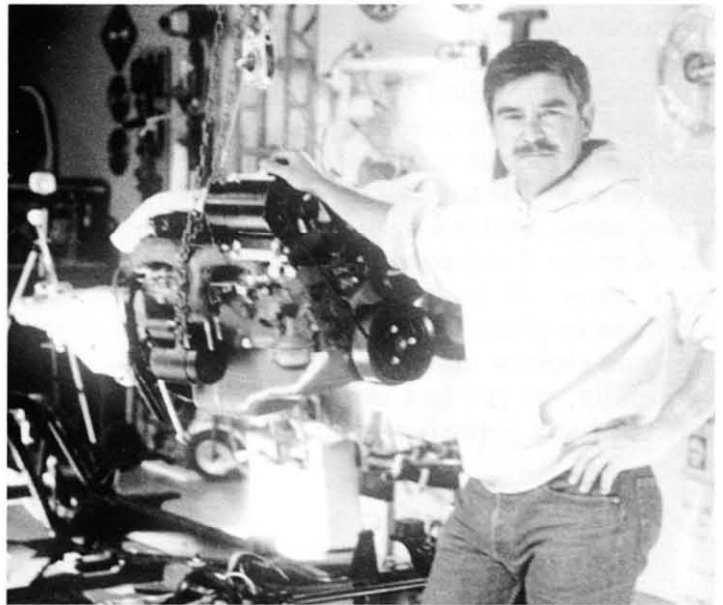


# 1953-62 Corvette Leaf Spring Installation

*By Joe Calcagno*



Suspension and steering repair is a major part of early Corvette restoration. The suspension is made up of many parts some of which wear very rapidly if the owner doesn't apply grease often enough. When doing suspension work, the springs will often have to be removed and then later re-installed. This is always a touchy job because the springs, by their very nature, are under great tension, and therefore require special handling to properly and safely remove and replace.

I recently restored the leaf springs on a 1962 Corvette. After re-arching the leaves, and replacing the liners, the overall length of each spring was several inches less than the distance from the front mounting pin to the shackle at the rear.

I made up a simple device using a 33" length of 4" x 4" box steel tubing and two pieces of chain as shown in the photo. The chains are attached to bolts, which pass through the beam, and the length of the chains will enable a simple bottle jack to be used to straighten out the leaf spring.

This simple method enabled me to flatten the spring and get the exact overall length necessary to reach the shackle with ease. The shackle pins were slipped through the rubber grommets easily by using some silicone lubricant on them.

After the springs were attached, the differential/axle housing was installed using the same tool. When I hung the axle housing in the rebound straps, it was too far above the springs to install the U-bolts. The U-bolts are not long enough to reach around the axle housing and pass down through the axle plate assembly without the help of the tool.

I placed the axle plate assembly over the ram of the jack, and jacked up the spring until I was able to drop the U-bolts over the axle housing and through the plate and attach all four nuts. The jack pushes through the center hole in the plate

assembly and puts its force directly on the pin which bolts the leaves together. Refer to the illustration showing the plate assembly relative to the spring and the U-bolts. After one side was attached I simply followed the same procedure on the other.

## Specifications:

Box tubing 4" x 4" x 1/8" wall thickness approx.  
33" long

Bolt hole to bolt hole 31"

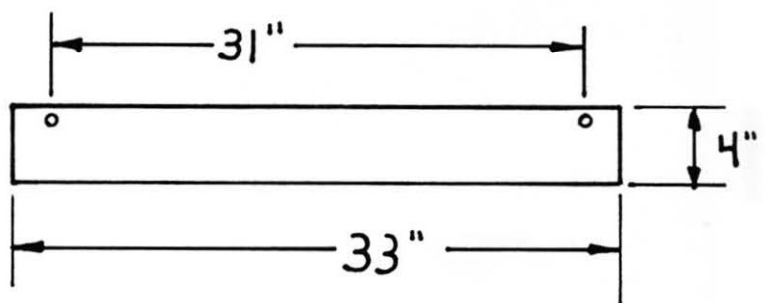
Bolt hole size 13/32"

Bolts 3/8" x 6" long, U.S.S. grade 5

Chain: Any chain which is strong enough for the job (tensile strength 3500 to 5000 pounds) and has openings large enough to allow a 3/8" bolt to pass through the openings

Jack: I used a 1-1/2 ton bottle jack measuring 7" high when the ram was down.

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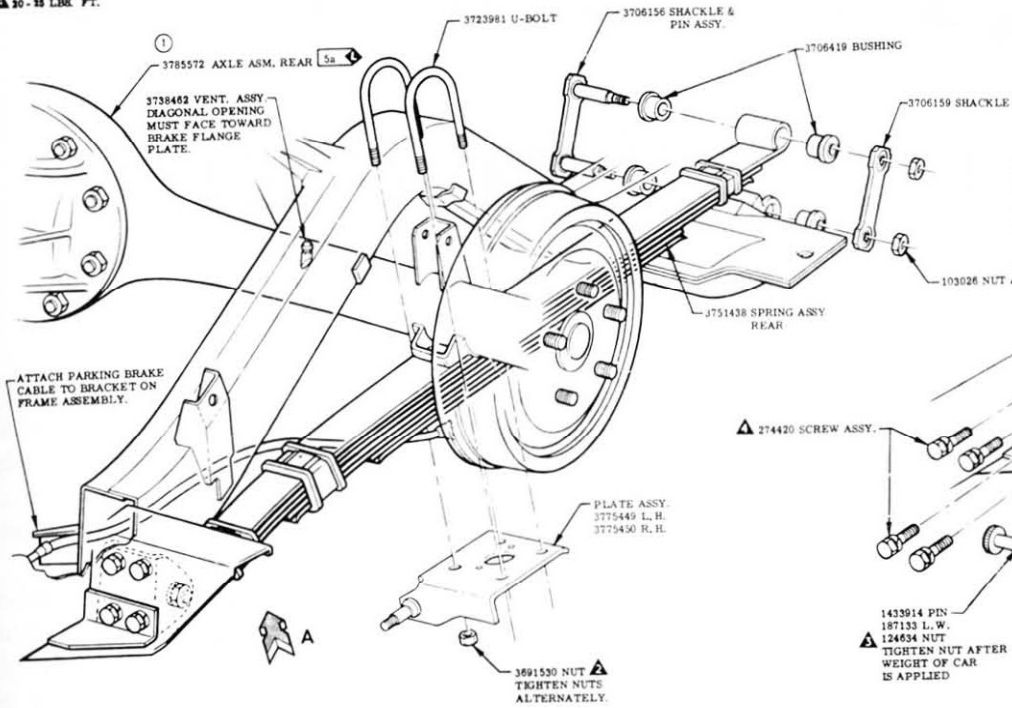


▲ 15 - 30 LBS. FT.

▲ 15 - 60 LBS. FT.

▲ 60 - 90 LBS. FT.

▲ 10 - 15 LBS. FT.



## SHACKLE ASSEMBLY INSTRUCTION

1. CLEAN CENTERS & EDGES OF BOTH SPRING EYES.
2. CLEAN EYE OF REAR SPRING REAR HANGER.
3. PLACE ONE BUSHING ON EACH BOLT OF THE SHACKLE & PIN ASSY. & INSERT ASSY. INTO HANGER & SPRING.
4. ASSEMBLE REMAINING BUSHINGS & SHACKLE
5. TIGHTEN NUTS ALTERNATELY, TO PREVENT COCKING OR BENDING.

