



Project Shop Truck

A simple steering setup for the Project Shop Truck

BY RYAN MANSON

How Au-ster!

Old trucks are known for their simple, no-frills sensibilities. They served one purpose, did it well, and that was all that was to be expected. Things have changed in 50 years, however, and some of the pickups rolling off the assembly line today can give most luxury cars a run for their money. Power seats, electric everything, hands-free cell phone features, iPod docks, backup cameras; things have definitely changed since the time of your grandfather's hauler. But why not have the best of both worlds? Building a classic truck with all the modern conveyances available in the latest Detroit has to offer is possible thanks to a massive aftermarket industry catering to anything you can shake a stick at when it comes to classic trucks.

While we're definitely not pushing the envelope when it comes to modern amenities for our Project Shop Truck '47 Chevy, there are a number of items that it will receive that weren't available when the truck was, er, new. I say that tongue in cheek of course for if you've been following the build over the last couple of issues, you'll remember that we're using a brand-new body from Chev's of the 40's. But insignificant details aside, we're still building a classic truck and we want all the soul and personality that comes with it.

One of the things that we did opt for was independent front suspension, thanks to a Fatman Fabrications chassis. Included in the setup was a power rack-and-pinion, another upgrade we decided to go with over a manual rack-and-pinion or steering box. This will make the truck much easier to drive and give it more of a contemporary feel. Another creature comfort we opted for was a tilt steering column



from Flaming River, which will ensure that whoever gets driving duties will be able to do so in comfort.

Of course, we'll need to mate the column to the rack-and-pinion, which will be accomplished using a trio of universal joints and a section of 3/4-inch DD shaft, also courtesy of Flaming River. We went with a three U-joint system to better route the steering linkage around the headers and framerail, but a three U-joint system also benefits from the U-joints being at a less drastic angle than a two U-joint setup; resulting in a smoother feel at the steering wheel.

We began by installing the rack-and-pinion to the chassis cradle and bolted the tilt column in place using an OEM factory-style column mount in the stock location. The U-joints were then installed at either end, a few quick measurements were made, a little trial and error to get the correct geometry, and pretty soon we've got a truck that is much easier to push around the shop. But as convenient as that is, our aspirations are slightly higher than just having a truck that's easier to move from one corner of the shop to the other. No, we're hoping that the crew at Hot Rods by Dean cranks this puppy out quick so we can put some serious miles on it this spring. See you on the road! **SR**



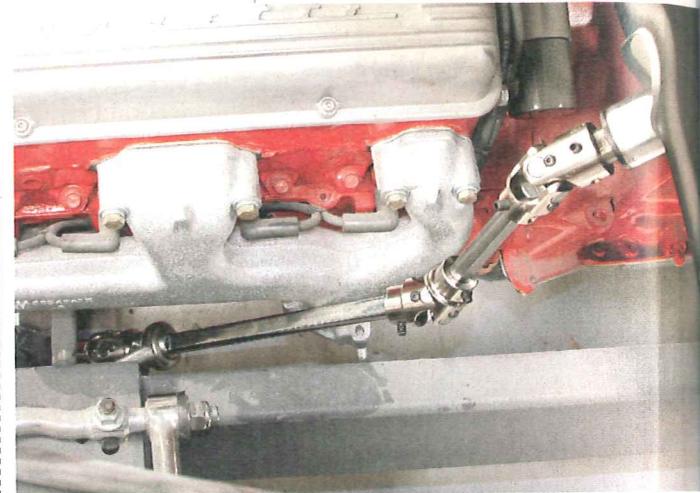
Here's our Flaming River tilt column installed in the stock location using their OEM factory-style dash mount clamp.



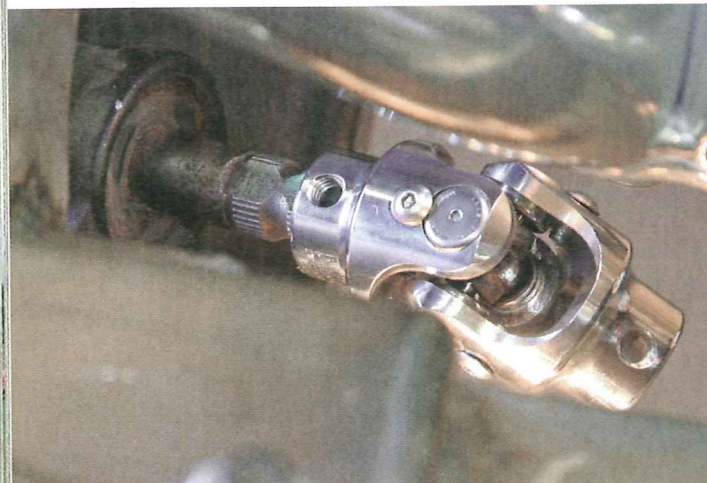
Running the linkage to mate the column to the rack-and-pinion can be tricky for the first timer, but with careful measuring and a little foresight, a three-joint system can be installed in about an hour.



The first step in mating the column to the rack begins at the end of the column itself. Here, a 1-inch DD x 3/4-inch DD U-joint is used.



With the shafts cut to length, it looks like the linkage is going to clear the header and framerail without a problem. Notice the heim joint that is hanging off the lower shaft. This acts as a support bearing, necessary in a three-joint setup.



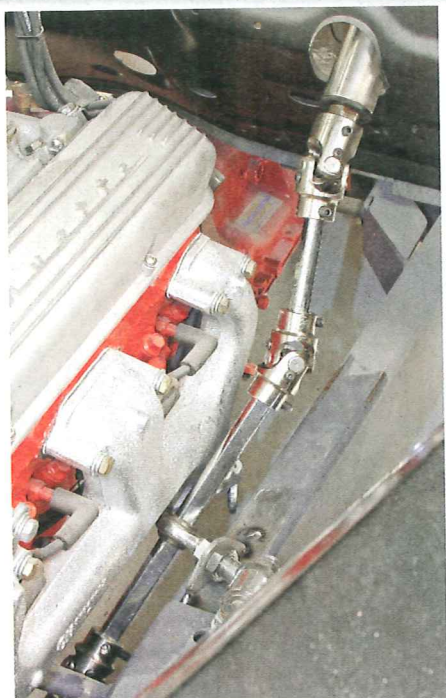
The next step is to install the U-joint at the rack-and-pinion. Ours is a power unit, which means the input shaft is 3/4-36 spline. The other end of the U-joint is 3/4 DD. Notice the relation of the pinch bolt hole to the flat spot machined on the shaft.



A simple bracket is fabricated and tack-welded to the chassis to mount the support bearing. The support bearing prevents the linkage from binding due to the three U-joint setup.



Flaming River recommends a maximum of 35 degrees on any single U-joint with a more desirable angle being 15 degrees. Any more than 35-degrees necessitates using a double U-joint. We checked the angle of all our joints and they all came well within the 35-degree max rule so the single joints will be fine. The DD shafts need to be inserted fully into the U-joint housing without interfering with the yoke assembly.



The three-joint system successfully routes the steering linkage between the headers and the framerail without any binding or interference.



Using a drill press, a small indentation is made on the steering shafts. These indentations were marked by the U-joint set screws when the assembly was tightened down initially and will ensure that the set screws indent properly to the shafts.



With a temporary steering wheel installed on the column, all that's left to complete our steering system is to fashion a floor mount, which we'll do once we've decided on the pedal setup, and hook up the power steering reservoir and pump.



A dab of Loc-Tite on the set screws is good insurance before securing them in place via the lock nuts.

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