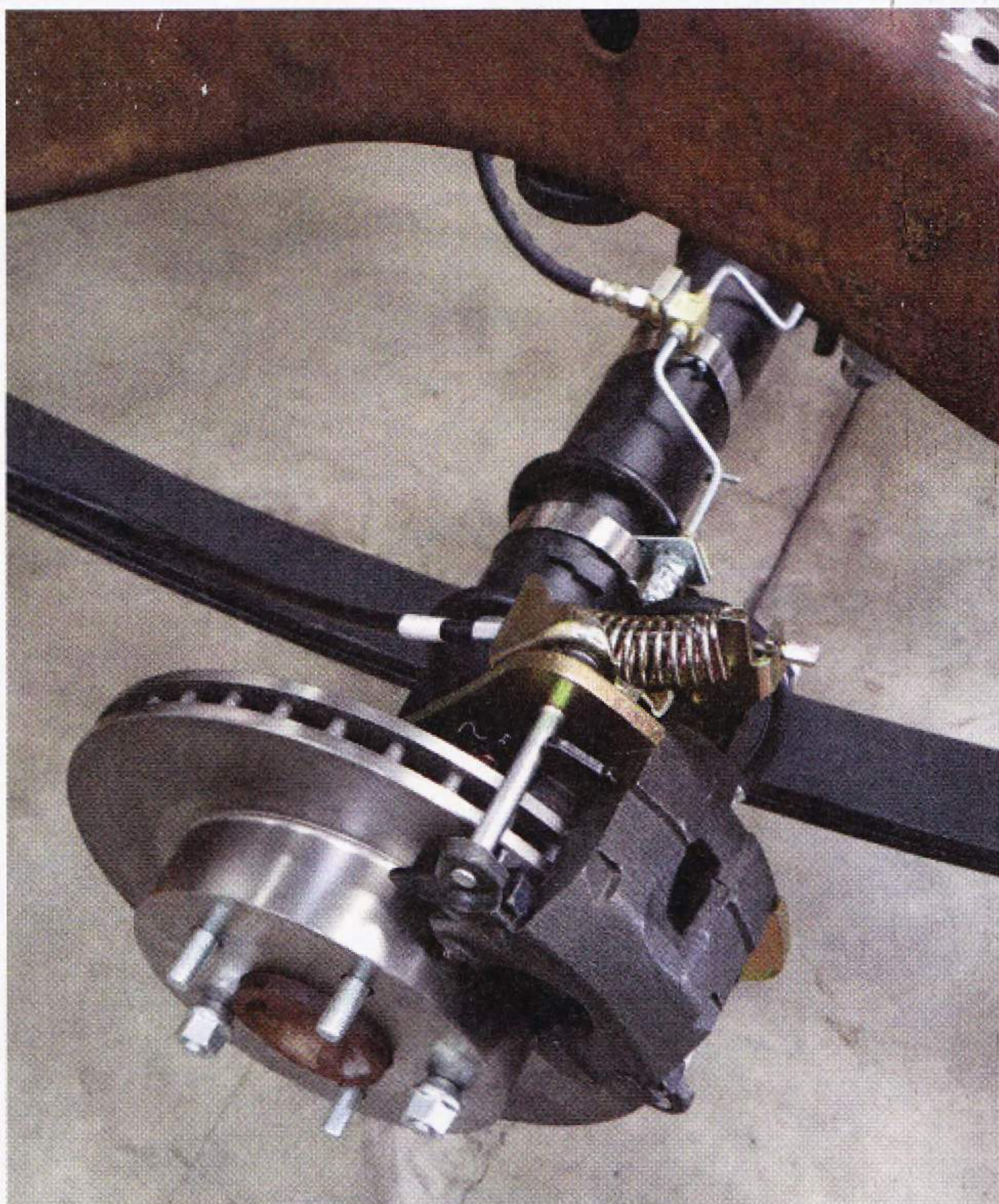


BEFORE AND AFTER ▶



TRUCK STOP

'47-'55 Chevy 10/12-Bolt Rear Disc Upgrade

by Rob Fortier

Backyard classic truck builders can rattle off a list of “donor” rearends that accommodate early applications, including late-model six-lug conversions for '47-'55 Chevys, like Nissan Pathfinders, '60s GMC Danas, and so on. When it comes to five-lug rear swaps, however, the Nova/Camaro 10-bolt seems to be a fairly popular option—right width, acceptable gear ratios, and so forth, the only potential modification being the relocating of the leaf spring pads.

Typically, the GM drum brakes are sufficient means of stopping power for normal applications—but not for everyone. Fortunately, Classic Performance Products has bolt-on disc brake conversions just for those transplanted rearends. Even better, the 10/12-bolt kits incorporate built-in emergency brake provision, and the supplied e-brake cables attach directly

to the factory cast-iron cable guides, making connection with the stock mechanical linkage a breeze.

Available as a brake-only package, or as we're about to illustrate and elaborate upon here using a popular Camaro/Nova-based 10-bolt, a complete kit, which includes the following: 11-inch rotors (upgradable to slotted and drilled), single-piston calipers with integral e-brake,

Blanchard-ground and zinc-plated brackets with hardware, brake hoses and hard line conversion kit, longer wheel studs, and new differential cover gasket. Minus the tools and equipment, brake fluid, and gear oil, and possibly a willing and able assistant, CPP's 10/12-bolt rear brake kit is as complete as you'll find anywhere in the market (that is, if you find anything remotely close!).

01 The standard rear brake package for '68-'78 Camaros and '68-'74 Novas include single-piston, integrated e-brake calipers, 11-inch rotors, brackets and hardware, rubber brake hose and axle clamps, and new/longer wheel studs. The complete kits (they vary between vehicles) also feature e-brake cables (in this case 4755EBC for '47-'55 first series) and brake hardline conversion. Additionally, bracket shims—which we will show being used, and why—are sold separately.



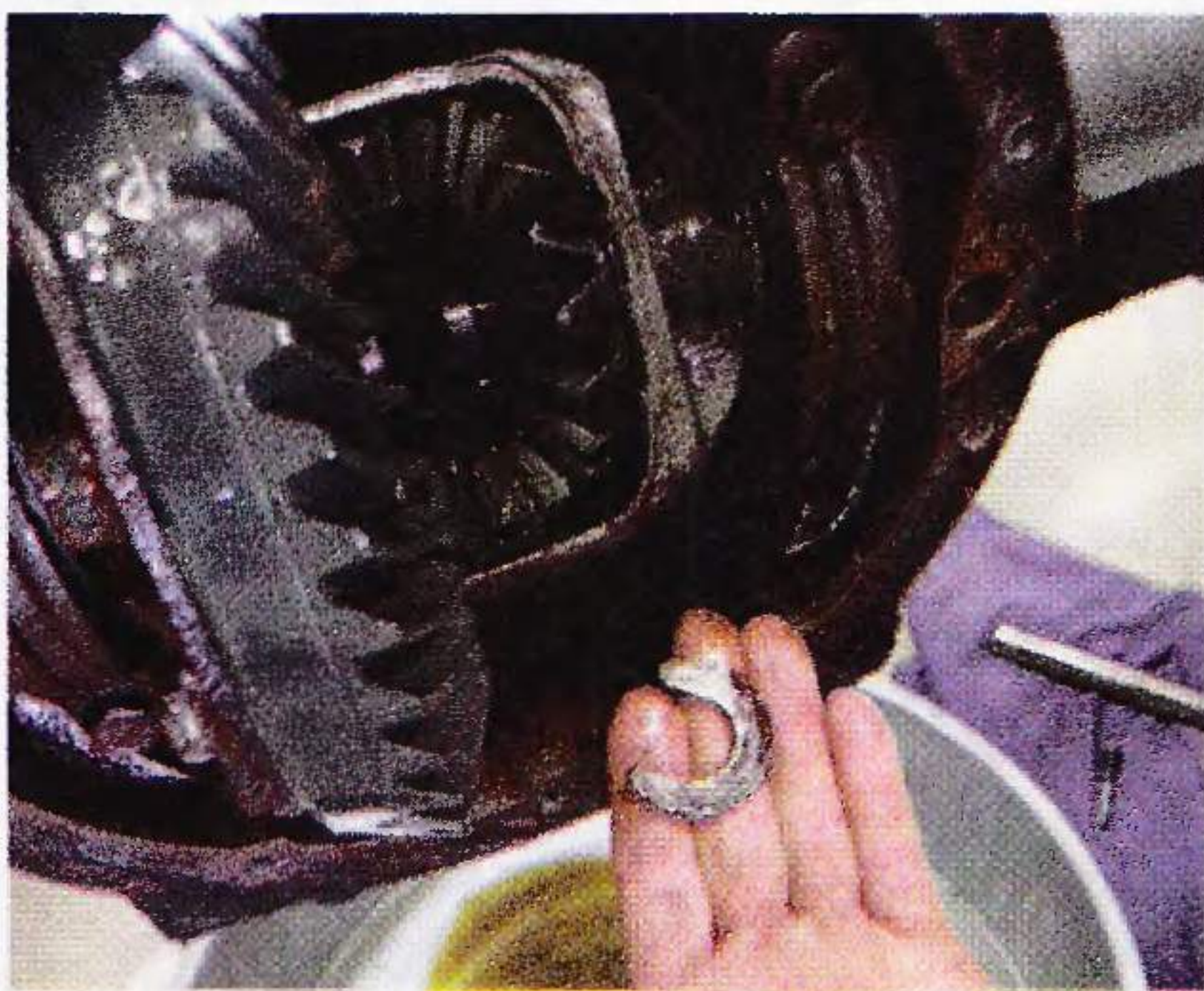
02 First step when breaking down any 10- or 12-bolt rear: carefully extract the axle shaft C-clips in order to slide the axles out. Begin by removing the differential cover (its number of retaining bolts indicative of what size it is) and drain fluid. Thoroughly inspect gears, bearings, and so on; replace any worn-out/broken items, if necessary.



SOURCES >>>

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03 Clock the differential carrier so that the side gears do not fall out while the C-clips/axles are being R&R'd.



07 Using a hydraulic press (or have a machine shop perform the work), squarely press the new wheel studs in.



11 Hang the rotor on the axle, holding it in place with a couple lug nuts. Make sure the register of the rotor fits flush (no burs interfering) onto the axle.



04 Disassemble the drum brake mechanism (including brake lines/e-brake cables, if applicable) and remove the axles—inspect the bearing surfaces on the axle shafts for excess wear/pitting as well as the condition of the bearings themselves; replace if necessary.



08 With the new studs completely pressed in, the axles can be replaced in the rearend—and the C-clips reinstalled to secure the side gears during the remainder of the brake kit upgrade (you can wait till everything's finished up before sealing and attaching the differential cover).

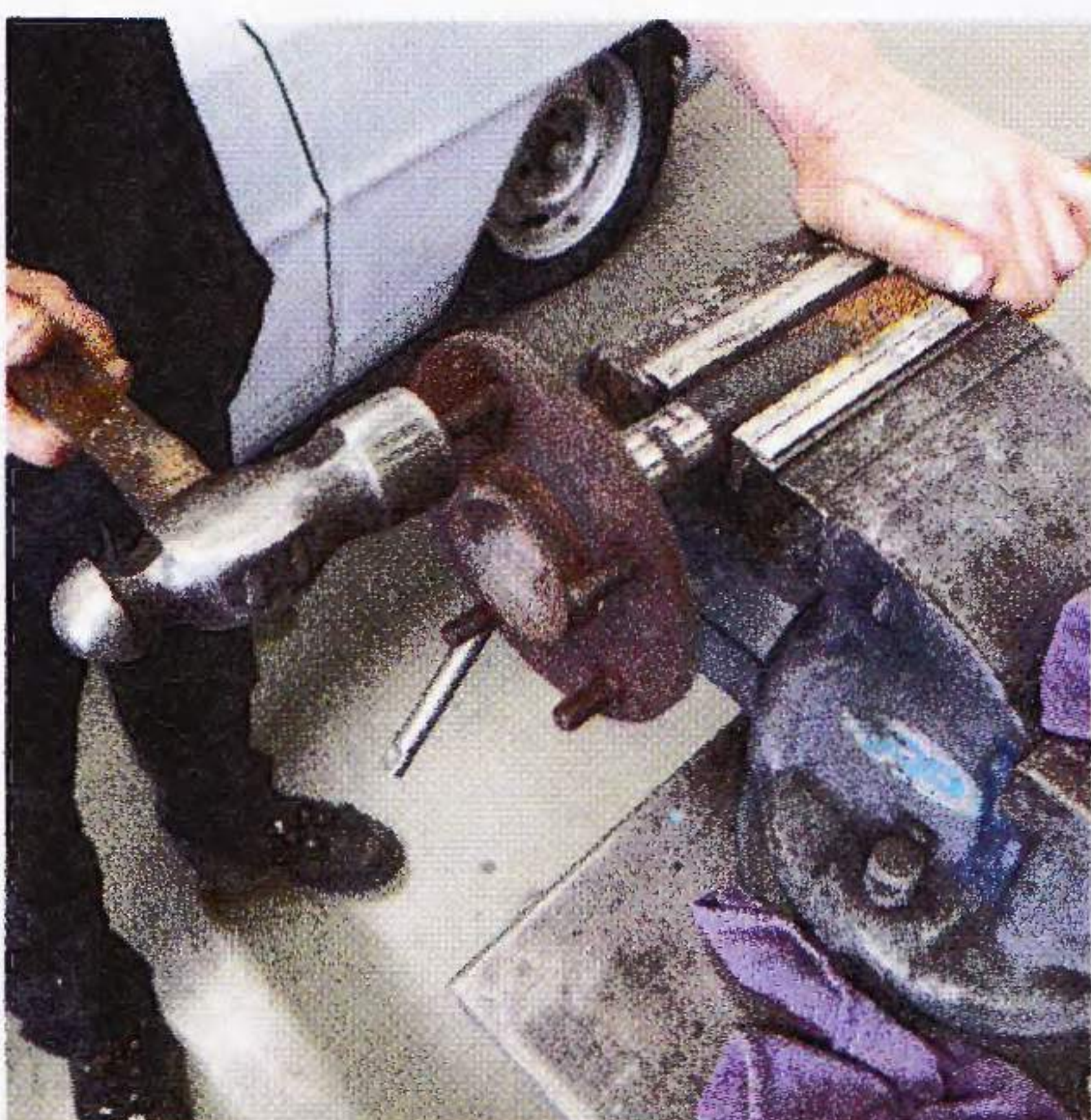


12 With the slide pin bushings pressed all the way toward the back side of the caliper (making sure they move freely), install caliper into the bracket. In some cases, as illustrated here, the offset of the bracket may place the caliper too far

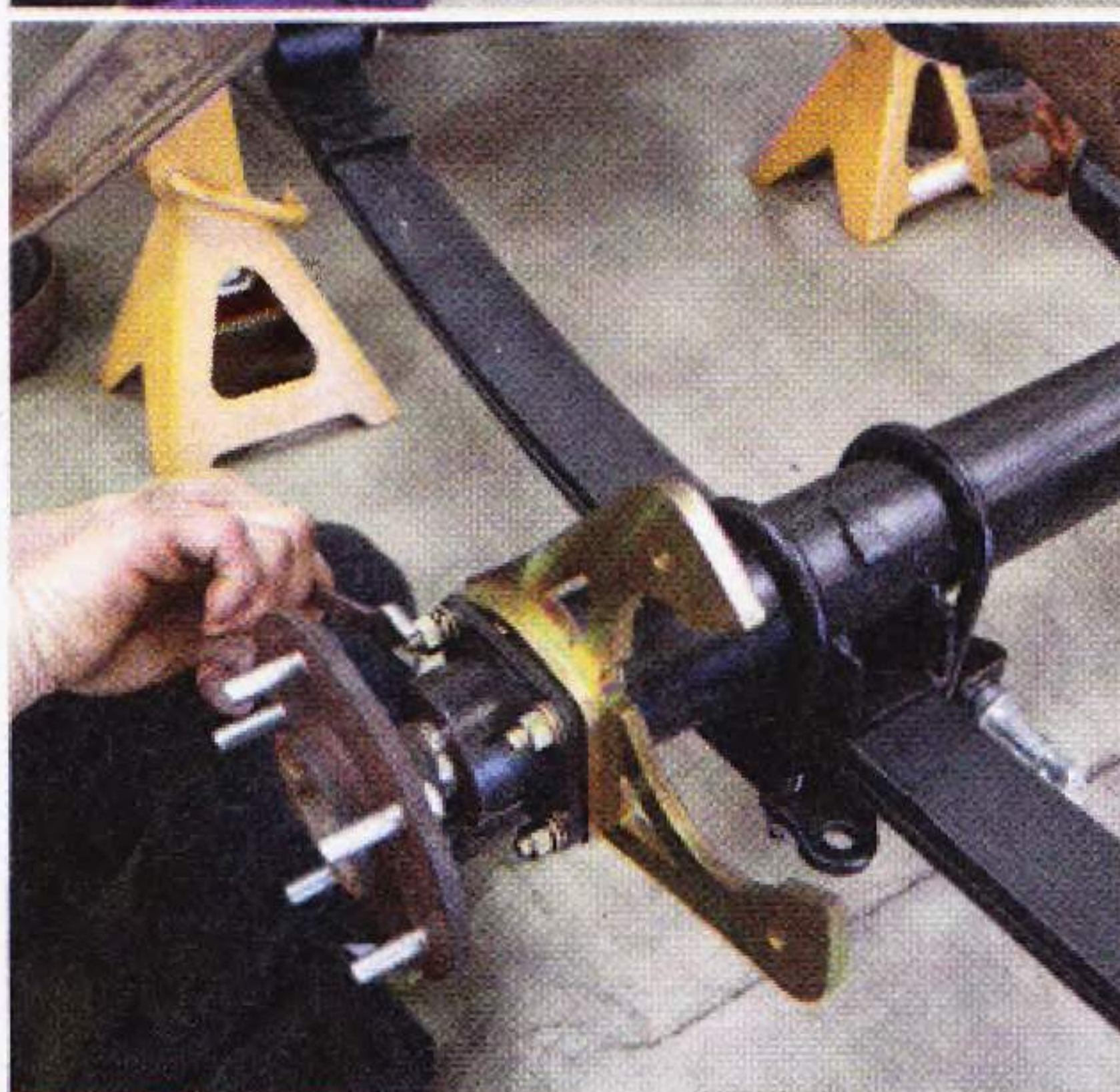
to one side or the other, not allowing it to slide unobstructed onto the rotor. If so, this is where the additional shim kit will be used.



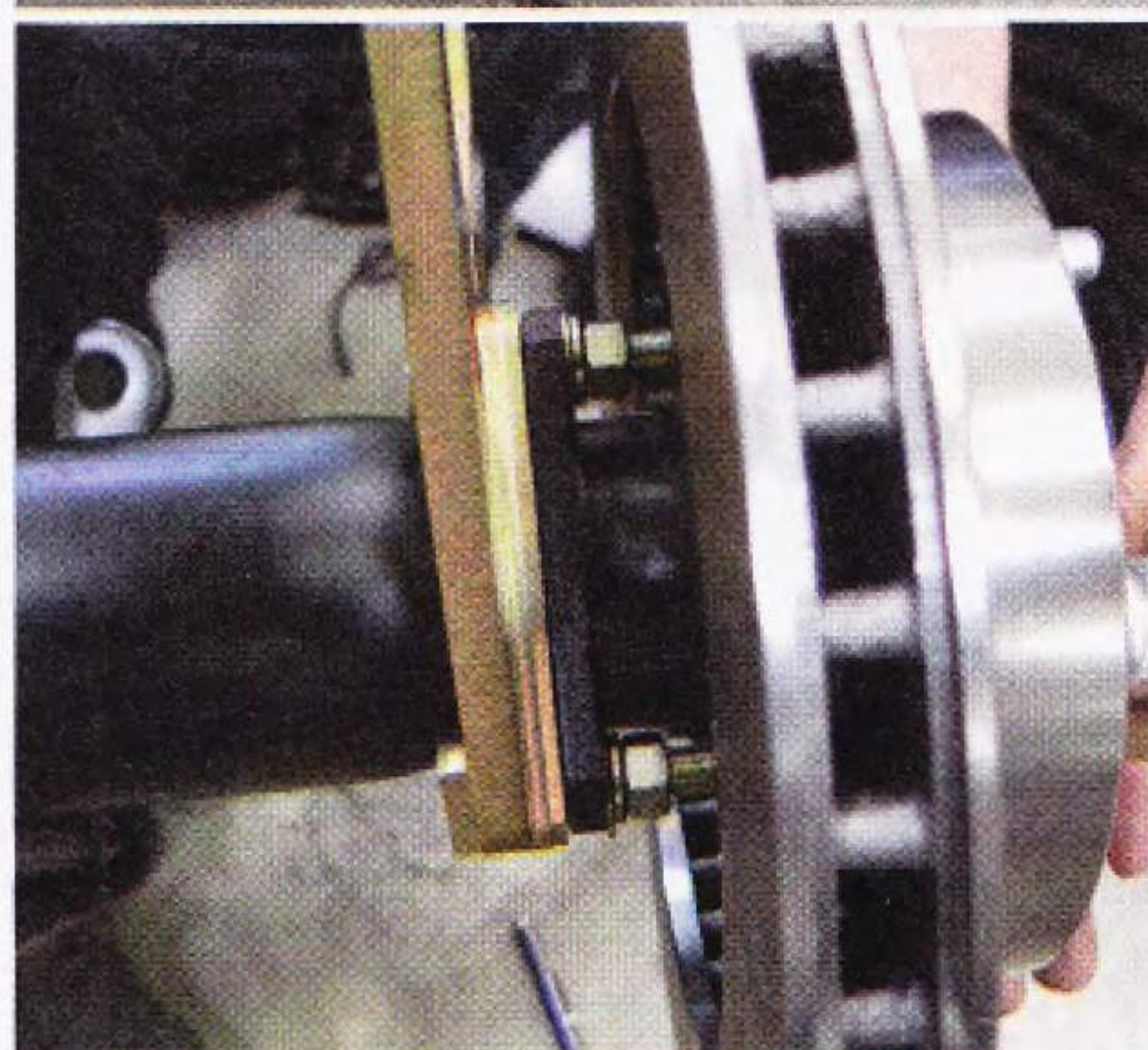
05 Remove the backing plates from the rearend housing.



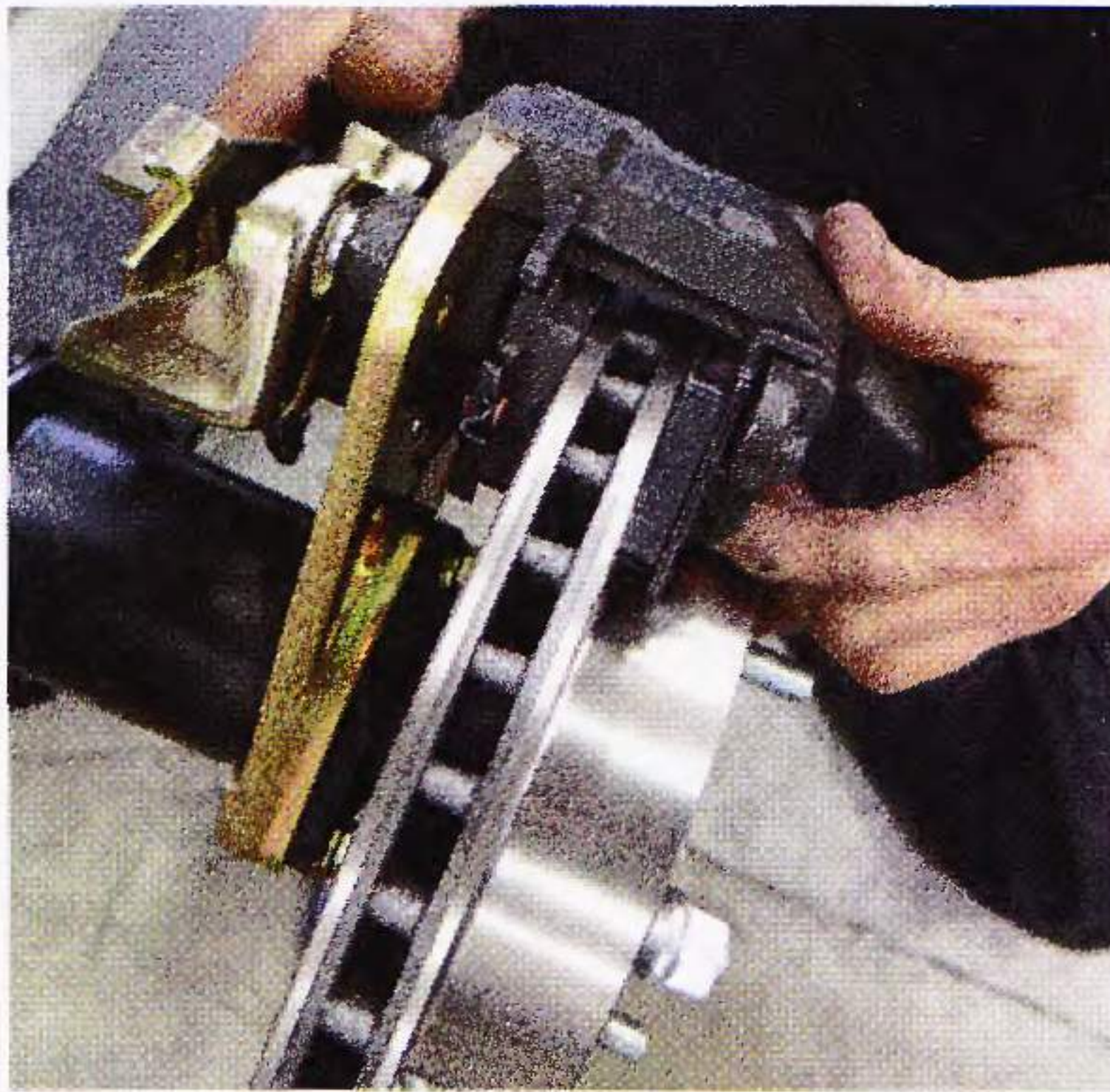
06 With the axles out, you will need to replace the stock wheel studs with the longer ones provided in the kit. First, drive out the old studs, either with a press or a sledge hammer, as shown.



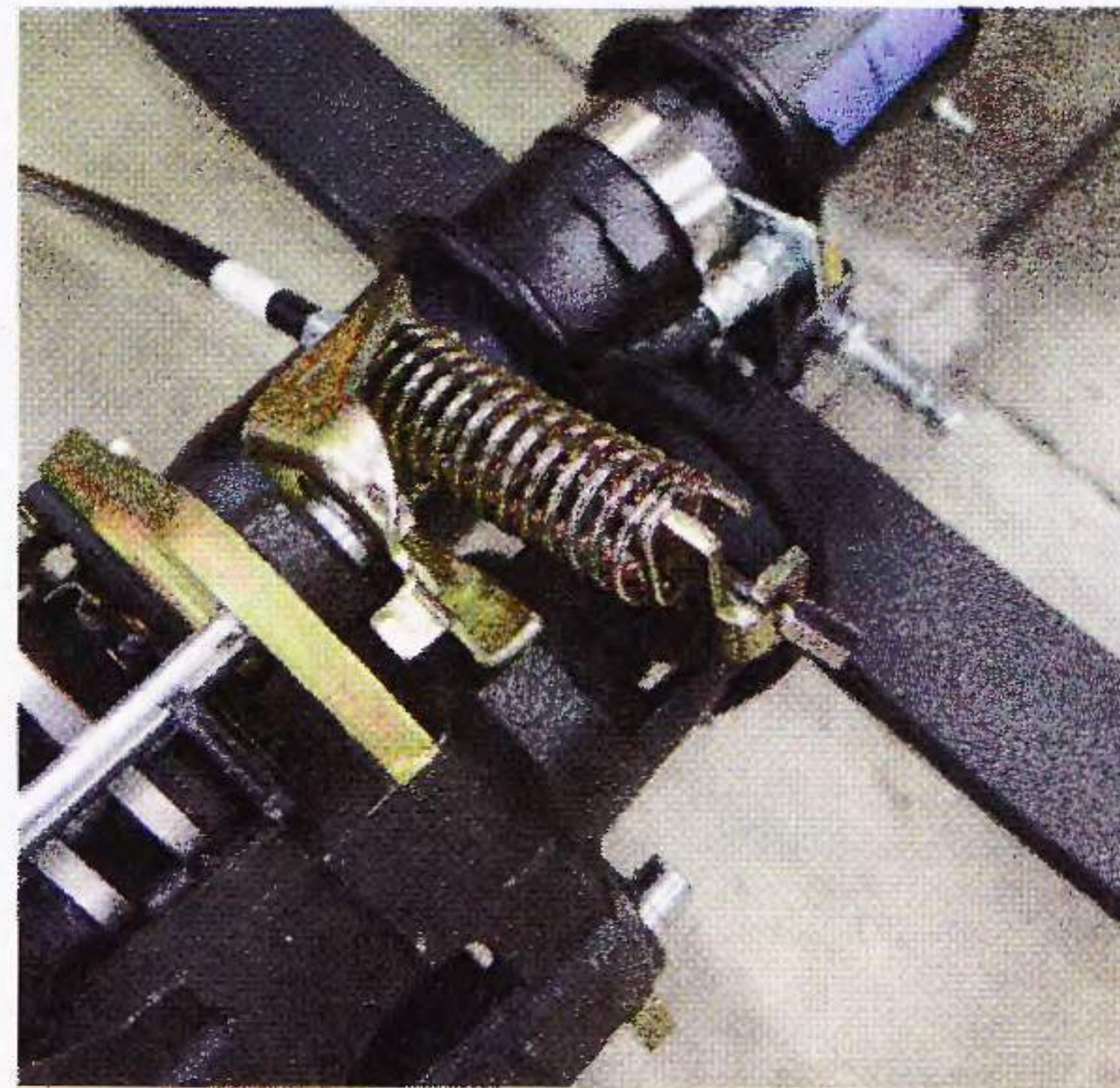
09-10 The brake assembly begins with the two-piece caliper brackets—they attach to the “inside” of the axle housing flange, pointing toward the rear, with the spacer portion between the main bracket and the flange. The T-bolts insert from the inside.



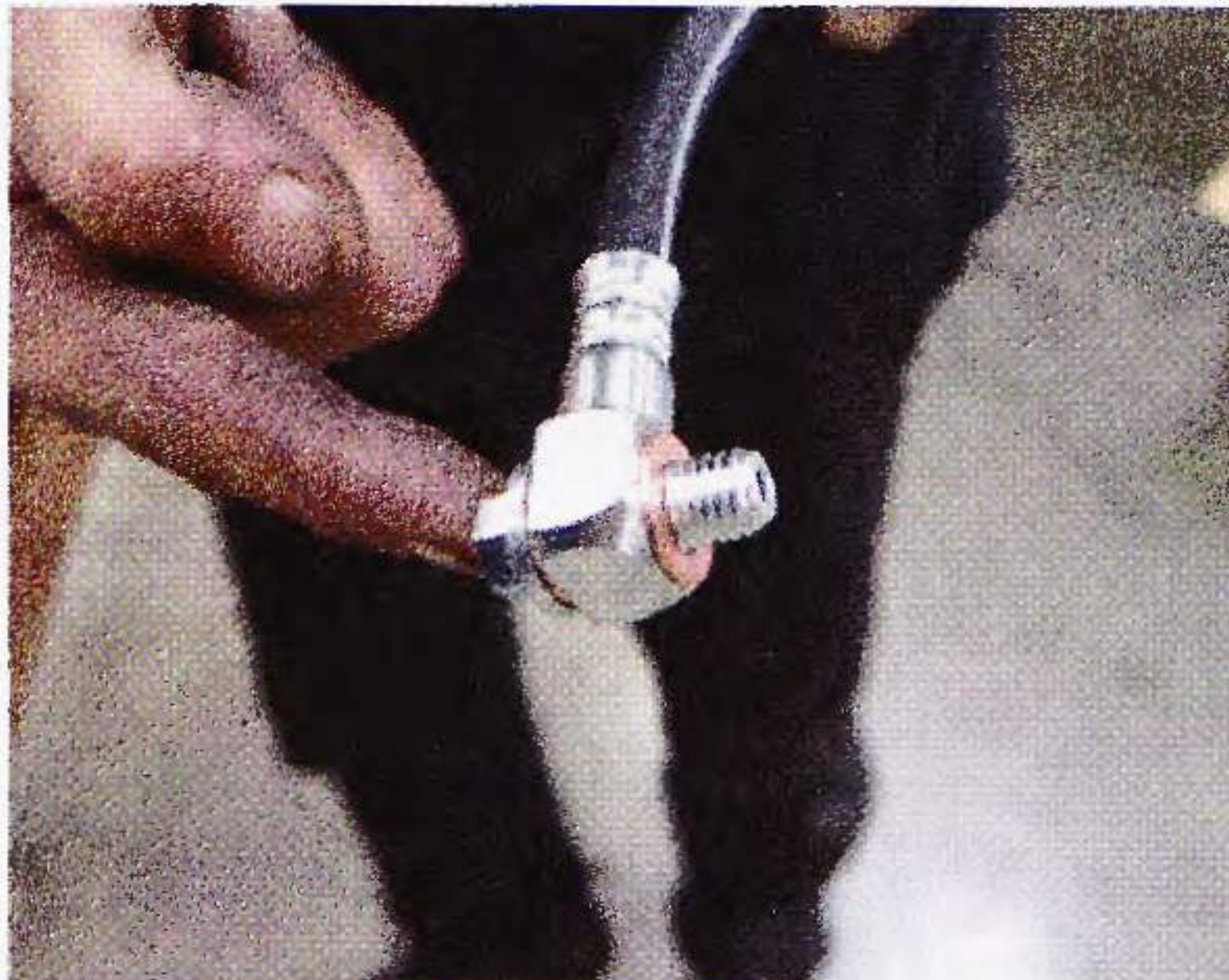
13-14 CPP offers 10/12-bolt rear disc shims in 0.125 inch (background) and 0.048 inch (foreground); our particular offset situation called for two 0.125-inch shims in place of the thicker bracket spacer, which moved the caliper placement outward toward the wheel.



15 Now, the caliper slides in place, into the bracket, and onto the rotor, with no obstruction, the pads evenly spaced on each side within the caliper—as should be.



19 Next, connect the 4755EBC emergency brake cable to the actuating lever on the caliper. (Refer to the “Internal E-Brake Adjustment” sidebar on pages 30-31 for actual e-brake adjustment procedure.)



16 With the caliper now situated correctly, continue by installing the rubber brake hose, making sure the recess in the banjo fitting faces outward and that you use copper washers on both sides.



17 With the caliper now situated correctly, continue by installing the rubber brake hose, making sure the recess in the banjo fitting faces outward and that you use copper washers on both sides.



18 Since the '49 had no existing rear brake plumbing to “convert,” we obtained an RFH126 rearend flex hose kit to connect to the chassis brake hard line.



20-21 Fortunately, this particular cable works directly with the truck's factory frame-mount cable guide and bell crank to integrate with the interior e-brake lever. Simply attach the stock clevis to the threaded cable and connect using a bolt and nyloc or a cotter-retained clevis pin.

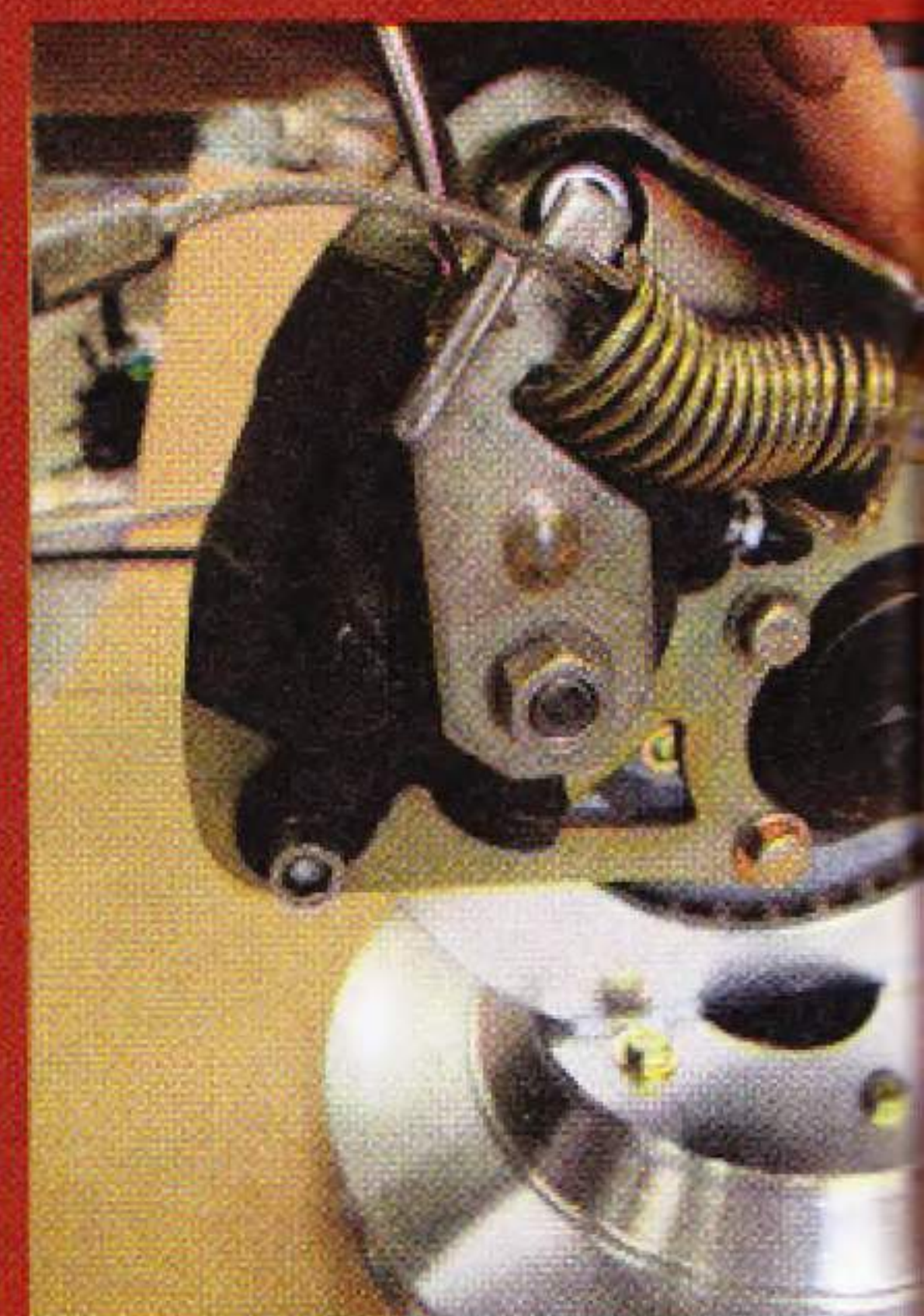


22 While the e-brake was being set up and adjusted, we also installed the rear hard line kit.



23 And that's a wrap: 10-bolt disc brake conversion in a '49 Chevy 3100 complete.

24 First, check that the parking brake needs adjustment to begin with. Rotate the lever forward (removing the return spring if doing by hand, without the aid of a blade screwdriver, as shown) in its normal direction of travel—if there's an $\frac{1}{8}$ -inch of travel or less, no adjustment needed; if more than an $\frac{1}{8}$ inch, continue with the adjustment procedure.



25 Remove the retaining nut, actuating lever, and seal/nylon washer. For a reference point, mark the orientation of the lever based off a hex nut point on the shaft.



Internal E-Brake Adjustment

Prior to bleeding the brakes, the integrated emergency brake mechanism on Cadillac-style calipers "must" be properly adjusted. This will not only ensure the brakes themselves perform properly, but greatly contribute to the longevity of the brake pads as well. An improperly adjusted e-brake can lead to premature/uneven pad wear, poorly performing calipers (soft, spongy pedal), and ultimately, brake failure. The following procedure will help illustrate the correct adjustment process. (CPP offers a more in-depth coverage of the process on their website in the instruction download section.)

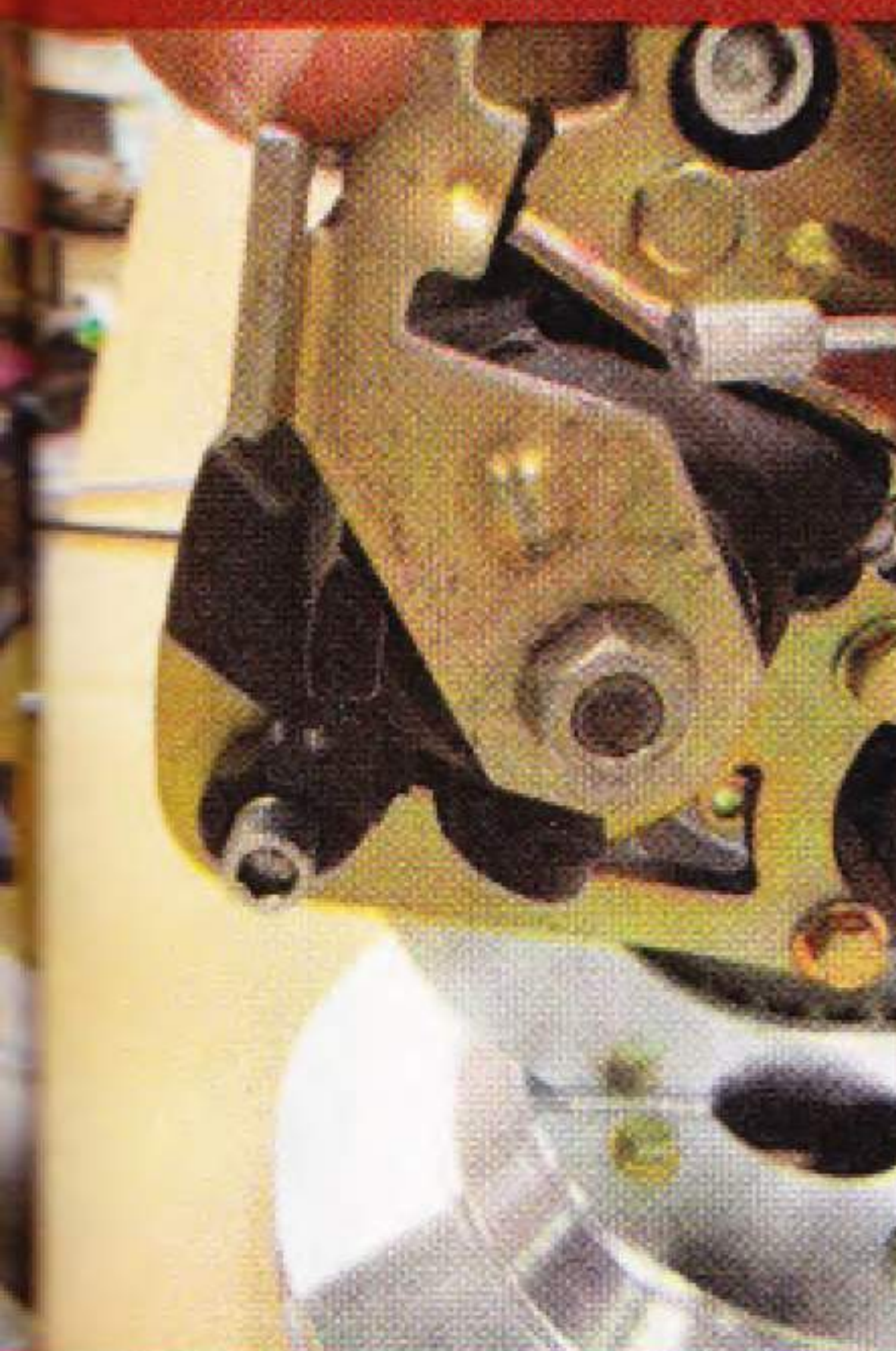


28 Once the parking brake is adjusted properly, reinstall the lever with the seal/nylon washer and reassemble the cable and return spring.



26 Use an open-end $\frac{9}{16}$ wrench with the nut reinstalled (to prevent the piston from screwing too far in, ultimately causing excess fluid to leak past the seal) to turn the piston in and out, starting in the direction opposite its normal rotation (counterclockwise for the left;

right) until it clicks the lever closer to the caliper stop.



27 Continually check the orientation and travel of the arm—once it's an $\frac{1}{8}$ inch or less, you're good to go.