

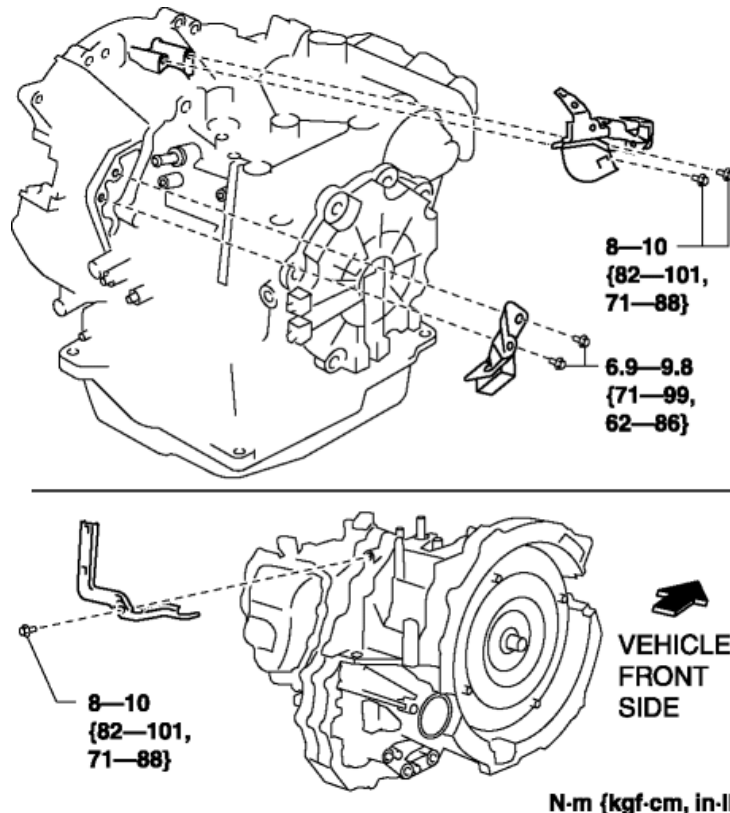
2012 - Mazda6 - Transmission/ Transaxle

AUTOMATIC TRANSAXLE REMOVAL/ INSTALLATION [FS5A-EL]

CAUTION:

- Secure the steering wheel using tape or a cable to prevent the steering shaft from rotating after disconnecting the steering shaft. If the steering wheel rotates after the steering shaft and the steering gear and linkage are disconnected, the internal parts of the clock spring could be damaged.

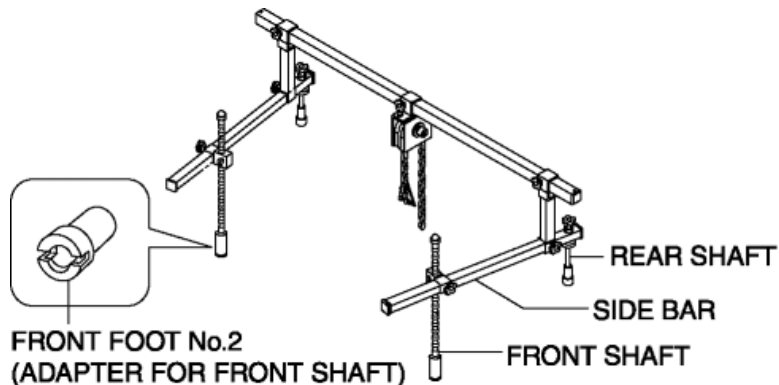
1. Remove the aerodynamic under cover NO. 1 and NO. 2. (See [AERODYNAMIC UNDER COVER NO.1 REMOVAL/ INSTALLATION](#).)(See [AERODYNAMIC UNDER COVER NO.2 REMOVAL/ INSTALLATION](#).)
2. Drain the ATF into a separate suitable container. (See [AUTOMATIC TRANSAXLE FLUID \(ATF\) REPLACEMENT \[FS5A-EL\]](#).)
3. Remove the battery. (See [BATTERY REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
4. Remove the battery tray. (See [BATTERY REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
5. Remove the air cleaner component. (See [INTAKE-AIR SYSTEM REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
6. Disconnect the selector cable from the transaxle. (See [AUTOMATIC TRANSAXLE SHIFT MECHANISM REMOVAL/ INSTALLATION](#).)
7. Disconnect the connector and GND wiring harness from the transaxle.
8. Remove the bracket from the transaxle.



9. Disconnect the oil hose from the transaxle. (See [OIL COOLER REMOVAL/ INSTALLATION \[FS5A-EL\]](#).)
10. Remove the starter. (See [STARTER REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
11. Remove the front tires. (See [GENERAL PROCEDURES \(FRONT AND REAR AXLES\)](#).)
12. Set the front mudguards out of the way. (See [FRONT MUDGUARD REMOVAL/ INSTALLATION](#).)
13. Remove the splash shields. (See [SPLASH SHIELD REMOVAL/ INSTALLATION](#).)
14. Disconnect the ABS wheel-speed sensors from the steering knuckles. (See [FRONT ABS WHEEL-SPEED SENSOR](#)

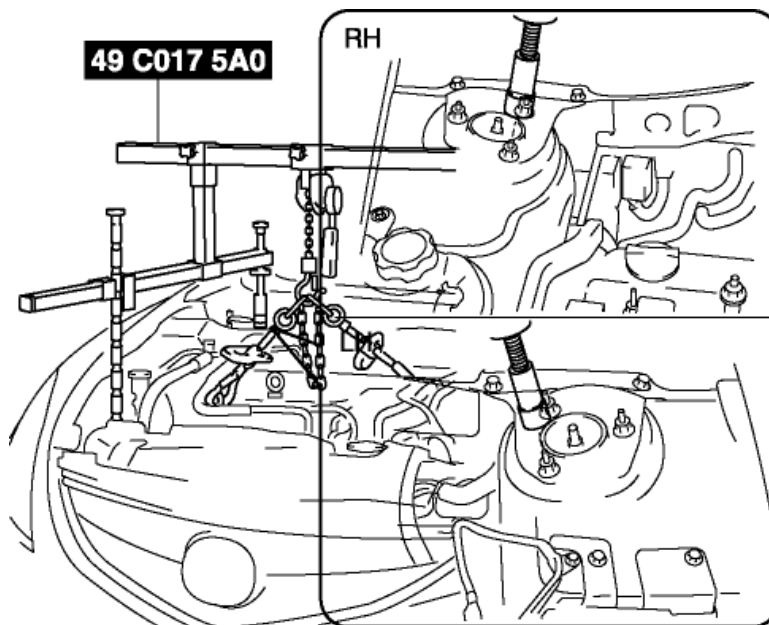
REMOVAL/ INSTALLATION.)

15. Disconnect the brake hose brackets from the shock absorbers. (See **BRAKE HOSE (FRONT) REMOVAL/ INSTALLATION.**)
16. Disconnect the tie-rod ends from the steering knuckles. (See **FRONT CROSSMEMBER REMOVAL/ INSTALLATION [MZR 2.5].**)
17. Disconnect the front lower arms from the steering knuckles. (See **FRONT LOWER ARM REMOVAL/ INSTALLATION.**)
18. Disconnect the stabilizer control links from the shock absorbers. (See **FRONT SHOCK ABSORBER AND COIL SPRING REMOVAL/ INSTALLATION.**)
19. Remove the tunnel member. (See **EXHAUST SYSTEM REMOVAL/ INSTALLATION [MZR 2.5].**)
20. Remove the hanger on the middle pipe side and set the hanger aside. (See **EXHAUST SYSTEM REMOVAL/ INSTALLATION [MZR 2.5].**)
21. Remove the steering shaft cover. (See **STEERING WHEEL AND COLUMN REMOVAL/ INSTALLATION [WITHOUT ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM].**)(See **STEERING WHEEL AND COLUMN REMOVAL/ INSTALLATION [WITH ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM].**)
22. Disconnect the steering shaft from the steering gear and linkage. (See **STEERING WHEEL AND COLUMN REMOVAL/ INSTALLATION [WITHOUT ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM].**)(See **STEERING WHEEL AND COLUMN REMOVAL/ INSTALLATION [WITH ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM].**)
23. Remove the dust cover. (See **STEERING WHEEL AND COLUMN REMOVAL/ INSTALLATION [WITHOUT ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM].**)(See **STEERING WHEEL AND COLUMN REMOVAL/ INSTALLATION [WITH ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM].**)
24. Remove the transverse member. (See **TRANSVERSE MEMBER REMOVAL/ INSTALLATION.**)
25. Remove the front crossmember. (See **FRONT CROSSMEMBER REMOVAL/ INSTALLATION [MZR 2.5].**)
26. Install the **SST** using the following procedure.

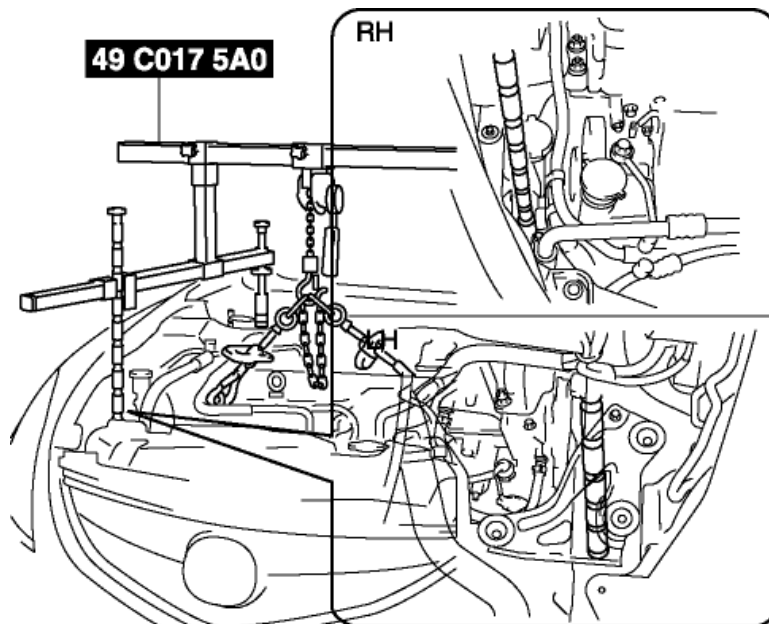


CAUTION:

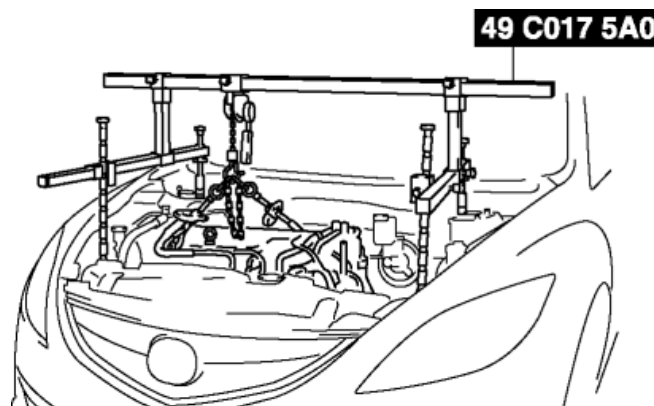
- Refer to the SST instruction manual for the basic handling procedure.
- a. Remove the plug hole plate. (See **PLUG HOLE PLATE REMOVAL/ INSTALLATION [MZR 2.5].**)
- b. As shown in the figure, set the rear shafts of the **SST** to the left and right shock absorber bolts.



c. Install front foot No.2 to the left/right front shaft of the **SST**, then align the groove of the front shaft of the **SST** with the folded up part of the vehicle as shown in the figure.



d. Adjust the height of the left and right side bars of the **SST** so that they are leveled, then tighten each part.



e. Apply tension to the chain to secure the engine.

27. Remove in the order shown in the figure.

WARNING:

- Improperly jacking a transaxle is dangerous. It can slip off the jack and may cause serious injury.

CAUTION:

- To prevent the torque converter and transaxle from separating, remove the transaxle without tilting it toward the torque converter.

28. Install in the reverse order of removal.

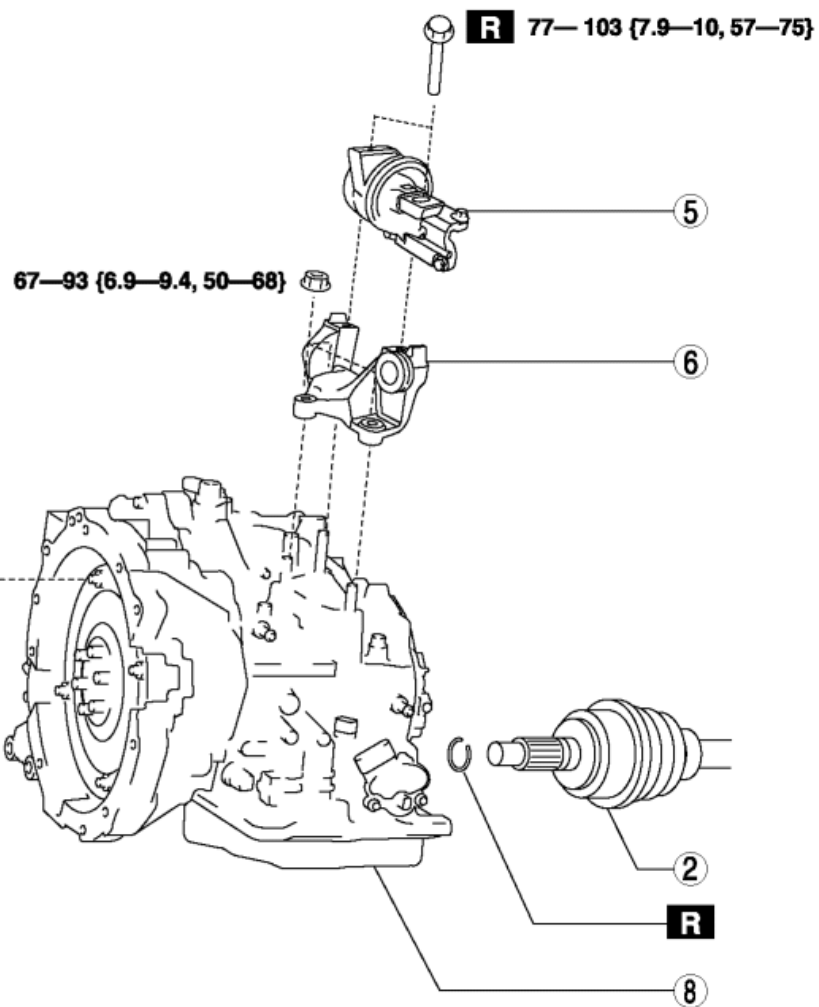
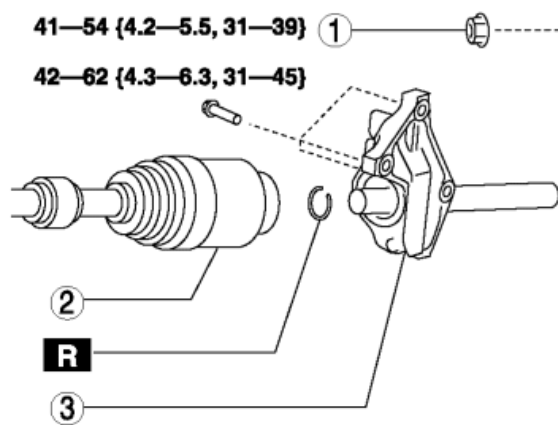
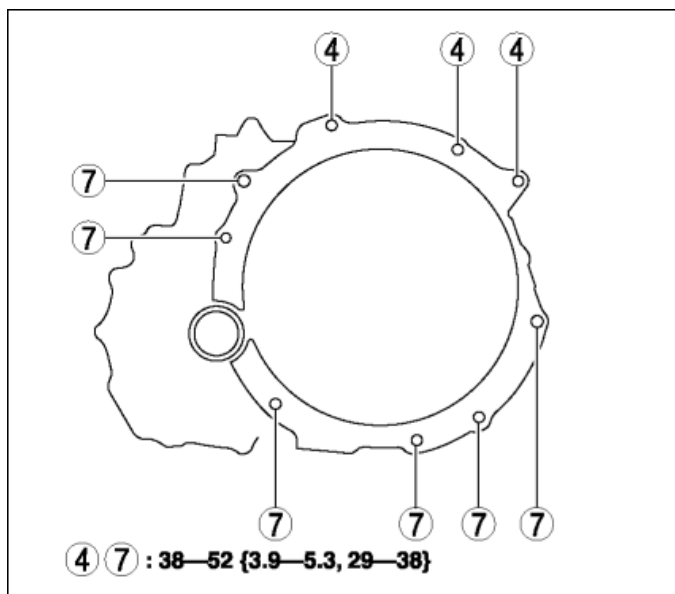
29. Add ATF. (See [AUTOMATIC TRANSAXLE FLUID \(ATF\) REPLACEMENT \[FS5A-EL\]](#) .)

30. Perform the following test according to the service item. (See [MECHANICAL SYSTEM TEST \[FS5A-EL\]](#) .)(See [ROAD TEST \[FS5A-EL\]](#) .)

Service item	Test item			
	Line pressure test	Stall test	Time lag test	Road test
Transaxle replacement	×			
Transaxle overhaul	×	×	×	×
Torque converter replacement	×	×		
Oil pump replacement	×			
Clutch system replacement	×		×	×

×

Test to be performed after the service work



N·m {kgf·m, ft·lbf}

1 Torque converter nuts

(See [Torque Converter Installation Nuts Removal Note.](#))

(See [Torque Converter Installation Nuts Installation Note.](#))

2 Drive shaft

(See [DRIVE SHAFT REMOVAL/ INSTALLATION.](#))

3 Joint shaft

(See [JOINT SHAFT REMOVAL/ INSTALLATION.](#))

4 Transaxle mounting bolts (upper side)

(See [Transaxle Removal Note.](#))

(See [Transaxle Installation Note.](#))

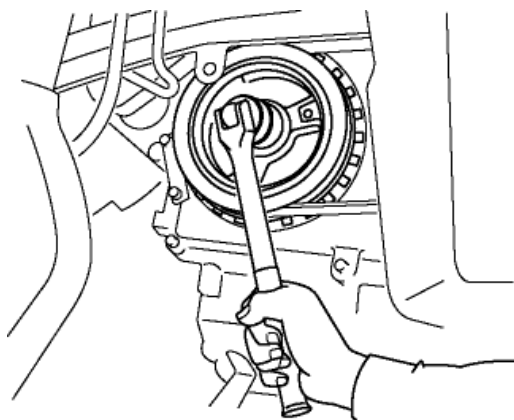
5 No.4 engine mount rubber

(See [No.4 Engine Mount Installation Note.](#))

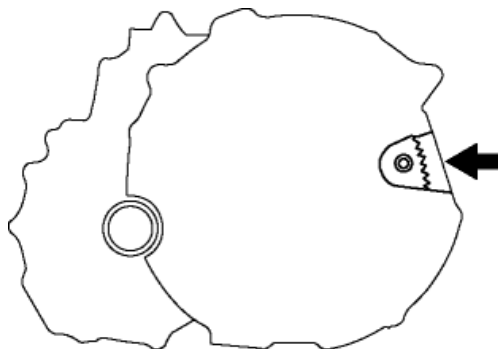
6	No.4 engine mount bracket (See No.4 Engine Mount Installation Note.)
7	Transaxle mounting bolts (lower side) (See Transaxle Removal Note.) (See Transaxle Installation Note.)
8	Transaxle (See Transaxle Removal Note.) (See Transaxle Installation Note.)

Torque Converter Installation Nuts Removal Note

1. Hold the crankshaft pulley to prevent drive plate from rotating.



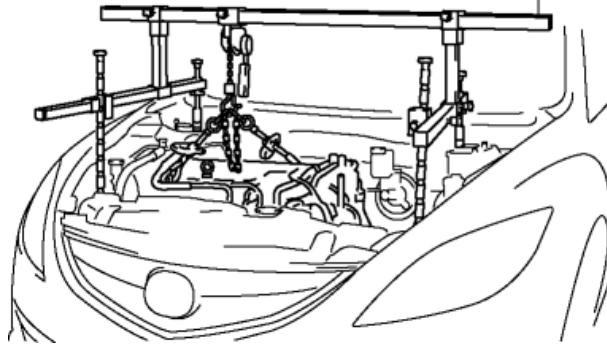
2. Remove the torque converter nuts from the starter installation hole.



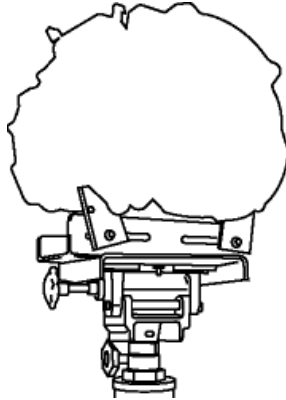
Transaxle Removal Note

1. Adjust the **SST (49 C017 5A0)** and lean the engine toward the transaxle.

49 C017 5A0



2. Support the transaxle on a jack.



3. Remove the transaxle mounting bolts.

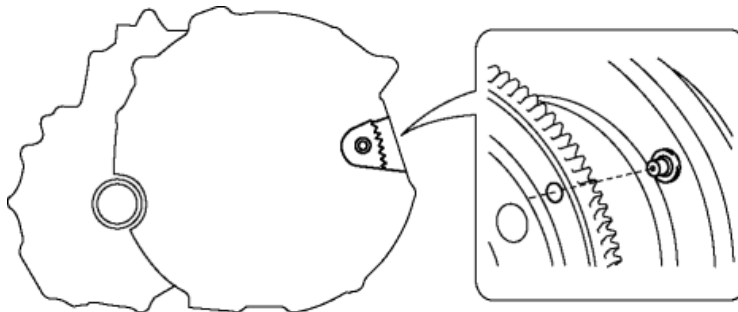
4. Remove the transaxle.

Transaxle Installation Note

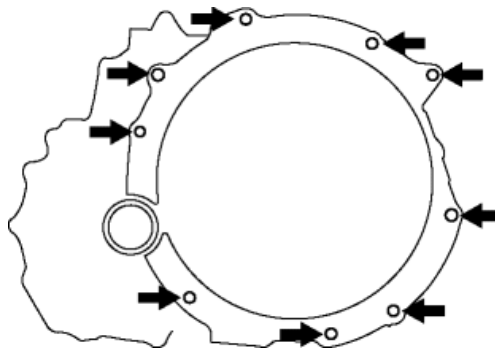
CAUTION:

- Verify that the torque converter stud bolts are inserted into the drive plate bolt holes, and install the transaxle installation bolts. Otherwise, the drive plate could be damaged.

1. Verify that the torque converter stud bolts are inserted into the drive plate bolt holes from the starter installation hole.



2. Tighten the transaxle mounting bolts.

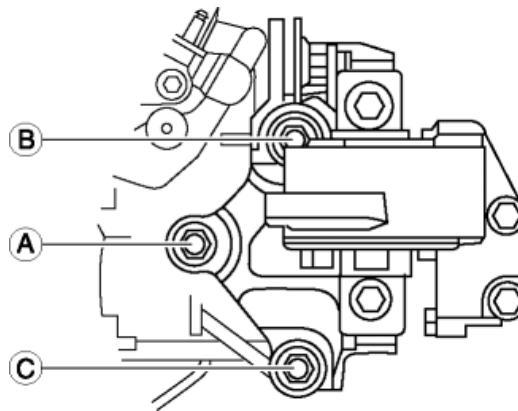


Tightening torque

- 38—52 N·m {3.9—5.3 kgf·m, 29—38 ft·lbf}

No.4 Engine Mount Installation Note

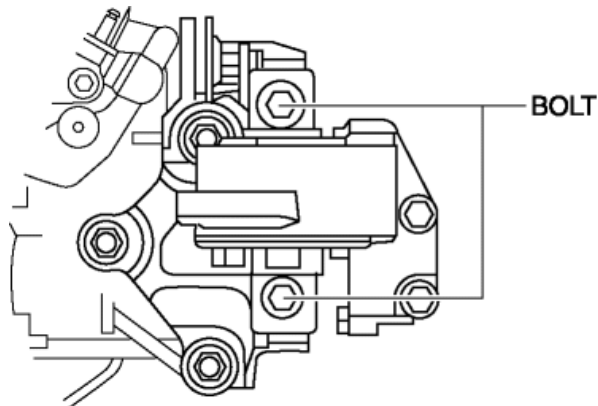
1. Tighten nuts on the No.4 engine mount bracket in the order of A to C.



Tightening torque

- 67—93 N·m {6.9—9.4 kgf·m, 50—68 ft·lbf}

2. Tighten the new bolts on the No.4 engine mount rubber.

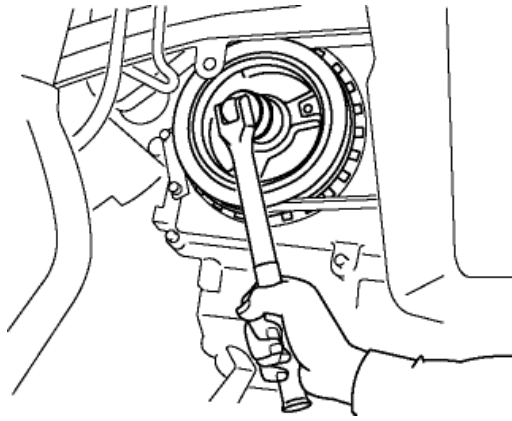


Tightening torque

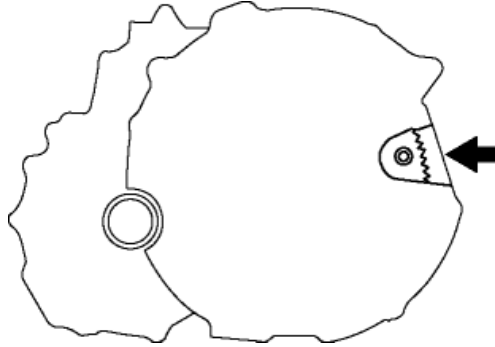
- 77—103 N·m {7.9—10 kgf·m, 57—75 ft·lbf}

Torque Converter Installation Nuts Installation Note

1. Hold the crankshaft pulley to prevent drive plate from rotating.



2. Tighten the torque converter nuts from the starter installation hole.



CAUTION:

- Loosely and equally tighten the torque converter nuts, then further tighten them to the specified tightening torque.

Tightening torque

- 41—54 N·m {4.2—5.5 kgf·m, 31—39 ft·lbf}

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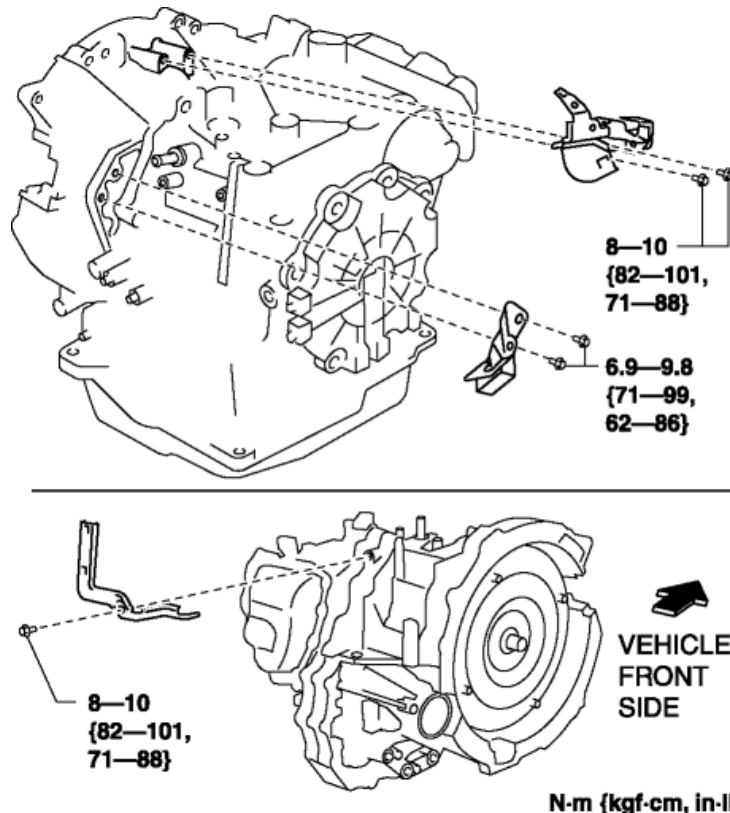
2012 - Mazda6 - Transmission/ Transaxle

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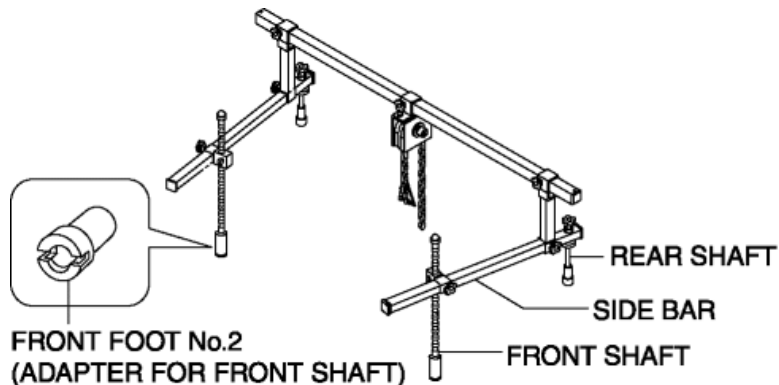
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3. Remove the battery. (See [BATTERY REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
4. Remove the battery tray. (See [BATTERY REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
5. Remove the air cleaner component. (See [INTAKE-AIR SYSTEM REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
6. Disconnect the selector cable from the transaxle. (See [AUTOMATIC TRANSAXLE SHIFT MECHANISM REMOVAL/ INSTALLATION](#).)
7. Disconnect the connector and GND wiring harness from the transaxle.
8. Remove the bracket from the transaxle.



9. Disconnect the oil hose from the transaxle. (See [OIL COOLER REMOVAL/ INSTALLATION \[FS5A-EL\]](#).)
10. Remove the starter. (See [STARTER REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
11. Remove the front tires. (See [GENERAL PROCEDURES \(FRONT AND REAR AXLES\)](#).)
12. Set the front mudguards out of the way. (See [FRONT MUDGUARD REMOVAL/ INSTALLATION](#).)
13. Remove the splash shields. (See [SPLASH SHIELD REMOVAL/ INSTALLATION](#).)
14. Disconnect the ABS wheel-speed sensors from the steering knuckles. (See [FRONT ABS WHEEL-SPEED SENSOR](#)

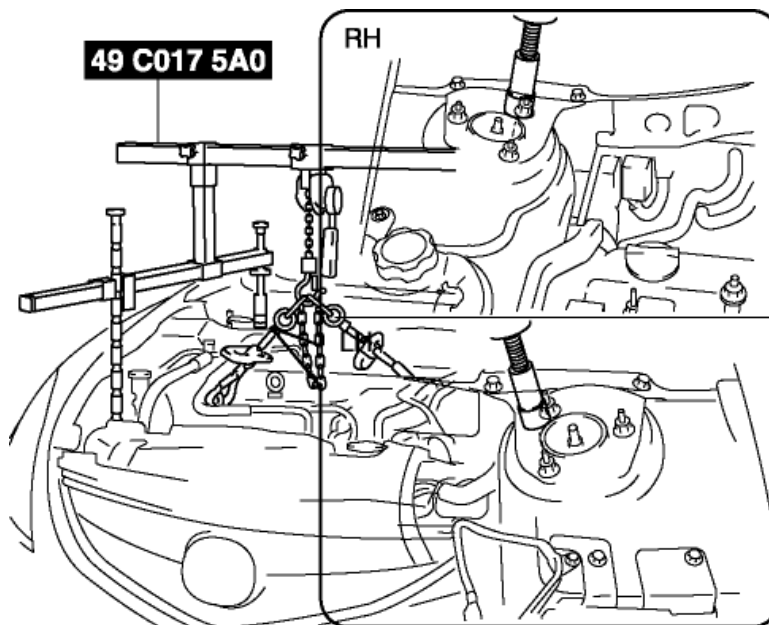
REMOVAL/ INSTALLATION.)

15. Disconnect the brake hose brackets from the shock absorbers. (See **BRAKE HOSE (FRONT) REMOVAL/ INSTALLATION.**)
16. Disconnect the tie-rod ends from the steering knuckles. (See **FRONT CROSSMEMBER REMOVAL/ INSTALLATION [MZR 2.5].**)
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19. Remove the tunnel member. (See **EXHAUST SYSTEM REMOVAL/ INSTALLATION [MZR 2.5].**)
20. Remove the hanger on the middle pipe side and set the hanger aside. (See **EXHAUST SYSTEM REMOVAL/ INSTALLATION [MZR 2.5].**)
21. Remove the steering shaft cover. (See **STEERING WHEEL AND COLUMN REMOVAL/ INSTALLATION [WITHOUT ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM].**)(See **STEERING WHEEL AND COLUMN REMOVAL/ INSTALLATION [WITH ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM].**)
22. Disconnect the steering shaft from the steering gear and linkage. (See **STEERING WHEEL AND COLUMN REMOVAL/ INSTALLATION [WITHOUT ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM].**)(See **STEERING WHEEL AND COLUMN REMOVAL/ INSTALLATION [WITH ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM].**)
23. Remove the dust cover. (See **STEERING WHEEL AND COLUMN REMOVAL/ INSTALLATION [WITHOUT ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM].**)(See **STEERING WHEEL AND COLUMN REMOVAL/ INSTALLATION [WITH ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM].**)
24. Remove the transverse member. (See **TRANSVERSE MEMBER REMOVAL/ INSTALLATION.**)
25. Remove the front crossmember. (See **FRONT CROSSMEMBER REMOVAL/ INSTALLATION [MZR 2.5].**)
26. Install the **SST** using the following procedure.

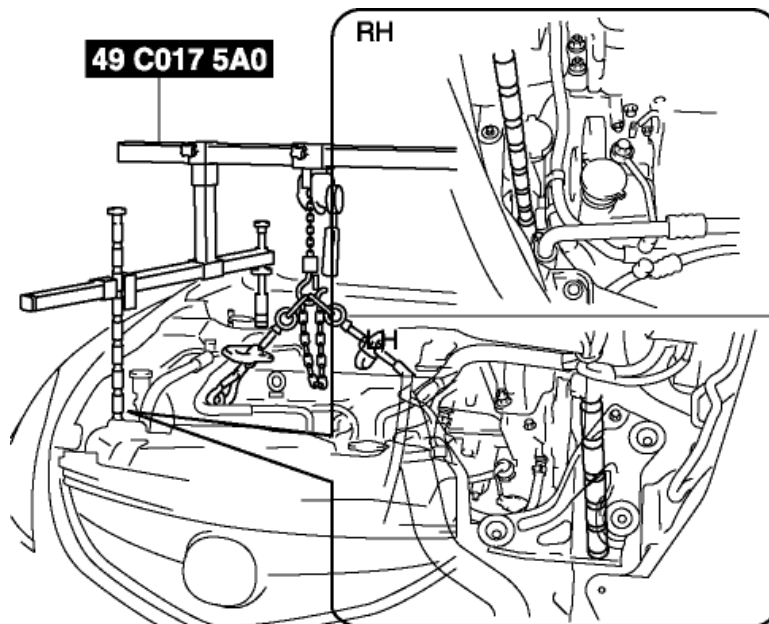


CAUTION:

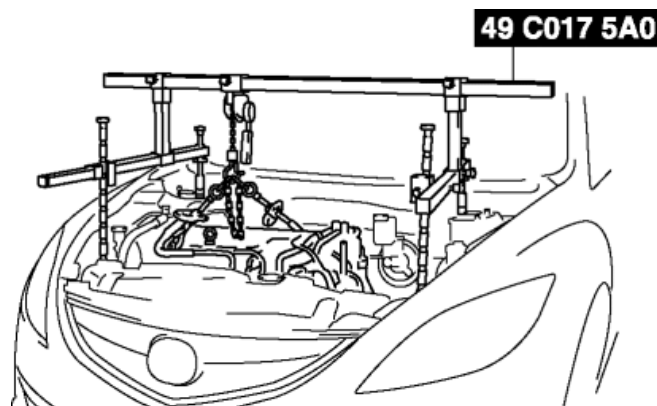
- Refer to the SST instruction manual for the basic handling procedure.
- a. Remove the plug hole plate. (See **PLUG HOLE PLATE REMOVAL/ INSTALLATION [MZR 2.5].**)
- b. As shown in the figure, set the rear shafts of the **SST** to the left and right shock absorber bolts.



c. Install front foot No.2 to the left/right front shaft of the **SST**, then align the groove of the front shaft of the **SST** with the folded up part of the vehicle as shown in the figure.



d. Adjust the height of the left and right side bars of the **SST** so that they are leveled, then tighten each part.



e. Apply tension to the chain to secure the engine.

27. Remove in the order shown in the figure.

WARNING:

- Improperly jacking a transaxle is dangerous. It can slip off the jack and may cause serious injury.

CAUTION:

- To prevent the torque converter and transaxle from separating, remove the transaxle without tilting it toward the torque converter.

28. Install in the reverse order of removal.

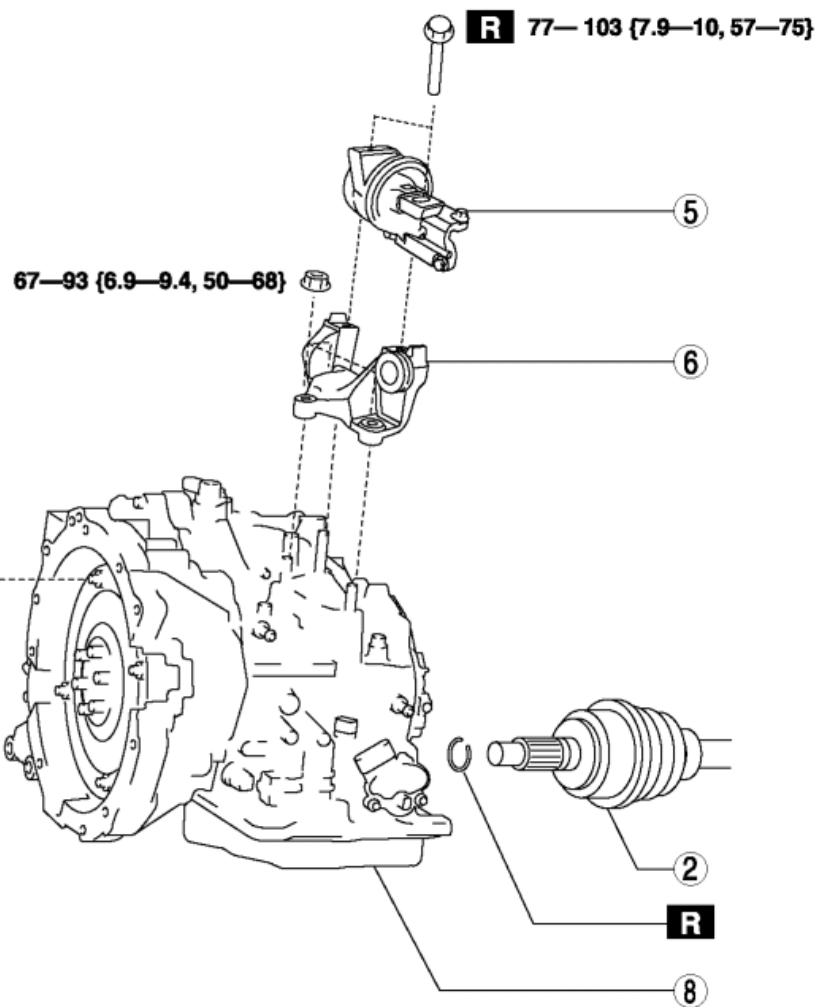
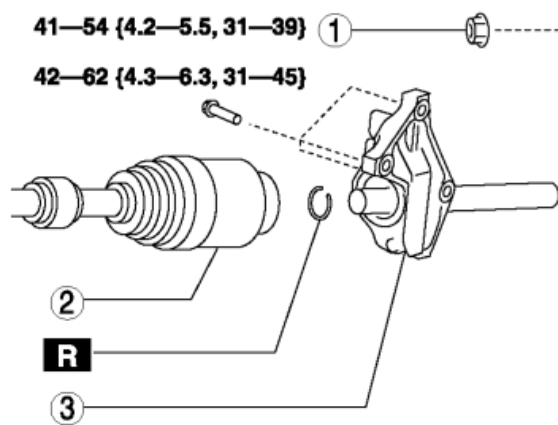
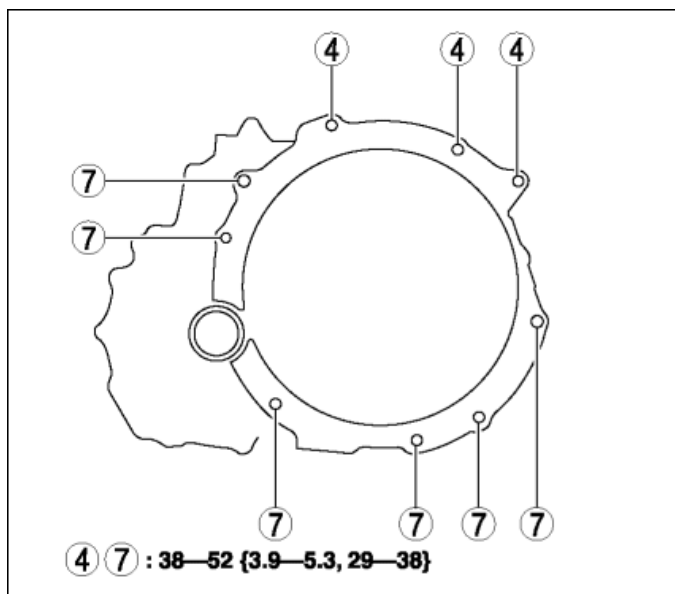
29. Add ATF. (See [AUTOMATIC TRANSAXLE FLUID \(ATF\) REPLACEMENT \[FS5A-EL\]](#) .)

30. Perform the following test according to the service item. (See [MECHANICAL SYSTEM TEST \[FS5A-EL\]](#) .)(See [ROAD TEST \[FS5A-EL\]](#) .)

Service item	Test item			
	Line pressure test	Stall test	Time lag test	Road test
Transaxle replacement	×			
Transaxle overhaul	×	×	×	×
Torque converter replacement	×	×		
Oil pump replacement	×			
Clutch system replacement	×		×	×

×

Test to be performed after the service work



N·m {kgf·m, ft·lbf}

1 Torque converter nuts

(See [Torque Converter Installation Nuts Removal Note.](#))

(See [Torque Converter Installation Nuts Installation Note.](#))

2 Drive shaft

(See [DRIVE SHAFT REMOVAL/ INSTALLATION.](#))

3 Joint shaft

(See [JOINT SHAFT REMOVAL/ INSTALLATION.](#))

4 Transaxle mounting bolts (upper side)

(See [Transaxle Removal Note.](#))

(See [Transaxle Installation Note.](#))

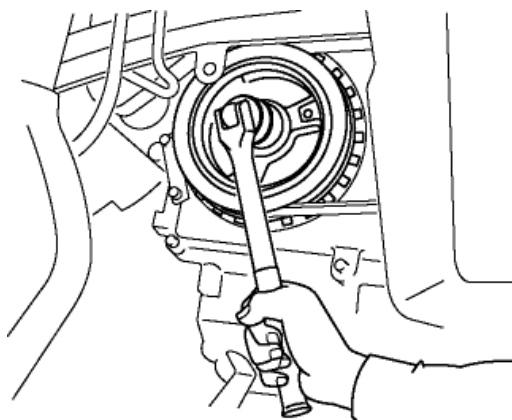
5 No.4 engine mount rubber

(See [No.4 Engine Mount Installation Note.](#))

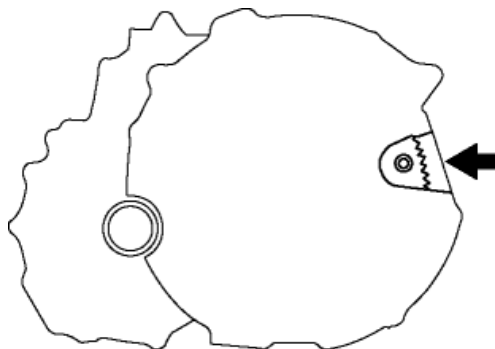
6	No.4 engine mount bracket (See No.4 Engine Mount Installation Note.)
7	Transaxle mounting bolts (lower side) (See Transaxle Removal Note.) (See Transaxle Installation Note.)
8	Transaxle (See Transaxle Removal Note.) (See Transaxle Installation Note.)

Torque Converter Installation Nuts Removal Note

1. Hold the crankshaft pulley to prevent drive plate from rotating.



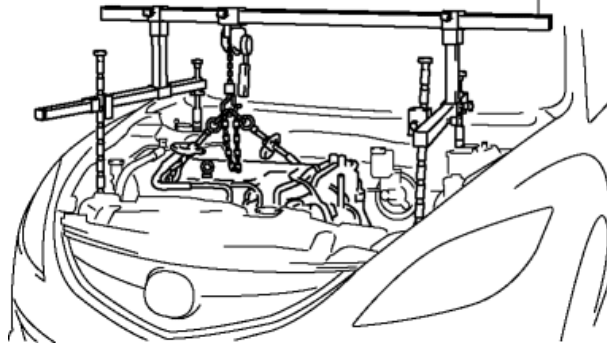
2. Remove the torque converter nuts from the starter installation hole.



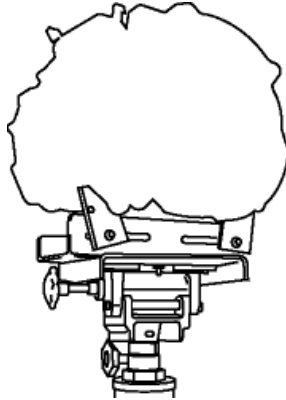
Transaxle Removal Note

1. Adjust the **SST (49 C017 5A0)** and lean the engine toward the transaxle.

49 C017 5A0



2. Support the transaxle on a jack.



3. Remove the transaxle mounting bolts.

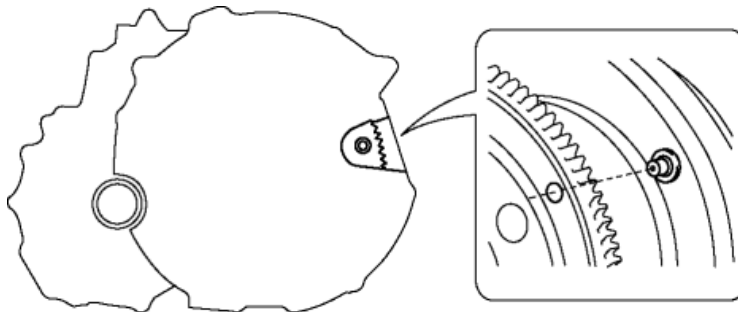
4. Remove the transaxle.

Transaxle Installation Note

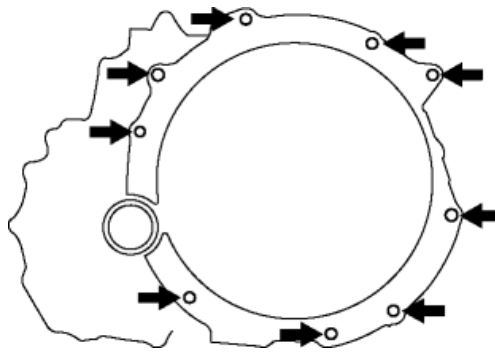
CAUTION:

- Verify that the torque converter stud bolts are inserted into the drive plate bolt holes, and install the transaxle installation bolts. Otherwise, the drive plate could be damaged.

1. Verify that the torque converter stud bolts are inserted into the drive plate bolt holes from the starter installation hole.



2. Tighten the transaxle mounting bolts.

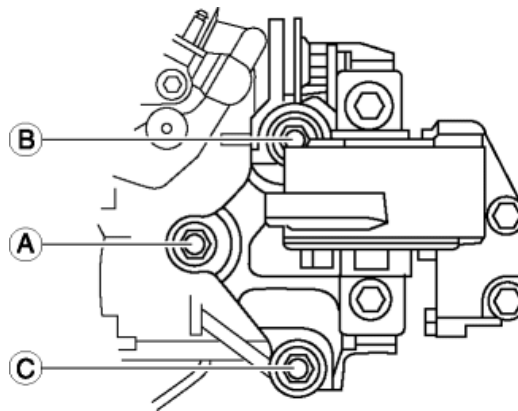


Tightening torque

- 38—52 N·m {3.9—5.3 kgf·m, 29—38 ft·lbf}

No.4 Engine Mount Installation Note

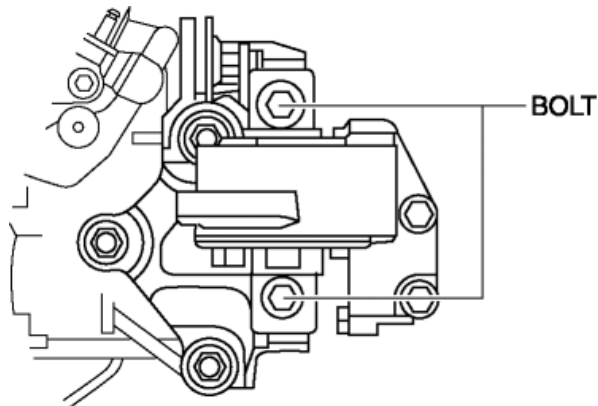
1. Tighten nuts on the No.4 engine mount bracket in the order of A to C.



Tightening torque

- 67—93 N·m {6.9—9.4 kgf·m, 50—68 ft·lbf}

2. Tighten the new bolts on the No.4 engine mount rubber.

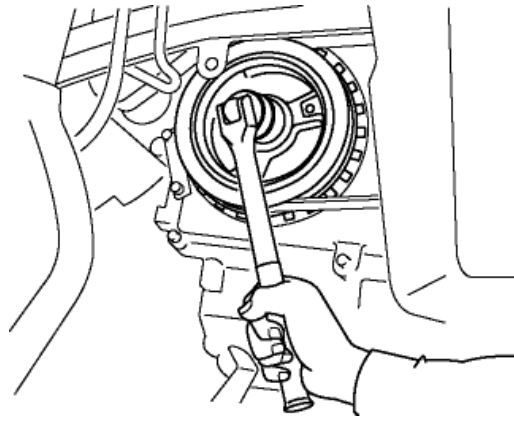


Tightening torque

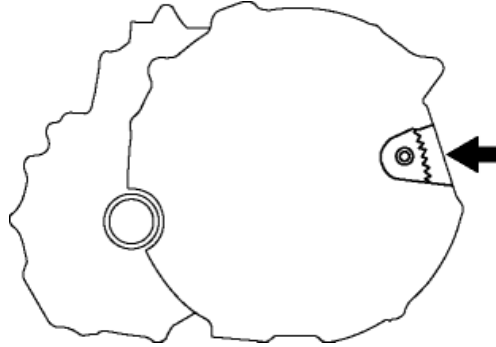
- 77—103 N·m {7.9—10 kgf·m, 57—75 ft·lbf}

Torque Converter Installation Nuts Installation Note

1. Hold the crankshaft pulley to prevent drive plate from rotating.



2. Tighten the torque converter nuts from the starter installation hole.



CAUTION:

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Tightening torque

- 41—54 N·m {4.2—5.5 kgf·m, 31—39 ft·lbf}