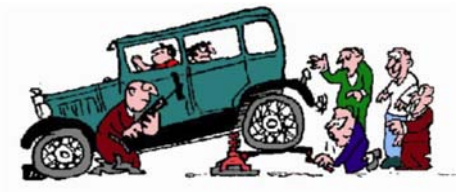
From the Garage -

by Paul Hunter



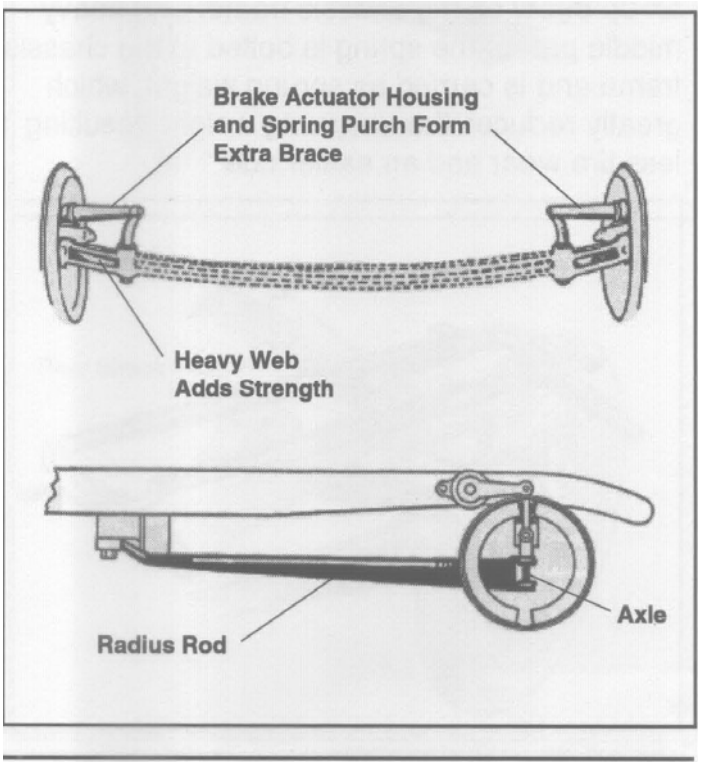
Radius Rod Ball and Socket

Our club President, Rick Manan, has asked if he should use the original style radius rod ball and socket or the replacement cast iron style with the rubber ball. Les Andrews does not recommend the replacement style with the rubber ball, even though it has been a popular, after market, item for decades. A Model A radius rod ball is designed to maintain a castor angle, or front axle tilt of 5 degrees. As wear caused by metal to metal contact of the 1 ½ inch ball and socket increases, the castor angle will change. Too much castor will cause hard steering and shimmy at low speeds, too little castor will cause wander at high speeds. There are many reasons the castor angle may change. Bent radius rods, bent front axle, sagging frame, worn float A motor mounting pads are some. The radius ball should be measured to see how much it deviates from 1 ½ inch diameter. If it is worn 1/16 inch or less it can be used with the original style ball and socket with no modifications. If the ball is worn .075 inch or more, a special ball spacer can be used to take up the play. On a worn ball the spacer is used with the original style ball and socket only, and must allow the ball to move freely and not bind. If wear is so bad the ball spacer cannot take up the excessive play, saw off the old worn ball and weld a new steel ball designed for this purpose. All parts are available at most model A parts dealers. **Ralph Boling** Tech Advisor.

Our thanks to Henry's A's Chapter, Model A Ford Club of America - Editor

Front Axle and Radius Rods

The 1-beam front axle is an alloy steel forging, having a tensile strength of 145,000 pounds per square inch. The axle is held at the spring perches by the front radius rods. The twisting strains on the axle due to the action of the front wheel brakes, is exerted on the outer ends of the axle. Extending outwardly from the spring perch bolts, the ends of the axle are thicker and stronger. The front brake actuating lever housing is arranged to act as a brace between the top of the spindle bolt (king pin) and the top of the spring perch, thus strengthening the front axle at it's most vital point.



The front radius rods are securely bolted to the top and the bottom of the axle, holding the axle securely and resisting any imposed twisting or any thrust due to the front wheels striking road obstructions. The radius rods are heavy steel tubing, welded into one piece. Because the front radius rods are subjected to bending stress imposed by the front axle and front brakes, the rods are made of oblong deeper section where the stress is the greatest. The two radius rods come together at the fly-wheel housing, with a 1" ball welded at the junction. The radius ball is used to secure the end of the radius rods to the bottom of the bell housing. This forms a rigid construction for the front axle, eliminating any twist action at the front axle.