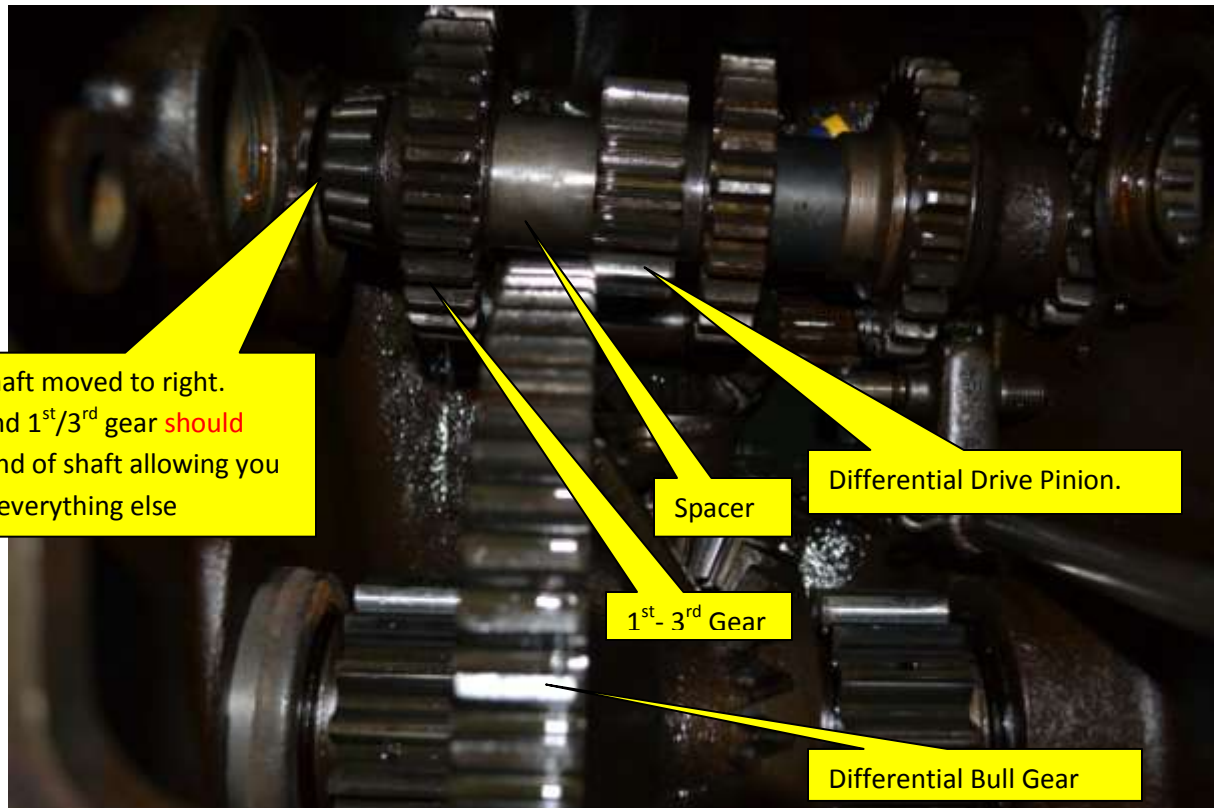


## 1936 B Countershaft Removal (Serial prior to 201000)



Countershaft moved to right. Bearing and 1<sup>st</sup>/3<sup>rd</sup> gear **should** slide off end of shaft allowing you to lift out everything else

Spacer

Differential Drive Pinion.

1<sup>st</sup> - 3<sup>rd</sup> Gear

Differential Bull Gear

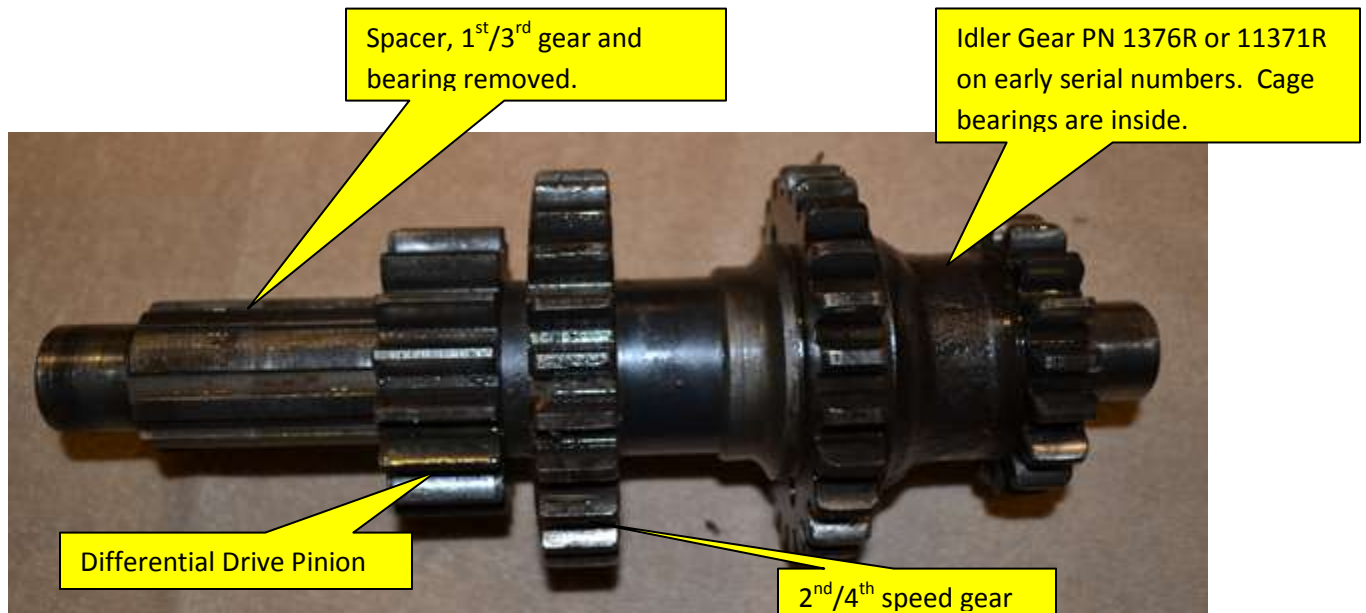
Follow the instructions in the manual and you should be able to remove the Countershaft assembly if there is no serious damage. This information is for when there is damage and things won't come apart. The disassembly instructions in the manual get you to the point that allows you to slide the Idler Gear and shaft a bit to the right through the bearing housing opening. This gives you enough space on the LH side to slide off the bearing and gear.

Remove the shift fork shaft and forks. Be careful when catching the Pawl Spring and Pawl as you withdraw the shaft from the LH side. These early tractors did not have the hole to retain the spring and detent pawl. Remove the Sliding Gear shaft and drive gears. Now you are ready to attack the Countershaft (sometimes called the following shaft).

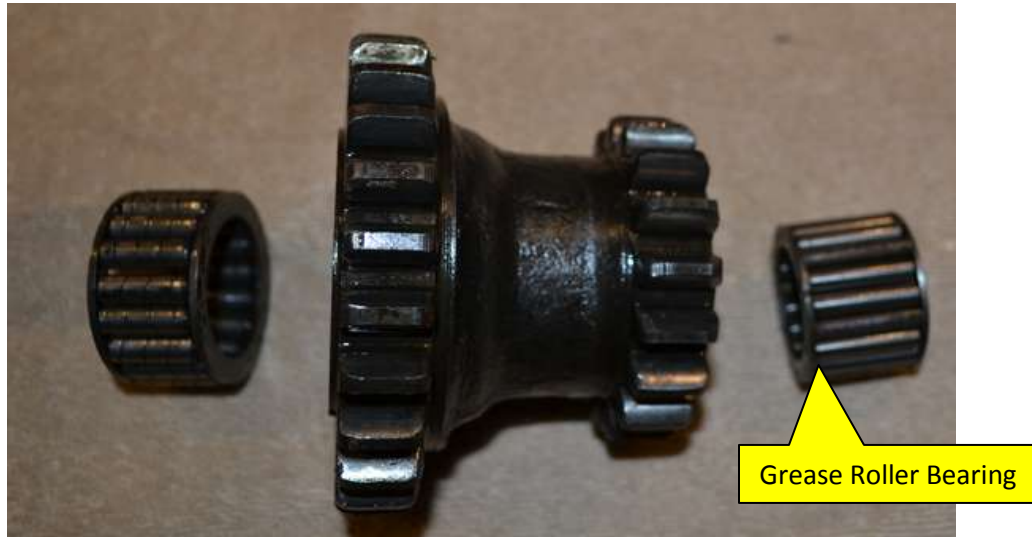
If you are in here there must be a problem, usually a broken tooth. Find that tooth and remove it as well as the broken gear. Clean all gravity lube holes and troughs.

These tractors were tough, but they were often abused. I have removed two Countershafts that were damaged. One was twisted, and one was bent from a broken 2<sup>nd</sup> gear tooth being forced between the differential bull gear and the differential drive pinion gear. If the shaft is damaged to the point that you can't slide the LH tapered bearing and 1<sup>st</sup>/3<sup>rd</sup> gear off the LH end of the shaft, you will have to get creative. I was able to drive one off with a hammer and long drift pin stuck through the overdrive gear opening on the RH side. Good Luck.

Once the bearing and gear are removed the shaft lifts out.



The idler gear tooth count depends on your serial number. If it is below 36,815 it is PN 1371R with 19 teeth and 25 teeth. Above 36,815 it is PN 1375 with 17 teeth and 25 teeth. Verify the tooth count on the parts you remove. These have to match the Overdrive Gear on the sliding shaft.



Don't forget to grease the cage bearings that are INSIDE the Idler Gear when you put it back together. The smaller one on the right is enclosed by the thrust washer and does not get much lubrication other than at initial assembly. There is a slinger slot on the end of the Idler Gear.

Frank Stricklin