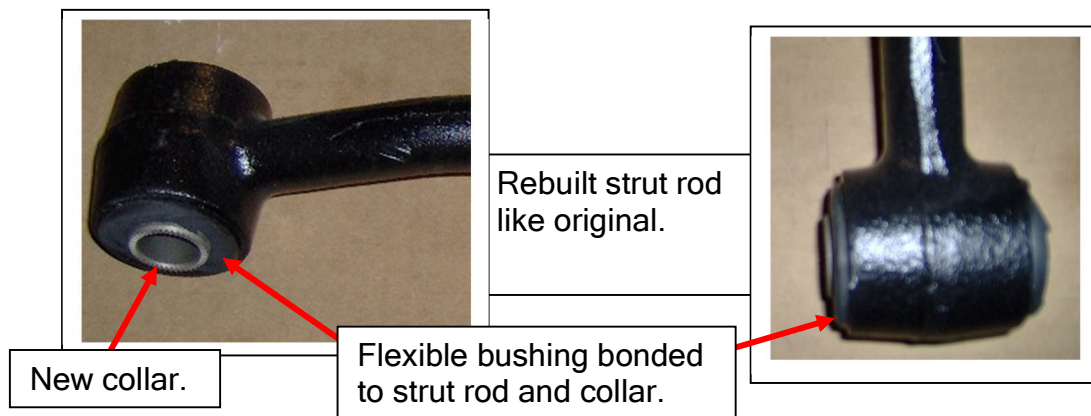


1965-69 Corvair Rear Suspension Lower Camber Control Link (Rear Strut Rod)  
Replacement Bushings  
By Bob Nichols  
Last Revision June 15, 2023

The 1965 model year Corvair independent rear suspension (IRS) design is based on the 1963 Corvette rear IRS. Between the transaxle and rear wheel is an upper control link that is an axle drive shaft and a lower control link that is a rod connected between the rear wheel trailing arm bracket and bracket on the transaxle. Refer to the 1965 Corvair Chassis Shop Manual Section 4. The shop manual refers to the lower link as the "Rear Strut Rod" in figure 76.

**NOTE: The procedures herein require skills that you may not have. Before attempting bushing replacement, read the entire document to determine if you have the skills and tools to replace the rear strut rod bushings.**

The rear strut rod, for each rear wheel, has a rubber compound bushing on each end. The bushing has an inner collar for bolts to pass through at the transaxle bracket and rear wheel trailing arm bracket at the wheel. The rubber compound is bonded to the strut metal and inner collar.



The rear wheel rises or drops through an arc creating a twisting force on the rear strut rod as the wheel moves up and down. Strut rod flexible bushings deform to minimize twisting forces on the transaxle bracket and rear wheel trailing arm bracket. The rear strut rod twisting forces are the least when the vehicle sits level at normal ride height.

**Rear Strut Rod Bushing Failure** - The bushings have proved to be very durable, but eventually fail. Movement and age eventually break down the flexible rubber compound material. At the transaxle, leaking lubricant compromises the integrity of the rubber bushing compound. To ensure a good ride and vehicle stability, the old bushing material should be replaced.

**New Bushing Options** - There are different options, each with advantages and disadvantages as follows:

- **Rebuild the strut rod by pouring and bonding a flexible material between the strut rod opening and center bolt tube.**
  - **Advantage** - Restores original function.
  - **Disadvantage** - Not a "do it yourself" process. May required exchanging old strut rod for rebuilt units. Shipping costs are not trivial.

- **Install a press-in flexible rubber compound bushing.** Some vendors offer to install these bushings.
  - **Advantage** - Owner or mechanic can install the bushings.
  - **Disadvantage** - The strut rod could slide on the bushing material and can ride up against the metal brackets.
- **Install a nylon or Delrin plastic bushing.** Some vendors offer to install these bushings.
  - **Advantage** - Owner or mechanic can install the bushing. The bushings resist damage from leaking transaxle lubricant (not a consideration if leak is repaired).
  - **Disadvantage** - The nylon or Delrin is not compliant. When the rear wheel rises or falls this creates tremendous twisting forces on the strut rod, transaxle bracket, and rear wheel trailing arm bracket that could result in mechanical damage.
- **Install a metal shell rubber bushing.**
  - **Advantage** - Owner or mechanic can install bushing. Bushing is available part used on some 1960-72 GM ½ ton pickup trucks. The bushing functions in a similar manner to the original bushing. The outer shell and inner collar are bonded by a flexible material. The bushing will not slip and keeps the strut rod centered in each bracket.
  - **Disadvantage** - Skilled mechanical knowledge is required. A drill press is required to machine the strut rod. A hydraulic press is needed and install the bushing.

This article will only explain how to perform the last option, installing a metal shelled bushing.

#### Process for the installation of a metal shelled bushing -

- Remove the lower strut rod. Refer to the Corvair Chassis shop manual. **WARNING -This involves working with sprung suspension components that can cause bodily injury or damage to the vehicle.** NOTE: The strut rod MUST NOT be under any twisting force which requires the rear wheel and trailing arm to be at the same position as when the vehicle sits on level ground before the strut rod is removed!!! This is stated in the Corvair Chassis Shop Manual, Section 4.
- Remove the old bushing rubber compound and inner collar from the strut rod on each end.
- After the rear strut rod is removed, the following is done:
  - Modify the metal shelled bushing.
  - Modify each end of the rear strut rod to accept the metal shelled bushing.
  - Install the metal shelled bushing in rear strut rod ends.
- Install strut rod. NOTE: DO NOT TIGHTEN STRUT ROD BOLTS THROUGH THE BUSHINGS UNLESS CAR IS SITTING ON A LEVEL AT NORMAL RIDE HEIGHT!!!

**Modifying the metal shelled bushing.** - The bushing is a stock part used on the 1960 through 1972 Chevrolet and GMC ½ ton pickup (coil spring rear suspension) trailing arms. It must be modified to work as a Corvair rear strut rod bushing.

Part numbers are:

- GM part number: 3762012 (also sold at non-GM outlets).
- Classic Industries, Huntington Beach, CA Part Number: CX4838
- Clark's Corvair Part Number: C7873

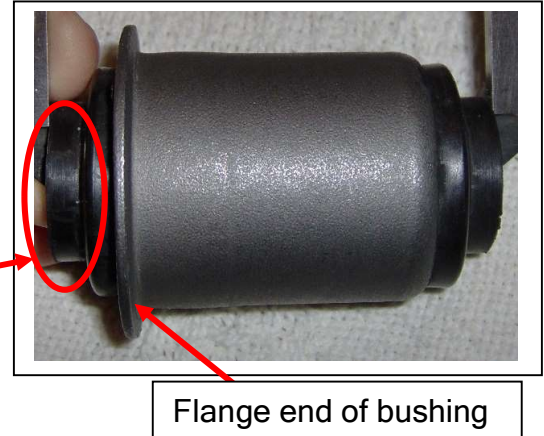


The bushing inner collar must be shortened to fit in the transaxle bracket or trailing arm bracket. To determine the proper width, install the bushing cap on either side of the original bushing. The cap flange has a step that fits inside the bushing collar. Measure the width from one cap to the other. See illustration.

**NOTE:** Measurement values will vary. Ensure new modified bushing and caps fit within the transaxle bracket or trailing arm bracket.

The inner collar must be ground down on the flange end of the new bushing. Remove collar material on the flange end until the width with the bushing caps is the same as the original bushing with the bushing caps. This will result in a centered collar relative to each side of the strut rod.  
See illustration.

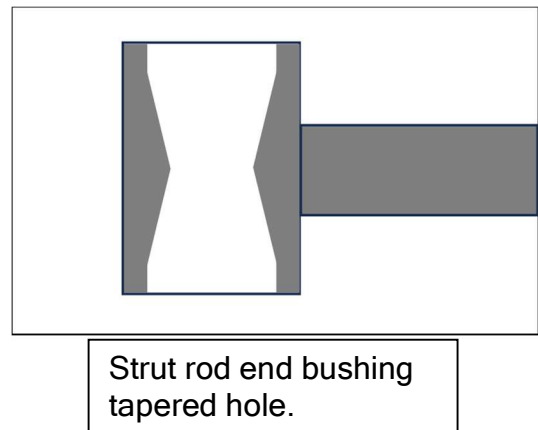
Grind collar down on this end.



**Modifying the rear strut rod.** - Remove the old bushing without damaging the strut rod opening. After the bushing is removed inspect the holes at each end of the strut rod.

**NOTE:** The strut rod hole is a crude opening that has tapered sides shaped like an hour glass.  
See illustration.

Open the strut rod hole using a 1-9/16" metal hole saw before the modified bushing is installed. **WARNING:** Attempts to press the bushing into a strut rod hole that is NOT machined results in severe distortion of the bushing shell resulting in an unreliable repair!!!



The bushing's largest diameter is typically 1.595". A 1-9/16" quality metal cutting hole saw in a bench drill press will produce a minimum 1.5625" hole size to ensure an interference fit.  
**WARNING: DO NOT USE A HAND DRILL as this will most likely result in operator injury!** Machining the hole requires a cutting lubricant and machining knowledge to prevent damage to the part, drill press (a milling machine is an alternative if available), or cutting tool. While removing material from the strut rod hole, keep the strut rod arm perpendicular to the drill press vertical axis (or parallel to the drill press table) to produce a straight uniform bore.

Care must be taken while removing material to prevent the cutting tool from binding or overheating. The strut rod arm must be secured to prevent sudden movement that could cause personal injury.

See illustrations.



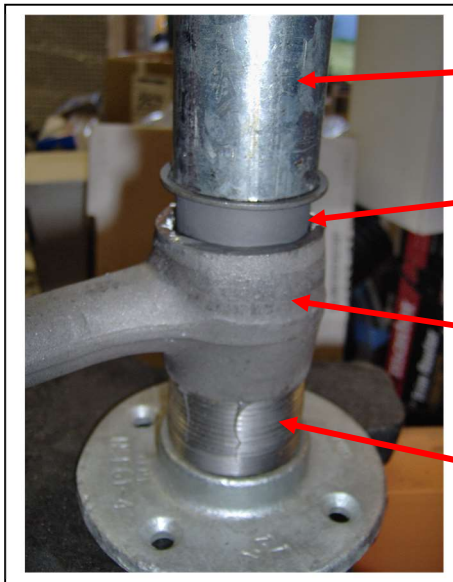
Metal hole saw  
1-9/16"



Strut rod hole cut and  
ready for bushing.

**Installing the modified metal shell bushing.** - This requires a press. DO NOT attempt to hammer the bushing into the strut rod hole!! Use a two-part metallic epoxy like JB Weld to coat the inside of the strut rod hole. This will act as a lubricant while pressing in the bushing and will seal the bushing shell to the strut rod opening to prevent water incursion and corrosion.

Make a support for the strut rod to set on that will not block the bottom of the opening to allow the end of the bushing to protrude. Use a proper tube to set on the edge of the bushing flange, but does not press on the flexible material. After pressing in the bushing, wipe off excess epoxy and fill any gaps on either end with remaining epoxy. NOTE: Each end of the bushing inner collar will protrude equally from the strut rod. It does not matter which side of the strut rod the bushing flange is on. Select the bushing hole opening side with the most even surface. See illustrations.



Hollow press tube  
to fit around rubber  
and press on  
bushing flange.

Bushing with shell.

Strut Rod. Hole  
coated with epoxy.

Hollow support  
tube to allow  
lower bushing to  
protrude.



Flange side with cut down collar.



Collar protruding side, epoxy fills gap.