

Restoring Leaf Springs

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The largest suspension component you can restore on a classic Mustang is the rear leaf springs. Over the years, many of them have been replaced or damaged, but if you are lucky enough to still have your original sets in place, it may be time to restore them to their original factory appearance, especially for concours cars. Those with cars that they enjoy driving (my personal favorite) can restore the leaf springs following the steps below, just use a good quality paint instead.

One of the first things you would want to do is check the ride height of your rear leaf springs. If they measure and look good without sagging, then you may not need to replace them and instead just freshen them up. Typically, if the car does not have high mileage or has been stored in a reasonable manner, the leaf springs are going to be good. This of course varies with each car.

Once you have verified that the ride height is good, check the leaf springs themselves for visible damage. Excessive pitting is not worth restoring. And if they are not the original Ford leaf springs and have the incorrect engineering numbers for your car, you may want to consider a correct set before moving forward.

Once you have determined you have the correct leaf springs, the fun can start. Removing them from the car is fairly easy—unless the bolts are rusted or frozen in place. Then it's not so much fun. Support the car and the rear end of the car with jack stands and a jack. I usually loosen the rear spring shackles first. Once that is done, the front eyelet bolts need to be removed. These can be tricky, especially if rusted to the subframe. If that's the case, you may wind up having to cut the bolt to remove or apply heat. When that is finished, you can remove the shackles, then lower and remove the leaves.

Once off the car, the leaf springs themselves come apart quite easy. There are normally three spring clamps and one center bolt through all the leaves. Remove the leaf spring clamps, then remove the center bolts. Now it should all come apart. Next, mark the individual leaves so the right and left side stay matched together.

The leaf springs then need to be cleaned to bare metal. Most people do not own a media blast cabinet large enough for the longer leaves, so I normally take them to a local shop that specializes in media blasting them. Next, you will probably want to replace the large pressed bushings in the front with a new set. You will need a large press to do this correctly or a local spring shop can replace them for you.

The next step is to darken the springs so they look like original. I blacken the springs with a product called Insta-Blak, or you can use a gun blue or similar product. You want to darken the springs and rub them with oil to create the original appearance, something people refer to as “burnishing.” It takes practice to get the technique down right, so try some smaller pieces first.

Next, I recommend using new anti-squeak pads between the leaves. Older cars used grease but the Mustangs use these pads to prevent excessive noise. Replacements can be readily purchased.

Now you are ready for reassembly. Use a large dowel to line up the center hole in the leaves and then something like a Quick-Grip mini bar clamp on each side to tighten down the leaves. Then install and tighten the center bolt. Next, reinstall the leaf spring clamps. Start with the inner most location and reinstall the clamps one by one, taking care not to damage them.

The final step is marking the leaf springs with the original paint stripes or dabs, originally placed on the leaf springs so the assembly line workers knew which set was designed for which car. Different rated springs were used for different applications. After that, simply reverse the installation on the car and you are ready to roll again. This makes for a good weekend project when you have the time.

