

INSTALLATION INSTRUCTIONS 1953-1956 FORD F-100 PICK-UP INDEPENDENT FRONT SUSPENSION

Please read these instructions *completely* before starting your installation. Remember the basic rule for a successful installation: **Measure Twice, Weld Once.**



You are about to install your *HEIDTS* suspension system. You are probably wondering how complicated installing a complete I.F.S. system really is, with all those pieces, all the angles, anti-dive, geometry... Don't worry. The *HEIDTS* I.F.S. kits are designed so all that is taken care of for you. Just follow the instructions step by step, reading each step completely, and in a very short time your car will be sitting on the nicest riding I.F.S. kit available.

1. First, remove all stock components. Any suspension brackets, steering or shock brackets that are welded to the frame should be taken off and the rails ground smooth.

2. Boxing the rails is next. The frame rail edges may be ground slightly so the boxing plates fit tight to the rail edges. Do not grind too much off the rails. The boxing plates are then clamped in place and tack welded. Next weld the boxing plates in place, welding short sections at a time in alternating locations to minimize warpage. It is also a good idea to clamp a bar clamp across the rails to hold them in position during welding. Grind smooth when done.

3. Measure back 19-3/4" from the center of the front spring shackle hole in the frame and scribe a vertical line around the rails. See Figure 1 .This will be the spindle center line, where the front wheels will be. As a final check, just to be safe, you could temporarily place a fender on the frame and stand a wheel in place in the opening, centering the wheel in the fender opening. Slide a bar or broom handle through the wheel center hole. It should fall on your correct axle centerline. If the crossmember is installed in the wrong place now, it can not be compensated for later. RE-MEMBER THE BASIC RULE-MEASURE TWICE, WELD ONE.

4. Trial fit the new crossmember into the rails. It should be located with its centerline on the marked spindle centerline. See Figure 2. During boxing, the rails may have a tendency to bow outward slightly, if they were not clamped across the frame during welding. If there is a small gap, center the crossmember and fill with weld. If there is a large gap, the rails may be undersize from grinding too much material off the edges of the rails while fitting the boxing plates. If this is the case, a spacer or filler plate may be required. If the crossmember is too wide and does not fit in, grind it to fit snug. It should be seated flat on the top of the frame rails. A double check of the fit is that the center tube of the crossmember is level both side to side and front to back. (Do not level the upper control arm mounts, as 3° of anti-dive is built into the upper arm mounts). If you have your truck set at more than a slight rake and the crossmember is tilted, then level it at this time before welding. Clamp in place, double check your measurements, making sure crossmember is squared on the frame and spindle centerline, then tack weld in place. Tack weld the top and bottom of the crossmember at this point. Proceed to steps 5 & 6, trial assembling all the remaining components and checking the alignment. If all goes well, then remove the parts and finish weld the crossmember in place. Be sure to fully weld the crossmember and upper shock mounts to the frame rails, as the front end weight of the truck is supported by the upper shock mounts and the crossmember helps to keep the front frame rails from twisting and flexing, so good strong welds are required.

5. Now assemble the rest of the suspension components. Some inner fender modification may be required. (Note: The shim washers supplied may be needed to center the calipers on the rotors if you purchased the Polished Caliper upgrade). Do not install the coil-over assemblies just yet. Position the truck at approximately the ride angle or rake that the truck will sit at when finished. Prop up the lower control arms so they are level. This is the designed midpoint of the suspension system. Now set the caster, camber and toe in. The settings are as follows:

> CASTER 1° positive CAMBER 1/4° positive TOE-IN 1/8 +/- 1/16

The caster and camber settings are done with the adjusters in the upper control arms. Both adjusters are screwed in or out an equal amount to change the camber, and they are adjusted opposite each other to change caster. Approximately 1° of caster is built into the crossmember already, so not much change is required there. The interesting thing about the caster setting is that you can experiment with different settings and actually "tune" the characteristics of the handling of your truck to your driving style. 1° of caster will give a nice road feel and good low speed driveability. 2° or 3° will yield better high speed stability and tracking, putting a better self-centering characteristic in the steering wheel, but will tend to start to make parking slightly more difficult. Have fun with this one, as it truly makes your truck your own truck. Just be sure that both sides have equal caster settings, or the truck will tend to pull to one side.

6. Now relax the suspension and install the coil-overs. The spring seat rings should be in the bottom position, providing the least amount of preload. The truck should now be placed on the ground. The spring seat rings should be adjusted to position the ride height of the suspension so the lower control arms are back to level again. Make sure that at this point you are working with a finished, fully weighted truck, not just a frame, or a frame and body, as it does make a difference. At this point do a quick double check of your alignment.

7. Since you are now to the point where you have a finished, running truck (we hope!) it is time to test drive it. After a few hundred miles, double check the ride height and the alignment. The springs may have settled, which would change the ride height and the camber setting. Readjust the ride height before changing the alignment. After this initial setting period, the springs and bushings should have pretty much taken their final set, so you should be on your way to many miles of cruising in style.



Figure 1



Figure 2



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