



**Technical Service  
BULLETIN**

May 23, 2003

Title:

**RIGHT REAR AXLE SQUEAK NOISE**

Models:

'01 – '03 Highlander (4WD)

**DRIVELINE & DIFFERENTIAL  
DL001-03**

**Introduction** Some 2001 – 2003 model year Highlander vehicles with 4 wheel drive may exhibit a squeak noise from the right rear of the vehicle during low speeds. The right rear inner oil seal has been improved to correct this condition. Please use the following procedure to replace the right rear inner oil seal.

- Applicable Vehicles**
- **2001 – 2003** model year **Highlander (4WD)** vehicles produced **BEFORE** the Production Change Effective VINs shown below.

**Production  
Change  
Information**

MODEL	ENGINE	PRODUCTION CHANGE EFFECTIVE VIN
Highlander 4WD	4 Cylinder	JTEHD21A# <b>30022350</b>
	6 Cylinder	JTEHF21A# <b>30129100</b>

**Parts  
Information**

PREVIOUS PART NUMBER	CURRENT PART NUMBER	PART NAME	QTY
90311-56031	Same	Seal, Type T Oil	1

**Warranty  
Information**

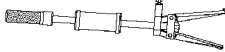

OP CODE	DESCRIPTION	TIME	OFF	T1	T2
422201	R & R Type T Oil Seal (One Side)	2.7	90311-56031	91	56

**Applicable Warranty\*:**

**This repair is covered under the Toyota Powertrain Warranty. This warranty is in effect for 60 months or 60,000 miles, whichever occurs first, from the vehicle's in-service date.**

\* Warranty application is limited to correction of a problem based upon a customer's specific complaint.



Required SSTs	SPECIAL SERVICE TOOLS (SSTs)	PART NUMBER
Oil Seal Puller (or equivalent)*		09308-00010
Steering Knuckle Oil Seal Replacer*		09608-10010

\* Essential SSTs.

**NOTE:**

Additional SSTs may be ordered by calling SPX/OTC at 1-800-933-8335.

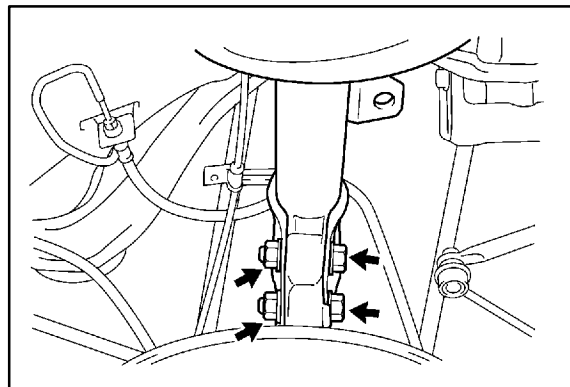
**Repair Procedure**

All page references are for the 2002 Highlander Repair Manual.

1. REMOVE REAR WHEEL.
2. REMOVE SPEED SENSOR REAR RH (see page 32–46).
3. REMOVE REAR DRIVE SHAFT ASSEMBLY RH (see page 30–43).
4. REMOVE STRUT ROD ASSEMBLY REAR (see page 27–11).
5. SEPARATE REAR SUSPENSION ARM ASSEMBLY NO.2 RH (see page 27–14).
6. SEPARATE REAR SUSPENSION ARM ASSEMBLY NO.1 RH (see page 27–14).
7. SEPARATE REAR DISC BRAKE CALIPER ASSEMBLY RH.
  - A. Remove the 2 bolts and brake caliper.
  - B. Support the brake caliper securely.
8. REMOVE REAR DISC.
9. REMOVE PARKING BRAKE SHOE RETURN TENSION SPRING (see page 33–17).
10. REMOVE PARKING BRAKE SHOE STRUT COMPRESSION SPRING (see page 33–17).
11. REMOVE PARKING BRAKE SHOE STRUT RH (see page 33–17).
12. REMOVE PARKING BRAKE SHOE (see page 33–17).
13. SEPARATE PARKING BRAKE CABLE ASSEMBLY NO.3 (see page 33–17).

**Repair  
Procedure**  
(Continued)

14. REMOVE AXLE ASSEMBLY RR RH  
Remove the 2 bolts, nuts and the rear  
axle from shock absorber.

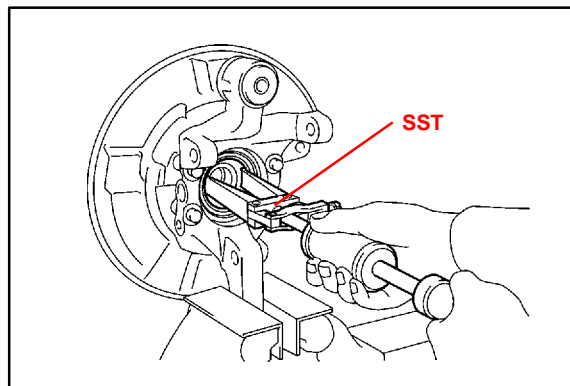


15. REMOVE REAR AXLE SHAFT RH  
OIL SEAL.  
Using the SST below, remove the oil  
seal (inner side).

- **SST 09308-00010**

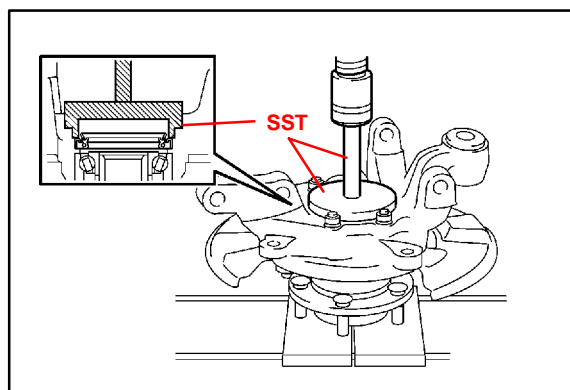
**NOTE:**

If the oil seal comes off together with  
the rear axle shaft, remove the oil seal  
from the shaft.



16. INSTALL REAR AXLE SHAFT RH  
OIL SEAL.  
Using the SST below, and a press,  
install the new oil seal (inner side)  
to the rear axle carrier.

- **SST 09608-10010**

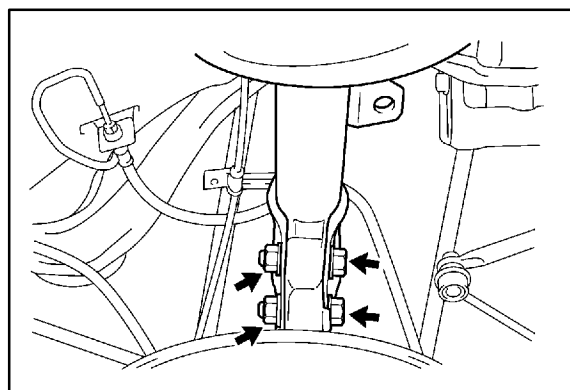


17. INSTALL AXLE ASSEMBLY RR RH.  
Install the rear axle to the shock  
absorber with the 2 bolts and nuts.

**Torque: 255 N•m (2,600 kgf•cm, 188 ft•lbf)**

**NOTE:**

Insert the bolt from the rear side of the  
vehicle and install the nut.



**Repair  
Procedure**  
(Continued)

18. CONNECT PARKING BRAKE CABLE ASSEMBLY NO.3 (see page 33–17).
19. APPLY HIGH TEMPERATURE GREASE (see page 33–17).
20. INSTALL PARKING BRAKE SHOE (see page 33–17).
21. INSTALL PARKING BRAKE SHOE STRUT RH (see page 33–17).
22. INSTALL PARKING BRAKE SHOE STRUT COMPRESSION SPRING  
(see page 33–17).
23. INSTALL PARKING BRAKE SHOE RETURN TENSION SPRING (see page 33–17).
24. CHECK PARKING BRAKE INSTALLATION (see page 33–17).
25. INSTALL REAR DISC.
26. ADJUST PARKING BRAKE SHOE CLEARANCE (see page 33–17).
27. INSTALL REAR DISC BRAKE CALIPER ASSEMBLY RH.
  - A. Install the brake calliper with the 2 bolts.  
**Torque: 58 N•m (592 kgf•cm, 43 ft•lbf)**
  - B. Install the flexible hose and speed sensor wire harness with the bolt.  
**Torque: 19 N•m (194 kgf•cm, 14 ft•lbf)**
28. TEMPORARY TIGHTEN REAR SUSPENSION ARM ASSEMBLY NO.1 RH  
(see page 27–14).
29. TEMPORARY TIGHTEN REAR SUSPENSION ARM ASSEMBLY NO.2 RH  
(see page 27–14).
30. TEMPORARY TIGHTEN STRUT ROD ASSEMBLY REAR (see page 27–11).
31. INSTALL REAR DRIVE SHAFT ASSEMBLY RH (see page 30–43).
32. INSTALL SPEED SENSOR REAR RH (see page 32–46).
33. STABILIZE THE SUSPENSION (see page 27–11).
34. FULLY TIGHTEN REAR SUSPENSION ARM ASSEMBLY NO.1 RH  
(see page 27–14).
35. FULLY TIGHTEN REAR SUSPENSION ARM ASSEMBLY NO.2 RH  
(see page 27–14).
36. FULLY TIGHTEN STRUT ROD ASSEMBLY REAR (see page 27–11).
37. ADJUST PARKING BRAKE PEDAL TRAVEL (see page 33–2).
38. CHECK PARKING BRAKE PEDAL TRAVEL (see page 33–2).
39. INSTALL REAR WHEEL.  
**Torque: 103 N•m (1,050 kgf•cm, 76 ft•lbf)**
40. INSPECT REAR WHEEL ALIGNMENT (see page 27–4).
41. CHECK ABS SPEED SENSOR SIGNAL (see page 05–317).