

2005+ Tacoma 4WD/Pre-Runner Rear Mid-Travel Spring-Under Installation Instructions

Part#86450

Leaf Spring Note: Total Chaos offers two different leaf spring packs for this application, one is light duty with a little less arch and spring rate for vehicles with lower ride height and vehicles that carry minimal amount of cargo. The other spring pack is the Heavy Duty with more spring arc and load carrying capability. The Heavy Duty is for higher lift vehicles or vehicles with long travel suspension systems. If you install the Heavy Duty springs and feel that they are too stiff, you can remove the 4th leaf (from the top). This will make the ride softer while retaining the ride height, but will slightly lessen the load carrying capability.

Both spring packs are side specific.

Heavy duty part# 3707-U539LHD (left) / 3707-U540RHD (Right)

Light duty part# 3703-U644R (right) / 3703-U645L (left)

Drive Shaft Note (2WD Pre-Runner only): On the Pre-Runner model you **MUST** remove your driveshaft and take it to your local driveline shop to have them add a slip yoke to your stock drive shaft. The Pre-Runner model does not come with a slip yoke in the rear portion of the drive shaft like the 4x4 model. With the spring under kit, your drive shaft will plunge more than stock. Be sure to put the slip section of the driveshaft toward the front to keep it away from rocks and debris.



Before any work is started:

- 1) Place the vehicle on flat ground. Measure from the ground to each fender well to get a stock ride height measurement for each side.
- 2) Set the emergency brake. Remove the driveshaft, and using an angle finder record the degree of the pinion angle.



Removal:

- 3) With the vehicle on flat ground, chock the front tires to prevent the vehicle from rolling. Jack up the rear of the vehicle under the axle and place jack stands under the frame rails.
- 4) Begin to lower the vehicle onto the jack stands but do not let the suspension droop out. Make sure the vehicle is supported under the frame on the jack stands. Remove the rear wheels and shocks.
- 5) Lower and remove the jack from under the rear axle, and remove the wheels.
- 6) Place two additional jack stands just under the rear axle.
- 7) Loosen and remove the U-bolt plates from both sides (when you do this, the axle will lower itself onto the jack stands).



- 8) Remove the E-brake cables from the leaf springs (12mm).
- 9) Remove the rear shackle bolt from the frame.



- 10) Remove the front spring hanger bolts.
Now remove the leaf springs.

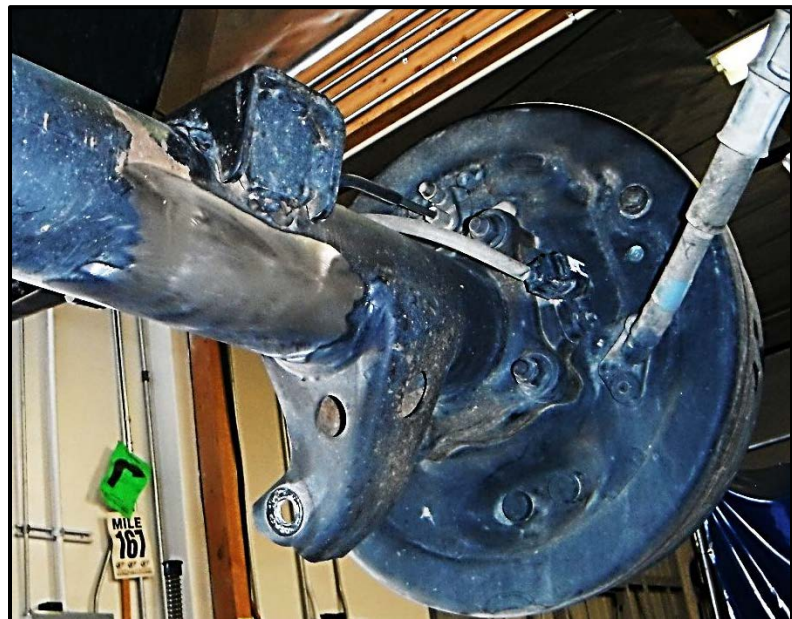


Installation:

- 11) Grease the new bushings and inner sleeves and install them into the new leaf springs along with the supplied zerks fittings.
- 12) Mount the new shackles to the rear of the new leaf springs.



- 13) Before mounting the springs to the frame, you need to sand and remove the paint on the axle in order to weld on the new spring perch. You will remove all of the paint directly underneath the stock spring perches. Also remove the paint on the top of the stock spring perches and on the axle housing next to the stock perches.
- 14) Mount the leaf spring to the front spring hanger on both sides **(Be sure that you put the correct spring on the correct side. They are marked left and right).**
- 15) Center the new spring perch on the new leaf pack. (The center hole on the new perch corresponds with the leaf spring center pin).



- 16) One spring at a time, use a jack under the center pin and jack up the spring until the shackle is above the rear shackle mount, then pull the leaf spring down until the shackle hole lines up with the frame mount hole and install the bolt. (Repeat on other side, this is easiest with two people)



- 17) Lower the axle onto the spring perches. Now install the new U-bolts, U-bolt plates, washers, nuts and snug the U-bolts (**do not tighten or weld at this time**).



- 18) Drill out the stock emergency brake cable mounts to a 3/8" hole. Install onto new leaf springs (the spring clamp bolts are 3/8").



- 19) Re-install the wheels and lug nuts. Now jack up the rear axle and remove the jack stands. Drop the jack and place the vehicle on the ground.
- 20) Once on the ground, completely tighten the front spring mounts. Next tighten the rear spring mounts, then the shackles. (All 89 ft lb)
- 21) Using an angle finder, check the pinion angle and compare it with your original measurement. Adjust the pinion angle until it matches the stock measurement. Use a jack under the pinion to lift it.
- 22) Once the angle is correct, tighten the U-bolts. Now tack weld the new spring perches to the axle.
- 23) Place the vehicle back on the frame jack stands and remove the wheels.

- 24) Remove the U-bolts and U-bolt plates. Now completely weld the new perches to the rear axle. Allow to cool then paint and reinstall the U-bolts and U-bolt plates. Finally torque the bolts to 90 ft lb.



Setting up the bump stop relocation pad:

- 25) Line up the new pad on the stock leaf spring perch. Now weld it to the perch and the axle.



- 26) (When using stock rubber bump stops) Mark and trim some of the metal off of the bump stop so it fits on the new bump stop relocation pad.

Sand the paint off of the stock bump stop. Center the bump stop over the stock axle spring perch. Weld the stock bump stop to the bump stop relocation pad. (Do not weld the whole bump stop due to the fact that it will melt the rubber) This process is not necessary if you are using air bump stops.





- 27) Paint the bump stop relocation pad.
- 28) Re install and torque the wheels. Remove the front wheel chocks, and remove jack stands.
- 29) Re- torque the U-bolts after 500 miles.

Part Number	Description	Quantity
48671	Shackle, 2005-2017 Tacoma Rear Spring Under	2
41972	Inner Sleeve, Shackle	2
10006	1/4"-28 Straight Zerk Fitting	2
42005	Shackle Bushing, 1 3/16" OAL	4
40020-HD	Heavy Duty U-Bolt Plates, pair	1
41979	Weld-on Spring Under Bump Stop Strike Pad	2
59401	Axle Perches, pair	1