

PROJECT POOR MAN'S GNX

Part 1

This article appeared in *Popular Hot Rodding* February 1994. The layout of the article has been kept as close to original as possible, with the omission of advertisements, etc. The article was all black and white.



BY MATT HARDESTY
Photos by the author

How would you like to own a Viper? How 'bout a ZR-1 Corvette? Maybe an '89 turbo Trans AM? A Buick GNX would also be nice, wouldn't it? Okay, now that you've made your choice, cough up the average \$60,000 for the Viper or Vette, or if you're on a budget, \$30,000 might get you into a turbo T/A or GNX—they're used, you know.

Wait, wait. Don't leave empty handed, there's another alternative. No, you don't have to hock your house and kids to have a modern muscle car that really smokes. It's true the above mentioned cars really are the best of the best in our current second coming of the muscle cars, and it's also a fact that not very many people can afford to buy them even used, but we have the answer. Build it yourself!

We thought long and hard about how we could get a GNX in our garage, and after looking at *Hemmings*, the *Auto Trader* and assorted other car-for-sale publications, we realized the baddest black Buicks are still offered at about what they sold for new in 1987--\$30,000! The more we thought, the worse it got; there was no way we could ever afford it. The answer appeared one day while waiting at the

car wash; we noticed a Buick Regal for sale in the parking lot and upon closer inspection found that it was in fact a turbo T-Type. Looking over the '84 model it occurred to us the GNX was nothing more than a fixed up Grand National, and with a little work and some Bolt-on speed parts we could turn this tired T-Type into a turbo thoroughbred for probably less than 10 grand.

As it turned out, the asking price on the two-tone gray and black T-Type was only \$4000; a little negotiation got it down

to \$3500 because it needed some work. We drove off and immediately realized we had another cheap shot project of

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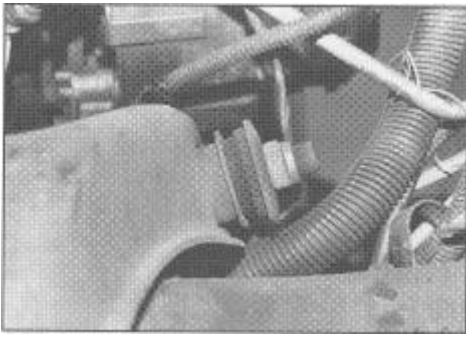


**YOU CAN
BUILD YOUR
OWN FOR
\$20,000
LESS THAN
BUYING A
USED ONE**

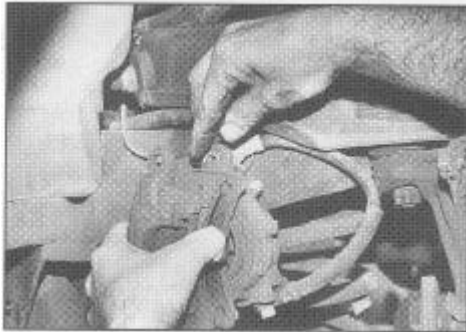


sorts—how to build a poor man's GNX. The Buick GNX, as many know, was one of the fastest American production

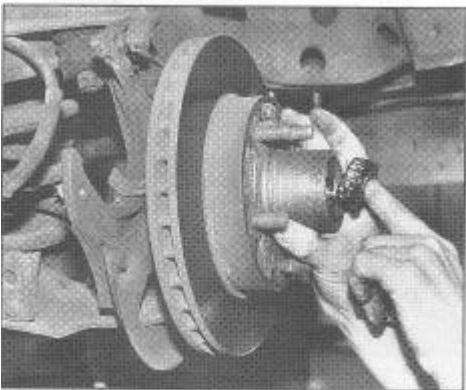
cars ever built and was, when introduced, the fastest car made in America. Seems Buick engineers knew the plug was about



The 10-year-old stock rubber bushings on our Buick were very worn. The inside of this bushing really deteriorated due to heat from the turbo pipes that pass close by. The bushing had gotten so bad the shaft was loose and making lots of clunking noise.

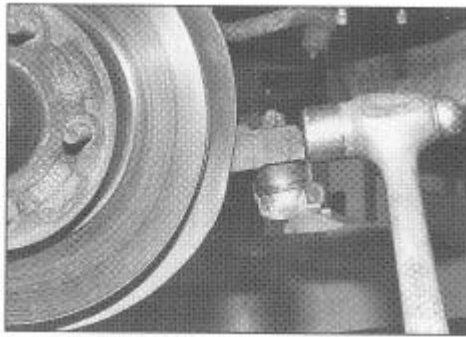


The first step is to remove the front brake calipers and hang them out of the way with a length of wire.

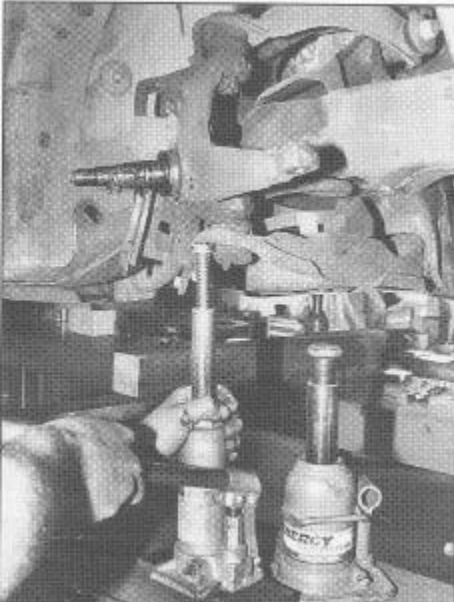


Next, remove the brake rotor and set it aside. Be sure not to mix up the right and left bearings, and keep dirt and other debris out by covering with a clean rag. You should also repack with high-temp wheel bearing grease when you reinstall.

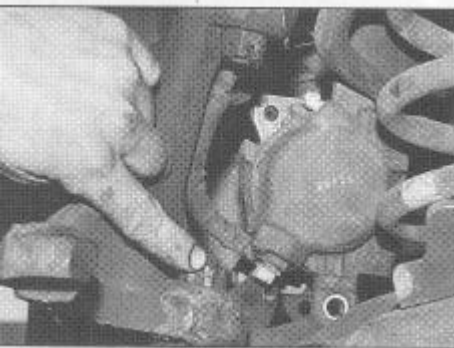
to be pulled on the Grand National, so one last hurrah was conjured up for the black Regals. A total of 547 Grand Nationals were slated for GNX metamorphosis, and ASC/McLaren would be responsible. In place of the standard Garrett turbo would go a quicker spooling T-3 with a ceramic impeller; an improved intercooler replaced the stock Grand National unit. The 2004-R automatic trans was spruced up for firmer shifts and



Loosen the nut to remove the outer tie rod end from the spindle. If it won't release, give it a light tap with a hammer as seen here.

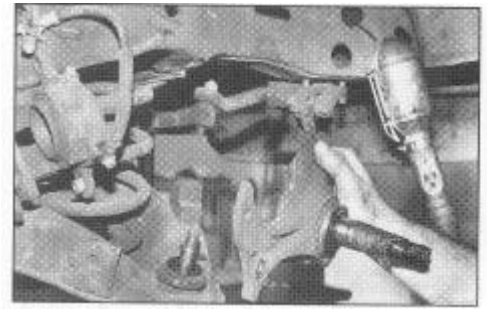


Extra care must be taken when removing the spindle and coil springs. We used two heavy-duty bottle jacks to support the lower A-arm in preparation for lowering the spring.

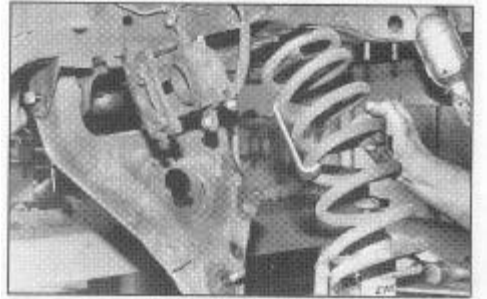


With jacks in place you can loosen the upper and lower spindle nuts, but don't remove them entirely. Often, the spindle is stuck to the ball joint shaft and some hammer tapping is needed to jar them loose. Leave the nuts on a few turns and lessen the jack pressure slightly, maybe a quarter inch. Tap the top of the lower spindle nut and it should break free.

outfitted with a large fluid cooler mounted up front. Rear suspension was updated with special, aluminum GNX rear end cover to which was



When the ball joint is loose you can ever so carefully lower the jack. Try to stand at one side in case the spring does fly out unexpectedly (you can also tie up the spring with a chain or use a spring compressor for more safety). As you lower the spring the spindle can be removed.



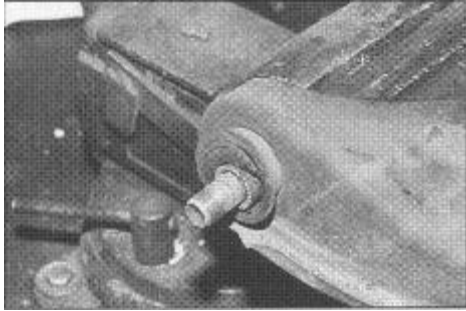
When the spring expands completely, you can remove the jack, push the lower A-arm back and extract the spring. We used a spring holder that pulls one side of the spring together to make reinstallation easier. This tool makes it easy to reinstall your stock springs if you decide to keep them.



Remove the upper A-arm by simply unbolting the shaft from the frame mount.

mounted a longitudinal torque bar similar to those on Camaros and Firebirds. This ladder bar of sorts also mounted to a special crossmember behind the transmission and provided improved traction. Additionally, a panhard rod was also implemented attached to the rear end and a special bracket on the frame. Inside, GNX insignias and emblems reminded passengers they were not in any ordinary performance car, while special Stewart-Warner instrumentation monitored the special engine under the hood. The body was updated with ominous front fender vents and wheelwell flares on all four corners to

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Here's that bad bushing we told you about. Notice how a section of rubber has completely disintegrated. This is where the shaft was coming in contact with the bushing case and causing the clunking noise and poor front-end alignment.



An air chisel makes bushing removal easy.



Installation is easy too. Simply install the new urethane unit over the shaft and into the A-arm.

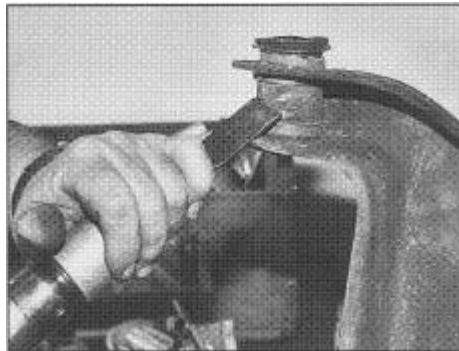
accommodate the big 245/50VR-16 front and 255/VR-16 rear Goodyear Gatorbacks mounted on black cross-lace alloy wheels with specific offsets preventing interchangeability. These modifications upped the price of a regular Grand National by \$10,000, bringing the total price to about \$29,000!



Install the washer over the end of the bushing and bolt the nut onto the shaft using an impact or heavy socket wrench.



Two bolts through the rubber bushings hold the lower A-arm in place.



Once again, an air chisel made quick work of the stock bushing. Remember to pry the old bushings out in the proper direction according to the lip of the bushing case, usually on the outside.

Within the next few issues of *Popular Hot Rodding* we'll show you how we turned a cheap T into our own version of a GNX. Starting with suspension in

BILSTEIN SHOCKS
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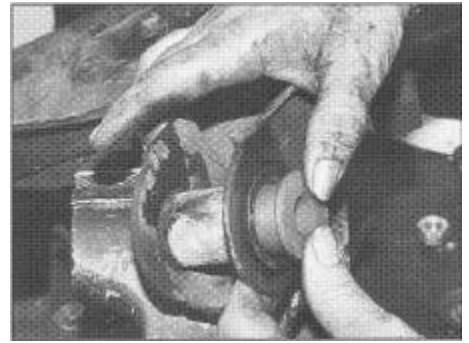
ENERGY SUSPENSION
960 CALLE AMENECER
DEPT. PHR
SAN CLEMENTE, CA 92672
(714) 361-3935

H&R SPRINGS NORTH AMERICA
330 CORTE MALPASO
DEPT. PHR
CAMARILLO, CA 93012
(714) 630-0588

HOTCHKIS PERFORMANCE
8531 WELLSFORD PLACE
DEPT. PHR
SANTE FE SPRINGS, CA 90670
(310) 907-7757



One side of this G-body lower A-arm has a permanent bushing case; as such the rubber bushing is easily removed with a torch. Heated up a little, the rubber breaks down quickly and the bushing can be poked out.

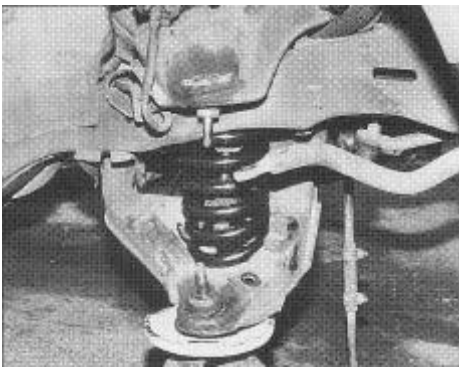


The new Energy urethane bushing slides smoothly in place of the stock rubber piece.

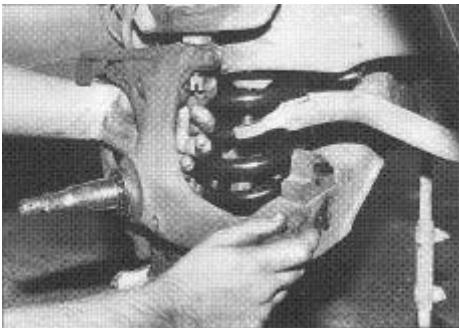


Bushing installation on the non-permanent case side of the lower A-arm requires a little more finesse to install. This tool is used with a hammer to beat the edge of the bushing case evenly into the lower arm.

this issue, we'll continue with engine and driveline mods, complete body and paint and an interior turnaround. By the time we're finished we'd like to see mid-13-second quarter-mile times and cornering sharp enough to cut



Later, we installed new H&R springs. The robust coils provide a sports-car ride that practically anyone can live with. Best of all, our Buick now handles like no G-body ever did from the factory.



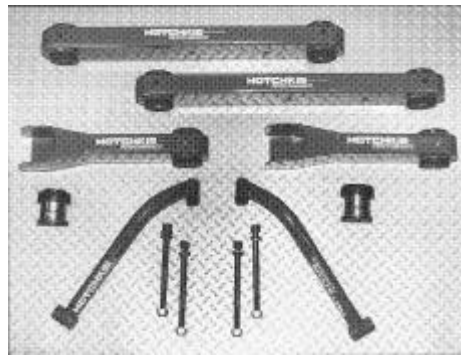
We used a spring compressor (barely visible through the spring) to shorten up the new springs for easier installation. With a heavy-duty floor jack underneath and spring in place, the lower A-arm was raised to meet the spindle which could then be attached to the ball joints.



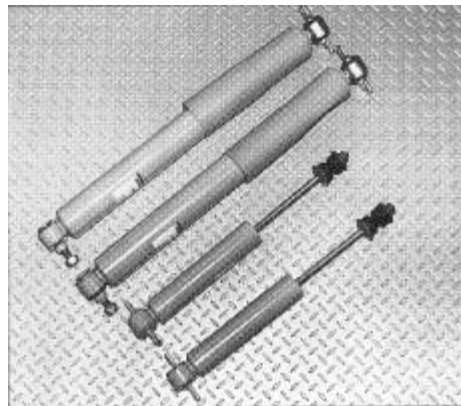
The front-end job was finished with these sway bar bushings from Energy. A liberal amount of silicone grease is applied between the bushing and the sway bar. The unit is then bolted up just like stock. An extra pair of hands to hold the bushing in place helps out a lot.

pavement. If that's not enough to turn heads, the body and exhaust rumble will.

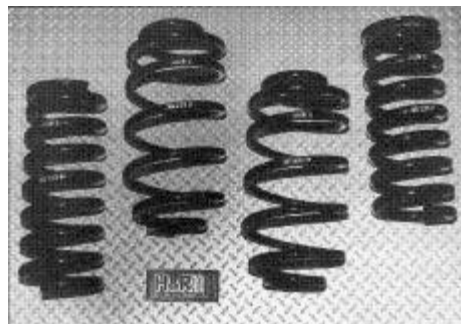
Although our T-Type seemed peppy,



The Hotchkis high-performance rear axle control system (part # 1802) consists of upper and lower rear trailing arms, tubular trailing arm braces, urethane bushings and hardware. This system with its boxed steel tube trailing arms allows the rear suspension to resist flexing associated with wheel hop on hard launches. The trailing arm braces tie it all together and improve cornering as well. The kit is available in red or black powdercoat.



Bilstein shocks are some of the most popular around because they work. We didn't hesitate to install them on our Buick because we knew our car's size would require a good, tough shock to improve handling.

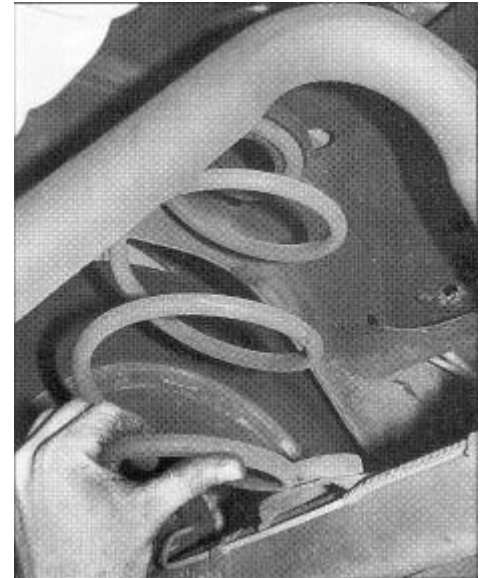


H&R springs are relative newcomers to the American market, but their performance is not second-rate. These springs were designed specifically for G-bodies needing firm handling, good ride quality and lower ride height.

it could only muster a paltry 15.92 @ 89mph quarter mile at Los Angeles County Raceway. The trans was slipping a little and our car doesn't have the benefit of limited-slip rear gearing.



The rear suspension revamp begins by removing the sway bar. Two bolts hold it to each lower trailing arm.



When you've removed or unbolted the lower attachment of the shocks you can jack up the body and remove the rear springs.



Lower trailing arms are unbolted from the mount on the axle and forward mount on the frame

We knew there were long lists of parts to improve 1986-87 turbo Buicks, but the earlier '84-'85s weren't always included. We found out from Kenne Bell in Rancho Cucamonga, California that they in fact had quite a few bolt-ons for the earlier cars, including an intercooler kit. Most other parts for later, intercooled cars will work on earlier models although some mods may need to be made.

First things first. You can't use all the horsepower in the world if your



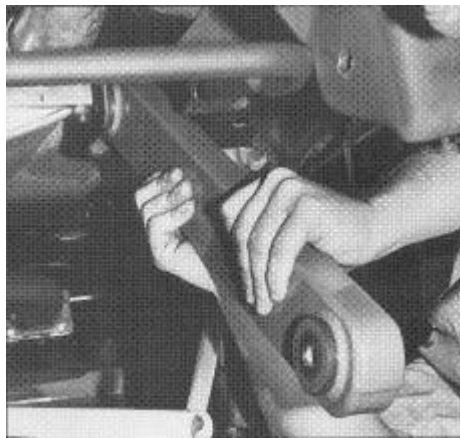
The upper mount is trickier to get at but it unbolts from the top of the rear end and the body pretty easily. Air tools help but you can still get it with ratchets and wrenches.



You can see the difference in quality between the factory pressed steel, non-boxed trailing arms and the ones from Hotchkis. Installation is opposite of removal and the new arms come with urethane bushings.

suspension can't take it. Mid-Eighties GM G-bodies handled far better than their A-body predecessors of the Sixties and Seventies, but time had taken a toll on our Buick's underpinnings. From bushings to shocks, everything needed upgrades and we wanted to make sure we spent our money wisely. We wanted a firm suspension that would hold its own against a new sports car, but not without a comfortable ride and a slightly lower stance for the sinister look. This may sound like a tall order but we soon found out everything we needed was readily available and very affordable.

Rather than replace the worn-out rubber bushings with the same, cheap factory type, we opted for urethane pieces from Energy Suspension. The urethane provides excellent ride quality and durability that rubber simply cannot match. Many of you may groan at the mention of urethane bushings, but take note—urethane technology has come a long way,



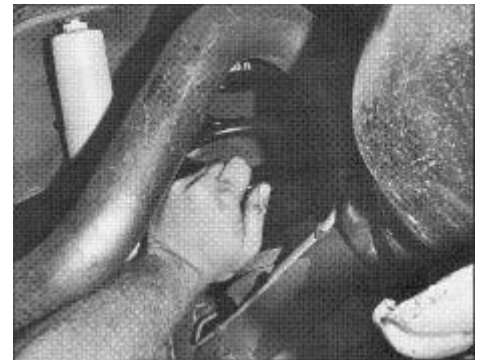
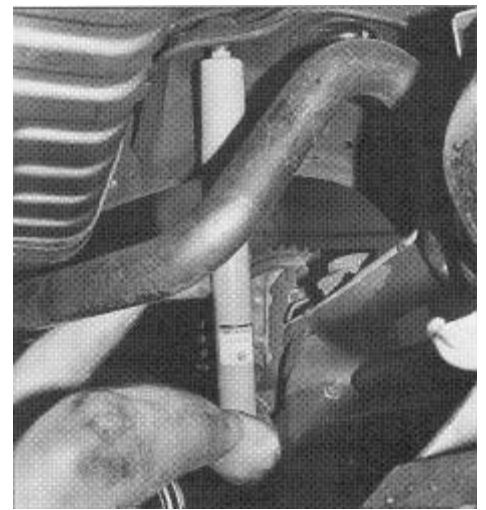
The big lower trailing arms are really impressive, especially against the stock arms. The arms are heli-arc welded for strength and the powder coating will last a very long time. Grease zerk fittings are also included on the Hotchkis trailing arms, which may also be purchased separately.



The factory sway bar mounts in the exact same position as bolt accommodations on the Hotchkis arms.

especially at Energy. As of 15,000 miles, we've heard nary a peep from the bushings on our Buick. Energy had everything we needed to replace every bushing in the front end, including upper and lower A-arms, sway bar and urethane caps for steering links and ball joints.

Out back we knew wheel hop is often a problem on hot turbo Buicks and G-bodies in general, so we installed the Hotchkis High-performance rear axle control system (part#1802). The kit (1964-72 A-body, 1978-88 G-body) includes new upper and lower trailing arms constructed of square steel tubing and fitted with urethane bushings and grease zerks. Additionally, two tubular braces tie the trailing arms together at their body mounts, triangulating the rear suspension for support and stability far greater than stock. The OEM trailing arms are made of pressed steel and are not boxed, allowing them to flex and twist during hard launches. The Hotchkis system eliminates wheel hop even with slicks and cornering is improved through increased stiffness.



The new Bilstein shocks were installed to their top mount first. This way we can still install the new rear springs, then the lower shock mounts, without getting up.

These components are heli-arc welded for strength and come in black or red powdercoat, meaning they'll be looking good a lot longer than you'll be crawling underneath to admire them.

Next came springs and shocks, one of the most critical changes you can make to your suspension. There are so many different shocks and so many different theories about springs that we took the expert advice from Hotchkis and installed Bilstein shocks and H&R coil springs front and rear. Bilstein shocks (part #B36-0949 front, B46-0929 rear) are well known because they do all the things a performance shock should do. You can spend much less for shocks on your project, but we decided to splurge. And we haven't had any second thoughts. H&R springs, on the other hand, are a fairly unknown coil spring manufacturer here in America, but in Germany they are well respected. Hotchkis supplied us with H&R's new spring offerings to fit GM G-bodies. The springs (part #30233) are designed to provide a slightly lower (1-1/2-inch front, one-inch rear) ride height while maintaining good ride quality as well as improved handling. While installing the Hotchkis

rear kit we completed the job with the addition of the new springs and shocks.

To say the least, the new suspension outshines the old. Although the ride is firmer, the improved handling is well worth it. Launches are straight and power gets right to the ground where it belongs. A twisty road is now a pleasurable affair rather than an effort at keeping things between the lines. Additionally, braking seems more controlled thanks to the sure suspension.

Next month we finally get our hands on the little turbo V6 and its lackluster drivetrain. With bolt-on parts to improve performance, quarter-mile times should drop dramatically.