

**GROUP 32**

**POWER PLANT  
MOUNT**

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## GENERAL DESCRIPTION

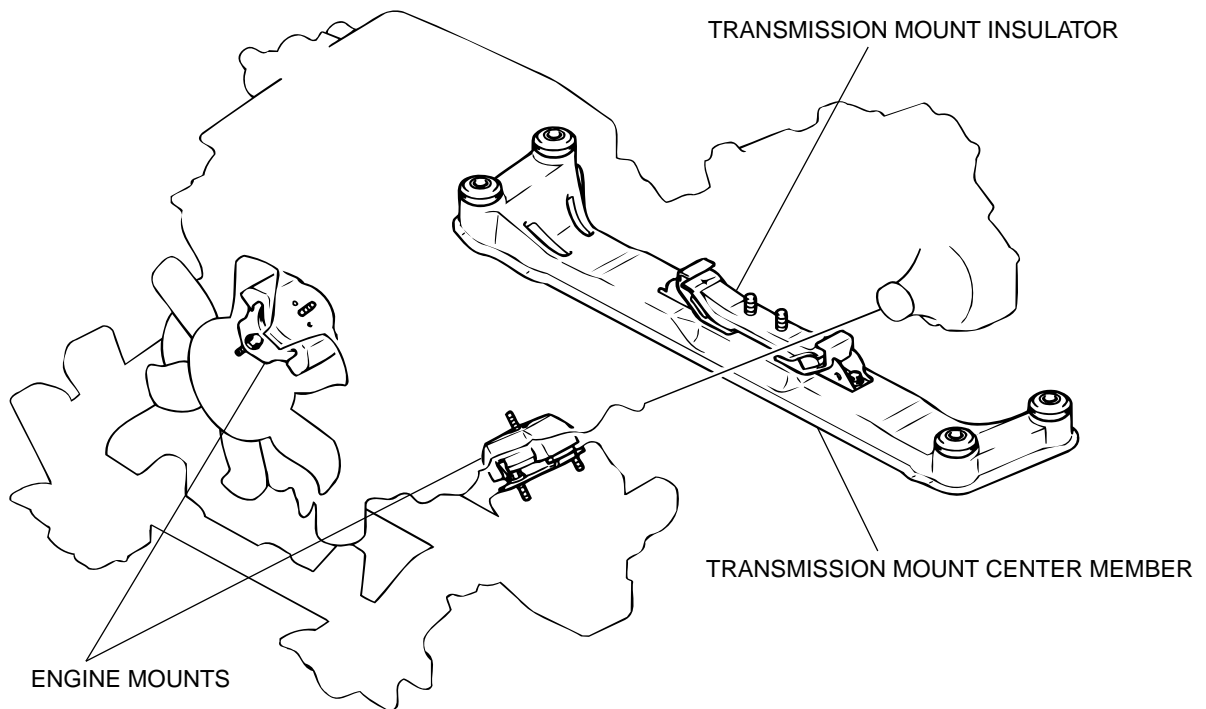
M1321000100276

The engine mounting system supports the engine at two locations and the transmission at one location.

This system has the following features:

- The engine mount is a liquid-filled mount, which contributes to the reduction of idling vibration/noise and the improvement of the driving comfort.
- The transmission mount reduces body vibration by supporting the transmission and transmission mount center member elastically (double anti-vibration method).
- The transmission mount insulator is a shear type insulator.

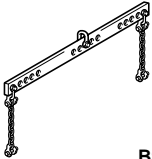
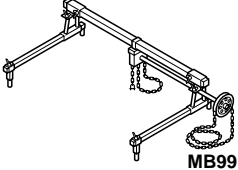
## CONSTRUCTION DIAGRAM



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**SPECIAL TOOL**

M1321000600248

TOOL	TOOL NUMBER AND NAME	SUPERSESSION	APPLICATION
 <p>B991454</p>	MB991454 Engine hanger balancer	MZ203827-01	Holding the engine and transmission assembly
 <p>MB991895</p>	MB991895 Engine hanger	-	

## ENGINE MOUNTING

## REMOVAL AND INSTALLATION

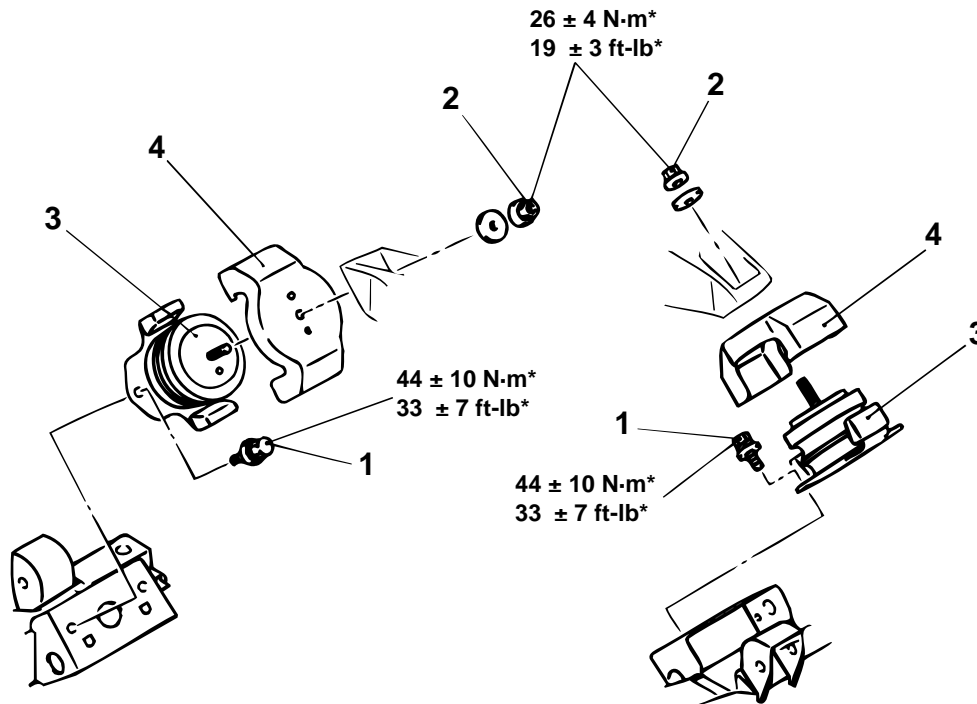
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**CAUTION**

\*: Indicates parts which should be initially 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**

- Skid Plate and Under Cover Removal and Installation
- Battery Removal and Installation
- Air Cleaner Assembly Removal and Installation (Refer to GROUP 15, Air Cleaner P.15-6.)
- Engine Cover Removal and Installation (Refer to GROUP 11A, Timing Belt P.11A-33.)
- Radiator Removal and Installation (Refer to GROUP 14, Radiator P.14-8.)



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**REMOVAL STEPS**

- BRAKE HOSE CLIP (REFER TO GROUP 33A, UPPER ARM ASSEMBLY P.33A-8.)
- CONNECTING BOLT BETWEEN STEERING GEAR AND JOINT (REFER TO GROUP 37A, POWER STEERING AND LINKAGE P.37A-27.)
- POWER STEERING HOSE MOUNTING BOLT (REFER TO GROUP 37A, POWER STEERING GEAR AND LINKAGE P.37A-27.)

&lt;&lt;A&gt;&gt;

&lt;&lt;A&gt;&gt;

&lt;&lt;B&gt;&gt;

**REMOVAL STEPS (Continued)**

- A/T OIL COOLER TUBE MOUNTING BOLT (REFER TO GROUP 23, TRANSMISSION OIL COOLER P.23Aa-42.)
  - VACUUM HOSE (REFER TO GROUP 26, FREE-WHEEL ASSEMBLY, DIFFERENTIAL CARRIER P.26-35.)
1. ENGINE MOUNT MOUNTING BOLTS
  2. ENGINE MOUNT MOUNTING NUTS
  3. ENGINE MOUNTS
  4. ENGINE MOUNT STOPPERS

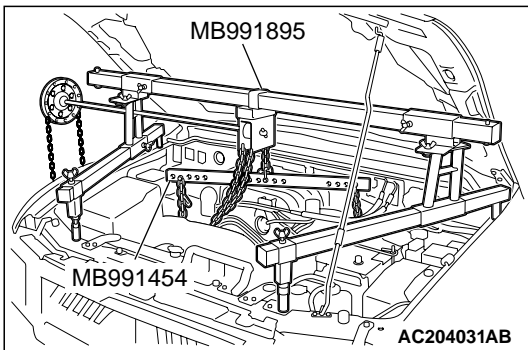
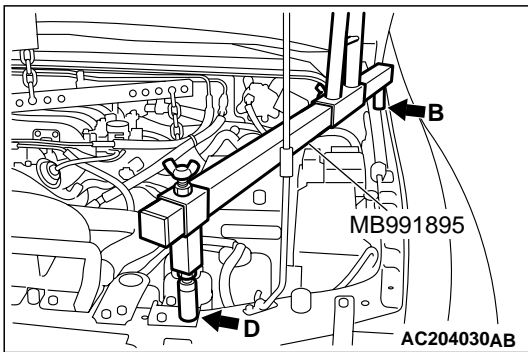
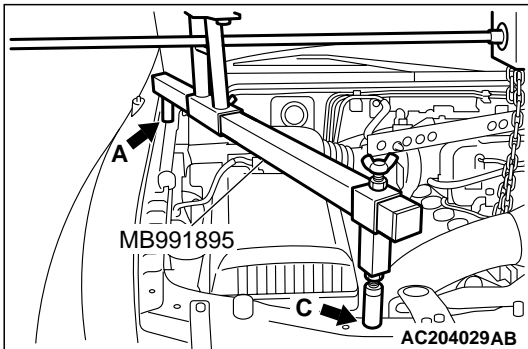
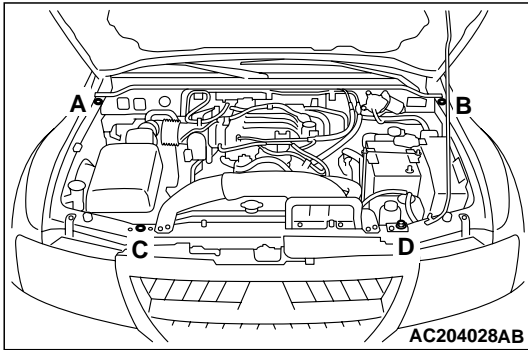
**Required Special Tools:**

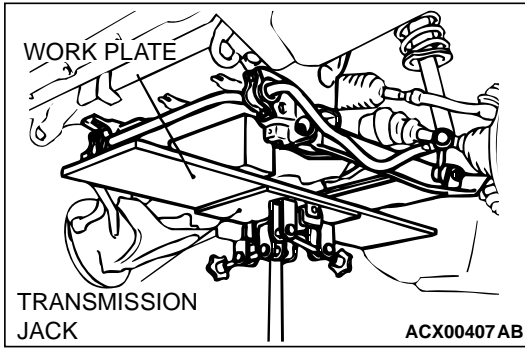
- MB991454: Engine Hanger Balancer
- MB991895: Engine Hanger

**REMOVAL SERVICE POINTS**

**<<A>> ENGINE MOUNT MOUNTING BOLTS AND NUTS REMOVAL**

1. Install the bolt to the "C" part on the headlamp support panel.
2. Set special tools MB991895 and MB991454 to the front fender mounting bolts (A and B) and the oil reservoir bracket mounting bolts (C and D). Then remove the engine mount mounting bolts and nuts while supporting the engine and transmission assembly.





**<<B>> ENGINE MOUNT REMOVAL**

1. Support the No.1 crossmember using the transmission jack.
2. Unscrew the No.1 crossmember mounting nut and then put down the No.1 crossmember to remove the engine mount.

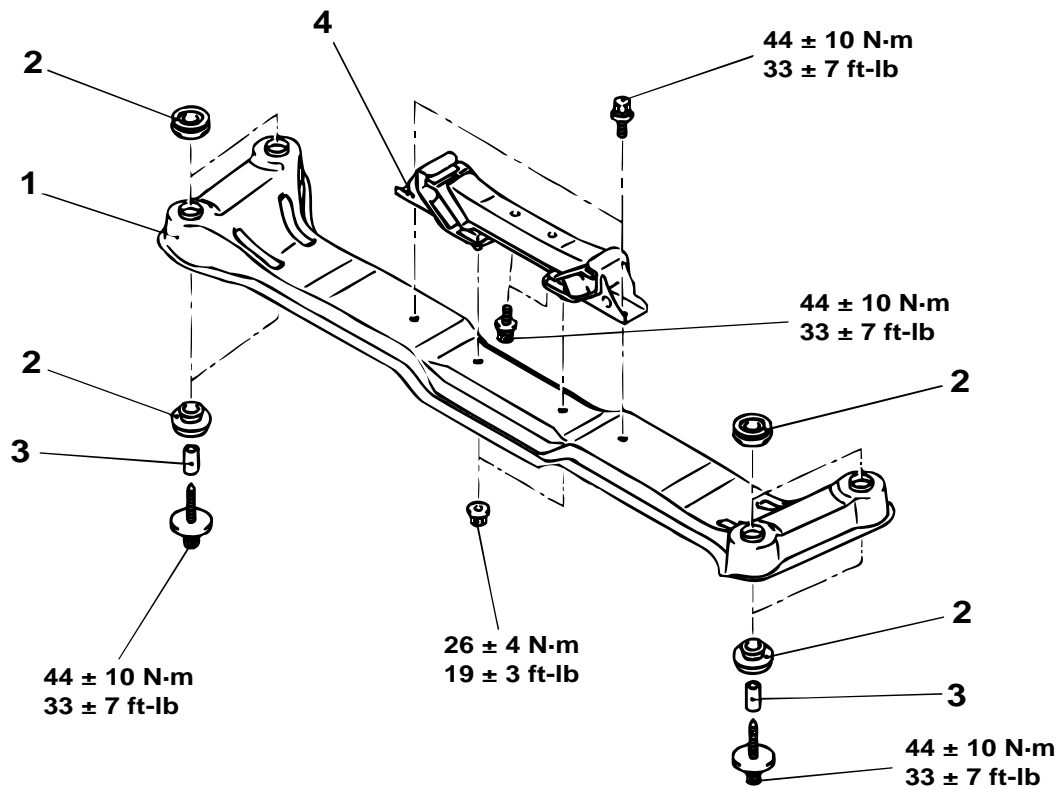
**TRANSMISSION MOUNTING**

**REMOVAL AND INSTALLATION**

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

- Jack up the engine and transmission assembly until there is no weight on the engine mount bracket insulator.



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**REMOVAL STEPS**

1. TRANSMISSION MOUNT CENTER MEMBER ASSEMBLY
2. TRANSMISSION MOUNT BUSHINGS

**REMOVAL STEPS (Continued)**

3. COLLARS
4. TRANSMISSION MOUNT INSULATOR ASSEMBLY

## No.1 CROSSMEMBER

### REMOVAL AND INSTALLATION

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#### CAUTION

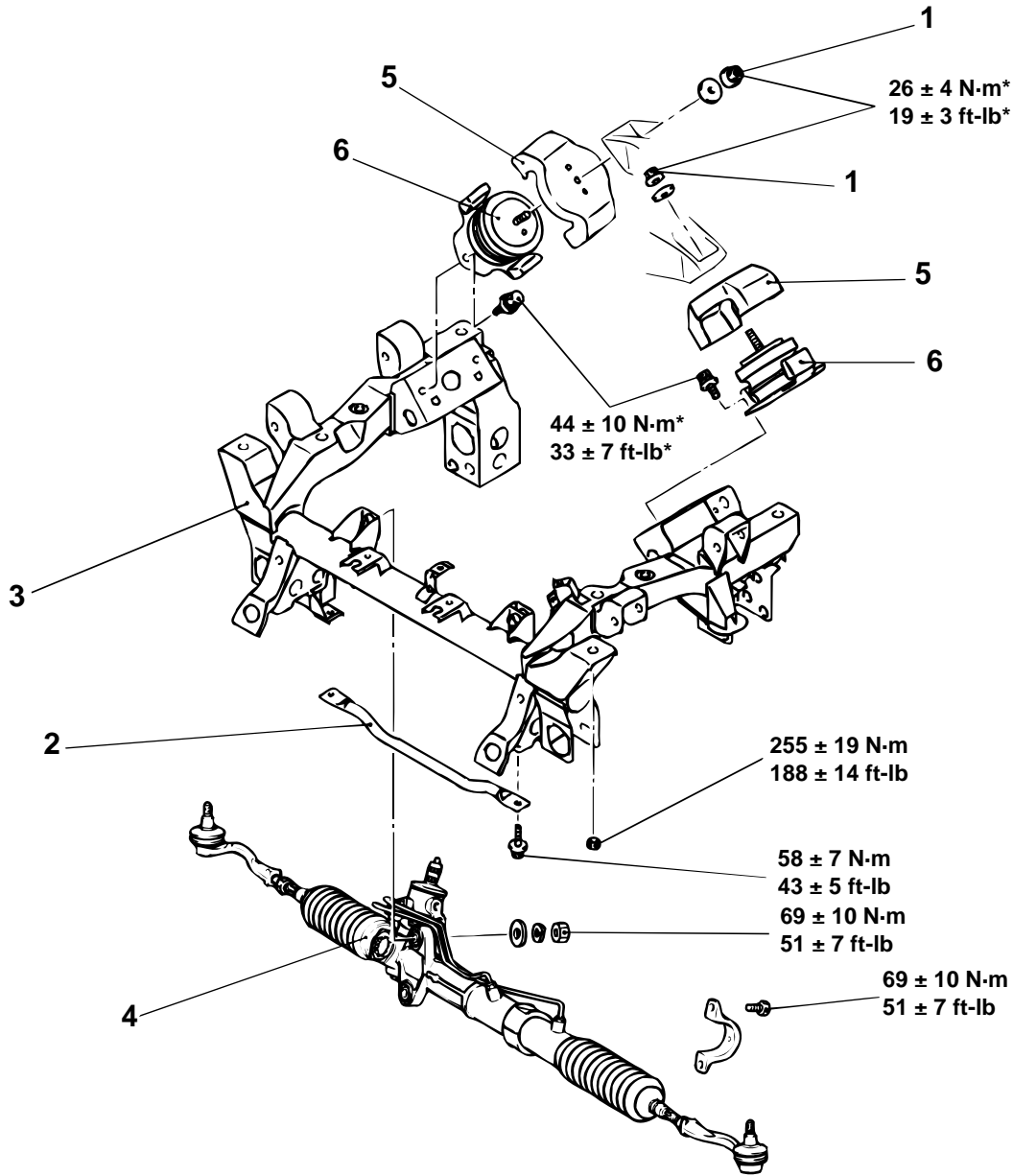
- \* : Indicates parts which should be temporarily tightened, and then fully tightened with the vehicle on the ground in the unladen condition.
- For vehicles with SRS, before removal of steering gear box, refer to GROUP 52B, center the front wheels and remove the ignition key. Failure to do so may damage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

#### Pre-removal Operation

- Under Cover Removal
- Drive Shaft Removal (Refer to GROUP 26, Drive Shaft [P.26-23.](#))
- Differential carrier and No. 2 crossmember assembly removal (Refer to GROUP 26, Free-wheeling assembly and Differential Carrier [P.26-35.](#))
- Upper arm removal (Refer to GROUP 33A, Upper Arm Assembly [P.33A-8.](#))
- Lower arm removal (Refer to GROUP 33A, Lower Arm Assembly [P.33A-15.](#))
- Stabilizer bar removal (Refer to GROUP 33A, Stabilizer Bar [P.33A-18.](#))
- Engine cover removal (Refer to GROUP 11A, Timing Belt [P.11A-33.](#))
- Radiator removal (Refer to GROUP 14, Radiator [P.14-8.](#))
- Power steering fluid draining (Refer to GROUP 37A, On-vehicle Service [P.37A-19.](#))

#### Post-installation Operation

- Differential carrier and No. 2 crossmember assembly removal (Refer to GROUP 26, Free-wheeling assembly and Differential Carrier [P.26-35.](#))
- Drive Shaft Installation (Refer to GROUP 26, Drive Shaft [P.26-23.](#))
- Lower Arm Installation (Refer to GROUP 33A, Lower Arm Assembly [P.33A-15.](#))
- Upper Arm Installation (Refer to GROUP 33A, Upper Arm Assembly [P.33A-8.](#))
- Stabilizer Bar Installation (Refer to GROUP 33A, Stabilizer Bar [P.33A-18.](#))
- Radiator Installation (Refer to GROUP 14, Radiator [P.14-8.](#))
- Power Steering Fluid Refilling and Air-bleeding (Refer to GROUP 37A, On-vehicle Service [P.37A-19.](#))
- Check the Dust Cover for Cracks or Damage by Pushing with Finger
- Wheel Alignment Check and Adjustment (Refer to GROUP 33A, On-vehicle Service [P.33A-5.](#))
- Under Cover Installation
- Engine Cover Installation (Refer to GROUP 11A, Timing Belt [P.11A-33.](#))



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- |   |   |  |
|---|---|--|
| <p>&lt;&lt;A&gt;&gt;</p> <p>&lt;&lt;B&gt;&gt;</p> | <p><b>REMOVAL STEPS</b></p> <ol style="list-style-type: none"> <li>1. ENGINE MOUNT MOUNTING NUTS</li> <li>2. FRONT REINFORCEMENT BAR</li> <li>3. No.1 CROSSMEMBER ASSEMBLY</li> </ol> | <p><b>REMOVAL STEPS (Continued)</b></p> <ol style="list-style-type: none"> <li>4. POWER STEERING GEAR AND LINKAGE</li> <li>5. ENGINE MOUNT STOPPERS</li> <li>6. ENGINE MOUNTS</li> </ol> |
|---|---|--|

**Required Special Tools:**

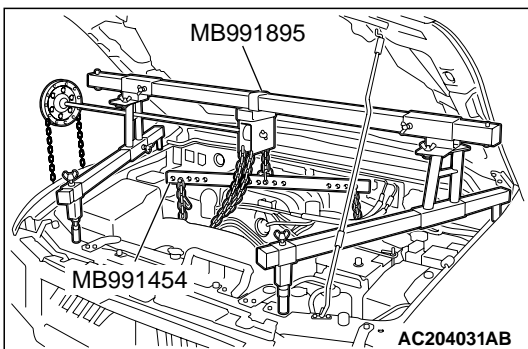
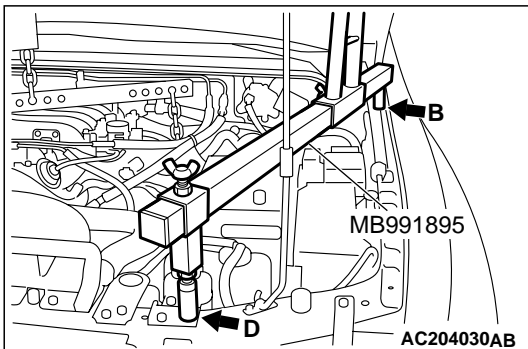
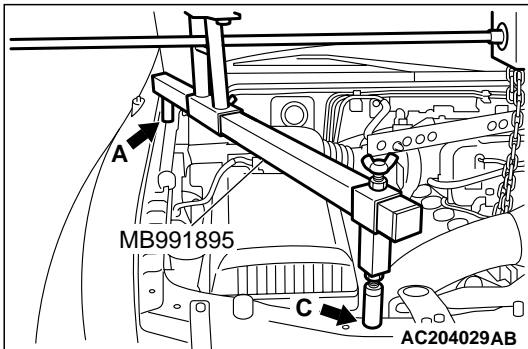
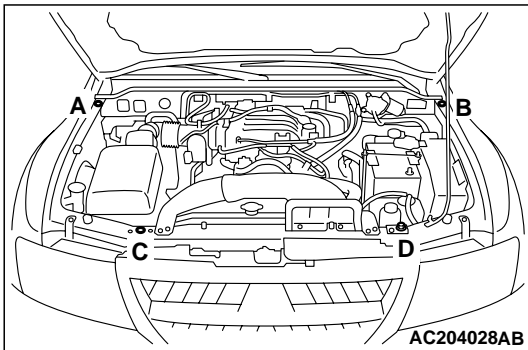
- MB991454: Engine Hanger Balancer
- MB991895: Engine Hanger

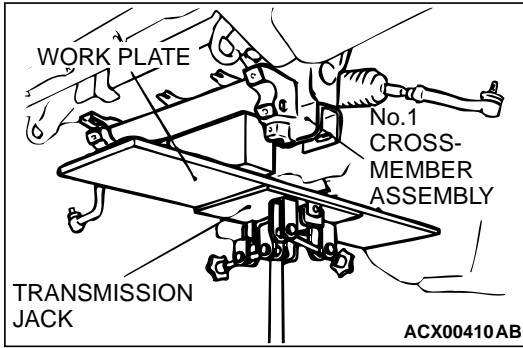


### REMOVAL SERVICE POINT

#### <<A>> ENGINE MOUNT MOUNTING NUTS REMOVAL

1. Install the bolt to the "C" part on the headlamp support panel.
2. Set special tools MB991895 and MB991454 to the front fender mounting bolts (A and B) and the oil reservoir bracket mounting bolts (C and D). Then remove the engine mount mounting nuts while supporting the engine and transmission assembly.



**<<B>>No.1 CROSSMEMBER ASSEMBLY REMOVAL**

Use the transmission jack to support the No.1 crossmember and remove the front frame.

**SPECIFICATIONS****FASTENER TIGHTENING SPECIFICATION**

M1321004100267

ITEM	SPECIFICATION
Engine mounting insulator to engine nut	26 ± 4 N·m (19 ± 91.44 cm-lb)
Engine mounting insulator to No.1 crossmember bolt	44 ± 10 N·m (33 ± 213.36 cm-lb)
No.1 crossmember bolt	58 ± 7 N·m (43 ± 152.40 cm-lb)
No.1 crossmember nut	255 ± 19 N·m (188 ± 426.72 cm-lb)
Power steering gear and linkage to crossmember bolt	69 ± 10 N·m (51 ± 213.36 cm-lb)
Power steering gear and linkage to crossmember nut	69 ± 10 N·m (51 ± 213.36 cm-lb)
Transmission mounting insulator to Transmission mounting center member bolt	44 ± 10 N·m (33 ± 213.36 cm-lb)
Transmission mount insulator to Transmission mounting center member nut	26 ± 4 N·m (19 ± 91.44 cm-lb)
Transmission mounting center member bolt	44 ± 10 N·m (33 ± 213.36 cm-lb)