

# The Model A Rear Spring

by Tom Endy

Many new members to the Model A hobby are not aware of the danger surrounding the Model A rear spring. A tremendous amount of energy is packed into a rear spring that has been spread and attached to the shackles on each side of the rear axle assembly. The spring can be lethal if care is not taken when dealing with it.

Before ever contemplating doing any work on a Model A involving the rear spring first obtain a proper spring spreader. Most Model A clubs have one in their inventory of tools and will loan it out to their members.

A proper spring spreader is one that clamps around the shackle eyes on both sides of the spring. Each side of the spreader has a large nut that when turned takes the tension off the shackles and transfers it to spreader. The spreader has to be stout enough to be able to contain the spring tension. Most suppliers carry a proper spring spreader in their inventory. Beware of home made spring spreaders, especially those that only spread one side of the spring. Some suppliers carry a one-sided spring spreader and advertise them as a "traveling spring spreader". The danger with this type of spreader is that the spreader can easily slip off the axle housing and launch like a crossbow arrow.



**A traveling spring spreader**



**A proper spring spreader**

A Model A rear spring should only be spread and attached to the shackles on a rear axle assembly when it is safely attached to the rear cross section of the frame with the two U-bolts. It should never be spread and installed on a rear axle assembly when it is outside of the car. This is something that is commonly done and it is extremely dangerous.



**This practice is extremely dangerous. The 3/8" center bolt was never meant to retain the amount of tension the spread spring contains. If the rusted 80-year-old bolt head should pop off the top leaves will fly 20 feet in the air. There is also inherent danger in a worn shackle bolt breaking. Removing and/or installing the spring spreader while the axle housing is out of the car also imposes danger.**

The recommended sequence of events when removing a rear axle assembly from a Model A is to first mount a proper spring spreader on the rear spring and spread it enough to take the tension off the shackles. Next remove the two shackle bolts along with the other hardware attaching the rear axle assembly to the car. The rear axle assembly can then safely be removed from the car. The spring spreader can be left in place on the spring for as long as the rear axle assembly is out of the car.

If the task involves restoration of the rear spring collapse the spring spreader and remove it from the spring. Very little tension remains in the spring and it is safe to deal with it. Remove the spring from the car by unbolting both U-bolts. Reverse the procedure when installing both the rear spring and the rear axle assembly. Remember safety first.