
GROUP 32

POWER PLANT MOUNT

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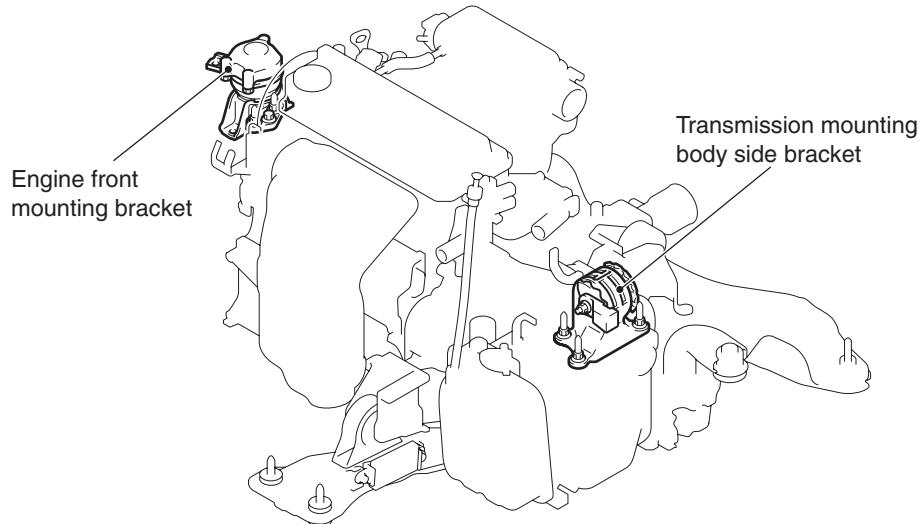
GENERAL INFORMATION

The engine mounting system employs the inertial axis four-point suspension method, which is field proven.

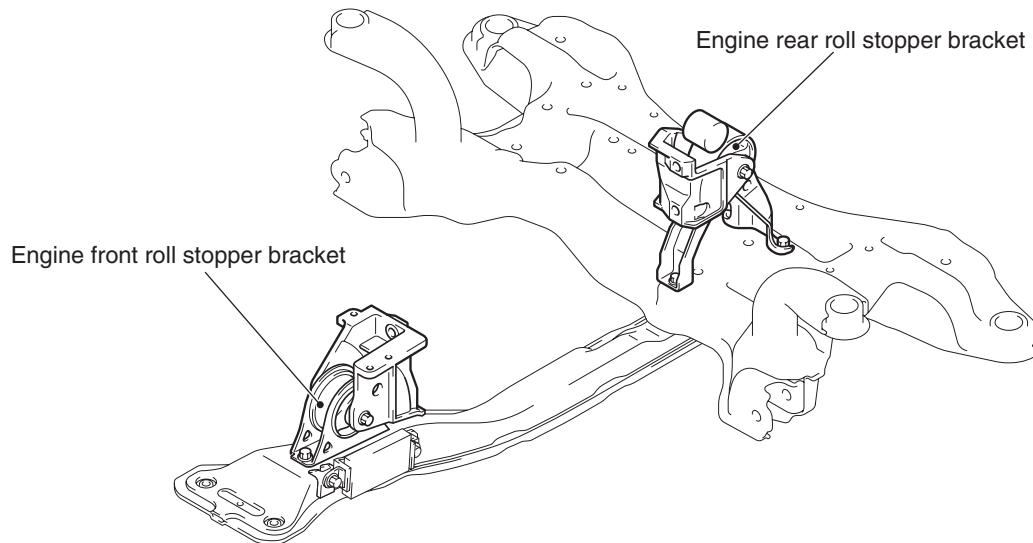
- The optimised locations of the front and rear roll mounts well distribute their loads thereby reducing engine idling vibrations.

- The fore-and-aft, liquid-filled engine mount of cylinder type is adopted to reduce engine shake for improved riding comfort.

CONSTRUCTION DIAGRAM



AC301843



AC301844

AC302275 AC

SPECIAL TOOL

M1321000600453

Tool	Number	Name	Use
 AC106827	MB991897	Ball joint remover	Knuckle and tie rod end ball joint disconnection <i>NOTE: Steering linkage puller (MB990635 or MB991113) is also available to disconnect knuckle and tie rod end ball joint.</i>

ENGINE MOUNTING

REMOVAL AND INSTALLATION

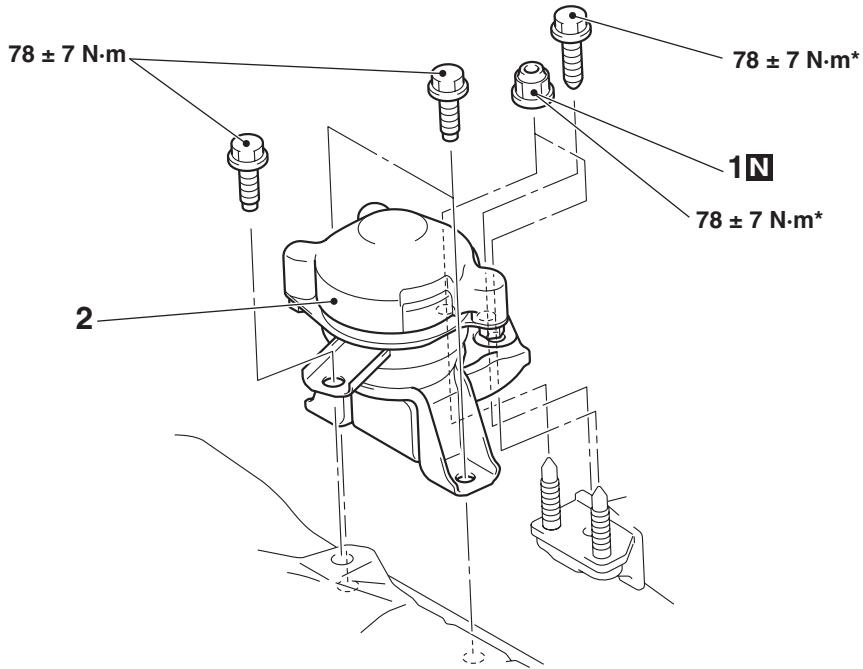
M1321001100611

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 Operation

Raise the engine and transmission assembly until its weight is not applied to the insulator, and support it securely.



AC302098AC

Removal steps

1. Self-locking nuts
2. Engine front mounting bracket

TRANSMISSION MOUNTING

REMOVAL AND INSTALLATION

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CAUTION

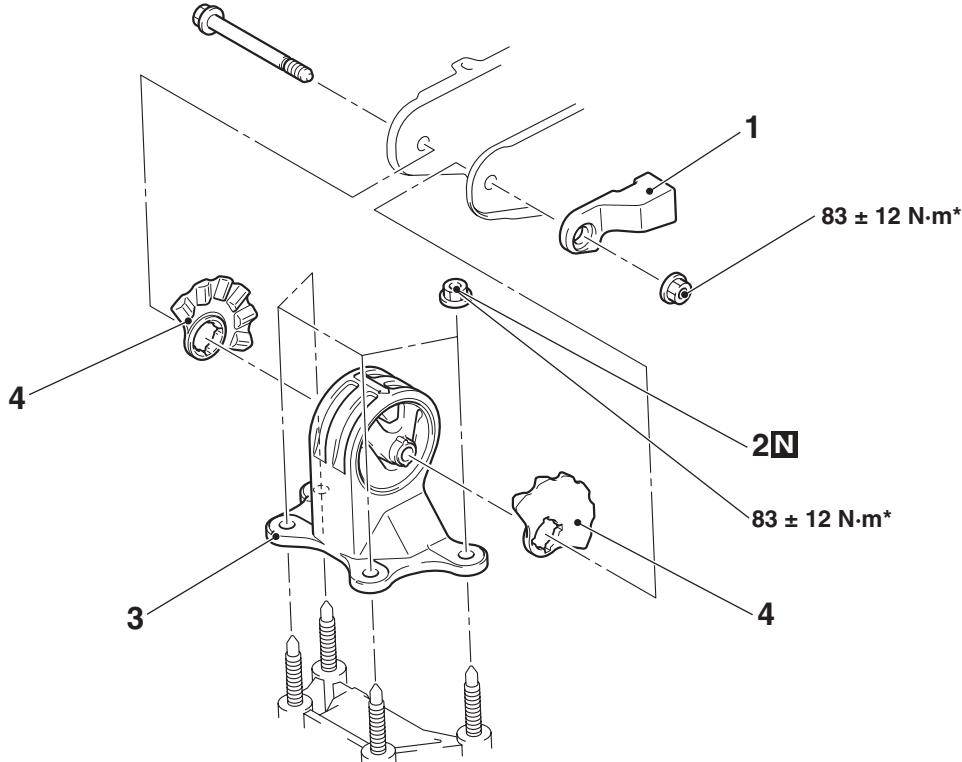
*: Indicates parts which should be initially tightened, and then fully tightened after placing the vehicle horizontally and loading the full weight of the engine on the vehicle body.

Pre-removal Operation

- Raise the engine and transmission assembly until its weight is not applied to the insulator, and support it securely.
- Air Cleaner Removal (Refer to GROUP 15, Air Cleaner P.15-3).
- Battery and Battery tray Removal
- Front Exhaust Pipe Removal (Refer to GROUP 15, Exhaust Pipe and Main Muffler P.15-9).
- Engine Rear Roll Stopper Bracket Removal (Refer to P.32-6).

Post-installation Operation

- Engine Rear Roll Stopper Bracket Installation (Refer to P.32-6).
- Front Exhaust Pipe Installation (Refer to GROUP 15, Exhaust Pipe and Main Muffler P.15-9).
- Air Cleaner Installation (Refer to GROUP 15, Air Cleaner P.15-3).
- Battery and Battery tray Installation



AC302099AB

Removal steps

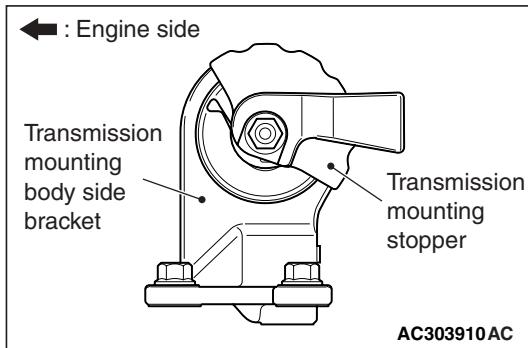
1. Transmission mounting bracket pad <A/T>
2. Self-locking nuts

Removal steps (Continued)

3. Transmission mounting body side bracket
- >>A<< 4. Transmission mounting stopper

INSTALLATION SERVICE POINT
>>A<< TRANSMISSION MOUNTING
STOPPER INSTALLATION

Install the transmission mounting stopper as shown in the illustration.



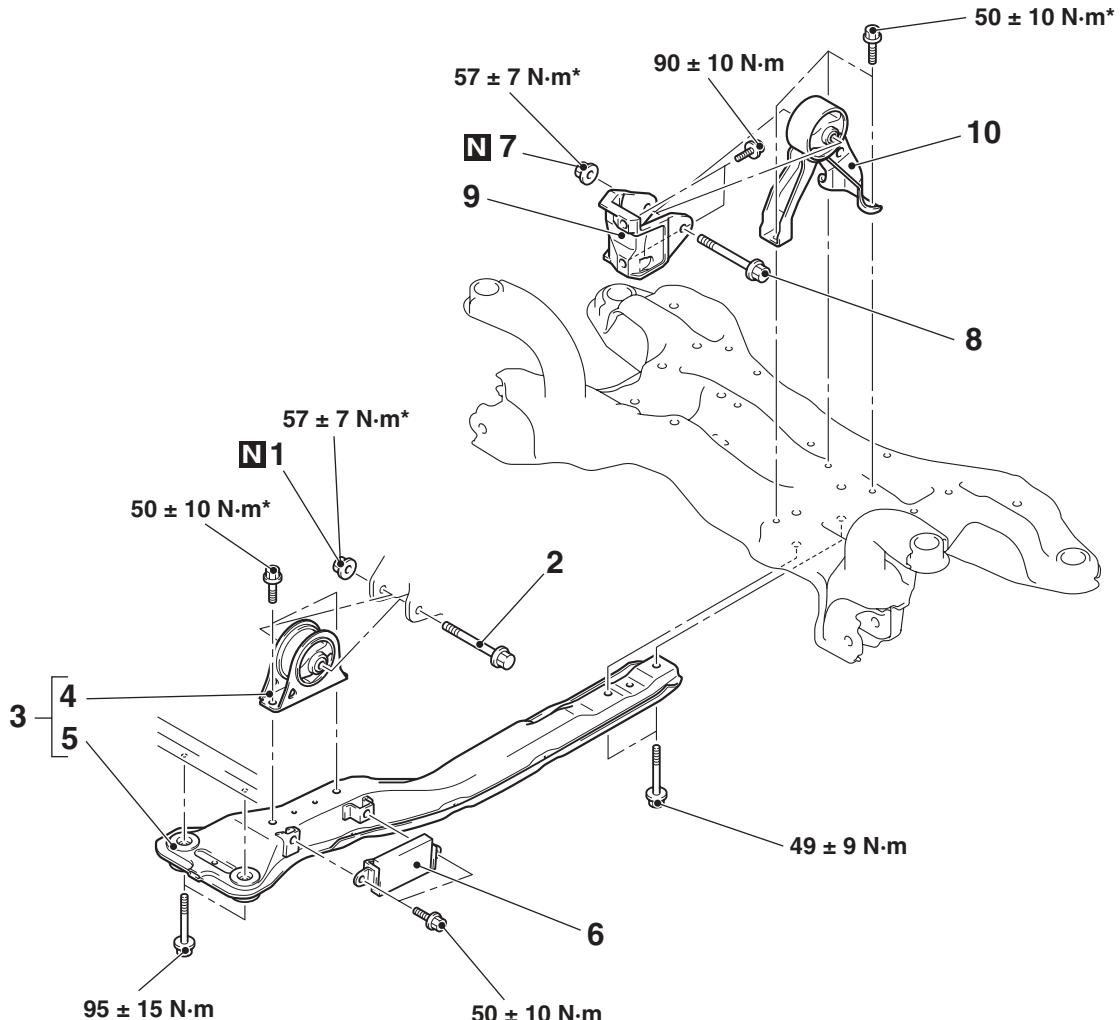
ENGINE ROLL STOPPER, CENTREMEMBER

REMOVAL AND INSTALLATION

M1321002300373

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.



AC302100AC

Engine front roll stopper bracket and centremember removal steps

- Under cover
- 1. Self-locking nut
- 2. Engine front roll stopper bracket connecting bolt
- 3. Centremember and engine front roll stopper bracket assembly
- >>A<< 4. Engine front roll stopper bracket
- 5. Centremember
- 6. Centremember damper <A/T>

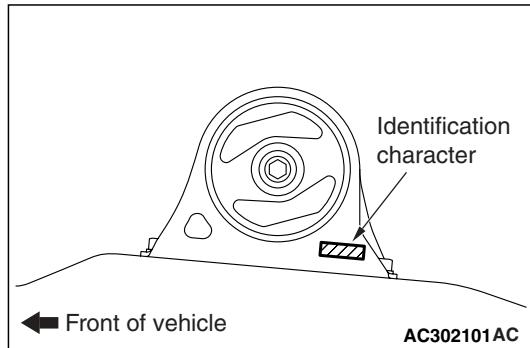
Transmission case rear roll stopper bracket removal steps

- 7. Self-locking nut
- 8. Engine rear roll stopper bracket connecting bolt
- 9. Transmission case rear roll stopper bracket
- Engine rear roll stopper bracket removal steps**
- Crossmember
- 10. Engine rear roll stopper bracket

INSTALLATION SERVICE POINT

**>>A<< ENGINE FRONT ROLL STOPPER
BRACKET INSTALLATION**

Install the engine front roll stopper bracket with its identification characters facing as shown in the illustration.



CROSSMEMBER

REMOVAL AND INSTALLATION

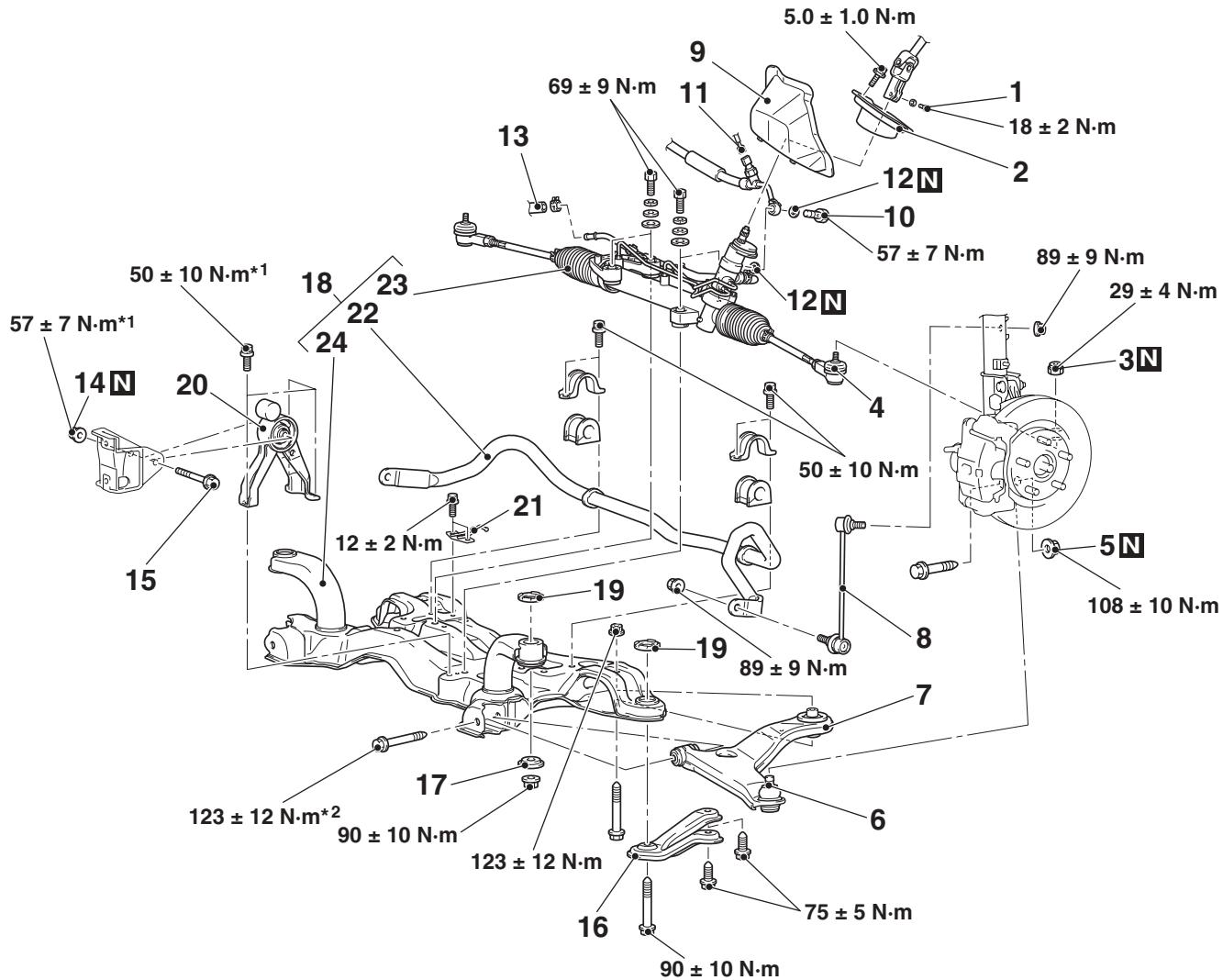
M1321003200454

CAUTION

- Before removing the steering wheel and air bag module assembly, always refer to GROUP 52B - Service Precautions [P.52B-7](#), Air bag Module and Clock Spring [P.52B-225](#). Also, set the front wheels so that they are facing straight forward, and remove the ignition key. If you fail to do this, the SRS clock spring will be damaged, causing the SRS air bag to be inoperative and serious injury.
- *¹: 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.
- *²: Indicates parts which should be temporarily tightened, and then fully tightened with the vehicle on the earth in the unladen condition.

Pre-removal Operation	Post-installation Operation
<ul style="list-style-type: none">• Centremember Removal (Refer to P.32-6).• Front Exhaust Pipe Removal (Refer to GROUP 15, Exhaust Pipe and Main Muffler P.15-9).• Steering Wheel Air Bag Module Assembly Removal (Refer to GROUP 37A, Steering Wheel P.37-14).• Steering Dust Cover Removal (Refer to GROUP 37A, Power Steering Gear Box and Linkage P.37-19).• Power Steering Fluid Draining (Refer to GROUP 37A, On-vehicle Service P.37-11).	<ul style="list-style-type: none">• Front Exhaust Pipe Installation (Refer to GROUP 15, Exhaust Pipe and Main Muffler P.15-9).• Centremember Installation (Refer to P.32-6).• Clock Spring Centreing (Refer to GROUP 52B, Air Bag Modules and Clock Spring P.52B-225).• Steering Wheel Air Bag Module Assembly Installation (Refer to GROUP 37A, Steering Wheel P.37-14).• Steering Dust Cover Installation (Refer to GROUP 37A, Power Steering Gear Box and Linkage P.37-19).• Power Steering Fluid Supplying (Refer to GROUP 37A, On-vehicle Service P.37-11).• Power Steering Fluid Line Bleeding (Refer to GROUP 37A, On-vehicle Service P.37-11).• Press the dust cover with a finger to check whether the dust cover cracked or damaged.• Checking Steering Wheel Position with Wheels Straight Ahead.• Front Wheel Alignment Check and Adjustment (Refer to GROUP 33, On-vehicle Service P.33-4).

<L.H. drive vehicles>



AC310674AB

Removal steps

<<A>>

1. Steering shaft assembly and gear box connecting bolt

>>A<<

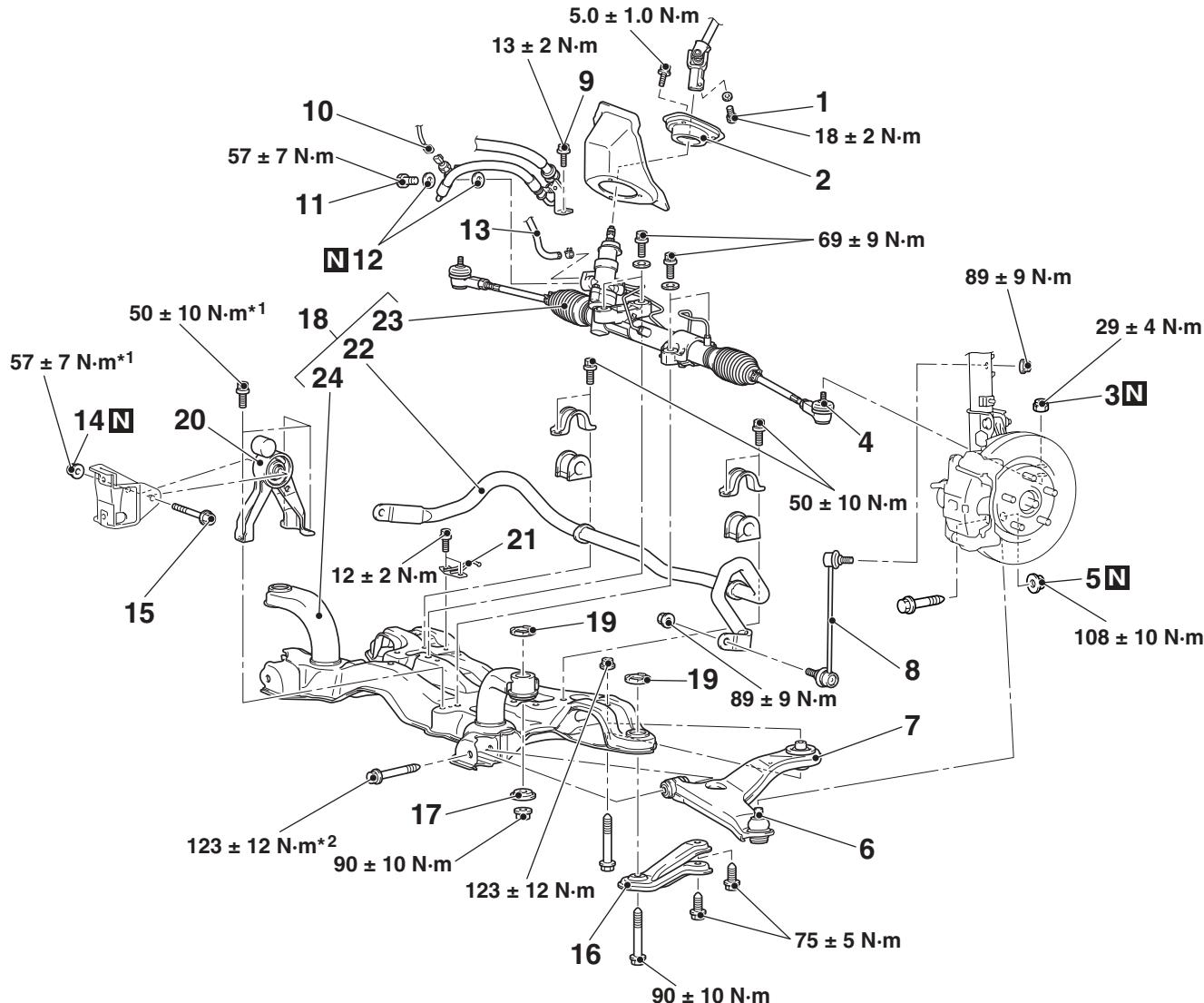
2. Steering column grommet
3. Self-locking nut (Tie rod end and knuckle connection)
4. Tie rod end and knuckle connection
5. Self-locking nut (Lower arm and knuckle connection)
6. Lower arm and knuckle connection
7. Lower arm assembly
8. Stabilizer link
9. Power steering oil pressure sensor connector connection and harness clamp
10. Eye bolt

<<C>>

Removal steps (Continued)

11. Pressure hose connection
12. Gasket
13. Return hose connection
14. Self-locking nut
15. Engine rear roll stopper bracket connection bolt
16. Crossmember rear stay
17. Lower stopper
18. Crossmember assembly
19. Stopper
20. Engine rear roll stopper bracket
21. Exhaust pipe hanger
22. Stabilizer bar
23. Steering gear and linkage
24. Crossmember

<R.H. drive vehicles>



AC302102AC

<<A>>

Removal steps

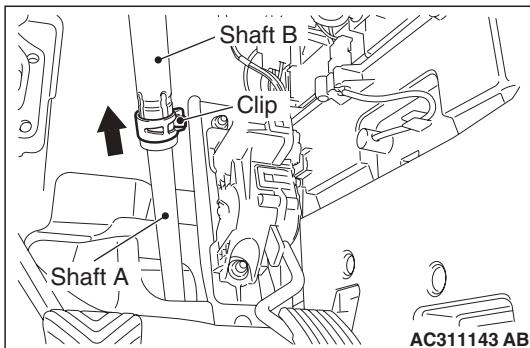
1. Steering shaft assembly and gear box connecting bolt
- >>A<< 2. Steering column grommet
3. Self-locking nut (Tie rod end and knuckle connection)
- <> 4. Tie rod end and knuckle connection
5. Self-locking nut (Lower arm and knuckle connection)
6. Lower arm and knuckle connection
7. Lower arm assembly
8. Stabilizer link
9. Pressure hose clamp connection
10. Power steering oil pressure sensor connector connection and harness clamp
11. Eye bolt

Removal steps (Continued)

12. Gasket
13. Return hose connection
14. Self-locking nut
15. Engine rear roll stopper bracket connection bolt
16. Crossmember rear stay
17. Lower stopper
18. Crossmember assembly
19. Stopper
20. Engine rear roll stopper bracket
21. Exhaust pipe hanger
22. Stabilizer bar
23. Steering gear and linkage
24. Crossmember

REMOVAL SERVICE POINTS**<<A>> STEERING SHAFT ASSEMBLY
AND GEAR BOX CONNECTING BOLT
REMOVAL**

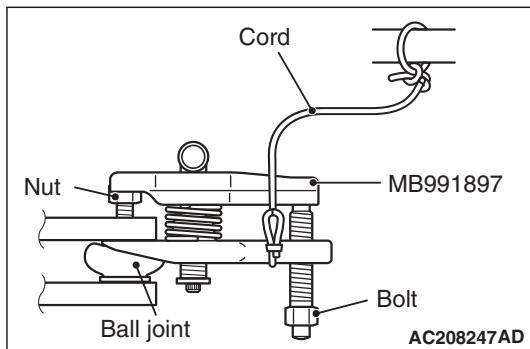
1. Remove the steering column bolt connecting steering gear to steering column assembly.



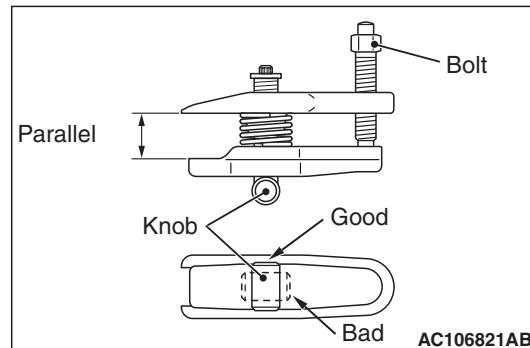
2. Disconnect the steering gear from the steering column assembly while sliding shaft A to shaft B with the clip claw as shown is pinched.

**<> TIE ROD END AND KNUCKLE
DISCONNECTION****CAUTION**

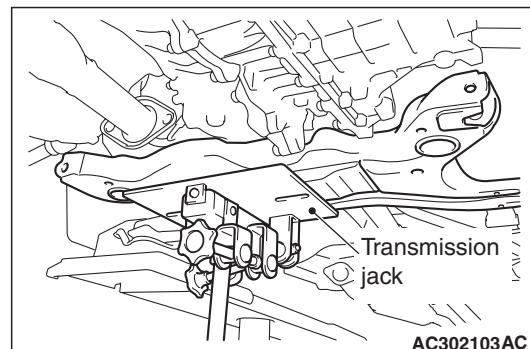
- Do not remove the nut from ball joint. Loosen it and use special tool to avoid possible damage to ball joint threads.
- Hang special tool with a cord to prevent it from falling.



1. Install the special tool ball joint remover (MB991897) as shown in the figure.



2. Turn the bolt and knob as necessary to make the jaws of the special tool parallel, tighten the bolt by hand and confirm that the jaws are still parallel.
NOTE: When adjusting the jaws in parallel, make sure the knob is in the position shown in the figure.
3. Tighten the bolt with a wrench to disconnect the tie rod end.

**<<C>> CROSSMEMBER ASSEMBLY
REMOVAL**

1. Use a transmission jack to hold the crossmember, and then remove the crossmember mounting nuts and bolts.
2. Lower the crossmember with the engine rear roll stopper bracket, the stabilizer bar, the return tube, and the steering gear.

INSTALLATION SERVICE POINT
>>A<< STEERING COLUMN GROMMET
INSTALLATION

Install the steering column grommet with its mark facing the front of the vehicle.

