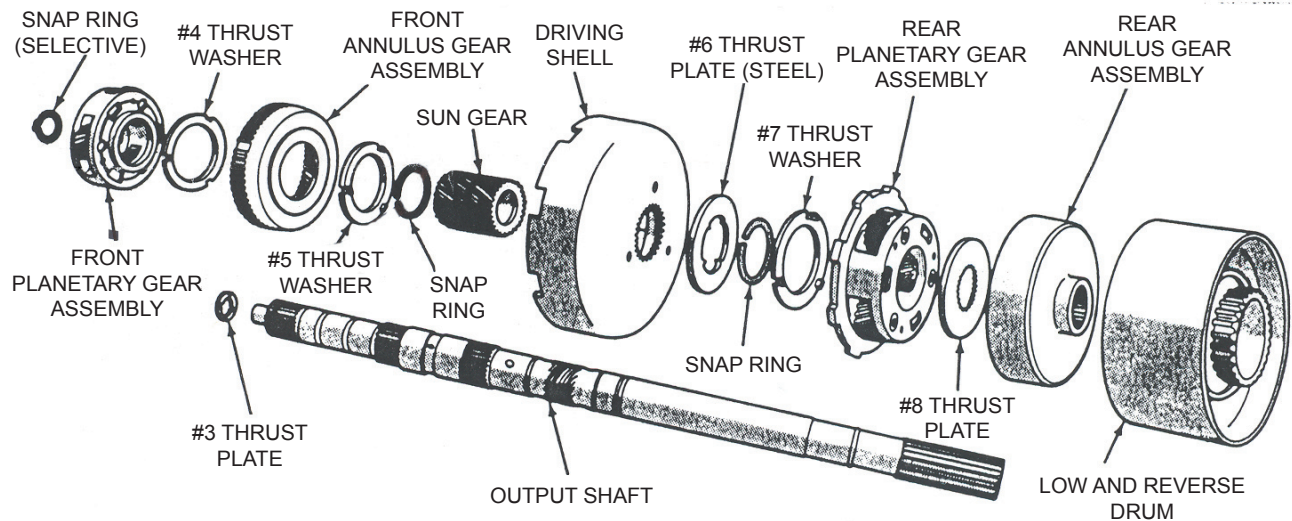


727 HELICAL LOW GEAR SETS

Part # 724310



PLANETARY GEAR TRAIN AND OUTPUT SHAFT FOR A-727

DISASSEMBLY

1. Remove the #3 thrust washer from forward end of output shaft.
2. Remove the selective snap ring from the forward end of the output shaft, then slide the front planetary gear and front annulus gear assembly off the shaft.
3. Slide the sun gear and driving shell off the output shaft.
4. Remove the snap ring and the #6 thrust plate from the sun gear (rear side of driving shell) and slide the sun gear out of the shell. Remove the front snap ring from the sun gear.

This is all that is necessary to install this gear set unless you are inspecting farther back (i.e.: rear planetary, low reverse drum or sprag condition).

MEASURING END PLAY

Measuring end play can be done in two methods:

If the entire assembly and the output shaft are out of the transmission, check as follows:

1. Stand assembly upright with the forward end of the output shaft on a wooden block so that all parts will move forward against the selective snap ring at the front of the shaft.
2. Insert a feeler gauge between the rear annulus gear support hub and shoulder on the output shaft.
3. **Clearance should be between .006" to .025"**. If clearance exceeds these specs, replace the thrust washers, bearings and/or necessary parts.

If the transmission is assembled, and you are only installing the low gear set, check as follows:

1. After installing all parts of the low gear set, push from the front planetary back.
2. Measure between the front snap ring and the front side of the front planetary. Clearance can be adjusted by the use of various thickness snap rings. Snap rings available in .052", .060" and .065" thicknesses.

In some cases if it is too loose, it may be necessary to install shims in other areas to get the desired clearance. In some other **rare** cases, if it is too tight it may be necessary to remove some material from the front side of the planetary. Contact the tech department for more information.

ASSEMBLY

1. Make sure the #7 thrust washer or Torrington bearing (if so equipped) is on the front side of the rear planetary gear assembly.
2. Install the snap ring in the front groove of the new sun gear. (Note: The larger gear of the sun gear goes toward the front of the transmission, and the long end goes toward the rear.) Insert the sun gear through the front side of the driving shell, install the #6 thrust plate to the rear of the sun shell and install the rear snap ring.
3. Carefully slide the driving sun shell and sun gear assembly onto the output shaft, engaging the sun gear's teeth into the rear planetary pinion teeth.
4. You are now ready to install the helical low gear set assembly onto the output shaft.



Note how the bearings are in place on the helical low gear set before cutting ties. Failure to install correctly will result in bearing failure and extensive transmission damage!

5. Carefully work the front planetary and annulus gear assembly onto the output shaft, meshing the planetary pinions with the sun gear teeth.
6. With all components properly positioned, install the selective snap ring on the front end of the output shaft. Re-measure the end play of the assembly. The clearance can be adjusted by the use of various thickness snap rings. Snap rings are available in .052", .060" and .065" thicknesses.

Note: This planetary outfit still retains the thrust washer between the sun shell and front annulus!