FRONT SUSPENSION

CONTENTS

SERVICE SPECIFICATIONS

<EVOLUTION-IV>

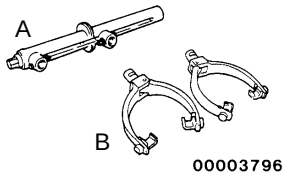
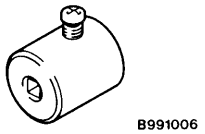
Items	Standard value
Toe-in mm	–3 ~ 3
Camber	–1°00’ ± 30’ (difference between right and left wheel: less than 30’)
Caster	3°50’ ± 30’ (difference between right and left wheel: less than 30’)
Kingpin inclination	13°25’
Lower arm ball joint rotation starting torque Nm {kgf·cm}	2.0 – 8.8 {20 – 90}

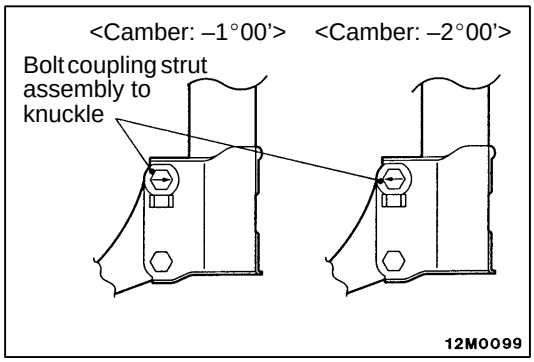
<EVOLUTION-V>

Same as EVOLUTION-IV except for following.

Items	Standard value
Camber (selectable from 2 options)	–1°00’ ± 30’ or –2°00’ ± 30’ (difference between right and left wheel: less than 30’)
Caster	3°54’ ± 30’ (difference between right and left wheel: less than 30’)
Kingpin inclination	14°18’

SPECIAL TOOLS

Tool	Number	Name	Use
	A: MB991237 B: MB991238	A: Spring compressor body B: Arm set	Coil spring compression
	MB991006	Preload socket	Lower arm ball joint rotation starting torque measurement



ON-VEHICLE SERVICE

WHEEL ALIGNMENT CHECK AND ADJUSTMENT <EVOLUTION-V>

Use the conventional procedures to measure wheel alignment.

1. CAMBER

Standard value:
–1°00' ± 30' (difference between right and left wheel: less than 30') or
–2°00' ± 30' (difference between right and left wheel: less than 30')

Select the camber angle as follows.
If the arrow on the bolt that couples the strut assembly to knuckle faces inboard → –1°00' ± 30'.
If the arrow on the bolt that couples the strut assembly to knuckle faces outboard → –2°00' ± 30'.

2. CASTER

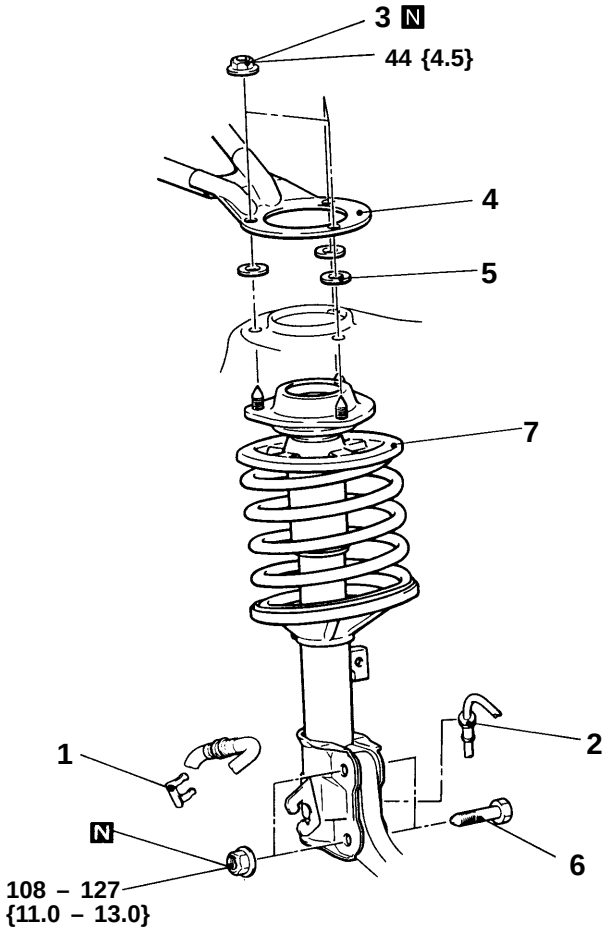
Standard value: 3°54' ± 30' (difference between right and left wheel: less than 30')

NOTE
The suspension system is designed so as to retain the preset caster value, requiring no adjustment for caster.

STRUT ASSEMBLY

REMOVAL AND INSTALLATION

Post-installation Operation
- Front Wheel Alignment Adjustment (Refer to P.33A-3.)



Unit: Nm {kgf·m}

Removal steps

1. Brake hose clamp
2. Front speed sensor bracket <Vehicles with ABS>
3. Flange nut
4. Strut tower bar
5. Plain washer
6. Bolts
7. Strut assembly

◀A▶

REMOVAL SERVICE POINT

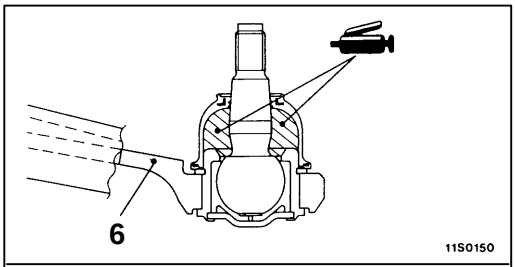
◀A▶ BOLTS REMOVAL

(1) Suspend the lower arm from the vehicle with wire.
(2) Remove the strut and knuckle connection.

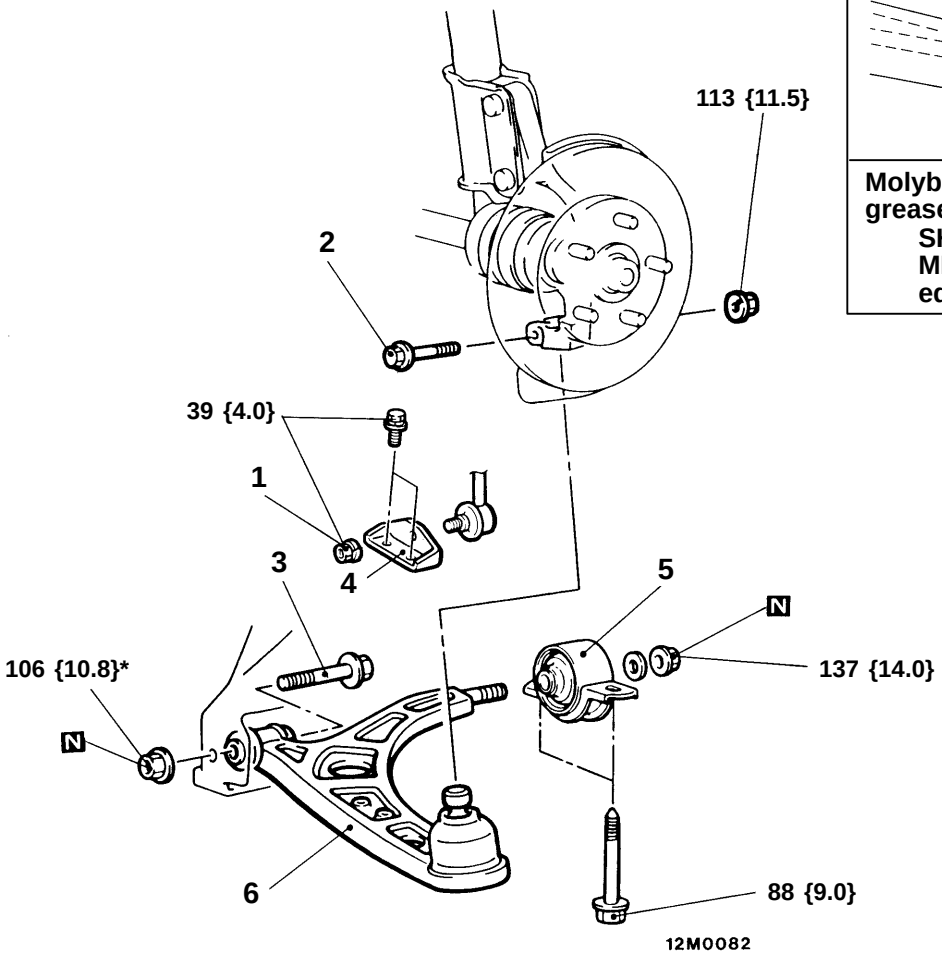
LOWER ARM <EVOLUTION-IV>

REMOVAL AND INSTALLATION

Post-installation Operation
(1) Push the Dust Cover of the Lower Arm and Stabilizer Link Ball Joint with a Finger to Check for Possible Cracks or Damage.
(2) Wheel Alignment Check and Adjustment



Molybdenum disulfide-base chassis grease:
SHOWA SHELL SEKIYU SUNLITE MB2, NISSEKI CLAKNOCK FL, or equivalent



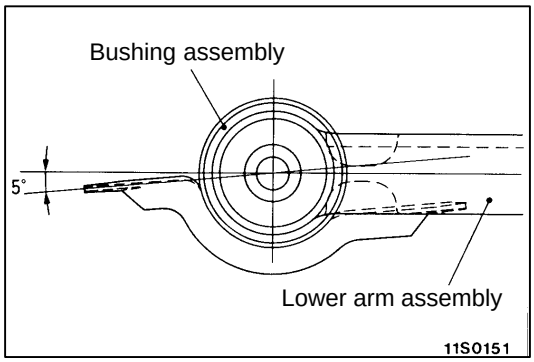
Unit: Nm {kgf·m}

Removal steps

1. Stabilizer link mounting nut
◀A▶ 2. Lower arm to knuckle coupling bolt
3. Bolt
4. Stabilizer bracket
▶A◀ 5. Bushing assembly
6. Lower arm assembly

Caution
The part marked with * should be first temporarily tightened, then torqued to specification with the vehicle on the ground in unloaded condition.

NOTE
Follow the conventional procedures for removal service points.

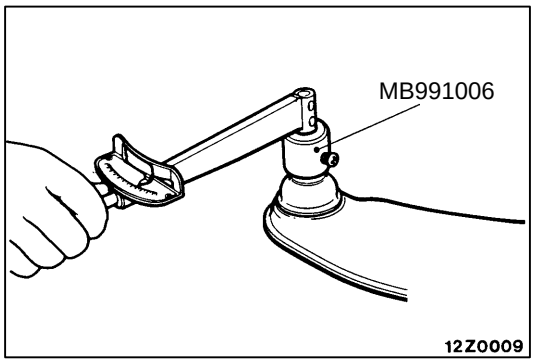


INSTALLATION SERVICE POINT

▶A◀ BUSHING ASSEMBLY INSTALLATION

Install the bushing assembly to the lower arm assembly with a relative angle as shown and tighten the self-locking nut to the specified torque.

Tightening torque: 137 Nm {14.0 kgf·m}



INSPECTION

BALL JOINT ROTATION STARTING TORQUE

Use the conventional procedures except the special tool used and the standard value as given below.

Standard value: 2.0 – 8.8 Nm {20 – 90 kgf·cm}

LOWER ARM BALL JOINT DUST COVER REPLACEMENT

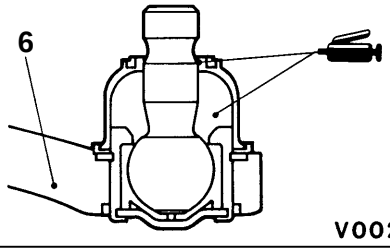
Replace the dust cover by using the conventional procedure only if it has been inadvertently damaged during servicing. After the dust cover has been replaced with a new one, push it with a finger to check for possible cracks or damage.

LOWER ARM <EVOLUTION-V>

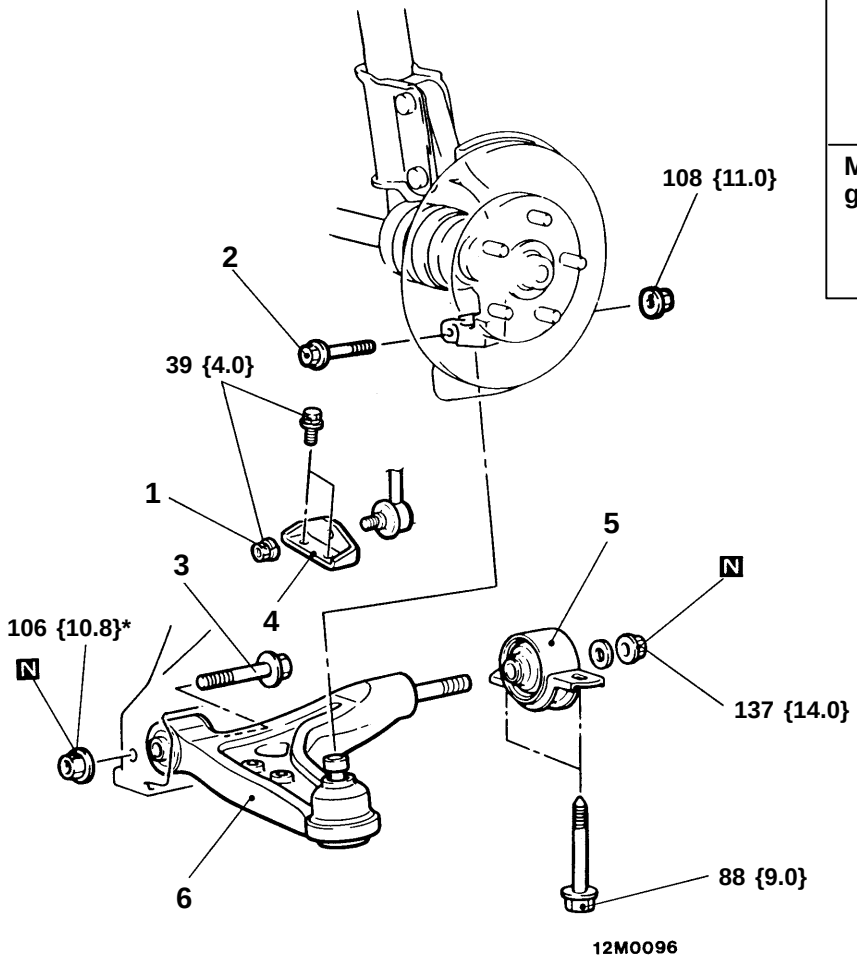
REMOVAL AND INSTALLATION

Caution
To prevent bushing from being galled, the part marked with * should be first temporarily tightened, then torqued to specification with the vehicle on the ground in unloaded condition.

Post-installation Operation
(1) Push the Dust Cover of the Lower Arm and Stabilizer Link Ball Joint with a Finger to Check for Possible Cracks or Damage.
(2) Wheel Alignment Check and Adjustment (Refer to P.33A-3.)



Molybdenum disulfide-base chassis grease:
SHOWA SHELL SEKIYU SUNLITE MB2, NISSEKI CLAKNOCK FL, or equivalent

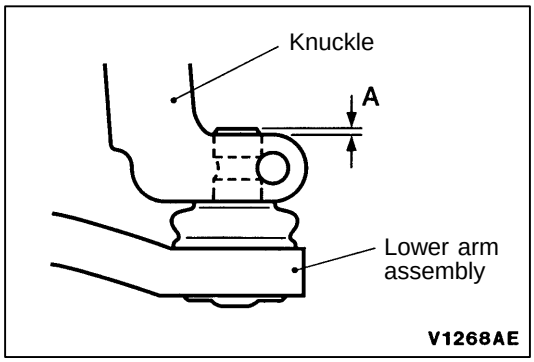


Unit: Nm {kgf·m}

Removal steps

1. Stabilizer link mounting nut
◀A▶ ▶B◀ 2. Lower arm to knuckle coupling bolt
3. Bolt
4. Stabilizer bracket
▶A◀ 5. Bushing assembly
6. Lower arm assembly

NOTE
Follow the conventional procedures for removal service points.



INSTALLATION SERVICE POINTS

▶A◀ BUSHING ASSEMBLY INSTALLATION

Follow the conventional procedure.

▶B◀ LOWER ARM TO KNUCKLE COUPLING BOLT INSTALLATION

(1) Install the lower arm assembly to the knuckle.

Caution
To prevent the dust cover lip from being recessed and grease from flowing out, ensure that protrusion A of the ball joint stud from knuckle measures 4 mm or less during installation of the lower arm assembly.

(2) Should the knuckle be pushed in excessively and grease flow out from the dust cover, replace the dust cover with a new one.
(3) Check that there is no clearance between the knuckle and dust cover.

INSPECTION

BALL JOINT ROTATION STARTING TORQUE

Use the conventional procedures.

LOWER ARM BALL JOINT DUST COVER REPLACEMENT

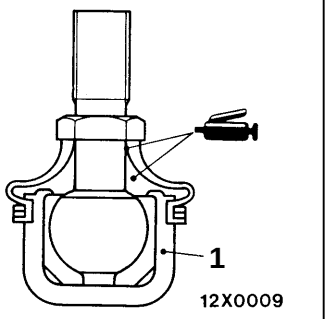
Replace the dust cover by using the conventional procedure if it has been inadvertently damaged or grease flown out during servicing.
After the dust cover has been replaced with a new one, push it with a finger to check for possible cracks or damage.

STABILIZER BAR

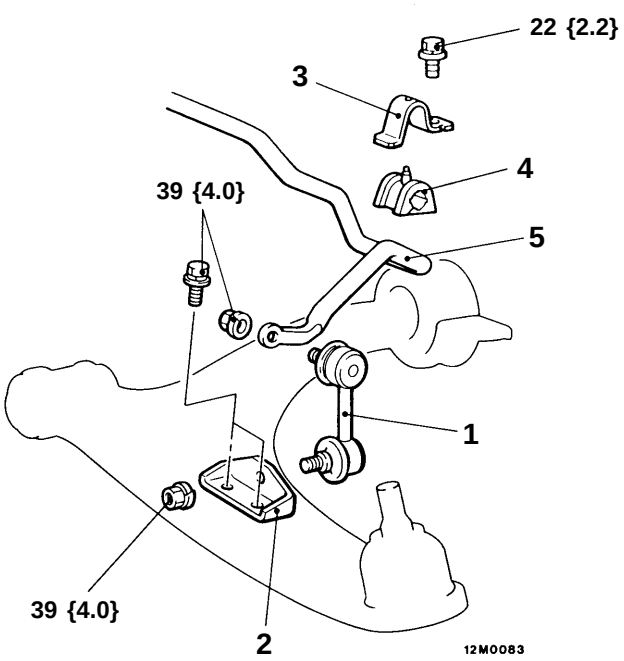
REMOVAL AND INSTALLATION

Pre-removal Operation
- Crossmember Removal

Post-installation Operation
(1) Crossmember Installation
(2) Check the Stabilizer Link Ball Joint Dust Cover for Cracks or Damage by Pushing it with Finger.

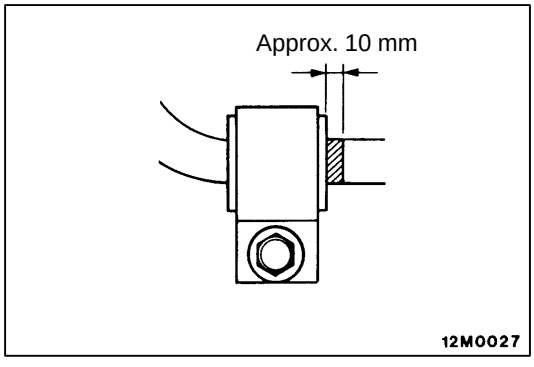


SHOWA SHELL SEKIYU VARIANT R-2 or equivalent



Unit: Nm {kgf·m}

Removal steps
1. Stabilizer link
2. Stabilizer bar bracket
▶A◀ 3. Fixture
▶A◀ 4. Bushing
5. Stabilizer bar



INSTALLATION SERVICE POINT

▶A◀ FIXTURE / BUSHING INSTALLATION

Install the stabilizer bar so that the identification mark is positioned at left. Fit the bushing so that the mark may protrude about 10 mm from the inner end of the bushing, then secure it with the fixture.

INSPECTION

STABILIZER LINK BALL JOINT ROTATION STARTING TORQUE

Follow the conventional procedures.

STABILIZER LINK DUST COVER REPLACEMENT

Replace the dust cover by using the conventional procedure only if it has been inadvertently damaged during servicing. After the dust cover has been replaced with a new one, push it with a finger to check for possible cracks or damage.