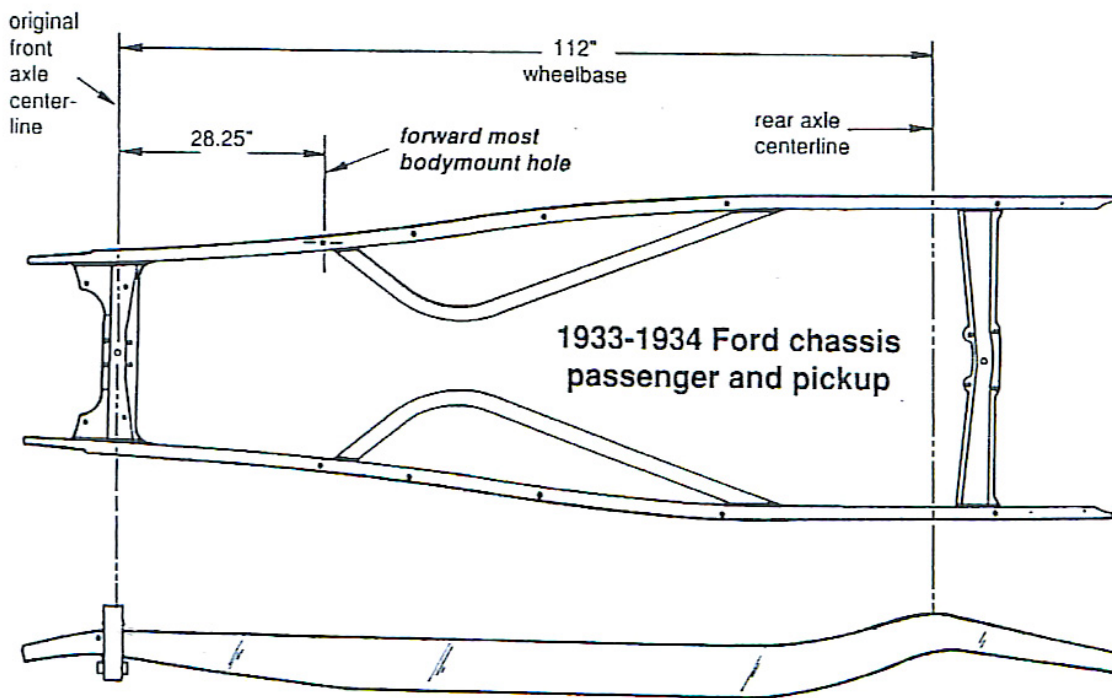


## Instructions for Installing the Kugel IFS on 1933 –1934 Ford Chassis

1. Congratulations on selecting the finest independent front suspension unit available. Begin your installation by setting up your chassis on stands at ride height and at the desired rake. NOTE: If you wish to keep your stock crossmember in place, just trim off any part of it that would hang below the frame rails. If you do remove the crossmember, we suggest that you retain the radiator-mounting bosses.
2. Position the Kugel IFS front crossmember in place under the front of your chassis, using the drawing below as guide for placement and alignment. The measurements shown for placement of the Kugel crossmember are 1/4-inch ahead of the original axle centerline. Place an accurate level or angle-finder on the Kugel crossmember in a front-to-back plane. The Kugel crossmember should be as close to level as possible or leaning back 1° to 2° is okay. The correct caster angle is built into the Kugel IFS. Some trimming of the notches on the crossmember may be necessary to achieve proper level.
3. Tack-weld the crossmember to your chassis. Now double-check your measurements again, check the levelness of the crossmember again, and also check the crossmembers squareness to the chassis by comparing diagonal measurements. This would also be a good time, if you can, to put a fender on the frame and wheels & tires on the front end. Sit the car at ride height and look at where the tire is in the wheel well. Now would be the time to move it forward or backward, or up or down. When you are satisfied that the Kugel IFS is square, level and in the proper place, finish-weld.
4. Install the rest of the suspension parts on the crossmember. This completes the installation! You can now plumb the brake lines as best suites your application, and hook up your rack-and-pinion steering, using u-joints and splined shafts.
5. When you reassemble IFS: 2° to 3° positive caster (each side), 0° to 1/4° positive camber each side, and 1/16-inch to 1/8-inch toe in.



## **Swaybar Installation**

Assemble upper and lower a-arms onto crossmember (do not install shocks). Lay bare swaybar against the back side of the crossmember and rest on lower a-arm. Place swaybar pillow blocks and bushings onto swaybar and bolt to crossmember using Allen screws provided. Install shocks and springs. Tighten shock extension bolts to lower shock mounts, place heim ends in position on swaybar and lower mount and tighten all hardware.

## **A-Arm Assembly**

Upper a-arm eccentric adjusters are installed into the crossmember before the a-arm can be assembled on the crossmember. Short eccentric must go in the front of the crossmember. The shims are used to change the caster angle. More shims to front decreases caster. Do not leave out shims, remove from front and place in rear (increases caster) or vice versa. The set screws in the eccentric should tighten onto the a-arm bolt, these screws should be in line. Make sure they are tightened down on the flats machined in the bolts. The bolt can then be turned to increase/decrease camber. Once camber is set, hold onto head of bolt with wrench and tighten nut to about 95 foot lbs.

## **Spindle Assembly**

The spindle assembly comes already to go. Bearings are greased, seals are in and calipers are shimmed. Simply place spindles on lower a-arm, then upper a-arm. Tighten castle nuts on ball joints and insert split pin. Now center the steering rack and install tie rod ends. Check for proper toe-in, then tighten castle nuts and insert split pin.

## **Settings**

0° - 1/4° POSITIVE CAMBER (top of wheel tilt out)  
2° - 3° POSITIVE CASTER (top of spindle tilt back)

Retighten upper a-arm nyloc nut. Check all hardware and tighten as necessary. Set toe in using tie rod ends.

## **Setting**

1/16" – 1/8" TOE IN