

GROUP 34

REAR SUSPENSION

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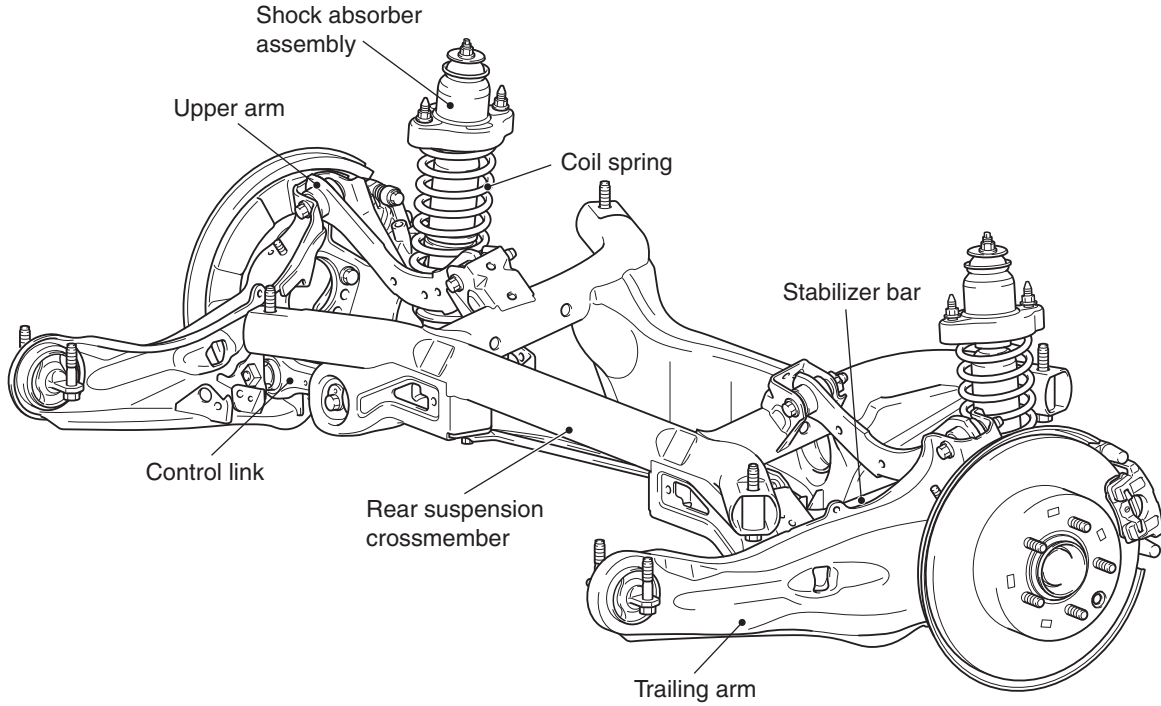
GENERAL INFORMATION

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The trailing arm type multi-link suspension has been adopted.

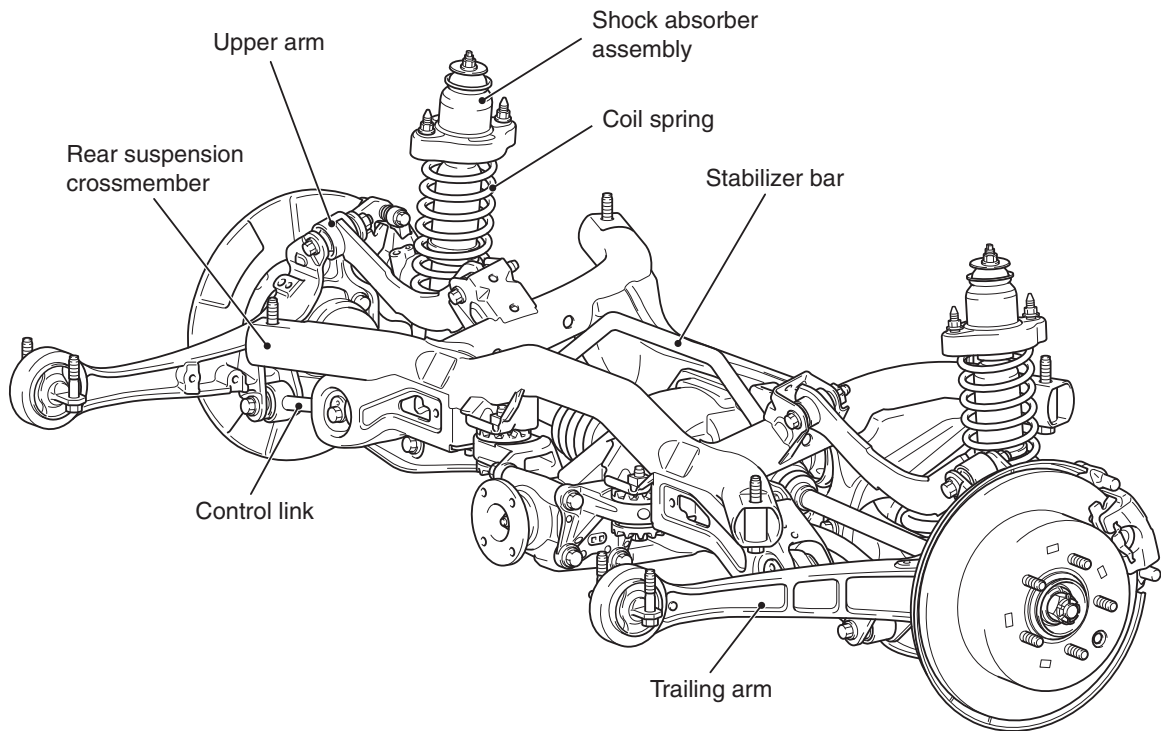
CONSTRUCTION DIAGRAM

<FWD>



AC612938 AD

<AWD>



AC712227AE

SPECIFICATIONS

FASTENER TIGHTENING SPECIFICATIONS

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Item	Specification
Control link	
Control link to crossmember nut	71 ± 10 N· m (52 ± 7 ft-lb)
Control link to rear height sensor nut	9.5 ± 2.5 N· m (84 ± 22 in-lb)
Control link to trailing arm bolt	90 ± 9 N· m (66 ± 6 ft-lb)
Rear height sensor to control link	9.5 ± 2.5 N· m (84 ± 22 in-lb)
Lower arm	
Lower arm to crossmember nut	71 ± 10 N· m (52 ± 7 ft-lb)
Lower arm to trailing arm nut	71 ± 10 N· m (52 ± 7 ft-lb)
Lower arm to shock absorber nut	71 ± 10 N· m (52 ± 7 ft-lb)
Lower arm to stabilizer link nut	39 ± 6 N· m (29 ± 4 ft-lb)
Rear suspension crossmember	
Crossmember bracket mounting bolt	71 ± 10 N· m (52 ± 7 ft-lb)
Crossmember stay mounting bolt	11 ± 3 N· m (97 ± 26 in-lb)
Rear wheel speed sensor clamp bolt	11 ± 2 N· m (97 ± 17 in-lb)
Shock absorber assembly	
Shock absorber assembly to body nut	45 ± 7 N· m (33 ± 5 ft-lb)
Shock absorber assembly to lower arm nut	71 ± 10 N· m (52 ± 7 ft-lb)
Shock absorber self-locking nut	25 ± 5 N· m (18 ± 3 ft-lb)
Stabilizer bar	
Stabilizer link nut	39 ± 6 N· m (29 ± 4 ft-lb)
Stabilizer bracket bolt	31 ± 4 N· m (23 ± 3 ft-lb)
Trailing arm	
Trailing arm to rear hub assembly bolt	95 ± 14 N· m (70 ± 10 ft-lb)
Trailing arm to brake hose bracket nut	11 ± 2 N· m (97 ± 17 in-lb)
Trailing arm to body bolt	110 ± 11 N· m (81 ± 8 ft-lb)
Trailing arm to rear brake assembly nut	145 ± 15 N· m (107 ± 11 ft-lb)
Parking brake cable mounting bolt	11 ± 2 N· m (97 ± 17 in-lb)
Rear brake tube/rear brake hose	16 ± 3 N· m (12 ± 2 ft-lb)
Rear caliper assembly mounting bolt <FWD>	55 ± 5 N· m (41 ± 3 ft-lb)
Rear caliper assembly mounting bolt <AWD>	58 ± 7 N· m (43 ± 5 ft-lb)
Rear driveshaft nut	144 -176 N· m (107 -129 ft-lb)
Rear wheel speed sensor to trailing arm bolt	8.5 ± 1.5 N· m (76 ± 13 in-lb)
Upper arm	
Upper arm to crossmember bolt	71 ± 10 N· m (52 ± 7 ft-lb)
Upper arm to trailing arm	71 ± 10 N· m (52 ± 7 ft-lb)

GENERAL SPECIFICATIONS

M1341000200479

COIL SPRING

Item	FWD	AWD
Wire diameter mm (in)	10 (0.4)	11 (0.4)
Mean diameter of coil mm (in)	90 (3.5)	91 (3.6)
Free length mm (in)	368 (14.5)	349 (13.7)

SERVICE SPECIFICATIONS

M1341000300904

Item	Standard value
Toe in mm (in)	3 ± 2 (0.12 ± 0.08)
Camber	-0° 55' ± 0° 30' (left/right difference 30'max)
Control link pillow ball bushing and upper arm pillow ball bushing rotation starting torque N· m (in-lb)	2.0 –4.5 (17.7 –39.8)
Stabilizer link ball joint rotation torque N· m (in-lb)	0.5 –2.9 (4.4 –25.7)

REAR SUSPENSION DIAGNOSIS

INTRODUCTION TO REAR SUSPENSION DIAGNOSIS

M1341013100160

If the rear suspension is faulty, the vehicle will not run straightforward or noise will occur. Incorrect wheel alignment, malfunction of shock absorber, stabilizer bar, coil spring, control arms or worn or out-of-balance will cause these problems.

REAR SUSPENSION DIAGNOSTIC TROUBLESHOOTING STRATEGY

M1341013200167

Use these steps to plan your diagnostic strategy. If you follow them carefully, you will be sure that you have exhausted most of the possible ways to find a rear suspension fault.

1. Gather information from the customer.

2. Verify that the condition described by the customer exists.
3. Find the malfunction by following the Symptom Chart.
4. Verify malfunction is eliminated.

SYMPTOM CHART

M1341013500306

Symptom	Inspection procedure	Reference page
Squeaks or other abnormal noise	1	P.34-5
Poor ride	2	P.34-5
Body tilting	3	P.34-6

SYMPTOM PROCEDURES

INSPECTION PROCEDURE 1: Squeaks or Other Abnormal Noise

DIAGNOSIS

STEP 1. Check for loose rear suspension installation bolts and nuts.

Q: Are the rear suspension installation bolts and nuts loose?

YES : Retighten them, then go to Step 5.

NO : Go to Step 2.

STEP 2. Check the malfunction of shock absorbers (worn bushings).

Q: Are the shock absorbers (bushings) in good condition?

YES : Go to Step 3.

NO : Replace the faulty part, then go to Step 5.

STEP 3. Check the upper arms and/or lower arms and/or control links for deformity or damage.

Q: Are the upper arms and/or lower arms and/or control links in good condition?

YES : Go to Step 4.

NO : Replace the faulty part, then go to Step 5.

STEP 4. Check the trailing arms for deformity or damage.

Q: Are the trailing arms in good condition?

YES : Go to Step 5.

NO : Replace the faulty part, then go to Step 5.

STEP 5. Retest the system.

Q: Is the malfunction eliminated?

YES : The procedure is complete.

NO : Return to Step 1.

INSPECTION PROCEDURE 2: Poor Ride

DIAGNOSIS

STEP 1. Check the excessive tire inflation pressure.

Refer to GROUP 31, On-vehicle Service -Tire Inflation Pressure Check [P.31-7](#).

Q: Is the tire inflation pressure in good condition?

YES : Go to Step 2.

NO : Adjust the pressure, then go to Step 4.

STEP 2. Check for malfunction of shock absorbers (weak or broken springs).

Q: Are the shock absorbers in good condition?

YES : Go to Step 3.

NO : Replace the faulty part, then go to Step 4.

STEP 3. Check the stabilizer bar and/or stabilizer links for deformity or damage.

Q: Are the stabilizer bar and/or stabilizer link deformed or damaged?

YES : Replace the faulty part, then go to Step 4.

NO : Go to Step 4.

STEP 4. Retest the system.

Q: Is the malfunction eliminated?

YES : The procedure is complete.

NO : Return to Step 1.

INSPECTION PROCEDURE 3: Body Tilting

DIAGNOSIS

STEP 1. Check for weak or deteriorated bushings.**Q: Are the bushings in good condition?****YES :** Go to Step 2.**NO :** Replace the faulty part, then go to Step 5.

STEP 2. Check for weak or broken springs.**Q: Are the springs in good condition?****YES :** Go to Step 3.**NO :** Replace the faulty part, then go to Step 5.


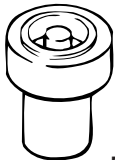
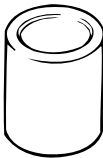
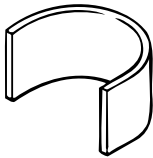
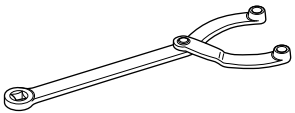
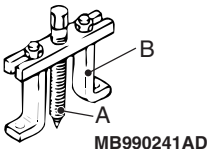

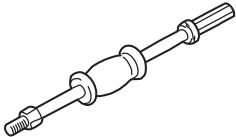
STEP 3. Check the upper arms and/or lower arms and/or control links for deformity or damage.**Q: Are the upper arms and/or lower arms and/or control links deformed or damaged?****YES :** Replace the faulty part, then go to Step 5.**NO :** Go to Step 4.

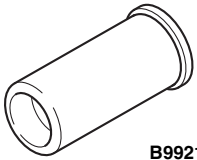
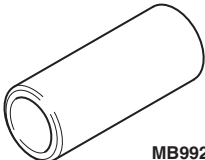

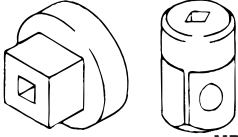
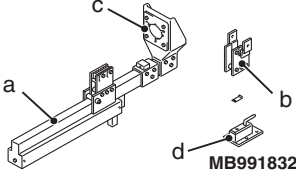
STEP 4. Check the trailing arms for deformity or damage.**Q: Are the trailing arms deformed or damaged?****YES :** Replace the faulty part, then go to Step 5.**NO :** Go to Step 5.

STEP 5. Retest the system.**Q: Is the malfunction eliminated?****YES :** The procedure is complete.**NO :** Return to Step 1.

SPECIAL TOOLS

M1341000600927

Tool	Tool number and name	Supersession	Application
 <p>MB991004</p>	<p>MB991004 Wheel alignment gauge attachment</p>	<p>–</p>	<p>Wheel alignment measurement <AWD vehicle with aluminum wheels></p>
 <p>MB991447</p>	<p>MB992123 Arm bushing remover and installer</p>	<p>–</p>	<p>Lower arm bushing removal and press-fit</p>
	<p>MB991448 Bushing remover and installer base</p>	<p>MB991448-01</p>	
	<p>MB991449 Bushing remover and installer supporter</p>	<p>–</p>	
 <p>B990767</p>	<p>MB990767 Front hub and flange yoke holder</p>	<p>MB990767-01</p>	<p>Fixing of the hub</p>
 <p>MB990241AD</p>	<p>MB990241 Axle shaft puller A: MB990242 Puller shaft B: MB990244 Puller bar</p>	<p>MB990241-01 or General service tool</p>	<p>Rear wheel hub assembly removal</p>
 <p>MB991354</p>	<p>MB991354 Puller body</p>	<p>General service tool</p>	
 <p>MB990211</p>	<p>MB990211 Slide hammer</p>	<p>General service tool</p>	

Tool	Tool number and name	Supersession	Application
 <p>B992121</p>	<p>MB992121 Arm bushing remover and installer</p>	<p>–</p>	<p>Trailing arm bushing removal and press-fit</p>
 <p>MB992125</p>	<p>MB992125 Arm bushing base</p>	<p>–</p>	
 <p>MB992175</p>	<p>MB992175 Base spacer</p>	<p>–</p>	
 <p>MB990326</p>	<p>MB990326 Preload socket</p>	<p>General service tool</p>	<p>Stabilizer link ball joint rotation torque measurement</p>
 <p>MB991832</p>	<p>MB991832 Spring compressor set a: MB991793 Spring compressor assembly b: MB991796 Attachment B c: MB991794 Upper plate d: MB991830 Fixture</p>	<p>General service tool</p>	<p>Rear coil spring compression</p>

ON-VEHICLE SERVICE

REAR WHEEL ALIGNMENT CHECK AND ADJUSTMENT

M1341011000899

1. Before the wheel alignment measurement, adjust the rear suspension, wheel, and tires in good condition.
2. Park the vehicle on a level surface to measure the wheel alignment.

TOE-IN

Standard value: 3 ± 2 mm (0.12 ± 0.08 inch)

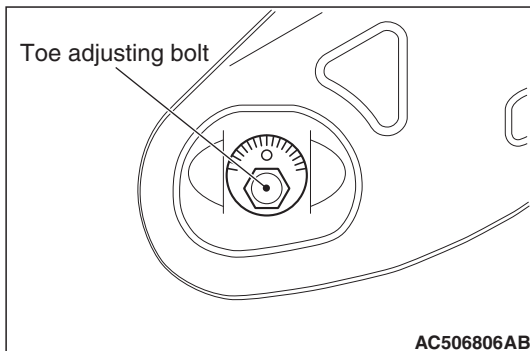
If it is out of the standard range, adjust as follows:

Turn the toe adjusting bolt (the mounting bolt inside the body on the control link) to adjust.

Left wheels: Clockwise \rightarrow (+) Toe in

Right wheels: Clockwise \rightarrow (-) Toe in

Toe-in varies approximately 2.6 mm (0.10inch) (equivalent to $0^{\circ} 16'$ of the toe angle for one side) for each scale mark.

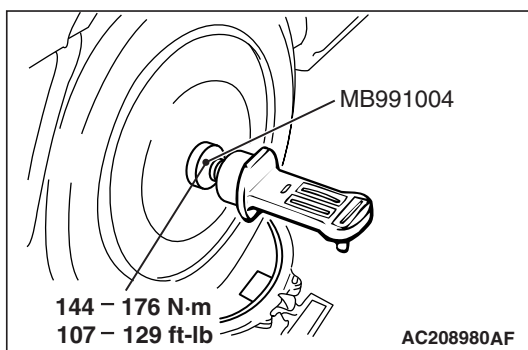
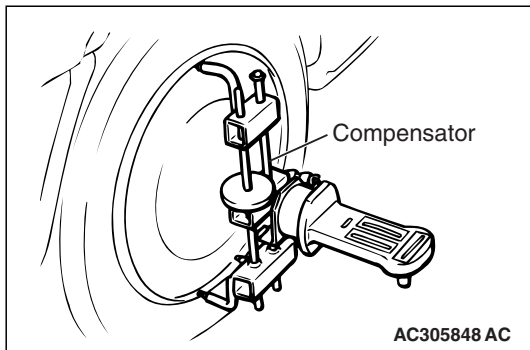


CAMBER

Standard value: $-0^{\circ} 55' \pm 0^{\circ} 30'$ (left/right difference $0^{\circ} 30'$ max)

NOTE:

- For FWD vehicles with aluminum wheels, attach the camber/caster/kingpin gauge by using a compensator.



- For AWD vehicles with aluminum wheels, tighten the wheel alignment gauge attachment (Special tool: MB991004) to the specified torque, then measure the camber.
- The camber is pre-adjusted at factory and is not adjustable.

STABILIZER LINK BALL JOINT DUST COVER
INSPECTION

M1341019100027

1. Using your fingers, press the dust cover to check for a crack or damage.
2. If the dust cover has a crack or damage, replace the stabilizer link.

NOTE: If the dust cover has a crack or damage, the ball joint could be damaged.

CONTROL LINK, UPPER ARM AND LOWER ARM

REMOVAL AND INSTALLATION

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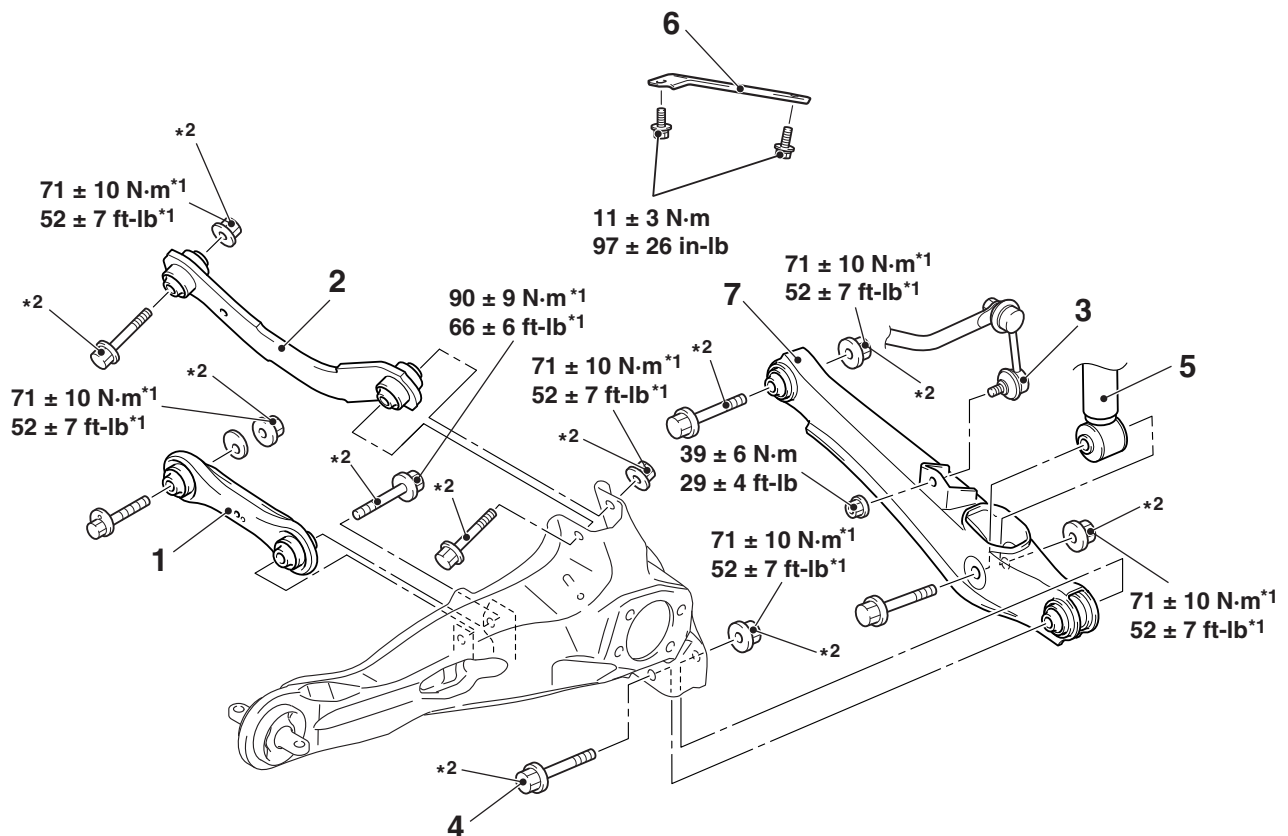
CAUTION

- The parts indicated by *¹ should be temporarily tightened, and then fully tightened with the vehicle standing on the ground and the curb weight condition.
- The parts indicated by *² are the bolts/nuts with friction coefficient stabilizer. In removal, ensure there is no damage, clean dust and soiling from the bearing and thread surfaces, and tighten them to the specified torque.

Post-installation operation

- Using your fingers, press the Ball Joint Dust Cover to check for a crack or damage.
- Wheel alignment check and adjustment (Refer to P.34-9.)

<FWD>

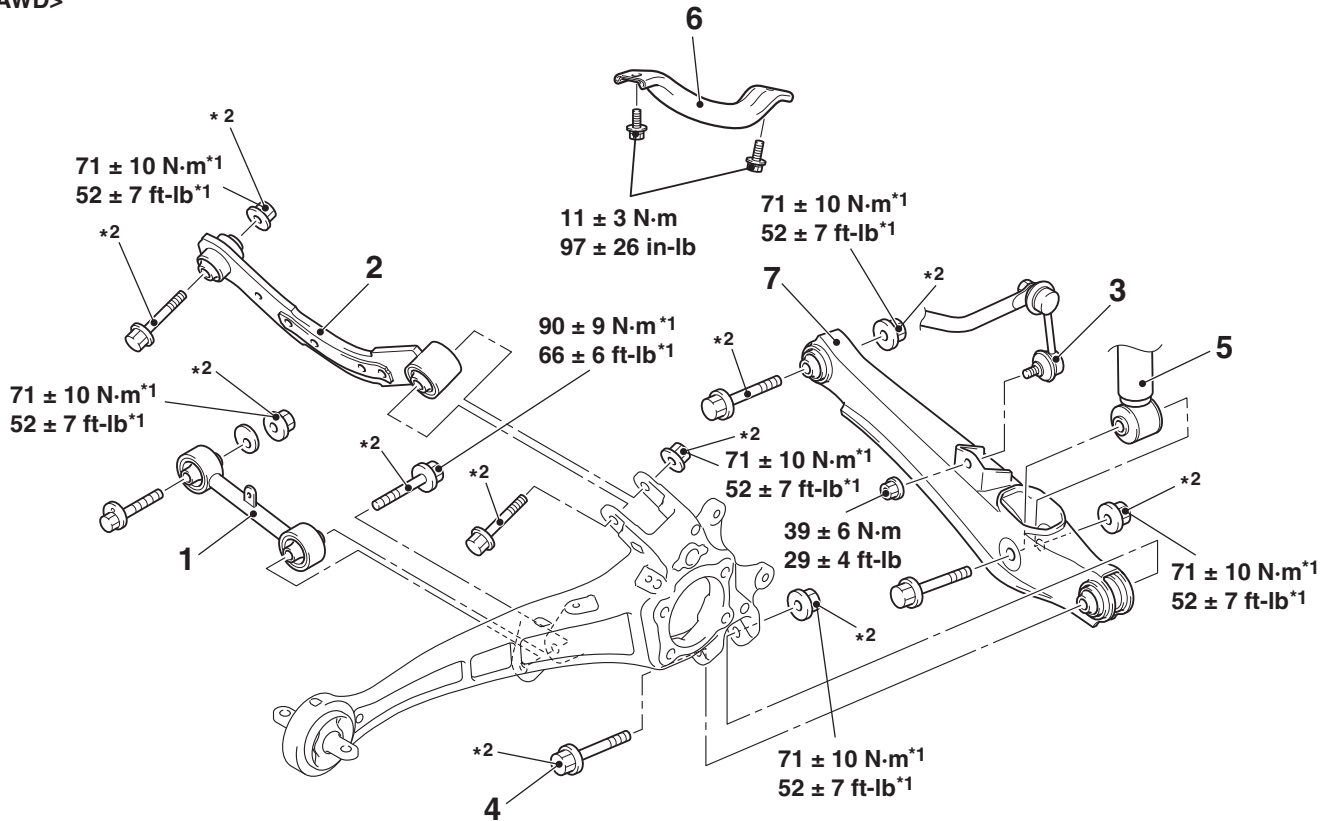


AC613101AF

- <<A>>**
- Control link and upper arm removal**
1. Control link
 - Fuel tank vapor hose connection (Refer to GROUP 13C, Fuel tank P.13C-24.)
 - >>A<<** 2. Upper arm

- <>**
3. Stabilizer link connection
 4. Lower arm and trailing arm connection
 5. Shock absorber and lower arm connection
 6. Rear suspension crossmember stay
 7. Lower arm

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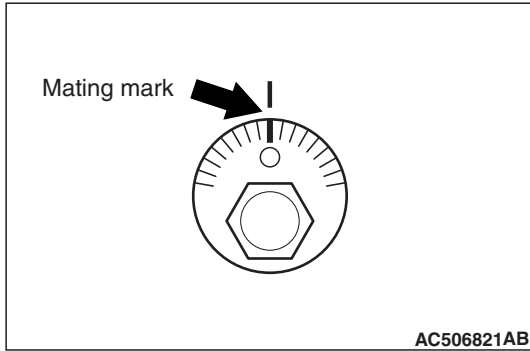
- <<A>>** **>>B<<**
- Control link and upper arm removal**
1. Control link
 - Fuel tank vapor hose connection (Refer to GROUP 13C, Fuel tank P.13C-14.)
 - >>A<<** 2. Upper arm

- <>**
3. Stabilizer link connection
 4. Lower arm and trailing arm connection
 5. Shock absorber and lower arm connection
 6. Rear suspension crossmember stay
 7. Lower arm

REMOVAL SERVICE POINTS

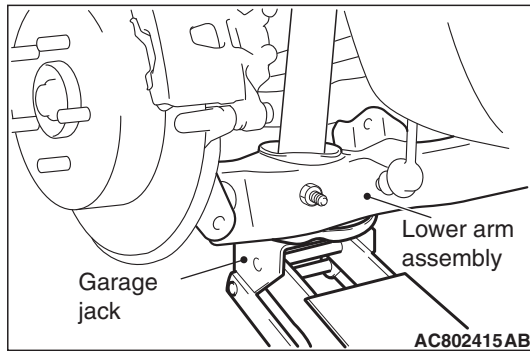
<<A>> CONTROL LINK REMOVAL

Make a mating mark on the toe adjusting bolt, and remove the control link.



<> LOWER ARM AND TRAILING ARM DISCONNECTION

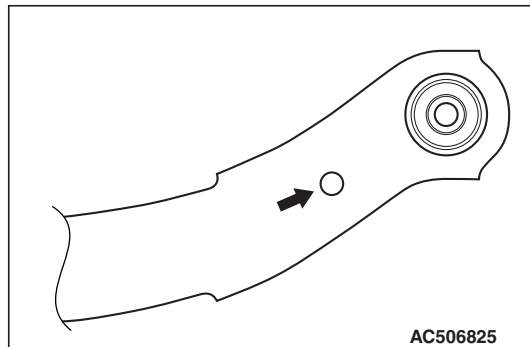
While jacking-up the lower arm with garage jack, remove the mounting bolts.



INSTALLATION SERVICE POINTS

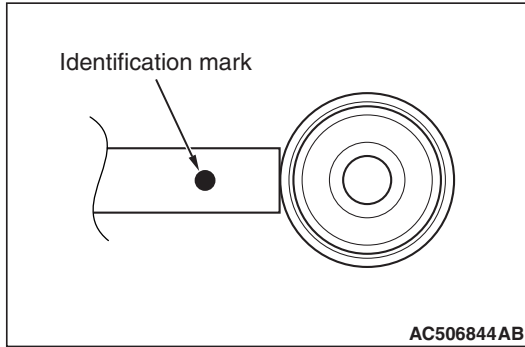
>>A<< UPPER ARM INSTALLATION

Install the upper arm so that the hole faces the body side.



>>B<< CONTROL LINK INSTALLATION

Install the control link so that the identification mark faces the outside of the body.



CONTROL LINK AND UPPER ARM PILLOW BALL BUSHING ROTATION STARTING TORQUE CHECK <AWD>

M1341022300043

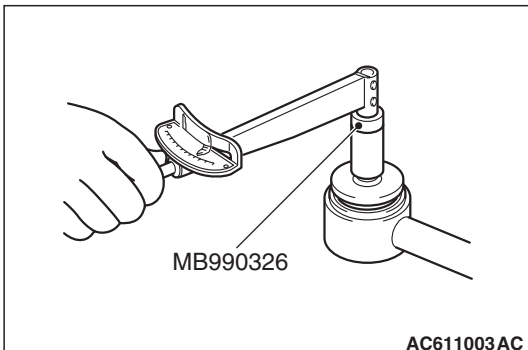
Required Special Tool:

- MB990326: Preload socket

1. Insert the bolt to the control link pillow ball bushing or upper arm pillow ball bushing, and install the nut with the washer from the opposite side. Rotate the inner cylinder (including washer) for several turns, and measure the rotation starting torque of the control link pillow ball bushing or upper arm pillow ball bushing using special tool MB990326.

Standard value: 2.0 –4.5 N· m (17.7 –39.8 in-lb)

2. When the measured value exceeds the standard range, replace the control link or upper arm.
3. When the measured value is less than the standard range, check that the control link pillow ball bushing or upper arm pillow ball bushing has no looseness or gritty feeling. If there is no looseness or gritty feeling, it is judged as usable.



LOWER ARM BUSHING REPLACEMENT

M1341011800312

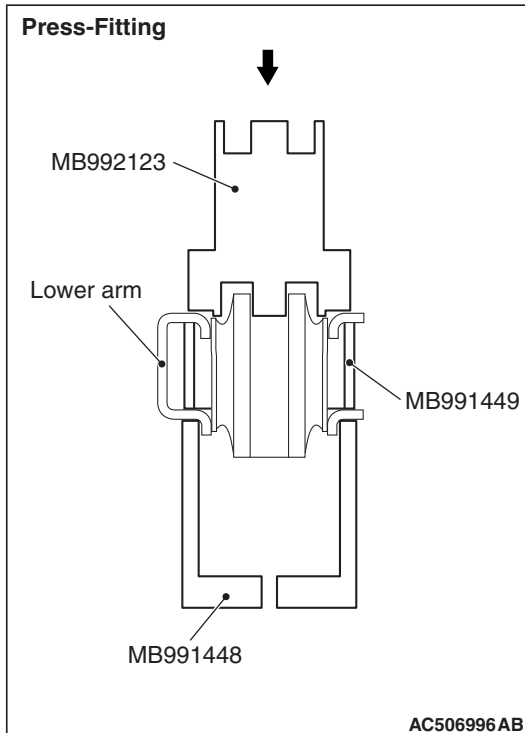
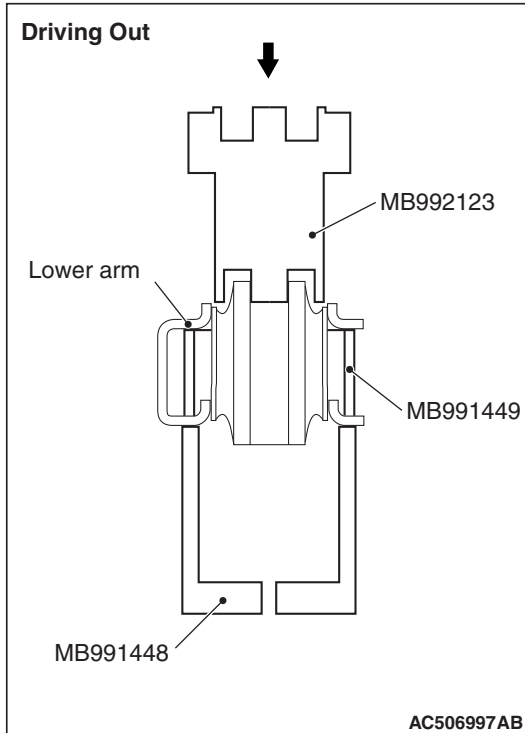
Required Special Tools:

- MB992123: Arm Bushing Remover and Installer
- MB991448: Bushing Remover and Installer Base
- MB991449: Bushing Remover and Installer Supporter

⚠ CAUTION

As the bushing has different outer diameters at both ends, be careful not to confuse the removal direction with the press-fit direction.

Use the special tools MB992123, MB991448 and MB991449 to remove and press-fit the lower arm bushing.



TRAILING ARM

REMOVAL AND INSTALLATION

M1341002201315

CAUTION

- The parts indicated by ^{*1} should be temporarily tightened, and then fully tightened with the vehicle standing on the ground and the curb weight condition.
- The parts indicated by ^{*2} are the bolts/nuts with friction coefficient stabilizer. In removal, ensure there is no damage, clean dust and soiling from the bearing and thread surfaces, and tighten them to the specified torque.
- The part indicated by ^{*3} is the bolt/nut with friction coefficient stabilizer. In removal, replace it with new one.

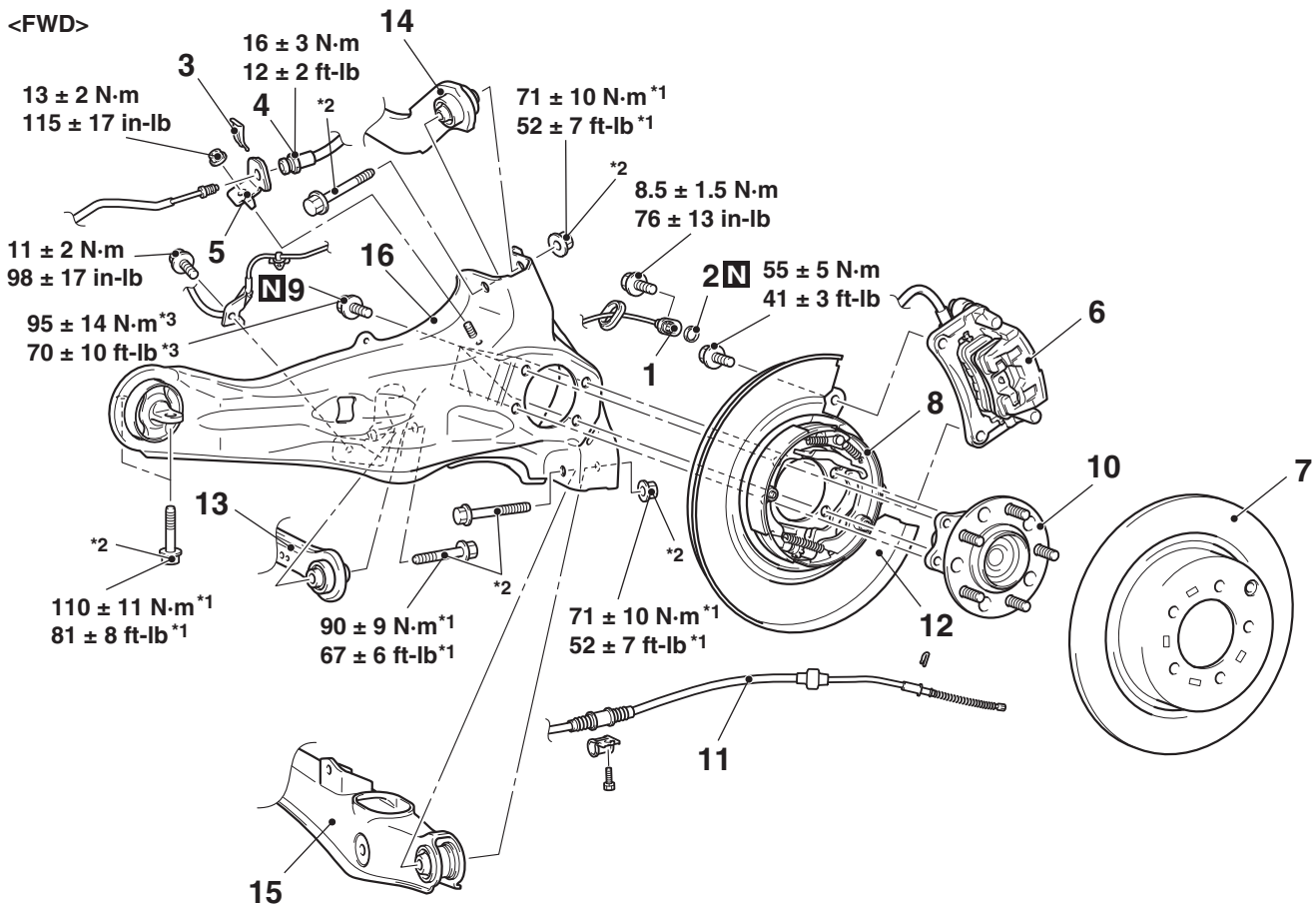
Pre-removal operation

- Brake Fluid Draining (Refer to GROUP 35A, On-vehicle Service–Basic Brake System Bleeding P.35A-18.) <FWD>

Post-installation operation

- Using your fingers, press the Ball Joint Dust Cover to check for a crack or damage.
- Brake Fluid Refilling and Bleeding (Refer to GROUP 35A, On-vehicle Service–Basic Brake System Bleeding P.35A-18.) <FWD>
- Wheel Alignment Check and Adjustment (Refer to P.34-9.)
- Parking Brake Lever Stroke Check and Adjustment (Refer to GROUP 36, On-vehicle Service –Parking Brake Lever Stroke Check and Adjustment P.36-9.)

<FWD>



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Removal steps

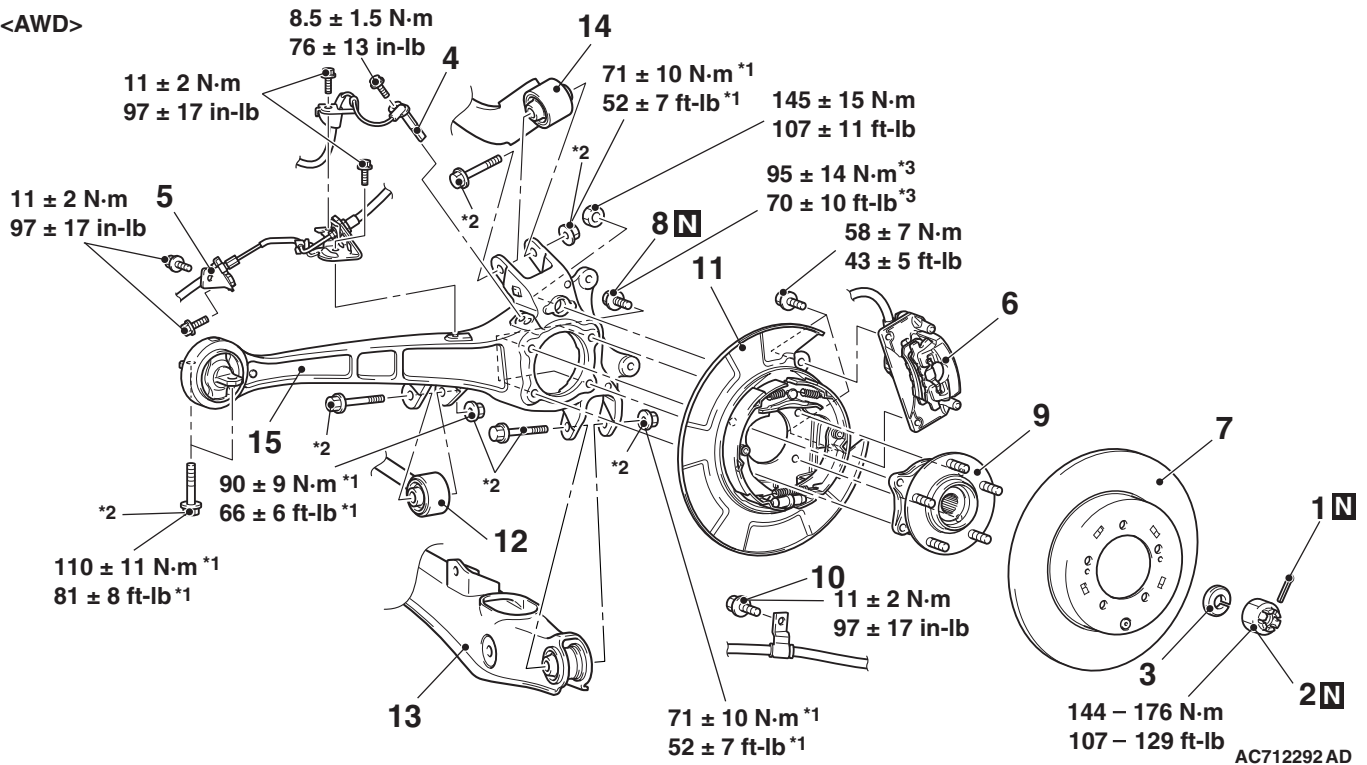
1. Rear wheel speed sensor (Refer to GROUP 35C, Wheel Speed Sensor P.35C-313.)
2. O ring
3. Clamp
4. Rear brake hose connection
5. Rear brake hose bracket
6. Rear caliper assembly
7. Rear brake disk

Removal steps (Continued)

8. Shoe and lining assembly (Refer to GROUP 36, Parking Brake and Drum P.36-18.)
9. Rear wheel hub assembly mounting bolt
10. Rear wheel hub assembly
11. Parking brake cable connection
12. Rear brake backing plate
13. Control link connection
14. Upper arm connection
15. Lower arm connection
16. Trailing arm assembly

<>

<AWD>



Removal steps

1. Cotter pin
2. Rear driveshaft nut
3. Washer
4. Rear wheel speed sensor
5. Rear brake hose bracket
6. Rear caliper assembly
7. Rear brake disk
8. Rear wheel hub assembly mounting bolt

Removal steps (Continued)

9. Rear wheel hub assembly
10. Parking brake cable mounting bolt
11. Rear brake assembly
12. Control link connection
13. Lower arm connection
14. Upper arm connection
15. Trailing arm assembly

<<A>>

>>A<<

>>A<<

<>

<<C>>

<<D>>

Required Special Tools:

- MB990211: Slide Hammer
- MB990241: Rear Axle Shaft Puller
- MB990242: Puller Shaft
- MB990244: Puller Bar
- MB990767: Front Hub and Flange Yoke Holder
- MB991354: Puller Body

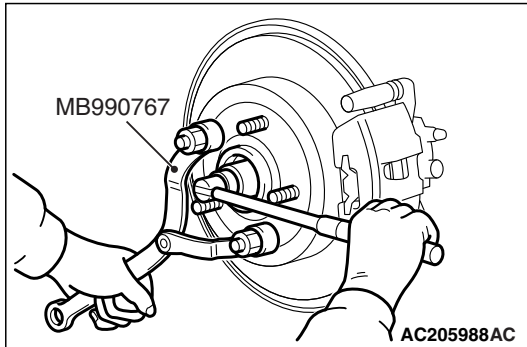
REMOVAL SERVICE POINTS

<<A>> REAR DRIVESHAFT NUT REMOVAL

⚠ CAUTION

Do not apply the vehicle weight on the rear wheel hub assembly with the driveshaft nut loosened. Otherwise, the wheel bearing will be broken.

Use special tool MB990767 to fix the hub and remove the driveshaft nut.

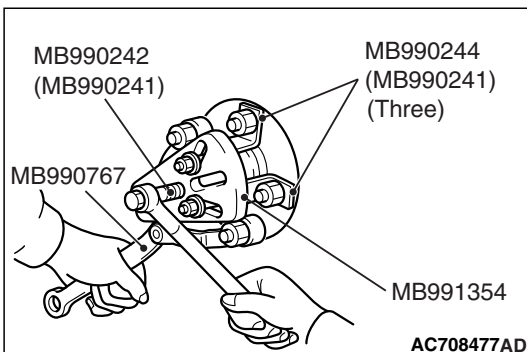


<> REAR CALIPER ASSEMBLY REMOVAL

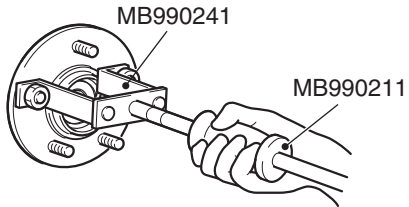
1. Remove the caliper assembly with brake hose.
2. Secure the removed caliper assembly with a wire or other similar material at a position where it will not interfere with the removal and installation of the rear wheel hub assembly.

<<C>> REAR WHEEL HUB ASSEMBLY REMOVAL

1. If the rear wheel hub assembly is seized with the rear driveshaft assembly, use special tools MB990242 and MB990244, MB991354 and MB990767 to push the rear driveshaft assembly out from the hub and then remove the rear wheel hub assembly.

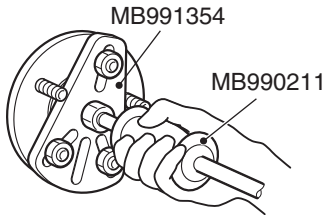


Combination (A)



AC701415 AC

Combination (B)

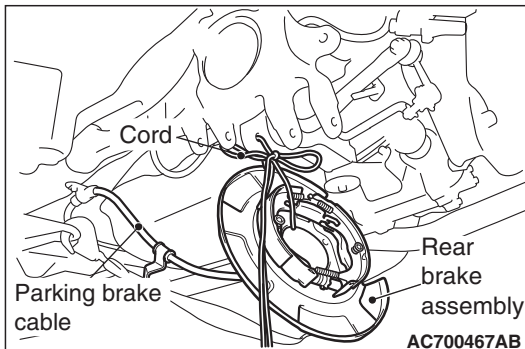


AC706385 AB

2. If the rear wheel hub assembly is seized with the knuckle, use special tools MB990211 and MB990241 {combination (A)}, or MB990211 and MB991354 {combination (B)} to remove the rear wheel hub assembly.

<<D>> REAR BRAKE ASSEMBLY REMOVAL

Without separating the parking brake cable, hang the rear brake assembly at the body-side using a string.



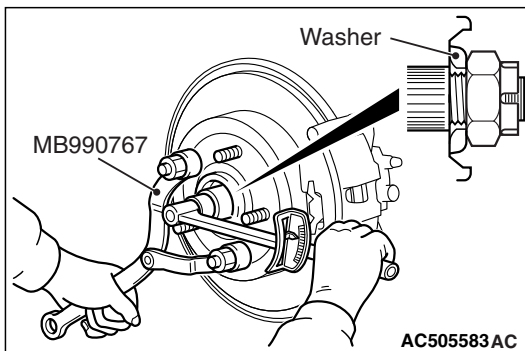
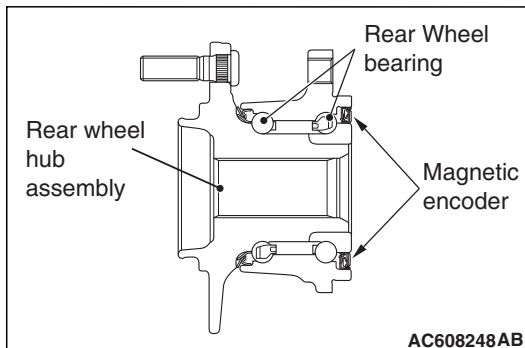
AC700467 AB

INSTALLATION SERVICE POINT

>>A<< WASHER/REA DRIVESHAFT NUT INSTALLATION

⚠ CAUTION

- The magnetic encoder collects metallic particles easily, because it is magnetized. Make sure that the magnetic encoder should not collect metallic particles. Check that there is not any trouble prior to reassembling it.
- When installing the drive shaft, make sure that it does not contact with the magnetic encoder (integrated with the inner oil seal) to avoid damage.
- Do not apply the vehicle weight on the rear wheel hub assembly before fully tightening the driveshaft nuts. Otherwise, the wheel bearing will be broken.



1. Incorporate the driveshaft washer as shown in the figure.
2. Using special tool MB990767, tighten the driveshaft nut. At this time, tighten the nut to the specified lower limit torque so that the pin hole may align with cotter pin.

Tightening torque: 144 –176 N· m (107 –129 ft-lb)

3. If the pin holes do not align with the pins, tighten the driveshaft nut [less than 176 N· m (129 ft-lb)] and find the nearest hole, then bend the cotter pin to fit it.

INSPECTION

M1341002300290

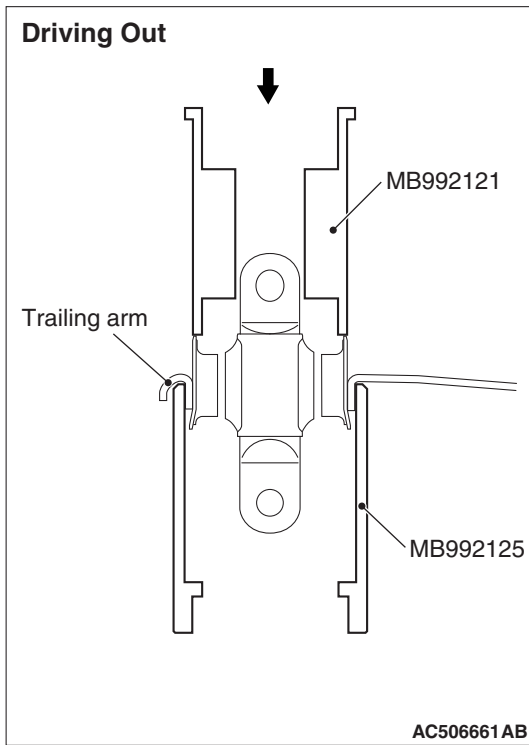
- Check the bushings for wear and deterioration.
- Check the trailing arm for bending or damage.

TRAILING ARM BUSHING REPLACEMENT <FWD>

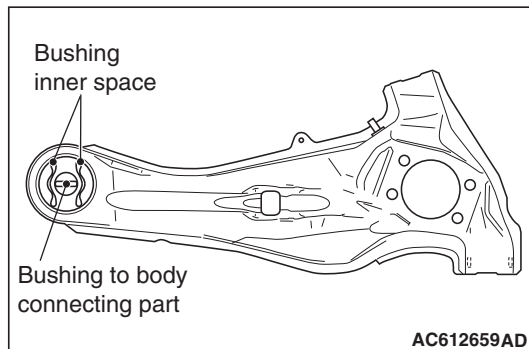
M1341011300384

Required Special Tools:

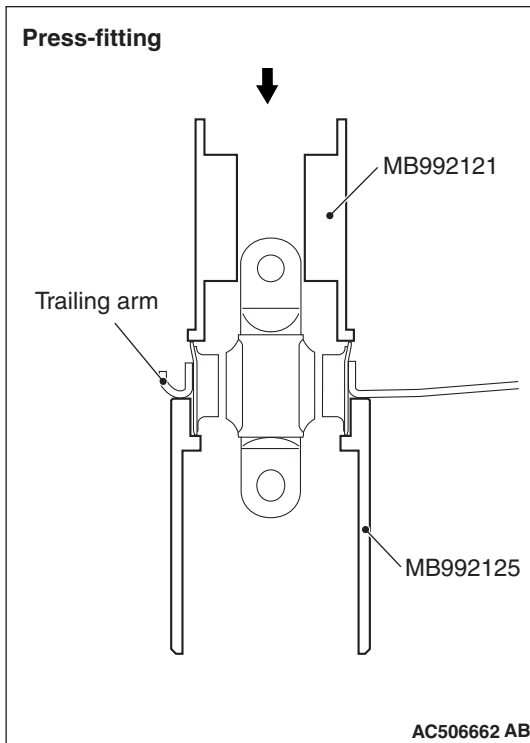
- MB992121: Arm Bushing Remover and Installer
- MB992125: Arm Bushing Base



1. Use the special tools MB992121 and MB992125 to remove the trailing arm bushing:



2. Determine the installation direction and the installation position of the trailing arm bushing.
 - (1) Install so that the protruding side of the trailing arm bushing inner pipe faces inside the body.
 - (2) Position horizontally the trailing arm bushing to body connecting part, and locate bushing inner space as shown in the figure.



3. Use the special tools MB992121 and MB992125 to press-fit the trailing arm bushing up to the position shown in the figure:

TRAILING ARM BUSHING REPLACEMENT <AWD>

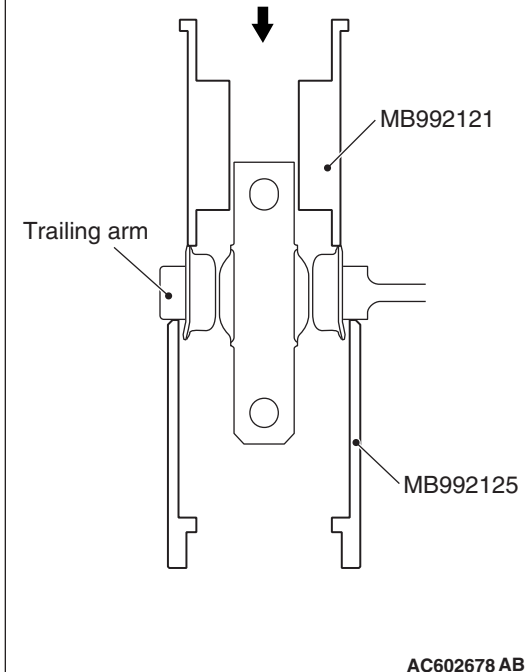
M1341011300481

CAUTION

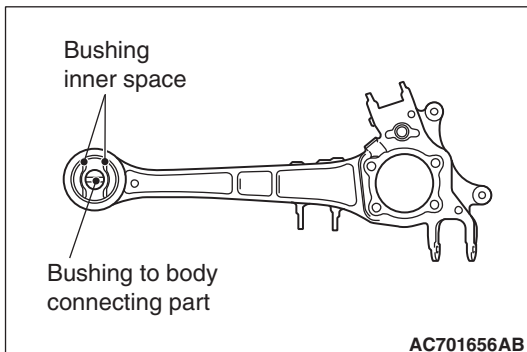
The trailing arm bushing can be replaced only once. If the bushing is replaced multiple times, the drawing force of bushing may become reduced.

Required Special Tools:

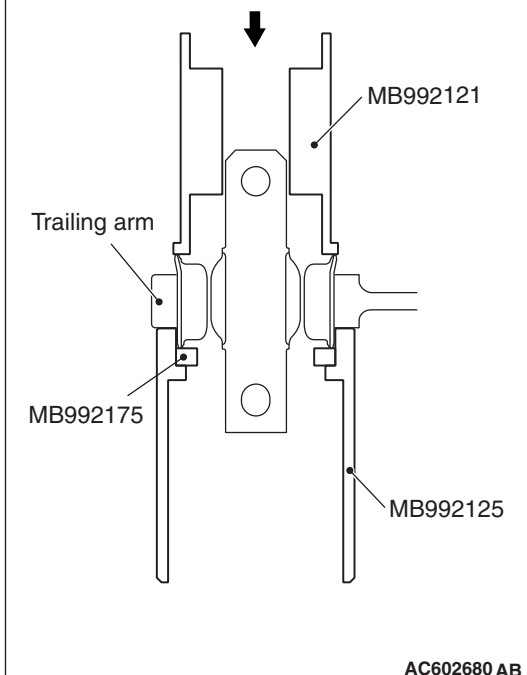
- MB992121: Arm Bushing Remover and Installer
- MB992125: Arm Bushing Base
- MB992175: Base Spacer

Driving Out


1. Use special tools MB992121 and MB992125 to remove the trailing arm bushing:



2. Determine the installation direction and the installation position of the trailing arm bushing.
 - (1) Install so that the protruding side of the trailing arm bushing inner pipe faces inside the body.
 - (2) Position horizontally the trailing arm bushing to body connecting part, and locate bushing inner space as shown in the figure.

Press-fitting


3. Use special tools MB992121, MB992125 and MB992175 to press-fit the trailing arm bushing up to the position shown in the figure.

SHOCK ABSORBER ASSEMBLY

REMOVAL AND INSTALLATION

M1341002500818

CAUTION

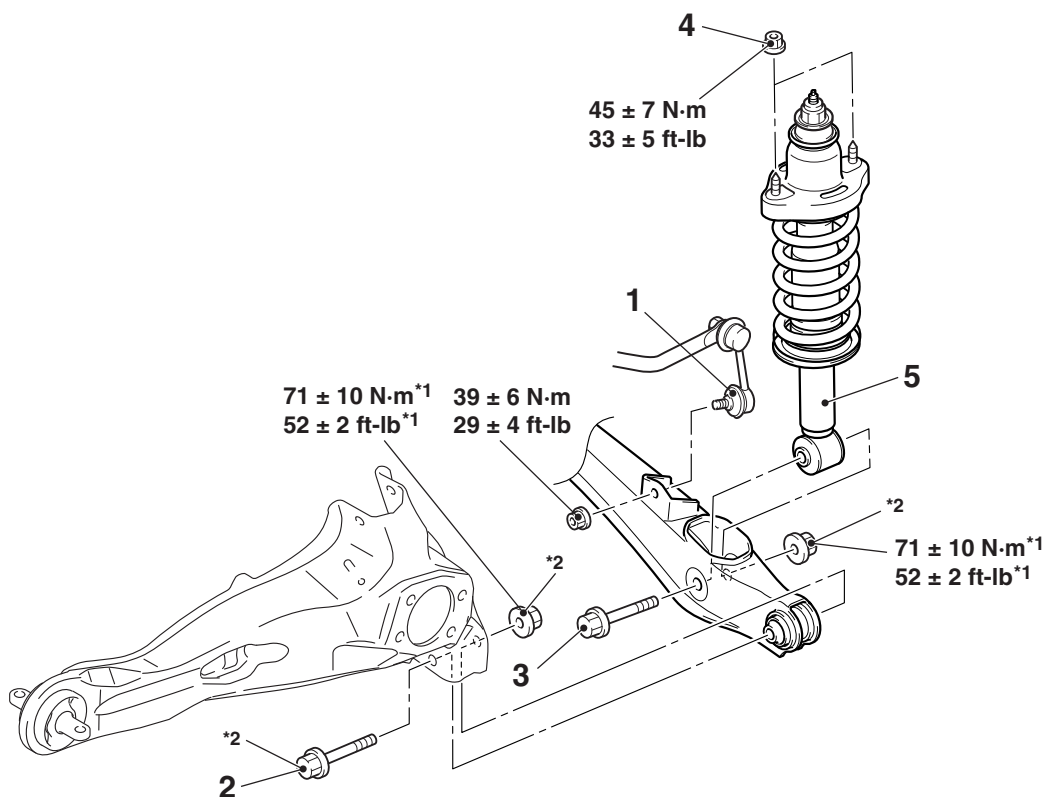
- The parts indicated by *1 should be temporarily tightened, and then fully tightened with the vehicle standing on the ground and the curb weight condition.
- The parts indicated by *2 are the bolts/nuts with friction coefficient stabilizer. In removal, ensure there is no damage, clean dust and soiling from the bearing and thread surfaces, and tighten them to the specified torque.

Pre-removal operation

- Quarter Trim Removal (Refer to GROUP 52A –Trim P.52A-11, P.52A-11.)

Post-installation operation

- Using your fingers, press the Ball Joint Dust Cover to check for a crack or damage.
- Quarter Trim Installation (Refer to GROUP 52A –Trim P.52A-11, P.52A-11.)



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Removal steps

Removal steps (Continued)

<<A>>

1. Stabilizer link connection
2. Lower arm and trailing arm connection

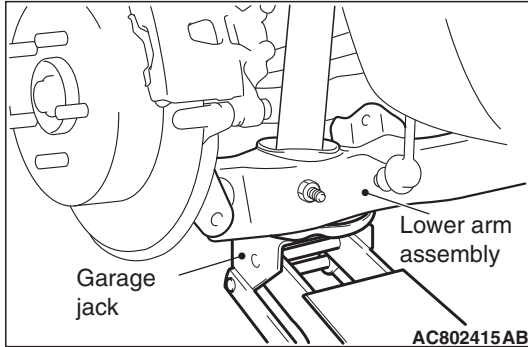
3. Shock absorber and lower arm connection
4. Shock absorber mounting nut
5. Shock absorber assembly

<> >>A<<

REMOVAL SERVICE POINTS

<<A>> LOWER ARM AND TRAILING ARM DIS-CONNECTION

While jacking-up the lower arm with garage jack, remove the mounting bolts.



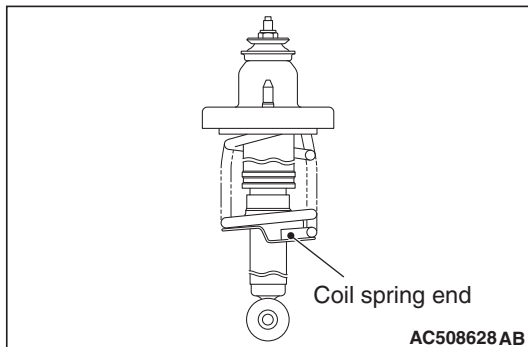
<> SHOCK ABSORBER ASSEMBLY REMOVAL

After having loosened the lower arm and rear suspension crossmember connection, remove the shock absorber assembly.

INSTALLATION SERVICE POINT

>>A<< SHOCK ABSORBER ASSEMBLY INSTALLATION

Install the shock absorber assembly so that the coil spring end faces the rear of the vehicle.



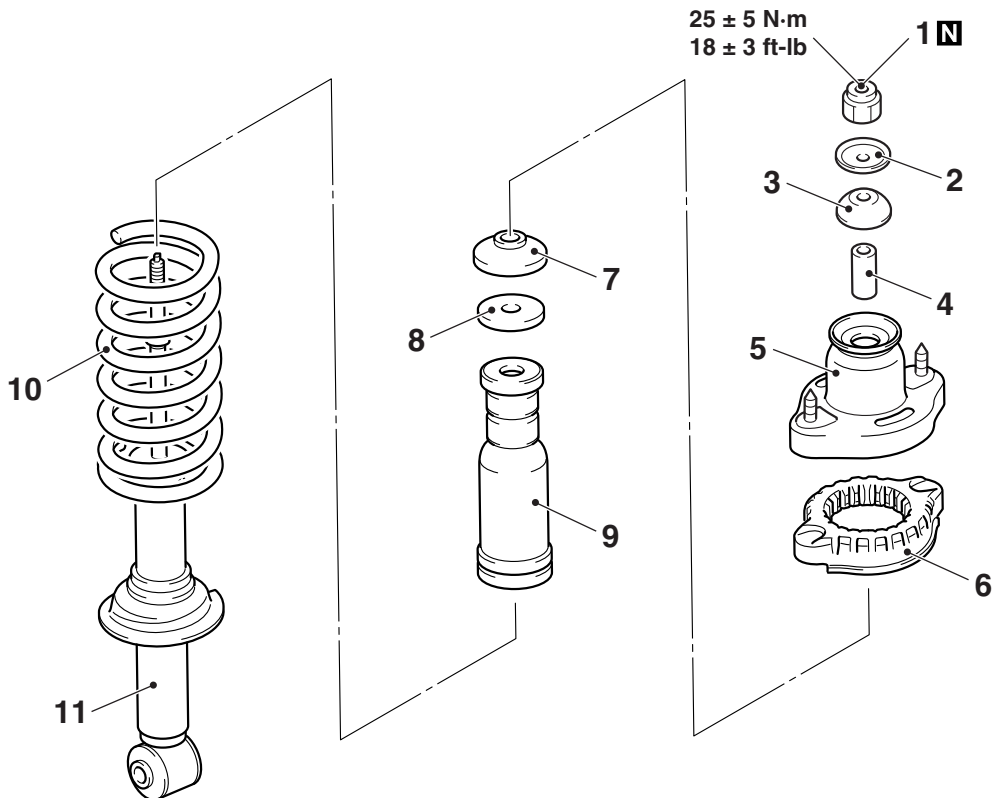
INSPECTION

M1341002600246

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

DISASSEMBLY AND ASSEMBLY

M1341002700287



AC506862AB

- <<A>> >>B<<
- Disassembly steps**
1. Self-locking nut
 2. Washer
 3. Bushing B
 4. Collar
 5. Spring upper bracket assembly
 6. Spring upper pad

- Disassembly steps (Continued)**
7. Bushing A
 8. Plate
 9. Bump rubber
- >>A<<
10. Coil spring
 11. Shock absorber

Required Special Tools:

- MB991793: Spring Compressor
- MB991796: Attachment B
- MB991794: Upper Plate
- MB991830: Fixture

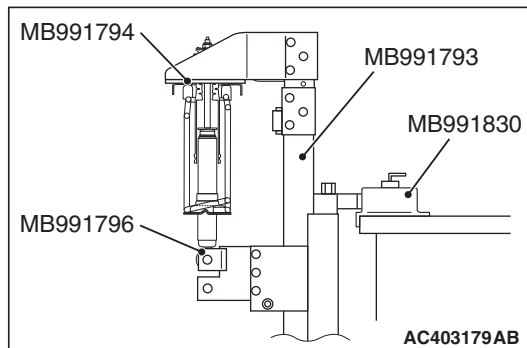
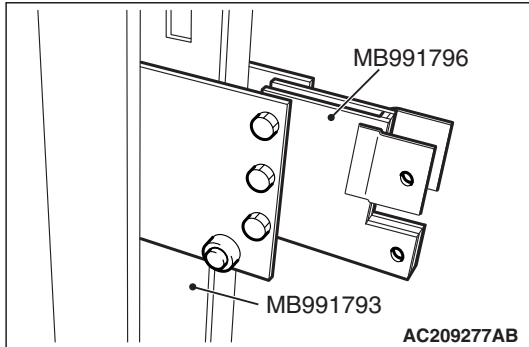
DISASSEMBLY SERVICE POINT

<<A>> SELF-LOCKING NUT REMOVAL

⚠ CAUTION

The locking nut for the piston rod inside the shock absorber may be loose. Do not use an impact wrench to loosen the self-locking nut.

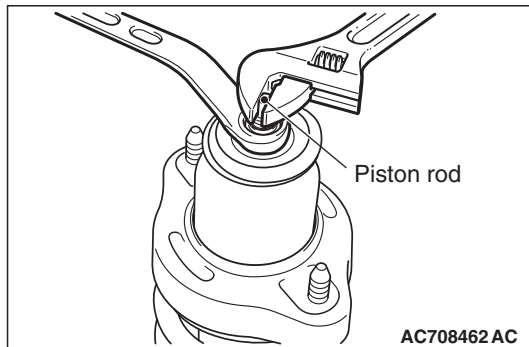
1. Install special tool MB991796 to special tool MB991793 as shown in the figure.



2. Set the shock absorber assembly to special tools MB991793, MB991796, MB991794 and MB991830.

NOTE: Use the bolts and nuts removed from the vehicle to secure the shock absorber assembly and tighten them lightly by hand.

3. After setting the shock absorber assembly, operate the spring compressor and compress the coil spring by approximately 5 mm (0.2 inch).



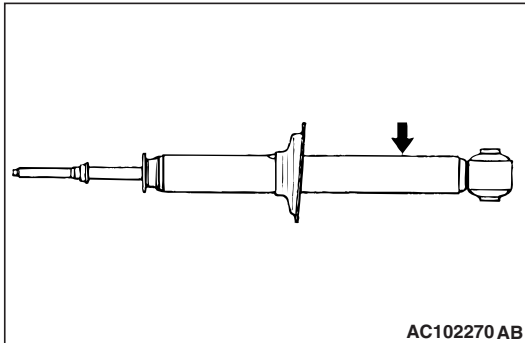
4. While holding the piston rod, remove the self-locking nut.

<> SHOCK ABSORBER DISPOSAL PROCEDURES

⚠ CAUTION

Wear the protective glasses. Although the gas is harmless, drilling chips may be blown out by the gas.

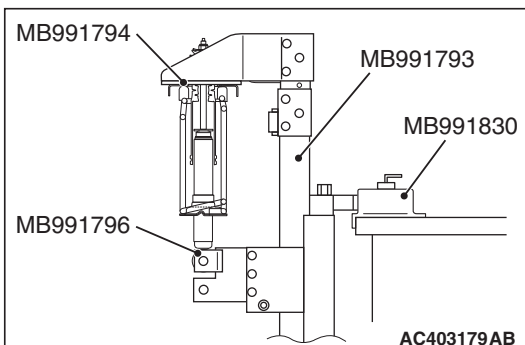
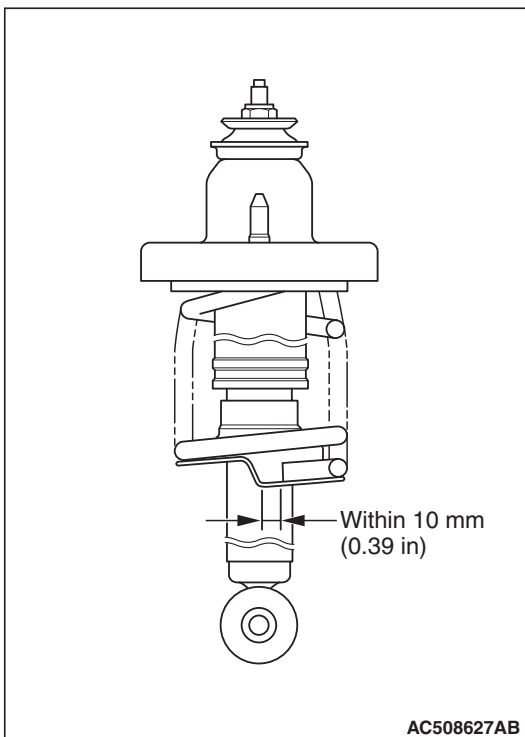
Before disposal of the shock absorber, place the shock absorber on the level surface with the piston rod extended, and make a hole of approximately 3 mm (0.1 inch) in diameter at the point shown in the figure to discharge the gas.



ASSEMBLY SERVICE POINTS

>>A<< COIL SPRING INSTALLATION

1. Align the end of the coil spring with the shock absorber as shown in the figure.



2. Set the shock absorber assembly to special tools MB991793, MB991796, MB991794 and MB991830.

NOTE: Use the bolts and nuts removed from the vehicle to secure the shock absorber assembly and tighten them lightly by hand.

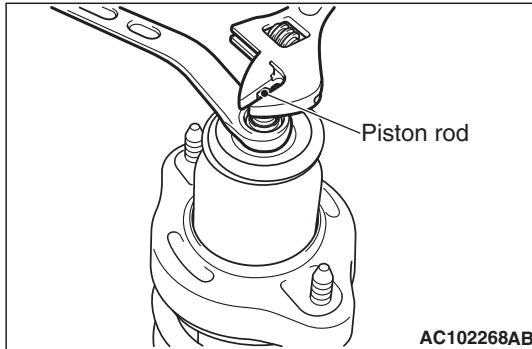
>>B<< SELF-LOCKING NUT INSTALLATION

CAUTION

The locking nut for the piston rod inside the shock absorber may be loose. Do not use an impact wrench to tighten the self-locking nut.

Counter the piston rod of the shock absorber as shown in the figure, and tighten the self-locking nut to the specified torque.

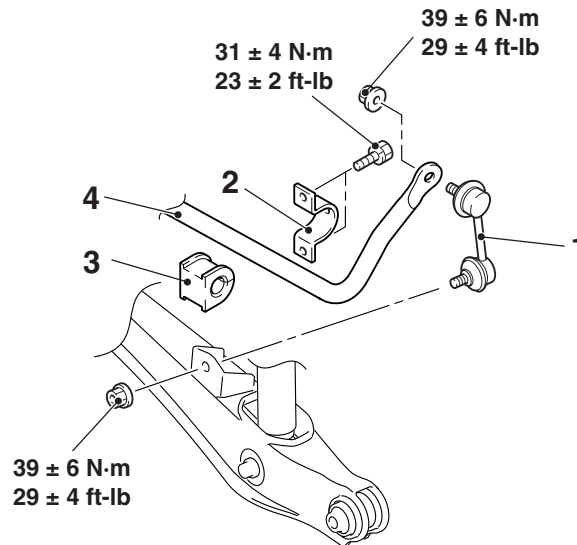
Tightening torque: 25 ± 5 N·m (18 ± 3 ft-lb)



STABILIZER BAR

REMOVAL AND INSTALLATION

M1341003000678



AC611124AB

Removal steps

- >>A<< 1. Stabilizer link
- >>A<< 2. Stabilizer bracket
- >>A<< 3. Bushing

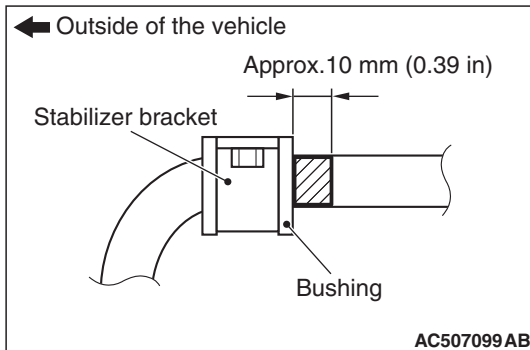
Removal steps (Continued)

- Rear suspension crossmember (Refer to P.34-30.)<FWD>, Rear differential carrier assembly (Refer to GROUP 27B, Differential carrier assembly P.27B-29.)<AWD>
- >>A<< 4. Stabilizer bar

INSTALLATION SERVICE POINT

>>A<< STABILIZER BAR/BUSHING/STABILIZER BRACKET INSTALLATION

Position the identification mark of the stabilizer bar at the left side of the vehicle as shown in the figure, and tighten the stabilizer bracket mounting bolt.



INSPECTION

M1341001400540

- Check the bushings for wear and deterioration.
- Check the stabilizer bar for deterioration or damage.
- Check all bolts for condition and straightness.

STABILIZER LINK BALL JOINT ROTATION TORQUE CHECK

M1341019300032

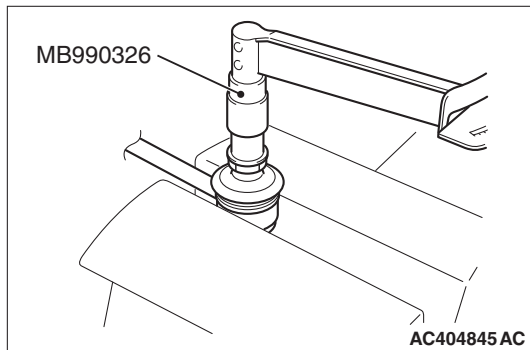
Required Special Tool:

- MB990326: Preload socket

1. Move the stabilizer link ball joint stud back and forth for several times, install the stud with nut, and measure the stabilizer link ball joint rotation torque using the special tool MB990326.

Standard value: 0.5 –2.9 N· m (4.4 –25.7 in-lb)

2. When the measured value exceeds the standard range, replace the stabilizer link.
3. When the measured value is lower than the standard value, check the stabilizer link ball joint that there is no looseness or gritty feeling. If there is no looseness or gritty feeling, it is judged as usable.



STABILIZER LINK BALL JOINT DUST COVER CHECK

M1341013000107

1. Using your fingers, press the dust cover to check for a crack or damage.
2. If the dust cover has a crack or damage, replace the stabilizer link.

NOTE: If the dust cover has a crack or damage, the ball joint could be damaged.

REAR SUSPENSION CROSSMEMBER

REMOVAL AND INSTALLATION

M1341006800888

CAUTION

- The part indicated by * is the bolt with friction coefficient stabilizer. In removal, ensure there is no damage, clean dust and soiling from the bearing and thread surfaces, and tighten them to the specified torque.

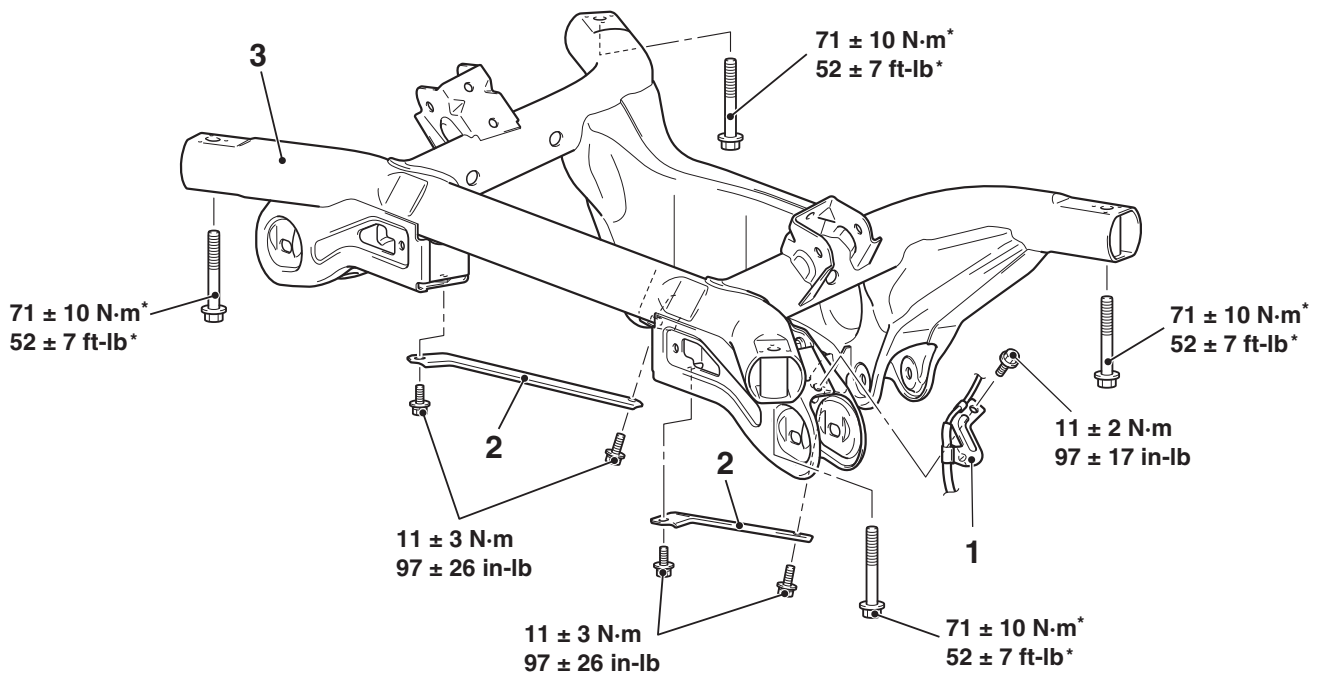
Pre-removal operation

- Control link arm removal (Refer to P.34-10.)
- Upper arm removal (Refer to P.34-10.)
- Lower arm removal (Refer to P.34-10.)
- Rear suspension stabilizer bar removal (Refer to P.34-28.)
- Center exhaust pipe and main muffler removal (Refer to GROUP 15 –Exhaust Pipe and Muffler P.15-31.)
- Driveshaft removal (Refer to GROUP 27B –Driveshaft Assembly P.27B-23.)
- Rear differential assembly removal (Refer to GROUP27B –Differential Carrier Assembly P.27B-29.)

Post-installation operation

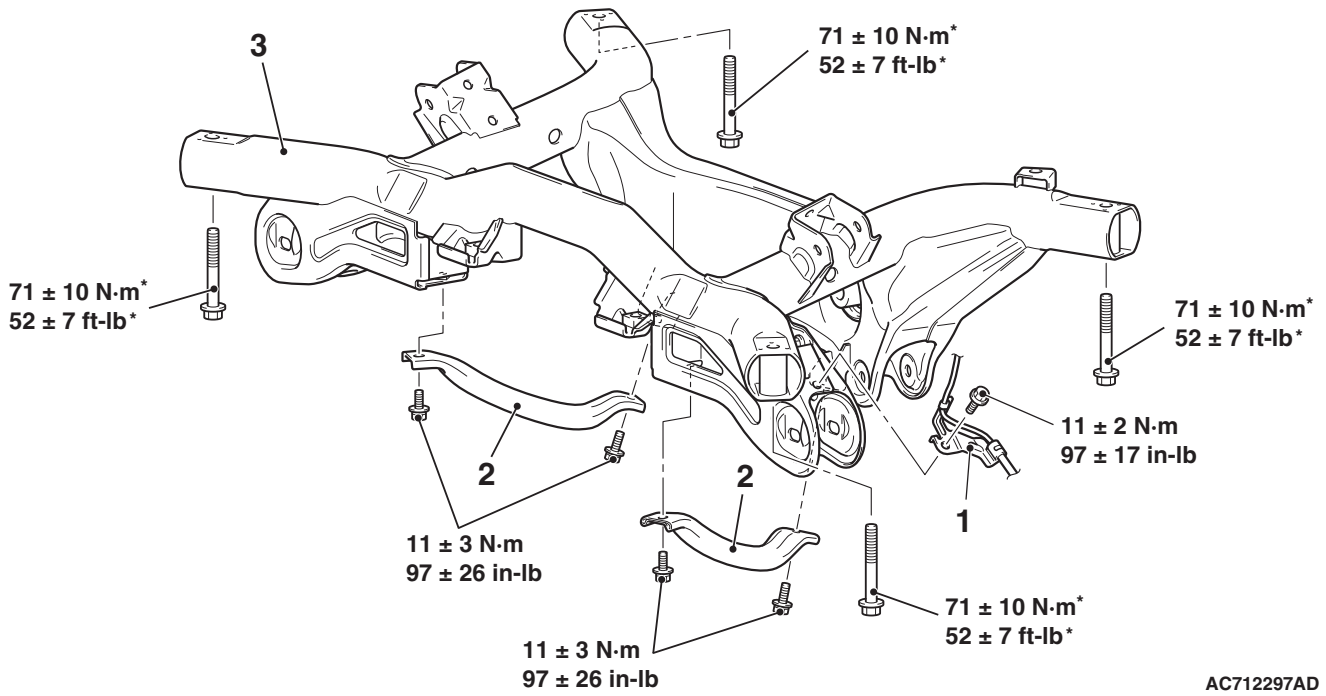
- Rear differential assembly installation (Refer to GROUP27B –Differential Carrier Assembly P.27B-29.)
- Driveshaft installation (Refer to GROUP 27B –Driveshaft assembly P.27B-23.)
- Center exhaust pipe and main muffler installation (Refer to GROUP 15 –Exhaust Pipe and Muffler P.15-31.)
- Rear suspension stabilizer bar installation (Refer to P.34-28.)
- Lower arm installation (Refer to P.34-10.)
- Upper arm installation (Refer to P.34-10.)
- Control link installation (Refer to P.34-10.)
- Rear wheel alignment check and adjustment (Refer to P.34-9.)

<FWD>



AC800832AC

<AWD>



AC712297AD

Removal steps

1. Rear wheel speed sensor clamp

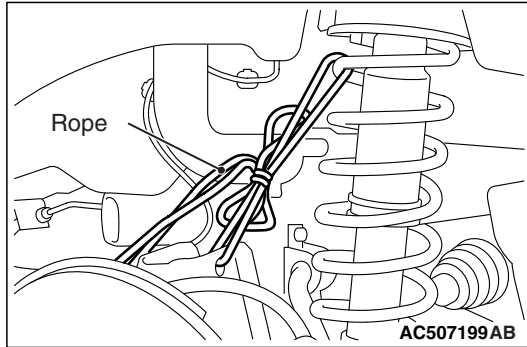
Removal steps (Continued)

2. Rear suspension crossmember stay
3. Rear suspension crossmember

<<A>>

REMOVAL SERVICE POINT**<<A>> REAR SUSPENSION CROSSMEMBER
REMOVAL**

To avoid the break hose load, fix the trailing arm assembly with a rope as shown in the figure.

**INSPECTION**

M1341006900120

- Check the crossmember for cracks or deformation.
- Check all bolts for condition and straightness.