



HAMMERING THE HUMMER H-2

THE FOLKS AT McGAUGHY'S SUSPENSION PARTS MAKE IT POSSIBLE

TEXT AND PHOTOS BY BOB McCLURG

Those boys from Fresno, California's McGaughy's Suspension Parts, (pronounced "McGoys") are at it again.

Following directly on the heels of the company's award-winning 2-inch dropped spindles and Deluxe Rear Spring Kit (patent pending) for the 2000-04 Chevrolet and GMC 4 x 4 pickups and SUVs as well as the 2002-04 Cadillac Escalade and Cadillac Escalade EXT models (voted GM's Most Innovative Product at SEMA 2003), McGaughy's has just released their new Dropped Spindles and Deluxe Rear Spring Kit for the 2003-04 Hummer H-2s, patent pending.

"We've designed our H-2 kit to be a direct bolt-in dropped spindle and spring application," says Steve McGaughy. "Actually, there are three separate kits or drops.

"We have the 2/3 Economy Kit (P/N 2500 HD-23-E) which retails for \$309. That kit includes our new passenger and driver's side key ways, passenger and driver's side progressively wound, variable rate, labeled coil springs (to compensate for the added weight of the driver, spare tire and fuel tank), and our new

rear shock extensions.

"We also offer our Deluxe 2/3 H-2 Drop Kit (P/N 2500 HD-23-D), which retails for \$479. That kit includes our new CNC-machined, ductile iron 2-inch dropped spindles, our progressively wound, variable rate right and left rear coil spring kit, and our shock extenders.

"Finally, we offer our 3/5 Deluxe Kit (P/N 2500 HD-35-D) for \$559, which features our patented 2-inch dropped spindles, new key ways, McGaughy's progressively wound, variable rate right and left rear coil springs, our shock extenders, and end links.

Hummer H-2 owners will be happy to learn that McGaughy's 3/5-dropped spindle and spring kit retains the correct steering geometry as well as retaining the correct upper and lower ball joint geometry for proper front end alignment. "There are no bump steer problems with this kit, and you're able to maintain the factory turning radius lock-to-lock."

McGaughy's CNC-machined, 2-inch dropped ductile iron spindles also utilize all the stock H-2 mounting hardware including the stock hub carrier/wheel bear-

ing assembly, the OE hub-to-spindle mounting bolts, the OE disc brake caliper mounting bolts and brake line hose mounting bolts, even the factory rubber spindle assembly O-ring. All you have to do swap them out!

With McGaughy's progressively wound, variable rate rear coil springs, your modified H-2 will sit perfectly level. McGaughy's also includes a pair of correct geometry end links in their 3/5 Deluxe Kit, which come with new polyurethane suspension bushings.

The manufacturer also recommends that you use the OE factory shocks with this kit. "We've built our shock extender brackets to accommodate the factory Delco-manufactured Hummer H-2 shocks," says Mike McGaughy. "These are great shocks, and there's absolutely no need to replace them with costly aftermarket units."

And what about the overall difference in H-2 ride height?

In stock trim, the H-2 spec-ed out at 41.0 inches front and 42.0 inches rear. Aside from the fact that we would be lowering the vehicle a total of 3 inches front and 5 inches in the rear the truck was also downgraded to a smaller profile wheel and tire package.

For example, our Hummer H-2 came equipped with a set of LT 315/70 x R17-inch BFGoodrich All Terrain Radial T/As, mounted on the factory 17 x 9-inch Hummer H-2 cast-aluminum wheels. Since we would be swapping these wheels

➔ P. 130



All laid out and ready for installation. This is McGaughy's Suspension Parts' new 3/5 Deluxe Drop Kit for the 2003-04 Hummer H-2 (P/N 2500 HD-35-D). With this kit we safely lowered the stock ride height of a 2004 Hummer H-2 41.0/42.0 inches front and rear to 37.0/36.3 inches front and rear. A 1.8-inch differentiation in tire-to-wheel size was also figured into the equation. McGaughy's 3/5 H-2 drop kit lists for \$559, FOB Fresno, CA.

REAR SUSPENSION TEARDOWN & REPLACEMENT



Rear suspension teardown begins with Steve McGaughy removing the H-2's 21mm lower shock absorber nut and bolt. The

factory Delco-manufactured shock is temporarily left loose.



Next comes the removal of the factory H-2 end link bolts using a 15mm socket. The stock H-2 end links are then removed and discarded.



Here we see young McGaughy installing the new end links (with polyurethane bushing) provided in the kit using the OEM hardware. Note that there is a left and right-side end link, which is clearly marked.



With both right and left-side shocks disconnected, a floor jack supports the H-2's rear end. McGaughy carefully lowers the rear end one side at a time, safely removing the rear springs.



To compensate for the weight difference, the driver's side progressively wound rear coil spring is slightly

taller than the passenger side. These springs are clearly marked by the manufacturer.



Here we see our installer laying up the passenger side spring, using the OE rubber insulator removed from the factory H-2 spring.



The next order of business is the installation of the passenger side shock extender bracket, using the provided 3/4-inch nuts and bolts.



At this juncture, it is also necessary to trim 50 percent off the factory polyurethane bump stops, using the center rib on the bump stop as a cut line.



Next comes the reinstallation of the factory shock to the McGaughy's shock extension bracket, using the factory 18mm nut and bolt.



Here we see McGaughy bolting up the factory anti-sway bar to the McGaughy's end link using the factory H-2 18mm nut and bolt.



With both sides done, this is how the modified H-2 rear suspension looks.

FRONT SUSPENSION TEARDOWN & BUILD-UP



Initial front suspension teardown begins with the removal of the 14mm bolts, which secure the passenger side anti-sway bar end link to the actual anti-sway bar itself.



Next comes the removal of the tie rod end link using a 21mm socket.



Next comes the removal of the 21mm disc brake caliper bolts, which hold the disc brake caliper in place. The caliper is then moved out of the way and "strapped" to keep it from dangling.



16



17

Here we see our installer removing the flexible ABS front disc brake line and 10mm retaining bolt.



18

Next comes the removal of the actual disc brake rotor itself.



19

This is followed with the removal of the H-2's front spindle nut using an air gun and a 36mm socket.



20

The next order of business is the removal of the six 15mm bolts which bolt up the CV joint to the H-2 transfer case. This is accomplished using a hand-held, compact air gun. If you don't have an air gun, these bolts can also be removed with a hand wrench. It's just a little tougher.



21

Out comes the passenger side constant velocity (CV) joint.



22

With the CV joint removed, our installer uses an air gun to remove the spindle assembly. A 21mm socket is used on top and a 24mm socket is used on the bottom.



23

With the passenger side spindle assembly out and on the bench, Steve removes the four 15mm bolts that hold the hub assembly in place.



24

The next order of business is the installation of the factory H-2 O-ring into the McGaughy's dropped spindle. If in doubt order a new O-ring from your local Hummer dealer.



25

Here we see McGaughy bolting the new dropped spindle up to the factory hub carrier assembly using four 15mm bolts with Loc-Tite.



26



27



28



29

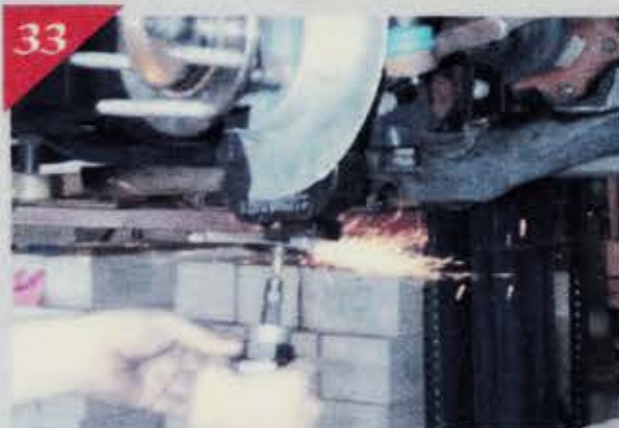
Next comes the reinstallation of the new dropped spindle assembly in the very same manner the stock spindle was removed.



The next step is the reinstallation of the passenger side CV joint, tightening the series of six 15mm factory bolts. Once again, Loc-Tite should be used.



This procedure is followed with the reinstallation of the tie rod end link, using a 21mm socket and airgun.



At this juncture, we see our installer die-grinding approximately 1/2-inch of material from the lower ball joint stud. This is done so that the H-2's space saver spare will clear the stud if needed.



Next our installer reattaches the CV joint front spindle nut using a 36mm socket and airgun.



This step is followed with the reinstallation of the passenger side front disc brake rotor.



Then McGaughy reinstalls the passenger side front disc brake caliper assembly, using Loc-Tite and the factory 21mm bolts. Then it's on to the driver's side for the same installation steps.



Here we see Mike McGaughy comparing the height of his H-2's stock LT 315/70 x R17-inch H-2 cast-aluminum wheels and BF. Goodrich Radial T/As in relation to the 305/45 x R22-inch Nitto NT404-wrapped 22 x 10-inch Weld Racing Velocity-8 replacement wheels and tires. There was 1.8 inches of difference between the two.



Installer Steve checks the stock height setting of the H-2's passenger side torsion bar jacking bolt, and comes up with a ride height setting of 1.1 inches.



McGaughy uses a special torsion bar jacking tool to remove and replace the stock torsion bar cam jacking plates. When replacing them with the McGaughy's units, black is used on the passenger side and blue is used on the driver's side.



With the suspension duly modified, McGaughy bolts up the new 22 x 10-inch Weld Racing Velocity-8 wheels and 22-inch Nitto NT 404 radial rubber.



After driving the H-2 to lunch and back, Mike McGaughy checks the front ride height, which measures in at 37 inches front and 36.3 inches rear.




And there you have it; an H2 hooked up cool style with just the right stance and an overall killer appearance. This is followed with the installation of the throttle body air inlet assembly using the appropriate hose clamps.

and tires out for a set of 22 x 10-inch Weld Racing Wheel-manufactured Velocity-8 chrome-plated aluminum wheels and a set of 305/45 x R22-inch Nitto NT-404-118-B radials, it was necessary to measure the overall height difference between the two. The overall difference in height was 1.8 inches.

"With the new tires and wheels mounted, and the McGaughy's modified H-2 suspension fully settled, we came up with an overall measurement of 37.0 inches front and 36.3 inches rear," says Steve McGaughy.

Is it possible to lower (safely) your H-2 even further? "What we recommend is that you measure the protrusion, or height, of the torsion bar jacking bolt prior to performing any suspension modifications. The height of this bolt may vary from vehicle-to-vehicle. We came up with a stock measurement of 1.1 inches. We recommend that (after suspension modifications and front-end alignment) you drive your H-2 around for awhile to allow the suspension to settle. Then if you're not satisfied with the ride height you can "jack" it down a few turns. It should be noted that each full turn represents 1/8 inches ride height. In order to maintain correct front suspension geometry we DO NOT recommend any more than four turns, or a total of 1/2-inch!"

And how much time will it require to perform these suspension modifications? Four hours tops, and in most cases, even less using a lift, an airgun and wrench, and common metric hand tools. Now follow along with us as we show you just how McGaughy's Suspension Parts gets down and dirty with a 2004 Hummer H-2. 

SOURCE

**MCGAUGHY'S SUSPENSION PARTS
A DIVISION OF MIKE MCGAUGHY'S
CLASSIC CHEVY PARTS, INC.
5680 W. BARSTOW, DEPT. STM
FRESNO, CA 93722
(559) 226-8196
FAX (559) 277-0457
WWW.MCGAUGHYS.COM**

**WELD RACING WHEELS
WWW.WELDEVO.COM**



McGaughy's visitors are greeted by this well lit showroom located at 5680 Brastow Avenue, Fresno, California. It is just a small part of the 19,000-square-foot, four-building facility dedicated to the manufacture of both McGaughy's classic Chevrolet Parts as well as the company's booming line of drop kits for most popular makes of classic muscle cars and trucks.



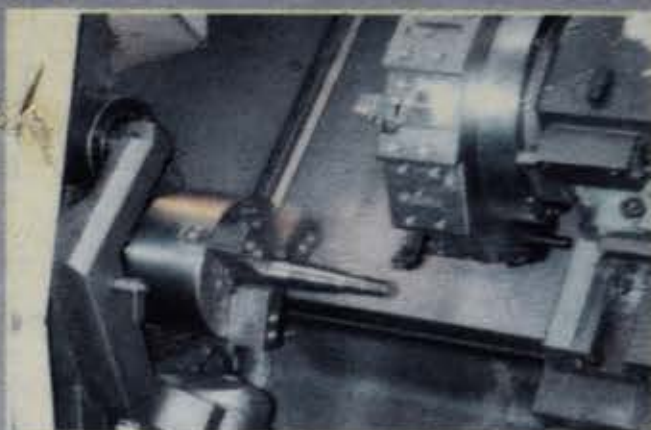
It is said that behind every successful man there's an equally determined and dedicated woman, which in Mike's case is his wife Susan, who with her future daughter-in-law, Michelle Garcia, handles sales and the front office at McGaughy's.



This is just a small sampling of McGaughy's 2-inch dropped spindles for the 2000-04 Chevrolet and GMC 4 x 4s waiting for machining.



In 1984, founder Mike McGaughy developed his first product, his GM "605-based" power steering box for the Tri-5 Chevrolets. McGaughy is seen showing off the latest pattern for a drop spindle kit for the Dodge Ram truck line.



Shown in action is one of Mike's CNC machines cranking out a dropped spindle for the 2WD late-model Chevrolets and GMCs.



McGaughy's machinist, Tim Lydon, readies the CNC machine for another production run. The Fresno, California, manufacturer runs three shifts a day, four days a week. The rest of the week is spent on R&D and attending street machine and custom truck events.

MCGAUGHYS, A BOOMING (family) BUSINESS

In 1984, master machinist and Classic Chevrolet enthusiast Mike McGaughy set the classic Chevrolet collector world ablaze with his GM "605" power steering box conversion for the Tri-5 Chevrolets and never looked back.

A lot of great things have happened to the McGaughy family over the past 20 years in business. Their initial carpet which Mike used as a shop to build his steering box conversions (over 46,000 sold) has metamorphosed into a 19,000-square-foot, four-building facility located at 5680 W. Barstow Road, Fresno, California.

Of course, McGaughy's dropped spindle kits for everything from Tri-5 Chevrolets to 1973-87 and 1988 and up Chevrolet and GMC trucks and SUVs have really vaulted the company into the national limelight, earning them prestigious honors like General Motors Most Innovative Product Award at SEMA 2003.

Today McGaughy's employs 11 full-time employees, yet it still remains a "family" operation. Mike and his son Steve (who handles most of the R&D work at the factory) keep six CNC machines cranking out parts 24 hours a day, five days a week, while Mike's wife Susan and Steve's fiancée Michelle Garcia handle shipping and front office duties.

What do the McGaughys do during their "off hours" (as if there really were any)? Mike and Steve spend their Fridays and Saturdays either on the road going to truck and street machine events (always their fully decked out Tri-5 wheelies) or coming up with innovative and reliable new products to make the custom street truck enthusiast's life a little better. What else could you ask for?