

# Pinion Gear Removal!

by Tom Endy

Removing a Model A Ford pinion gear from the drive shaft is not as straightforward as it may appear. The pinion gear has an internal taper that matches the tapered end of the drive shaft and over the years the mating surfaces may have become jammed very tight together, much like a rear brake drum hub can become jammed tight to a rear axle.

The pinion gear can be removed from the drive shaft with a large gear puller and a small bearing puller. Place the drive shaft in a vice. Remove the cotter pin from the nut at the pinion end of the drive shaft. Using a 15/16 hex socket, back the nut off about 1/4 of an inch, but do not remove it. Place a small bearing puller around the drive shaft behind the pinion gear by sliding it on over the front end of the drive shaft until it is up against the threaded end of the pinion gear. Using the gear puller, place the center point of the puller in the détenté at the pinion end of the drive shaft. Hook the arms of the gear puller around the bearing puller and tighten until there is sufficient tension against the end of the drive shaft. Smartly tap the end of the gear puller with a hammer. Alternately tighten the puller and tap the end until the pinion gear breaks loose from the taper on the end of the drive shaft. Remove the pinion gear nut and slide the pinion gear off the end of the drive shaft.

The photos show a block of steel with a hole bored through it instead of a bearing puller. Since I remove a lot of pinion gears I made up this device, as it is more convenient to use. A small bearing puller will work just as well.

The gear puller shown was purchased from Sears years ago and was originally used for pulling flywheels off of Briggs & Stratton lawn mower engine.

The reason you do not want to remove the nut from the end of the drive shaft until after the pinion gear has broken loose is that the pinion gear may fly across the room when it breaks loose if the nut is not in place to prevent it. ☺

