



**& Truck Parts**

SINCE 1950

## Add-a-leaf instructions

### Spring over-axle applications



2011 dodge ram with rear add-a-leaf kit

**Safety** every effort should be taken to assure you complete the installation safely. This includes wearing safety glasses, gloves, using proper equipment like jacks, and jack stands on solid working foundations with adequate weight capacities for the job. If you have any doubts about your capability or are unable to perform this installation safely or correctly- you should have this kit installed by a reputable repair shop or mechanic.

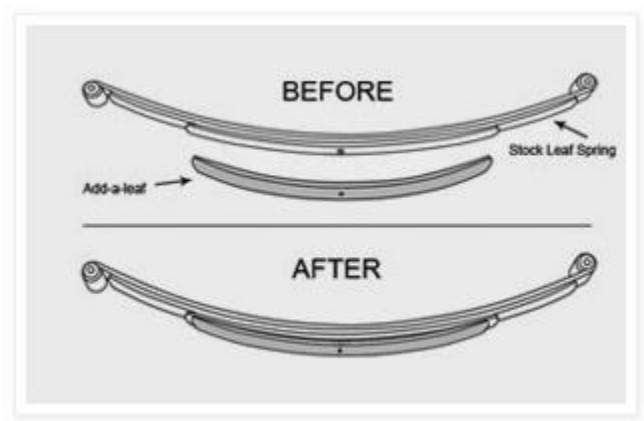
- **Step 1-** pull the vehicle on a level work area with a solid foundation- preferably concrete. Set the parking brake, and block the front and rear of the tires on the axle opposite the one you are working on so the vehicle can't roll away.
- **Step 2-** position a floor jack in a suitable location to lift the vehicle's axle off the ground. This should be a place where the jack will not slide off, or bend or ruin the surface it is jacking against. Refer to your owner's manual for appropriate locations to jack up vehicle. Once tires are sitting roughly 2" off the ground, Place jack stands securely under the frame near the axle you are working on to support it. Relieve the pressure on the jack and ensure the jack stands are supporting the vehicle safely. The tires should still be suspended of the ground.

- **Step 3-** Remove the tires. Position the floor jack under the differential and jack up slightly to support just the weight of the axle- not the whole vehicle. This is so when the U-bolts are undone- the axle will not fall to the ground causing potential injury or damage.
- **Step 4-** Using a pneumatic socket wrench, remove the nuts holding the axle to the leaf spring pack. If you are replacing your U-bolts you may also cut the old U-bolts off. We highly recommend replacing old U-bolts with new ones. If you want to replace your old U-bolts these can be purchased from Best Deal Springs. Once U-bolts are removed- carefully lower the axle. Important- when lowering axle- make sure that any brake lines, abs lines, or wiring doesn't over extend causing them to pull out or break.



Stock rear spring assembly on a 2015 ram 3500.

- **Step 5-** with the axle successfully unsecured from the leaf spring pack you can now remove or cut the center bolt located in the center of the spring holding the spring assembly together. Be cautious when removing or cutting this bolt. Leaf springs often have pressure of the leafs pushing against each other and can 'spring' apart once this bolt is undone.
- **Step 6-** Add the new leaf in the appropriate position on your leaf springs. Generally this is just above the overload on the bottom of the spring, however on some kits it may also be appropriate to position it farther up the spring pack. The ideal position should put the leaf just shorter than the one above it yet should not be shorter than the leaf below it. Fitment may vary due to different spring manufacturer's specifications. If leaf extends past the one above it, or hits the clip on the spring you may trim the leaf with an abrasive chop saw if you have one available.



- **Step 7-** line up the holes on all the leafs and replace your centerbolt through the centers with the head on the underside of the spring. If the arch of the leafs prevent the centerbolt

from reaching you can use a C-clamp to help compress the leaves while you line them up. Once you have started the nut onto the centerbolt- you can use a pair of vise-grips or pliers to hold the head while you tighten it down. Do not overtighten or you can strip the centerbolt.

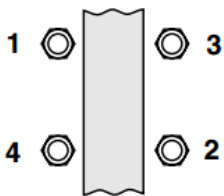


- Example of a front add-a-lead installed on 92 w-250 dodge.

- **Step 8-** Jack the axle back into place and align the centering holes on spring perches with the head of the centerbolt on the top of the spring. Tips- one or even two more people who are available to help you run the jack up and down as well as align both center pins into the spring perches can make installation much easier.
- **Step 9-** Once the springs are set back onto the axle, use the floor jack to hold the axle in place. Replace all the U-bolts and follow the procedure below to tighten. Torque specs below are only if U-bolts were purchased from Best Deal Springs.

### Torque U-bolts Evenly

Follow these guidelines when installing U-Bolts:



- Lubricate U-Bolts and washers with oil or anti-seize compound to reduce nut friction.
- Tighten all U-Bolts until they are snug only.
- Tighten in the sequence shown to approximately 1/3 of recommended torque.
- Repeat, using the same sequence, gradually increasing the torque through a second and third stage until the recommended final torque is attained.

Recommended torque levels from the vehicle or suspension manufacturer should always be used where possible. If these specifications are unknown, the following chart can be used as a guide.

### Suggested Torque Values for U-bolts

Grade 5		Grade 8	
Size (Diameter x Thread)	Torque (Ft. lbs.)	Size (Diameter x Thread)	Torque (Ft. lbs.)
3/8-24	30	5/8-18	170
7/16-20	45	3/4-16	300
1/2-20	65	7/8-14	480
9/16-18	90	1-14	740
		1 1/8-14	1300
		1 1/4-14	1780

- **Step 10-** Once U-bolts have been torqued down to spec, replace tires on the vehicle. Use floor jack to lift the vehicle off of the jack stands. Remove jack stands, jack and unblock the tires. Installation is complete.

**Feel free to call us at 1-800-344-2854 if you have any questions. Thank you for purchasing an Add-a-leaf kit from Best Deal Springs!**

**Important-** Most Add-a-leaf kits will add approximately 1-3" of lift to your vehicle. This height varies by vehicle and is dependent upon many factors. They will also increase the weight capacity and stiffness of your leaf springs. However- Only the vehicle manufacturer can set the GVWR. Even adding a leaf to your springs, you have the same brakes, axles, bearings and frame stiffness, which in part determines the vehicle's load capability. Adding a leaf simply allow you to carry the maximum capacity of your truck more comfortably and without suspension sag and the poor handling and other problems that comes with it.

## **Commonly asked questions and solutions-**

### **Q- Why is my truck sagging or squatting in the rear?**

A- There are many things that cause leaf springs to sag or sit low. An add-a-leaf can often be a solution, but in some cases a new spring or springs are required. Here are a few of the most common reasons-

- Overloading or overstressing. This can happen over time or quickly depending on the amount of overloading.
- Worn out or fatigued springs. As springs age they can slowly lose their factory arch.
- Broken leaves in your spring pack. You should either replace broken leaves or buy a new leaf spring.
- Weak springs or springs that are too light for the application.
- Front leveling kits can cause the front to sit higher than the factory ride height. This can shift the balance of the vehicle, causing the rear to sit or appear lower.
- If the vehicle is lifted this can cause increased wear and tear on many components of the vehicle which can contribute to improper vehicle ride height.
- Improper tire inflation. Verify the proper air pressure is in each tire of the vehicle.

An Add-a-Leaf kit can help restore some lost ride height. At Best Deal Springs we have the ability to 're-arch' fatigued leaf springs. In most cases it will not be cost effective to have this done unless you have a local spring repair shop who has this capability. Best Deal Springs can re-arch, repair or build up your leaf springs if you find the need for this, however shipping costs will have to be considered. In some cases this can be a viable solution. In some cases new leaf springs might be the only or best solution available.

### **Q- Why is my truck leaning to one side?**

A- There are many possible causes to this problem. Here are some of the most common-

- Broken leaves in your leaf spring. These can often be replaced, but in some cases it might be more cost efficient to replace the spring. Generally it is recommended to replace springs in pairs to avoid the imbalance caused by a new spring on one side
- Static loads on one side of the vehicle-this can happen on any vehicle but is mostly common on work type vehicles. A few examples might be- fuel tanks, generators, welders, cranes, compressors, tool boxes and many others. This problem can often be fixed by adding a leaf to only one side of the vehicle. Call us for more details. 1-800-344-2854.
- If a vehicle has ever been in a wreck. This can cause the leaf springs to be bent, however- the leaning can also be a result of a bent frame, or suspension component as well.
- Worn out cab mounts or spring bushings or other suspension components.
- If the vehicle is lifted this can cause increased wear and tear on many components of the vehicle which can contribute to improper vehicle ride height.
- Improper tire inflation. Verify the proper air pressure is in each tire of the vehicle.

In many cases re-arching your leaf springs might be a cost effective solution to fix vehicle leaning problems. this option might be available to you if you have a local spring repair shop who has this capability to re-arch leaf springs. Best Deal Springs can re-arch, repair or build up your leaf springs if you find the need for this, however shipping costs will have to be considered, and additional information will be needed to determine if your leaf springs are the most likely cause of 'vehicle lean' In some cases new leaf springs might be the only or best solution available. If you have questions or concerns with your vehicle contact us at 1-800-344-2854.