Tie Rod Installation

By Tom Endy, Westminster, California

For many years, I believed the only way you could install or remove a Model A tie rod was by first removing the front backing plates. This to allow access to the large screwdriver slot retainers in each end of the tie rod that have to be removed before the tie rod can be lifted off the spindle arm balls. However I recently learned from Bryan Thompson, a friend and fellow Model A hobbyist, that the tie rod can be installed and removed with the front backing plates in place. I didn't think it was possible, but it certainly can be done.

Installation:

With both front backing plates already installed, remove the spindle arm ball attachment assemblies from each end of the tie rod. One assembly is a right hand thread; the other end is a left hand thread. The right hand thread is the norm (clockwise). The left hand thread is opposite (counter-clockwise) and is used for special applications.

Rotate both backing plate\spindle assemblies until they face outboard at the rear. This will provide easy access to the spindle arm balls. Install the left hand threaded assembly onto the right spindle arm ball. Install the right hand threaded assembly onto left spindle arm ball. This will orient both end assemblies with the grease fittings facing aft*.

**Note: A change was made in late 1930 reversing the orientation of the grease fittings from forward facing to aft facing and changing them from a screw in type to a press in type.*

Take the left hand threaded end of the tie rod and screw it about two turns into the assembly end attached to the right spindle arm. Rotate the two backing plate/spindle arm assemblies until the tie rod lines up with the tie rod assembly on the left side. Rotating the backing plates on the king pins and rotating the tie rod ends on the spindle balls easily does this. Thread the left end of the tie rod, which has right hand threads, into the left tie rod assembly. Grasp the tie rod in the center and rotate the tie rod in a right hand thread manner.

When this is done, both ends of the tie rods will screw into their respective ends and at the same time pull the backing plate\spindle arm assemblies into the forward facing position.

Screw both slot headed retainers into each assembly until they are flush, and install the long cotter pins.



The right side (with the single spindle ball) has a left hand thread in both the tie rod and the tie rod end assembly. When installed, the grease fitting will face aft.



The left side (with the double ball spindle) has a right hand thread in both the tie rod and the tie rod end assembly. When installed the grease fitting will face aft.

Removal:

For removal. reverse the procedure after first unscrewing the retainer bolt and nut that locks the adjustment at each end of the tie rod.