



Restoring Youthful Vigor
to a Barn Find CJ-7

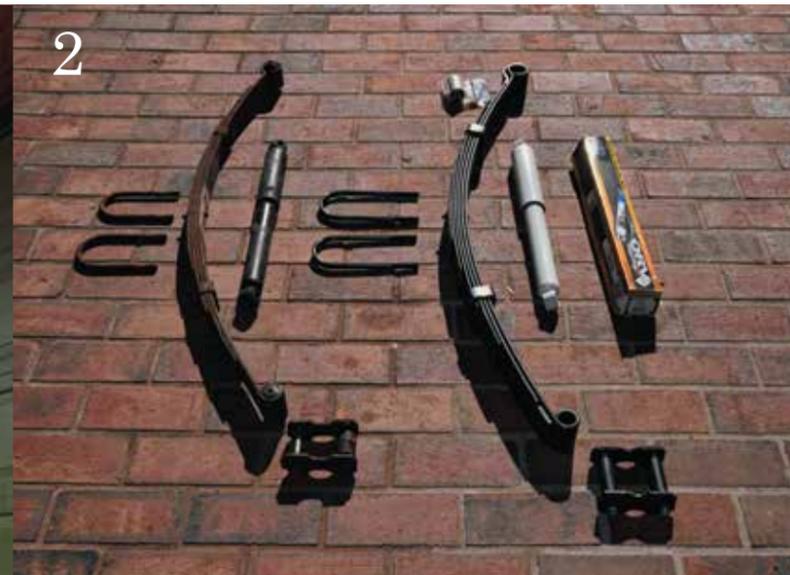
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Is it really a barn find if 34 years ago you sold it brand new? Perhaps it is, and one of the best kind. A friend called a while back and offered me a chance to buy his vintage Jeep CJ-7. Ironically, I worked at the local Jeep dealership when he bought it and had sold it to him straight off the showroom floor. When he called, with all of 49,450 miles on the odometer, it still had a touch of that new car smell. The last year for the CJ line, this CJ-7 had been kept indoors since the day it left the dealership in January of 1986. I doubted it had

ever felt a drop of rain, let alone dirt on its belly. The silver paint was still shiny and the vinyl inside as fresh and pliable as ever. All the gauges even worked, as did the convoluted emissions equipment of the era, when carburetors were burdened with meeting budding EPA standards and ride quality on a lightweight off-road vehicle was an oxymoron. Best of all, my name was there in the owner's manual, representing Fowler Jeep in Norman, Oklahoma, the place where it all began.



(1) Before replacing the springs, the original soft suspension sagged heavily in the front.



(2) The new kit comes with everything needed to put things right again. Note the military-wrapped second main leaf spring. (3) DOT-3 brake fluid is hygroscopic (absorbs water). Replace it while you're there. (4) Time has its way with rubber bushings and bare metal. Notice the single main leaf; no military wrap. (5) Surface rust can be brushed, wiped with lacquer thinner and painted if you aren't in a hurry.



As I touched up a few garage nicks here and there, installed new tires and wheels and the original equipment sidesteps, which had never quite made it to the rocker panels, I couldn't help but notice that the suspension sagged a bit. In fact, the front bump stops hovered only an inch above the axle tubes. In the days of this vehicle's youth, Jeeps had leaf springs and they came in two variations. The standard springs used a single main leaf, and an optional heavy-duty suspension was offered with a military-wrapped second main leaf. Because of the weight of the engine, ride height was slightly lower in front on the softer version but the ride itself for more than three decades, this poor old fellow looked sad,

like a stately gentleman who had dusted off his wedding suit for his 60th high school reunion dance and showed up with an aluminum walker.

Lift kits for Jeeps back in the 80s were often composed of thick, heavily arched springs and long, spindly shackles. They were tall, stiff and ungainly, and with giant tires, ill suited for the lightweight drivetrain and mediocre horsepower of a 258-cu.in. inline six-cylinder motor. Certainly there is a place for a good lift with a proper plan and related upgrades, but many early efforts were more about the look than real-world performance enhancements, "damn the torpedoes" and all that. What this dapper gent needed was a little rejuvenation

of the legs, not a pair of stilts. I found the answer with an Omix Ada Master Builders Leaf Spring Suspension Rebuild Kit. Omix makes modern and vintage reproduction parts for Jeeps of all generations.

This kit includes not only the OE-style heavy-duty, dual-main, military-wrapped spring set but also shock absorbers, shackles, bushings and U-bolts...everything needed to get the old boy dancing again.

Suspension removal on an old Jeep is best attempted after some meditation and lots of lubrication, usually accompanied by a cold beer consumed in strategically staged sips. The

more exposure and abuse the chassis has suffered, the more each ingredient will be needed. At times, a die grinder with cutting wheel is the best tool for hardware removal, such as frozen U-bolts or rusted shackle bolts. With the rebuilders' kit, every necessary part is supplied, so much time and frustration are saved by not having to reuse the old parts. This particular Jeep was equipped with the factory long-range fuel tank; 21 gallons vs. the typical 15. Consequently the fuel tank protruded down a few extra inches and interfered with removal of the upper rear shackle bolts. A quick snip with the die grinder was all it took to have the old parts on the floor. It is always advisable to use a spark shield and ensure there are no fuel leaks before igniting the pyrotechnics. By reversing



(6) It's worth a moment's exploration to see what surprises may be waiting beneath the surface. (7) Inspect all the old parts for condition and freedom of movement. (8) Liberal use of grease makes the job easier and you will thank yourself later. (9) This military-wrapped second main leaf essentially doubles the strength of the leaf spring pack. (10) With a little cleaning, new paint and fresh springs and shocks, the Jeep rides like new. (11) Bump stop spacing improved dramatically after spring replacement. (12) Front fender height rose from 28 1/2" to 30".

the shackle bolts, there was no need to pull the tank to install the new ones. The impact wrench strained to spin a couple of nuts but by applying the requisite WD-40 I managed to remove all the U-bolts without the cutting wheel.

I have learned that by installing the fixed end of each spring first, then the shackle and, finally, bolting on the shock plate, nothing binds up and all the parts fit nicely during reassembly. The shock absorbers went on last. I keep a toothbrush in an old tub of bearing grease to lubricate threads, bushings and any other contact parts. Someday I or some other poor soul will be here again and will appreciate the practice. Not to mention, all torque settings are genuine when friction is not impeding rotation of hardware.

Suspension replacement on an aging vehicle provides a great opportunity to enjoy the Zen of basic mechanics. Standard methods, practices and techniques should be applied. Research torque standards, buy a new tool or two and study up. It's a labor of love. Take your time, brush off rust and paint parts that have begun to corrode. Look around for other issues while you are there contemplating the amazing work you are doing.

I took advantage of the proximity, popped off the brake drums and pulled back the dust seals on my wheel cylinders. DOT 3 brake fluid is hydroscopic, meaning it absorbs water. Water eventually attacks the cast iron components and it boils at a much lower point than pure brake fluid, hence brakes can

brake fluid is hygroscopic, meaning it absorbs water. Water eventually attacks the cast iron components and it boils at a much lower point than pure brake fluid, hence brakes can fade. I'm not sure the brake fluid had ever been changed on this Jeep. Both rear cylinders had begun to leak and the pistons were rusted almost solid. Replacement was inexpensive and yielded significant improvement in braking, even with the non-power assisted brakes. At the very least, spend a few extra minutes to bleed out the old fluid and add new.

When I lowered the jacks I was amazed at how the old boy looked. He stood up tall and proud....not spindly and tipped forward with clown feet (big tires) like some of the old jacked-up CJs of my youth, but perky and agile, sporting robust but not too aggressive 31x10.5x15" all-terrain tires. The front bump stops now stood 3 1/4" above the axle tubes, a full two

inches over the original measurement, returning suspension travel to a normal range. The rear ride height remained the same, escaping the weight of the engine bearing down all these years. It would be a stretch to say the ride was good by modern standards, but compared to the impact of slamming into the bump stops with every speed bump and no rebound damping, it was worlds better.

In just a few hours the walker was kicked aside and fancy steps were taken as the big band music played in the background. The dapper old CJ-7 stepped out of the garage with vim and vigor and a twinkle in his eye.

And the suit still fits.



(13) There's a special kind of joy to maintaining an original vintage vehicle.

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