

• **SUSPENSION—ON-VEHICLE FRONT INTEGRATED HUB/BEARING ROCKING END-PLAY MEASUREMENT**

• **AXLE—ON-VEHICLE FRONT INTEGRATED HUB/BEARING ROCKING END-PLAY MEASUREMENT**

**Article No.
03-11-2**

FORD: 1999-2004 SUPER DUTY F SERIES
2000-2004 EXCURSION

ISSUE

When diagnosing NVH - Noise, Vibration and Harshness conditions on the front of a Super Duty/Excursion, pay particular attention to the integrated hub/bearing rocking end-play procedure. Many of the integrated hub/bearing assemblies returned to the warranty parts return center have been replaced prematurely.

ACTION

Determine integral hub/bearing condition before replacement.

Hub/bearing units should not be replaced if:

- Rocking end-play is less than 0.005" (0.13 mm)
- The bearing freely rotates without roughness

Refer to the following Service Information for details.

SERVICE INFORMATION

1. Make sure 4X4 hubs are unlocked.
2. Raise the vehicle until the front tires are off the ground.
3. Turn the wheel to allow for easier access to rear of vehicle's front suspension (Figure 1).
4. Check to see if the wheel rotates freely.
5. If the wheel rotates freely, proceed to Step 6. If not, determine why wheel is not rotating freely and service - do not continue with this article.
6. Fasten the dial indicator base (Figure 2), from Rotunda Kit 164-R2724 (or equivalent), to the knuckle as shown (Figure 3).
7. While adjusting goose neck, place probe of indicator on Rotor where splash shield has a V-type opening on inboard side of suspension assembly or about at the 5 O'clock position (Figure 4). Set the probe so that it is free to move in the lateral direction (Figure 5). With indicator and probe set in their mid-point range of operation, tighten the goose neck until it is rigid enough to assure accurate readings.
8. Apply a reasonable amount of lateral force at the 6 O'clock position (Figure 6) of the wheel and zero the indicator as shown (Figure 7).
9. Reverse the lateral force to the wheel in the opposite direction (Figure 8) and record the maximum amount of displacement measured by the indicator. Repeat several times rocking the wheel back and forth to assure a good reading.
10. If the displacement from the dial indicator reading is 0.005" (0.13 mm) or less, do not replace hub/bearing unit. Check other suspension components or axle components for signs of damage/wear or unusual contact to other rotating parts (Example - Heat shield rubbing on rotor).

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.

Article No. 03-11-2 Cont'd.

OTHER APPLICABLE ARTICLES: NONE
WARRANTY STATUS: INFORMATION ONLY
OASIS CODES: 303000, 304000, 306000, 702100,
703000

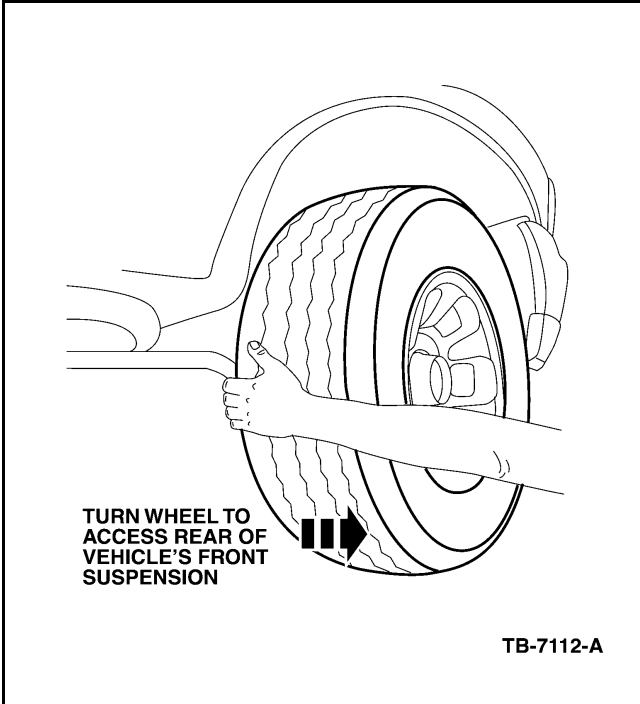


Figure 1 - Article 03-11-2

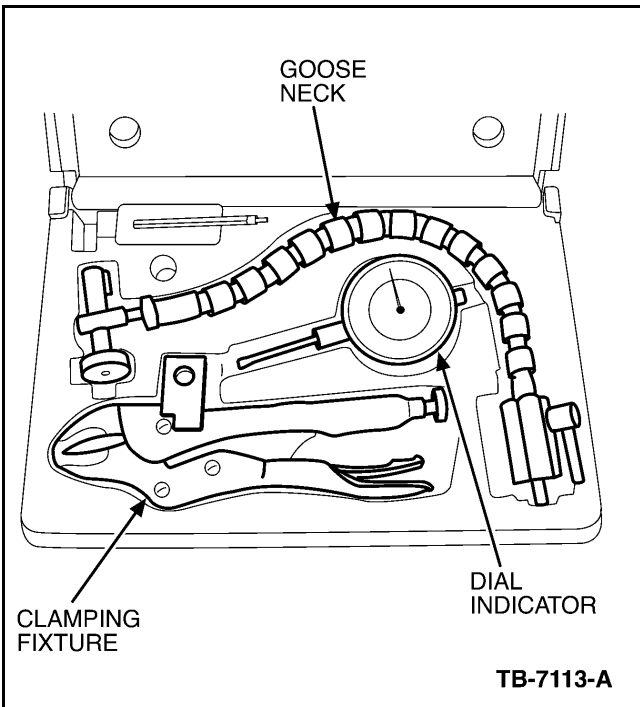


Figure 2 - Article 03-11-2

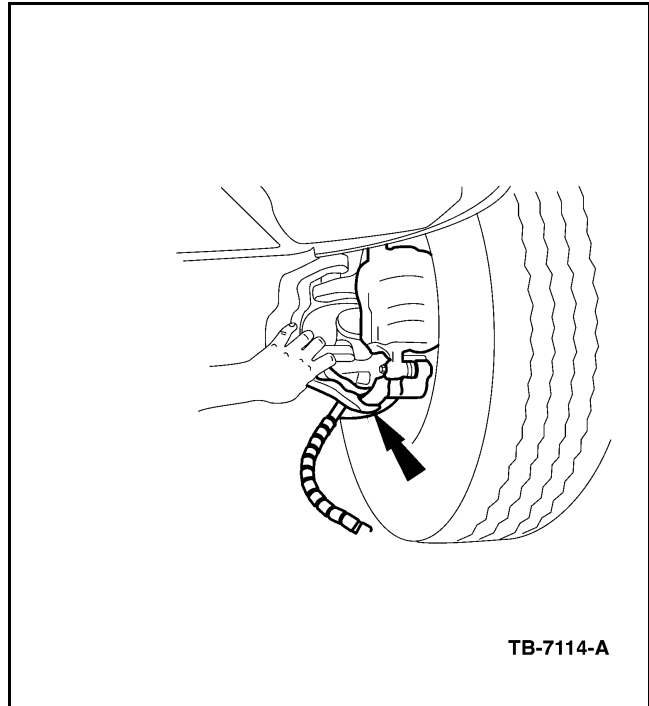


Figure 3 - Article 03-11-2

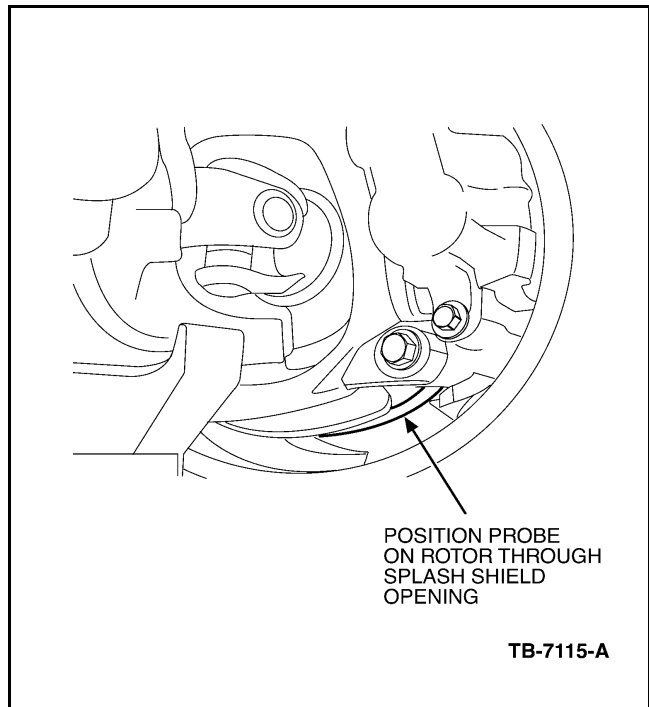


Figure 4 - Article 03-11-2

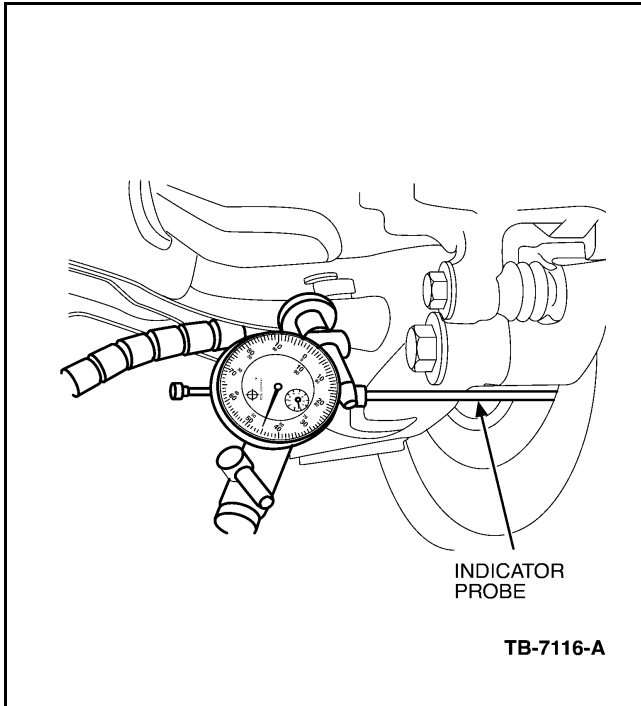


Figure 5 - Article 03-11-2

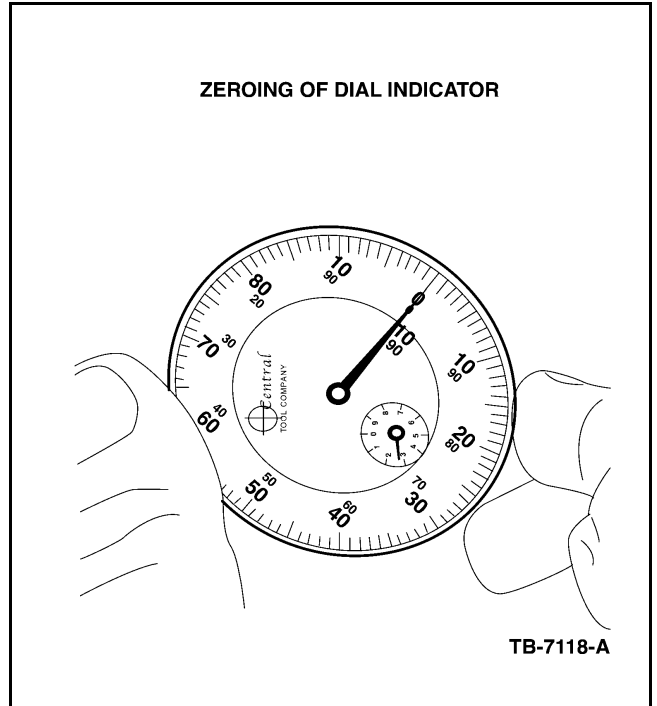


Figure 7 - Article 03-11-2

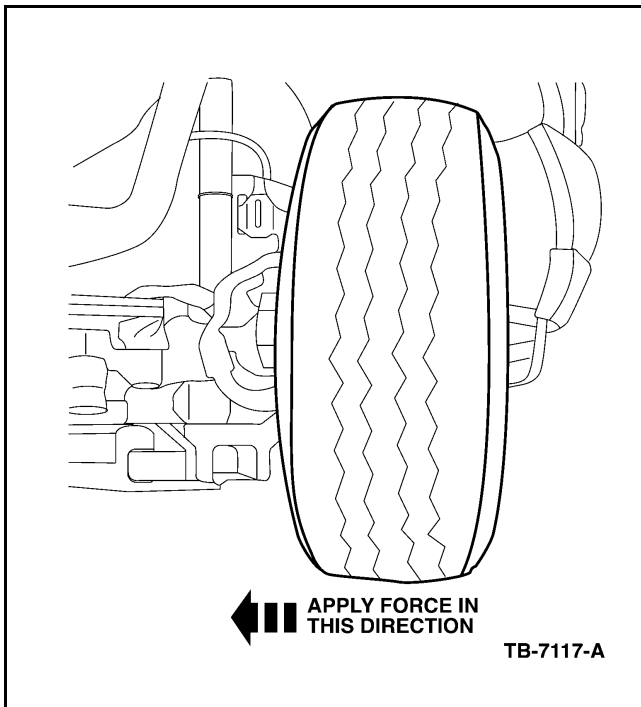


Figure 6 - Article 03-11-2

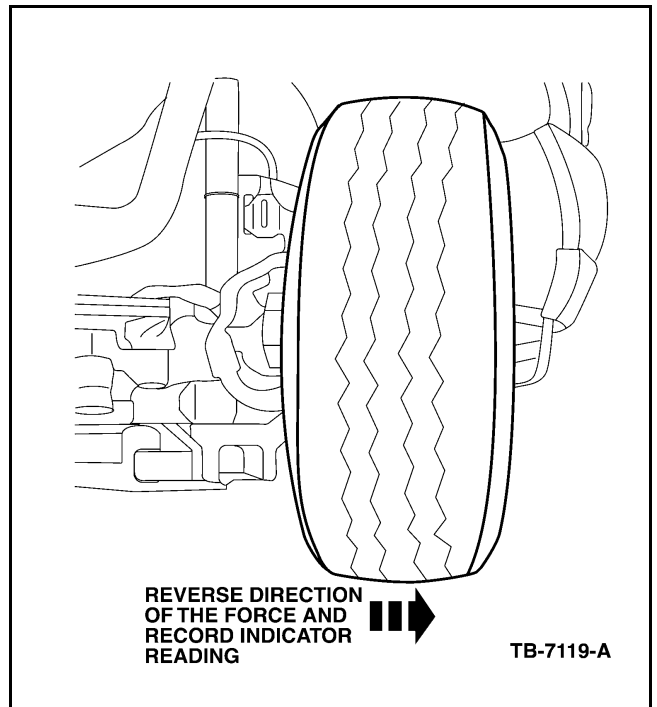


Figure 8 - Article 03-11-2