REAR SUSPENSION

CONTENTS

34109000091

GENERAL INFORMATION

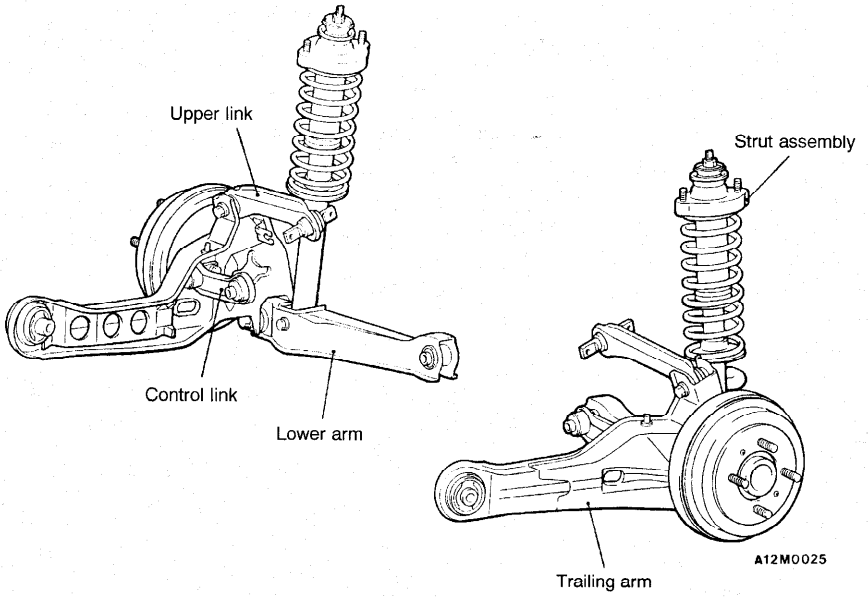
34100010116

The rear suspension is a trailing arm type multi-link suspension. The shock absorber used on the strut assembly is a hydraulic, cylindrical double-acting type.

COIL SPRING

Items	2-DOOR	4-DOOR
Wire dia. x O.D. x free length mm (in.)	9 x 86 x 369 (.35 x 3.39 x 14.5)	9 x 86 x 379 (.35 x 3.39 x 14.9)

CONSTRUCTION DIAGRAM



SERVICE SPECIFICATIONS

34100030112

Items	Standard value
Toe-in mm (in.)	1 - 5 (.04 - .20)
Thrust angle	0° ± 0.15°
Camber	- 0° 40' ± 30'
Clearance between rear speed sensor pole piece and rotor mm (in.)	0.1 - 2.0 (.004 - .079)

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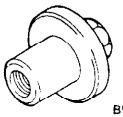
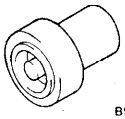
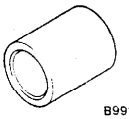
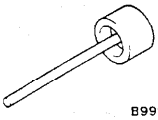
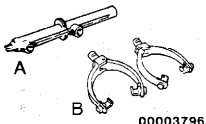
SPECIAL TOOLS

34100060098

Tool	Tool number and name	Supersession	Application
 B991004	MB991004 Wheel alignment gauge attachment		Measurement of the wheel alignment (Vehicle with aluminum type wheels)
 B991447	MB991447 Bushing remover and installer	Tool not available	Driving out and press-fitting of lower arm bushing
 B991448	MB991448 Bushing remover and installer base		
	MB991449 Bushing remover and installer supporter		
 B991444	MB991444 Bushing remover and installer arbor	Tool not available	Driving out and press-fitting of trailing arm bushing
 B991445	MB991445 Bushing remover and installer base		
 B991446	MB991446 Bushing remover and installer spacer		
 00003796	A: MB991237 Spring compressor body B: MB991239 Arm set	MIT62220	Compression of the rear coil spring

TROUBLESHOOTING

34100070053

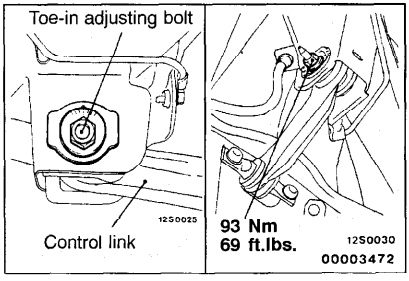
Symptom	Probable cause	Remedy
Squeaks or other abnormal noise	Loose rear suspension installation bolts and nuts	Retighten
	Malfunction of shock absorber	Replace
	Worn bushings	
	Upper links and/or lower arms and/or control links deformed or damaged	
	Trailing arms deformed or damaged	
Poor ride	Excessive tire inflation pressure	Adjust the pressure
	Malfunction of shock absorber	Replace
	Weak or broken springs	
Body tilting	Weak or deteriorated bushings	Replace
	Weak or broken springs	
	Upper links and/or lower arms and/or control links deformed or damaged	
	Trailing arms deformed or damaged	

ON-VEHICLE SERVICE

34101100027

REAR WHEEL ALIGNMENT CHECK AND ADJUSTMENT

Measure the alignment with the vehicle parked on level ground. The rear suspension and wheels should be serviced to the normal condition prior to measurement of wheel alignment.

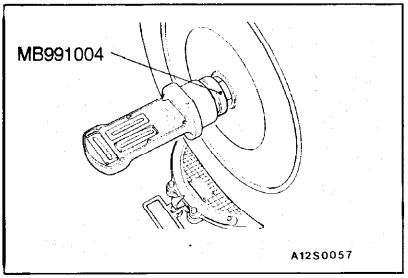


TOE-IN

Standard value: 1 - 5 mm (.04 - .20 in.)

If outside the standard value, adjust by the following procedure.

(1) Be sure to adjust the camber before adjusting the toe-in.
(2) Adjust by turning the toe adjusting bolt (mounting bolt on the inside of the control link).
LH: Turning clockwise → toe-in direction
RH: Turning clockwise → toe-out direction
The scale has gradations of approximately 2.6 mm (.10 in.).

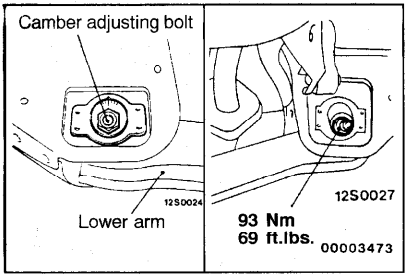


CAMBER

Standard value: - 0°40'±30'
(The difference between the left and right wheels should be 30' or less.)

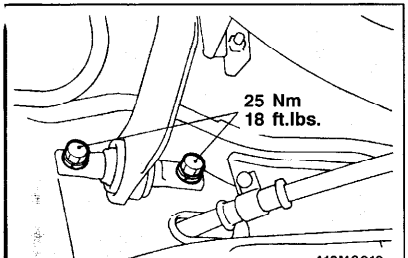
NOTE
For vehicles equipped with aluminum wheels, measure the camber after tightening the special tool (MB991004) to the specified torque 172 Nm (127 ft.lbs.).

Caution
Never subject the wheel bearings to the full vehicle load when the flange nuts are loosened.



If outside the standard value, adjust by the following procedure.
(1) Remove the connection between the control link and the trailing arm.
(2) Adjust by turning the camber adjusting bolt (mounting bolt for the lower arm and rear crossmember).

Left wheel: clockwise + camber
Right wheel: clockwise - camber
The scale has gradations of approximately 14'



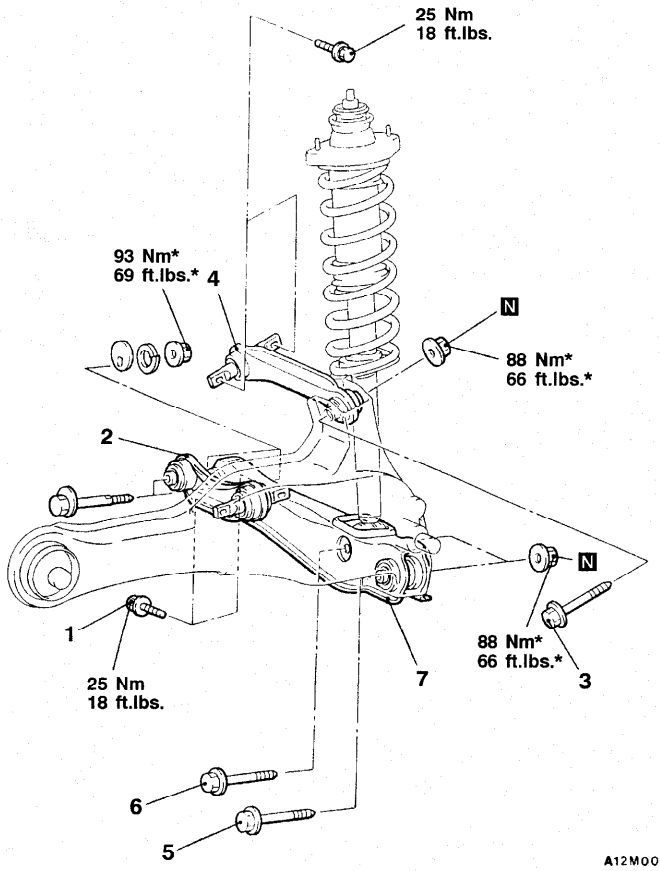
(3) Tighten the control link to the trailing arm at the specified torque.
(4) After adjusting the camber, be sure to adjust the toe-in.

CONTROL LINK, UPPER LINK AND LOWER ARM

34100480047

REMOVAL AND INSTALLATION

Post-installation Operation
- Wheel Alignment Check (Refer to P.34-4.)



Control link removal steps

1. Control link and trailing arm connection
◀A▶ 2. Control link

Upper link removal steps

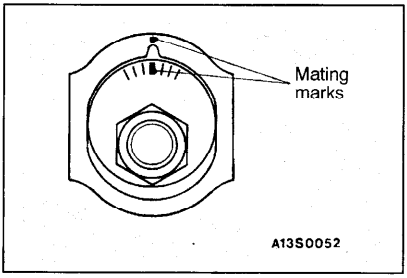
◀B▶ 3. Upper link and trailing arm connection
4. Upper link

Lower arm removal steps

1. Control link and trailing arm connection
◀B▶ 5. Lower arm and trailing arm connection
6. Strut assembly and lower arm connection
◀A▶ 7. Lower arm

Caution

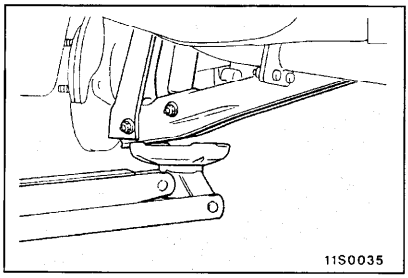
*** Indicates parts which should be temporarily tightened, and then fully tightened with the vehicle on the ground in the unladen condition.**



REMOVAL SERVICE POINTS

◀A▶ CONTROL LINK/LOWER ARM REMOVAL

After making a mating mark on the toe-in or camber adjusting bolt, remove the control link and lower arm.

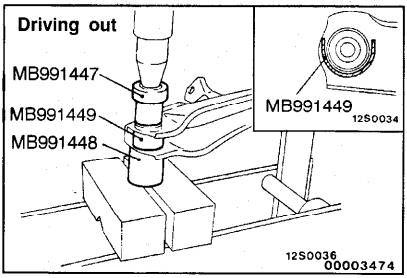


◀B▶ UPPER LINK AND TRAILING ARM / LOWER ARM AND TRAILING ARM DISCONNECTION

Support the lower arm with a jack. Then separate the connection.

INSPECTION 34100490026

- Check the bushing for wear and deterioration.
- Check the control link upper link and lower arm for bends or breakage.
- Check all bolts for condition and straightness.

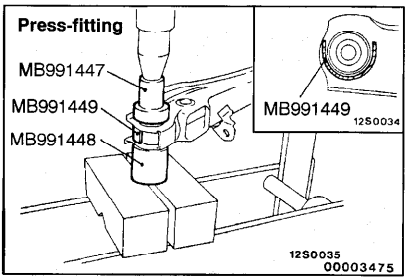


LOWER ARM BUSHING REPLACEMENT 34101110037

Use the special tools to drive out the press-fit the lower arm bushing.

NOTE
If the special tool (MB991449) is hard to install, tap it with a plastic hammer.

Caution
Because the outside diameter of both edges of the bushing are different, be careful not to mistake the direction when driving out and press-fitting.



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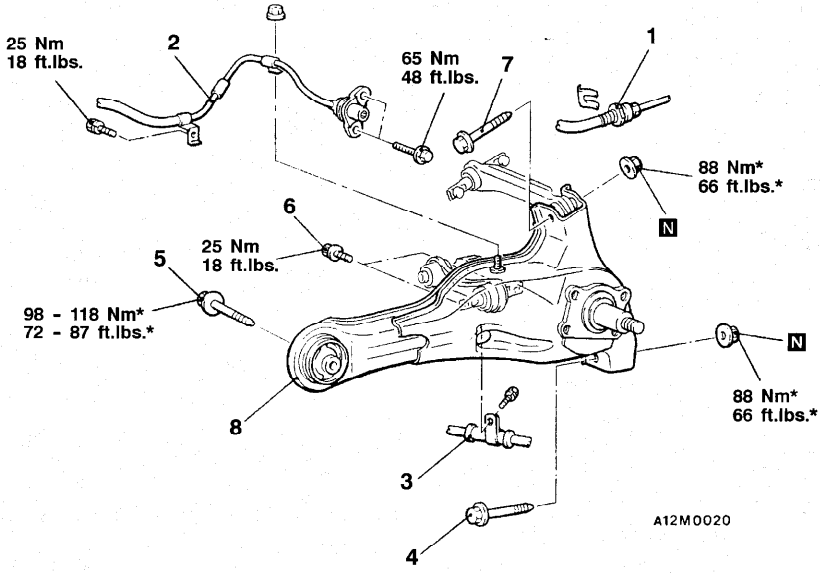
TRAILING ARM

34100420117

REMOVAL AND INSTALLATION

Pre-removal and Post-installation Operation
- Rear Drum Brake Removal and Installation (Refer to GROUP 35A.)
- Rear Axle Hub Removal and Installation (Refer to GROUP 27.)

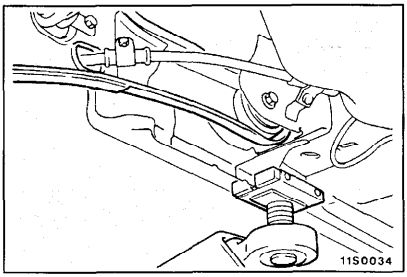


Removal steps

◀A▶ ● Lifting point
1. Brake hose
◀B▶ ▶A◀ 2. Rear speed sensor <Vehicles with ABS>
3. Parking brake cable
◀C▶ 4. Lower arm and trailing arm connection
5. Trailing arm and body connection
6. Control link and trailing arm connection
7. Upper link and trailing arm connection
8. Trailing arm

Caution

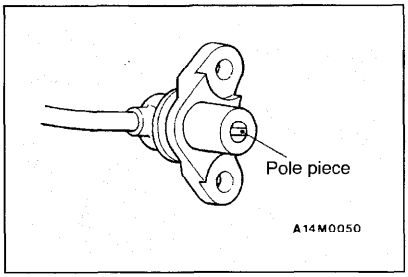
* **Indicates parts which should be temporarily tightened, and then fully tightened with the vehicle on the ground in the unladen condition.**



REMOVAL SERVICE POINTS

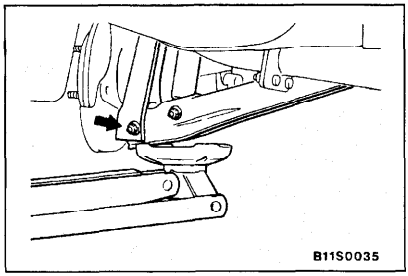
◀A▶ LIFTING POINT

When removing the trailing arm, move the lifting arm slightly towards the front of the vehicle so that it will not be in the way.



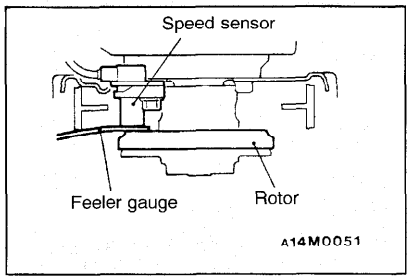
◀B▶ REAR SPEED SENSOR REMOVAL

Caution
When removing the speed sensor, be careful that the pole piece at the end does not touch the surface of the rotor teeth or other parts.



◀C▶ LOWER ARM AND TRAILING ARM DISCONNECTION

Support the lower arm with a jack. Then separate the lower arm and trailing arm connection.



INSTALLATION SERVICE POINT

▶A◀ REAR SPEED SENSOR INSTALLATION

Caution
Be careful that the pole piece at the end of the speed sensor and the rotor teeth do not become damaged by striking them against the metal parts.

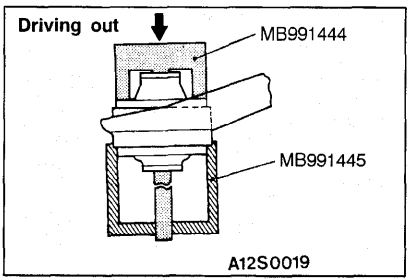
Insert a feeler gauge into the space between the speed sensor's pole piece and the rotor's toothed surface, and then tighten the speed sensor bracket at the position where the clearance is at the standard value all around.

Standard value: 0.1 - 2.0 mm (.004 - .079 in.)

INSPECTION

34100430035

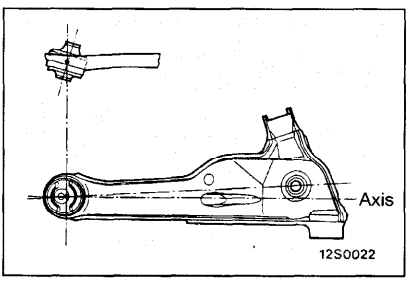
- Check trailing arm for cracks and deformation.
- Check bushing for cracks, deterioration and wear.



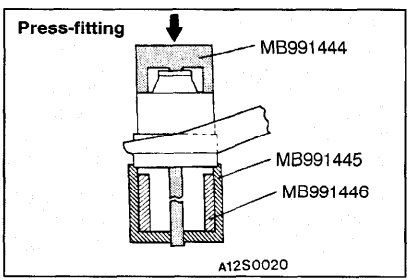
TRAILING ARM BUSHING REPLACEMENT

34101130019

(1) Use the special tools to drive out the trailing arm bushing.



(2) Set the installation direction and installation location of the trailing arm bushing.
   1. Place the long projecting end of the trailing arm bushing inner pipe toward the inside of the vehicle.
   2. Set so that the trailing arm bushing is symmetrical to the axis between the center of the trailing arm bushing and the center of the spindle.



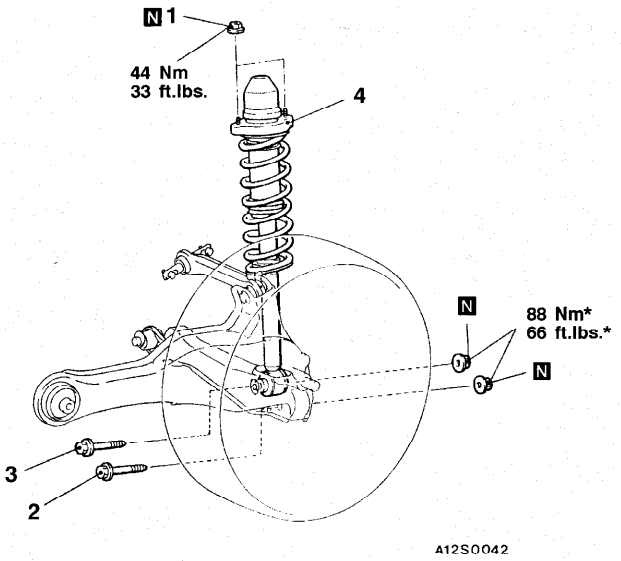
(3) Use the special tools to press-fit the trailing arm bushing.

STRUT ASSEMBLY

34100510104

REMOVAL AND INSTALLATION

Pre-removal and Post-installation Operation
- Lower arm and trailing arm disconnection (Refer to P.34-8.)

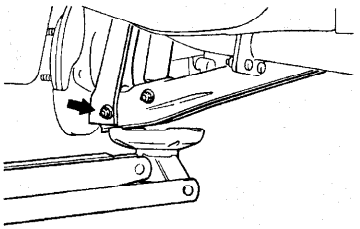


A12S0042

Removal steps

◀A▶ 1. Self-locking flange nut
2. Lower arm and trailing arm connection
3. Strut assembly and lower arm connection
4. Strut assembly

Caution
*** Indicates parts which should be temporarily tightened, and then fully tightened with the vehicles on the ground in the unladen condition.**



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REMOVAL SERVICE POINT

◀A▶ LOWER ARM AND TRAILING ARM DISCONNECTION

After supporting the lower arm with a jack, separate the lower arm and trailing arm connection.

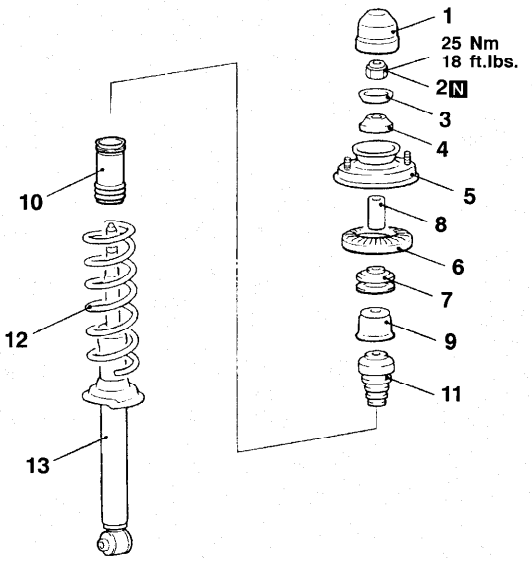
INSPECTION

34100520022

- Check the rubber parts for cracks and wear.
- Check the shock absorber for malfunctions, oil leakage or abnormal noise.

DISASSEMBLY AND REASSEMBLY

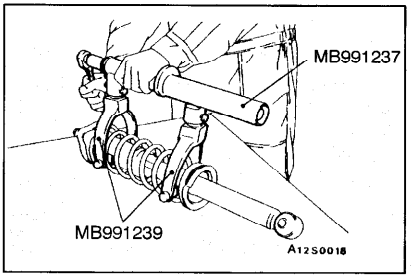
34100530087



A12M0016

Disassembly steps

1. Cap
◀A▶ ▶D◀ 2. Self-locking nut
3. Washer
4. Upper bushing B
▶C◀ 5. Bracket
▶B◀ 6. Spring pad
7. Upper bushing A
8. Coller
9. Cup
10. Dust cover
11. Bump rubber
▶A◀ 12. Coil spring
13. Shock absorber



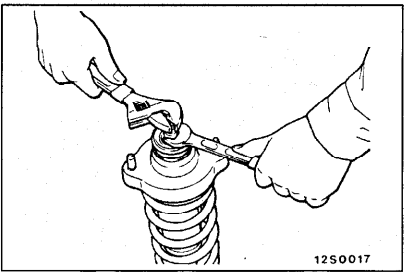
DISASSEMBLY SERVICE POINT

◀A▶ SELF-LOCKING NUT REMOVAL

(1) Use the special tools to compress the coil spring.

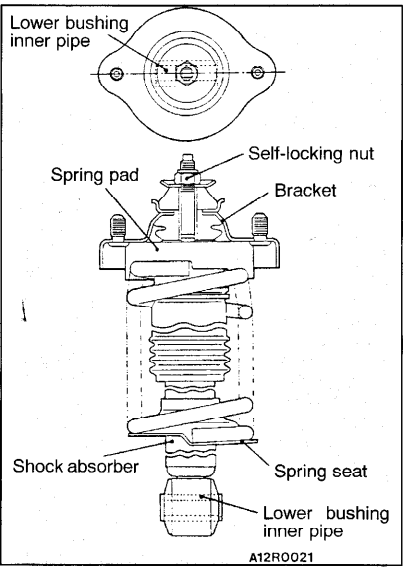
Caution

1. **Install the special tools evenly, and so that the maximum length will be attained within the installation range.**
2. **Do not use an impact wrench to tighten the special tool bolt.**



(2) Holding the piston rod, remove the self-locking nut.

Caution
Do not use an impact wrench.



REASSEMBLY SERVICE POINTS

▶A◀ COIL SPRING INSTALLATION

(1) Use the special tools (MB991237, MB991239) to compress the coil spring, and install it to the shock absorber.

Caution
Do not use an impact wrench to tighten the bolt of the special tool.

(2) Align the end of the coil spring with the stepped section of the spring seat of the shock absorber.

▶B◀ SPRING PAD INSTALLATION

Align the stepped section of the spring pad with the end of the coil spring, and install the spring pad.

▶C◀ BRACKET INSTALLATION

Install the bracket so that the lower bushing inner pipe of the shock absorber and the line between the bracket mounting bolts are straight when looking from above.

▶D◀ SELF-LOCKING NUT INSTALLATION

(1) Provisionally tighten the self-locking nut.
(2) Remove the special tools (MB991237, MB991239), tighten the self-locking nut to the specified torque.

Caution
Do not use an impact wrench.

Specified torque: 25 Nm (18 ft.lbs.)

INSPECTION

34100540035

- Check the rubber parts for damage.
- Check the coil springs for crack, damage or deterioration.