

T-SB-0157-12

August 25, 2012

Repair Manual Supplement: Tightening Sequence for Rear Tie Rod Adjustment

Service Category Suspension

Section Alignment/Handling Diagnoses

Market USA

Toyota Supports
 ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2006 – 2011	RAV4	

Introduction

The purpose of this bulletin is to supplement the rear tie-rod adjustment procedure in the Repair Manual to assure that the proper tightening sequence is followed. The following procedure should be used whenever performing a toe adjustment during a rear wheel alignment.

Warranty Information

OP CODE	DESCRIPTION	TIME	OFF	T1	T2
N/A	Not Applicable to Warranty	–	–	–	–

Required Tools & Equipment

SPECIAL SERVICE TOOLS (SST)	PART NUMBER	QTY
Steering Gear Housing Overhaul Tool Set (Steering Rack Wrench)	09612-24014 (09617-24011)	1

NOTE

Additional SSTs may be ordered by calling 1-800-933-8335.

Adjustment Procedure

When performing a rear wheel toe adjustment, carefully follow the instructions in this bulletin.

NOTICE

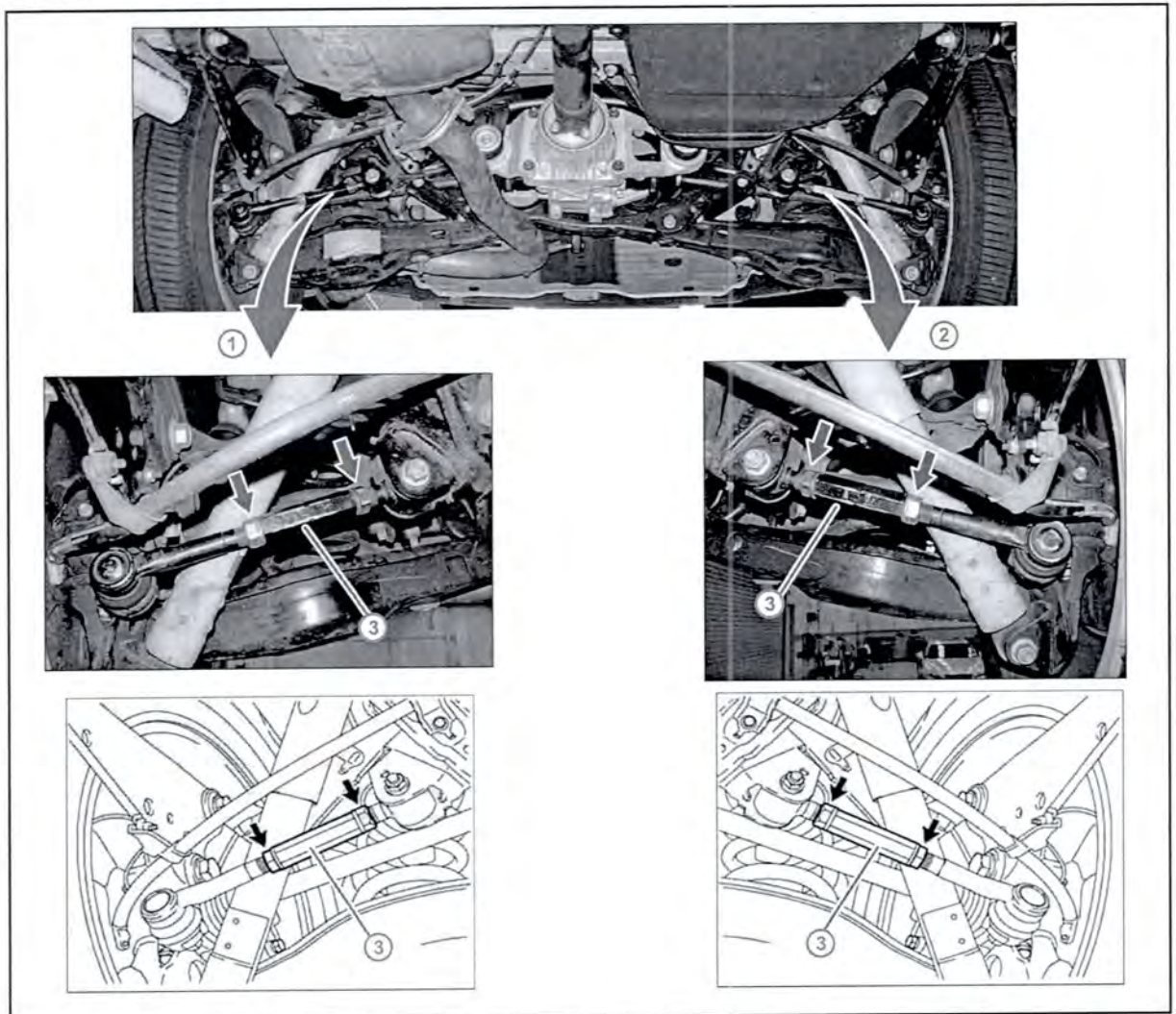
Inspect the jam nuts and adjusting tube for looseness as detailed below. If either nut is found abnormally loose during inspection, or if either jam nut does not rotate smoothly by hand after loosening, replace the rear No. 1 suspension arm.

Repair Manual Supplement: Tightening Sequence for Rear Tie Rod Adjustment

Adjustment Procedure (Continued)

1. Inspect the rear No. 1 suspension arm by inspecting the nuts and adjusting tube for looseness visually and by hand.

Figure 1.



1	RH
2	LH

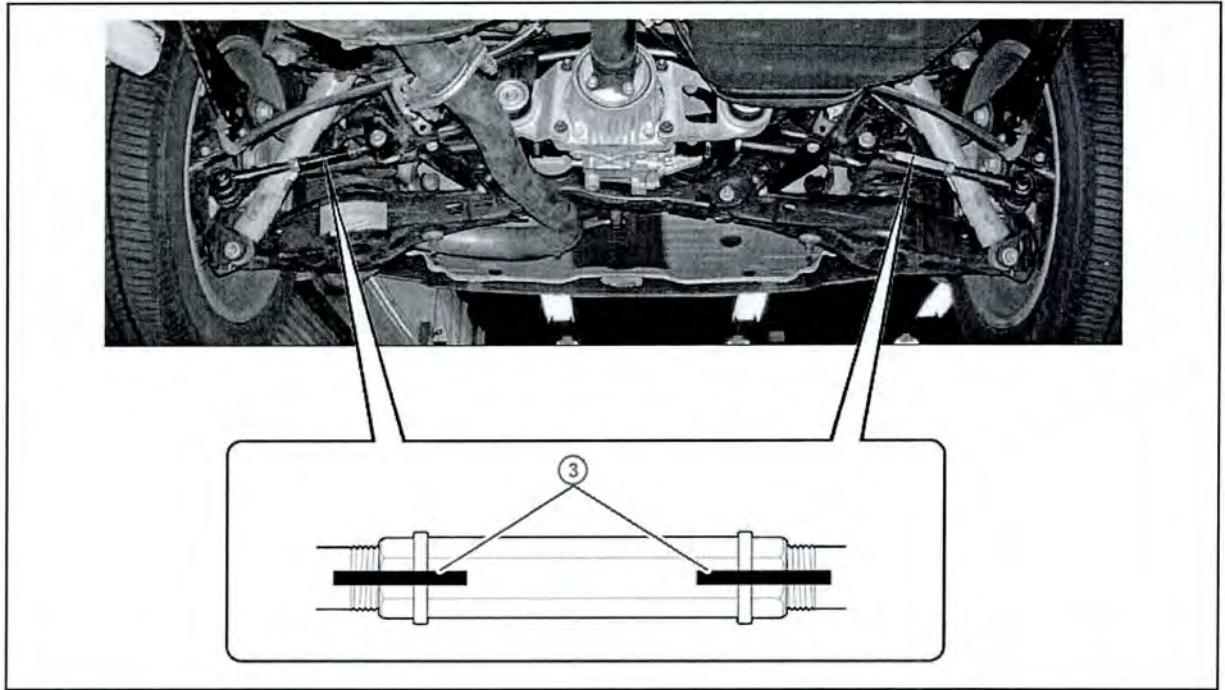
3	Adjusting Tube
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Repair Manual Supplement: Tightening Sequence for Rear Tie Rod Adjustment

Adjustment Procedure (Continued)

- Put matchmarks onto the rear No. 1 suspension arm assembly as shown in the illustration below.

Figure 2.



1	Matchmarks
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- Check adjusting tube for looseness.

Using the SST, try turning the adjusting tube in both clockwise and counterclockwise directions with the torque specified below to check that the matchmarks will not be misaligned.

WARNING

Do NOT apply more force than specified when checking for adjusting tube or jam nut looseness.

SST: 09617-24011

Repair Manual Supplement: Tightening Sequence for Rear Tie Rod Adjustment

Adjustment Procedure (Continued)

Torque:

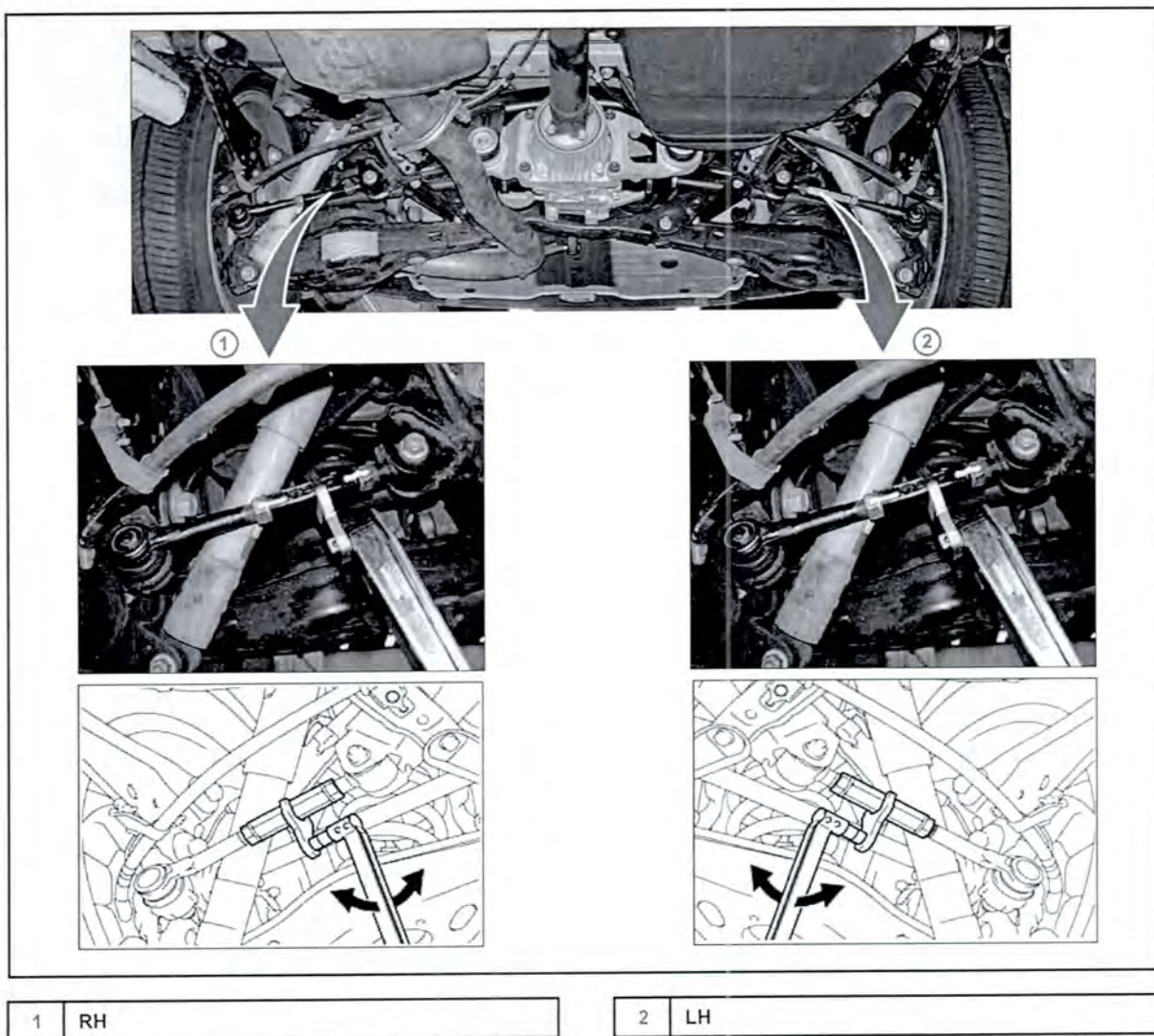
Without SST: 20 N*m (204 kgf*cm, 15 ft*lbf)

Torque:

With SST: 17 N*m (173 kgf*cm, 13 ft*lbf)

Use a torque wrench with a fulcrum length of 300 mm (11.8 in.)

Figure 3.



Repair Manual Supplement: Tightening Sequence for Rear Tie Rod Adjustment

Adjustment Procedure (Continued)

4. Check the lock nut at the ball joint side for looseness.

Holding the adjusting tube and using the SST, turn the lock nut at the ball joint side in both clockwise and counterclockwise directions with the specified torque to check that the matchmarks will not be misaligned.

Torque:

Without SST: 20 N*m (204 kgf*cm, 15 ft*lbf)

Torque:

With SST: 17 N*m (173 kgf*cm, 13 ft*lbf)

Use a torque wrench with a fulcrum length of 300 mm (11.8 in.)

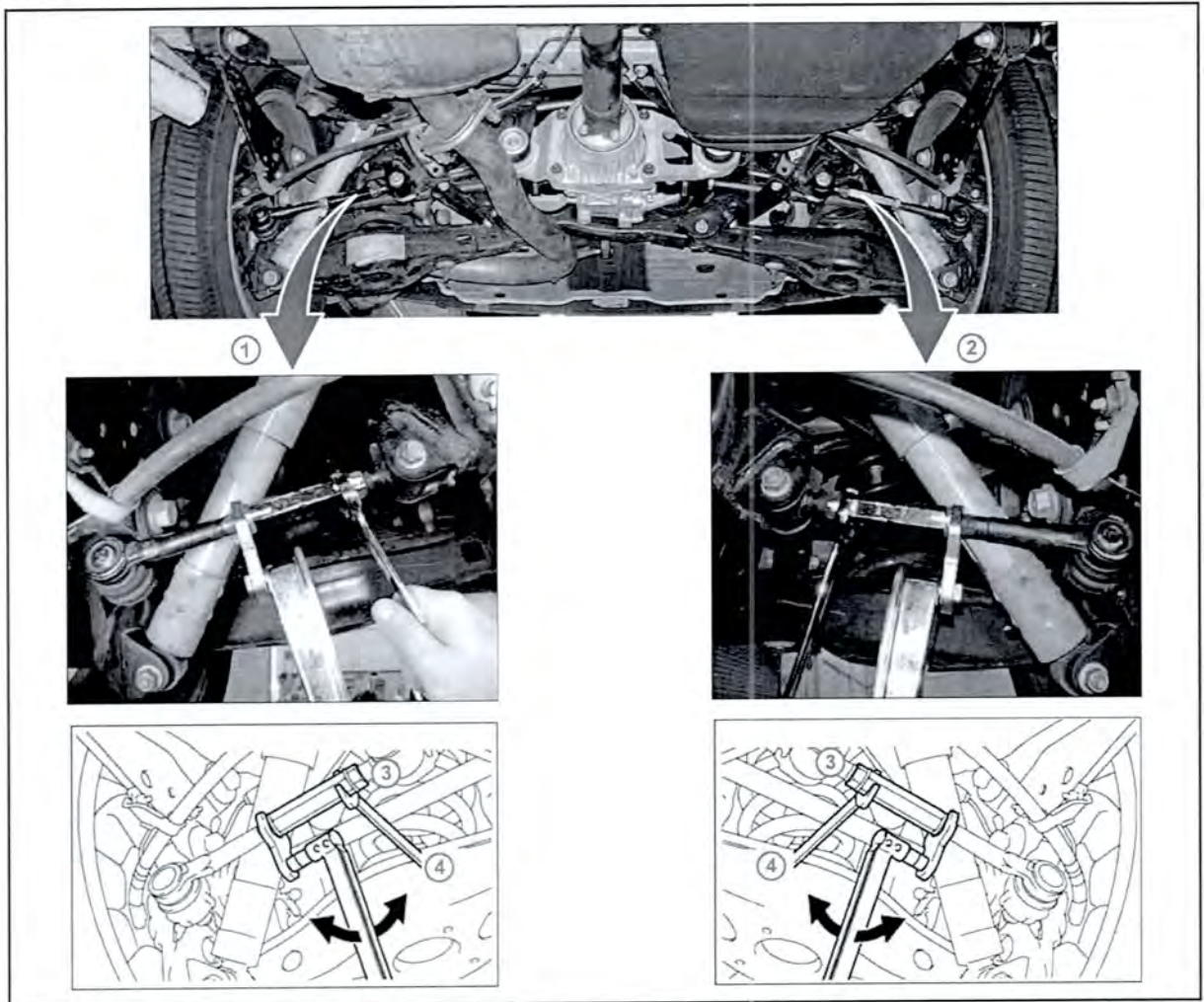
WARNING

The wrench applied to the adjusting tube should NOT be turned during this step. HOLD the wrench applied to the adjusting tube while applying force to the SST or torque wrench.

Repair Manual Supplement: Tightening Sequence for Rear Tie Rod Adjustment

Adjustment Procedure (Continued)

Figure 4.



1	RH
2	LH

3	Attach SST onto Lock Nut
4	Hold

If the lock nut is found loose, replace the tie rod assembly.

If tie rod replacement is necessary, proceed to step 5 to perform the tie rod lock nut tightening sequence.

Repair Manual Supplement: Tightening Sequence for Rear Tie Rod Adjustment

Adjustment Procedure (Continued)

5. Tighten the inboard (bushing side) lock nut.

Torque:

Without SST: 56 N*m (571 kgf*cm, 41 ft*lbf)

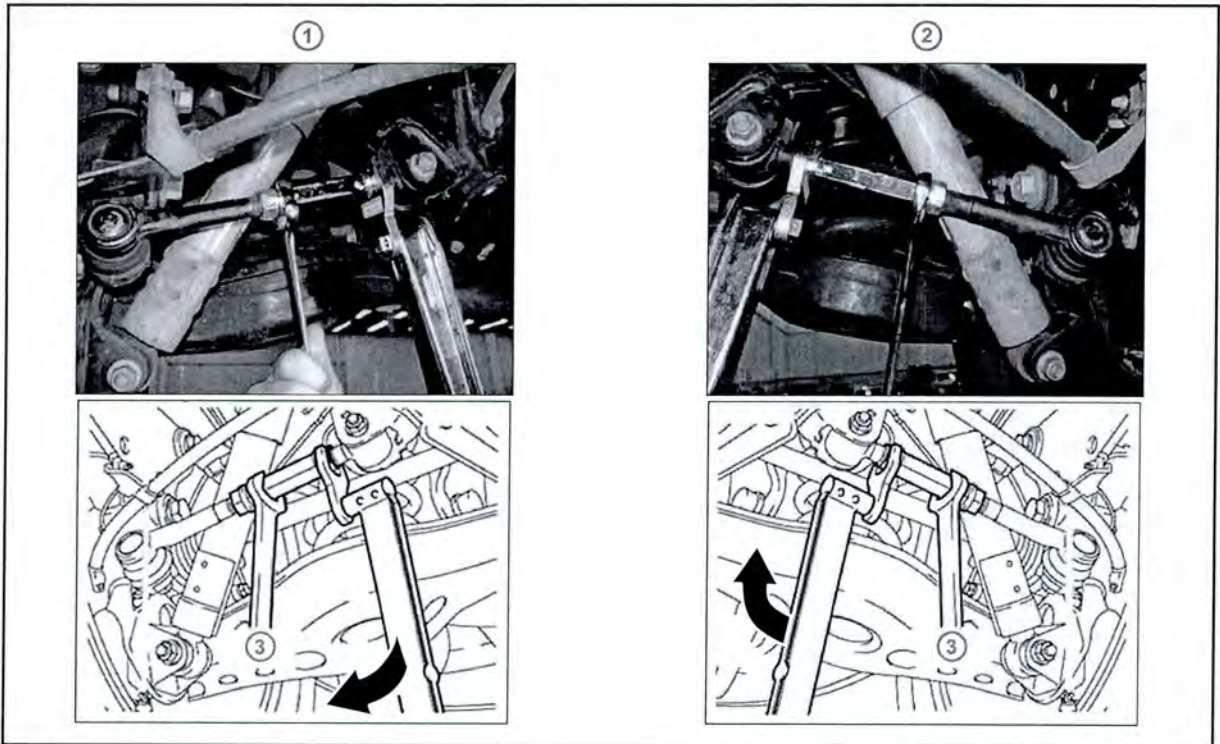
Torque:

With SST: 49 N*m (500 kgf*cm, 36 ft*lbf)

WARNING

The wrench applied to the adjusting tube should NOT be turned during this step. HOLD the wrench applied to the adjusting tube while applying force to the SST or torque wrench.

Figure 5. Inboard Lock Nut



1	RH
2	LH

3	Hold
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Repair Manual Supplement: Tightening Sequence for Rear Tie Rod Adjustment

Adjustment Procedure (Continued)

6. Tighten the outboard (ball joint side) lock nut.

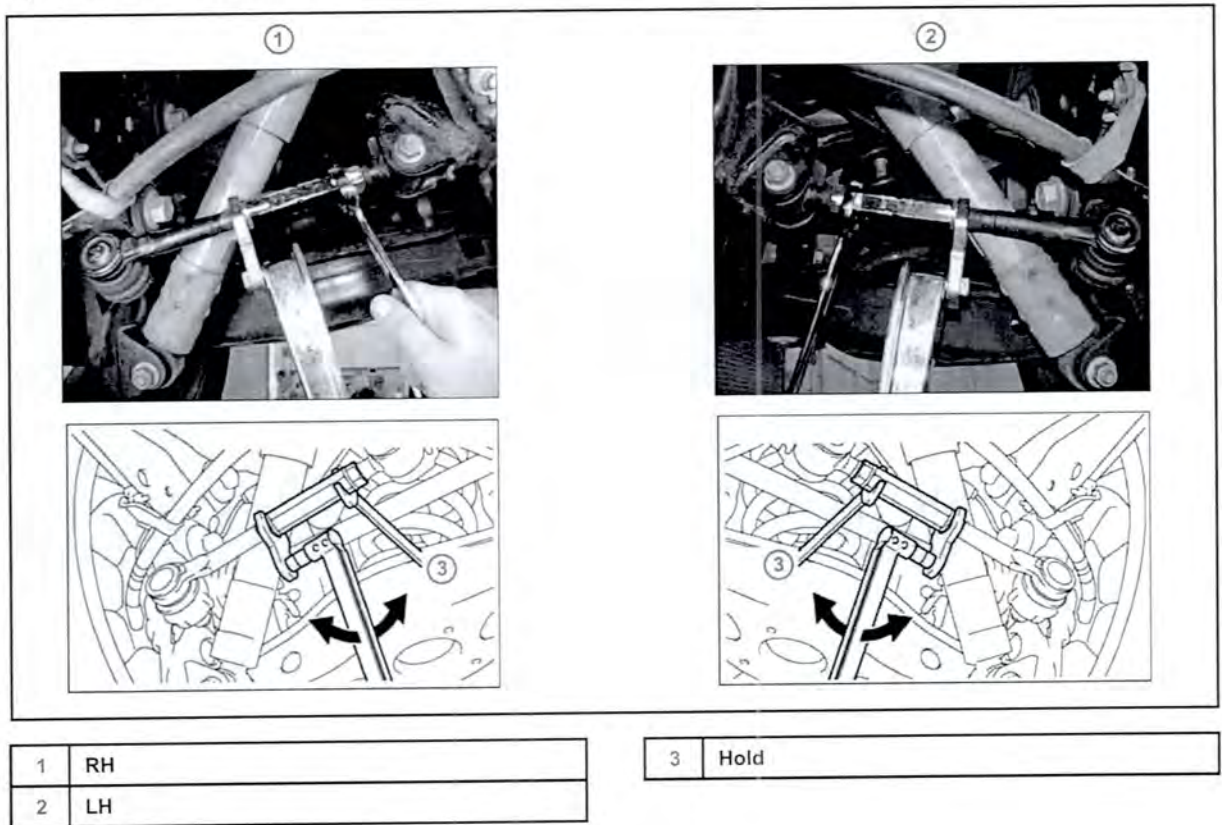
Torque:

Without SST: 56 N*m (571 kgf*cm, 41 ft*lbf)

Torque:

With SST: 49 N*m (500 kgf*cm, 36 ft*lbf)

Figure 6. Outboard Lock Nut



Repair Manual Supplement: Tightening Sequence for Rear Tie Rod Adjustment

Adjustment Procedure (Continued)

- Tighten the inboard (bushing side) lock nut again.

Torque:

Without SST: 56 N*m (571 kgf*cm, 41 ft*lbf)

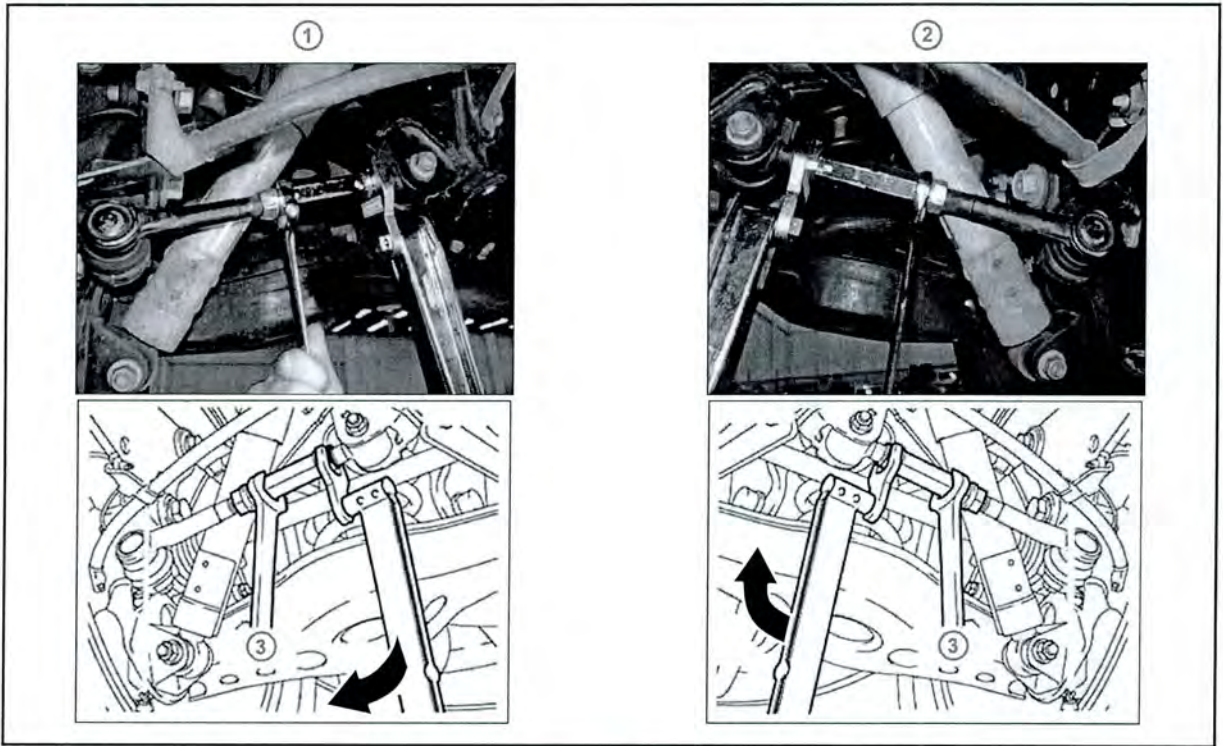
Torque:

With SST: 49 N*m (500 kgf*cm, 36 ft*lbf)

WARNING

Failure to follow this procedure will result in the lock nut not being tightened to the proper torque and/or becoming loose.

Figure 7. Inboard Lock Nut



1	RH
2	LH

3	Hold
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