

Rear Differential Whine/Groan Noise at 40 - 60 mph

Service Category Drivetrain

Section Axle/Differential

Market USA

Toyota Supports
 ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2014 - 2019	4Runner	

REVISION NOTICE

March 02, 2020 Rev1:

- The Parts Information section has been updated.
- Any previous printed versions of this bulletin should be discarded.

Introduction

Some 2014 – 2019 model year 4Runner vehicles may exhibit a whine/groan noise from the rear of the vehicle. This condition may occur while driving at approximately 40 – 60 mph at a consistent speed, slight acceleration, or slight deceleration. This condition may be caused by rear differential vibration transferring through the chassis and body. Follow the Repair Procedure in this bulletin to improve this condition.

Production Change Information

The Production Change Effective VIN shown below defines which vehicles are applicable to the repair. ANY vehicle with a VIN **BEFORE** the Production Change Effective VIN is pre-countermeasure and ANY vehicle with a VIN **AFTER** the Production Change Effective VIN is post-countermeasure.

MODEL	PLANT	DRIVETRAIN	PRODUCTION CHANGE EFFECTIVE VIN
4Runner	Tahara	4WD	JTEBU5JR#K5687318

Rear Differential Whine/Groan Noise at 40 - 60 mph

Warranty Information

OP CODE	DESCRIPTION	TIME	OFF	T1	T2
SU1905	Pre-countermeasure Vehicle (All Trim Except TRD Pro and Off Road)	5.0	41110-35C80	91	14
Combo A	If Equipped With Third-row Seat	0.5			
SU1906	Pre-countermeasure Vehicle (TRD Pro and Off Road)	2.5			
Combo A	If Equipped With Third-row Seat	0.5			
SU1907	Post-countermeasure Vehicle	2.3			
Combo A	If Equipped With Third-row Seat	0.5			
SU1908	Post-countermeasure Vehicle (2WD)	1.5			
Combo A	If Equipped With Third-row Seat	0.5			

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

Table 1. Pre-countermeasure Vehicles

GRADE	PART NUMBER		PART NAME	QTY
	PREVIOUS	NEW		
All (Excluding TRD Pro and Off Road With Diff Lock)	41110-35C80		Carrier Assy, Differential	1
All (Excluding TRD Pro and Off Road With Diff Lock)	08885-02506		Toyota Genuine Differential Gear Oil LT 75W-85 GL-5	3
All (Excluding TRD Pro and Off Road With Diff Lock)	42181-60140		Gasket, Rear Differential Carrier	1
All	90560-12070		Spacer (Body Mass)	8
	52217-35180	52217-60070	Bolt, Body Mounting (Rear End)	2
5-Seater (Add)	58651-35050		Sheet, RR Floor Silencer	1
	58653-35010			1
	58661-35010			1
	58663-35010			1

Rear Differential Whine/Groan Noise at 40 - 60 mph

Parts Information (continued)

Table 1. Pre-countermeasure Vehicles (continued)

GRADE	PART NUMBER		PART NAME	QTY
	PREVIOUS	NEW		
7-Seater (Add)	58651-35050		Sheet, RR Floor Silencer	3
	58653-35010			1
	58655-35010			1
Part Time 4WD (Add)	37110-35A90	37110-60B60	Shaft Assy, Propeller	1
Full Time 4WD (Limited Trim) (Add)	37110-35A80	37110-35A30		1

Table 2. Post-countermeasure Vehicles

GRADE	PART NUMBER		PART NAME	QTY
	PREVIOUS	NEW		
All	90560-12070		Spacer (Body Mass)	8
	52217-35180	52217-60070	Bolt, Body Mounting (Rear End)	2
Part Time 4WD (Add)	37110-35A90	37110-60B60	Shaft Assy, Propeller	1
Full Time 4WD (Limited Trim) (Add)	37110-35A80	37110-35A30		1

Required Tools & Equipment

REQUIRED EQUIPMENT	SUPPLIER	PART NUMBER	QTY
Techstream ADVi*	ADE	TSADVUNIT	1
Techstream 2.0		TS2UNIT	
Techstream Lite		TSLITEPDLR01	
Techstream Lite (Green Cable)		TSLP2DLR01	

*Essential SST.

NOTE

- Only ONE of the Techstream units listed above is required.
- Software version 14.30.022 or later is required.
- Additional Techstream units may be ordered by calling Approved Dealer Equipment (ADE) at 1-800-368-6787.

Rear Differential Whine/Groan Noise at 40 - 60 mph

Repair Procedure

1. Confirm the condition exists.

Does the vehicle exhibit a whine/groan noise from the rear while driving at approximately 40 – 60 mph at a consistent speed, slight acceleration, or slight deceleration?

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

2. Based on the VIN, is the vehicle pre-countermeasure or post-countermeasure?

A. If pre-countermeasure, continue to step 3.

B. If post-countermeasure, go to step 4.

3. Install the dampening pads.

A. Remove the third-row seat if equipped.

Refer to TIS, applicable model and model year Repair Manual:

- [2014](#) / [2015](#) / [2016](#) / [2017](#) / [2018](#) / [2019](#) 4Runner:
Vehicle Interior – Seat – “Seat: Rear No. 2 Seat Assembly: Removal”

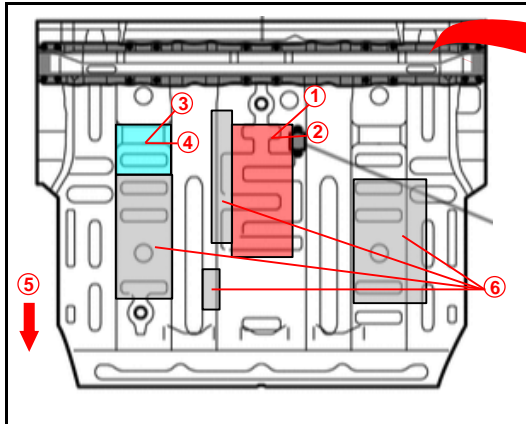
B. Lift the trunk carpet to access the metal floor of the trunk.

Rear Differential Whine/Groan Noise at 40 - 60 mph

Repair Procedure (continued)

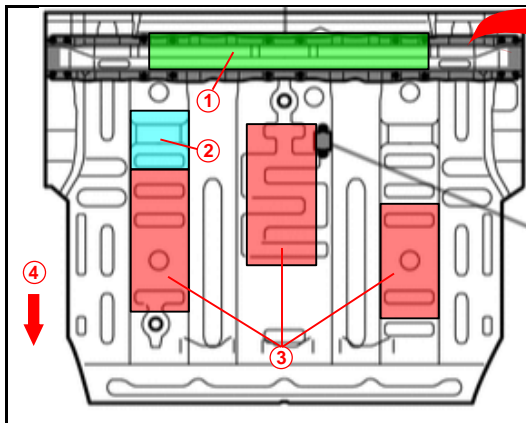
- C. Install the dampening pads using the appropriate diagram.

Figure 1. Five-person Vehicle



1	Apply Dampening Pad (58651-35050)
2	Apply Fit Pad (58661-35010) Directly on Top of Dampening Pad
3	Apply Dampening Pad (58653-35010)
4	Apply Fit Pad (58663-35010) Directly on Top of Dampening Pad
5	Rear of Vehicle
6	Existing Dampening Material

Figure 2. Seven-person Vehicle



1	Apply Dampening Pad (58655-35010)
2	Apply Dampening Pad (58653-35010)
3	Apply Dampening Pad (58651-35050)
4	Rear of Vehicle

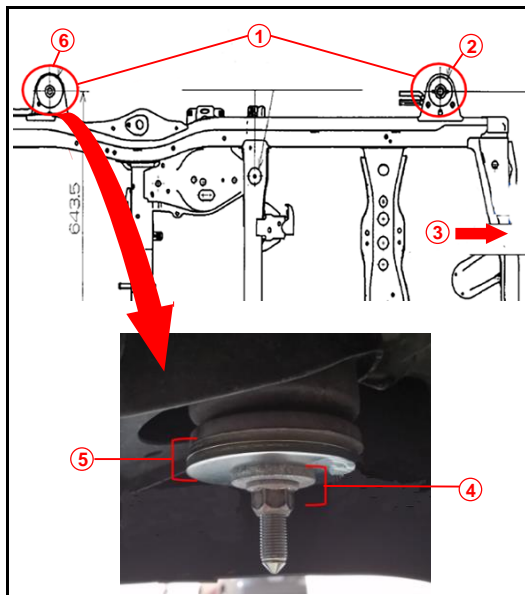
Rear Differential Whine/Groan Noise at 40 - 60 mph

Repair Procedure (continued)

4. Install body mass to cab mounts Nos. 3, 4, 5, and 6.
 - A. Remove both left-hand and right-hand deck trim side panels to access the bolts.
 - B. On cab mounts Nos. 5 and 6, add body mass and replace the bolts with extended bolts (52217-60070).
 - C. On cab mounts Nos. 3 and 4, add body mass and reuse the bolts.
 - D. Reuse ALL washers and nuts.

Torque: 56N*m (553 kg*cm, 40 ft*lb)

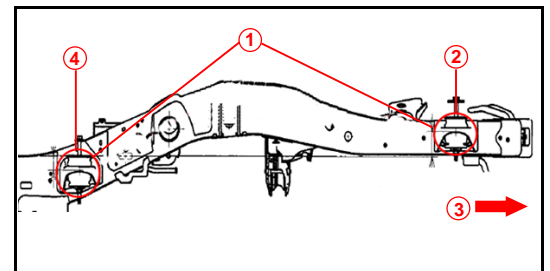
Figure 3.



1	Install Body Mass to Cab Mounts Nos. 4 and 6
2	Cab Mount No. 6*
3	Rear of Vehicle
4	Reuse Washer and Nut
5	Add Mass (2) (90560-12070)
6	Cab Mount No. 4

*Change out cab mount No. 6 to longer bolt.

Figure 4.



1	Install Body Mass to Cab Mounts Nos. 3 and 5
2	Cab Mount No. 5*
3	Rear of Vehicle
4	Cab Mount No. 3

*Change out cab mount No. 5 to longer bolt.

Rear Differential Whine/Groan Noise at 40 - 60 mph

Repair Procedure (continued)

5. Based on the VIN, is the vehicle pre-countermeasure or post-countermeasure?
 - A. If post-countermeasure, go to step 6.
 - B. If pre-countermeasure, replace the rear differential.

NOTE

Go to step 6 if the vehicle is TRD Pro or Off Road.

- (1) Remove the rear differential.

Refer to TIS, applicable model and model year Repair Manual:

- [2014](#) / [2015](#) / [2016](#) / [2017](#) / [2018](#) / [2019](#) 4Runner:
Drivetrain – Axle/Differential – “Axle and Differential: Rear Differential Carrier Assembly (w/o Differential Lock): Removal”

NOTE

If the vehicle is 2WD, do NOT replace the propeller shaft.

- (2) Install the NEW rear differential.

Refer to TIS, applicable model and model year Repair Manual:

- [2014](#) / [2015](#) / [2016](#) / [2017](#) / [2018](#) / [2019](#) 4Runner:
Drivetrain – Axle/Differential – “Axle and Differential: Rear Differential Carrier Assembly (w/o Differential Lock): Installation”

- (3) Go to step 7.

NOTE

Skip step 6 if the vehicle is 2WD.

6. Replace the propeller shaft.

- A. Remove the propeller shaft.

Refer to TIS, applicable model and model year Repair Manual:

- [2014](#) / [2015](#) / [2016](#) / [2017](#) / [2018](#) / [2019](#) 4Runner:
Drivetrain – Drive Shaft/Propeller Shaft – “Drive Shaft / Propeller Shaft: Propeller Shaft Assembly (for 4WD): Removal”

- B. Install the NEW propeller shaft.

Refer to TIS, applicable model and model year Repair Manual:

- [2014](#) / [2015](#) / [2016](#) / [2017](#) / [2018](#) / [2019](#) 4Runner:
Drivetrain – Drive Shaft/Propeller Shaft – “Drive Shaft / Propeller Shaft: Propeller Shaft Assembly (for 4WD): Installation”

Rear Differential Whine/Groan Noise at 40 - 60 mph

Repair Procedure (continued)

7. Reinstall the third-row seat if equipped.

Refer to TIS, applicable model and model year Repair Manual:

- [2014](#) / [2015](#) / [2016](#) / [2017](#) / [2018](#) / [2019](#) 4Runner:
Vehicle Interior – Seat – “Seat: Rear No. 2 Seat Assembly: Installation”

8. Confirm the whine/groan noise at 40 – 60 mph has improved.