



# Parts4Marx Tech Tips

009

## Removing and Installing a Side Rod

To remove a straight side rod:

1. Modify the bottom of a pinion gear puller so that it is wide enough to go around the post. The pin of the puller may have to be shortened also.
2. Using a pair of pliers, round down the “mushroom” top of the post enough that the hole of the rod can pass over it. Grip the top of the post with the pliers and spin or twist the post within the grip to smooth down the mushroom.
3. Center the pinion gear puller on the post and gently crank the puller down to pull the side rod off the post evenly. Avoid bending the side rod as it is pulled.

To remove a side rod with crossheads:

1. Depending on how large the mushroom is on top, a wider puller will work.
2. Use pliers to round down the mushroom enough that the hole of the rod can pass over it, using the same method described above.
3. Center the pinion gear puller on the post and gently crank the puller down to pull the side rod off the post evenly. Avoid bending the side rod as you remove it.

**Note:** Drivers are made using a process called Sintered Metal. It starts with a powdered mix, and then is formed under heat and pressure in a mold. Some pre-war drivers probably had a bad mix that resulted in a weak or brittle metal, and some pre-war 10 spoked driver posts are very fragile. To remove or install a side rod, have patience and go very slowly to avoid breaking the post. Later Baldwin drivers seem to be sturdier.

To Install a side rod:

1. Open a bench vise and place the wheel on it with the post over the jaw and the hub recessed into the vise. Some hubs are lower than the rim, especially on plain drivers, both 10 spoke and Baldwin. Make sure the rim is lying flat. See *Illustration*.
2. Place the side rod on the post.
3. Use a tiny ball peen hammer and tap the post with a series of light strokes.
4. After a few taps, the post will start to mushroom over. Continue to tap the post until the side rod is secure.



Place the driver wheel in a vise, with the post over the jaw before beginning to re-install a side rod.



A small ball peen hammer provides enough force when lightly tapped to gently mushroom the post over the side rod.