Transmission Mainshaft

by Tom Endy

The Mainshaft in the Model A Ford transmission is the shaft the two slider gears slide back and forth on. At the very front of the shaft is a bearing surface to support the small roller bearing that rides on it. Quite often the bearing surface is found worn and galled. In this case it should be replaced or repaired.

The repair is done by turning down the bearing surface and pressing on two bearing races of the proper size. This will restore the bearing surface and is a lot less costly than a replacement reproduction shaft that may be of questionable quality.

From a bearing supplier obtain two ER081212 Thornington Bearing races. The races have an **inside diameter of .500 - .4996. The outside diameter is .7493 - .7488.** This will accommodate the standard Model A roller bearing.

Turn the mainshaft bearing surface down to .5005. Stay approximately 1\8" away from the curved shoulder on the latter shafts that use the removable circular thrust washer. Don't machine it square at the shoulder, leave a small radius.

For the early shafts with the integral thrust washer machine up to the washer surface.

Press the two bearing races onto either machined shaft. They should go on with an interference press fit. A small area of the machined shaft will protrude from the end, but this is not a problem as the positioning of the two bearing races will support the roller bearing properly.

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This service can be provided by:
Jim's Automotive Services
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The two mainshafts on the lefts are of the early design that has a thrust washer as an integral part of the shaft. The one on the extreme left is an early shaft shown in its original configuration. The one to the right of it is an early shaft that has been machined and has two of the Thornington bearing races pressed onto it.

The two mainshafts on the right are of the later design that uses a removable thrust washer that is circular and is shaped much like a key ring. The shaft on the left is shown in its original configuration. The one on the right is a later shaft that has been machined and has two Thornington bearing races pressed on.

On the later shafts care must be taken when doing the machining so that the radius for the removable thrust washer is left intact.

Whenever rebuilding a Model A transmission it is prudent to always replace the removable thrust washer on the later design mainshafts as they are generally found worn flat on the front surface.

It is also prudent to replace all five bearings in the transmission when doing a rebuild.

The early and late mainshafts are interchangeable in either the early or late transmission.