ADVANCING THE DESIGN

Suspension Upgrades For '47-'55 Chevys, Part 2

by Ryan Manson

With our shortened ¾-ton '49 Chevy chassis back from Eddie Motorsports' powdercoating booth, it's time to start bolting on all the related suspension components. Naturally, most of these components came included in either the Scott's Hot Rods SuperSlam IFS kit or their four-link setup we used in the rear. This includes their oversized 1⅛-inch 0.250-wall DOM tubular control arms that feature billet, adjustable upper rod ends and serviceable ball joints, and forged dropped spindles up front as well as similarly sized one-piece, billet four-link bars, panhard bar, and billet adjustable rod ends in the rear. Handling the steering duties will be accomplished using a power rack-and-pinion. These components are proven to be bulletproof and feature more adjustability than usually required in a street truck, allowing the chassis to be infinitely tuned to the owner's preference. Rounding out the suspension components are a set of Aldan American coilover shocks. These Midnight Black Regulator Series shocks came fully assembled from Aldan, specific for our application with a 500 lb/in spring rate up front and a 300 lb/in spring rate for the rear. With 11 settings of rebound adjustment, these single-adjustable shocks will allow us to even further dial in the way our pickup handles.

Of course top-of-the-line suspension components must be complemented by a matching set of brakes and for that end we went to Classic Performance Products (CPP) to see what they recommended for our canyon-carving Chevy. They responded in kind with their big brake kit, which consists of 13-inch cross drilled, gas slotted, and zinc washed rotors mounted on 2024 T6 billet aluminum CNC-machined hubs up front and 12-inch rotors given a similar treatment out back. PBR C15 calipers with dual 52mm pistons provide a large brake pad surface area that results in nearly 60 percent more stopping power than a C5 caliper up front while a Lincoln e-brake-style caliper provides the bind in the rear.

Follow along as we bolt on the components needed to make our Chevy stop, steer, and handle like a sports car and stay tuned for the full Currie 9-inch Ford rearend rebuild that will feature the second half of the CPP big brake kit.

SOURCES

ALDAN AMERICAN SHOCKS
(310) 834-7478
www.aldanamerican.com

CLASSIC PERFORMANCE PRODUCTS
(800) 830-1724
www.classicperform.com

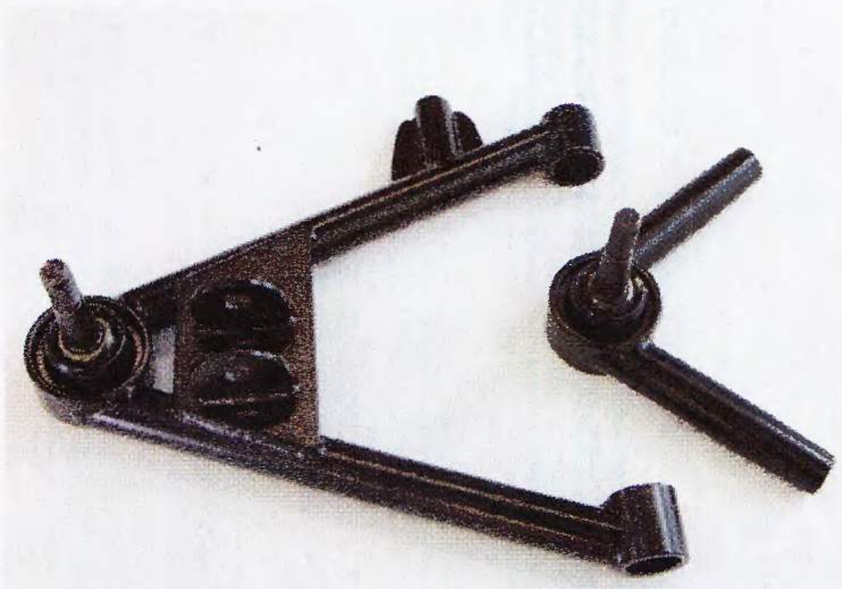
CURRIE ENTERPRISES
(714) 528-6957
www.currieenterprises.com

EDDIE MOTORSPORTS
(888) 813-1293
www.eddiemotorsports.com

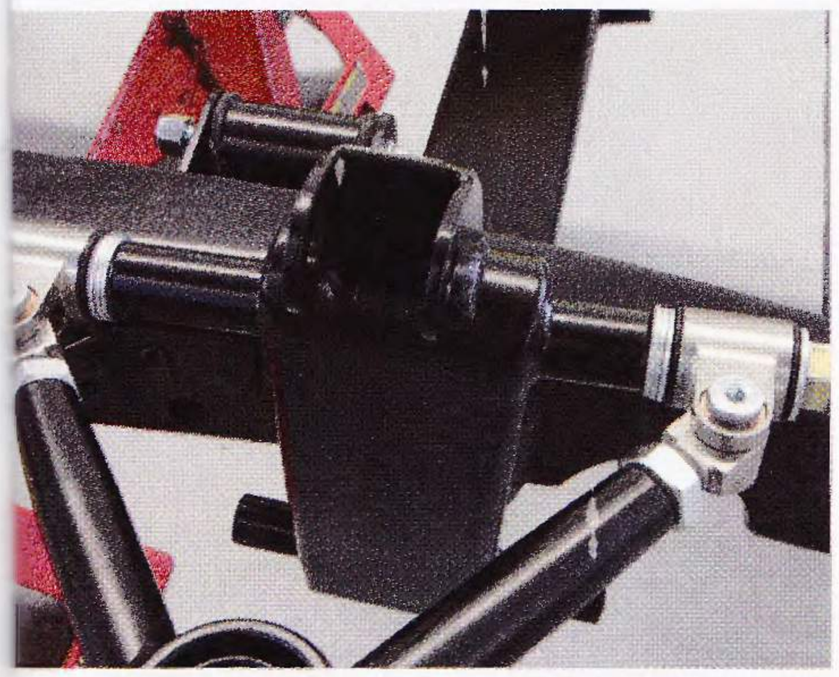
SCOTT'S HOTRODS 'N CUSTOMS
(800) 273-5195
www.scottshotrods.com

YOUNG GUN 1
(909) 944-4156
www.younggun1.com

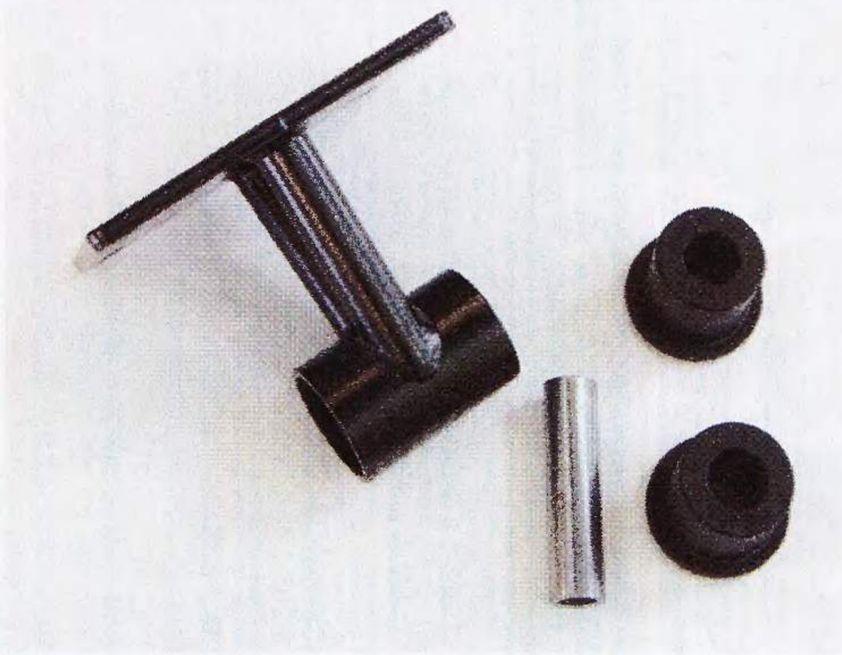
01 With initial assembly complete, the '49 chassis was sent off for a quick sandblast at Young Gun 1, followed by a trip through Eddie Motorsports' powdercoating booth where it received a coat of semigloss black.



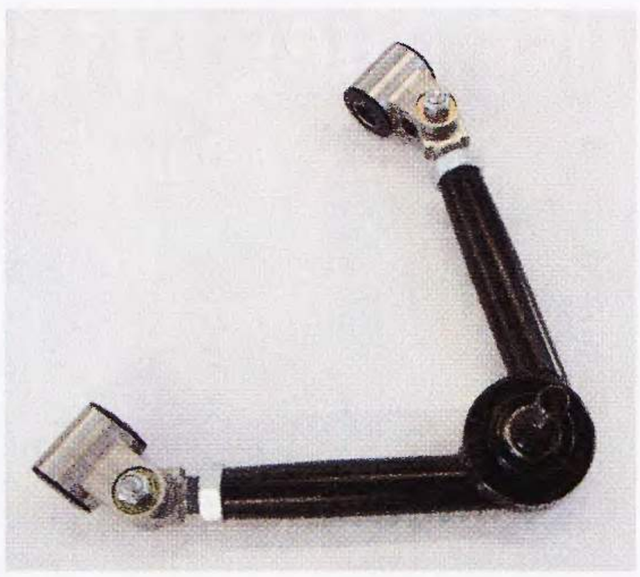
02-04 In addition to the chassis, we also sent all the suspension components through the powdercoating booth. This includes Scott's Hotrods' control arms, spindles, sway bar, motor mounts, rear four-link bars, panhard rod, and the Currie 9-inch Ford rearend housing.



08 It is much easier to install the clevis to the crossmember and then attach the control arm as there may be slight adjustment needed in the rod ends to get the control arm to install without bind. It's important to note that both rod ends must be adjusted the same amount.

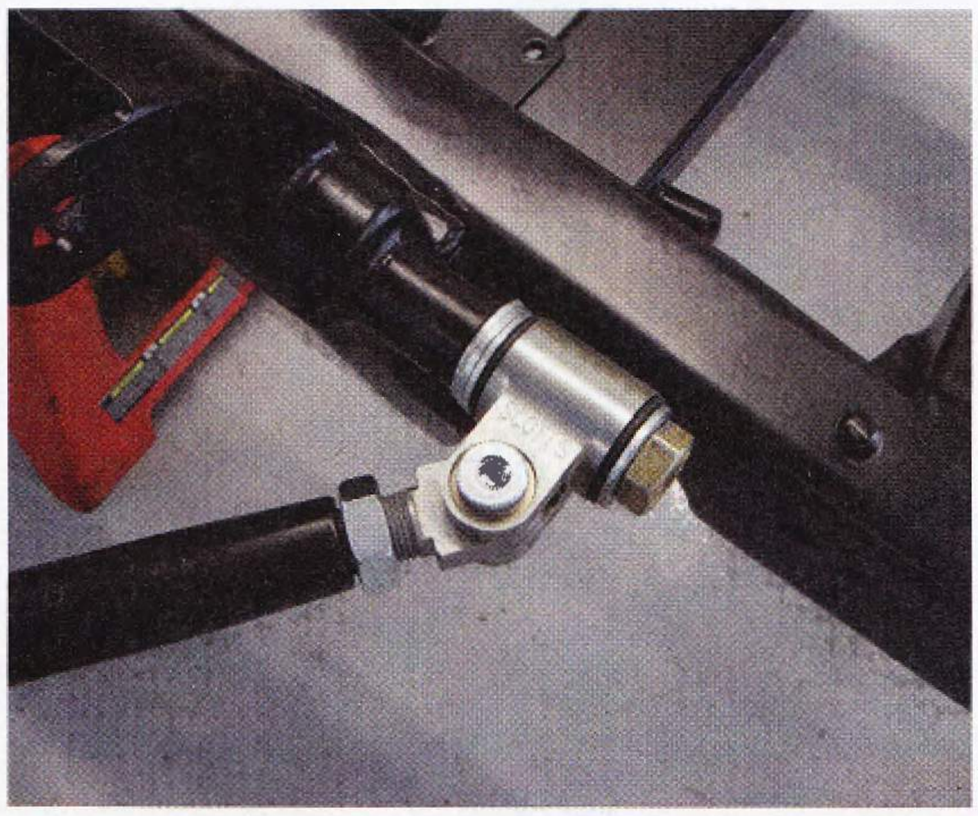


05 This stuff is going to be applied to every threaded surface of every chassis component during final assembly to prevent corrosion and seizure.



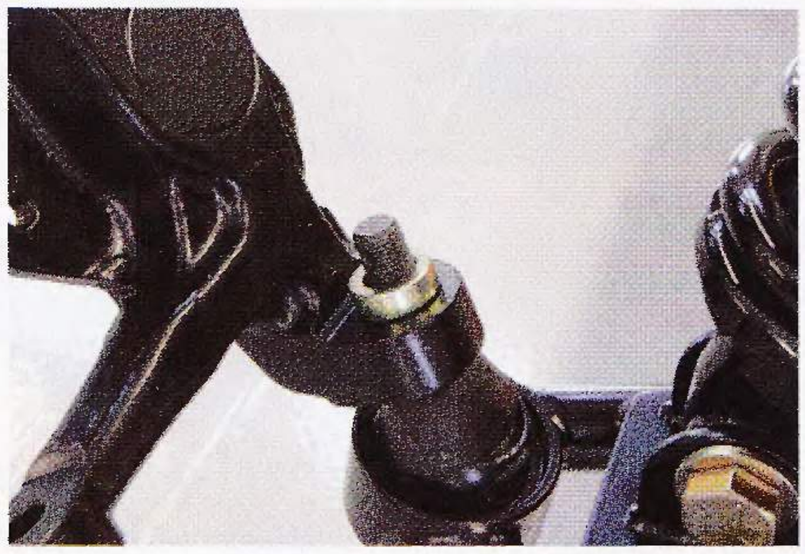
06 The first step is assembling the upper control arms. The jamb nuts are fully threaded onto each rod end and then fully threaded into the control arm. Five turns out from fully bottom yields the baseline alignment setting. The jamb nuts are then tightened just enough to hold the assembly in place.

03 Single-adjustable Aldan American Regulator Series coilover shocks will be utilized at all four corners. Varying spring rates were determined by Aldan given the truck's weight, drivetrain, and performance objectives.

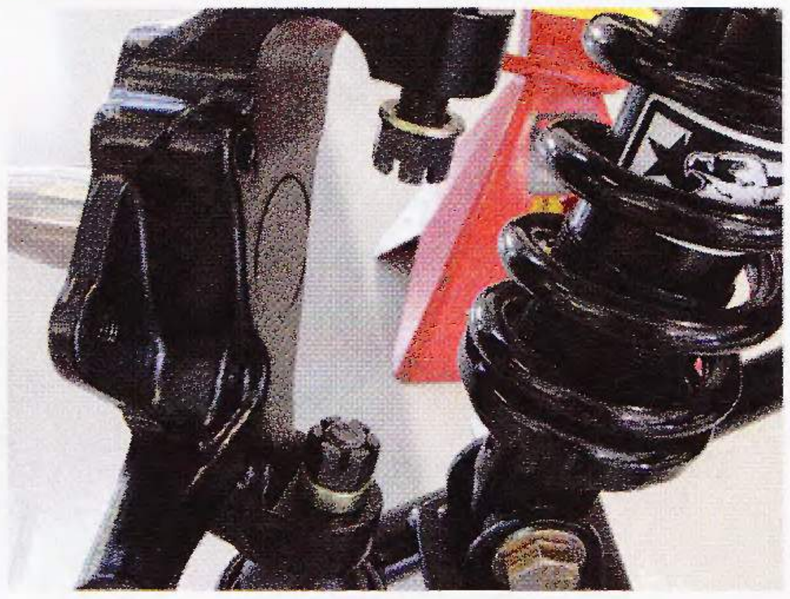


07 A total of four washers are used to properly space each clevis on the crossmember; three on the inside and one on the outside.

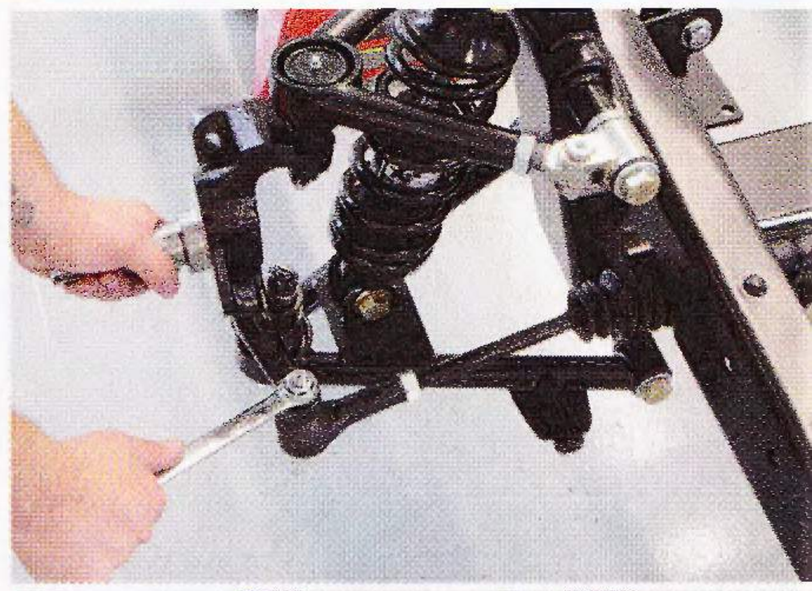
10 A pair of 500 lb/in spring rate coilovers are used up front, installed using the provided grade 8 hardware from the Scott's IFS kit.

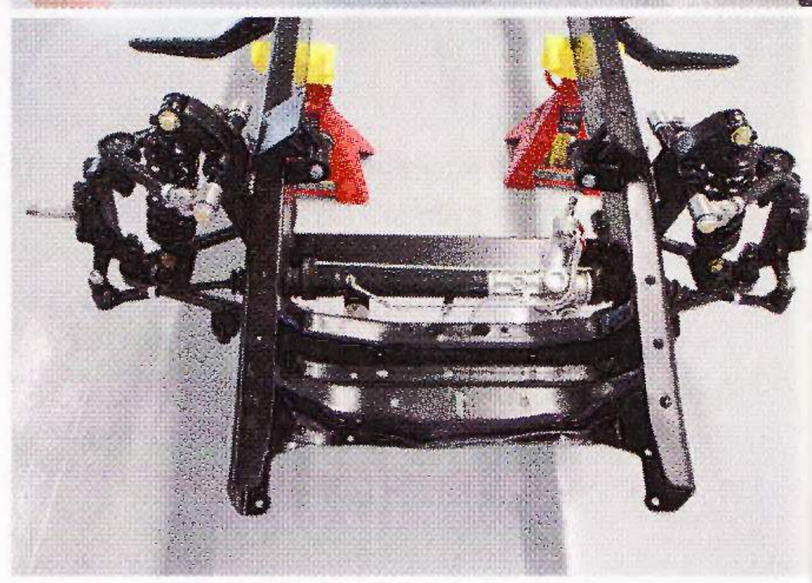


11 The upper and lower ball joints require two different spacers, a 3/8-inch spacer on the lower ball joint under the castle nut ...

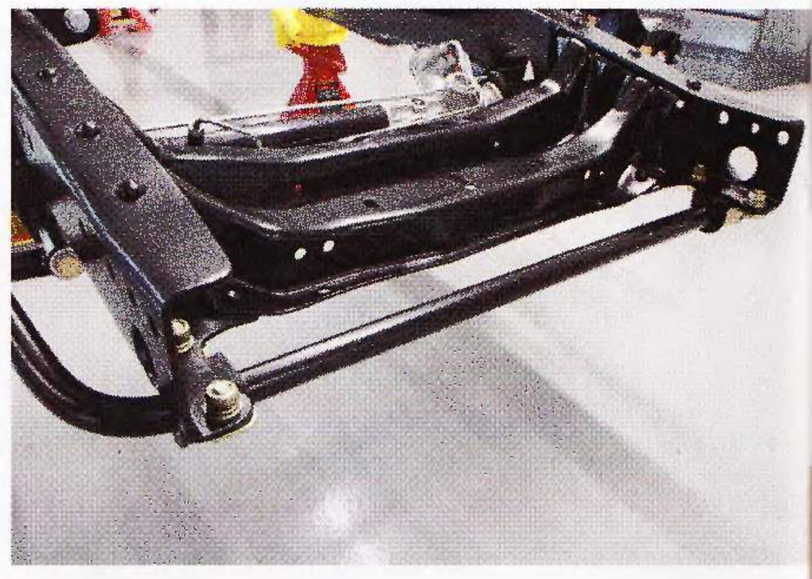


12 ... and a 3/16-inch spacer on the upper ball joint.





13-14 The power rack is centered, attached to the chassis, and the outer tie rod ends adjusted and attached to each spindle. This initial setup will be close enough until the frontend is aligned.



15 The sway bar mounts attach to the frame using the same holes as the original leaf spring mounts.

16 The sway bar attaches to the lower control arms via a pair of heim joints. Note the relation between the tapered washers and the heim joints.

17 For braking duties, we'll be using a CPP big brake kit. It features 13-inch cross-drilled rotors and PBR C15 calipers with dual 52mm pistons and a larger brake pad surface area, offering nearly 60 percent more stopping power in the caliper than the popular C5 caliper at half the cost. CPP's big brake kit will bolt right up to Scott's spindle thanks to CPP's custom caliper mounting brackets, while a 2024 T6 CNC-machined aluminum hub accepts the 5x5 bolt pattern rotor.

18 Bolting up CPP's big brake kit begins by packing the bearings with high-temperature disc brake bearing grease and installing the inner bearing to the hub.

19 Next, the inner bearing seal is installed.

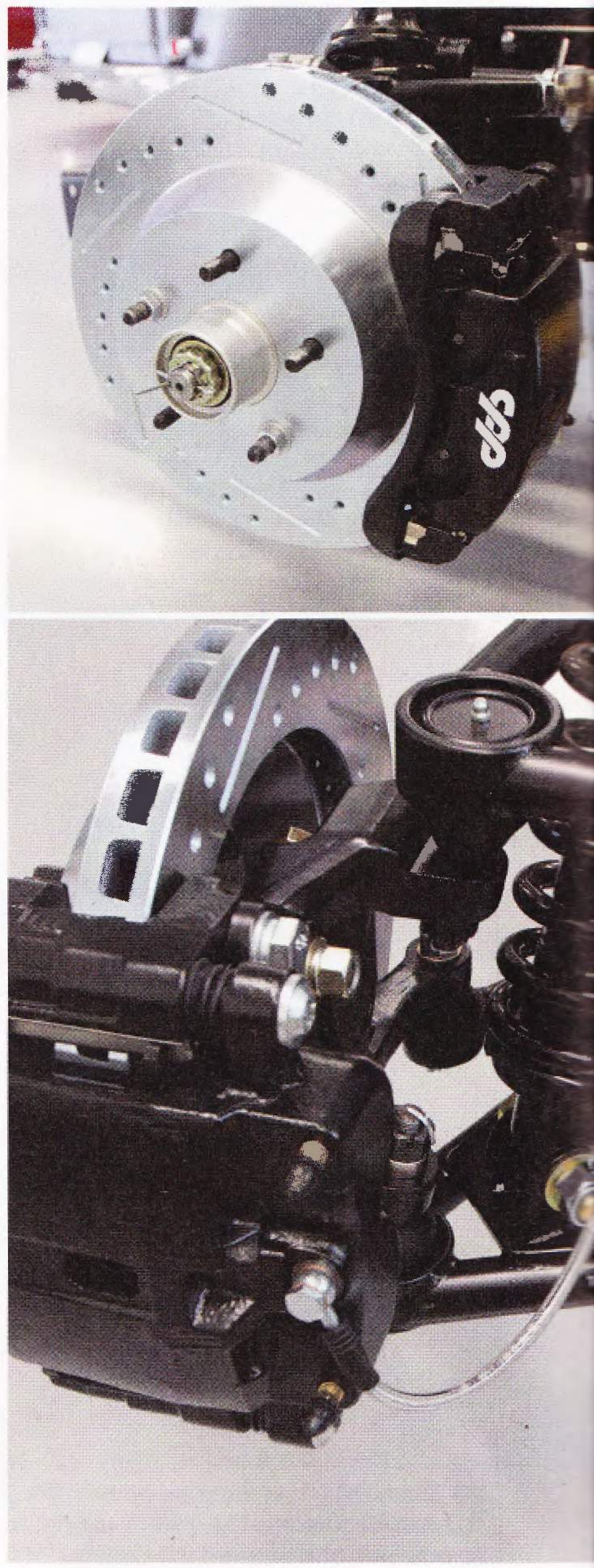
20 The hub is then installed on the spindle, followed by the outer bearing, spindle nut, and washer.

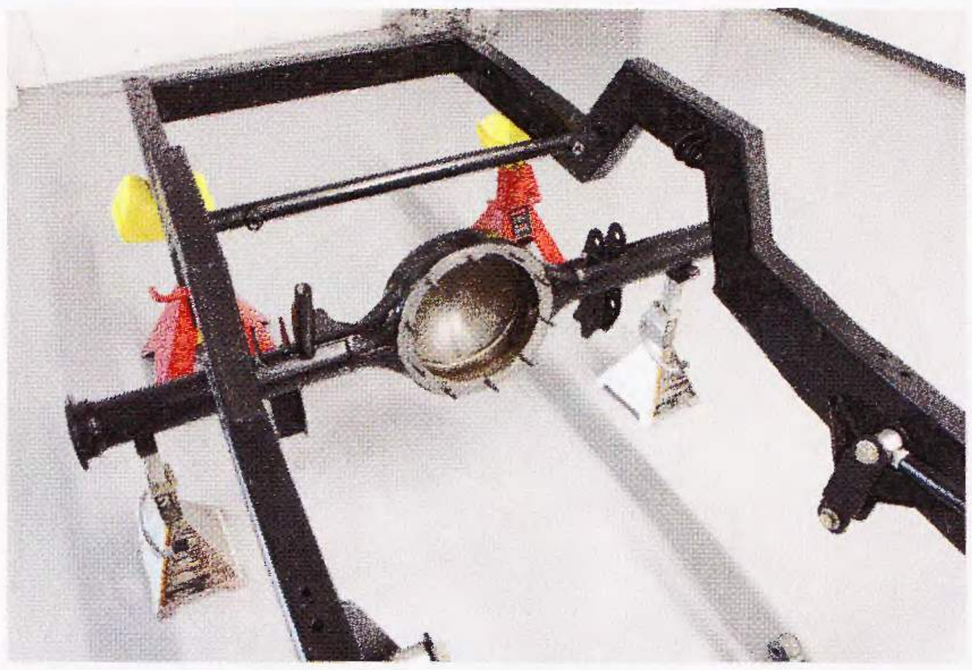
21 The caliper bracket attaches to the spindle using a 3/4-inch spacer on the lower fastener ...

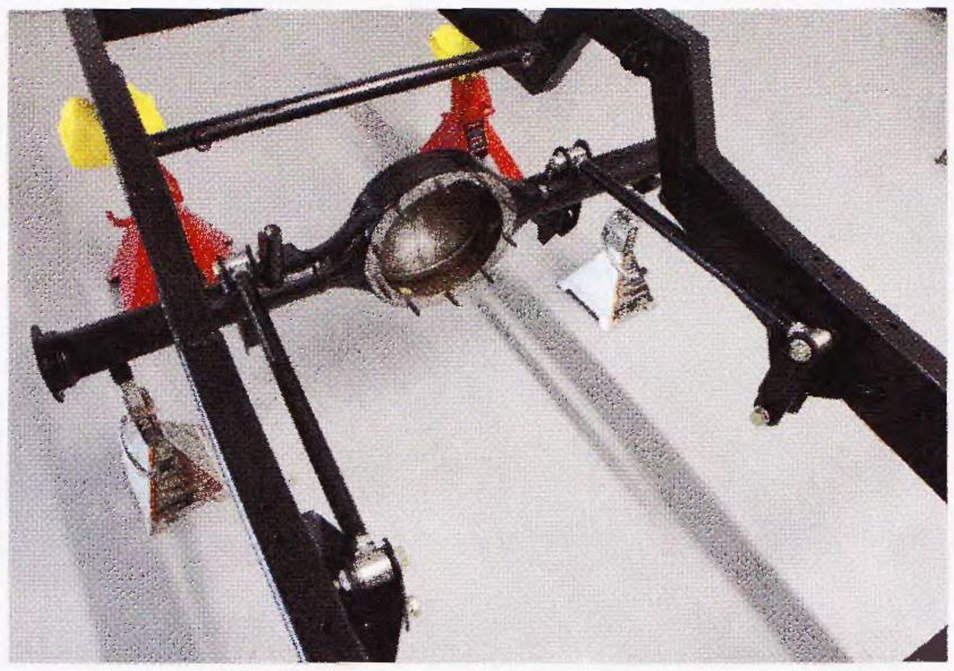
22 ... and a custom 90-degree billet steel upper anchor.

23 Before mounting the rotor, we need to install the wheel studs in their respective position on the hub. This particular hub is drilled for two different patterns; 5x5 and 5x5.5. We'll be using the standard Chevy truck pattern of 5x5. A dab of blue thread locker is applied to the last few threads before the bolts are wound into place and torqued to 90 lb-ft.

24 With the lug bolts installed, the rotor can be installed. Note the direction of the rotor and the use of a spindle nut retainer and cotter pin. Once we get a wheel/tire installed, the spindle nut will be torqued to spec so for now, it's temporarily installed.







28 First, the four-link bars are assembled all to the same length before being installed.

27 Out back, we're going to bolt up the bare 9-inch Ford housing to check final fit up before sending it back to Currie for final assembly of the internals.

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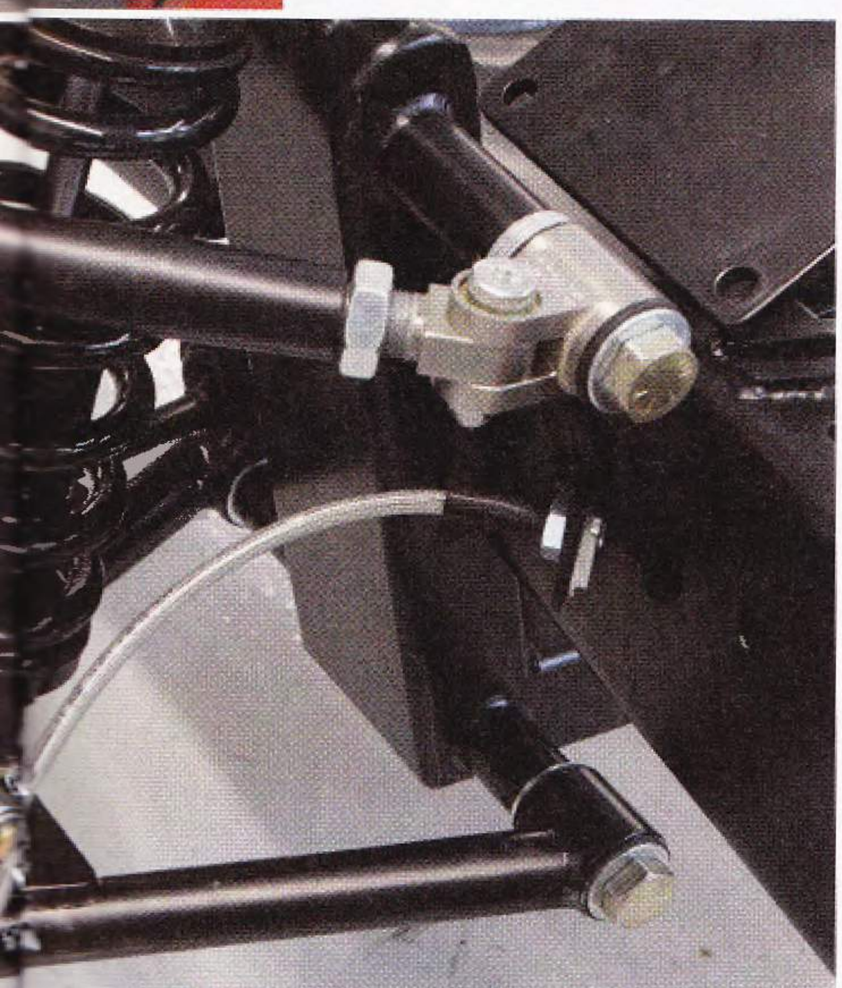
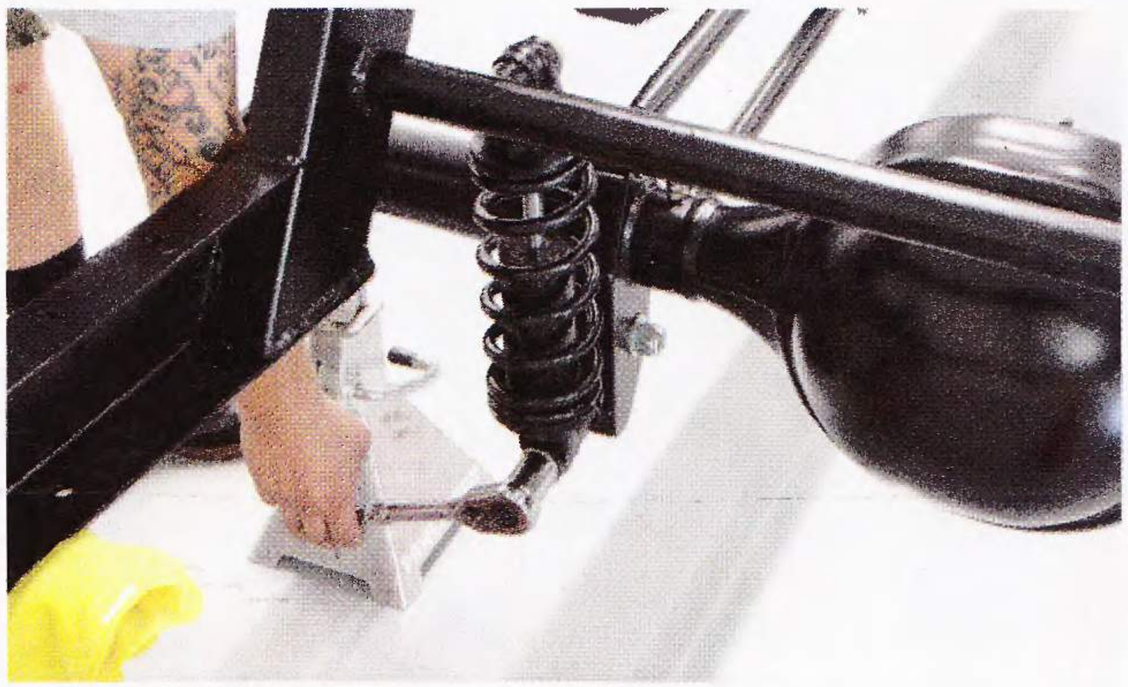
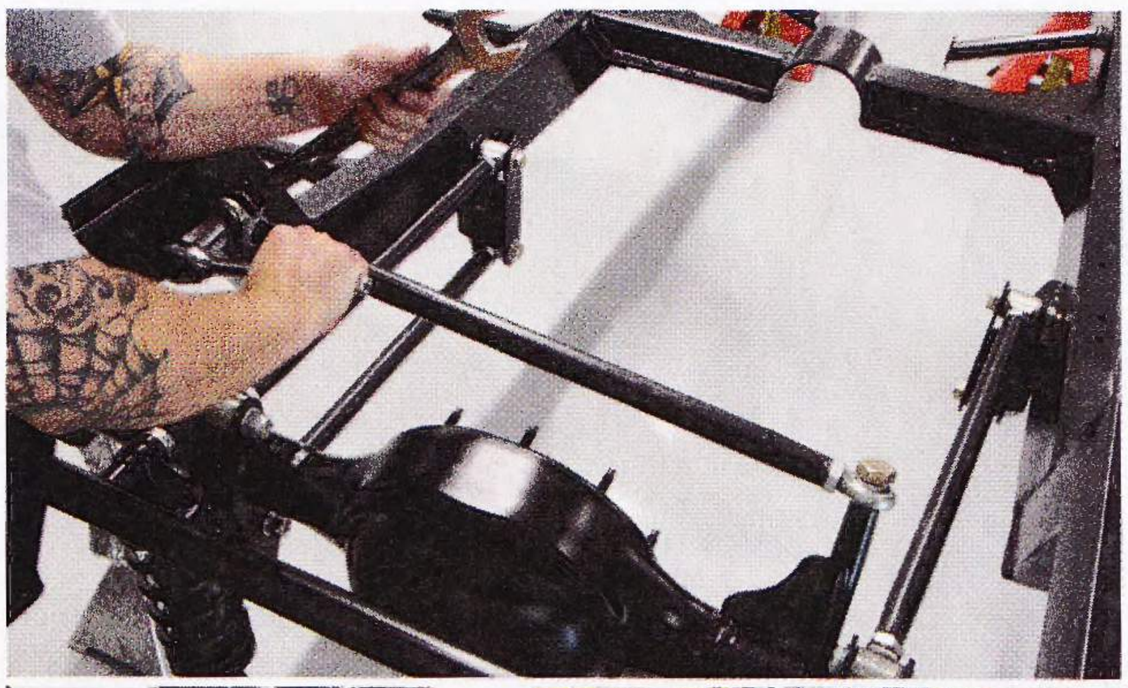


25-26 The caliper is now installed, fastened to the bracket using the two provided metric fasteners. Note the stainless braided hose, a nice upgrade that comes as standard with CPP's big brake kit.



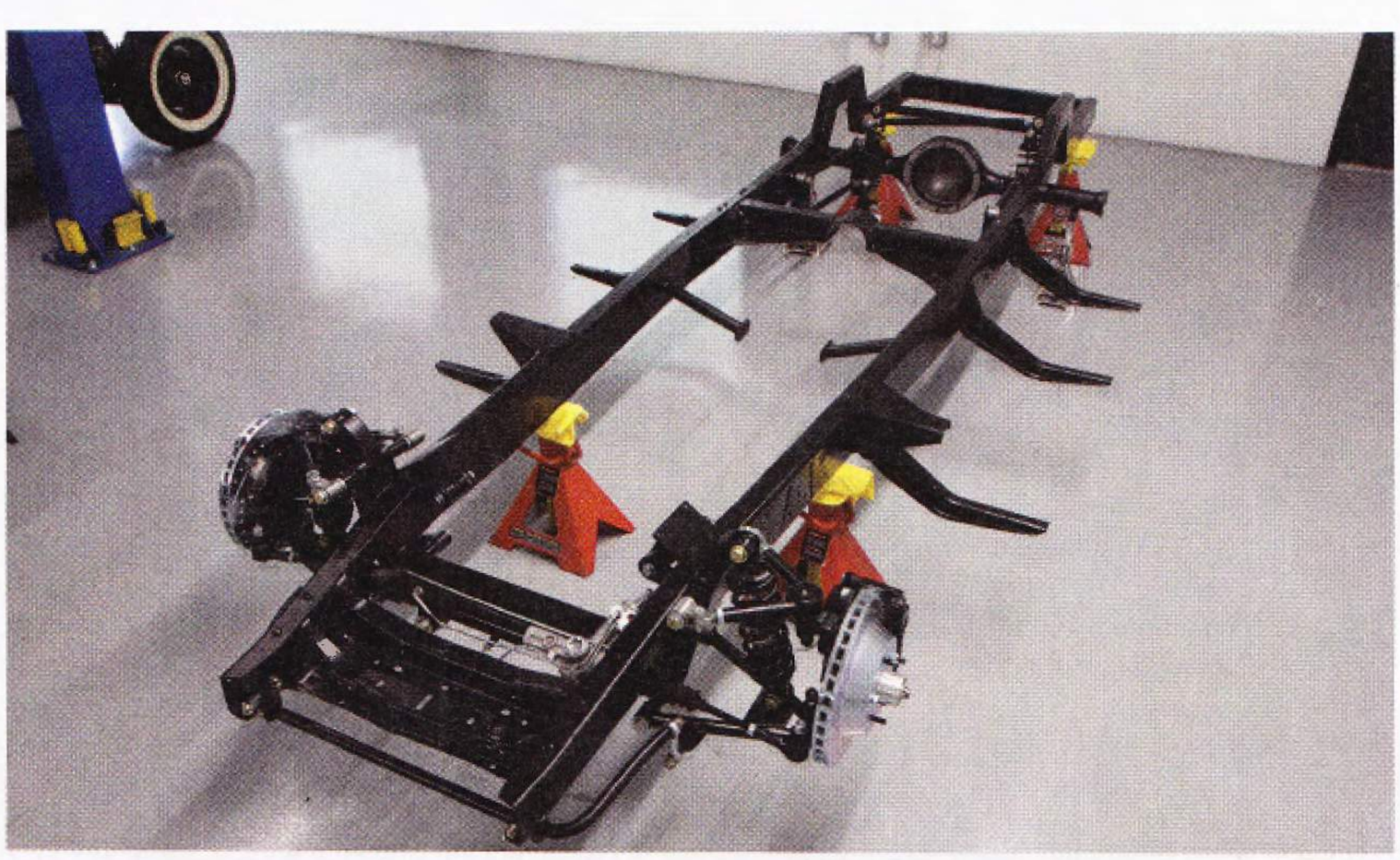
29 Next, the Midnight Black Aldan American Regulator Series coilover shocks are installed. These single-adjustable shocks were specified by Aldan for the rear of our '49 with a 300 lb/in spring rate.



30-31 The panhard rod is then used to center the rearend.

32 Lastly, the four-link bars are adjusted evenly as required to achieve a pinion angle of positive 2-3 degrees.

33 The final overall length of each four-link bar is then compared to their counterpart on the opposite side of the chassis. Both upper bars and both lower bars should be the same length to avoid the truck wanting to "crab" down the road.



34 With the chassis wrapped up, it's time to start thinking about plumbing and drivetrain installation. We also need to send the rearend housing back to Currie so they can stuff it with axles and gears, as well as complementing CPP big disc brakes.