

# Steering Intermediate Shaft Noise

**Service Category** Steering

**Section** Steering Gear/Linkage

**Market** USA

Toyota Supports  
 ASE Certification 

## Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2006 – 2008	RAV4	

### TSB SUPERSESSION NOTICE

The information contained in this TSB supersedes TSB No. ST001-08.

- Applicability has been updated to include 2008 model year vehicles.
- The Introduction has been updated.
- A new part (hose clamp, P/N 90460-64003) has been added to the Parts Information table.
- Steps 3 and 9 of the Repair Procedure have been updated.

TSB No. ST001-08 is Obsolete and any printed versions should be discarded. Be sure to review the entire content of this service bulletin before proceeding.

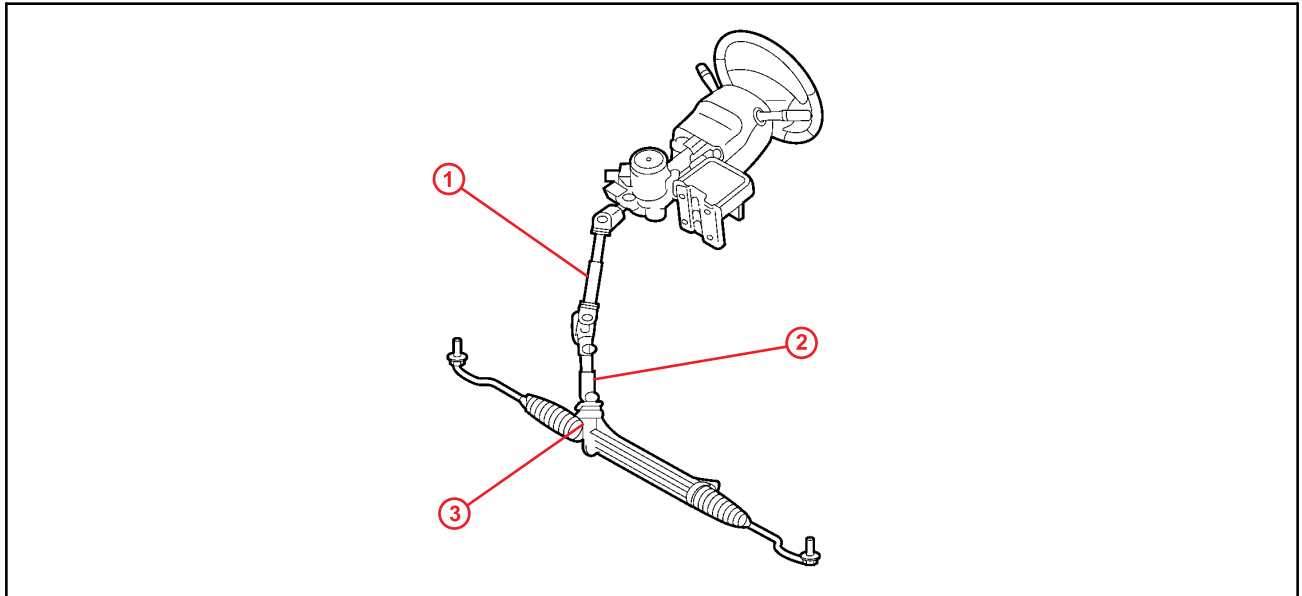
## Introduction

Some customers may hear a clunk, pop, or knock-type noise when turning the steering wheel left or right. A new intermediate shaft has been developed to address this condition. Use the following repair procedure to remove and replace both steering intermediate shafts (No. 1 and No. 2).

# Steering Intermediate Shaft Noise

## Introduction (Continued)

**Figure 1.**



<b>1</b>	No. 2 Steering Intermediate Shaft
<b>2</b>	No. 1 Steering Intermediate Shaft

<b>3</b>	Steering Gear Assembly
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## Parts Information

PREVIOUS PART NUMBER	CURRENT PART NUMBER	PART NAME	QTY
45221-42060	45221-42070	Shaft, Steering Intermediate	1
45260-42090	Same	Shaft Assembly, Steering Intermediate No. 2	1
90460-64003	Same	Clamp, Hose	1

## Warranty Information

OP CODE	DESCRIPTION	TIME	OFF	T1	T2
ST7002	R & R Steering Intermediate Shaft Assembly	1.5	45221-42060	91	40

### APPLICABLE WARRANTY

- This repair is covered under the Toyota Comprehensive Warranty. This warranty is in effect for 36 months or 36,000 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.

## Steering Intermediate Shaft Noise

### Production Change Information

This TSB applies to vehicles produced **BEFORE** the Production Change Effective VINs shown below.

PLANT	ENGINE	DRIVETRAIN	PRODUCTION CHANGE EFFECTIVE VIN
Tahara	2AZ	FF	JTMZD3#V#8 <u>5</u> 078158
		4WD	JTMBD3#V#8 <u>5</u> 124449
	2GR	FF	JTMZK3#V#8 <u>5</u> 016169
		4WD	JTMBK3#V#8 <u>5</u> 040811
Nagakusa (Shokki)	2AZ	FF	JTMZD3#V#7 <u>6</u> 052716
		4WD	JTMBD3#V#7 <u>6</u> 054480
	2GR	FF	JTMZK3#V#7 <u>6</u> 009959
		4WD	JTMBK3#V#7 <u>6</u> 027887

\* Underlined number in VIN (11th digit) represents assembly plant line code (5 = Tahara, 6 = Nagakusa).

### Repair Procedure

**NOTICE**

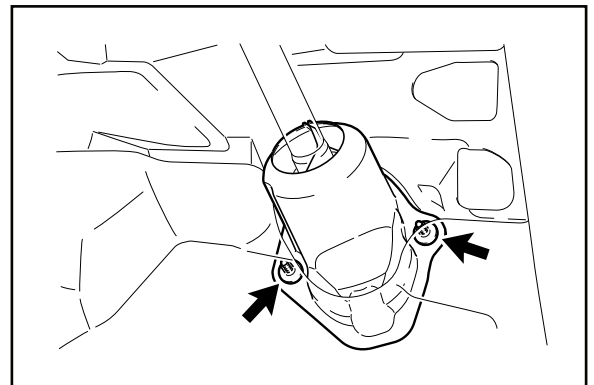
Prior to removing the steering intermediate shaft, make sure the steering wheel and front wheels remain stationary. Once the intermediate shaft is removed, do NOT allow the steering wheel to spin freely.

1. Install a steering wheel holder.

**NOTE**

Ensure the wheels are straight and the steering wheel is centered before removing the steering intermediate shaft by installing a steering wheel holder.

2. Pull back the floor carpet, remove the 2 clips, and **Figure 2.** remove the column hole cover silencer sheet.

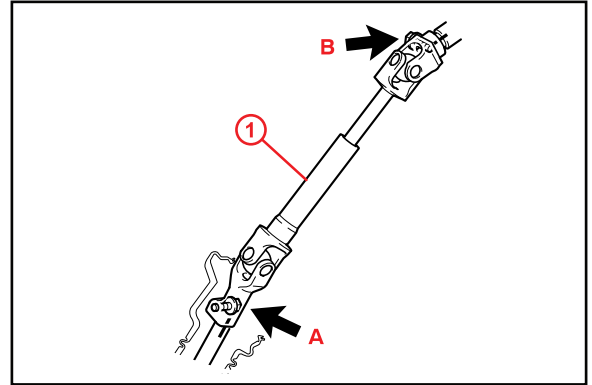


# Steering Intermediate Shaft Noise

## Repair Procedure (Continued)

3. Remove the No. 2 steering intermediate shaft assembly.
  - A. Remove bolt A and detach the No. 2 steering intermediate shaft from the steering gear.
  - B. Remove bolt B and detach the No. 2 steering intermediate shaft from the steering column.

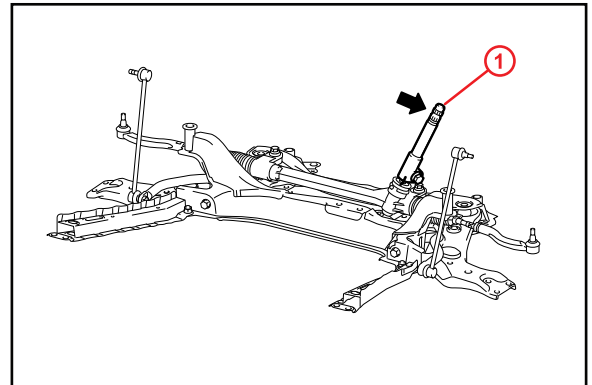
**Figure 3.**



<b>1</b>	<b>No. 2 Steering Intermediate Shaft</b>
<b>A</b>	<b>Bolt A</b>
<b>B</b>	<b>Bolt B</b>

4. Remove the No. 1 steering column hole cover sub-assembly by removing the clamp and disconnecting the column hole cover from the steering gear.
5. Remove the bolt and disconnect the steering intermediate shaft from the steering gear.

**Figure 4.**



<b>1</b>	<b>Intermediate Shaft</b>
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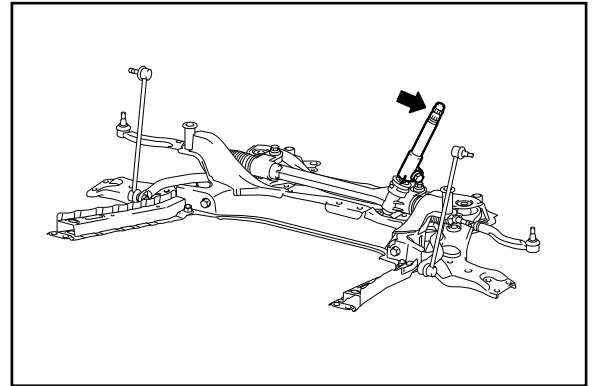
## Steering Intermediate Shaft Noise

### Repair Procedure (Continued)

6. Install the NEW intermediate shaft onto the steering gear.

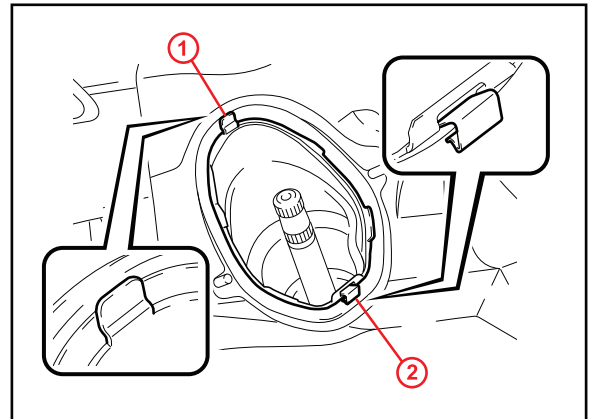
**Torque: 35 N\*m (360 kgf\*cm, 26 ft\*lbf)**

**Figure 5.**



7. Install the No. 1 steering column hole cover sub-assembly onto the steering gear with a NEW clamp.
8. Install the No. 1 steering column hole cover sub-assembly by attaching clip B onto the body and installing the No. 1 hole cover onto the body with clip A.

**Figure 6.**



**NOTE**

**Make sure that the lip of the No. 1 hole cover is NOT damaged.**

<b>1</b>	<b>Clip B</b>
<b>2</b>	<b>Clip A</b>

## Steering Intermediate Shaft Noise

### Repair Procedure (Continued)

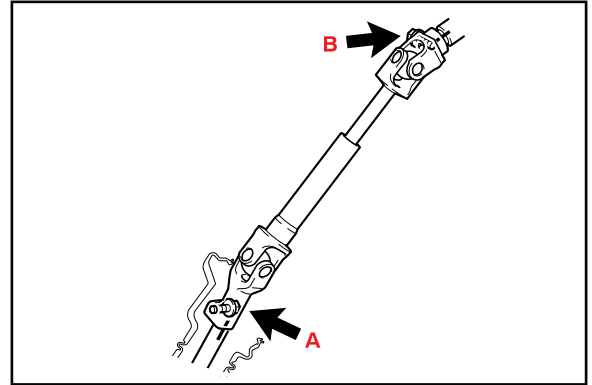
9. Install the NEW No. 2 steering intermediate shaft assembly.

A. Ensure the wheels are straight.

B. Install the No. 2 intermediate steering shaft with bolts A and B.

**Torque: 35 N\*m (360 kgf\*cm, 26 ft\*lbf)**

**Figure 7.**



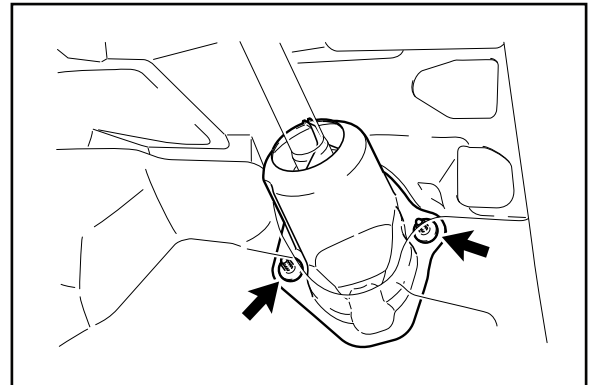
<b>A</b>	<b>Bolt A</b>
<b>B</b>	<b>Bolt B</b>

10. Install the column hole cover silencer sheet.

A. Install the column hole cover plate with the 2 clips.

B. Install the floor carpet.

**Figure 8.**



11. Remove the steering wheel holder from the vehicle.

12. Road test the vehicle to verify the repair and confirm that the steering wheel is centered.