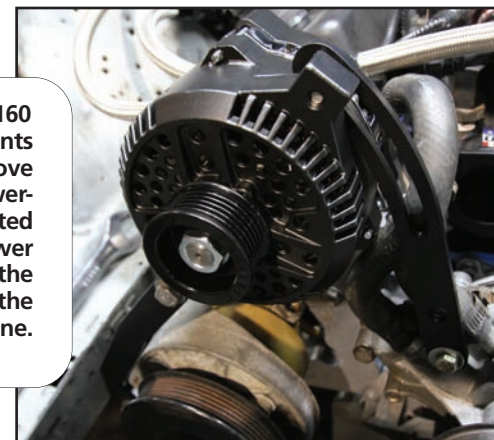


The supercharged 363ci engine gets fed 93-octane pump gas via Ford Racing Cobra Jet fuel injectors (80 lb/hr). We used a set of EV1-to-EV6 adaptors from Ford Racing.

A black Meziere WP312B water pump was selected for its performance first and looks second, though both are equally impressive. The billet water flows 55 gpm, which is what Meziere recommends for supercharged applications.



The PA Performance 160 amp alternator mounts easily and cleanly above the relocated Power-Steering pump. We opted for the upgraded Power Wire kit (PN9901) and the black coating to match the rest of our engine.



A 3.40-inch upper blower pulley combines with a 7.65-inch crank-pulley to provide our Pony with 13 psi of boost at 5,300 rpm. We expect that boost reading to shoot up to around 16 psi when the engine is singing at its 6,600-rpm redline.



The Pro-M Racing stand-alone EFI system is easy to install and use. Its self-tuning capabilities made our engine swap effortless when it came time to run it on the chassis dyno. Dezotell merely updated the MAF transfer function and fuel injector sizing and the Pro-M ECU did the rest.

SOURCES

Anderson Ford Motorsport
AndersonFordMotorsport.com
888 | 715 | 6487

Dez Racing
DezRacing.net
508 | 336 | 6588

Meziere Enterprises
Meziere.com
800 | 208 | 1755

ATI Performance Products
ATIRacing.com
877 | 298 | 4783

Flowmaster
FlowmasterMufflers.com
707 | 544 | 4761

PA Performance
PA-Performance.com
877 | 471 | 8010

ATI ProCharger
ProCharger.com
913 | 338 | 2886

Kooks Headers and Exhaust
KooksHeaders.com
866 | 586 | KOOK

Pro-M Racing
ProMRacing.com
336 | 644 | 8668