

## **INSTRUCTIONS FOR 1957-64 FORD TUBULAR CONTROL ARMS**



The photo above shows a 1976 Thunderbird spindle with ball joint and tie rod bosses re-tapered to fit ball joints.

The upper control arms are the same from 1957-64 and are built using Fat Man's own graphite impregnated polyurethane bushings and CNC machined shaft. This arrangement provides more precise steering control and is more compact than the OEM bushings, allowing room for a Delphi power steering box conversion available from Borgeson. The upper ball joint is a screw-in type Moog K772, common to hot rod Mustang IFS tubular control arms and nearly all MOPAR upper ball joints through the 1966-78 era. The lower ball joints are also a screw-in style but are the larger MOPAR ball joint Moog K-727.

We have engineered our control arms with relocated upper ball joints which allow 3-4 degrees positive caster with a car on a 2-degree forward rake. This will provide better highway handling with radial tires than the original alignment specifications. The arms also will provide a preliminary camber setting around zero with 1/4" to 5/16" of shims. Advise your alignment technician to use 1/8" toe in, 1/2-degree positive camber, and 2-4 degrees positive caster as a good starting point. A good alignment man will then adjust these settings for local conditions such as high crowned roads.

The lower control arms all use the same OEM stamping with different bushings. We have seen some 300 series 1957-59 cars that used an unusual sway bar which clamps directly to the lower arm plate without a link as used on most cars. You can drill your new arms for that mount if you wish, but we recommend converting to the much improved 1960-64 style sway bar, which our arms have the mount for already welded in place. The front frame horns are almost identical, so it's a simple matter to bolt the later unit in place.

The lower arm bushings are also graphite impregnated polyurethane bushing. The sizes and sleeves are changed depending on the year of your vehicle. Be aware; polyurethane bushings are harder than the OE rubber bushings. Consequently, you may have a harder time getting the lower arm bolts lined up and installed. Ford used the soft rubber to their advantage. The bolt holes in the crossmembers were not always aligned correctly.

One other thing regarding the use of polyurethane bushings: do NOT use any kind of petroleum-based lubricant on polyurethane. You must use a silicone-based lubricant.

## **OE Replacement Bushings**

We use the 1957-62 rear bushing on all years, as they fit 1963-64 as well. That replacement bushing number is NAPA #267-3123, TRW # 12176, and Ford #B4A-3069.

The front bushing is a slightly more complicated issue.

1957-59 lower arms use NAPA #267-3123, which is the same bushing as used on the rear mount with a 7/8" bolt.

1960-62 lower arms use NAPA # 267-3182, TRW #12182, with a 5/8" bolt.

1963-64 lower arms use NAPA #267-3279, TRW #12279, with a 3/4" bolt.

The 1963-64 arms originally used a "cranked" or eccentric special bolt to assist with alignment. This set up tended to lose alignment and is often changed to a more simple and stable system. The next step will explain that conversion which we can do for you on a time and parts basis if you send the front frame pivot bushing.

The original 1963-64 only offset or "cranked" portion of the front bolt occupied the same area as the spacer that we'll use between the threaded original Ford frame bushing and the new rubber bushing. We now rely on shimming the upper control arm to set the alignment. The original Ford frame bushing has bronze bearings inside which will be replaced by the new ones listed below.

## **Parts Required**

4 each – bronze or steel .75" bore x 1 .125" OD x 1.50" long (bronze MSC #35373836) (800) 645-7270 \*MUST USE ANTI-SEIZE WITH STEEL\*

2 each -3/4" x 8-1/2" long Grade 8 bolts with Nyloc nuts (8" will work with a thin nut, or cut a 9")

2 each – steel spacers .75" bore x 1.25" OD x .600" long



- 1. Bore the end of the large hex on the frame bushing to 1.100" diameter x 1 .50" deep. Drive out the original bronze bushing, shown in previous photo as the one with lengthwise grooves.
- 2. Bore the smaller externally threaded end of the frame bushing to 1.100" diameter as well, but only to 1.25" deep to avoid breaking out into the necked down portion of the frame bushing.
- 3. Turn both new bushings to 1.101" diameter and shorten the one for the small end of the frame bushing to 1.25" long.
- 4. Use Loctite for security and press both bushings in place. These normally line up very well as is, but if you have a .750" reamer a light pass will provide perfect alignment for the bolt.
- 5. Install the bolt from front to back using the .600" long spacer as shown in the photo below. Use anti-seize on the bolts. You may need to take these apart in the future.

