

# ***HEIDTS***

## ***SUPERIDE***

### **INSTALLATION INSTRUCTIONS OPEN WHEEL SUPERIDE 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 IFS 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 and in a very short time your car will be sitting on the nicest riding I.F.S. kit available.**

1. To start the installation of your Open Wheel SUPERIDE I.F.S. Kit you must first set the frame on jack stands or in a jig at the ride angle, or "rake" that the car will be sitting at when it is done. The spindle centerline will be 3-1/4" up from the bottom of the frame rails with the lower control arms level to the ground. This dimension will allow you to position the front of the chassis at it's correct ride height, depending on the tire size you select. This chassis positioning is important as it will insure that the crossmember is installed at the correct angle. This is important as there is only limited adjustment for caster and camber available in the upper control arms. There is 1° of caster built into the upper arms already, so further major adjustments should not be required, provided the initial positioning of the crossmember is correct.
2. The frame rails now need to be narrowed, or "pinched". The crossmember is designed for frame rails which are pinched to 20", from outside to outside across the rails, at the axle centerline. The axle centerline on a '32 Ford is approximately 32" straight forward from the slanted holes on the frame rails where the firewall bolts to the rails. This is the recommended width at the axle centerline to bring the rails in under the hood sides on a '32 Ford. Other widths and axle centerline locations may be used, as the crossmember can be fitted accordingly. The rails should also be boxed to provide maximum strength. The rails can be boxed after they are pinched, to avoid cutting and rewelding the boxing plates.
3. Locate your axle centerline markings. Make a new mark 11/16" forward of the axle centerline mark . See Figure 1. This mark is to be a cut line, scribed around the rails exactly vertical to the ground (not necessarily square to the rails) and straight across the front from rail to rail. The crossmember has front plates on it which will cap the fronts of the rails, so you can see how the rails need to be trimmed. It is important that the crossmember be vertical, and not necessarily square to the rails themselves. This has to do with the caster and anti-dive. See Figure 2.
4. The crossmember can be trial fitted onto the rails now. The plates on the crossmember will cap the ends of the rails, and the rails should also fit up against the side uprights. If not, some fitting may be required. Once the crossmember is fitted correctly, again making sure that it is vertical, it can be tack welded in place. See Figure 2. It is not recommended to finish weld it in place at this time. The finish welding should be done only after the entire installation is complete and all the components are installed and lined up. Again, the old saying "measure twice, weld once" is the best way to success for your installation.
5. The lower control arm rear mounts should be installed next. To do this, the lower control arms should be installed into the front crossmember and will act as temporary alignment fixtures. Assemble the lower arm rear mounts and the temporary tie bar onto the control arms. The mounts should rest snugly against the underside of the frame. Some fitting may be necessary. The lower control arms should be horizontal, going straight back. A piece of 1/2" threaded rod should be used in place of the bolts for this step to insure straight alignment. The temporary tie bar will insure that the spread dimension of the rear mounts is the

same as the crossmember. Also check the measurements diagonally to be sure everything is square. If the mounts are tight against the frame pushing the lower arms down, grind/fit the mounts to the underside of the rails. Again, only tack weld them in place. See Figure 2. Remove the tie bar when done.

6. The upper control arm rear mounts are next. Again the upper control arms and tie bar become temporary alignment fixtures. Installation of the upper arms is slightly different, however, due to the adjustable ends. The spindles should be temporarily installed onto the lower control arms and the upper arm ball joints then slipped into the spindles. With the lower arms level, adjust the front adjusters in the upper arms to bring the camber of the spindles to  $0^{\circ}$ . Snug up the bolts on the front adjusters to align the front tubes straight out from the crossmember. This should give you  $1^{\circ}$  of caster, also. Now you can position the rear adjusters. They are set using the upper arm temporary tie bar to 26-1/4", which is the same spread as the front adjusters, but are located lower than the fronts by 7/16". See Figure 2 & 3. This rearward tilt of the upper arms is the anti-dive angle. A piece of threaded rod does not work here since the bolt holes in the main crossmember do not tilt downward. Bolt the tie bar onto the upper mounts and adjusters. Fit the mounts to the frame, keeping them vertical and spread dimension correct when fitting them. Remove the tie bar when done.

7. The C-Notch in the frame is the last part to do. Carefully layout the sides of the frame as shown in Figure 2. Again, it is better to cut a little at a time and grind a little to fit than to cut too much away. After the notch is cut out, install the rack and slip the filler plates in to check the clearance around the rack boots. A minimum of 1/8" clearance around the rack boots should be provided as the boots move around slightly as the suspension travels.

8. The final step is to assemble the rack to the spindles and run the suspension up and down and steer it lock to lock to check for full suspension movement in all positions. The coil-overs have approx. 3" total travel, so it will travel 1-1/2" up and down from the midpoint, which should be with the lower control arms level. Remove the coil springs and use the bare shocks as the limits for the suspension travel. Once you are satisfied that everything is OK, remove all the components and weld the crossmember and brackets to the frame.

9. Now that your chassis is painted, it is time to assemble all the suspension components. Note: The shim washers supplied may be needed to center the calipers on the rotors. Do not install the coil-overs yet. Position the chassis at its' finished ride angle, or rake. Position the lower control arms so they are level. This is the designed midpoint of the suspension. The alignment settings are as follows :

CASTER  $1^{\circ}$  Positive

CAMBER 0 Degrees

TOW-IN 1/8"

10. The caster and camber settings are done with the upper arm adjusters. If you were very careful and double checked all your measurements during the installation, they should be very close. If any further adjustments are required do them at this point. Now install the coil-overs and continue with the assembly of your car. Once the car is FULLY assembled, you can then make ride height corrections with the spring seats on the coil-overs. You should also make a quick check of the alignment. After a few hundred miles, check your ride height as the coil-overs may settle. It is also a good idea to do one more final check of alignment, especially if you make any ride height adjustments, since the bushings may take a slight initial set. You are now on your way to many miles of cruising in style, independently!

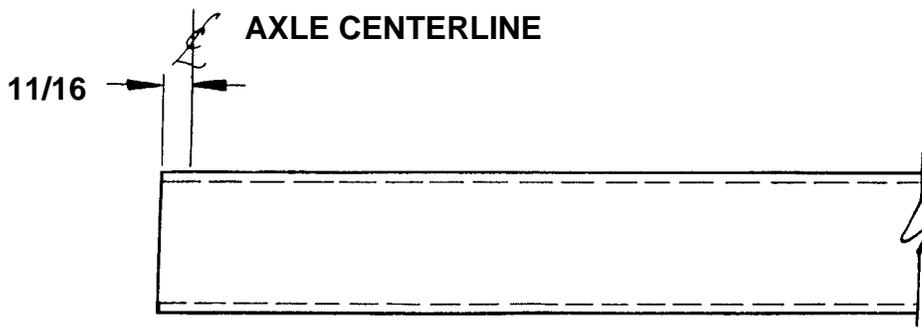


Figure 1

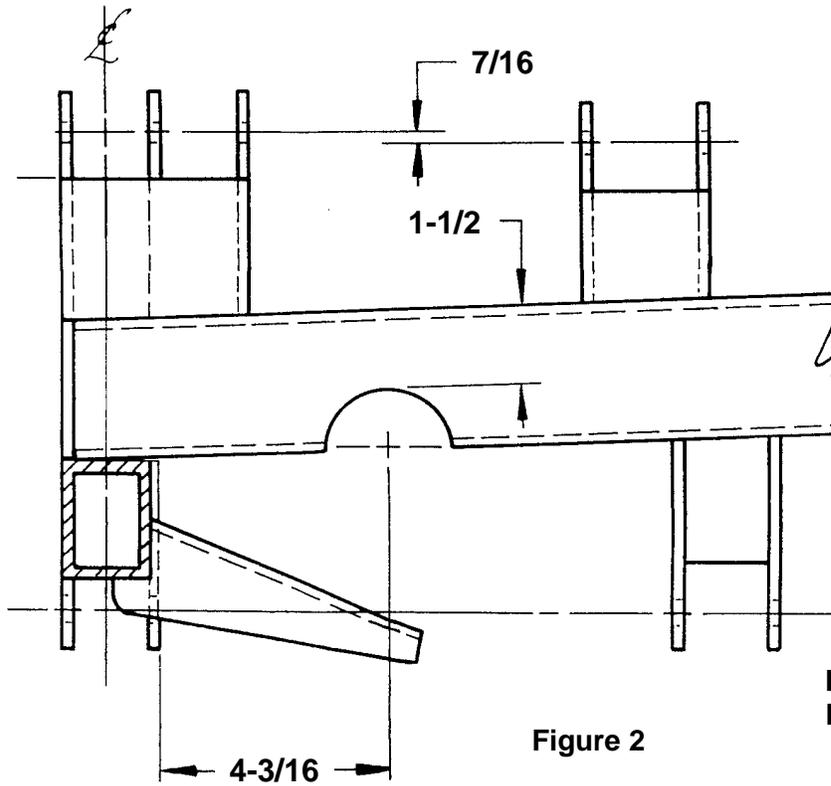


Figure 2

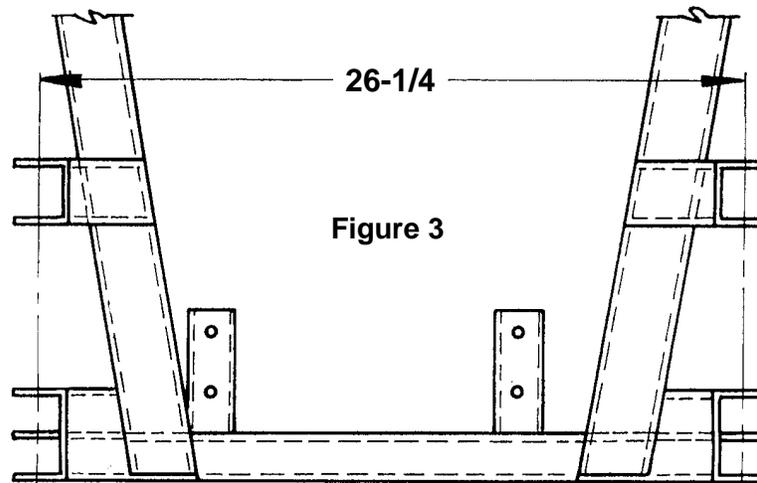
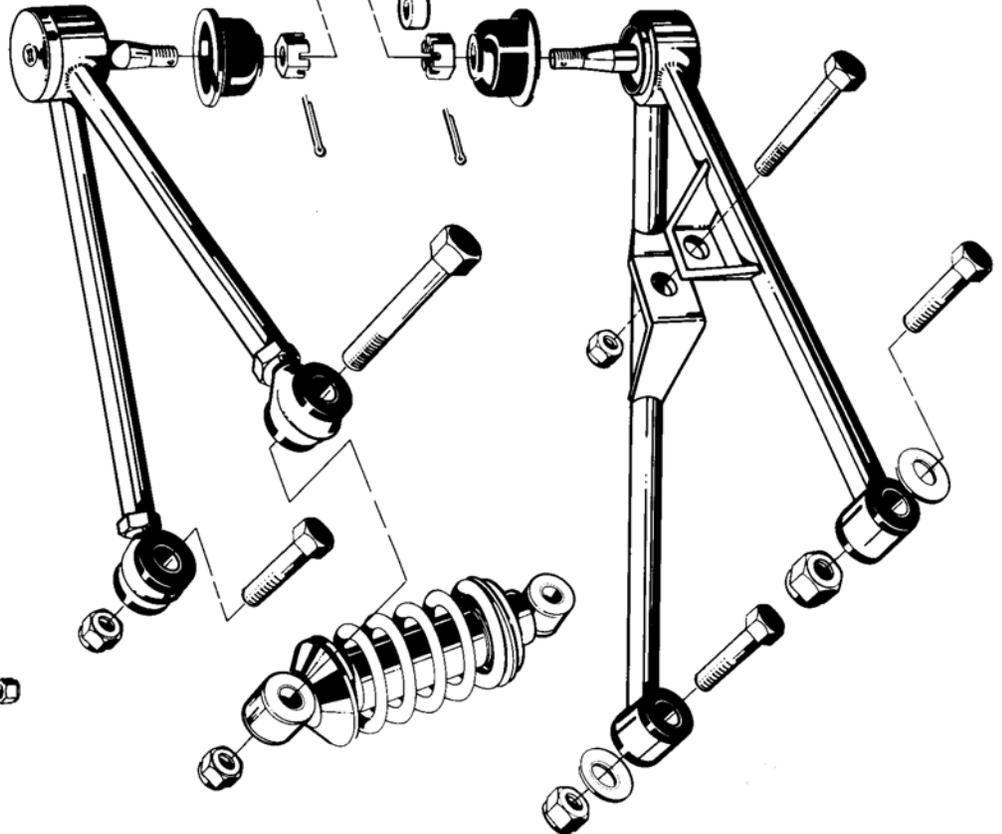
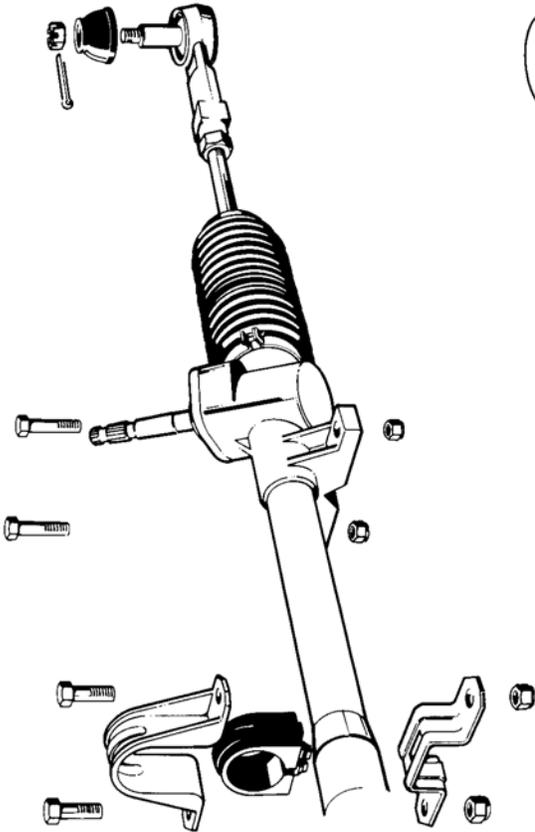
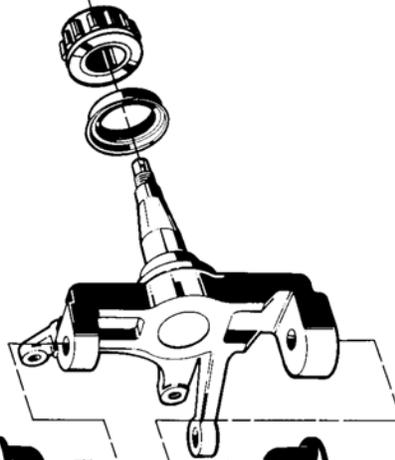
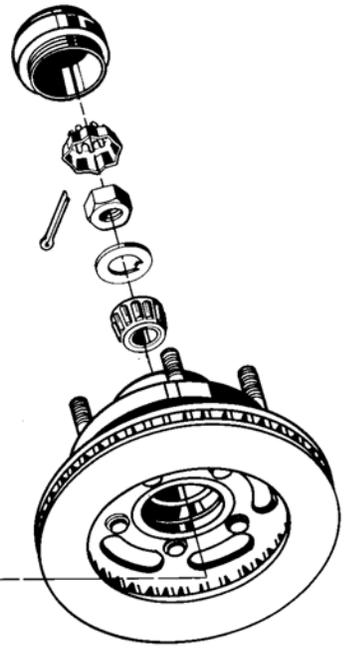
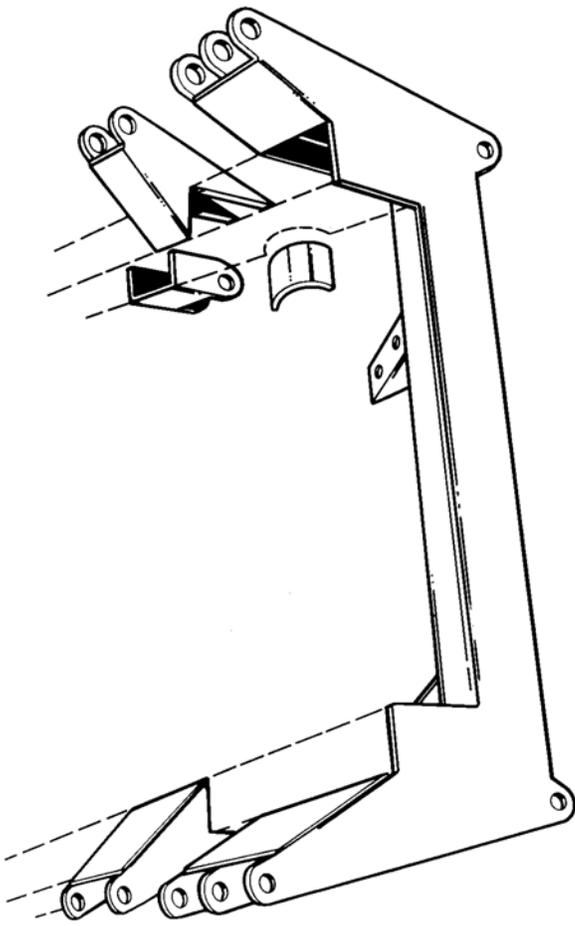


Figure 3



## OPEN WHEEL SUPERIDE PARTS LIST

- 1 Open Wheel SUPERIDE Crossmember & Brackets
- 1 pr. Upper Control Arms with Ball Joints and Adjusters
- 1 pr. Lower Control Arms with Ball Joints and Bushings
- 1 pr. SUPERIDE Spindles
- 1 pr. Disc Brake Rotors
- 1 Bearing and Seal Kit
- 1 Castle Nut & Dust Cap Set
- 1 pr. Polished Brake Calipers
- 1 pr. Coil-Over Shocks with Chrome Springs
- 1 Rack & Pinion Unit with Tie Rod Ends and Mount Assembly
- 1 Stainless Steel Hardware Package

## HARDWARE PACKAGE

### Upper Control Arms:

- 2) 1/2-13x3" Hex Head Bolts
- 2) 1/2-13x4" Hex Head Bolts
- 4) 1/2-13 Nylock Nuts

### Lower Control Arms:

- 2) 1/2-13x2-1/2 Hex Head Bolts
- 2) 1/2-13x3" Hex Head Bolts
- 4) 1/2-13 Nylock Nuts

### Coil-Over Shocks:

- 2) 1/2-13x2-1/2 Hex Head Bolts
- 2) 1/2-13 Nylock Nuts

### Rack & Pinion Steering Assembly:

- 2) 3/8-16x7/8 Hex Head Bolts
- 2) 3/8-16x1-1/2 Hex Head Bolts
- 4) 3/8-16 Nylock Nuts

### Brake Calipers:

Use Caliper Hardware Kit

### Ball Joints:

- 4) 1/2-20 Castle Nuts
- 4) 1/8x1-1/4 Cotter Pins

### Spindles:

- 2) 13/16-20 Spindle Nuts
- 2) Spindle Washers
- 2) Nut Retainers
- 2) 5/32x1-1/2 Cotter Pins

### Tie Rod Ends:

- 2) 9/16-18 Hex Nuts
- 2) 3/32x1" Cotter Pins
- 2) 1/2-20 Castle Nuts

**NOTE: Some type of anti-seize compound should be used on ALL stainless hardware.**

