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OF BONNEVILLE



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HOT ROD WHERE IT ALL BEGAN

We Drive The 2014 Z/28 Camaro

We Wreck Just About Everything Trying to Beat This Camaro (and still don't)

By [Elana Scherr](#), Photography by [Wes Allison](#), Hot Rod Staff
Hot Rod Magazine, March 24, 2014



"Well, they're pretty confident, aren't they?"

So started a HOT ROD staff meeting that would result in us flying to Birmingham, Alabama, in the middle of a snowstorm, bringing a Mustang to a Chevrolet track test, crashing the legendary Big Red '69 Camaro, nearly overpowering a dyno, and seriously considering bank robbery as a way to afford the new '14 Camaro Z/28.

It began when we received an invite from Chevrolet to come test its new '14 Z/28, and not just test it, but bring whatever we wanted to challenge it, and whomever we wanted to drive it, on the 2.38-mile Barber road course in Birmingham, Alabama. We knew the Z/28 would be a fearsome adversary, videos of a test car running a 7.37.47 around the famed Nurburgring in Germany (faster than a Porsche 911, Carrera S, and a Lamborghini Murcielago, and in the rain no less!) had already been circulating, and we'd had a preview of the car's massive



Because everyone likes a little healthy competition, we brought along some fellow legends to give the new Z some encouragement. R. J. Gottlieb brought out “Big Red,” a ’69 Camaro that many say kickstarted the pro-touring movement. A little newer, but no less formidable was Jack Goldey’s ’13 Boss 302 Laguna Seca-edition Mustang. Ford was a few years ahead on the whole “bring back a legendary Trans-Am name” thing.

Rehydrating a legacy name is marketing magic these days. Ford beat Chevy to the punch on the Trans-Am revival, introducing the two-year only Boss 302 Mustang for ’12 and ’13. The Boss 302 Laguna Seca is, like the new Z/28, intended to be a track car. It too has a plethora of downforce-increasing rear spoilers, and engine-cooling hood extractors. Bracing replaces the back seat in the Boss, and a 444hp 5.0L moves it fast on the straights, while duct-cooled 14-inch brakes slow it down before the corners. Look up reviews of the Laguna Seca edition and you won’t find a bad word about it. The Boss was an instant success with the corner-burning crowd, and it seemed like a likely choice for Internet bench racing between the Blue-Oval and Bow-Tie keyboard crew chiefs. We found a willing participant in Jack Goldey, who said he’d drive his ’13 Boss out from Florida to be part of the test. Jack happened to be friends with nine-time champion racing driver Randy Pobst, so that settled the question of who would drive the new Z/28 and the Boss.

To balance out all that new car tech, we wanted the baddest, meanest, most old-school muscle car we could find. Something carbureted. Something that had never even heard the terms “LS engine,” or “traction control” let alone had such installed. The Z/28 legend started with Trans-Am racing, so we considered bringing a vintage race car, but the owners of the few that exist were less than enthusiastic about the idea. We didn’t want a showpiece, we wanted someone who would really go for it. Someone who had made hot rod history out of running against Corvettes and Ferraris. There was only one choice, R. J. Gottlieb’s Big Red Camaro.



Big Red has a variety of engines to choose from, depending on the type of racing R. J. is pursuing. For this test, they used the “Peanut” a 540ci Brodix big-block Chevy built by Larry Mollicone. The engine is stuffed with a Crower crank and Carrillo rods and topped by AFR heads and an 850-cfm Holley Dominator. There were no other carburetors in sight that day.

Big Red first made waves in 1987, when R. J. , then only 17, made a banzai run in a hopped-up '69 Camaro during the La Carrera Open Road Race. R. J. hit some high speeds during that race, but he also hit a ditch. Skip ahead to '89, with Big Red's classic body placed on a full-tube Trans-Am chassis and powered by a 540ci big-block. R. J. ran the Silver State Classic, and took First Place two years in a row. Since then, the Big Red team has competed in a variety of motorsport events including hill climbs and land speed events. When we asked R. J. if he'd be interested in running at Barber, he said "Well, I've never driven that track, and the car is currently in Bonneville trim, so we'd have to change the engine, suspension setup, and ground effects, but yeah, we'll be there." His team had two weeks to get the Camaro prepped and towed 2,000 miles out to Birmingham.



Big Red may look like a muscle car on the outside, but the interior of the '69 Camaro tells a different story. By comparison, the Boss 302 and new Z/28 are well-appointed luxury cocoons.

We really weren't sure if either of our cars were going to show up, so when we got to Barber, it was with some relief that we spotted the bright Follmer yellow Mustang sitting outside the track entrance, looking a bit out of place in the center of a gaggle of test Camaros. A few minutes later, we heard the sound of an extremely angry Chevy big-block. That let us know that Big Red made it as well. Time to get busy.

Birmingham was experiencing some very uncharacteristic cold weather, something that had the GM engineers somewhat concerned about track conditions, and the rest of us somewhat concerned about freezing to death. The new Z/28 offers air-conditioning only as an option, but

luckily heat is standard. We spent much of the morning doing “scientific” study of the car’s interior. Our test drivers, racer Randy Pobst and Big Red’s owner R. J. , didn’t have that luxury. Damp track or no, we needed numbers. While Chevy, R. J. , and Jack prepped their respective cars, we got a rundown on what the ’14 Z/28 was packing.



The '13 Boss 302 is a 5.0L V8, rated at 444 hp. Owner Jack Goldey hasn't modified it...yet.



Jack Goldey had a rollbar and six-point harness installed in his '13 Boss Mustang for track days and competition use. Jack said he added the huge SVO tach because "I wanted one ever since I started reading HOT ROD as a kid."

The goal for the Z/28 was lighter weight, and the curb weight of our track car was 3,820 pounds. That's about 300 less than the ZL1. To achieve the slim-down, the Z/28 offers things like air conditioning only as an option. There's no flashy touch screens, no heavy supercharger. It's got a hand-built naturally aspirated 7.0L LS7, a Corvette engine in a Camaro, just like in '70. Unlike the Boss 302, the Camaro has kept its back seat, although it's been structurally lightened. Chevrolet already has a two-seater, and the goal with the Camaro is to steal BMW and Porsche fans, not Corvette customers. Additional pounds were shed in the trunk--no upholstery there, and by using a thinner rear-window glass. Even the sound system was reduced to a single speaker (?), and that was kept only because federal requirements insist on a seatbelt warning chime. Will you notice the drop in poundage? We found the car felt leaner and less claustrophobic than an SS or ZL1 fifth-gen, but that probably had more to do with the sparse interior than any actual weight loss. Many of the Z/28's most impressive components won't come into play unless you're on a racetrack.



Unlike the ZL1, the Z/28 is naturally aspirated, giving up horsepower in favor of weight. The 11.0:1 LS7 boasts titanium intake valves and connecting rods, CNC-ported heads, forged crankshaft and steel main bearing caps and a dry-sump oiling system.

Take for example, the sophisticated airflow management. Downforce on the Z/28 starts at the very tip of the front splitter, designed to withstand up to 250 pounds of pressure. Rocker moldings, wheelwell extensions, and deflecting flares flank the Camaro and work back to a rear spoiler topped by an (optional) Gurney Flap (the wickerbill protruding from the rear wing). The most complex aero takes place beneath the car, where a bellypan fed by various NACA

ducts and inlets makes sure that cool air goes where needed, and no errant vortices hang around to cause unwanted lift or drag. Airflow was such a priority that the iconic Chevy Bow Tie in the grille was hollowed out so as not to be a restriction. GM says this moves an additional 2.5-cubic feet of air per minute through the engine compartment and out the carbon-fiber hood extractor, plus it allowed someone with a penchant for wordplay to come up with the catchy phrase, “Flow Tie.” Cute.



Much has been made about the non-standard air-conditioning in the Z/28, but predictions are that most people will spring for the option. Adding air, which also adds the seven-speaker sound system, will plunk about 31 pounds back on the Camaro.

All that high-speed downforce won't be of much use if you can't turn at speed, so Chevy spent a lot of time, and a lot of money, on suspension and brake upgrades specific to the Z/28. No Magnetic Ride Control here, the Z/28 uses a tuned monotube shock designed by Multimatic Inc, which makes dampeners for F1 racing. Chevy says the spool-valve technology in the shocks allows for a more tunable shock, capable of a wider range of dampening curves. The Brembo carbon-ceramic disc and monobloc six-piston front and four-piston rear calipers alone cost more than a track prepped Miata, but they bring the car to a stop from 60 mph in an eyeball-loosening TKTK seconds. On the track, we saw TKTK g in the corners, but nothing is sloshing around or overheating in the Camaro except maybe the passenger. Besides a dry-sump oiling system, the Z/28 8.6-inch rearend features a Torsen helical-gear limited-slip diff and gear-lube cooler, and baffled fuel tank.

To make the most of that track tech, Randy Pobst got behind the wheel and ventured out to make laps: 1.37.21, 1.36.34, and 1.36.27 seconds. Randy came in describing the track as “slimy.” There was some discussion with the GM crew, and Randy went out again, this time keeping an eye on the tire pressures, which the new Z/28 will helpfully display in real time on the dashboard. “The [Pirelli] P Zero Trofeo R is very much like a race slick,” Randy told us, “the temperatures really affect the grip, and it takes a few laps to get them up to temperature in the cold weather. Once we dropped the pressure, I had a lot more confidence, and was able to push it harder.” The results of that push? 1.36.17, the fastest time of the day.



Barber Motorsports Park is a 16-turn, 2.38-mile road course. It was originally designed for motorcycles, and is considered a tight, technical course, especially for street cars. To get the best out of our test cars, we left the driving duties to Randy Pobst and R. J. Gottlieb.

How would our privately-owned muscle cars stack up against the factory-prepped machines? Randy took a lap in the Mustang to find out. He ran 1.40.52, and came in complaining about the brakes. The Boss no longer had its stock pads, and the “upgrades” weren’t stopping the car as quickly as Randy would have liked. “I think the brakes held the Mustang back by at least a second,” Randy said later.



Then R. J. took Big Red out for a turn. The '14 Z sounds good, it has tri-Y headers and 3-inch exhaust. It's not a quiet car. The Boss sounds better. One of the major selling points for the Mustang when it came out was its burping, fire-spitting exhaust. Neither of those cars can hold a candle to the sound of an old-school big-block revving up on the straightaway. All the GM guys came out to the pit wall to see R. J. go by. They might have been just a little nervous, or maybe they, like us, just liked the rush of watching 800+ hp on track. The Z/28 team is made up of real car guys, several of them, like chief engineer Al Oppenheiser and fellow engineer Mark Stielow, are owners of vintage Camaros themselves. R. J. made a few laps and then came in to try a different set of tires. About half way around the track, Big Red set a wheel off and ended up sliding over the wet grass into a soft barrier. Holy crap, we crashed the Big Red Camaro!

As often happens with a get-off, there were some nervous minutes until we heard R. J. was unharmed, and they got the '69 Camaro out of the damp grass and back to the pits. The low-speed crash didn't damage the Camaro's undercarriage, but it did crumple the driver-side fender and part of the front air dam, just enough damage to keep R. J. from heading back out on track to try and beat the 1.41.84 that he'd turned before the crash. We thought R. J. would be pissed, but he just shrugged, and then got to work repairing the damage enough that we could have him take Red out on the track for photography. "You can't say I wasn't trying," he said.

Everyone would have liked to see if Big Red or the Boss could have bettered their times, but we had a dyno date across town, and needed to get there before it snowed, because yes, the weather forecast in Alabama was calling for flurries. We piled into our pony cars and headed 30 miles to SpeedSouth Motorsports.



We took a roadtrip to SpeedSouth, where Jim Summerville put both our red Camaros on the roller. Jim uses a Mustang dyno, as apposed to the more common Dynojet. He feels the results, although sometimes "lower" are more useful in predicting real-world performance.

BIG RED VS. Z/28 VS. BOSS

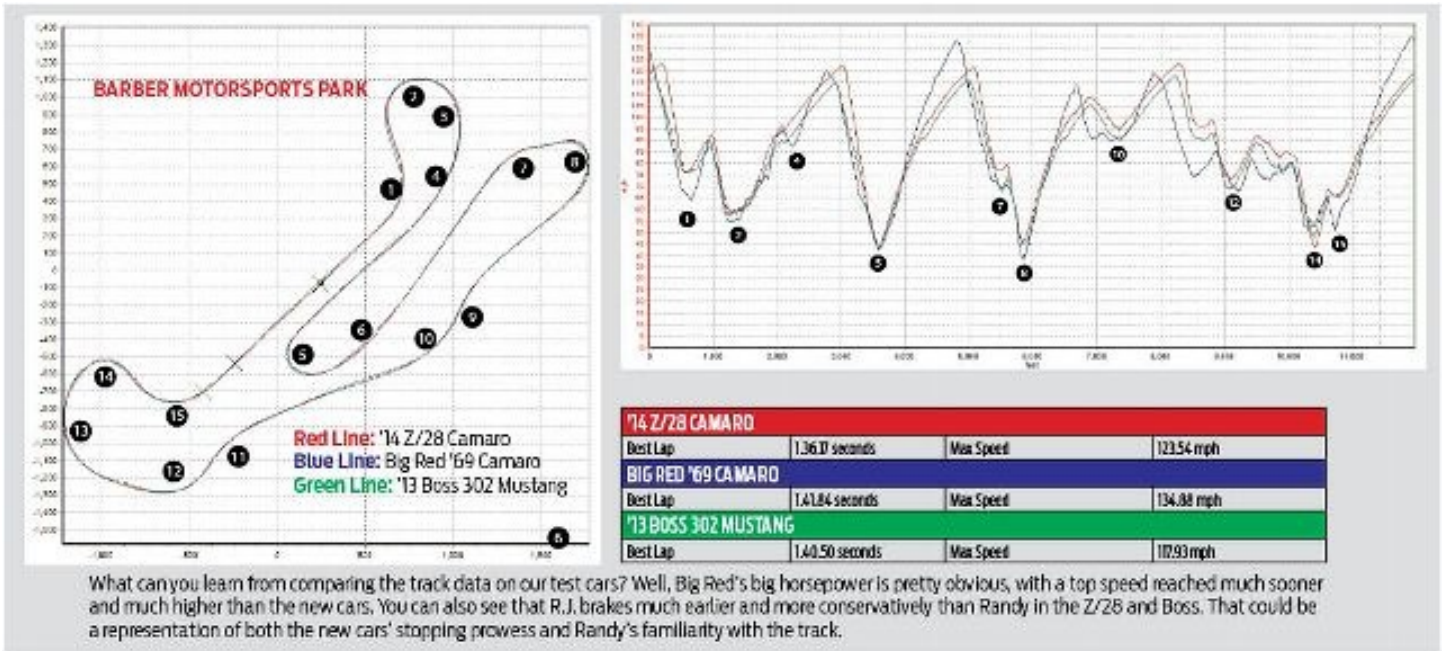
CAR	'69 Camaro "Big Red"	'14 Z/28 Camaro	'13 Boss Mustang
ENGINE	540ci Donovan V8	7.0L LS7	5.0 Coyote
REDLINE	7,000	7,000	7,500
HP(RATED)	850hp	505hp	444hp
TORQUE	701 lb-ft	470 lb-ft	380 lb-ft
TRANSMISSION	Liberty 4-speed	Tremec 6-speed	Tremec 6-speed
BRAKE DIAMETER	14-inch Baer	15-inch Brembo	14-inch Brembo
CALIPERS	6-piston Baer	6-piston front/4-piston rear	4-piston front/single-piston rear
WEIGHT	3,300	3,820(non-air)	3,632
SUSPENSION	Coilover and 3-link rear	Coilover 4.5-link independent rear	MacPherson strut front, solid-axle rear
REAR GEARS	3.91:1	3.91:1	3.73:1
WHEELS	BBS 18x11 front, 18x12 rear	19x11 front, 19x11.5 rear	19x9 front, 19x9.5 rear
TIRES	Hoosier A6 315/30R18 front, 335/30R18 rear	Pirelli PZero Trofeo 305/30R19	Pirelli PZero max performance 255/40R19 front, 285/35R19 rear

Finally, we were handed the keys to a Z/28 and let loose. From the second you get in the car, it feels perfect, at least to those of us trained on more stripped-down transportation. The Recaro seats are slim and manually operated, no 10-minute wait while a whirring electric motor inches you forward after the photographer set the seat all the way back for photos. The clutch is stiff, but not unpleasantly so. When you turn the key, and it is a good, old-fashioned key, the 427ci-LS7 comes instantly to heel. There's no dash-mounted widescreen demanding phone syncs and nav inputs, it's a car, not an office space, and it wants to be driven.

You wouldn't want the distractions of the office anyway, the Z/28 requires more attention than your average auto. The eyes-off, one-handed, texting position of the contemporary commuter won't fly when you've got 305/30R19 Pirellis, aligned for the track on all four race-sprung corners. If your attention wanders, the Camaro will wander too--into the other lane, but if you stay on point, the Z/28 is obedient and responsive, like a big dog who's well-trained...unless there's a squirrel.



Like all '14 Camaros the hood of the Z/28 is stamped aluminum. The heat extractor in carbon fiber, with a plastic rain tray beneath. When the tray is removed, as it was on our track car, you pull the dipstick without having to open the hood. The front splitter is blown plastic rather than carbon fiber, as it is on the Corvette. Chevy says this keeps replacement costs down for the customer. They really want you to race this.



On the road the car is quick but not terrifying, the 15-inch carbon-ceramic brakes are more than up to the task of stopping you from any speed attainable on public roads without awakening a flock of police helicopters. The transmission is the same Tremec six-speed found in all new pony cars, and a 3.91 final gear ratio means that passing power is available all the way up the pattern. We were sorry to arrive at SpeedSouth, because it meant we had to turn over the keys to the dyno operator.

SpeedSouth in Pelham, Alabama, is a race tuner specializing in modern muscle and exotics. The shop was full of 'caged Corvettes and cast-off slicks. Owner Dave Leonard and his guys were genuinely excited to see our Boss, the new Z and Big Red, crawling underneath the cars and comparing the various aero and cooling elements.

Big Red went first on the dyno, and the big bruised Camaro was just not in the mood to cooperate, bouncing and sliding on the drum. We finally got a few clean pulls, and we were given a verdict of 6TKhp at the wheels, and TKTK lb-ft of torque. Time for the new Z. Chevrolet was very nice to let us take its brand new car off site, but there was clearly some concern, as they repeatedly told us to make sure the dyno shop didn't take any pictures. In Z/28 trim the LS7 put down 438 hp at the wheels, which, given a 15-percent drivetrain loss, comes up to just above the advertised 505 flywheel rating. We weren't able to test the Mustang before its owner had to leave, but we knew going in that the Boss was the lightweight in our matchup, down 61 hp from the Z/28's LS7.

So, once the dust and numbers settled, how did the cars line up? Well, Big Red is gorgeous, capable of drawing a crowd while standing still, and fastest by 10.91 mph on Barber's straights. Put on a bigger, more open track, and Red's horses might do more than bite at the heels of the Z/28, but unless you have a giant budget and a skilled crew, you aren't going to be able to park Big Red, or anything like it, in your garage. R. J. estimates reproducing Red would take upwards of \$150,000, and he came with a five-person crew to help with warming up, cooling down, and loading up the mighty rouge first-gen.

The Boss, on the other hand, is comparatively affordable. We've seen clean used Boss 302s advertised for less than \$30,000--although you'll pay more for the Laguna Seca edition. As Jack proved by driving 500 miles to and from our test, and Randy proved by running comparable times to Big Red despite half the horsepower and lousy brakes, the Laguna Seca Boss is an incredibly competent machine on both the street and the track.

"The Z/28 is easily modified, and track focused. It's sort of a 'halo-Camaro,' a real hot rod." - Mark Stielow



Still, it's the new Z/28 that we'd love to take home. We've been behind the wheel of nearly every new pony car model in the last few years, and nothing has felt so pure, so familiar to those of us on staff who regularly drive vintage muscle. The Z/28 does nothing but steer, stop, and accelerate--which, correct us if we're wrong, is the whole point of a car--and it does all three of those things beautifully. It's the perfect new car for old-car people, but how many of us can buy a \$75,000 Camaro, and will any of the folks who can afford it choose it over the friendlier, more comfortable Corvette?

Read more in the June 2014 issue on sale April 11, 2014

Read more: http://www.hotrod.com/feature_stories/1406_2014_camaro_z28_forces/#ixzz2wrBdJn8u