



From the Garage -

by Paul Hunter



Radius Rods

This month's article will be about the differences between the FRONT and REAR Radius Rods and how are they used in the Model A Ford. The one-piece FRONT Radius Rod setup has been nicknamed a WISHBONE since it is shaped like the wishbone found in the turkey many people enjoy for Thanksgiving dinner. The REAR Radius Rod setup is a split rod setup having two individual rods. So what are these Radius Rods (wishbones) and why does a Model A Ford need these Radius Rods installed where they are located?

FRONT RADIUS ROD (WISHBONE) – There is a one-piece Radius Rod found at the front of the vehicle. The front ends of it are connected to the front axle and held in place by the spring perch bolts, one for each side of the vehicle. The back end of this Radius Rod is U-shaped with a large ball attached to it. This ball is attached to the bottom of the Bell Housing with a special two-piece cupped brackets and bolting setup, such that the Radius Rod cannot move forward or backward. This ball must be lubricated since this bracketed setup allows the ball to rotate.

REAR RADIUS RODS – The Radius Rod setup found at the rear of the vehicle is two separate rods (bars). The rear ends of the REAR Radius Rods are bolted to the rear axle housings near the backing plates, one for each side of the vehicle. The front end of each Radius Rod is bolted to the bottom of the Torque Tube housing behind the u-joint at a common point using a single bolt. The Torque Tube contains the drive shaft.

There are several basic purposes for the FRONT and REAR Radius Rods:

1. When accelerating, deceleration, braking or if hitting an object in the road, it keeps the FRONT axle and/or the REAR axle housings from trying to roll under the frame at either or both sides of the vehicle.
2. It keeps the FRONT axle and the REAR axle housings perpendicular to the frame, i.e., it forms a triangle shape that keeps both FRONT and REAR tires aligned on the vehicle.
3. It allows the FRONT axle and/or REAR axle housings to pivot up and down in reference to the frame location, due to road conditions. The frame will allow for some twisting action of the road surface. The transverse springs (perpendicular to frame) absorb road shocks and will also allow for uneven road surfaces.

NOTE: Per a research of several tech manuals it was noted that if the ball at the rear end of the front radius rod is severely worn do not insert a rubber ball to make up the difference, as it will affect the adjustment to the front end. Solution – install a new ball assembly.

Submitted by Tom Eldhardt



Front one piece radius rod (wishbone)



Rear split radius rod. (1 of 2)

Front radius ball socket set. The silver coloured cup in the picture along is shown upside down.



Typical replacement radius ball repair kit.

Our thanks to the Columbia Basin Model A Club for this excellent article - Editor