

TSB 04-19-3

09/22/04

## RETRACTABLE RUNNING BOARD DEPLOYMENT CONCERNS

LINCOLN:  
2003-2004 Navigator

### ISSUE

Some 2003-2004 Lincoln Navigator retractable running boards may exhibit false reversal, partial deployment or retraction and/or jerky/noisy operation. This may be due to mechanical binding or damage to running board deployment mechanisms.

### ACTION

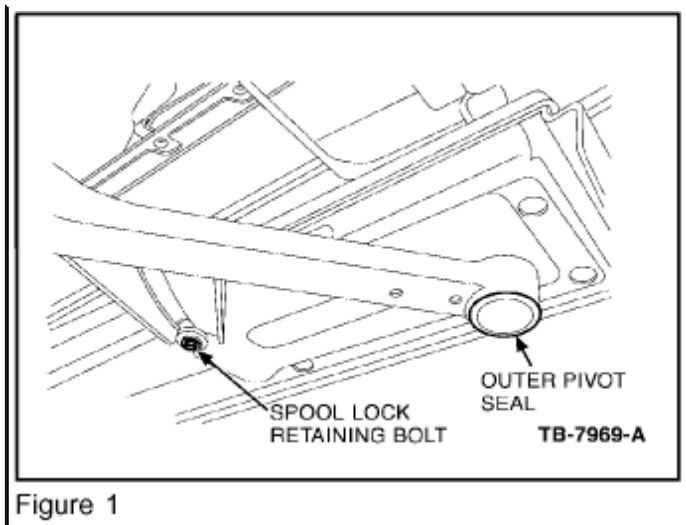
Verify there are no hidden debris in the running board tracks that may cause the condition. Clean the running board tracks with a high pressure washer if available and test the system again. If the condition is not corrected follow normal Workshop Manual diagnostics. If the condition continues refer to the Service Procedure for component testing and replacement.

**NOTE** IF THE CONDITION IS RESOLVED BY CLEANING ACCUMULATED DEBRIS FROM THE RETRACTABLE RUNNING BOARDS, THIS IS NOT COVERED UNDER WARRANTY.

### SERVICE PROCEDURE

1. Remove the power running board motor, refer to Workshop Manual Section 501-08. Place a 1/2" drive extension onto a torque wrench and insert into the worm gear of the retractable running board's drive unit assemble. Attempt to rotate the worm gear in both directions by applying 0.5 to 4.0 Nm (5 to 35 lb-in) torque.
  - a. If the worm gear rotates back and forth more than a 1/4 of a turn without any movement of the running board, the gearbox is stripped. Install a new drive unit assembly, refer to REMOVAL AND INSTALLATION below.
  - b. If the board moves with torque of 4.0 Nm (35 lb-in) or less the issue is not a mechanical failure of the board mechanism, follow normal diagnostics per Workshop Manual.
  - c. If torque greater than 4.0 Nm (35 lb-in) must be applied to move the running board, there is a binding condition in the board mechanism.



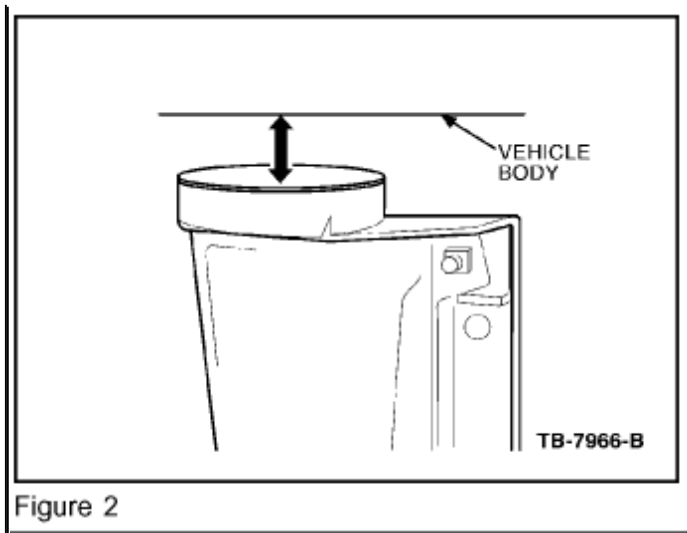
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- (1) Remove the two spool locks from the guide tracks by removing the spool lock retaining bolts (Figure 1) and test the system again. If the system moves freely with the spool locks removed check spool lock or arm track for damage and replace damaged part.
- (2) If torque greater than 4.0 Nm (35 lb-in) must still be applied to move the running board, the issue is most likely in the drive arm or idler arm. Remove the running board assembly from the vehicle, refer to Workshop Manual Section 501-08. Remove the four bolts that secure the drive unit to the running board. With bolts removed, manually compare the drag of both the drive arm and idler arm. If drag is excessive in either arm, replace the appropriate arm. Refer to REMOVAL AND INSTALLATION.

## REMOVAL AND INSTALLATION

**NOTE** THE RETRACTABLE RUNNING BOARD MUST BE REMOVED FROM THE VEHICLE IN ORDER TO REPLACE THE IDLER OR DRIVE UNIT. FOR ADDITIONAL INFORMATION, REFER TO WORKSHOP MANUAL SECTION 501-08

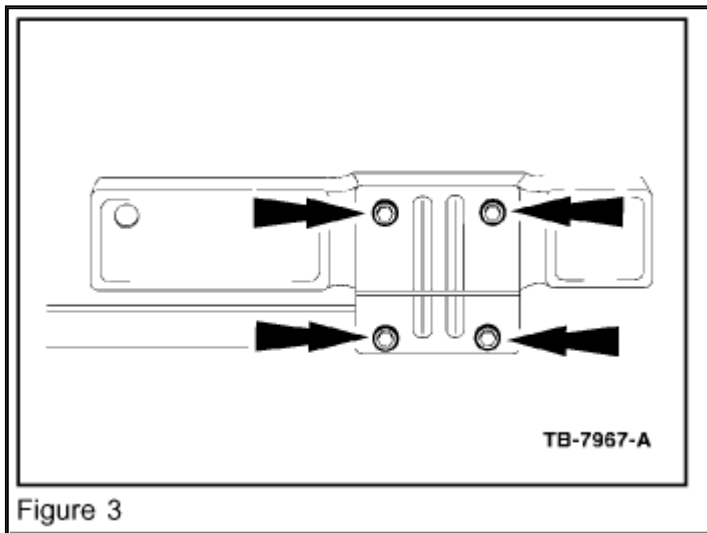




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1. When replacing the idler housing and arm assembly, first note the distance from the top of the idler housing and arm to the bottom of the vehicle body (Figure 2). This measurement will be used later to set the height of the retractable running board.



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2. Remove the four (4) bolts that secure the drive and idler assemblies to the board (Figure 3).



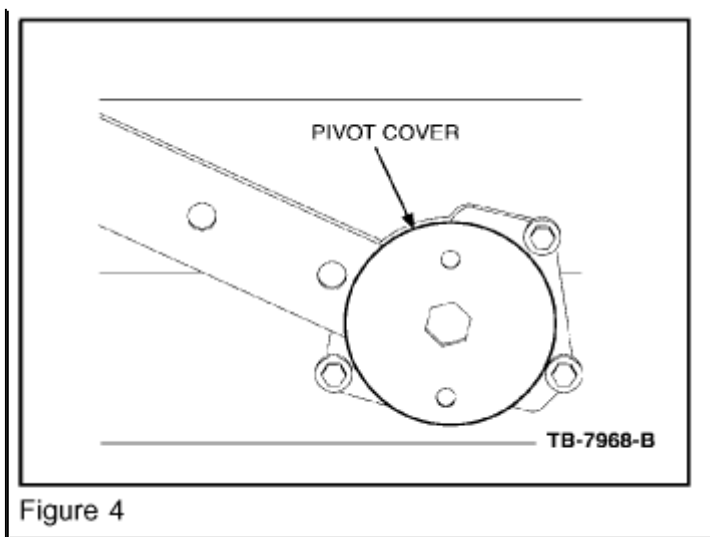


Figure 4

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3. Remove the three (3) outer pivot cover screws and the outer pivot cover (Figure 4).

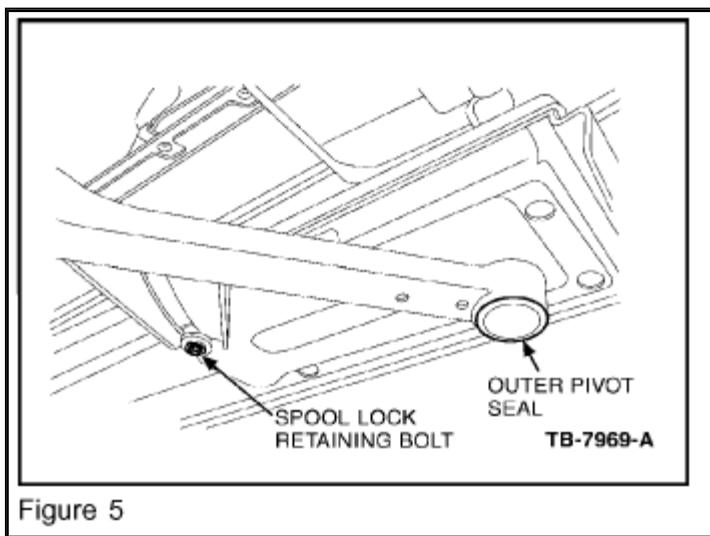


Figure 5

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4. Remove the outer pivot seal (Figure 5).



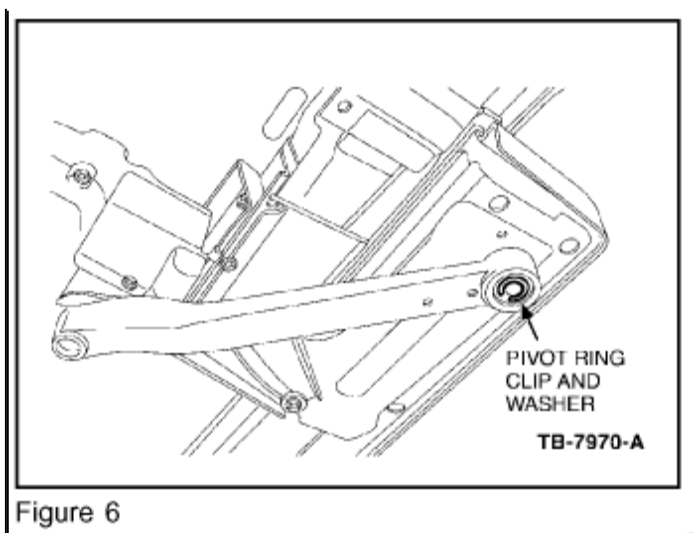


Figure 6

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5. Remove the outer pivot ring clip and washer (Figure 6).

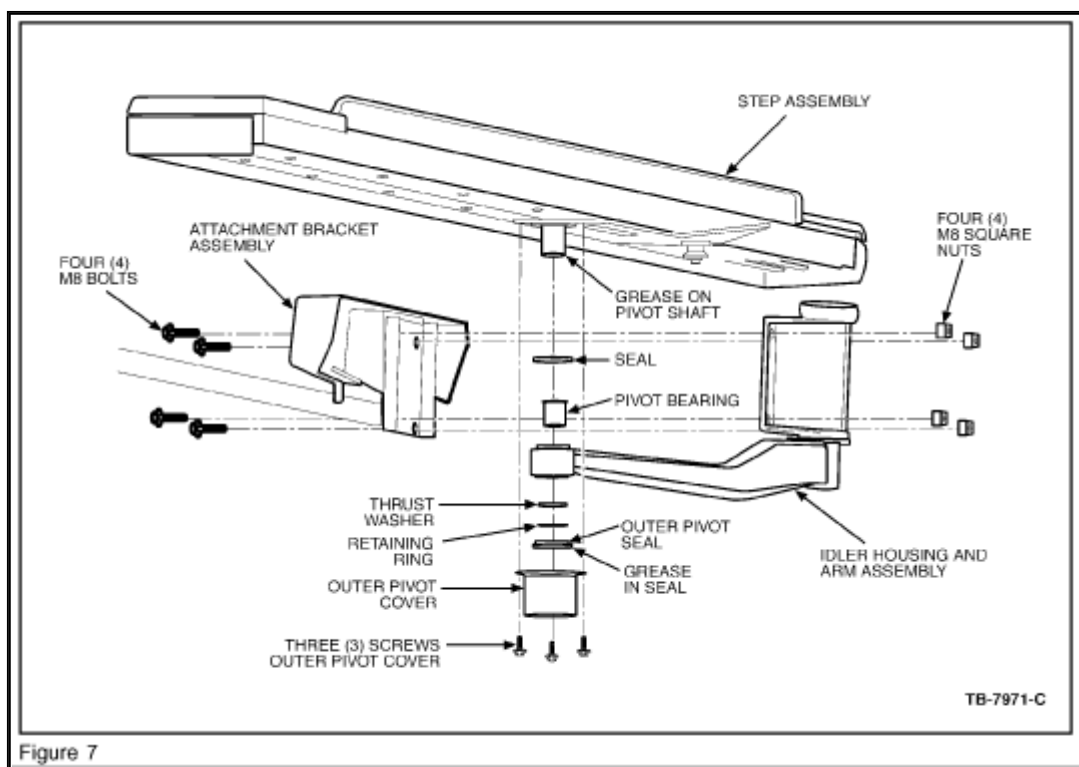


Figure 7

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6. Before installing the new drive and idler unit, be sure that the seal is present and in the proper orientation, that the bushing is present in the pivot bearing, and that the outer pivot shaft is greased. (See Figure 7 for reference)

7. Install the drive and idler assemblies.

**NOTE** BE SURE TO INSTALL THE THRUST WASHER BEFORE INSTALLING THE PIVOT RING CLIP, AND BE SURE THERE IS GREASE IN THE PIVOT BEFORE INSTALLING THE OUTER PIVOT SEAL.

8. If installing the idler assembly, be sure to set the height of the idler to the same gap that was measured in Step 2 above.

PART NUMBER	PART NAME
4L7Z-16B472-AA	Idler (LH)
4L7Z-16B471-AA	Idler (RH)
4L7Z-16B470-AA	Drive Motor (LH)
4L7Z-16B469-AA	Drive Motor (RH)