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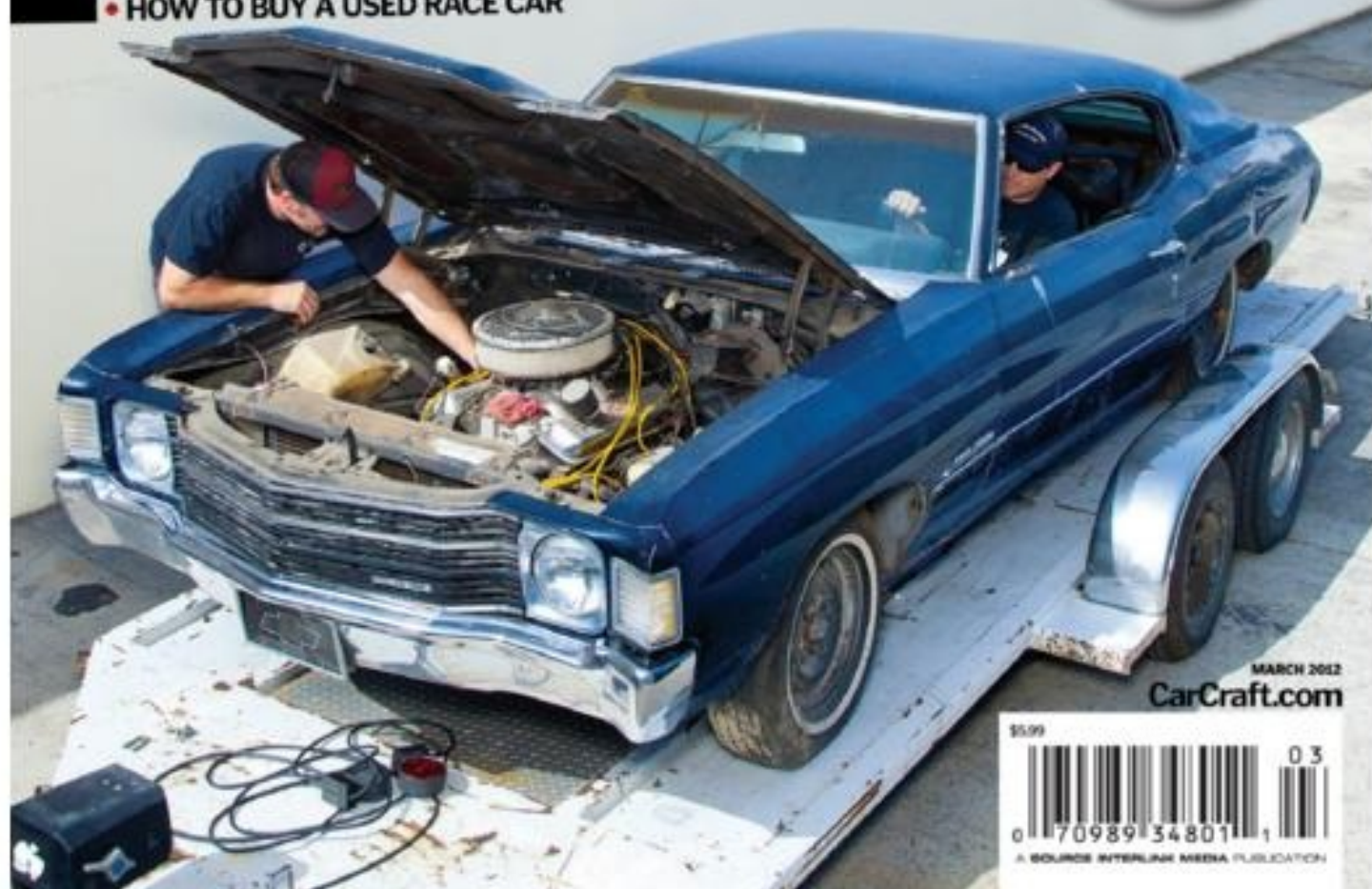
SWAP MEET

SCORES

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A BOUNCE INTERLAGE MEDIA PUBLICATION

BENCH BUILD

Douglas R. Glad

GET INTO DRAG RACING Do you drag race? The CC guys try to get out to the local eighth-mile as often as possible with anything we can get our hands on. It's mostly mid-11-second street cars, but on...

Hands C



BENCH BUILD

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This is John Calvert's '10 Cobra Jet Mustang at Pomona.

GET INTO DRAG RACING

Do you drag race? The CC guys try to get out to the local eighth-mile as often as possible with anything we can get our hands on. It's mostly mid-11-second street cars, but on occasion, we get to drive some hard-core stuff that is really hair raising—like the new Cobra Jet Mustang.

The above photo is of John Calvert's '10 Cobra Jet Stock Eliminator car. The powertrain is a Windsor-based 428 with an automatic transmission. To meet the A Stock class weight break, the car must have 8.00 to 8.50 pounds per rated horsepower. It's a race car, so we can't divulge the actual numbers, but the advertised power is 375 and the weight is 3,200 pounds, putting it in a natural B/SA. The NHRA allows you to go up or down one class, so Calvert runs it in A/SA, meaning it is the lightest his car can run, and thus the fastest.

Normally, Stock Eliminator cars have a production run of at least 500, but there are holes for OE manufacturers to get away with having only 50 production cars offered and make the class. The drivetrain must be available on at least one of the 50 cars used in the race. For 2010, the Cobra Jet could be ordered from Ford with a Windsor- or 302-based small-block or super-charged 5.4L and a five-speed Liberty or two- or three-speed automatic transmission.

To be competitive, a Stock Eliminator needs to run one second faster than the national index. For example, if you were running in a class with a national index of 10.90, you would need to run near 9.90 to qualify at the top of the ladder. Running faster bumps up your horsepower rating, and the NHRA will add weight to slow you down. During eliminations, competition is more like a bracket race. Each round, racers dial in a time faster than the class index and try to hit that number. If you are too fast, you lose. If you run against another car in the same class, you get to throw the dial out and run heads-up.

The class can get complicated, so what if you could get all these late-model cars ('05 and up) and run them heads-up using a weight limit but no horsepower restriction? This idea was hatched by Ford Racing's Jesse Kershaw as a way to respawn the early days of Pro Stock. Imagine Fords, Chevys, and

Mopars doing big burnouts, wheelstands, and 8-second passes using factory hardware while fighting out at your local strip. That would put some punch into Sunday afternoon. Food for thought.

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Hands On



590HP, 426CI HEMI CRATE ENGINE

By John McGann

Of the two domestic manufacturers that faced bankruptcy two years ago, Chrysler was especially hard hit, and we could see it in the faces of the employees we've met since then. You know, that faraway,...



SPEED PARTS

GET YOUR BLINKERS WORKING What it is: Direct-fit steering columns for '70 to '75 Camaros Why you care: Your blinker stalk is broken, and you're just ignoring it, aren't you? These factory-fit columns...



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INSURANCE AUCTIONS

You may have noticed a common thread among the eBay sellers we spoke with: They buy their cars from insurance auctions. We suspect that's where all the late-model parts are going, rather than ending...



IN CONTROL

By Jeff Smith

With stand-alone control of electronically controlled overdrive automatics, it's easier to dial in accurate upshifts, and you can just stab the throttle, steer it, and the trans will do the rest. The...



OUR TEST MULE

The best way to test these controllers was to bolt them all in the same car and evaluate their...

performance. Car Craft family member Ed Taylor recently purchased a '70 Nova that had been languishing...



NO MAGIC BOX

One of the first things we discovered when we began testing controllers is that we had unintentionally combined a very high-torque engine with a loose converter and a used 4L80E transmission. We...



TUNING TRICKS

There are several ways to tune these electronic transmissions. Though the process may seem confusing at first, once you know what each step represents, understanding the effects of these inputs will...



HGM COMPUSHIFT II (\$1,136.08)

HGM Electronics created the original CompuShift electronic controller soon after the original GM 4L60E began appearing in Chevrolet cars in the early '90s. The new and improved CompuShift II...



GMPP SUPERMATIC (\$1,139.33)

The GM Performance Parts (GMPP) controller is the only controller we tested that requires a laptop not only to configure the software but also to make changes to the shift values. This requires some...



PAINLESS TORC (\$859.95)

The Painless Torc transmission controller wins the packaging award as the smallest control box of all the units we tested. Both the handheld device and the controller are in a 2¾ by 4½ inch interface...



PCS SIMPLE SHIFT (\$599.00)

With a name like Simple Shift, you would expect it to be exactly that—simple to install and use. Once the harness is connected, all you have to do is set the dials on the side of the controller for...



TCI EZ-TCU (\$614.95)

The TCI EZ-TCU is the only unit in our test fleet offering nearly complete hands-off tuning. The system uses self-learning software originally developed by its sister company, FAST, for the EZ-EFI...



CONNECTIONS

The wiring harnesses on all the controllers look like a bed of snakes due to all the options that must be accommodated. But if all you are looking for is a basic system, making the connections to...



ASK ANYTHING

EFFECTIVE COMPRESSION Glenn Hiller; Higganum, CT: OK guys, you've really got my interest with the Dec. '11 turbo cars. I've been fascinated ever since seeing the cover with the big-block Chevy with...

590HP, 426CI HEMI CRATE ENGINE

Mopar Performance, Auburn Hills, MI

By John McGann



Mopar Performance

Of the two domestic manufacturers that faced bankruptcy two years ago, Chrysler was especially hard hit, and we could see it in the faces of the employees we've met since then. You know, that faraway, demoralized look and demeanor. They had good ideas and great products to bring to market, but they took a harsh beating in the press and needed to come out on the other side of Chapter 11 before introducing some of the products they knew people would want. We're happy to see that Mopar Performance is on target with some impressive products recently unveiled at last year's SEMA show. One of the standouts in this ready-to-run 426 Hemi crate engine. Who wouldn't want nearly 600 hp under the hood of his or her new Challenger?

THE CRATE PACKAGE

Mopar Performance has previously offered a crate version of the 426 Gen III Hemi, but this package makes more power and is sold ready to run with an ECM and wiring harness. This block will accept any Gen III accessory drive and includes attachments for a front motor plate. By the way, 426 ci is accomplished by a 4.125-inch bore and 4.00-inch stroke. This block could be bored out to 4.155 inch and will accept a 4.125-inch crane. Those dimensions add up to 447 ci or 7.3 liters of Chevy-stomping power.

CAM SPECS

They are impressive. How does 0.639/0.628 inch of valve lift sound? Those figures look great on paper. We can't wait to hear one of these engines running.

ENGINE MANAGEMENT

Ready to run implies install it and twist the key. Mopar is making it just that easy by including a calibration kit, which includes a throttle-body, a wiring harness, and an ECM. Ask for part number

VALVETRAIN

Stock rocker arms are used, but tie bars are added to stabilize the valvetrain at high rpm.

PUMP GAS

Yes, it will run on pump gas, as long as you aren't pumping that gas from a station here in California. Mopar recommends 93-octane. Come on Cali, give us better gasoline than 91-octane.

SHORT-BLOCK

Where the production SRT8 blocks are all cast iron, the foundation for this plant is aluminum and offers an impressive 100-pound weight advantage compared with the iron block. Inside, you will find a sturdy forged crankshaft supported by cross-bolted billet steel main caps. All new Hemis have cross-bolted caps, of course, but the second, third, and fourth main cap in this block have six bolts instead of the standard four. Forged H-beam rods support forged 11:1 pistons.

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SPEED PARTS



GET YOUR BLINKERS WORKING

What it is: Direct-fit steering columns for '70 to '75 Camaros

Why you care: Your blinker stalk is broken, and you're just ignoring it, aren't you? These factory-fit columns will fix all your steering gremlins and can be painted body color, powdercoated, or purchased in glorious chrome. They are 100 percent American made with an eight-position tilt and GM-specific wiring.

How much: \$619.95

Learn more: [ididit](#); Tecumseh, MI; 517/424-0577; [ididit.com](#)

STOCK-APPEARING DISTRIBUTOR

What it is: A cast electronic distributor that looks like you are running points

Why you care: If you want a points-style look with the accuracy of electronic ignition, check out the Flame Thrower Stock Look distributors for 221- to 302-inch Ford small-blocks. You can order one with the Igniter or Igniter III electronic ignition modules and it works with your stock or aftermarket coil.

How much: Call for prices

Learn more: [PerTronix Performance Products](#); San Dimas, CA; 909/599-5955; [PerTronix.com](#)

SUPER BLACK AND FUEL READY

What it is: TechAFX BlackWrap PTFE AN fuel hose and fittings

Why you care: BlackWrap is an affordable, enthusiast-built PTFE hose that has the high-tech OEM black look while providing the performance of a PTFE hose/fitting assembly. BlackWrap features a black nylon outer covering over a stainless steel braid to provide an abrasion-resistant hose that look great with the TechAFX black aluminum AN fittings. As with all TechAFX PTFE hoses, BlackWrap features a conductive PTFE core that provide years of maintenance-free service when exposed to today's fuels, and it addresses issues with fuel-flow static buildup.

How much: TechAFX BlackWrap hose and AN fittings are available in -6, -8 and -10 sizes at prices close to what old-style rubber-core hoses cost. The difference is the PTFE hose will last for the life of your ride . . . something rubber hose can't do!

We say: The PTFE conductive-core hose solves the problem of fuel prematurely destroying rubber hose and your car smelling like gas when sitting in the garage. Sounds good to us!

Learn more: TechAFX; 877/355 0137, TechAFX.com

UNIVERSAL DISTRIBUTOR GEARS

What it is: This is a steel distributor gear that can be used with both cast-hydraulic and solid-roller camshafts.

Why you care: Thanks to Crane Cams' special cam-gear coating and treatment, you don't have to run a bronze distributor gear with a roller cam.

How much: About \$70 depending on the application

Learn more: Crane Cams; Daytona Beach, FL; 866/388-5120; CraneCams.com

FRAME CONNECTOR FOR CONVERTIBLES

What it is: Three-point subframe connectors for '93 to '04 GM F-body convertibles

Why you care: Now you can buy a bolt-in subframe connector for convertibles to increase chassis stiffness and improve overall driveability of the car. The connectors tie the front and rear subframes together while adding additional cross-bracing through the center of the vehicle. The kit is available red or black-powdercoat finish.

How much: \$349.99 for a set

Learn more: UMI Performance; Philipsburg, PA; 814/343-6315; UMIPerformance.com

PORTED 5.0 CYLINDER HEADS

What it is: A set of CNC-ported cylinder heads from JPC Racing for your 5.0L Mustang with an advertised intake port flow of 335 cfm and an exhaust port that flows 232 cfm at 0.600 lift

Why you care: The 5.0L already makes more than 400 hp. Adding a set of cams and ported heads is going to get you closer to 450. Now all you need is a blower.

How much: Stage 1 heads are \$1,595.00 with exchange.

Learn more: JPC Racing; Millersville, MD; 866/JPC-RACE; JPCRacing.com

NEW CHEMICALS

What it is: Summit Racing's new line of detailing stuff

Why you care: Continuing its march toward world domination, Summit recently announced the launch of its new line of detailing products, and based on the product descriptions, it sounds like quality stuff. Summit offers a range of compounds to remove oxidized or sanded paint, glazes to take out the swirl marks and bring out the shine, and detailer and clay bars to maintain the finish.

How much: Cheap—check Summit’s website for prices.

We say: Next, Summit will sell fully built and running cars.

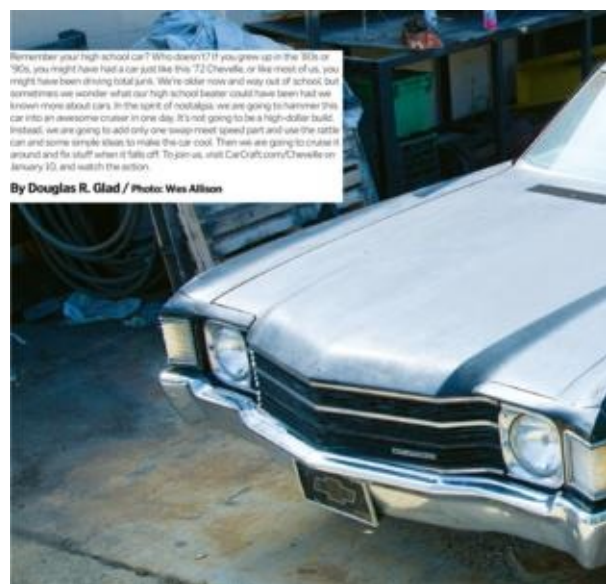
Learn more: Summit Racing Equipment; Tallmadge, OH; 800/230-3030; SummitRacing.com

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THE HIGH SCHOOL CHEVELLE

By Douglas R. Glad



Remember your high school car? Who doesn't? If you grew up in the '80s or '90s, you might have had a car just like this '72 Chevelle, or like most of us, you might have been driving total junk. We're older now and way out of school, but sometimes we wonder what our high school beater could have been had we known more about cars. In the spirit of nostalgia, we are going to hammer this car into an awesome cruiser in one day. It's not going to be a high-dollar build. Instead, we are going to add only one swap-meet speed part and use the rattle can and some simple ideas to make the car cool. Then we are going to cruise it around and fix stuff when it falls off. To join us, visit CarCraft.com/Chevelle on January 10, and watch the action.

By Douglas R. Glad / Photo: Wes Allison

Wes Allison

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Join us at CarCraft.com/Chevelle on January 10, 2012!

JUNKYARDS, NOW

By John McGann



John McGann

The traditional junkyard is dead. R.I.P., dear junkyard. We shall miss thee. A change has been under way for the last decade or so, and we've noticed it at the self-service junkyards we frequent in Los Angeles County. Useful parts are hard to find. Of course, useful is a relative term. If you're in need of parts for an Accord, Civic, or Corolla, no problem. But finding a car with a V8 engine in the front driving the wheels in the rear has become much more difficult.

We must stipulate that because the ratio of four-cylinder, front-drive cars to V8, rear-drive cars manufactured since the '80s heavily favors the former, and as the latter end their life cycles, one can only assume to find greater numbers of front-drive econoboxes in wrecking yards. However, if the Camaro and Firebird were manufactured until 2002, and the Mustang never ceased production, where are they? We have only seen a handful of fourth-gen F-cars and SN-95 Mustangs in the junkyards, and they have either had their entire drivetrain plucked before being set out in the yard or they are so badly damaged that nothing useful remains.

All magazines, including CC, are guilty of propagating some variation of the following statement: "We got this engine out of the junkyard, and it cost us next to nothing." You will find this somewhere in an article detailing the "budget" build of something. If the build is a small-block Chevy, yeah, it's probably true. Carbureted and TBI 350s are still available in junked work trucks. But if it's referring to an LS1 or new Hemi, it may be time to call the truth police. Your author has personally never seen any variant of the LS engine in the junkyards. Ditto for the Hemi. Yet GM and Chrysler have churned out hundreds of thousands of them in trucks and SUVs since the late '90s, so where are they? For sale online, that's where.

Online shops are the new junkyards. They have been for several years, but we've been slow to acknowledge it. Over the last couple of weeks, we've spent a huge amount of time scouring the Internet looking for used parts. At other jobs, this would be cause for dismissal, but here at CC, we call it research. Anyway, the proliferation of parts available online is astonishing. You could piece together just about any domestic engine made in the last 60 years with a PayPal account and some time to kill on a Saturday afternoon. So to get your creative juices flowing, here are some of the

engines and combinations we stumbled across.

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THE BRICKS AND MORTAR JUNKYARD



John McGann

Let's start with the parts we believe are still available at your local junkyard. You'll have to sift through all the front-wheel-drive stuff to find them, though.

As mentioned in the lead, small-block Chevys can still be found in the self-service junkyard. Usually you will find them in work trucks, and occasionally you will see them in G- and B-body cars. But we've been surprised to see several big-blocks lately. Head straight to the truck section, and you'll probably get lucky. This 454 is complete and looks pretty decent sitting in the engine compartment of a utility truck. As little as five years ago, you'd never have seen this. The engine would be long gone before the truck made it out to the yard. There were four other 454s the day we took this picture.

Our apologies for the crappy photo—the junkyard workers like to rough us up if they see us snapping pictures, so we had to resort to subterfuge to get a shot of this 455 Buick in what looked like the remnants of a '74 Estate. Like all engines of the smog era, the 455 had horsepower ratings hovering around 250 and suffered from dismal compression ratios, but that is easily remedied by a pair of TA Performance heads and a good cam. This would have been a score. We haven't seen a big Buick engine in the yard in a long time.

We've seen a lot of 460 Ford engines in trucks, too, both carbureted and fuel injected, but we were very surprised to see this mint-looking 460 in a '71 Lincoln Continental. These 385-series 460 engines were phased into the Lincoln line in 1968 to replace the outgoing MEL-series 462-cid engines. The '71-and-older engines sported 10.5:1 compression ratios and 365 hp. Starting in 1972, compression dropped to 8.5:1 and fell to as low as 8.0:1 by 1973. Power output plummeted to a depressing 220 hp. Grab one of these and drop on some Ford Racing Cobra Jet heads or Kaase P51 heads. Put that combination in a Fox-body Mustang, and hold on for dear life.

Continuing with the crappy photo theme, we offer this Chevy LT1 in a '94 Firebird, also parked near the watchful gaze of the guard tower in the yard. Often overlooked, LT1s make good swap candidates. They fit anywhere a standard small-block can go, they have good cylinder heads, they make close to 300 hp out of the box, and their engine management systems are fairly simple when compared with OBDII cars of the last 15 years. We see at least one LT1 in the yard each time we go.

We can always count on seeing 4.6 Ford engines in the junkyard. You can find iron-block, SOHC 4.6 engines all day long in Thunderbirds, Cougars, and fullsize cars, and it's not unusual to see an all-aluminum DOHC 4.6 Mark VIII engine, either (shown in this photo). Why are they so plentiful? We can only speculate that it's because modular engines aren't easily swappable into older cars. They are physically so much larger than any pushrod engine they would replace that the chassis modifications required to get these things to fit an older car scare many people away. The 4.6 engines aren't the only members of the modular family, which also includes the SOHC and DOHC 5.4 engines in trucks and SUVs, the SOHC 6.8L V10, and the '05-and-later 4.6 and 5.4 three-valve engines. Good luck finding any of these in the yard; we've only seen one—a SOHC 5.4 in an F-350.

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THE DIGITAL SWAP MEET



So what do you do if you want a later modular engine, a new Hemi, or an LS anything? You have to go online. Among other things, the Internet has spawned a number of mainly online businesses selling car parts, many of them dealing specifically with late-model cars. Check out the random sample we came across while searching eBay.

Introduced in the '05 Mustang GT, the all-aluminum 3V 4.6 V8 offers 300 hp, sounds great, and is able to stand up to some boost and nitrous as long as you don't go too far beyond 450 hp at the wheel. If you're not afraid of cutting shock towers out of an early unibody car, these engines make good swap candidates. Ford Racing offers a crate version with a stand-alone ECM. If that's too rich for your blood, look for a used version online. If maintained well, these engines run for more than 100,000 miles.

Here's a combination guaranteed never to show up in your local junkyard: the engine and trans from a Mach 1 Mustang. This is a 300hp, forged-crank, 32-valve 4.6, and it's being sold with the car's TR-3650 trans, ECM wiring harness, hydroboost brake master cylinder, clutch-pedal assembly, radiator, and fans—everything you need for a full swap. The price is good, too, especially considering the engine's superlow mileage. Online seller MPS Salvage has this and the even more desirable supercharged '03 Cobra drivetrain conversion, selling it for a little less than \$10K. Anyone want to swap a Cobra drivetrain into our Project Panther cop car?

While you're at it, shop around for power-adders. At article, searches for both Whipple and Kenne Bell superchargers turned up no results. A search for Eaton superchargers did, however, which makes sense given that most factory-supercharged cars—Mustang Cobras, Lightning pickups, Thunderbird Supercoupes, and Pontiac Bonneville SSEs—came with Eaton superchargers. As owners upgrade in search of more power, you can often find these superchargers for sale at good prices. The Eaton M11 was standard equipment on '03 to '04 Mustang Cobras and '99 to '03 Lightning pickups. Note the different air inlet arrangement for each application. Air enters through the back in most applications, but from the top in the Lightning, and through a U-shaped bend in the case of the Cobra, where hood clearance was an issue. Each supercharger fits in a specific base because the intake ports on the Cobra's DOHC cylinder heads are shaped differently than the SOHC heads on the Lightning.

LKQ stands for Like Kind and Quality. As a company, its original mission was to supply parts to auto body shops. In cases in which an insurance company decides to replace damaged panels with used

parts (rather than new parts), they are replaced with parts in a similar condition to the rest of the car—like in kind and quality. Over the last decade, the company has branched out from its business-to-business model and now sells direct to retail customers online and at several walk-in stores throughout the country. The company owns a broad network of junkyards across the country and has access to late-model cars totaled out by insurance companies, which often have perfectly operating drivetrains ripe for the picking. See what's available for your car at LKQ (LKQOnline.com or eBay.com/LKQOnline).

To mod motor guys, this is the Holy Grail. The Ford GT came with an all-aluminum, dry-sump, supercharged, 32-valve 5.4L engine making 550 factory-warrantied horsepower. We have seen some of these engines making more than 1,000 hp and hitting 200 mph in standing-mile competitions. If you have \$25,000 to spare (and who doesn't these days) you can pick this up from Mr. Norm's (yes, the Mopar guy) eBay store.

So maybe you don't have the scratch to buy a complete Ford GT engine. Why not build a close version of it? Got a rapper buddy with a Navigator? Wait till he rolls the thing and buy it from the insurance company after it's declared it a total loss.

Unfortunately, the Ford GT supercharger and intake manifold won't fit a Navigator engine. GTs and the super-rare '00 Cobra R came with unique cylinder head castings. These are the best flowing factory modular cylinder heads ever made. They are also the most expensive. Good luck finding them anywhere, and prepare to take out a second mortgage if you do. To run an engine naturally aspirated with these heads, the only manifold that fits is from an Cobra R, and check out that price!

By contrast, the \$3,000 asking price for this rebuilt V10 seems quite reasonable. Its extra length makes this engine less desirable as a swap candidate, though it might have fit in the engine compartment of the Lincoln Continental seen earlier in this article.

Between 1999 and 2005, Lincoln equipped these blinged out Expeditions with 32-valve versions of the 5.4L engine rated at 300 hp and 355 lb-ft. Snag that and throw it into something lighter than the 5,600-pound truck.

As a shameless bit of self promotion, check out the price of our most recent issue featuring a Cobra R. Shouldn't we staffers be entitled to royalties from sales like this?

Here's a seller who's really created a niche for himself. Bob Cook is the owner of BL Auto Parts in Frazeysburg (rhymes with Crazysburg), Ohio, and his eBay store specializes in '99 to '04 Mustang parts. If you like modular Mustangs, especially Cobras, you can waste several hours looking through his listings.

Cook tells us he began selling parts online about two years ago and that it has been very profitable. "About 75 percent of my income comes from online sales, and about 25 percent of those buyers are doing resto mods—V6 to V8 Mustang swaps or modular engines into older cars," he says. He buys from insurance auctions and looks for cars with 75,000 miles or less. "It's hard to sell parts with more mileage than that," Cook says. He sells about 150 parts per month. We first ran across his store searching for Cobra suspension parts.

With an asking price of \$2,000 plus shipping, maybe it is worth looking into Northstar power. Does

anyone remember the XLR-R? It came with a supercharged 4.4L Northstar that makes 443 hp. That could be fun, and it would be completely different in an older muscle car.

Cook and his son run the online business. They also operate a local automotive repair shop “working on everything from race car chassis to welding broken parts on a tractor.” In their spare time, he and his son are building a '70 Mustang using the drivetrain and floorboards from an '03 Cobra. Fitting the shock towers from the donor chassis to the '70 body is a simple and elegant way to make this swap work. We also approve of Cook replacing the Eaton M112 supercharger with the big Kenne Bell seen in this picture.

Check it out, they're even using the '03's independent rear suspension under the '70. Maybe we should be booking flights to Columbus to shoot this car.

Yes, we've run a ton of LS engine articles over the past two years, and some readers are sick to death of them. If you count yourself among that crowd, what do you think of GM's other late-model V8, the Northstar? The front-drive versions are packaging nightmares, but later versions can be found in rear drive cars like the STS, XLR, and SRX (a short-lived unibody SUV). We don't know much about them other than the obvious 4.6L displacement, DOHC architecture, and healthy 320hp rating. What can they fit in? Is tuning software available? We have no idea. Wanna see some Northstar articles? We can dig up the answers if you want. The engine has only 10 original miles, which makes us wonder what happened to the poor donor car. Maybe it was flipped by a cell phone-distracted, Cadillac-dealership sales guy.

Enough with the Ford stuff, how about some LS engines? We've long been singing the praises of the pumped up LQ9 Escalade engine, but what does it actually cost to buy one? Autopartsdepot2000's eBay store had one of the best prices on a complete engine that we've seen so far.

Here's an idea we've tossed around the office: Why not build a 5.7L engine out of a lowly 4.8? It is possible to bore these blocks out to LS1 specs. Considering the asking price for this engine, why wouldn't you? Externally, the iron block says small displacement, so bore that sucker out, plop on some decent heads, slide in a nasty cam, and you've got the makings of a sleeper.

We've taken some reader heat lately about the relative lack of Mopar edit in CC. Our project Demon will solve that. And you can build your own alongside Editor Glad by shopping online. Check out this ready-to-run 6.1 Hemi. Don't get sticker shock looking at the \$7,000 asking price. Keep in mind you're also getting a five-speed automatic transmission, ECM, and wiring harness. Fit that into something cool and take it to your local tuner to get it running. The new Hemis haven't gotten the praise they deserve in the pages of CC. They are rugged engines that make great power.

If you do decide to build that LS1 in disguise, you're going to need the internal parts. We discovered the eBay store of BBJ Automotive Cores. Specializing in late-model GM engines and parts, owner Billy Ingram told us 95 percent of his sales are from online customers. He buys engines from wrecked cars, disassembles and inspects all the parts, and sells everything that meets his standards for very reasonable prices. You could build an entire engine, complete from intake to oil pan with a complete accessory drive just by shopping from his site.

Cleveland Pick-A-Part is the online seller of the 6.1 Hemi in the adjacent picture. We spoke with online sales manager Jay Kacz about the company. “It's been a family-owned business for 26 years.

We started out as a traditional junkyard but have evolved into a seller of performance-oriented parts. ~~Seventy-five percent of our customers are building custom cars and hot rods, and the other 25 percent are resto-modding new cars, like V6 to V8 swaps.~~”

Kacz says Cleveland Pick-A-Part buys cars from insurance auctions, mostly from the Southwestern states, and dismantles them at its facility in Columbia Station, Ohio. The parts are clean and rust free. Need a front clip for your Magnum? Pick-A-Part has one.

Direct Auto Parts Wholesale is another eBay seller we discovered. Owner Mario DiBacco tells us his buyers are generally repair shops replacing a damaged engine with one that he is selling. “But I’ve sold six 6.1L Hemis in the last five months, and the buyers all told me they were going into older cars,” he says. Maybe we should track down those buyers and follow along on their builds.

DiBacco also had a DOHC 5.4 Navigator engine for sale at the time we were talking with him. \$2,000 is a good price for this engine, especially for one with such low mileage. Shipping is cheap, too, at \$350.

WAY OUT THERE

Do you ever type in ridiculous search words to see what results you will find? We did just that (all in the name of research, of course) and found this after searching “unique engines.” According to the description, this is a Bristol Siddley Olympus 22R turbojet engine. It was the prototype engine for the British Aircraft Corporation’s TSR-2 Military Aircraft Program. We’re not sure what that means, but it sounds important. Shipping to your door is possible!

SOURCES

BBJ Automotive Cores; Lorena, TX; 254/857-4740; Stores.eBay.com/BBJ-Automotive-Cores

BL Auto Parts; Frazeyburg, Ohio; 740/828-9850; Stores.eBay.com/BLAutoparts

Cleveland Pick-A-Part; Columbia Station, OH; 866/236-5031; Stores.eBay.com/ClevelandPickAPart

Direct Auto Parts Wholesale; Montreal, Quebec, Canada; 866/322-4423; Stores.eBay.com/Direct-Auto-Parts-Wholesale

eBay Inc.; San Jose, CA; 800/322-9266; eBay.com

Insurance Auto Auctions; Winchester, IL; 708/492-7000; IAAI.com

LKQ; Chicago, IL; 312/621-1950; LKQCorp.com or Stores.Ebay.com/LKQOnline

MPS Auto Salvage; Statham, GA; 404/783-3856; Stores.Ebay.com/MPSautoSalvage

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INSURANCE AUCTIONS

Here is one online insurance auction. You can find Insurance Auto Auctions at IAAI.com.

You may have noticed a common thread among the eBay sellers we spoke with: They buy their cars from insurance auctions. We suspect that's where all the late-model parts are going, rather than ending up in our favorite Pick Your Part junkyards in Wilmington and Sun Valley, California. That got us thinking, How do we get in on that? After some preliminary digging, we discovered you need to be a licensed automobile dealer to bid in auctions like this. Rules vary among states, of course, but this is food for thought. Clearly there is a market for these parts, and the business owners we spoke with said they were able to make enough money selling parts from salvage cars to support themselves. In this economy, that is impressive.

With a dealer license, you have access to the latest cars and the newest parts. Check out this steaming hulk that was once a \$63,000 Cadillac CTS-V. According to Caddy's website, this '11 CTS-V is the world's fastest production sedan with a 556hp, supercharged, 6.2L LSA engine and 0 to 60 times of 3.9 seconds. Looks like all that performance got the better of the unwitting soul behind the wheel of this car. Though the site showed no pictures of the engine, we think it would be cool to snatch it up. The LSA is basically a slightly detuned version of the mighty LS9 from the ZR1 Corvette.

The other new engine we'd love to get our grubby hands on is Ford's new 5.0 Coyote V8. It cranks 412 hp at a silky smooth 7,000 rpm, and this owner's misfortune could be a treasure trove for us. The listing states the engine starts and runs fine, and there are just over 12,000 miles on it. A Coyote Panther would definitely be in our future.

IN CONTROL

By Jeff Smith



Here's our 496ci Rat nestled comfortably in the engine compartment. We chose a carbureted application that required the more complex TPS conversion.

Ed Taylor, Jeff Smith

With stand-alone control of electronically controlled overdrive automatics, it's easier to dial in accurate upshifts, and you can just stab the throttle, steer it, and the trans will do the rest. The performance world is changing. While power remains almighty, the new world is all about how to get that power to the tires. The best way to control an automatic transmission is to use one of the new, electronically controlled overdrive gearboxes. But swapping one of these newer e-trannies into an older muscle car requires some type of aftermarket, stand-alone transmission controller. Names like EZ TCU and Simple Shift made us wonder if these controllers could live up to their hype. The only way to know for sure was to put them to the test.

We gathered five different controllers and subjected them to a real-world flogging on a big-block street car to see if each could do the job. All the controllers perform the same basic functions, allowing you to custom-tailor shift points both at part- and wide-open throttle, as well as shift firmness at various throttle openings. How specifically each box accomplishes these tasks and how easy it is to effect changes are the key questions. Perhaps the most important differentiation for the average enthusiast is whether the box requires a laptop computer or relies on a handheld device with analog controls.

OUR TEST MULE



American Powertrain supplied the slick, aluminum trans crossmember that bolted the 4L80-E in place with no drama. Also note the DynaTech aluminum driveshaft and the excellent Magnaflow exhaust installed by McMillan Speed & Fabrication. Thanks, Kevin.

Ed Taylor, Jeff Smith

The best way to test these controllers was to bolt them all in the same car and evaluate their performance. Car Craft family member Ed Taylor recently purchased a '70 Nova that had been languishing in front of Ken Duttweiler's shop for several years. We power-washed the grease left behind by the previous turbo Buick V6 and bolted in a Holley, carbureted, 496ci big-block Chevy. You might recall the "Rat" as the dyno mule we whipped mercilessly for a big-block oval-port-head test in our Mar. '08 issue ("Big-Block Cylinder Head Test," pg.30). Behind our 590hp, 620-lb-ft rodent, we bolted a used 4L80E that Ed Taylor scored from Craigslist. We stuffed the 4L80E into the car using a TCI flexplate and a 10-inch lockup Street Fighter torque converter along with a very nice custom aluminum crossmember from American Powertrain and a Dynatech aluminum driveshaft, and the big pieces were in place. Of course, it took more than just a motor and trans to turn this orphan into a road warrior

Other goodies we wanted for the buildup included a new pair of bucket seats from Scat to replace the aged originals and a new set of Toyo Proxes R888 sticky 17-inch tires obtained through our pals at TreadSource and mounted on lightweight RT-S Weld wheels. With the big-block squeezed in, there was no room for a mechanical fan, so we opted for a pair of electric fans from Maradyne mounted to a killer Afco aluminum radiator. That combination worked to prevent the engine temp from exceeding 195 degrees F. We also added a set of Wilwood front disc brakes because the Rat promised enough power to demand equal stopping performance. For the intake, we needed a 950hp Holley to feed the Rat, and for the exhaust side a pair of Hedman 2-inch headers snaked around the stock manual steering box. We completed the exhaust with a great-sounding, 2.5-inch cross-pipe system from MagnaFlow installed by our pal Kevin McMillan. After two months of busted-knuckle work, the car was up and running, and we were ready for street testing.

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