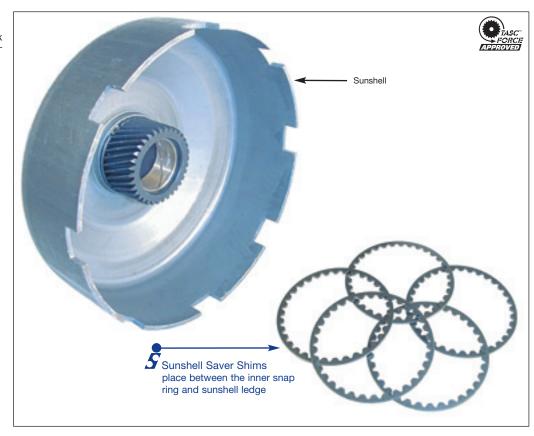
**PART NUMBER 36414-01K** 

# **Sunshell Saver Shim**

#### 36414-01K

5 Shims

.044" thick



### **Installation Instructions**

The Sonnax shim in 36414-01K is .044" thick. Its tooth cut will not allow the shim to be easily pushed over the sun gear. The sun gear will be a press fit inside the shim, which requires the gear to be pushed/driven through the shim before installation.

# **Disassemble the sunshell**

Place the shell with lugs down toward bench top. Remove the lower snap ring which retains the large thrust plate. Push the sun gear through the shell to remove it.

### **Wear measurements**

Set the sunshell (bowl/lugs facing up) onto a flat surface (bench top), and measure (with a dial caliper) the distance from the bench to the top snap ring contact area in 4 locations. A worn edge will be evident on this surface from the hardened snap ring.

The distance from the bench (B - A, see illustration on next page) of the OEM unworn material is generally .330".

The distance from the bench to the height of the surface depression is often .310" to .280".

This shim will result in a snug assembly up to a measurement of approximately .280".

The shim will reduce the sunshell endplay with a measurement of less than .280", but will not result in a snug assembly.

# Refinishing the shell

A flat surface grinder with the ability to extend into the shell would be most accurate at resurfacing. Scotchbrite™ Roloc (3M) resurfacing pads on a die grinder (air motor) work well. Rotate the shell as you remove the lip, to ensure an even surface. The finished height should be measured at 4 locations until .300" to .290" is obtained.





#### **PART NUMBER 36414-01K**

## Reassembly

- 1. Sunshell lugs upward, align the Sonnax shim over the finished surface.
- 2. Tap the sun gear into the shim and realign the sun gear with the shell.
- 3. Press the sun gear down into the shell until the shim has firmly bottomed against the upper snap ring.
- 4. Turn the sun shell over, the sun gear surface onto a stand to ease lower snap ring installation.
- 5. Place the thrust plate over the lower flat shell surface. The snap ring groove should be fully exposed and level with the thrust plate. To verify that the correct amount of material has been removed, roll the rear snap ring into the groove around its entire radius.
- 6. If the snap ring groove is sufficient, complete the assembly.
- 7. If the snap ring will not fit into the entire groove, remove more material from the worn shell surface.

Note: The Sonnax shim must be installed between the upper snap ring groove and the shell. Do not install the shim between the thrust plate and lower snap ring. This will push the shell into the front planet hub.

