

Rear Differential Whine Noise at 50 - 60 MPH

Service Category Drivetrain

Section Axle/Differential

Market USA

Toyota Supports
 ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2005 – 2013	Tacoma	Drive Type(s): 2WD, 4WD Engine(s): 1GR Transmission(s): 5AT VDS(s): JU4GN, JU62N, KU4HN, KU72N, LU42N, LU4EN, MU4FN, MU52N, TU4GN, TU62N, UU42N, UU4EN

REVISION NOTICE

April 9, 2015 Rev1:

- The Warranty Information and Parts Information sections have been updated.

Any previous printed versions of this bulletin should be discarded.

Introduction

Some 2005 – 2013 model year Tacoma vehicles equipped with a 5-speed automatic transmission may exhibit a whine noise from the rear differential between 50 – 60 mph (80 – 97 km/h). Use the following Repair Procedure to address this condition.

NOTE

This bulletin does NOT apply to Limited Slip Differential (LSD) or locking type rear differentials.

Warranty Information

OP CODE	DESCRIPTION	TIME	OPF	T1	T2
410101	R & R Rear Differential	2.4	41110-35A50 41110-35A51 41110-35D10 41110-35D11	91	99

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Warranty Information (Continued)

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 occurrence of the specified condition described in this bulletin.

Parts Information

PART NUMBER		PART NAME	QTY
PREVIOUS	NEW		
41110-35A50 41110-35A51 41110-35D10 41110-35D11	41110-35D12	Rear Differential Carrier Assembly	1
42181-34011		Rear Differential Carrier Gasket	1
12157-10010		Gasket (for Rear Axle Housing Filler Plug)	2
90301-83002		Ring, O (for Rear Axle Bearing Case)	2
90310-58003		Seal, Oil (for Rear Axle Shaft)	2

Required Tools & Equipment

REQUIRED MATERIAL	QUANTITY
Toyota Genuine Differential Gear Oil, or Equivalent, per Repair Manual	As Needed

REQUIRED EQUIPMENT	SUPPLIER	PART NUMBER	QTY
ChassisEAR™ (or equivalent)	ADE	JSPSM06606 (JS Products)	1

NOTE

- A mechanic's stethoscope or similar tool may be used in place of ChassisEAR™.
- ChassisEAR™ may be ordered by calling Approved Dealer Equipment (ADE) at 1-800-368-6787.

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Repair Procedure

1. Confirm the condition.

Is there a whine type noise present between 50 – 60 mph (80 – 97 km/h) with light acceleration or on deceleration?

- **YES** — Continue to step 2.
- **NO** — This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.

2. Confirm the rear differential fluid level is correct.

Is the fluid level correct?

- **YES** — Continue to step 3.
- **NO** — Check for leaks, adjust fluid level and re-test. If whine noise is still present, proceed to step 3.

3. Using ChassisEAR™, confirm the noise is loudest from the rear differential assembly.

Is the noise loudest from the rear differential assembly?

- **YES** — Continue to step 4.
- **NO** — This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.

4. Replace the rear differential assembly.

Refer to the Technical Information System (TIS), applicable model and model year Repair Manual:

- 2005 Tacoma:
Drivetrain – Axle/Differential – “Differential Carrier Assy Rear (w/o Diff.lock): [Overhaul](#)”
- 2006 Tacoma:
Drivetrain – Axle/Differential – “Differential: Rear Differential Carrier Assembly (w/o Differential Lock): [Removal](#) / [Installation](#)”
- 2007 Tacoma:
Drivetrain – Axle/Differential – “Differential: Rear Differential Carrier Assembly (w/o Differential Lock): [Removal](#) / [Installation](#)”
- 2008 Tacoma:
Drivetrain – Axle/Differential – “Differential: Rear Differential Carrier Assembly (w/o Differential Lock): [Removal](#) / [Installation](#)”
- 2009 Tacoma:
Drivetrain – Axle/Differential – “Differential: Rear Differential Carrier Assembly (w/o Differential Lock): [Removal](#) / [Installation](#)”

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Repair Procedure (Continued)

- 2010 Tacoma:
Drivetrain – Axle/Differential – “Differential: Differential Carrier Assembly (w/o Differential Lock): [Removal](#) / [Installation](#)”
 - 2011 Tacoma:
Drivetrain – Axle/Differential – “Differential: Differential Carrier Assembly (w/o Differential Lock): [Removal](#) / [Installation](#)”
 - 2012 Tacoma:
Drivetrain – Axle/Differential – “Differential: Differential Carrier Assembly (w/o Differential Lock): [Removal](#) / [Installation](#)”
 - 2013 Tacoma:
Drivetrain – Axle/Differential – “Differential: Differential Carrier Assembly (w/o Differential Lock): [Removal](#) / [Installation](#)”
5. Test drive the vehicle and confirm the repair.