



Note: We recommend a professional mechanic perform all installations. Professional toe-in correction must be done prior to driving. Alignment must also be performed.

There's absolutely nothing inherently wrong with an independent front suspension (IFS) as found on all Toyota trucks today (and many from yesteryear). Using a combination of San Diego Offroad Products, 4Crawler Offroad and Bilstein, we effected a nice IFS lift that utilizes OEM Toyota components. The results left us smiling.

INEXPENSIVE IFS LIFT SECRETS

Quick, easy and cheap clearance

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Although some 4WD Toyota owners will say a solid axle under your front end is the only way to wheel, it's not true. Independent front suspension (IFS) is a perfectly viable system (why do you think almost everyone uses it?) And for the tens of thousands of Toyota enthusiasts who like their IFS just fine and would like to get an inexpensive, easy and safe three to four inches of lift out of their truck? Rejoice, my IFS brethren, there is an answer.

SIMPLE SOLUTION

While most aftermarket IFS lifts can give you better suspension and a taller profile, they can be quite pricey and also sometimes come at a cost of blown CV joints and poor alignments. Most Toyota owners know that nothing beats the durability of OEM Toyota components. That's why some wheelers shy away from aftermarket IFS lifts and try to work with the original suspension. Unfortunately, unless you crank your torsion bars (which often results in a rougher ride and less suspension travel) there really hasn't been a way to lift

a stock truck while retaining all the OEM suspension components.

With the introduction of ball joint spacers of varying heights from San Diego Offroad Solutions (www.sdori.com), all 2WD and 4WD 1986-1995 Toyota pickups, 4Runners and T100s can get up to two extra inches of front suspension lift while retaining the bulletproof OEM Toyota IFS suspension – and without plunking down big wads of cash either. This article assumes you already have a body lift (we used one from 4Crawler). Follow along with us as we detail how to do it.



1. We decided to do a 3-inch lift on a stock 1990 Toyota pickup by combining the 1.5-inch San Diego Offroad front spacers with four-inch longer-than-stock rear shackles and a

one-inch body lift custom made by Roger Brown at 4Crawler Offroad (www.4crawler.com). We also slapped on brand new longer-travel Bilstein 5100 shocks. How much was the total package cost? Including body and bumper lift, shocks, shackles and spacers, the bill came to only 600 bones. You could save money with cheaper shocks than our Bilsteins. As body lifts have been covered many times before, this how-to focuses only on the suspension lift.



2. Although this installation is relatively simple and should take no more than four to five hours, be aware that if the underside of your truck has rust, this lift could become your worst nightmare.

Bolts may snap, shackles may freeze, and adjusting your tie-rods may prove to be futile. If you've never worked beneath a rusty truck before, spare yourself the agony and pay a shop to install this lift. Ok, here we go: Jack up the rear, remove the wheels, put jack stands under the frame rails and lower the rear axle to unload the leaf springs.



3. Once the springs are unloaded, remove the stock shackles. If they've never been removed before or the underside of your truck is covered in rust, be ready for a battle, as the rubber and metal sleeve have likely bonded. Use PB Blaster, a propane torch and a hammer to help coax the shackle out. Be careful not to melt the stock rubber bushings unless you're replacing them.



4. After removing the stock shackles, liberally apply grease to the longer shackle bolts and install. Having difficulty? Use a bottle jack to help position the springs for easier installation.



5. Tighten down the shackle bolts, lift up the rear end and put the wheels back on. Once the truck is back on all fours, it's time to replace the shocks. Remove the old ones and use the bottle jack between the rear wheel and the wheel well. Raise the jack so it lifts the body away from the wheel, making it easier to install the Bilsteins. Now it's onto the front!



6. Support the front end with jack stands, remove wheels, remove the original shock, and then remove the four 12mm nuts holding the ball joint to the upper A-arm. With an extra floor jack supporting the lower A-arm, use a hammer to bang the four studs out of the ball joint. If your truck is rusty, it will take some lube or heat. Once the studs are out, position the handy bottle jack between the upper and lower A-arms to push the upper A-arm upward. Now you can move the ball joint and steering knuckle out from under the A-arm for easier working access.



7. Before you can install the ball joint spacer, note that the lower-back portion of the A-arm needs to be cleared with a cutoff wheel, grinder or Sawzall. Alternatively, you can make two cuts in the arm the width of the spacer and use a large hammer to bend the lip backwards. Once installed, be sure that the spacer's weep hole notch is down and facing outward so moisture can escape.



8. Torque the non-locking nuts to 30ft/lbs. and then snugly secure the Nylock nuts on top. With a little bit of muscle, install the new shock from the top down.



9. Now that your truck is lifted, you will need to have an alignment done. However, if you are using the 1.5-inch spacers, your truck will not safely make it to the alignment shop without a toe adjustment. Therefore, loosen the tie rod clamps and get your biggest vice grip. The tie rod sleeves can be quite stubborn to adjust even if not rusty, so use liberal amounts of lube. I found a propane torch to work great.



11. In order to correct the toe-in, take two flat and straight objects, such as metal bars, and lay them flush against the wheel mounting surfaces of your front hubs. In front of the wheels, take a tape measure and calculate the distance from the passenger side to the driver side. Then go behind the wheels and measure again. Your initial measurement will be way off. The rear will likely be up to three inches wider than the front, which means you have far too much toe-in. You'll need to reduce

your toe-in to between zero inches and one-eighth of an inch, which means you'll need to extend the length of your tie rods.

12. Once your toe-in is back to spec, get your truck back on all fours and admire the added height! Immediately

take your truck to get an alignment to ensure that it drives straight as an arrow and that your tires don't wear unevenly. With a little bit of firewall clearancing and torsion bar adjustment, you can now run 33-inch tires and enjoy almost two full extra inches of travel in the front while retaining your stock Toyota suspension. Bring on the rocks! ✓

