

S799 Servo Bore Repair System:
4F27

Rotunda Tool # NRL4F27



This tool is for use on **Ford 4F27E (FN4A-EL)** transaxles.

**READ ALL APPLICABLE INSTRUCTIONS
BEFORE ATTEMPTING TO USE THE TOOL**

U.S. Patent # 6,192,567



1. Install the drill jig into the case by setting the jig into the servo. Install the included 6mm bolts in the case, through the jig.

2. Drop the 7/16" guide into the jig. It doesn't matter which one of the lands on the guide you use, as long as one of the lands is under the 3/8" Allen screw.

3. Ream out the bore using the 7/16" reamer, applying ample lubrication. * **DO NOT REAM ABOVE 500 RPM.**

4. Replace the 7/16" reamer guide with the 1/2" guide, and the 7/16" reamer with the 1/2" reamer.

5. Ream the bore out using the 1/2" reamer with ample lubrication.* Take care not to either push too hard on the reamer or turn the reamer faster than 500 RPM when reaming. Either one can overly enlarge the bore, causing a loose bushing.

6. Clean the case before proceeding to step number seven.

*- **CUTTING OIL** must be used for lubrication. The use of substitutes, particularly ATF, may result in an over-sized bore.



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7. Apply Loctite® (preferably **green #680**) or equivalent to the bushing and align the hole drilled in the side of the bushing with the v shaped notch cast into the case. Drive the bushing in by hitting the driver until the bushing bottoms.
8. Insert the provided sizing pin into the bore, chamfer first. It may be necessary to start the pin in the bushing with a rubber mallet. Once the pin is inside the bushing, use a punch to drive the pin all the way through the bushing. The included sizing pin is larger than the factory servo pin, so repeat until the factory servo pin moves freely through the bushing.



**** ALWAYS CHECK PIN FINISH FOR ****
**** BURS AND COARSNESS ****

Important Reamer Info



Inspect for aluminum buildups on the cutting edges as pictured left.



Reamers are like drills, if you use them repeatedly in aluminum they develop build-ups on the cutting edges. These build-ups effectively make the reamer larger, causing a larger hole. This larger hole then robs the bushing you're installing of interference needed to properly crush the bushing. This causes the pin to be loose in the bushing, which defeats the entire purpose. To prevent this, you need to (1) keep your reamers sharp and (2) use plenty of CUTTING OIL when reaming.



You must use a cutting oil, i.e. Tap Magic, for Lubrication when reaming.
DO NOT SUBSTITUTE WITH ATF!!!

Replacement bushings are available through Rotunda, Part # NRL4834

Rotunda Technician Tool Program
1-800-ROTUNDA (768-8632)
Option #6