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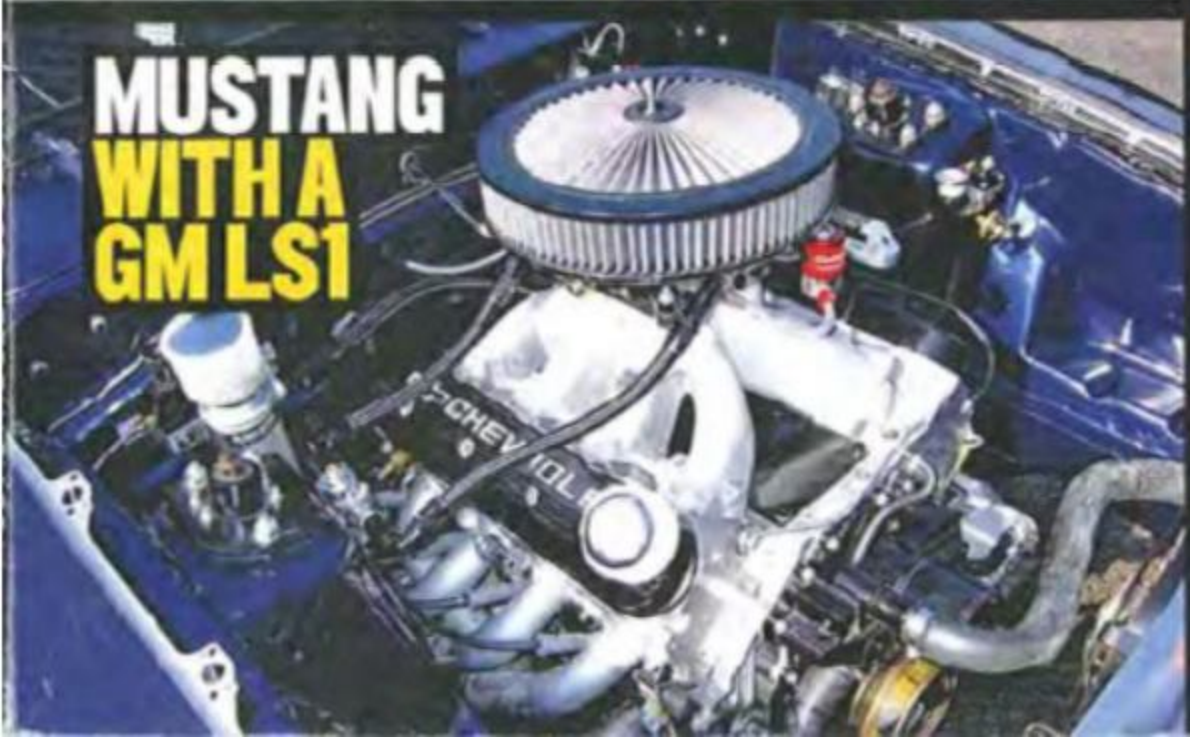

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HOT ROD WHERE IT ALL BEGAN

HOTTEST ENGINE IN AMERICA

Holley's LS Fest Cements the Reputation of GM's Best Small-Block Ever. Here are Our Top 25 Cars, Details on Their Engine Swaps, and How They Make Power.

By Mike Finnegan

Photography: David Freiburger

It's been 15 years since the LS family of engines was introduced by GM, and these engines have rocketed to the top of the scene as the must-have hot rod powerplants to the point that we have no problem proclaiming the LS as the hottest engine in America right now. It's long since escaped from the underground and has hit the everlasting mainstream, with even the naysayers now swapping in the lightweight powerhouse and reaping the benefits of great mileage and efficiency. The days of fearing the Gen III and IV small-block are gone.

The days of scoring an LS drivetrain from a dead Chevy Silverado or F-body car for almost nothing are gone, too. We tried to buy a set of ignition coils a while back and couldn't find a local recycler that would let them go for less than 400 bones. Everyone knows the value of a low-mileage LS1, LS2, LS3, LS6, LS7, or LQ9 and its accessories now. However, the industry aimed at making LS swaps easy has exploded, and entire websites are dedicated to unlocking the power potential of the LS and exploiting creative ways to slide them under the hood of almost any car. Racing events just for LS-powered vehicles have popped up all over the country after the first GM Performance Parts LSX Shootout in 2007. And perhaps the most significant signpost that the LS has gained universal acceptance among gearheads is that it's not only OK to swap one into an import car, it's actually considered cool.

And why not? You're a cam swap away from making 400 hp with a junkyard LS1. Massage the factory heads and tweak the computer a bit and you're right at 500 hp. Toss a set of high-flowing aftermarket heads or ported LS2 or LS3 factory castings up top with a stroker kit below, and 600-plus reliable horses are at your disposal in a package that weighs 100 pounds less than an iron-headed small-block and more than 200 pounds less than a knuckle-dragging big-block. The technology behind the LS, generous aftermarket support, and unbelievable power and fuel economy cannot be denied.

The impact of the LS is not lost on Holley Performance Products, either. Carburetors have been its bread and butter for decades, and yet the company has launched a new line of performance and swap parts for the new small-block and put together an awesome event to promote it. The inaugural Holley LS Fest in September 2010 drew all manner of LS-powered cars and trucks thanks to a format that was equal parts show and go. Beech Bend Raceway in Bowling Green, Kentucky, was the site, and it offered an autocross and dragstrip as well as plenty of room for a traditional show. The whole deal was sponsored by HOT ROD magazine and GM Performance Parts.

The meat and potatoes (Camaros and Firebirds) of the LS world were in attendance, but it was the outsiders that grabbed our attention and drove home the idea that the LS has gone viral. Here are 25 of the most interesting examples of LS swaps, performance data to back up the work, and the parts each owner selected to get the job done. The track times and mileage figures should stoke the fire to jump on the LS bandwagon.

For information on next year's event, see HolleyLSFest.com.

Opposite:

MAX EFFORT PONCHO

Mike Kostick
Chicago, IL
'99 Pontiac Firebird
Engine/Trans: 432ci LSX, ET canted valve heads, a Marcella sheetmetal intake, twin 4500 throttle-bodies, a two-stage direct-port nitrous system, a vacuum pump, and a five-stage dry-sump system/Powerglide
Cooling system: Meziere remote water pump and an aluminum radiator
Accessory drive system: Custom
Engine mounts: Custom motor plates
Trans mount: Energy Suspension polyurethane mount
Headers: Kooks custom headers step from 2-inch to 2⅛-inch primary tubes and terminate at 4-inch collectors
Fuel system: Dual Magnafuel pumps
Oil pan: Custom one-piece billet

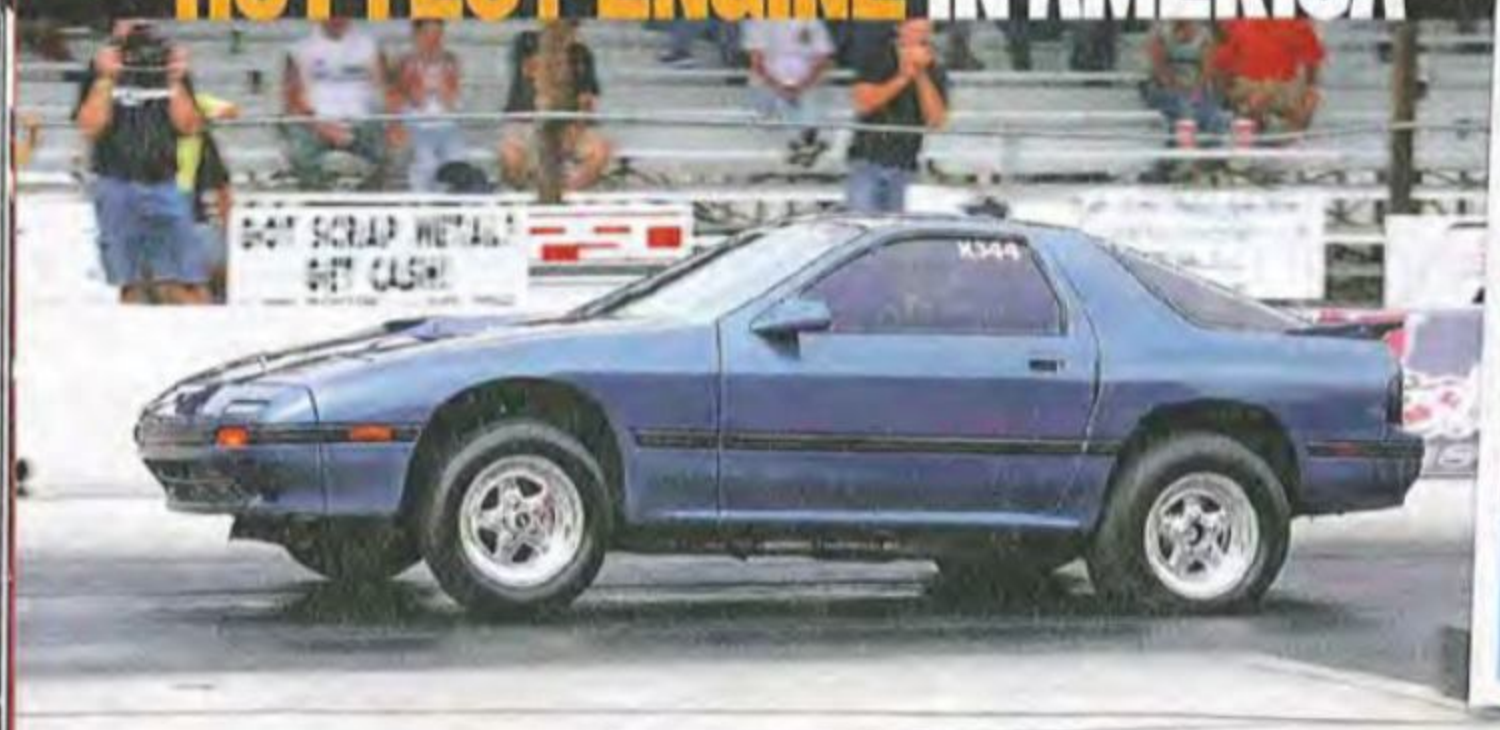
Mike's fourth-gen 'Bird is a beast, pumping out 930 hp at 9,200 rpm on TNT Racing Engines' dyno without the bottle spraying. We watched it run 7.91 at 172 mph at Beech Bend.

HORSE WITH A BOW TIE

Jeremy Ross • Indianapolis, IN • '93 Ford Mustang
Engine/Trans: 383ci LS1 with AFR heads, an Edelbrock Performer intake, an MSD ignition, a Holley carb, and an Edelbrock plate nitrous system/TH400
Cooling system: Meziere electric water pump and a custom aluminum radiator with dual fans
Engine mount: PA Racing K-member **Trans mount:** PA Racing **Headers:** Hedman
Fuel system: Holley **Oil pan:** Stock '01 Camaro

Jeremy Ross says, "I bought it three years ago, and it took two years to build. I found a guy who already had a Mustang with an LS1 but no tranny in it. I had a TH400, so I bought his car. We pulled the motor out and built a 383. It went 9.98 at 134 mph yesterday. Fastest pass ever. I was stoked."

HOTTEST ENGINE IN AMERICA

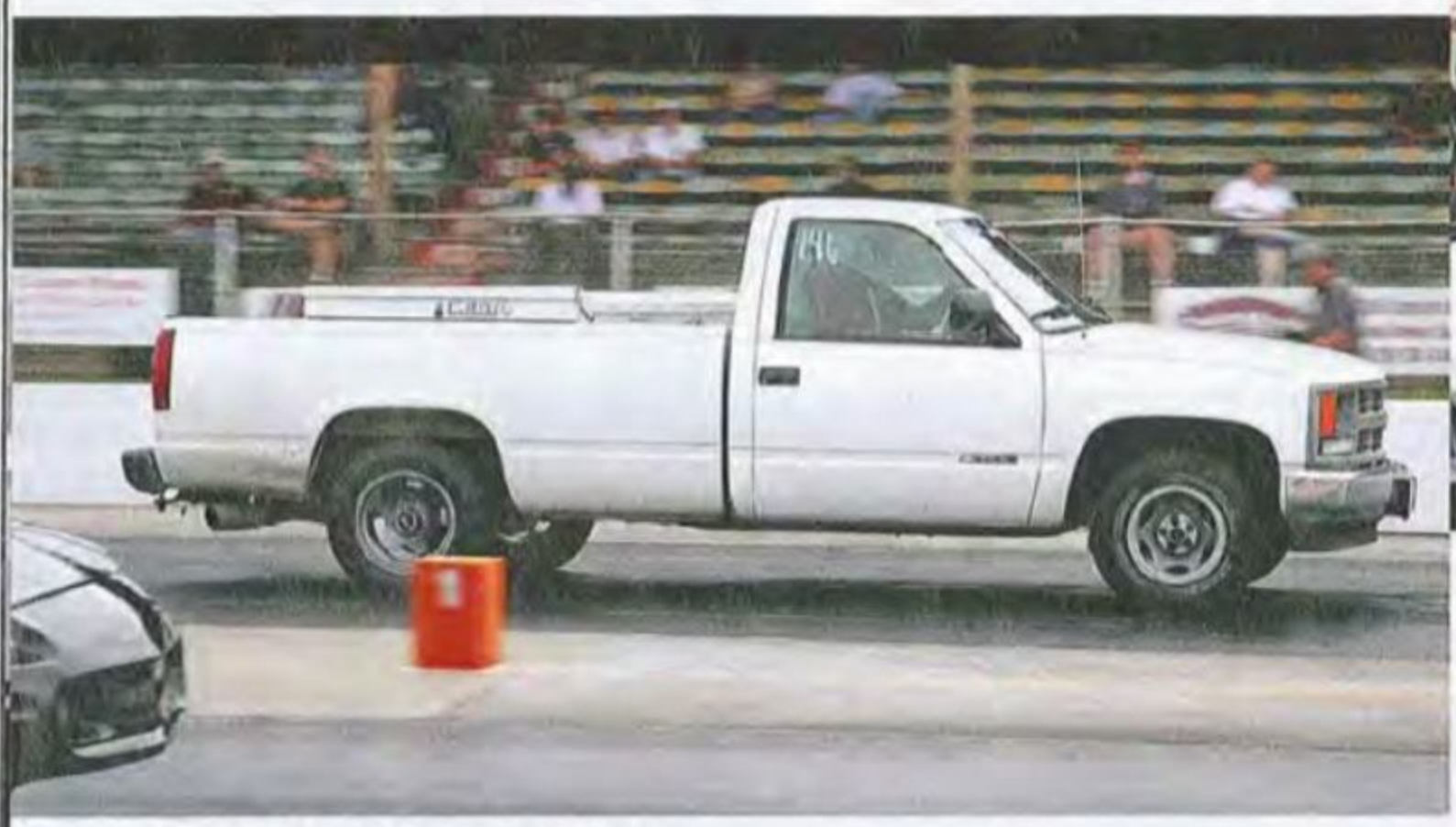


BYE BYE WANKEL

Steve Verplank • Fishers, IN • '87 Mazda RX-7

Engine/Trans: 408ci iron-block LS1 with a Callies crank, Wiseco pistons, a Comp cam, and 96-lb/hr Bosch injectors/Powerglide
Cooling system: Meziere electric water pump and a Griffin aluminum radiator
Engine mounts: Hinson Super Cars subframe and bolt-in mourts
Tranny mount: Custom
Fuel system: Aeromotive electric fuel pump with an Aeromotive speed controller
Oil pan: Stock '05 Chevy Silverado

At 12 psi, Steve's LS builds 692 hp and 642 lb-ft of torque using a D1 ProCharger huffing through an LS6 intake with a stock 78mm throttle-body. The Mazda required minimal mods to fit the LS engine, and it's run 9.62 at 144 mph with a 1.43-second 60-foot time.



SLEEPER SILVERADO

Bervil Hillis • Sikeston, MO • '94 Chevrolet Silverado 1500

Engine/trans: '99 Corvette LS1 with a single turbo/4L80E
Cooling system: L92 truck water pump and a Griffin NASCAR radiator
Accessory drive system: Stock '02 Chevy Silverado
Engine mount: Fabricated frame mounts with Energy Suspension polyurethane engine mounts
Trans mount: Stock crossmember modified for Energy Suspension polyurethane mount
Headers: Stock driver-side manifold and homemade passenger-side turbo log manifold
Fuel system: Walbro 255 pump mounted in the stock tank and plumbed to the stock lines
Oil pan: Stock '02 Silverado truck pan

Bervil's work truck looks out of place anywhere other than a job site, and that's why we love it. It's been an engine swap whore for many years and has to date been the beneficiary of a carbureted Vortec 305, a pair of LT1s, and now the LS1. The LS1 was an eBay score that was purchased as an accessory donor for another project. When it was time to once again repower his sleeper truck, Bervil built his own mounts and swapped in the LS1, running it for two years in naturally aspirated form. He had the Garrett 62mm turbo lying around, so he fabbed his own exhaust manifold to mate it to the engine. An old Ford Festiva radiator became the heat exchanger, and the intercooled turbo system makes 5 psi and runs on 92-octane. Bervil built the 4L80E, and with 3.08s in the rear the truck gets 19.8 mpg and just clocked 240,000 miles on the chassis. On the dyno the engine put 422 hp and 451 lb-ft to the wheels. It's blitzed the quarter in 12.91 seconds at 105 mph.

FIERCE FIREBIRD

Bob Bertelsen
Columbiana, OH
'72 Pontiac Firebird
Engine/Trans: Mast Motorsport 416ci LS3 with VVT/4L80E built by Bowler Transmissions
Cooling system: Mast Motorsports water pump, a Flex-a-lite aluminum radiator, and dual fans
Accessory drive system: Vintage Air FrontRunner
Engine mounts: Detroit Speed Engineering subframe and mounts
Trans mount: Custom fabricated
Headers: Sanderson
Fuel system: Custom stainless steel fuel cell, a Walbro pump, and Mast Motorsports Black Label fuel rails
Oil pan: Stock Camaro

One of the most highly modified cars we spotted at LS Fest was Bob's Firebird. It was bought on eBay as an ex-show car with side pipes and lime-green paint and needed a serious identity transplant. Bob built the car mostly at home and says the Detroit Speed & Engineering front subframe made installing the LS3 easy. He went ahead and tubbed the firewall for extra clearance because he had to modify the transmission tunnel to fit the huge 4L80E AOD anyway. With 570 hp and 530 lb-ft on tap and 3.75:1 gears in the Fab 9 housing, the car went 12.80 at the track. Bob has since made some adjustments to the transmission computer and thinks the 'Bird will go mid-12s now.

IRS KILLER

Keith Berry • Clermont, GA • '02 Chevrolet Corvette Z06
Engine/Trans: Proline 428ci LSX/RPM Transmissions TH400
Cooling system: Meziere electric water pump and a Ron Davis custom aluminum radiator
Accessory drive system: Custom
Engine mounts: Bell Chassis Works custom mounts
Trans mount: RPM Racing
Headers: American Racing
Fuel system: Magnafuel
Oil pan: A.R.E.

The term *snowball* is aptly applied to Keith's car and his racing career. His first track day came at a *Pinks All Out* event two years ago. He bought this car with a scratch-free gloss-black paint-job, and it quickly became the flat-black track terror you see here. Keith's Z06 currently holds the record for the world's quickest IRS-equipped Vette. It has run 8.32 in the quarter thanks to a serious 800hp LSX engine boasting a Callies crank, Bill Miller aluminum rods, All Pro–prepped heads, and a Performance Inductions intake. Aside from the fragile nature of the IRS, Keith says the only downside to his combo is the lack of rear gear options; he can only run 3.42s.

HOTTEST ENGINE IN AMERICA

SLOT CAR C2

Jeff Cleary
Chesapeake, VA
'67 Chevrolet Corvette
Engine/Trans: Modified LS7/Rockland Standard Gear Tranzilla T56 six-speed
Cooling system: Stock water pump, Dewitt's custom C2 LS radiator with dual Spal fans
Accessory drive system: Stock with a Katech tensioner
Engine mounts: Custom engine plates with Gen 1–style mounts
Trans mount: SRIII Motorsports tube chassis and a T56 crossmember
Headers: Custom John Walsh stainless 1⅞-inch long tubes with 3-inch merge collectors
Fuel system: Rock Valley stainless tank with a Walbro internal electric pump
Oil pan: Stock Corvette LS7 dry-sump

Jeff's car will knock down 10.80s at 131 mph at the strip on Nitto NT-555 street tires and still get 28 mpg on the highway. The keys are the 620hp dry-sump LS7, six-speed overdrive trans, and lightweight tube chassis. Jeff says the chassis made the LS swap simple, and the C5 Vette suspension makes the convertible handle like a slot car.

WHAT'S IN A NAME?

From a magazine perspective, it's annoying that these engines have no real name. General Motors considers them Gen III and Gen IV V8s (the classic small-block Chevy was Gen I, the '93 to '97 LT1 was Gen II), and the company refers to them generically as small-block V8s, even though there is no longer a big-block in production. But *small-block* means traditional Chevy to most enthusiasts.

The aftermarket default moniker for the Gen III and IV has become LS. Like LS-series, or LSX engines (the latter of which is actually a GM Performance Parts trademark), the LS designation comes from the fact that the OE production codes for the Gen III engines started with the LS1 and LS6, and the Gen IV carries on the tradition with the likes of the LS2, LS3, LS7, LS9, and LSA. But there's also the L09, which the aftermarket lumps in as an LS.

None of this has any ring to it, like Mouse motor, or Rat motor, but no one has come up with anything better. Got an idea on how to better name these things? Impress us and we'll lead the charge. Email us at HOTROD@hotrod.com. —David Freiburger

LOTTERY WINNER

Justin R. Dermody
Williamsburg, IA
'70 Oldsmobile Cutlass
Engine/Trans: LS6/4L60E
Cooling system: Stock
Accessory drive system: Vintage Air Front-Runner
Engine mounts: Hooker adapter motor mounts
Trans mount: Stock
Headers: Hooker A-body swap headers
Fuel system: Holley HP EFI
Oil pan: Stock Hummer H2

Justin showed up to Holley LS Fest with a stock small-block that was held in with a few finger-tight bolts and a front clip that was ready to fall off the Olds. His goal was to win the *Car Craft* Engine Swap Challenge. His team successfully swapped in a new LS6 crate engine and had it running in an astonishing 31 minutes and 57 seconds! He beat the other competitors by a wide margin and got to keep the new engine. As if that weren't enough, he then talked Bret Voelkel of RideTech into betting that he couldn't install a RideTech air suspension system on the Olds in less than four hours. Guess who went home with that bitchin' suspension kit?

MIGHTY MOUSE

Scott Hamlin • Fayetteville, TN • '94 Geo Tracker
Engine/Trans: Stock '02 LS1/4L60E
Cooling system: C6 Corvette water pump and a custom-built radiator
Accessory drive system: Cadillac CTS-V alternator bracket, Corvette C5 A/C compressor brackets, a belt tensioner, and a balancer
Engine mounts: C5 Corvette engine brackets with custom frame plates
Trans mount: Chevy S10 4L60E trans mount
Headers: Stock '02 F-body manifolds
Fuel system: Walbro in-tank pump with a Corvette C5 regulator
Oil pan: Stock F-body

Scott has swapped at least a dozen LS engines into various trucks over the years. Why build a Geo this time? Well, it fits on his 12-foot lawn mower trailer, making trips to the track pretty easy. It dead hooks thanks to a four-link and corners like a go-kart, too. Scott says the best reason for building this Tracker, though, is the looks he gets when he pops open the hood.

MODEL A WITH AN ATTITUDE

Matt & Sara Schmelzer • Luxemburg, WI
'31 Ford Model A coupe
Engine/Trans: 5.3L truck engine bored and stroked to 380 ci by Bay Speed Center/TH350 with a shift kit, 2,500-rpm converter connected to a TCI LS conversion flexplate
Cooling system: Edelbrock LS aluminum water pump and a Ron Davis aluminum radiator
Accessory drive system: Professional Products keyed serpentine damper, a custom water pump pulley, an idler pulley, and an alternator bracket made by Matt Schmelzer
Engine mounts: Stock GM truck motor mounts with custom frame mounts and a motor plate added to stiffen the frame
Trans mount: Custom K-member with a removable Energy Suspension polyurethane mount
Headers: Schoenfeld U-Weld-It kit
Fuel system: Holley electric fuel pump and an Edelbrock Performer intake and carb
Oil pan: Stock Silverado truck

"We pulled 460 hp and 420 lb-ft of torque on the dyno, and I still get 20 mpg on the highway. Without a distributor to get in the way, it is easier to install on a small-bodied car."
—Matt Schmelzer

PRO CAMARO

Mark Turner
Hermitage, TN
'69 Chevrolet Camaro
Engine/Trans: LS7/T56 six-speed
Cooling system: Afco aluminum radiator
Accessory drive system: Wegner Motorsports
Engine mounts: Detroit Speed & Engineering subframe and mounts
Trans mount: Detroit Speed & Engineering
Headers: Art Morrison 1⅞-inch
Fuel system: Rock Valley tank with a Walbro pump and Aerospace Components regulator
Oil pan: Stock '01 Camaro pan

"This car has been together for six months, long enough to kill the engine. It split the No. 7 cylinder in the LS7. We've been autocrossing and road racing a lot. We finished it, put it on the trailer, and headed for Wisconsin. We killed the T56 that weekend, and LS Fest is the first time it's been back out." —Mark Turner

HOTTEST ENGINE IN AMERICA

NO MORE FOUR

Chris Nichols • BowlingGreen, KY • '96 Nissan 240SX
Engine/Trans: '00 Camaro LS1 with a FAST intake and a 90mm throttle-body/'04 GTO T56, LS7 clutch
Cooling system: Stock water pump and a Fluidyne radiator
Accessory drive system: Stock
Engine mounts: Street Elite Performance stainless steel conversion mounts
Trans mount: Street Elite Performance aluminum
Headers: Hinson Super Cars
Fuel system: Walbro in-tank pump with -6 AN lines to Aeromotive fuel rails and 28-lb/hr injectors
Oil pan: Stock '04 GTO

Chris abandoned a healthy turbocharged four-banger in favor of a mild LS1, which received a camshaft and an LS6 intake. The car's firewall and lower crossmember had to be massaged to fit the V8, but otherwise the package was an easy installation thanks to Street Elite Performance's new mounting kit. The original Nissan throttle cable was even the right length. The LS cranks out 386 hp, and the 240 has run a best of 11.85 at 123 mph. With a carbon-fiber driveshaft and stand-alone computer, the combo has proved efficient and reliable, and Chris reports that the stock IRS is still holding up fine after three years of abuse.

THE MAN WITH TWO COOL CORVAIRS

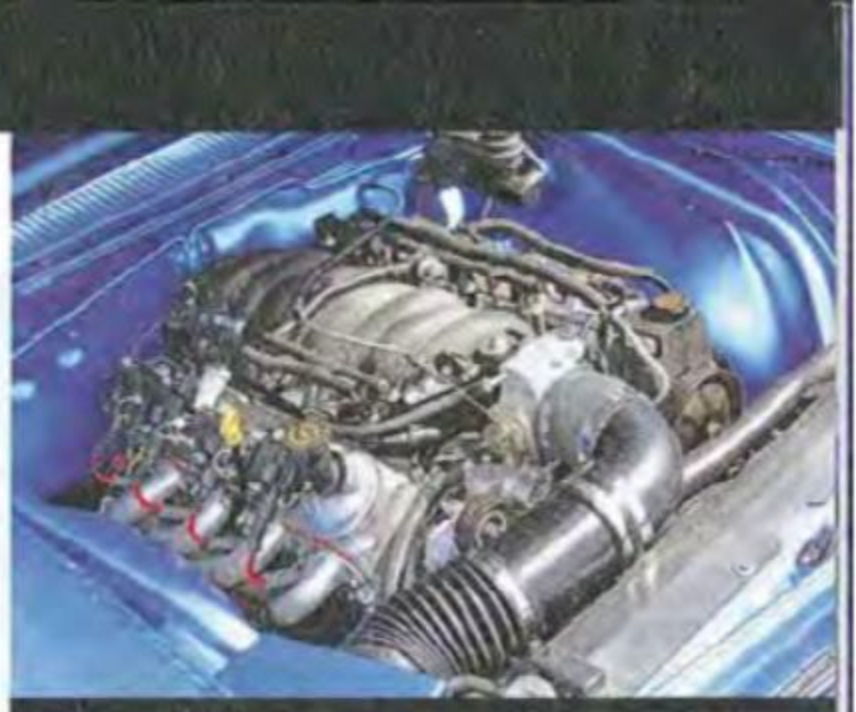
Mike Meyers • Woodriver, IL • '69 Chevrolet Corvair
Engine/Trans: '98 LS1/4L60E
Cooling system: Stock '98 Camaro water pump and '87 Camaro radiator
Accessory drive system: Stock '98 Camaro
Engine mounts: TransDapt
Trans mount: Stock '98 Camaro
Headers: Hedman Hustler long tubes from Muscle Rods
Fuel system: Aeromotive A1000 pump and inline filter
Oil pan: Stock '98 Camaro

Mike bought this Corvair as a parts car for another project and couldn't give the carcass away when he was done with it. After staring at an '85 Monte Carlo chassis he had, he realized the wheelbase of both cars was eerily similar. In fact, the Monte chassis was only ½ inch longer, so he modified the backhalf of the Monte chassis and the steering box location and then slid it right under the Corvair. The body is channeled over the frame and is a tight fit for the LS1, but the performance is worth the hassle. The car runs 11.72 at 114 mph in the quarter with a 3,600-rpm converter and an 8.5-inch Olds rearend stuffed with 3.73s. Did we mention that the car will get 21.4 miles per gallon onpump gas and that Mike also has an LS-powered Corvair wagon?

THE ULTIMATE DRIVING MACHINE

Wayne Powell
Springfield, MO
'87 BMW 535IS
Engine/Trans: GMC Envoy 5.3L LS1 with an LS2 crank pulley and intake manifold used for hood clearance/4L60E trans, custom driveline with a Corvette yoke and Jags That Run Spicer yoke fit to the BMW differential
Accessory drive system: Kwik Performance custom A/C brackets
Cooling system: Corvette LS2 water pump
Engine mounts: Custom
Trans mount: Custom
Headers: Factory fourth-gen Camaro manifolds reworked to fit stock BMW exhaust
Fuel system: Custom
Oil pan: Custom

"The LS engine was the obvious choice because it's light. I didn't want to upset the balance and braking with a heavy motor. The car gained about 65 pounds, but I moved the battery to the trunk and the balance is now close to what it was before. It will go 15s at 92 mph and get 22 miles per gallon on the highway." —Wayne Powell



IN YOUR EYE, NADER

Mike Meyers • Woodriver, IL • '62 Chevy Corvair Wagon
Engine/Trans: '00 LS1/4L60E
Cooling system: Stock LS water pump and an '85 Camaro radiator
Accessory drive system: '00 Trans Am
Engine mounts: TransDapt
Trans mount: Stock '00 Trans Am
Headers: Street & Performance shorty pipes
Fuel system: '95 Camaro stock tank and a Walbro 255 pump
Oil pan: Stock '00 Trans Am

The wagon is a total cruiser that still runs 12.48 at 106 mph. The drivetrain was plucked from an '00 Trans Am and is bone stock except for the headers and the converter in the 4L60E. This one also has an Olds 8.5-inch rear and 3.73 gears.

THE JOYS OF BOOST

Mark Carlyle
Hilliard, OH
'07 Chevrolet Corvette Z06
Engine/Trans: Livernois Motorsports 427 LSX, Callies Magnum crank, Diamond pistons, Callies rods, ETP heads, FAST LSXR intake, GT55 91mm turbos, air-to-water intercooler/TH400 tranny by Rodney at RPM transmissions
Cooling system: Meziere water pump and an EWP/Dewitts Radiator
Accessory drive system: Stock
Engine mounts: Pfadt Solid
Trans mount: Pfadt Solid
Headers: IPS custom long tubes
Fuel system: IPS Custom
Oil pan: Stock LS7

Mark's car is a great example of the potential of boosted LSX architecture. It puts 1,309 hp and 1,132 lb-ft of torque to the wheels with 18 pounds of boost. At 21 psi, the car has run 8.15 at 173 mph and Mark says that except for the obtrusive nature of the rollcage, the car is very streetable.

MID-ENGINE GHIA

Ricky Byrd
Devine, TX
'64 VW Karmann-Ghia
Engine/Trans: 6.0L Chevy augmented by a MagnaCharger/Mendeola transaxle
Cooling system: Stock with a Stewart Competition helper pump and a custom front-mount radiator
Accessory drive system: Stock
Engine mounts: Custom
Trans mount: Custom
Headers: Custom
Fuel system: Dual Walbro 255 pumps in a custom stainless steel tank
Oil pan: Moroso aluminum pan for a fourth-gen Camaro

Ricky owns a body shop and used his considerable talents to stuff a 2x4 rectangle-tube chassis beneath the diminutive Vee-dub body and then mounted the 425hp 6.0L in the rear of the driver compartment. Custom touches like the recessed Mercedes Benz headlights are found everywhere, and yet Ricky has no qualms about flogging the VW on the autocross and the quarter-mile, where it ran a 12.31-second pass at 115 mph.

HOTTEST ENGINE IN AMERICA

QUICK BROWN VEGA

Schwartz Performance • Woodstock, IL • '72 Chevrolet Vega
Engine/Trans: '04 Buick Rainier 5.3L LS with a factory LS7 cam, MSD coil packs, and a 100hp NOS kit/TH350
Cooling system: Stock water pump and a Be Cool radiator
Accessory drive system: '04 Buick Rainier with a Schwartz Performance custom alternator mount
Engine mounts: Schwartz Performance
Trans mount: Schwartz Performance
Headers: Stock '04 Buick Rainier exhaust manifolds
Fuel system: Stock gas tank with Aeromotive fuel rails and regulator
Oil pan: Stock '03 Camaro oil pan

Dubbed the Flying Turd by Schwartz Performance, this flyweight Vega is a rocket both on the autocross and the dragstrip thanks to its Schwartz aftermarket chassis and LS1 swap. With 401 hp, the car has run 11.90 at 114 mph, and it won the Baer Brakes Speedstop Challenge at LSFest. The Vega also took Third Place in the autocross. The LS required the hood bracing to be notched for the intake tube, and the heater box had to be notched for the valve cover after the core was flipped 180 degrees to move the inlet and outlet hoses up higher on the firewall.

DEADLY BANANA

Mike Copeland • Brighton, MI • '04 GMC Canyon
Engine/Trans: 427ci LS7 block and heads, Moldex crank, BRC rods, Diamond pistons, 13.7:1 compression, GMPP single-plane intake, Holley 950 Ultra HP carb, and a custom Comp cam with 0.620 lift, 242/252 duration at 0.050, and a 114-degree LDA/LSA. TH400 tranny with a Hipster transbrake and Ultimate 4,500 rpm converter
Cooling system: Stock LS7
Engine mounts: Corvette upper mounts and Cadillac CTS-V lower mounts with custom-fabricated frame brackets
Trans mount: Custom bracket welded to the factory crossmember
Headers: Custom-fabricated 1¾-inch stainless steel primary tubes with 3-inch collectors **Fuel system:** Aeromotive **Oil pan:** Cadillac CTS-V

Copeland is famous because he's the guy at GM who's in charge of building many high-performance projects, including the Cadillac CTS-V and our own E-Rod–powered '79 Camaro Z28 (with an engine swap seen in this issue). Mike's Canyon has run 10.44 at 131 mph with a mild shot of nitrous and competed at HOT ROD's Drag Week™ in 2009.

CORNER KING

Brian Finch
Hermitage, TN
'71 Chevrolet Camaro
Engine/Trans: 418ci LS3 with L92 heads/T56
Cooling system: Stock LS1 water pump and a C&R radiator
Accessory drive system: Corvette LS1 with a Kwik Performance A/C relocation bracket
Engine mounts: Detroit Speed & Engineering subframe and mounts
Trans mount: Custom tubular
Headers: Handbuilt 1⅞-inch stainless headers with V-band connectors
Fuel system: Rock Valley tank with a Walbro pump and LS3 fuel rails with larger injectors
Oil pan: F-body LS1

Brian is a regular on the autocross circuit and is always a threat to take the win in his Camaro. The LS3 makes 501 hp and 486 lb-ft of torque at the wheels. This is the second LS3 he's put into the car. Brian says he upped the ante "after finding out that the first one didn't have enough power to keep up with the Kyle Tuckers and Mark Stielows of the world."

C3 WITH AN LS3

David Knight
Kalamazoo, MI
'79 Chevrolet Corvette
Engine/Trans: E-Rod LS3/Tremec five-speed by Keisler
Cooling system: Massaged factory LS3 and a Jegs aluminum radiator
Accessory drive system: Kwik Performance Corvette offset
Engine mounts: Edelbrock LS adapter mounts
Trans mount: Stock crossmember with a Keisler adapter mount
Headers: Camaro LS3 iron manifolds
Fuel system: Edelbrock high-pressure electric pump with an Aeromotive regulator
Oil pan: Stock '09 Corvette

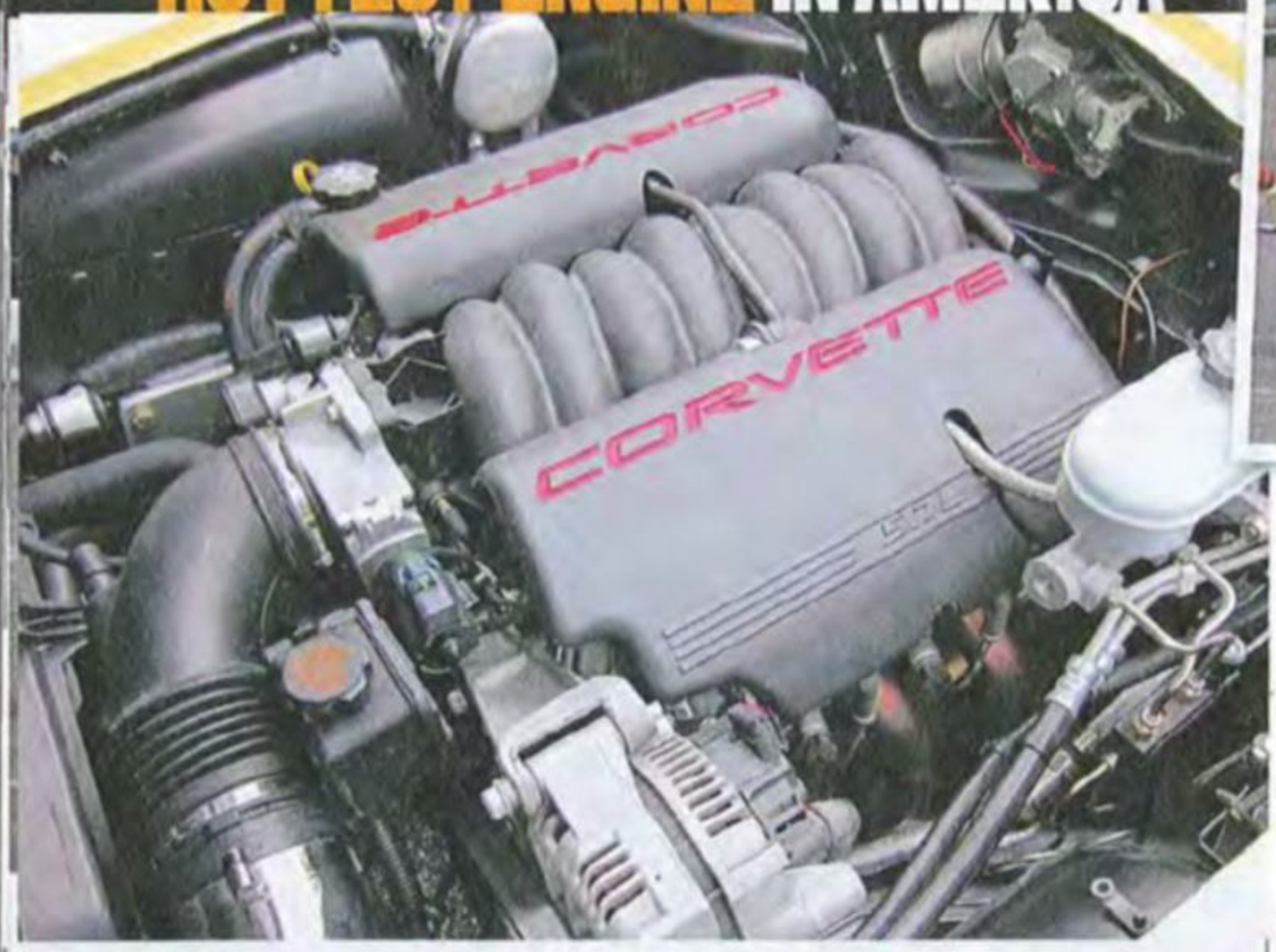
We featured this car in the Feb. '08 issue (where it was chosen for Most Interesting Treatment of a Common Car for the Homebuilt Heroes cover story) and became reacquainted with it at LS Fest. Although the Grand Sport–themed '79 didn't hit the track, the clean install and striking looks once again put David's car on our hot list.

PRO TOURING'S NEXT ICON

Mark Stielow • Warren, MI
'69 Chevrolet Camaro
Engine/Trans: Thompson Automotive 427ci LS9/D&D Performance T56
Cooling system: LS9 waterpump and a custom Griffin radiator
Accessory drive system: Stock LS9 system with a Thompson Automotive 3:1 blower drive pulley
Engine mounts: '02 Camaro passenger-side mount and a '69 Camaro driver-side mount
Trans mount: '69 Camaro with an ATS crossmember
Headers: Kooks headers welded by Stenod Performance
Fuel system: Rick's fuel tank with CTS-V fuel pumps and a Kinsler boost pump
Oil pan: Stock LS9

Mark has made a name for himself in the hot rod world by retrofitting '69 Camaros with awesome powerplants, capable suspensions, and OEM-level detailing. His latest is the Red Devil, another '69 dressed with Detroit Speed & Engineering suspension and chassis parts, which made swapping the Corvette powerplant pretty straightforward. One part of the subframe had to be trimmed to clear the LS9 accessory drive system, though. Probably the most impressive part of this car is that GM engineer Stielow adapted a factory ABS system to the '69, probably a first. This car is a real performer with 750 hp and 830 lb-ft of torque on tap, and at Holley LS Fest it nabbed First Place in the Speedstop Challenge, Second Place in the drag race category with a 10.92 pass at 130.8 mph, and Third Place in the autocross. Mark grabbed the overall Grand Champion win at LS Fest.

HOTTEST ENGINE IN AMERICA



C THIS!

John Kundrat
Macedonia, OH
'64 Chevrolet Corvette Stingray
Engine/Trans: '04 Corvette LS1/'02 Camaro T56
Cooling system: Stock water pump and a stock '64 Vette radiator
Accessory drive system: Stock '04 Vette with a Fluidampr 10 percent underdrive pulley
Engine mounts: SRIII aftermarket chassis with polyurethane small-block mounts and SRIII Motorsports LS adapter plates
Trans mount: The trans tunnel had to be raised 3/4 inch to fit the T56 and a stock-style mount.
Headers: Owner designed and fabricated 1 3/4x32-inch equal-length stainless primary tubes with 3-inch merge collectors
Fuel system: LS6 intake with nonreturn fuel rails
Oil pan: '05 Corvette LS2

Aside from the tranny tunnel work, John's Vette required very little surgery to fit the new combo under the hood thanks to the SRIII tube chassis. John put 20,000 miles on the car this summer while getting 28 mpg on the highway. The car lacks a rollbar, so it's not track legal, but with 410 hp and 405 lb-ft of torque to the wheels, it would run 11s easily.

WHITE LIGHTNING

Lumus and Lane Culver • Laceys Spring, AL • '93 Mazda RX-7
Engine/Trans: 402ci LS2 with a 150hp nitrous system tuned by Hinson Motorsports/ Powerglide
Cooling system: Stock GM water pump with a Hinson Motorsports radiator
Accessory drive system: Stock LS2 accessories with A/C
Engine mounts: Hinson Motorsports subframe with bolt-in mounts
Trans mount: Hinson Motorsports
Headers: Hinson Motorsports 1 7/8-inch stainless steel headers
Fuel system: Hinson Motorsports Street system with twin in-tank pumps and Torrent fuel rails
Oil pan: Stock Corvette C6 LS2

The Culvers' RX-7 garners respect for imports everywhere thanks to a 680hp LS2 and mid-9-second e.t.'s. Hinson Motorsports performed most of the work to convert the Mazda to LS power, and the bolt-in subframe makes the job pretty straightforward. It's equally adept on the road course and autocross, and with a price tag of just $30,000 for the car and conversion, this streetable race car is a bargain performer.

THE NUMBERS DON'T LIE

We were curious about how many Gen I small-blocks GM Performance Parts is selling these days compared with the number of LS engines, so we asked a few connected individuals and got nowhere. Getting accurate sales figures out of GM is akin to getting a celebrity to admit to having plastic surgery—it ain't gonna happen. However, we *did* talk Scoggin-Dickey Parts Center (one of the largest GMPP retailers in the nation) into giving up some relevant info.

Eleven million GM LS engines are in use today, and since 1999, the annual production output has topped 900,000 units. LS sales apparently haven't surpassed those of the old small-block yet; GM hasn't produced a vehicle with a Gen I or Gen II small-block since 2002, but the small-block had a big head start with its debut in 1955. The Corvette received the Gen III LS1 in 1997, and the major production change from the old small-block to the new LS engine family took place in 1999. Today, all V8-powered GM vehicles are motivated by the Gen IV (LS3, LS7, LS9, and L09) small-block as it is known internally to GM.

Sales of the LS continue to move up the charts in quantities sold for hot rodding and replacement engines, but according to Scoggin-Dickey, they still haven't beaten out the old small-block. GM crate engine sales are broken into two categories: performance crate engines that are offered through GM Performance Parts dealers and OEM replacement engines that are available at any GM dealership. The Gen I and II small-block Chevy engine family still holds a majority of the number of engines sold through these channels. It is interesting to note, however, that there has been a slow and steady decline in the total number of small-block Chevy crate engines sold for the last 10 years. Obviously, some of this is due to increased competition and manufacturing in the crate engine industry. See Scoggin-Dickey Performance Parts at SDParts.com

FORD RACING FIGHTS BACK

We knew our pals in the Ford camp would have something to say about our declaring the LS as the hottest thing going. Ford Racing's Jesse Kershaw argued against the LS and in favor of the new 5.0L four-cam engine in the Mustang, citing its lower weight (400 pounds), better looks, more efficient factory power compared with displacement (412 hp from only 302 ci), and the high-tech nature of its variable cam timing that boosts torque, making it feel like a bigger engine. Jesse says, "Twin variable independent cam timing allows us to dial in a nearly optimal horsepower-to-torque curve throughout the entire powerband. Cutting it out loses nearly 10 percent of the torque at low rpm. Others have done this with active intakes that alternate between short and long runner, but that's like an on/off switch, whereas variable cam timing is like a dial that turns it up as needed."

He also argued the price point, saying that the 5.0L crate engine is a good candidate for bang for the buck. "You can buy a brand-new, all-aluminum engine making more than 400 hp with the air inlet and all wiring to plug t into anything for right around $8,000 from Ford Racing," he says.

Yes, the engine is brand new, but we've already reported on a lot of guys running in the 10s and even a few in the 9s with them, and the aftermarket is falling all over itself developing speed parts for it thanks to the rabid drag racing bent of the Mustang crowd. And Jesse points out that Ford Racing's supercharger kit, which is CARB-approved, bumps output to 642 hp. It's a good time to be a Ford fan. But will the 5.0L catch up to the LS in swap popularity? **HRM**

RATTY PONTIAC

Phil Brewer
Cumming, GA
'64 Pontiac LeMans
Engine/Trans: LS1 with L09 heads, Comp Cams valvetrain components, 90mm throttle-body and cable conversion, and custom spacers to mount early-style injectors/T56
Cooling system: '02 Camaro
Accessory drive system: Stock '02 Camaro with Kwik Performance brackets
Engine mounts: Muscle Rods by BRP Hotrods
Trans mount: Muscle Rods by BRP Hotrods
Headers: Muscle Rods by BRP/Hedman Husler Hedders
Fuel system: BRP Hotrods
Oil pan: LH8 Muscle Rod pan by BRP Hotrods

Phil Brewer's company, BRP Hotrods, specializes in LS swap parts. We chose his car because it has killer patina and it's a LeMans. The 5.3L LS1 is hopped up with more compression and camshaft, and the chassis features a prototype BRP coilover conversion and ladder bars. The LeMans is rolling on factory late-model GTO wheels, too. Dig the Pontiac Blue engine.