

## ***Add-A-Leaf Installation***

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### ***Give that FSJ a raise!***

The front of my 1978 Jeep J10 had the sags from years of a snowplow hanging on it. The front end was approx. 3" lower than the rear. Problem? The front leaf springs were tired. How can one correct the problem without replacing the front springs or expensive lift kits which would still leave you with weak springs?

After getting some expert advice from the FSJ group, I decided to install the Add-A-Leaf system. The brand I purchased was "Warn Black Diamond Add-A-Leaf" from Summit Racing. They were delivered in two days and cost \$53.99 plus shipping. There are a couple more brands available from other suppliers.

Installation process:

My son (Neil) and I decided we could tackle this job. Keep in mind we are not mechanics (I build homes, Neil is an architect) I have basic hand tools and a garage. The tools we used were:

4,000 lb floor jack

two jack stands

1/2" drive breaker bar & ratchet (socket sizes were 7/8 - 9/16 - 1/2)

hammer

small hydraulic cylinder jack

propane torch ( we used a standard plumber's torch, cutting type would be quicker - a 1/2 drive air impact would make the job even quicker)

1.) We first started by jacking up the front end till the tires were just off the ground. We placed the jack stands under both front frame rails behind bumper. (this part I can't emphasize how important it is to use common safety measure and adequate equipment. Can we be too safe?)

2.) We started on the driver's side first, you need to turn the steering wheel opposite the side you are working on to gain access room. Next we took off the four 7/8" nuts from the two u-bolts that go around the axle and through the plates below. You may need a torch to heat these to break them loose. There should be four lock-washers on the u-bolts. Once you remove the nuts, go ahead and take off the u-bolts. I used a wire wheel on a bench grinder to clean up the threads while they were off.

3.) Next you want to remove the plate that's connected to the front sway bar if so equipped. We were able to just move it out of the way, and did not disconnect it.

4.) This step gets a bit tricky. At this time your leaf spring is not connected to the axle. There is a pin (actually a bolt and nut) that holds all the leafs together. This must be removed. The instructions say saw it off, but we were able to use a pair of vise-grips to hold the topside and a socket on the bottom to disassemble. The top of this pin is round, not a hex head bolt. It rests inside a round hole in the axle. The kit includes new pins and nuts. To get to the top of the pin, you need to move the axle up away from the spring. You will need about 4" of clearance. This is where we used the cylinder jack, we put it under the axle next to spring and raised it. Make sure the jack is stable, you wouldn't want the axle to drop while your hand was above the spring removing the pin! The instructions say to C-clamp the leafs together so when the pin is removed the leafs do not fall apart. My springs still had the wrap around clamps that holds the leafs together so we bypassed the c-clamp.

5.) Once the pin is removed, you need to locate the new add-a-leaf below your old leaf spring set. (the new spring goes on the bottom of the old springs) The longer portion from the center hole goes toward the front of the vehicle. The new spring will have a drastically different curve than the stock springs, at first you may think you have the wrong ones. (or at least we did) Drop the new pin through the hole in old springs. Now you need to flex the new spring so you can put the nut on the new pin, we used a third jack, although you could do it with a C-clamp. Once the nut is started, just tighten it up to pull all springs together. Keeping the new spring lined up laterally with the old set.

6.) Now you want to lower the axle to the spring, making sure the head of the pin falls into the recess in the axle. Once this happens, put the u-bolts back on, then slide the sway bar plate then the bottom plate onto the u-bolts. Install the lock washers and 7/8" nuts and tighten it all back up. I believe the instructions say tighten to 100 foot pounds of torque. The instructions were somewhat vague (the reason I wrote this) You should recheck the u-bolts nuts after 100 miles or so.

This completes the installation of one spring, the other spring is exactly the same. This project was done on the front of a 1978 J-10, they sell Add-A-Leafs for the rear. I imagine the rear would be easier than the front. The front was raised 3" on the J-10. This is a bit more than they claimed it would raise the vehicle. They claim 2 to 2.5 inches in their ad.

I am very pleased with this system.

Joe Segio