



Changing Suspenders

A bolt-in project improves the ride in our shoebox Ford.

BY JEFFERSON BRYANT ■ THE 1949-51 "SHOEBOX" FORD HOLDS A SPECIAL PLACE IN THE HEARTS OF FORD ENTHUSIASTS. RESTORERS AND HOT RODDERS ALIKE HAVE TAKEN TO THE CAR'S CLEAN LINES — THE FIRST REAL RE-DESIGN FOR FORD SINCE THE END OF WORLD WAR III — MAKING IT THEIR OWN.

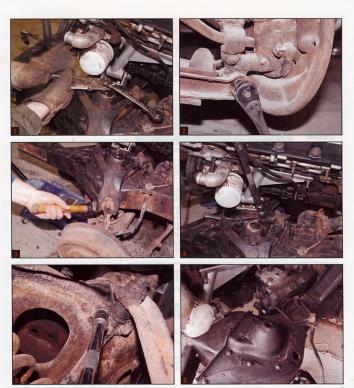
The love affair is not just skindeep: there were several mechanical innovations accompanying the sleek styling. Independent coil-sprung front suspension was a first for Ford, resulting in a smoother ride. The suspension utilizes upper and lower control arms connected to the spindles with kingpins, which are basically large bolts that thread through the outer eyelets on the control arm, while sliding through a brass bushing. The brass bushing eventually wears out, letting the suspension get sloppy and loose. While repairing this type of suspension was common 30 to 40 years ago, replacing the bushings requires reaming and sizing, which must be done at a machine shop, pushing the cost up as experienced machinists get

much harder to find.

There is another option for those willing to make a few changes. While the kingpin design was high-tech and capable for 1950, modern times call for modern solutions. Jamco Suspension. founded by Jim and Mary Genty, has been building ball-joint front suspensions for the shoebox Ford since 1985. The company is now run by sons J.C. and Tony Genty, who have continued to supply shoebox enthusiasts with quality suspension and braking components. Using ball joints instead of kingpins adds safety, reliability, and longer life to the suspension. Ball joints offer better articulation of the suspension, making the ride smoother. Replacement of the ball joints is much easier, too, as off-theshelf parts are used and no machining is required, making it an easy do-ityourself job.

The Jamco kit uses your original A-arms and modifies them with ball joint plates welded in place of the original kingpin mounts. Control arms are boxed for strength, then powdercoated for a durable finish. The original spindles will no longer work with the new ball joint suspension, so Jamco includes an assembled pair of spindles with disc brakes for added safety. Since the kit uses the original control arms, the parts still mount to the frame in the original position, and the original sway bar mounts can be utilized. The best thing about this process is that it can be returned to stock (with a different set of control arms, of course) in just a few hours if the owner decides to go all stock again.

There are some caveats with the Jamco kit, however. First, the stock drum brakes are no longer used; you must convert to front discs. This means



1 With the wheels off and the car suspended on jackstands, the process starts with removing the old shocks. Because of our car's condition, this step required some serious backyard mechanic skills. We had to use Vise-Grip pliers, a wrench, and lots of JB80 (the best penetrating oil known to mankind).

2 The kingpins are removed with a ratchet, unthreading them from the control arms. Make sure you have a jack under the control arm, putting pressure on the coil spring, you DO NOT want to do this without

safety in mind; a coil spring can be deadly if the tension is released quickly.

3 The upper control arm can then be tapped loose. Almost 60 years of rust and grease keep a tight hold on the parts, so force must be used. The tension on the lower control arm can now be removed and the coil will drop out.

4 The upper control arms are a pain to get out. The bolts are fastened with nuts between the mounting pad and the frame. An open-end wrench is about all that will fit.

5 The lowers are just as bad. The nuts are accessible from the top, but the car's frame keeps you from getting a box wrench on them. Add to that the need for an impact wrench, and it can be frustrating. We eventually used the plasma cutter to get these off, as several bolt heads were stripped and rounded.

6 Once the control arms were off, they were shipped to Jamco for modification. The spindles sold on eBay to help finance our project. Now is the perfect time to do some frame clean up and painting.

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a different master cylinder must be installed. Jamco offers a power disc conversion that keeps the power booster and master cylinder under the floor. retaining the classic look of the car. Disc brakes are much stronger and more heat-resistant than drums anyway, so this is really a wise upgrade. The other consideration requires a little more work. The new disc brakes have a large center hub, larger than the stock steel wheels. This means that you must find a set of wheels with a larger center hub (most any car with disc brakes will work) or have the original wheels machined to fit the larger hub.

The process is really simple, and only takes a few hours of work, but it is necessary to send off the suspension components to be modified by Jamco. Depending on the company's stock, you may get a faster return if they have some completed sets on hand, but that is usually not the case. It can take a few weeks to get your parts back, so be prepared to have your car sitting on jackstands for a month or so. The kit comes with the hardware for the upper control arms, but not the lowers. Due to the car's age, we had to torch a couple of our bolts off, so they were replaced with some grade-8 bolts and lock nuts.

7 The modified arms arrived and the upper control arms came partially assembled. The control arms bolt to a new arm that repositions the upper arm for improved geometry and clearance.

8 The bracket sits on the frame as such, up against the frame lip. No frame modifications are necessary. The upper nuts and bolts are supplied and installed just as the originals were removed. Exercise some patience. because it can be tricky threading the bolts.

9 Since the stock bolts were cut off, we bought some new grade-8 bolts. The local Fastenal was out of the hex head holts. so we used some socket head can screws. which are actually a little harder than grade-8. We opted for the better locking nuts over lock washers.

10 The lower control arm bolts through the original locations. A second pair of hands would be really helpful because these parts are a little awkward to handle upside down under a car. The kit doesn't come with any torque specs, so we tightened everything to 60-70 lbs-ft.







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- 11 The flat side of the spring goes to the frame (top) side and is covered with the included isolator rubber.
- 12 With the lower arm supported, the spindle assembly was placed in the ball joint. Note the upright bar against the steering arm - this should lean toward the rear of the car. This is the passenger side.
- 13 The castle nut was secured with a cotter pin.

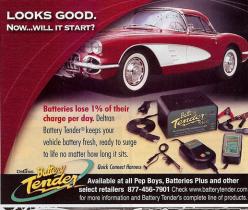






- 14 The upper ball joint was installed the same way. The protective boot simply pops over the ball joint.
- 15 The supplied new shocks were slid up into the spring and botted in using the original bolts. Make sure to grease all the fittings BEFORE driving the car. The parts are shipped dry; there is no grease in them at all.









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- 16 The new brake hose threads into the stock hard line. The fitting is too large to fit through the stock retaining clip, though.
- 17 The driver-side hose threads into the stock splitter. This piece is very important; it is the only path for fluid to go the passenger-side front brake.
- 18 We are using the old tie-rods to demonstrate reinstalling them, because the new ones had not been delivered at the time we took these photos. Don't forget to inspect yours. We are replacing all of the steering system joints before we drive the car.
- 19 This is an unfortunate issue we did not know about until we were in the middle of the project. The center hubs on the new rotors are huge, and the stock wheels won't fit. We had to fit these wire wheels for temporary use until we get some proper steelies.
- 20 The new ball joint suspension makes for a better ride and adds safety to this classic Ford. We opted for the three-inch-drop springs, and the spindles add two inches of drop, so once everything breaks in, we should have the perfect stance.



JAMCO SUSPENSION

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