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## GROUP 32

# POWER PLANT MOUNT

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## GENERAL DESCRIPTION

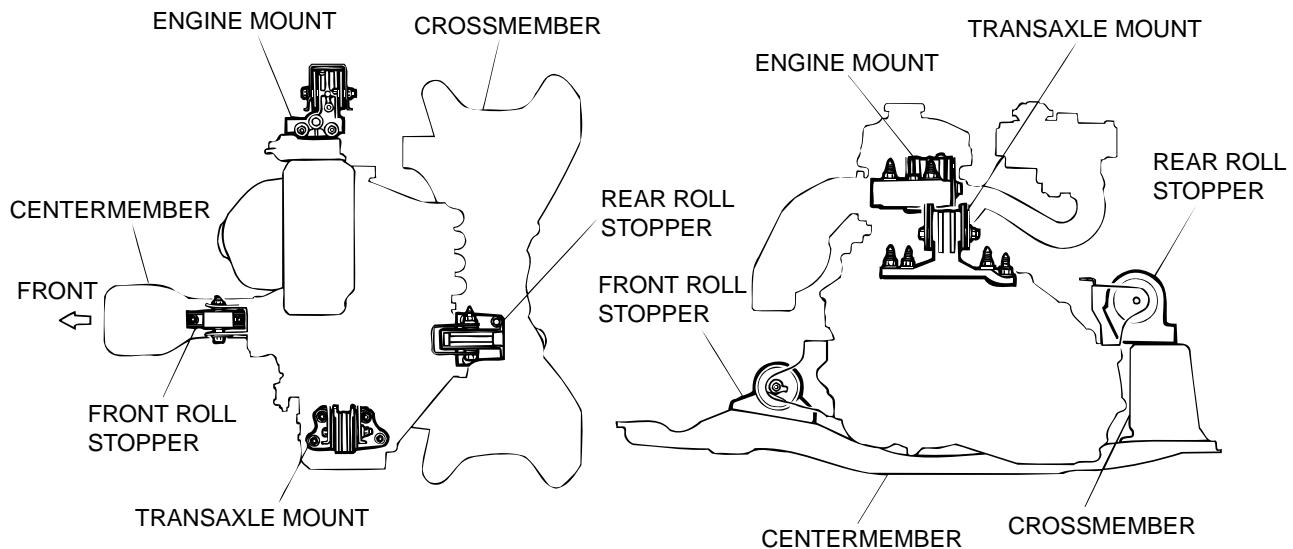
M1321000100094

The engine-transaxle mount is of an inertial axis supporting type whose excellent features have already been proven in many Mitsubishi vehicles.

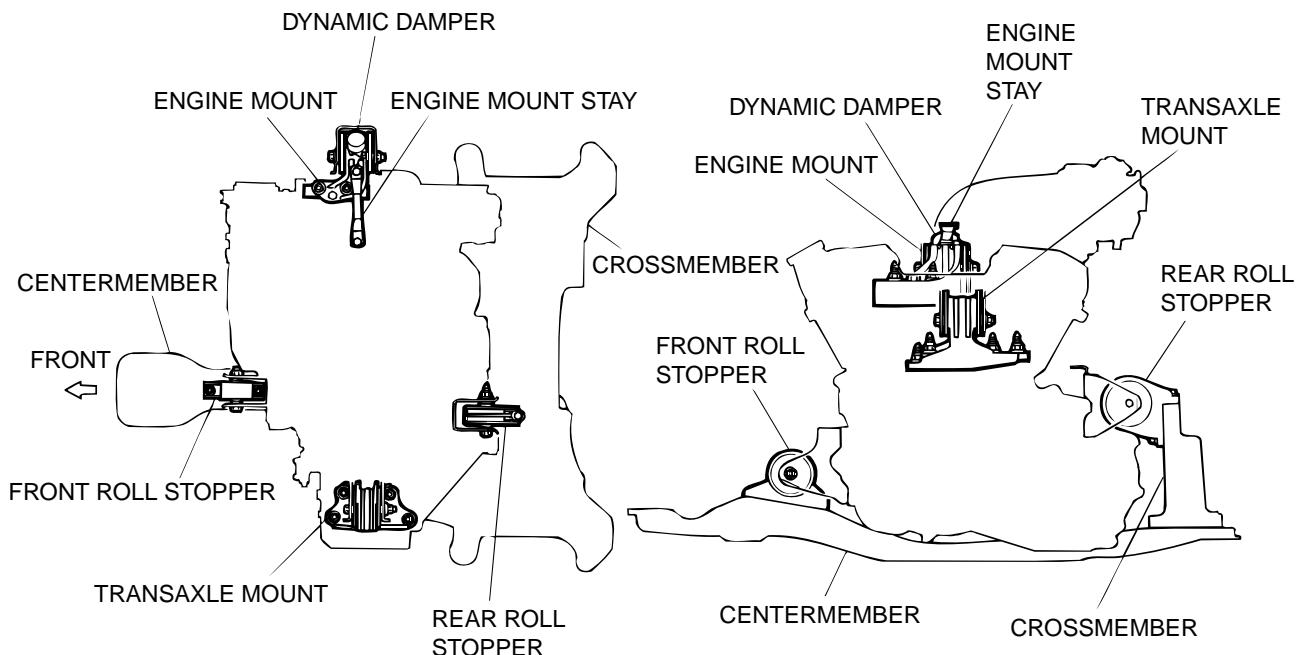
The inertial axis supporting type mount supports the front upper part of the engine at the front and the rear upper part of the transaxle at the rear. This arrangement effectively suppresses the engine vibration.

ENGINE MOUNT CONSTRUCTION DIAGRAM

<2.4L ENGINE>



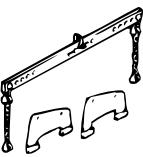
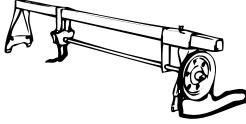
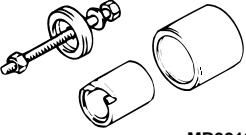
<3.0L ENGINE>



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## SPECIAL TOOLS

M1321000600066

TOOL	TOOL NUMBER AND NAME	SUPERSESSION	APPLICATION
 MB991453	MB991453 Engine hanger	Tool not available	To support the engine assembly during removal and installation of the transaxle mount
 MZ203827	MZ203827 Engine lifter	General service tool	
 MB991045	MB991045 Bushing remover and installer	Tool not available	Driving out and press-fitting of crossmember bushings A and B
 MB990828	MB990828 Bushing remover and installer	Tool not available	Driving out and press-fitting of crossmember bushing C

## ENGINE MOUNTING

## REMOVAL AND INSTALLATION

M1321001100097

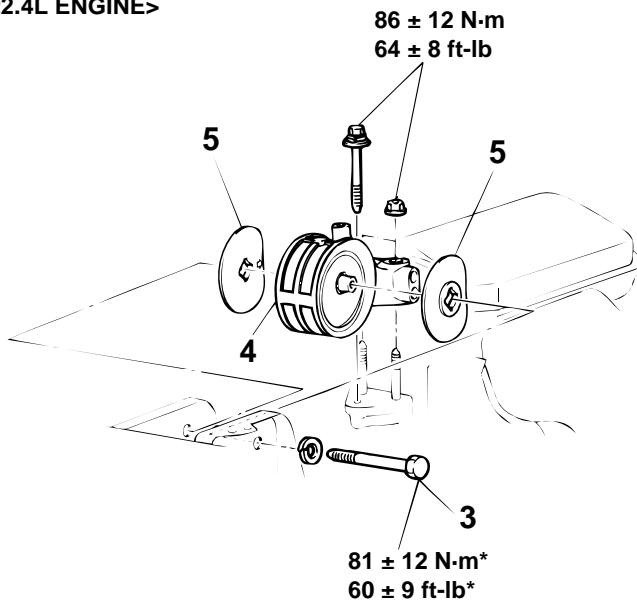
**CAUTION**

Mounting locations marked by \* should be provisionally tightened, and then fully tightened after placing the vehicle horizontally and loading the full weight of the engine on the vehicle body.

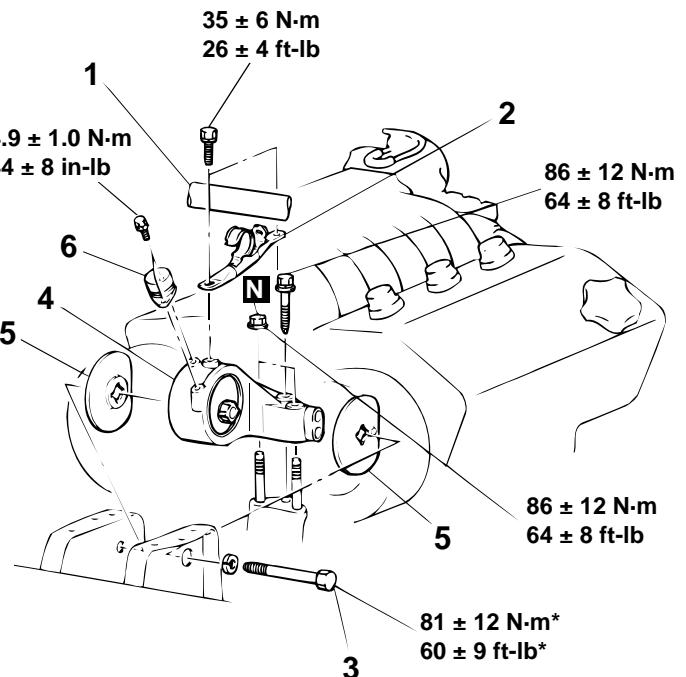
**Pre-removal and Post-installation Operation**

- Jack Up the Engine and Transmission Assembly Until There is no Weight on the Engine Mount Bracket Insulator.
- Reserve Tank Removal and Installation (Refer to GROUP 14, Radiator P.14-19.)

## &lt;2.4L ENGINE&gt;



## &lt;3.0L ENGINE&gt;



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**REMOVAL STEPS**

1. SUCTION HOSE <3.0L ENGINE>
2. ENGINE MOUNT STAY <3.0L ENGINE>
3. ENGINE MOUNT INSULATOR MOUNTING BOLT

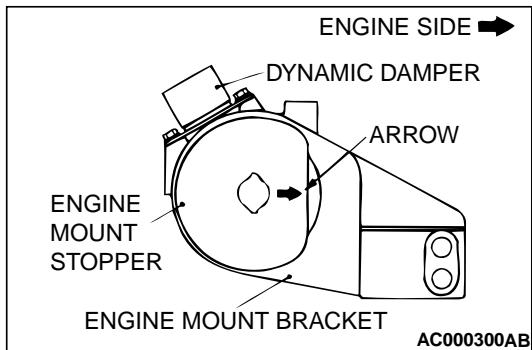
**REMOVAL STEPS (Continued)**

>>A<<	4. ENGINE MOUNT BRACKET
	5. ENGINE MOUNT STOPPER
	6. DYNAMIC DAMPER <3.0L ENGINE>

## INSTALLATION SERVICE POINT

## &gt;&gt;A&lt;&lt; ENGINE MOUNT STOPPER INSTALLATION

Clamp the engine mount stopper so that the arrow points in the direction as shown in the diagram.



## INSPECTION

M1321001200061

- Check the insulators for cracks, separation or deformation.
- Check the front insulator stoppers for deformation.

## TRANSAXLE (TRANSMISSION) MOUNTING

## REMOVAL AND INSTALLATION

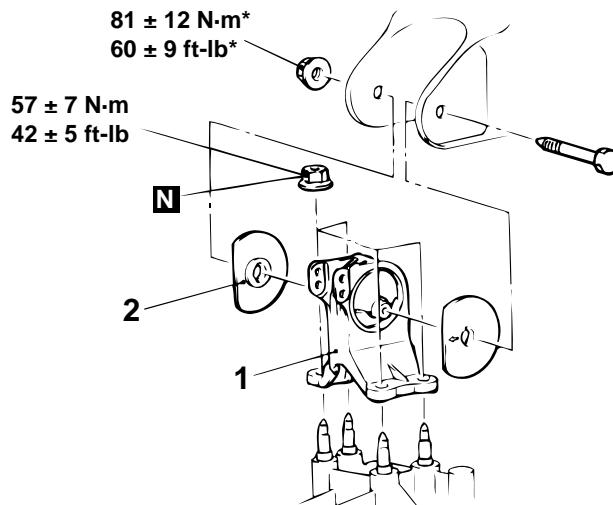
M1321001400098

**CAUTION**

Mounting locations marked by \* should be provisionally tightened, and then fully tightened after placing the vehicle horizontally and loading the full weight of the engine on the vehicle body.

**Pre-removal and Post-installation Operation**

- Air Cleaner Assembly Removal and Installation (Refer to GROUP 15, Air Cleaner P.15-5.)
- Battery and Battery Tray Removal and Installation (Refer to GROUP 54A, Battery P.54A-8.)
- Centermember Removal and Installation (Refer to P.32-9.)
- Transaxle and Rear Roll Stopper Connecting Bolt Removal and Installation (Refer to P.32-9.)
- Rear Roll Stopper Bracket Removal and Installation <2.4L Engine-M/T> (Refer to GROUP 22B, Transaxle P.22B-8.), <2.4L Engine-A/T> (Refer to GROUP 23B, Transaxle P.23B-11.)



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**REMOVAL STEPS**

<<A>> 1. TRANSAXLE MOUNT BRACKET  
>>A<< 2. TRANSAXLE MOUNT STOPPER

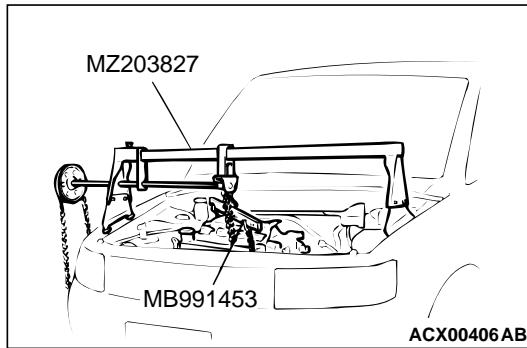
**Required Special Tools:**

- MB991453: Engine Hanger
- MZ203827: Engine Lifter

## REMOVAL SERVICE POINT

## &lt;&lt;A&gt;&gt; TRANSAXLE MOUNT BRACKET REMOVAL

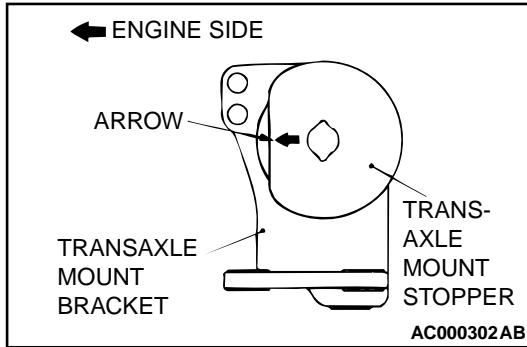
1. Install special tools MB991453 and MZ203827 to the vehicle body to support the engine and transaxle assembly.
2. Remove the centermember and rear roll stopper bracket.
3. Remove the bolt and nut of the transaxle mount bracket.
4. After lowering the engine and transaxle assembly, remove the transaxle mount bracket.



## INSTALLATION SERVICE POINT

## &gt;&gt;A&lt;&lt; TRANSAXLE MOUNT STOPPER INSTALLATION

Clamp the transaxle mount stopper so that the arrow points in the direction as shown in the diagram.



# ENGINE ROLL STOPPER AND CENTERMEMBER

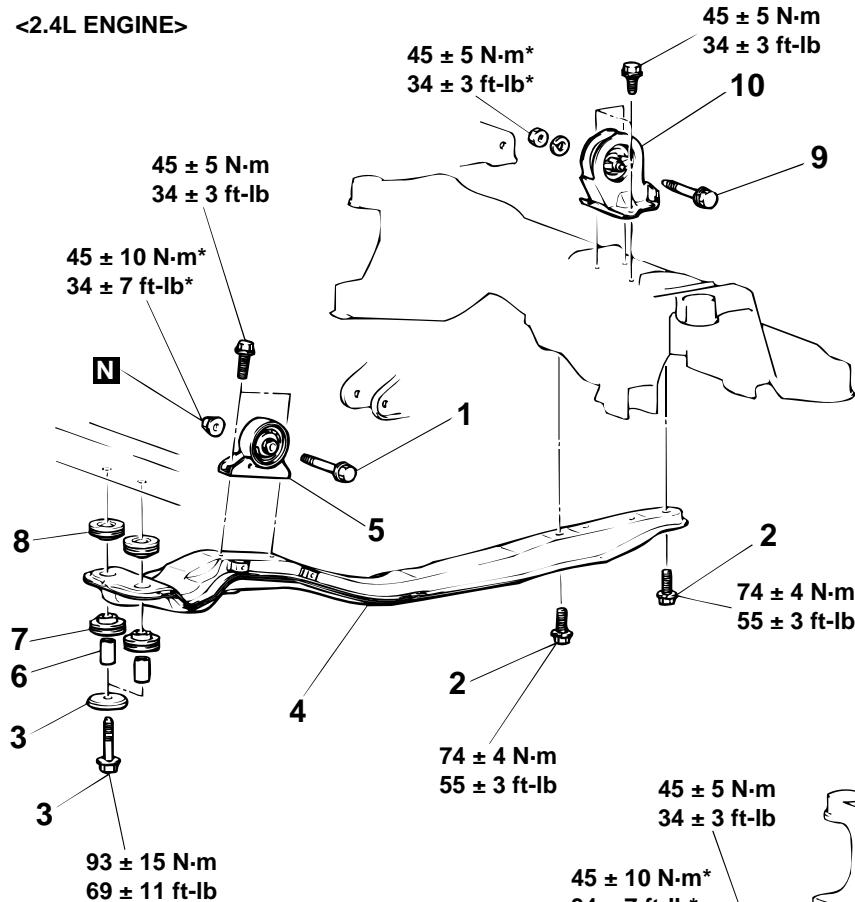
## REMOVAL AND INSTALLATION

M1321002300050

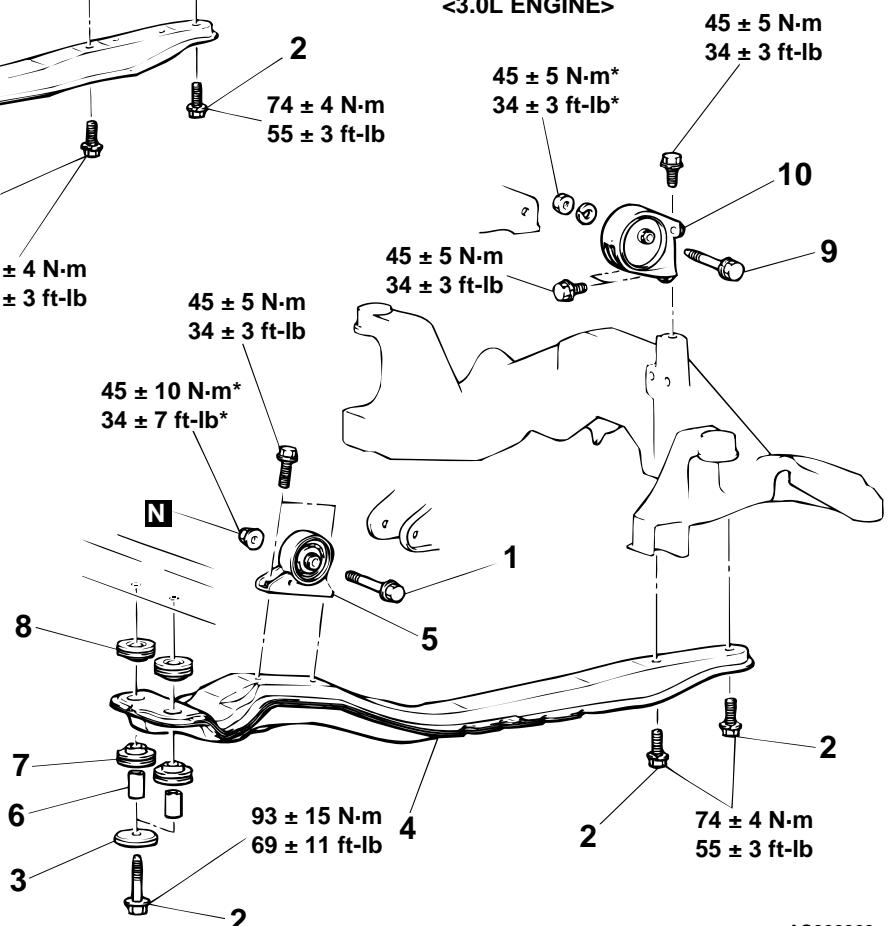
### CAUTION

Mounting locations marked by \* should be provisionally tightened, and then fully tightened after placing the vehicle horizontally and loading the full weight of the engine on the vehicle body.

<2.4L ENGINE>



<3.0L ENGINE>



AC000303 AB

FRONT ROLL STOPPER,  
CENTERMEMBER REMOVAL  
STEPS

1. TRANSAXLE AND FRONT ROLL STOPPER CONNECTING BOLT
2. CENTERMEMBER MOUNTING BOLTS
3. STOPPER
4. CENTERMEMBER
5. FRONT ROLL STOPPER
6. COLLAR

>>A<<

FRONT ROLL STOPPER,  
CENTERMEMBER REMOVAL  
STEPS (Continued)

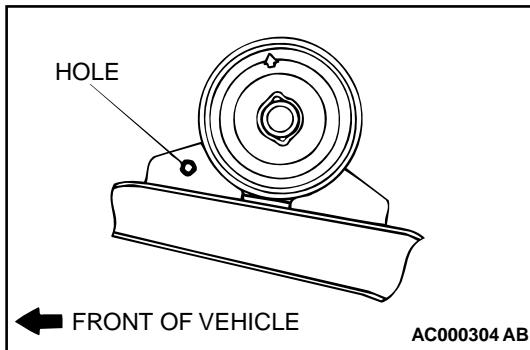
7. BUSHING (LOWER)
8. BUSHING (UPPER)

**REAR ROLL STOPPER REMOVAL STEPS**

9. TRANSAXLE AND REAR ROLL STOPPER CONNECTING BOLT
10. REAR ROLL STOPPER

**INSTALLATION SERVICE POINT****>>A<< FRONT ROLL STOPPER INSTALLATION**

Install so that the hole in the front roll stopper is facing towards the front of the vehicle.



## CROSSMEMBER

## REMOVAL AND INSTALLATION

M1321003200089

**CAUTION**

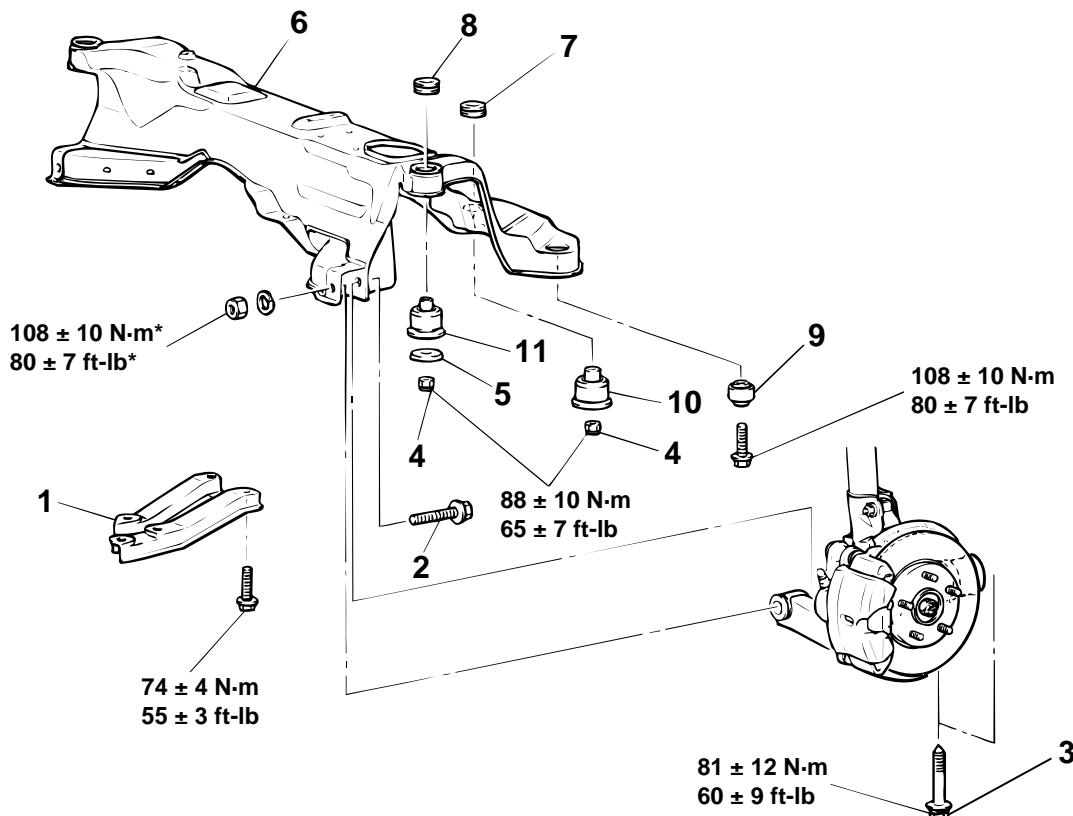
- \* : Indicates parts which should be temporarily tightened, and then fully tightened with the vehicle on the ground in the unladen condition.
- For vehicles with SRS, before removal of steering gear box, refer to GROUP 52B, center the front wheels and remove the ignition key. Failure to do so may damage the SRS clock spring and render the SRS system inoperative, risking serious injury.

**Pre-removal Operation**

- Power Steering Fluid Draining (Refer to GROUP 37A, On-vehicle Service – Fluid Replacement [P.37A-16](#).)
- Centermember Removal (Refer to [P.32-9](#).)
- Front Exhaust Pipe Removal (Refer to GROUP 15, Exhaust pipe and Main Muffler [P.15-19](#) <2.4L Engine>, [P.15-21](#) <3.0L Engine>.)
- Stabilizer Bar Removal (Refer to GROUP 33A, Stabilizer Bar [P.33A-17](#).)
- Rear Roll Stopper Removal (Refer to [P.32-9](#).)

**Post-installation Operation**

- Rear Roll Stopper Installation (Refer to [P.32-9](#).)
- Stabilizer Bar Installation (Refer to GROUP 33A, Stabilizer Bar [P.33A-17](#).)
- Front Exhaust Pipe Installation (Refer to GROUP 15, Exhaust pipe and Main Muffler [P.15-19](#) <2.4L Engine>, [P.15-21](#) <3.0L Engine>.)
- Centermember Installation (Refer to [P.32-9](#).)
- Power Steering Fluid Supplying and Bleeding (Refer to GROUP 37A, On-vehicle Service – Fluid Replacement [P.37A-16](#).)
- Steering Wheel Straight Ahead Position Checking.)
- Wheel Alignment Check and Adjustment (Refer to GROUP 33A, On-vehicle Service – Front Wheel Alignment Check and Adjustment [P.33A-6](#).)



AC005142 AB

**REMOVAL STEPS**

- STAY <2.4L ENGINE>
- LOWER ARM AND CROSSMEMBER CONNECTION
- LOWER ARM MOUNT BOLT

**REMOVAL STEPS (Continued)**

- POWER STEERING GEAR BOX (REFER TO GROUP 37A, POWER STEERING GEAR BOX [P.37A-23](#).)

TSB Revision

**REMOVAL STEPS (Continued)**

4. CROSSMEMBER MOUNTING NUT
5. LOWER PLATE
6. CROSSMEMBER
7. STOPPER A
8. STOPPER B
9. BUSHING C
10. BUSHING A
11. BUSHING B

**Required Special Tools:**

- MB990828: Bushing Remover and Installer

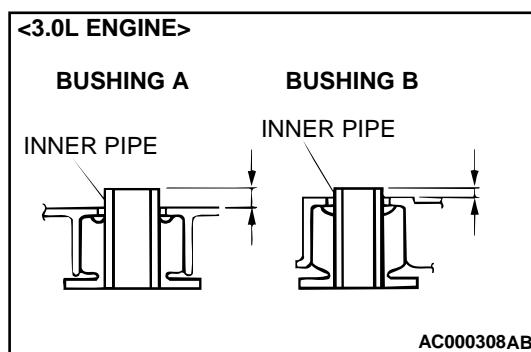
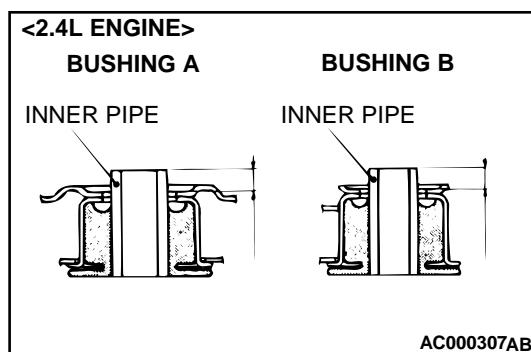
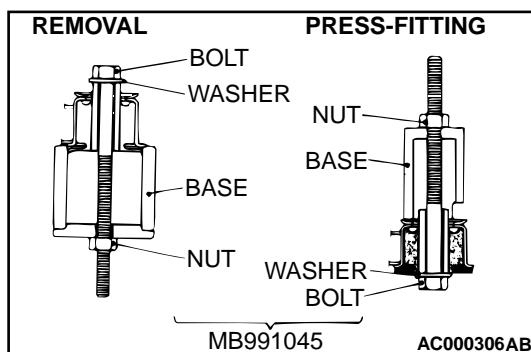
- MB991045: Bushing Remover and Installer

**CROSSMEMBER BUSHING REPLACEMENT**

M1321000900034

**Crossmember Bushings A and B**

1. Apply soapy water to the contact surface of the bushing when press-fitted the bushing.



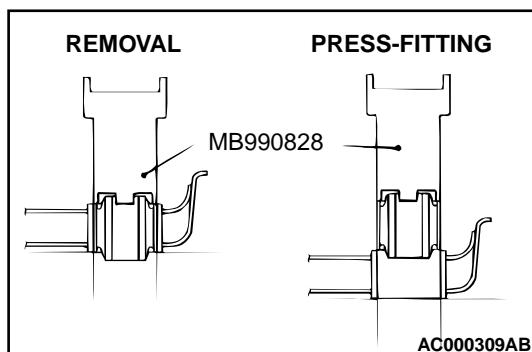
2. The bushing should be press-fitted so that the inner pipe projection is at the standard length.

**Standard values**

- <2.4L ENGINE>
  - Bushing A:  $9.0 \pm 1.0 \text{ mm}$  ( $0.35 \pm 0.04 \text{ inch}$ )
  - Bushing B:  $4.0 \pm 1.0 \text{ mm}$  ( $0.16 \pm 0.04 \text{ inch}$ )
- <3.0L ENGINE>
  - Bushing A, B:  $9.0 \pm 1.0 \text{ mm}$  ( $0.35 \pm 0.04 \text{ inch}$ )

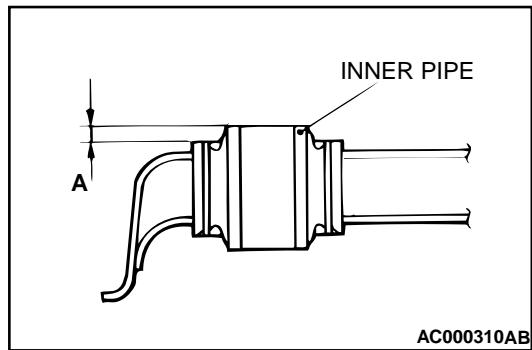
**Crossmember Bushing C**

1. Use special tool MB990828 to drive out and press-fit the crossmember bushing C.



2. The bushing should be press-fitted so that the inner pipe projection is at the standard length.

**Standard value (A):  $4.0 \pm 0.5 \text{ mm}$  ( $0.16 \pm 0.02 \text{ inch}$ )**



## SPECIFICATIONS

## FASTENER TIGHTENING SPECIFICATION

M1321004100085

ITEMS	SPECIFICATIONS
Centermember front mounting bolt	$93 \pm 15 \text{ N}\cdot\text{m}$ ( $69 \pm 11 \text{ ft-lb}$ )
Centermember rear mounting bolt	$74 \pm 4 \text{ N}\cdot\text{m}$ ( $55 \pm 3 \text{ ft-lb}$ )
Crossmember and stay connecting bolt <2.4L ENGINE>	$74 \pm 4 \text{ N}\cdot\text{m}$ ( $55 \pm 3 \text{ ft-lb}$ )
Crossmember mounting bolt	$108 \pm 10 \text{ N}\cdot\text{m}$ ( $80 \pm 7 \text{ ft-lb}$ )
Crossmember mounting nut	$88 \pm 10 \text{ N}\cdot\text{m}$ ( $65 \pm 7 \text{ ft-lb}$ )
Dynamic damper bolt	$4.9 \pm 1.0 \text{ N}\cdot\text{m}$ ( $44 \pm 8 \text{ in-lb}$ )
Engine mount bracket bolt	$86 \pm 12 \text{ N}\cdot\text{m}$ ( $64 \pm 8 \text{ ft-lb}$ )
Engine mount bracket nut	$86 \pm 12 \text{ N}\cdot\text{m}$ ( $64 \pm 8 \text{ ft-lb}$ )
Engine mount insulator mounting bolt	$81 \pm 12 \text{ N}\cdot\text{m}$ ( $60 \pm 9 \text{ ft-lb}$ )
Engine mount stay bolt <3.0L ENGINE>	$35 \pm 5 \text{ N}\cdot\text{m}$ ( $26 \pm 4 \text{ ft-lb}$ )
Lower arm and crossmember connecting nut	$108 \pm 10 \text{ N}\cdot\text{m}$ ( $80 \pm 7 \text{ ft-lb}$ )
Lower arm mount bolt	$81 \pm 12 \text{ N}\cdot\text{m}$ ( $60 \pm 9 \text{ ft-lb}$ )
Transaxle and front roll stopper connecting bolt	$45 \pm 5 \text{ N}\cdot\text{m}$ ( $34 \pm 3 \text{ ft-lb}$ )
Transaxle and front roll stopper connecting nut	$45 \pm 5 \text{ N}\cdot\text{m}$ ( $34 \pm 3 \text{ ft-lb}$ )
Transaxle and rear roll stopper connecting bolt	$45 \pm 5 \text{ N}\cdot\text{m}$ ( $34 \pm 3 \text{ ft-lb}$ )
Transaxle and rear roll stopper connecting nut	$45 \pm 5 \text{ N}\cdot\text{m}$ ( $34 \pm 3 \text{ ft-lb}$ )
Transaxle mount bracket nut	$57 \pm 7 \text{ N}\cdot\text{m}$ ( $42 \pm 5 \text{ ft-lb}$ )
Transaxle mount insulator mounting nut	$81 \pm 12 \text{ N}\cdot\text{m}$ ( $60 \pm 9 \text{ ft-lb}$ )

## SERVICE SPECIFICATION

M1321000300043

ITEMS	STANDARD VALUE		
Inner pipe projection mm (in)	Bushing A	$9.0 \pm 1.0$ ( $0.35 \pm 0.04$ )	
	Bushing B	2.4L ENGINE	$4.0 \pm 1.0$ ( $0.16 \pm 0.04$ )
		3.0L ENGINE	$9.0 \pm 1.0$ ( $0.35 \pm 0.04$ )
		Bushing C	$4.0 \pm 0.5$ ( $0.16 \pm 0.02$ )