

5R55S/5R55N/5R55W TRANSMISSIONS—SHIFT CONCERNS, LOSS OF 2ND, 3RD AND 5TH GEAR, INCORRECT RATIO DTC'S—PROCEDURE TO INSPECT AND REPAIR SERVO PIN BORE WEAR

TSB 09-12-12

FORD:

2002-2005 Thunderbird
2005-2009 Mustang
2002-2009 Explorer
2007-2009 Explorer Sport Trac

LINCOLN:

2002-2006 Lincoln LS
2003-2005 Aviator

MERCURY:

2002-2009 Mountaineer

ISSUE

Some 2002-2009 Explorer, Mountaineer, 2007-2009 Explorer Sport Trac, 2002-2006 Lincoln LS, 2005-2009 Mustang, 2002-2005 Thunderbird and 2003-2005 Aviator vehicles equipped with a 5R55S, 5R55W, and 5R55N transmission may experience shifting concerns. A loss of 2nd, 3rd and 5th gear, may have overdrive band or intermediate band failures due to servo pin case bore wear causing reduced apply pressure.

ACTION

Follow the Service Procedure steps to correct the condition.

SERVICE PROCEDURE

For transmissions that have been determined to require an overhaul or rebuild and the overdrive band or intermediate band have excessive wear or burned/damaged band friction material, the cause maybe excessive servo pin case bore wear generally found on higher mileage vehicles, usually accompanied with incorrect ratio diagnostic trouble codes (DTCs), condition becomes worse when hot. (Figure 1)

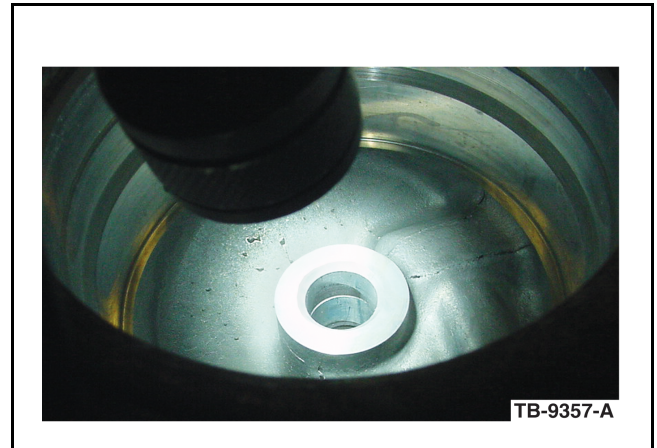


Figure 1 - Article 09-12-12

In our instructions, when we refer to the overdrive bore, we are talking about the smaller bore located closest to the bell housing. When we refer to the intermediate bore, we are talking about the larger bore located next to the line pressure tap.

Inspect and repair the worn-damaged transmission case servo pin bore utilizing the Rotunda Tool 5RW Master Kit part number NRL5RW servo pin bore repair system (1-800-768-8632 option 6).

1. Install the drill jig into the case by setting the jig into the case servo bore. Retain the jig in the case with the servo's snap-ring. (Figure 2)

NOTE: The information in Technical Service Bulletins is intended for use by trained, professional technicians with the knowledge, tools, and equipment to do the job properly and safely. It informs these technicians of conditions that may occur on some vehicles, or provides information that could assist in proper vehicle service. The procedures should not be performed by "do-it-yourselfers". Do not assume that a condition described affects your car or truck. Contact a Ford, Lincoln, or Mercury dealership to determine whether the Bulletin applies to your vehicle. Warranty Policy and Extended Service Plan documentation determine Warranty and/or Extended Service Plan coverage unless stated otherwise in the TSB article. The information in this Technical Service Bulletin (TSB) was current at the time of printing. Ford Motor Company reserves the right to supersede this information with updates. The most recent information is available through Ford Motor Company's on-line technical resources.

TSB 09-12-12 (Continued)

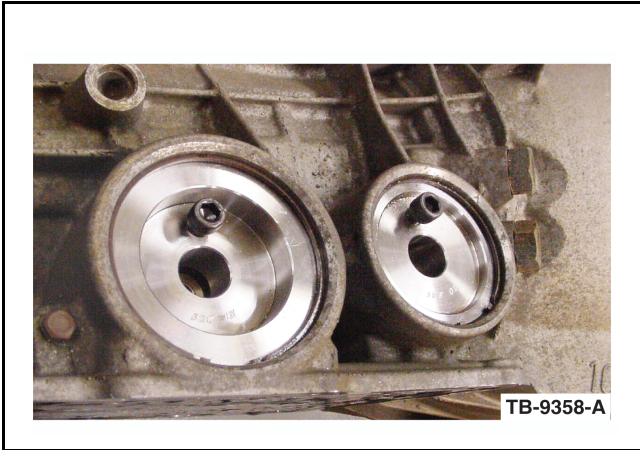


Figure 2 - Article 09-12-12

- Drop the 9/16" 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.

NOTE

CUTTING OIL MUST BE USED FOR LUBRICATION. THE USE OF SUBSTITUTES, PARTICULARLY ATF, MAY RESULT IN AN OVER-SIZED BORE.

- Ream out the bore using the 9/16" reamer, applying ample lubrication.

NOTE

DO NOT REAM ABOVE 500 RPM. (Figure 3)

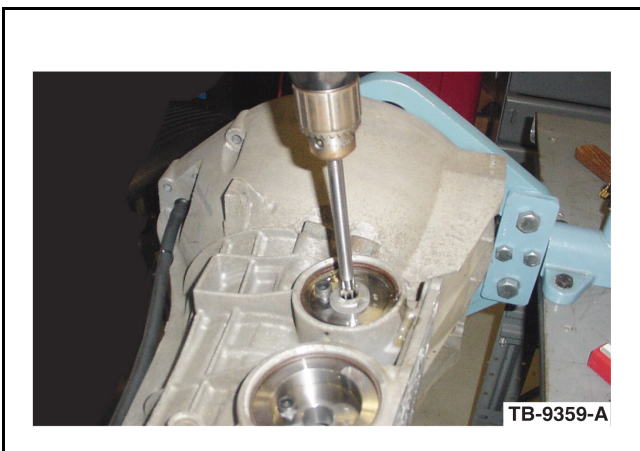


Figure 3 - Article 09-12-12

- Replace the 9/16" reamer guide with the 5/8" guide, and the 9/16" reamer with the 5/8" reamer.

- Ream the bore out using the 5/8" 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.
- Clean the case before proceeding to Step 7. This kit utilizes two different bushings.
 - The shorter bushing is for the intermediate servo and is identified by a flat ground in the bushing's hat. (Figure 4A)
 - Overdrive servo bushing. (Figure 4B)

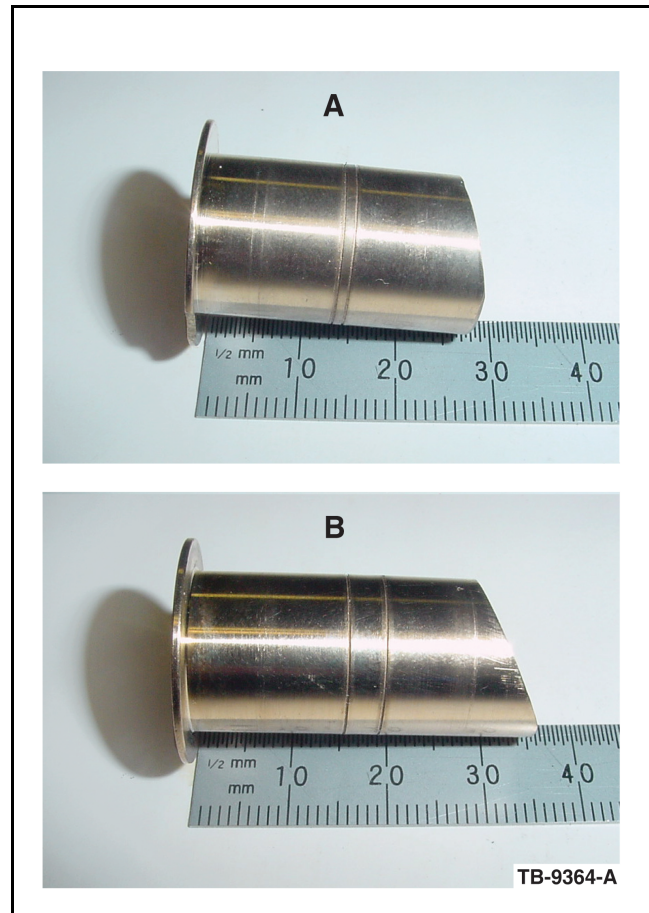


Figure 4 - Article 09-12-12

- Both bushings are chamfered and need to be installed with the recessed edge up (away from the valve body).
- Apply Loctite® 680 Retaining Compound or equivalent to the outside of the bushing and drive the bushing in by hitting the driver until the bushing bottoms. (Figure 5) The 5RW kit uses a smaller diameter installation tool identified by a groove cut in the handle.



Figure 5 - Article 09-12-12

8. After installing the bushing, using a 15/64" bit, drill a hole in the side of the bushing by following the servo apply holes in the case 5R55S case shown.
 - a. Overdrive servo. (Figure 6)

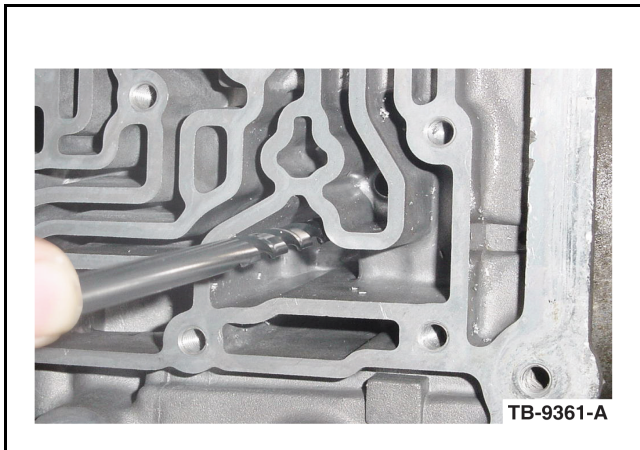


Figure 6 - Article 09-12-12

- b. Intermediate servo. (Figure 7)

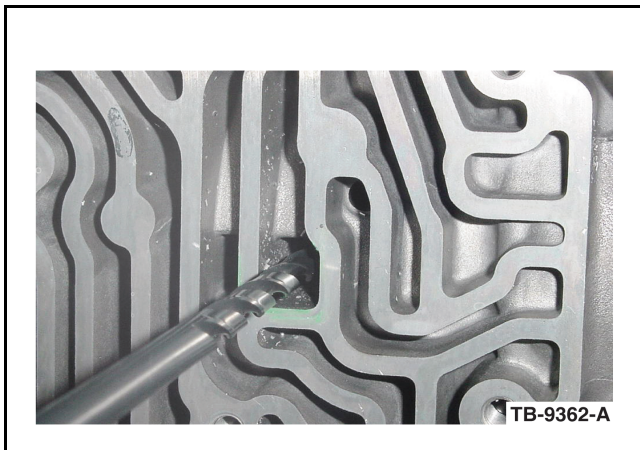


Figure 7 - Article 09-12-12

NOTE

FAILURE TO PERFORM CROSS DRILL STEP IN THE NEW BUSHING WILL RESULT IN A NO SHIFT CONDITION.

9. Insert the provided sizing pin into the bore. It maybe 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. Repeat as necessary. (Figure 8)

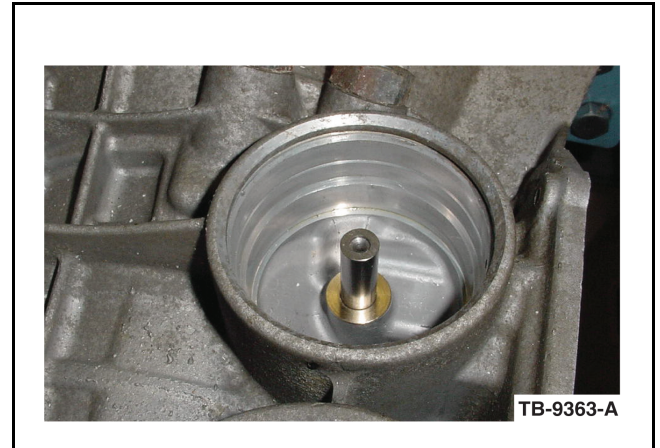


Figure 8 - Article 09-12-12

Correctly installed bushings will be flush inside of case. (Figure 9)

TSB 09-12-12 (Continued)



The 9/16" and 5/8" reamers require typical maintenance and cleaning of aluminum build up on the cutting edges to help provide optimum bushing installation and increased tool life.

After bushing installation, thoroughly wash the case before rebuilding transmission.

WARRANTY STATUS: Information Only

Figure 9 - Article 09-12-12