street-bound. That's why Troy liked Harold's suggestion of asymmetrical lobes with an aggressive opening flank on the cam and then a softer, smoother-closing ramp that would not abuse the valvesprings. "I'd rather change springs every five years rather than once a week," Troy says.

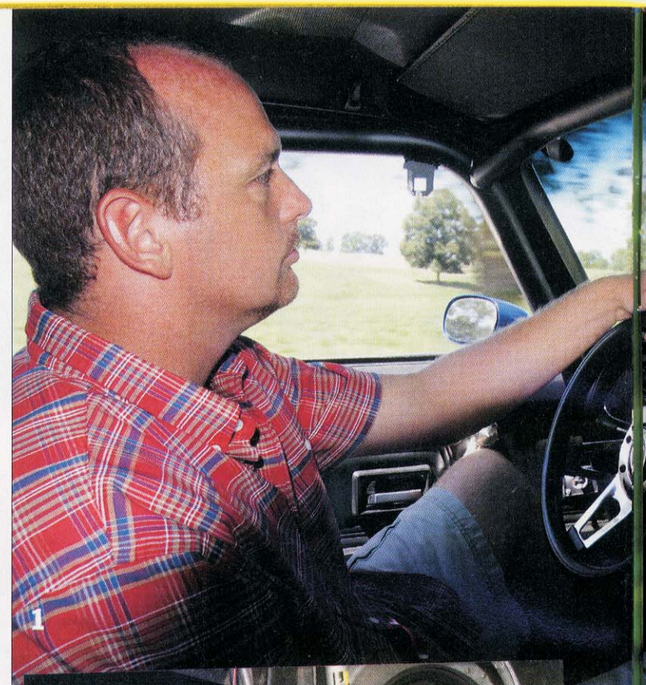
The statement, "My entire car is a compromise," really sums up Troy's approach to this Camaro. This is why the 434ci Mouse isn't a 12.0:1 or 13.0:1 effort—pump gas will always be much cheaper than race gas. It also didn't make economic sense to build all the power with the motor when nitrous is such a quick and easy horsepower lever. He also didn't go right out and hammer the biggest jets into the NOS system. Instead he built his power pyramid more gradually, eventually working up to the current 225hp combo. The next step is even more power with a 350hp shot. But before that happens, he's currently testing a new, tighter Yank Racing torque converter for the Turbo 400, since the 225 shot eventually loosened up the old converter where he was spinning close to 8,000 rpm going through the lights even though the Camaro only twists a 3.89 gear with 28-inch-tall rear tires.

The compromise extends to the Camaro's suspension as well. While you might expect more race-oriented components between the rear wheelwells, it's shocking to see stock Camaro leaf springs, an inexpensive set of slapper traction bars, and a set of Competition Engineering adjustable shocks. But look closely because there is still plenty of science in these mundane parts. There's a wedge between the springs and the rear axlehousing that dials in a 5½-degree nose-down pinion angle. And despite the lack of solid-spring-eye bushings, Troy reports no wheelhop problems.

The 3.89-geared 9-inch Moser rear is a relative newcomer to the car. That's because the original 12-bolt broke spectacularly just a few months ago. Troy's starting-line video shows how the aluminum T/A rear cover disappears when both axletubes, which had been fully welded into the centersection, broke, snapping the driveshaft and shoving the pinion snout (still connected to the rearend) through the floor and ripping the backseat upholstery. That's when you know you're hooked up.

All of these compromises are in an effort to keep this a streetable car. The torque converter, leaf springs, and pump-gas-friendly compression limit the car's ultimate dragstrip e.t. and speed but pay off in terms of fun-behind-the-wheel time. We went for a check-out ride with Troy, and when you've got a 9-second car that will idle in neutral at 1,000 rpm with an idle vacuum of 9.5 inches even with a monster 256 at 0.050 camshaft, that's not much of a compromise. Even Troy was shocked when he measured it. The ride is almost living-room comfortable, but understand that's with soft shocks, no front sway bar, and not-for-highway-use slicks at 20 psi—certainly deceiving for a pavement pounder. The converter is tight, in fact it pulls at part-throttle almost like a stock converter.

Still, the lure is there to run an 8 in full street trim except for the slicks. Troy believes it can happen, and that's half the battle.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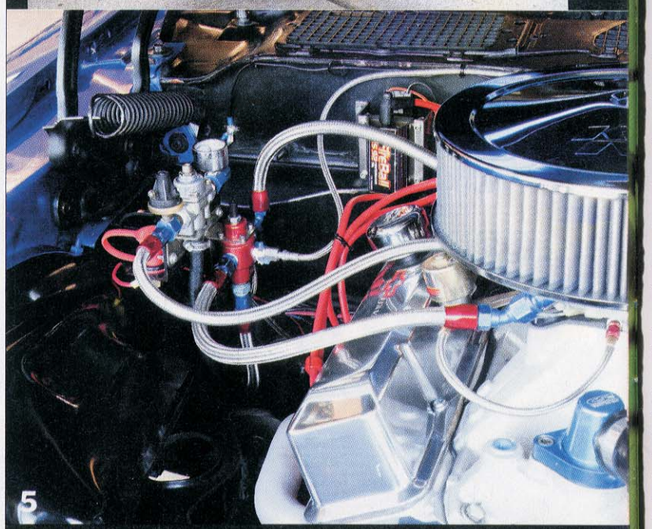
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1. One advantage to a streetable car is that quickie tests on new ideas or equipment can often be accomplished on freeway on-ramps. On this trip, the author experienced the first blast on a new converter and was treated to tire spin at the top of Second gear. 2. Troy not only builds his own engines but also does his own painting and bodywork. The Camaro is not only brutally quick but also a testament to Troy's attention to detail. 3. A high-tech analytical approach with low-buck solutions is what Troy lives for. Those are $45 bolt-on Lakewood traction bars and stock springs. Also note that the bar is bent. That's torque, baby. A new bar is on its way. 4. This is a three-ring binder full of Car Craft and other magazine stories that Troy has collected over the years. His buddies call it "the hot rod bible." 5. Troy uses the two separate fuel system approach for the engine and nitrous systems. Two separate Holley pumps feed two separate fuel regulators. Currently it is a dead-head system, but Troy is considering adding return lines for both sides. 6. This is part of the stock 406 crank that ventilated his oil pan just driving down the street one day. Any serious street/drag racer has a collection of trophies he keeps as a subtle reminder of the price of performance.

TROY'S '71 CAMARO QUARTER-MILE HISTORY

E.T./SPEED	60-FOOT	DESCRIPTION*
12.33/107.00	1.730	Previous-owner best, 406, Lunati cam
11.69/114.42	1.619	Lots of tuning, 28x10.5 slicks
11.479/115.39	1.564	Remove front sway bar, better air
11.366/118.13	1.681	Short-shifted 6,400 versus 6,800
10.894/122.66	1.599	New 434ci motor, same converter
10.766/125.32	1.531	New Yank converter and rebuilt trans
10.125/132.02	1.458	NOS 210hp shot, ran rich
9.94/132.61	1.353	150hp tune-up, NOS Cheater plate
10.618/126.05	1.507	Best on-motor pass
9.610/137.60	1.337	225 NOS shot, best pass to date

*All this occurred between 2001 and May of 2005.

IMPROVEMENTS
E.T.: 2.72 seconds
MPH: 30.60 mph
60-FT: 0.393 second

TECH NOTES

What: '71 Chevrolet Camaro

Owner: Troy LaCrone, who also has a bitchin' Web site, enginecombination.com.

Hometown: St. Clair, Missouri, one of those little towns that has two exits off Interstate 44, just in case you miss the first one.

Techs: Troy is not shy about asking for help and is also willing to acknowledge guys like Tom Oermann at Meramec Automatics, Yank Racing, 10.5 tire racer Scott Lowery, Alan Casey, Tom Monehan, Brian Raymond, Roy Parmer, Mark Workman, J.T. Flora, Jason Sheets, and Patrick Meyers, along with his wife Tonya and his dad Mike.

Short-block: Motown iron block with an Ohio Crank 4340-steel forging and JE 10.6:1 forged pistons and Total Seal conventional rings.

Camshaft: Lunati RA1 mechanical-roller cam with 256/264 degrees of duration at 0.050-inch tappet lift and 0.624-inch valve lift for both.

Heads: Airflow Research 227cc partially CNC-ported heads with 2.10/1.60-inch stainless steel valves and Harland Sharp 0.050-offset intake rockers.

Induction: Edelbrock Super Victor with an 850-cfm Holley carb, but Troy is currently switching over to a Pro Systems 1,050-cfm carb based on a standard flange Holley.

Nitrous: Nitrous Oxide Systems Big Shot plate system with a current 225hp tune-up. Troy will now try a 350hp shot to get into the 8s. He also mixes race fuel in with the pump gas when he runs the big nitrous tune-up.

Fuel System: The plumbing is actually two separate systems, one Holley "black" 140 pump for both the engine and the nitrous system with a combination of Holley and Aeromotive regulators originating from a 12-gallon fuel cell in the trunk.

Headers: Troy and his friend Tom Monehan modified Hedman 1¾-inch headers.

Drivetrain: Meramac Automatics built the TH400 trans with a TCI reverse-manual valvebody controlled by a B&M MegaShifter. Troy has just installed a new Yank Racing 9.5-inch nitrous converter that is much tighter with a 4,500-rpm on-nitrous stall speed intended to be used with the bigger 350hp shot. Driveshafts Unlimited supplied the steel driveshaft while there is now a Moser 9-inch with 3.89:1 gears and 35-spline Moser axles to take the abuse from the big nitrous loads.

Suspension: Don't look for ladder bars or coilover shocks on this 9-second beast, yet Troy can pull off a 1.33 60-foot time with stock leaf springs, Lakewood bolt-on traction bars, and adjustable Competition Engineering adjustable shocks. The chrome-moly 10-point 'cage helps tie the car together. For tires, Troy depends on a set of 28x11.5-15 M/T E.T. Drag slicks mounted on 15x10 Center Line Convo Pro wheels with skinnies up front.

Body and Paint: Along with his tuning prowess, Troy also does his own bodywork and paint with help from friends. The entire car is sprayed in pearl blue with white stripes that Wally Edlers helped apply. **END**