

Preparation

Part Number: PTR13-53082
PTR13-53092
PTR13-53095

Kit Contents

Item #	Quantity Reqd.	Description
1	1	Shock Absorber
2	1	Hardware Bag
3		

Hardware Bag Contents

Item #	Quantity Reqd.	Description
1	1	Spring Seat
2	1	Nylon Locking Nut
3	1	Shock Absorber Spacer (Collet)

Additional Items Required For Installation

Item #	Quantity Reqd.	Description
1		

Conflicts

IS Convertible

General Applicability

IS 250, IS 350, IS 250 AWD and GS 350

Recommended Sequence of Application

Item #	Accessory
1	F-Sport Springs and Rear Sway Bar should be installed at the same time as F-Sport Shock Absorbers
2	F-Sport Exhaust
3	

*Mandatory







Recommended Tools

Personal & Vehicle Protection	Notes
Fender Covers	
Safety Glasses	
Special Tools	Notes
Spring Compressor	
Installation Tools	Notes
Torque Wrench	3/8" & 1/2" drive
Ratchet	3/8" & 1/2" drive
Wrenches	19mm
Sockets	10, 14, 17, 19mm
Hexagon Wrench	6 mm
Nylon Pry Tool	
Special Chemicals	Notes

Vehicle Service Parts (may be required for reassembly)

Item #	Quantity Reqd.	Description
1		
1		
1		

Legend

	STOP: Damage to the vehicle may occur. Do not proceed until process has been complied with.
	OPERATOR SAFETY: Use caution to avoid risk of injury.
	CAUTION: A process that must be carefully observed in order to reduce the risk of damage to the accessory/vehicle and to ensure a quality installation.
	TOOLS & EQUIPMENT: Used in Figures calls out the specific tools and equipment recommended for this process.
	REVISION MARK: This mark highlights a change in installation with respect to previous issue.
	SAFETY TORQUE: This mark indicates that torque is related to safety.

Procedure

Care must be taken when installing this accessory to ensure damage does not occur to the vehicle. The installation of this accessory should follow approved guidelines to ensure a quality installation.

These guidelines can be found in the "Accessory Installation Practices" document.

This document covers such items as:-

- Vehicle Protection (use of covers and blankets, cleaning chemicals, etc.).
- Safety (eye protection, rechecking torque procedure, etc.).
- Vehicle Disassembly/Reassembly (panel removal, part storage, etc.).
- Electrical Component Disassembly/Reassembly (battery disconnection, connector removal, etc.).

Please see your Lexus dealer for a copy of this document.

1. Remove the Rear Shock Absorber/Spring Assemblies.

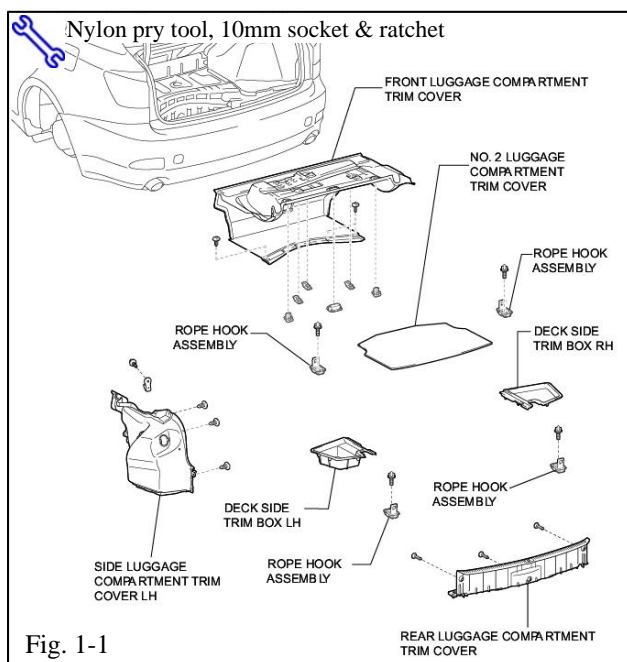


Fig. 1-1

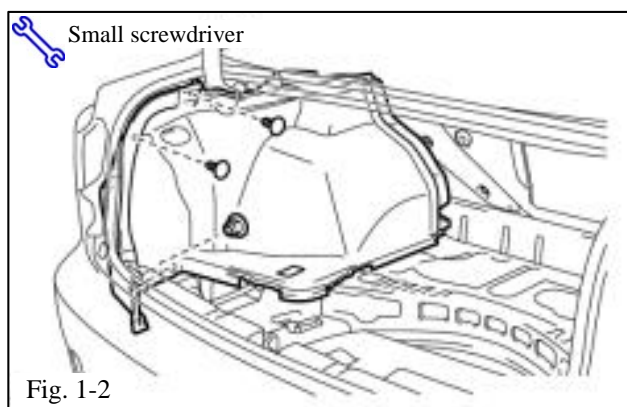
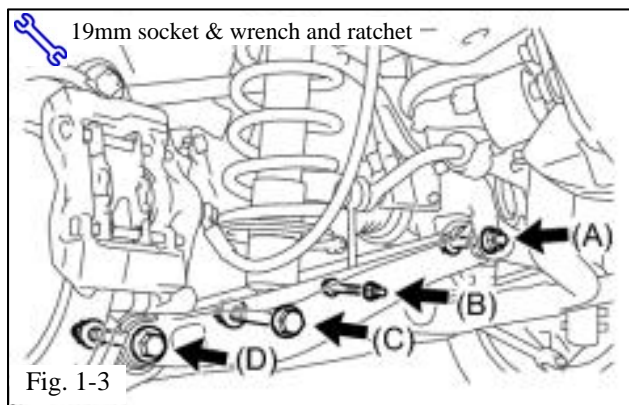


Fig. 1-2

- (a) Remove the No. 2 luggage compartment trim cover (Fig. 1-1).
- (b) Remove the deck side trim box LH (Fig. 1-1).
- (c) Remove the deck side trim box RH (Fig. 1-1).
- (d) Remove the rear luggage compartment trim cover (Fig. 1-1).
- (e) Remove front luggage compartment trim cover (Fig. 1-1).
 - (1) Disengage the upper clips holding the trim to the package tray.
 - (2) Disconnect the trunk lamp connector.
- (f) Remove the side luggage compartment trim cover LH (Fig. 1-2). Use a small screwdriver to unlock the clip found under the rear trim cover. Do not force the clip.
- (g) Remove the side luggage compartment trim cover RH.
- (h) Raise the vehicle and remove the rear wheels.

STOP CAUTION: Do not use an impact wrench on wheel locks (if equipped).

Procedure



- (i) Loosen (do not remove) the lower rear No. 2 suspension arm nut (A, Fig. 1-3).

CAUTION: Do not remove the nut.

- (j) Remove bolt B and the nut (Fig. 1-3).
- (k) Disconnect the stabilizer link assembly and height control sensor link bracket from the rear No. 2 suspension arm assembly (Fig. 1-3). Note the position of the height control sensor link.

- (l) Remove bolt C and the nut (Fig. 1-3).

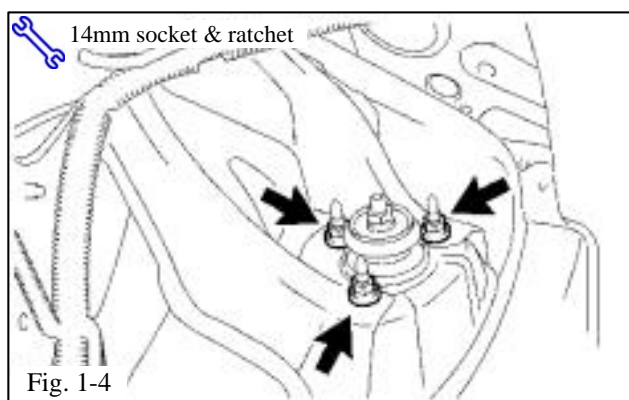
CAUTION: The nut has a locking feature. Remove the bolt and nut by turning the **BOLT** while the nut is held in place.

- (m) Remove bolt D and the nut on the axle carrier side and lower the rear No. 2 suspension arm assembly from the knuckle assembly (Fig. 1-3).

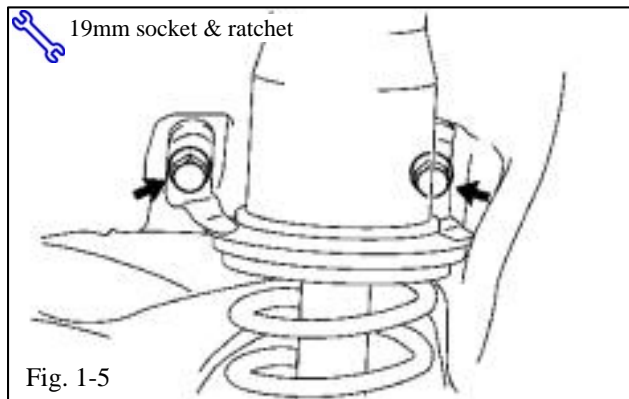
CAUTION: The nut has a locking feature. Remove the bolt and nut by turning the **BOLT** while the nut is held in place.

- (n) Remove the 3 nuts on the upper side of the rear shock absorber assembly (Fig. 1-4).

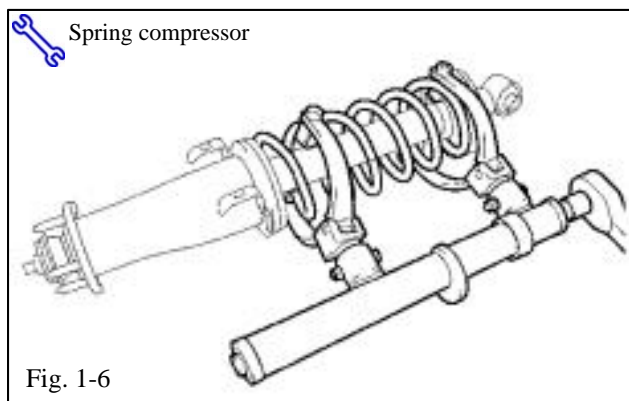
- (o) Remove two fender liner nuts to access the rear shock absorber assembly.



Procedure

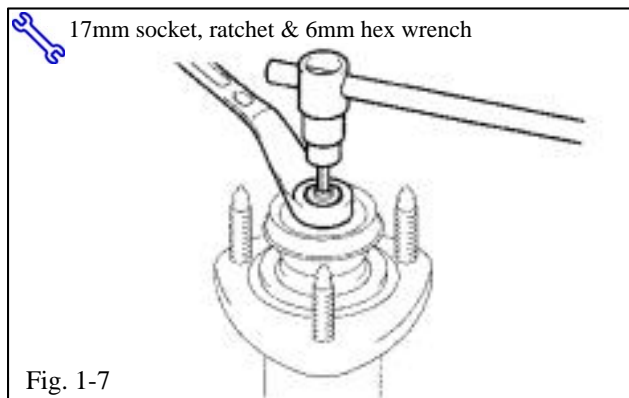


- (p) Remove the 2 bolts and the rear shock absorber assembly from the body (Fig. 1-5). Retain the bolts for reassembly.



- (q) Remove the spring from shock absorber assembly.

- (1) Use a spring compressor to compress the rear coil spring until the tension is removed from the shock absorber assembly (Fig. 1-6).



- (2) Remove the upper shock absorber nut. If the shaft spins with the nut, hold the rod of the rear shock absorber assembly with a 6mm hexagon wrench (Fig. 1-7).

- (3) Note the order and position of the washer, bushings and jounce bumper for reassembly.

- (r) Repeat Step 1 on the other side of the vehicle.

2. Replace the Rear Springs and Shock Absorbers.

- (a) Place a spring seat over the shock absorber body and onto the snap ring.

⚠ NOTE: A recessed ring is machined into the spring seat which is designed to fit over the shock absorber body snap ring.

- (b) Transfer the rear lower coil spring insulator to the new spring seat (Fig. 2-1).

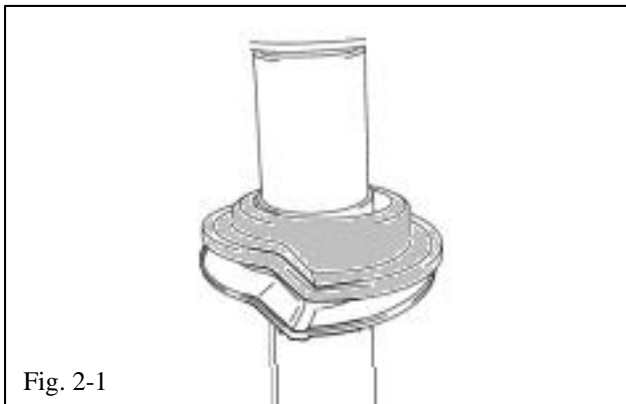


Fig. 2-1

- (c) Fit the rear coil spring end into the recessed part of the rear lower shock absorber seat (Fig. 2-2).

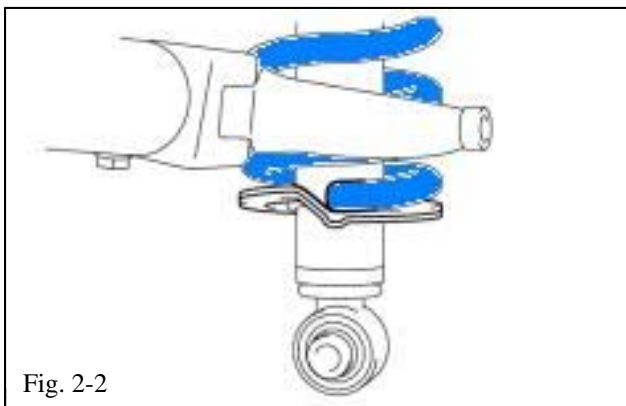


Fig. 2-2

- (d) Turn the spring seat so that the lower end of the coil lines up with the shock absorber mount eye (Fig. 2-2).

- (e) Place a supplied piston shaft collet/spacer over the top of the piston shaft (Fig. 2-3). The larger diameter portion (if present) should face downward.

⚠ NOTE: If the collet does not have a larger diameter section, simply install the collet in place without worrying about the direction.

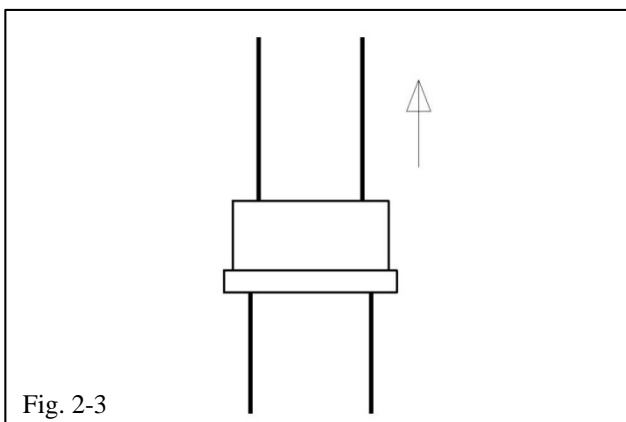


Fig. 2-3

(f) Reassemble the shock absorber/spring assembly as shown below (Fig. 2-4).

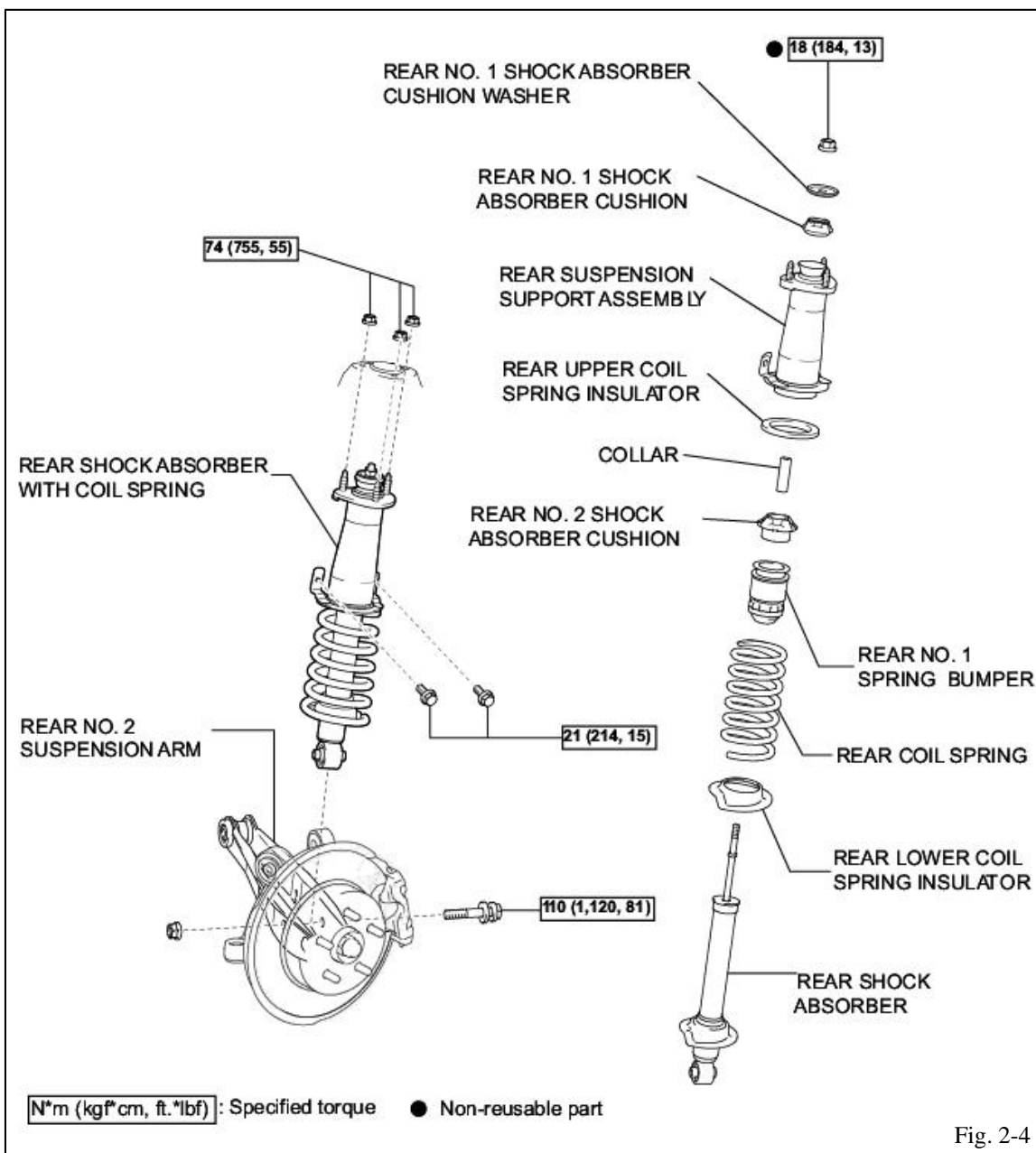


Fig. 2-4

Procedure

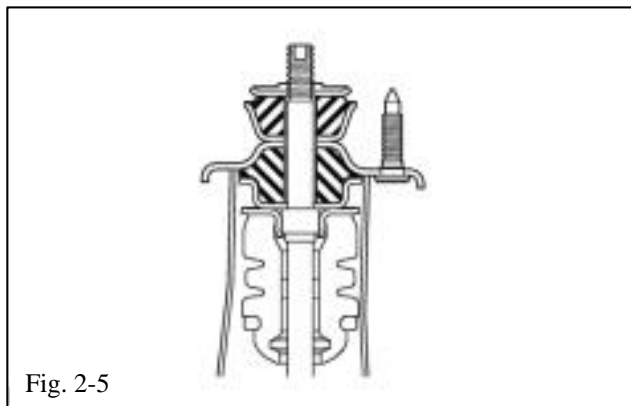


Fig. 2-5

- (h) Ensure the cushions and washer (lip turned up) are assembled in the correct direction and order (Fig. 2-5).

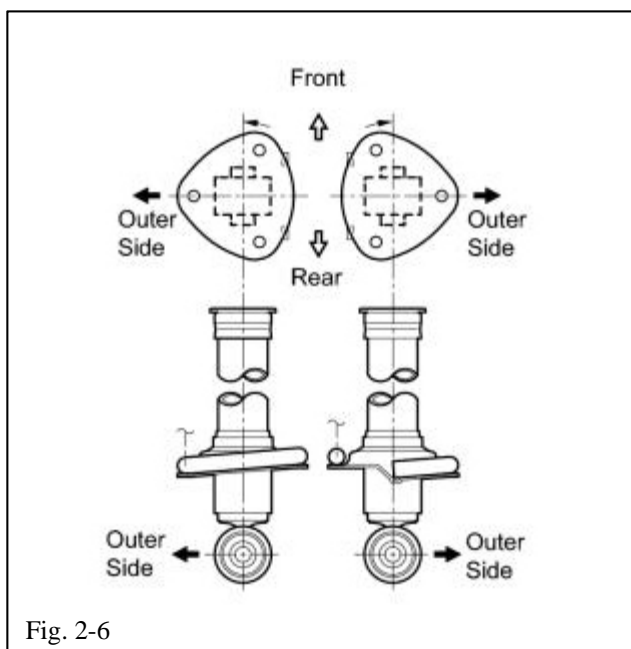


Fig. 2-6

- (i) Ensure that the left (driver's side) coil spring end faces towards the front of the vehicle and the right coil spring end faces towards the rear (Fig. 2-6).

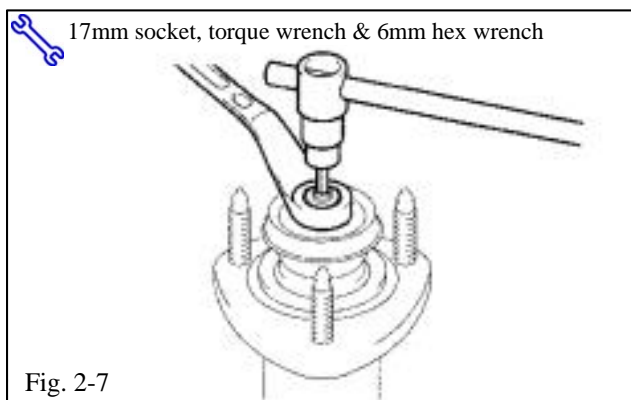


Fig. 2-7

- (j) Torque the new shock absorber shaft lock nut (Fig. 2-7).



Torque: 18 N·m (184 kgf·cm, 13 ft·lbf)

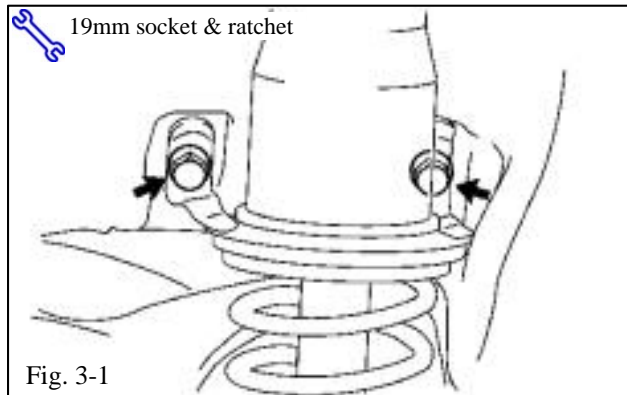
- (k) Repeat Step 2 for the other side.

Procedure

3. Install the Rear Shock Absorber /Spring Assemblies.

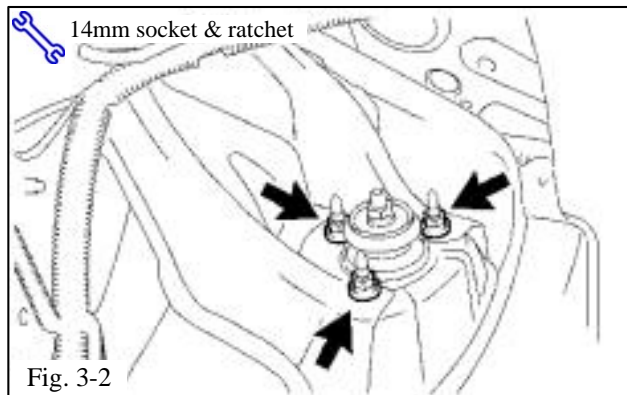
- (a) Temporarily install the rear shock absorber assembly with the 2 bolts removed in Step 1(p) (Fig. 3-1).

⚠ NOTE: Leave the bolts loose.



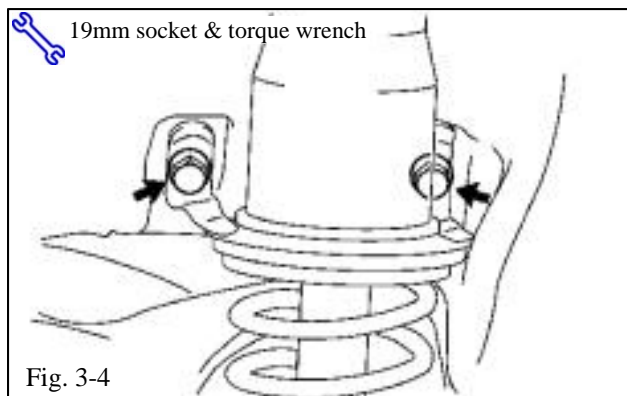
- (b) Install the 3 nuts on the upper side of the rear shock absorber assembly (Fig. 3-2).

S Torque: 74 N·m (755 kgf·cm, 55 ft·lbf)



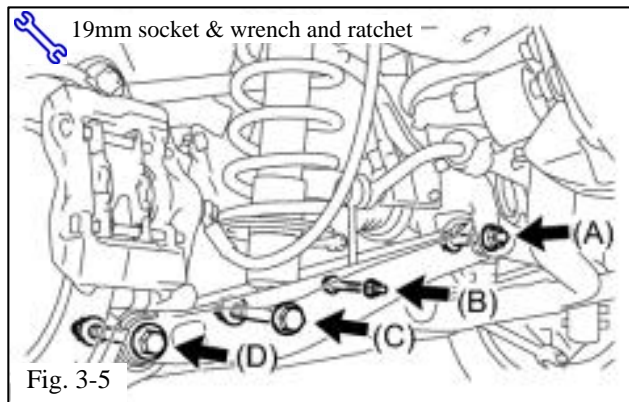
- (c) Torque the 2 bolts on the rear shock absorber assembly (Fig. 3-4).

S Torque: 21 N·m (214 kgf·cm, 15 ft·lbf)



- (d) Install the rear fender liner nuts.

Procedure



- (e) Raise the lower the suspension arm and temporarily install the nuts and bolts for the stabilizer link assembly (B), shock absorber (C) and knuckle (D) (Fig. 3-5).

CAUTION: Confirm that the height control sensor link is positioned correctly and not folded inward.

- (f) Safely load the suspension (1 of 3 ways).

- (1) Lower the vehicle arm onto a tripod stand.
- (2) Raise the arm with a block of wood and floor jack.
- (3) Install the wheels and lower the vehicle onto a load ramp.

NOTE: The drive axle should be near level.

- (g) Torque the nuts and bolts on the rear No. 2 suspension arm assembly (Fig. 3-6).

S Torque(A): 161 N·m (1,640 kgf·cm, 118 ft·lbf)

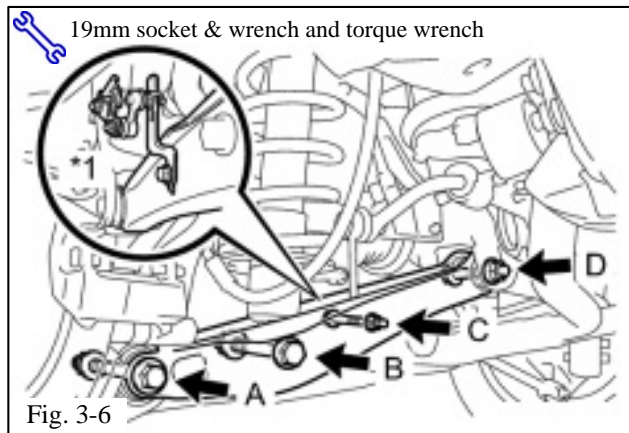
S Torque(B): 110 N·m (1,120 kgf·cm, 80 ft·lbf)

S Torque(C): 27 N·m (275 kgf·cm, 20 ft·lbf)

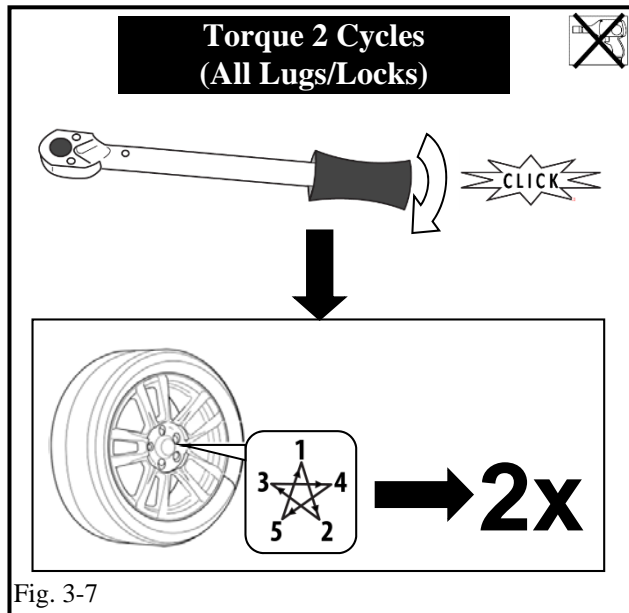
S Torque(D): 150 N·m (1,530 kgf·cm, 111 ft·lbf)

- (h) Repeat Step 3 for the other side of the vehicle.

- (i) Install the rear wheel/tire assemblies onto the vehicle. Hand start the lug nuts.



Procedure



(j) Use a torque wrench to tighten the lug nuts in sequence 1 through 5 to 103N·m (76 ft·lbf) (Fig. 3-7).

S **Torque: 103 N·m (1,050 kgf·cm, 76 ft·lbf)**

(k) Re-torque all of the lug nuts in same the 1-5 sequence (Fig. 3-6).

S **Torque: 103 N·m (1,050 kgf·cm, 76 ft·lbf)**

STOP **CAUTION: DO NOT USE AN IMPACT WRENCH TO INSTALL OR REMOVE WHEEL LOCKS.**

(l) Install the side luggage compartment trim covers.

(m) Install the front and rear luggage compartment trim covers.

! **NOTE:** The trunk lamp will need to tuck into the recessed hole in the sheet metal for the front trim cover to fit properly.

(n) Install the deck side trim box RH and LH.

(o) Install the No. 2 luggage compartment trim cover.

4. Check and Adjust the Wheel Alignment.

STOP **NOTE:** The toe will require adjustment after the vehicle is lowered.

Rear Toe-In (Total) (Fig. 4-1)

B - A: 3.0 +/- 2.0 mm (0.12 +/- 0.08 in.)

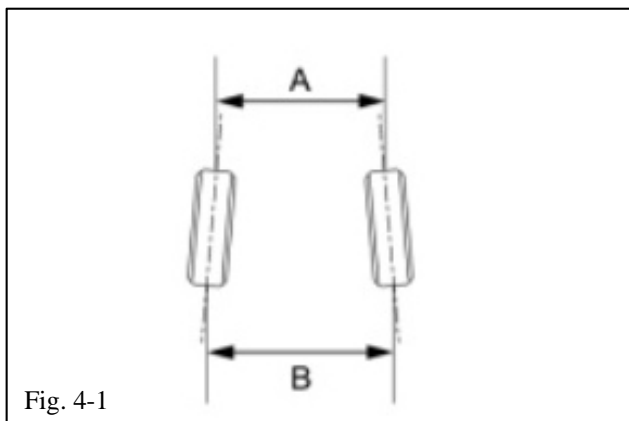


Fig. 4-1

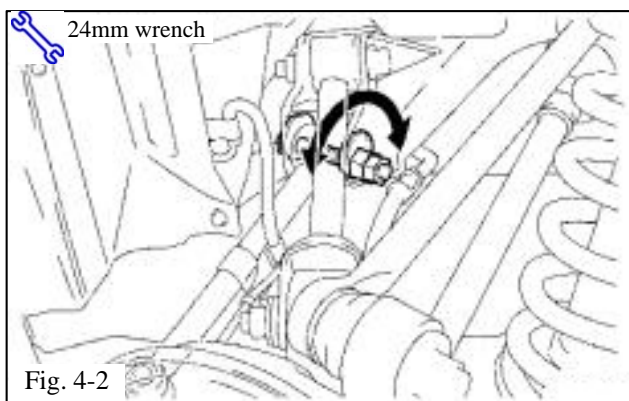


Fig. 4-2

- (a) Loosen the toe adjust cam nut (Fig. 4-2).
- (b) Turn the adjust cams by an equal amount to adjust toe-in.
- (c) Tighten the nut (Fig. 4-2).

S **Torque: 50 N·m (510 kgf·cm, 37 ft·lbf)**

Checklist - these points **MUST** be checked to ensure a quality installation.

<u>Check:</u>	<u>Look For:</u>
<p><u>Accessory Function Checks</u></p> <p><input type="checkbox"/> Check for noise</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p>Confirm all springs are seated properly</p>
<p><u>Vehicle Function Checks</u></p> <p><input type="checkbox"/> Confirm VSC light is not on</p> <p><input type="checkbox"/> Confirm ASF OFF light is not on</p> <p><input type="checkbox"/> Confirm all hardware with torque values are tight</p>	<p>Speed sensor wires are plugged in</p> <p>Height sensor links are positioned correctly</p> <p>Loose hardware</p>
<p><u>Vehicle Appearance Check</u></p> <p><input type="checkbox"/> After accessory installation and removal of protective cover(s), perform a visual inspection.</p>	<p>Ensure no damage (including scuffs and scratches) was caused during the installation process. (For PPO installations, refer to TMS Accessory Quality Shipping Standard.)</p>