

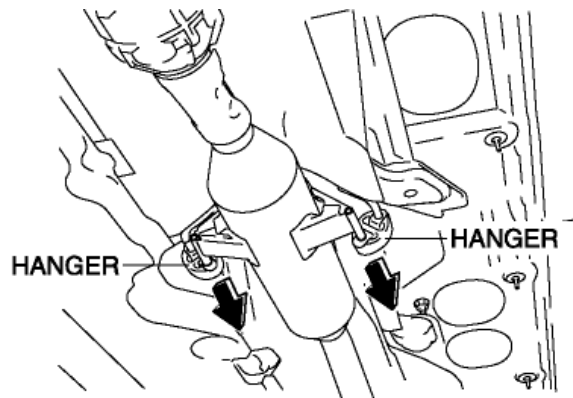
2012 - Mazda6 - Transmission/ Transaxle

MANUAL TRANSAXLE REMOVAL/ INSTALLATION [G66M-R]

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. Disconnect the negative battery cable. (See [BATTERY REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
2. Remove the following parts:
 - a. Battery and battery tray (See [BATTERY REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
 - b. Air cleaner component (See [INTAKE-AIR SYSTEM REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
 - c. Front tires (See [GENERAL PROCEDURES \(SUSPENSION\)](#).)
 - d. Splash shields (See [SPLASH SHIELD REMOVAL/ INSTALLATION](#).)
 - e. Plug hole plate (See [PLUG HOLE PLATE REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
 - f. Aerodynamic undercover No.2 (See [AERODYNAMIC UNDER COVER NO.2 REMOVAL/ INSTALLATION](#).)
 - g. Aerodynamic undercover No.1 (See [AERODYNAMIC UNDER COVER NO.1 REMOVAL/ INSTALLATION](#).)
 - h. Tunnel member (See [EXHAUST SYSTEM REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
3. Remove the hanger on the middle pipe side as shown in the figure and set the hanger aside.



4. Remove the steering shaft cover. (See [STEERING GEAR AND LINKAGE REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
5. Remove the joint bolt for the steering shaft and disconnect the steering shaft from the steering gear and linkage side. (See [STEERING GEAR AND LINKAGE REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
6. Drain the transaxle oil into a suitable container. (See [TRANSAXLE OIL REPLACEMENT \[G66M-R\]](#).)

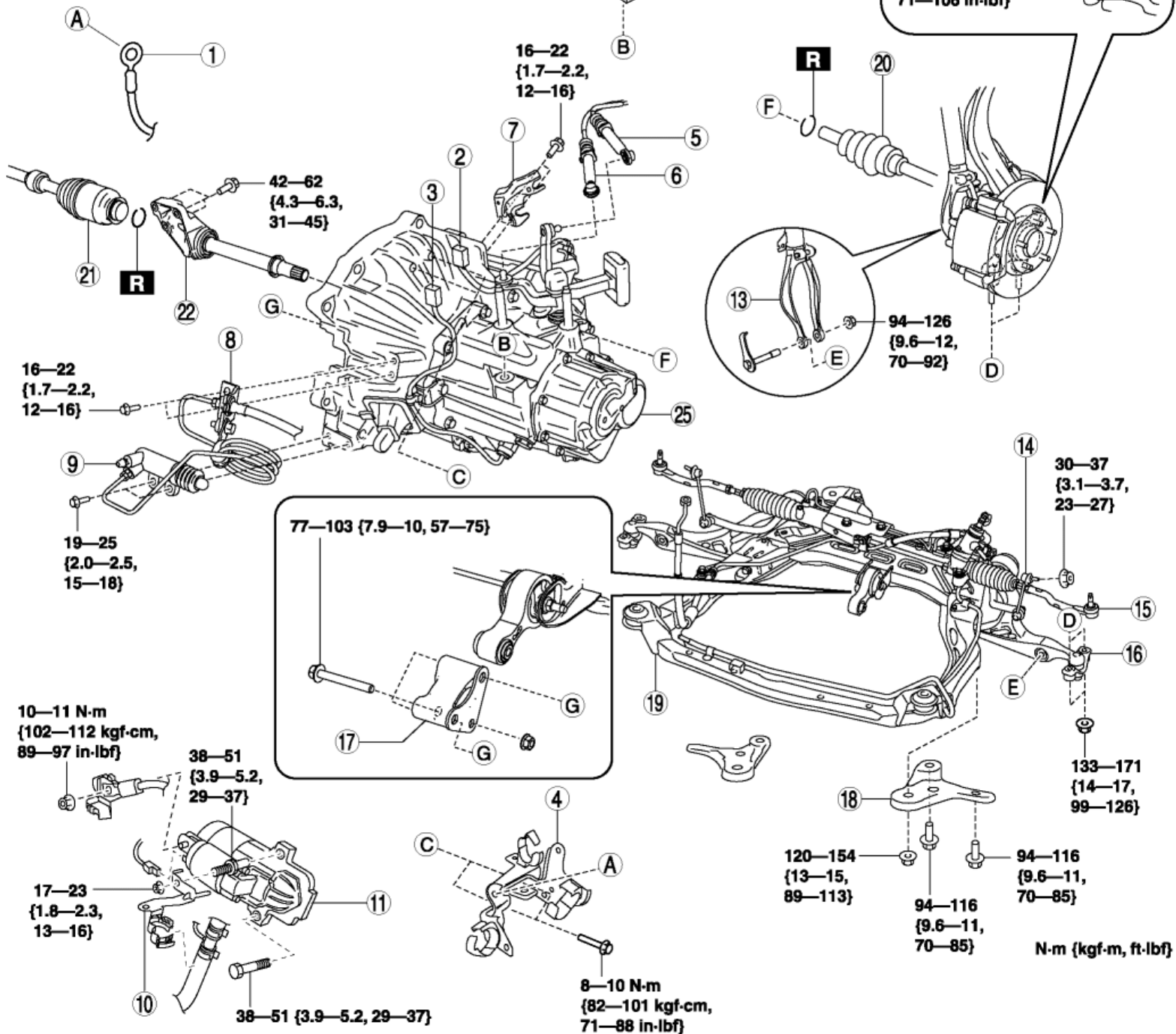
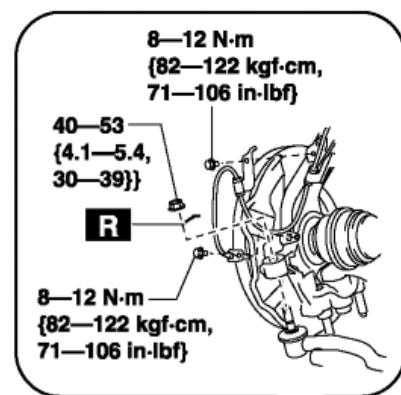
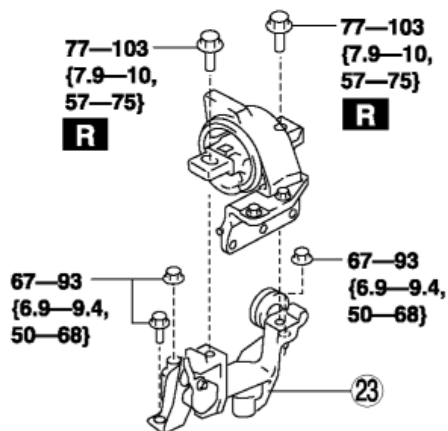
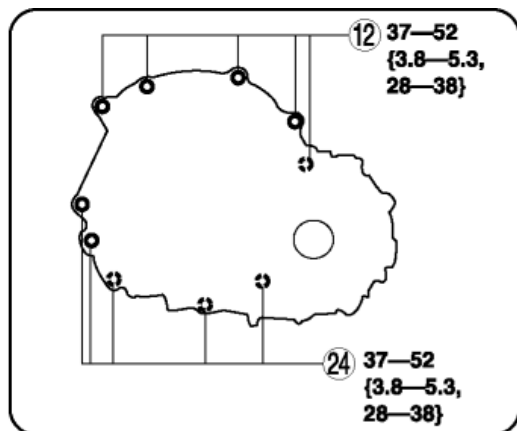
WARNING:

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

7. Remove in the order indicated in the table.
8. Install in the reverse order of removal.
9. Add the specified amount of specified transaxle oil. (See [TRANSAXLE OIL REPLACEMENT \[G66M-R\]](#).)

NOTE:

- If the transaxle is overhauled and installed to the vehicle, perform the 'INSPECTION AFTER TRANSAXLE INSTALLATION' and verify that there is no abnormality. (See [INSPECTION AFTER TRANSAXLE INSTALLATION \[G66M-R\]](#).)

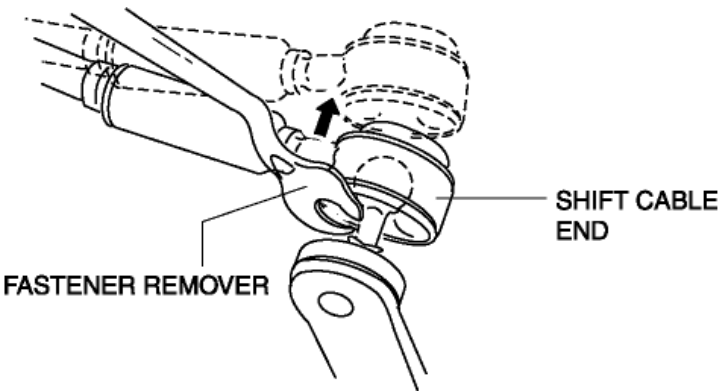


1	GND wiring harness
2	Back-up light switch connector
3	Neutral switch connector
4	Harness bracket
5	Select cable (See Shift Cable and Select Cable Removal Note.)
6	Shift cable (See Shift Cable and Select Cable Removal Note.)
7	Cable bracket
8	Clutch release cylinder bracket
9	Clutch release cylinder (See CLUTCH RELEASE CYLINDER REMOVAL/ INSTALLATION [G66M-R].)
10	Heater hose bracket
11	Starter (See STARTER REMOVAL/ INSTALLATION [MZR 2.5].)
12	Transaxle mounting bolt (upper side)
13	Damper fork
14	Stabilizer control link
15	Tie-rod end ball joint (See FRONT CROSSMEMBER REMOVAL/ INSTALLATION [MZR 2.5].)
16	Lower arm ball joint
17	No.1 engine mount (See No.1 Engine Mount and No.4 Engine Mount Installation Note.)
18	Crossmember bracket
19	Crossmember component (See FRONT CROSSMEMBER REMOVAL/ INSTALLATION [MZR 2.5].)
20	Drive shaft (LH) (See DRIVE SHAFT REMOVAL/ INSTALLATION.)
21	Drive shaft (RH) (See DRIVE SHAFT REMOVAL/ INSTALLATION.)
22	Joint shaft (See JOINT SHAFT REMOVAL/ INSTALLATION.)
	No.4 engine mount bracket

23	(See No.4 Engine Mount Removal Note.) (See No.1 Engine Mount and No.4 Engine Mount Installation Note.)
24	Transaxle mounting bolt (lower side) Manual transaxle
25	(See Manual Transaxle Removal Note.) (See Manual Transaxle Installation Note.)

Shift Cable and Select Cable Removal Note

1. Remove the both shift cable end and select cable end using a fastener remover.

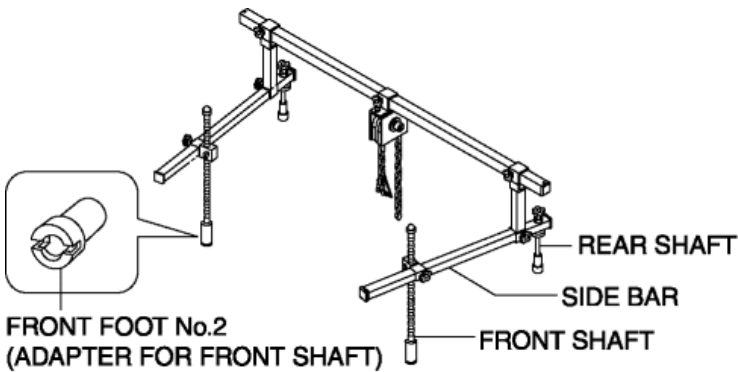


No.4 Engine Mount Removal Note

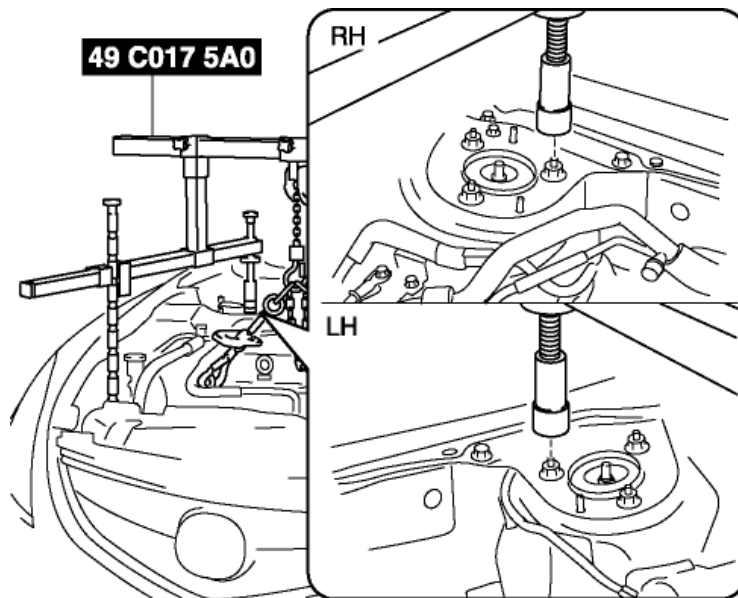
1. Install the **SST** using the following procedure.

CAUTION:

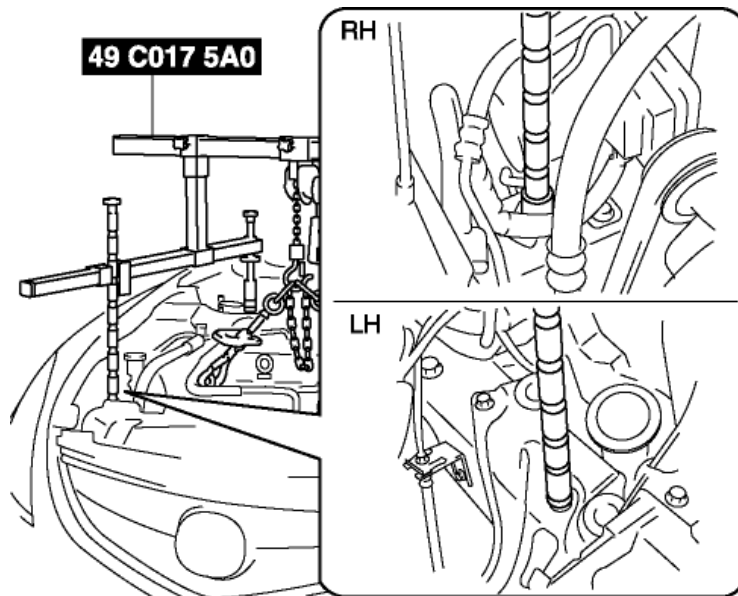
- Refer to the SST instruction manual for the basic handing procedure.



- a. As shown in the figure, set the rear shafts of the **SST** to the left and right shock absorber installation nut.



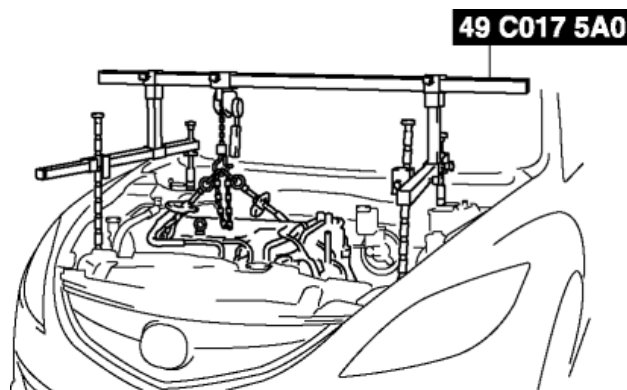
b. Install front foot No.2 to the left/right front shaft of the **SST**, then align the groove of the front shaft of the **SST** with the folded up part of the vehicle as shown in the figure.



c. Adjust the positions of the **SST** side bars so that they are the same height (left and right) and horizontal.

d. Make sure each joint is securely tightened.

2. Support the engine using the **SST**.



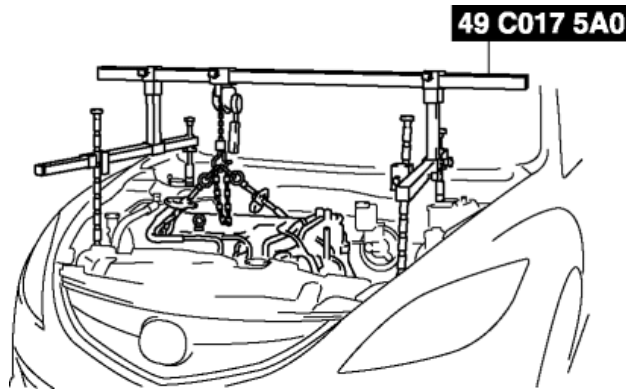
3. Remove the No.4 engine mount rubber and bracket.

Manual Transaxle Removal Note

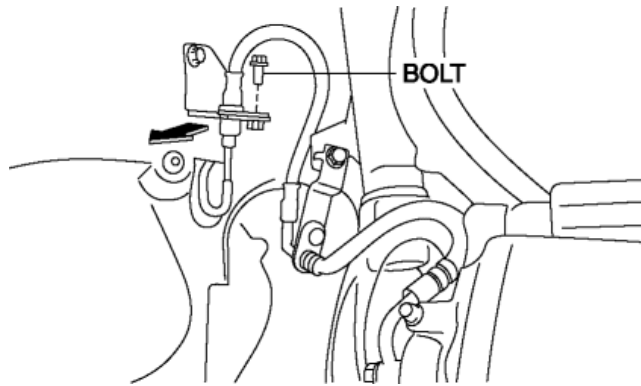
WARNING:

- Remove the transaxle carefully, holding it steady. If the transaxle falls it could be damaged or cause injury.

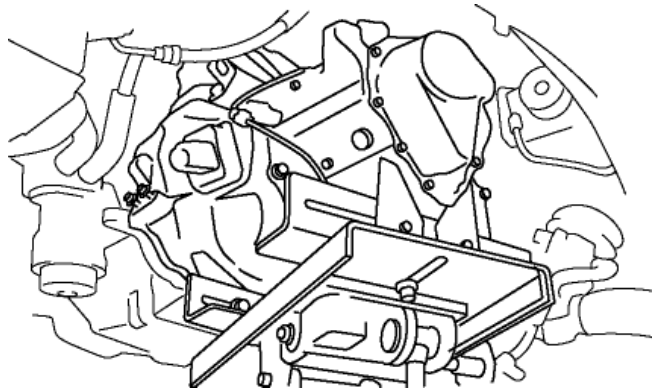
1. Adjust the **SST** and lean the engine toward the transaxle.



2. Remove the bolt securing the brake hose to the bracket as shown in the figure, and disconnect brake hose from the bracket.



3. Support the transaxle on a jack.



4. Remove the transaxle mounting bolts.

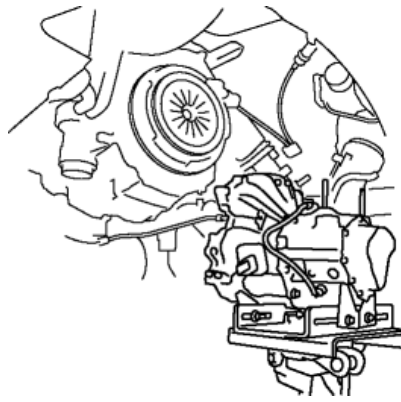
5. Remove the transaxle.

Manual Transaxle Installation Note

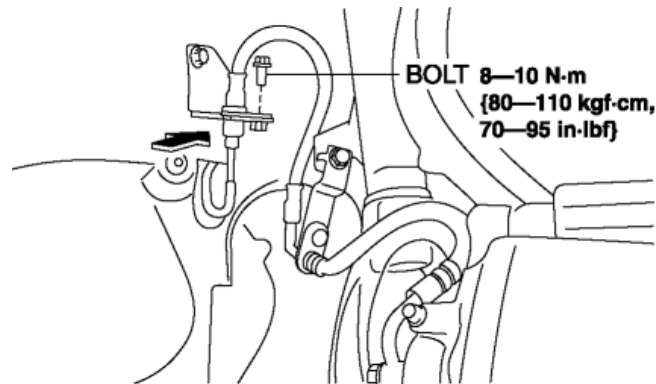
WARNING:

- Install the transaxle carefully, holding it steady. If the transaxle falls it could be damaged or cause injury.

1. Set the transaxle on a jack and lift into place.

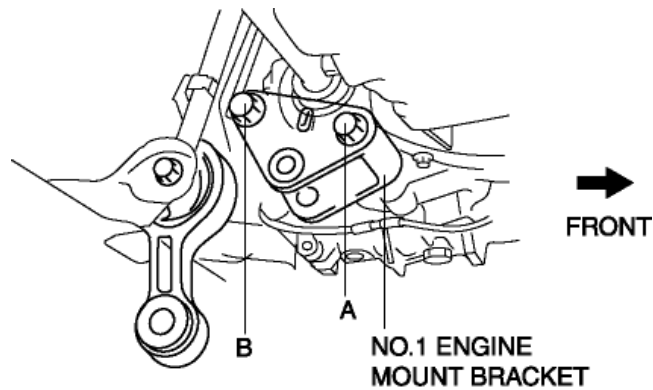


2. Install the transaxle mounting bolts.
3. Adjust the **SST** (49 C017 5A0) so that the engine is located at the specified position.
4. Install the brake hose to the bracket and tighten the bolt shown in the figure.



No.1 Engine Mount and No.4 Engine Mount Installation Note

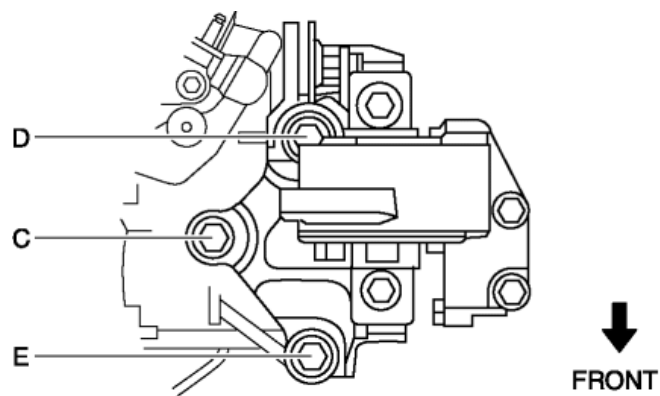
1. Tighten the bolts in the order of A and B.



Tightening torque

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

2. Temporarily tighten nuts C and D, and then the bolt in the order of E.



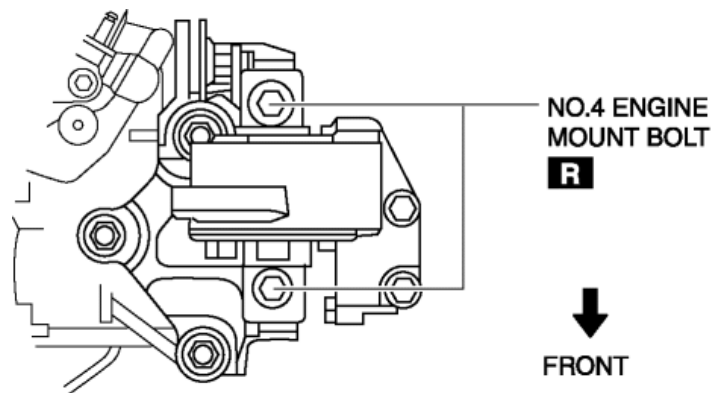
3. Tighten nuts C and D, and then the bolt in the order of E.

Tightening torque

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

4. Temporarily tighten the new No.4 engine mount bolts.

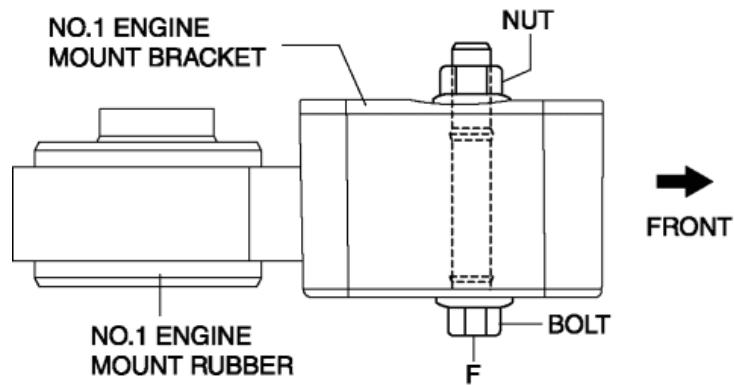
5. Tighten the new No.4 engine mount bolts.



Tightening torque

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

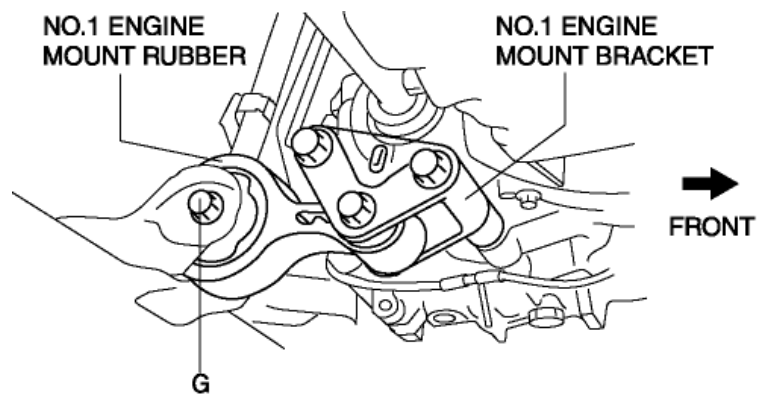
6. Tighten the bolt F.



Tightening torque

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

7. Tighten the bolt G.



Tightening torque

- 94—116 N·m {9.6—11 kgf·m, 70—85 ft·lbf}

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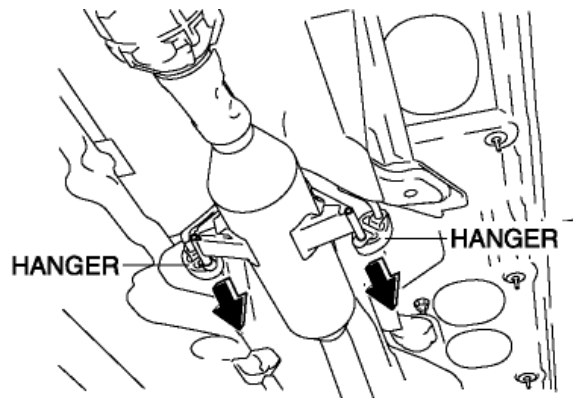
2012 - Mazda6 - Transmission/ Transaxle

MANUAL TRANSAXLE REMOVAL/ INSTALLATION [G66M-R]

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. Disconnect the negative battery cable. (See [BATTERY REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
2. Remove the following parts:
 - a. Battery and battery tray (See [BATTERY REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
 - b. Air cleaner component (See [INTAKE-AIR SYSTEM REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
 - c. Front tires (See [GENERAL PROCEDURES \(SUSPENSION\)](#).)
 - d. Splash shields (See [SPLASH SHIELD REMOVAL/ INSTALLATION](#).)
 - e. Plug hole plate (See [PLUG HOLE PLATE REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
 - f. Aerodynamic undercover No.2 (See [AERODYNAMIC UNDER COVER NO.2 REMOVAL/ INSTALLATION](#).)
 - g. Aerodynamic undercover No.1 (See [AERODYNAMIC UNDER COVER NO.1 REMOVAL/ INSTALLATION](#).)
 - h. Tunnel member (See [EXHAUST SYSTEM REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
3. Remove the hanger on the middle pipe side as shown in the figure and set the hanger aside.



4. Remove the steering shaft cover. (See [STEERING GEAR AND LINKAGE REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
5. Remove the joint bolt for the steering shaft and disconnect the steering shaft from the steering gear and linkage side. (See [STEERING GEAR AND LINKAGE REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
6. Drain the transaxle oil into a suitable container. (See [TRANSAXLE OIL REPLACEMENT \[G66M-R\]](#).)

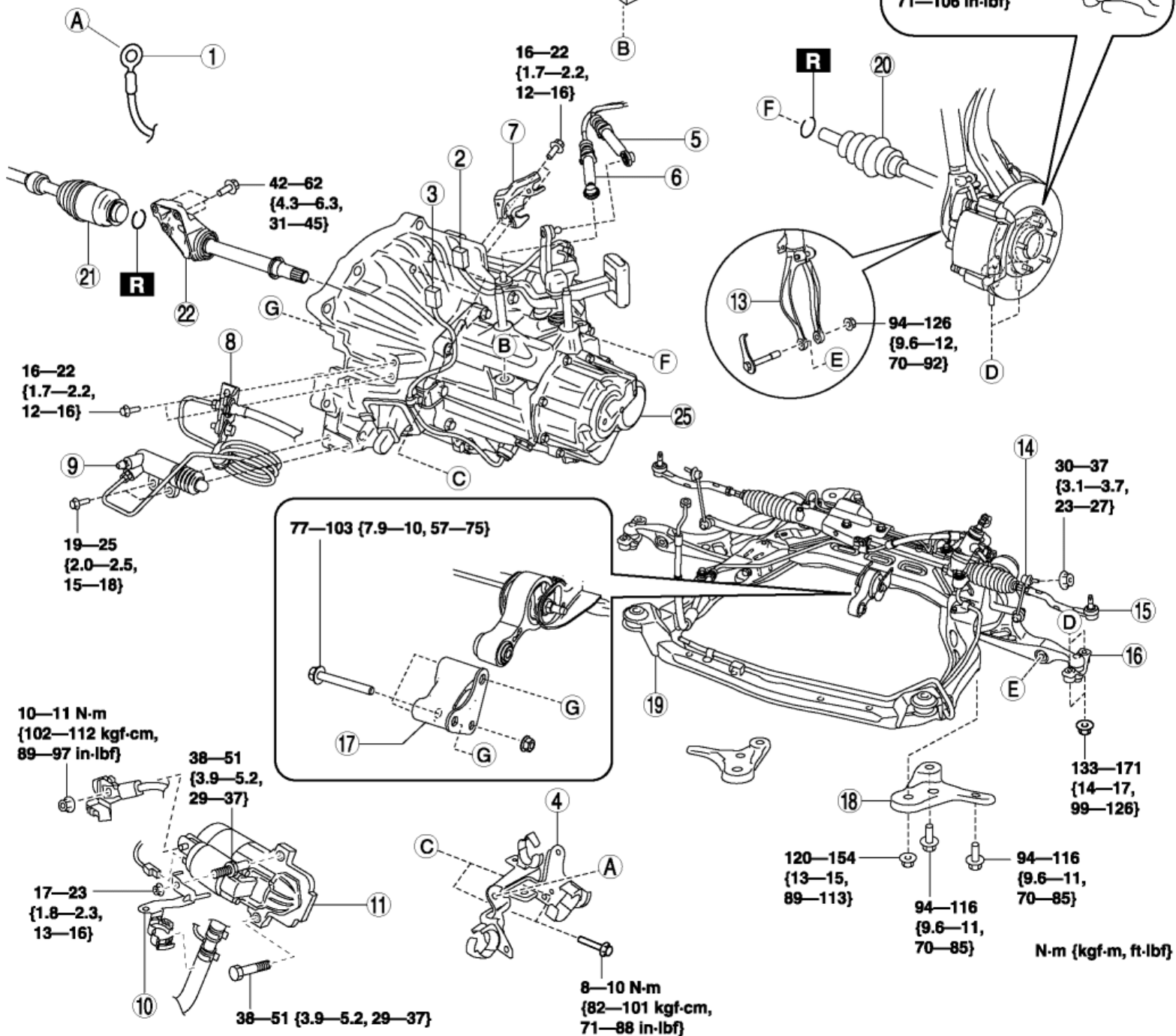
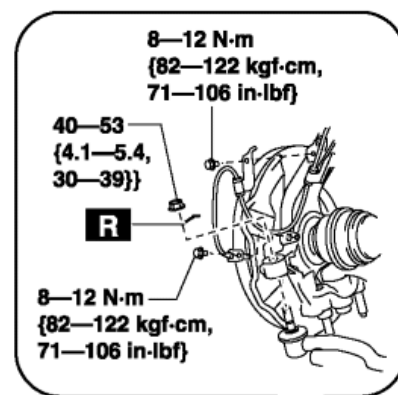
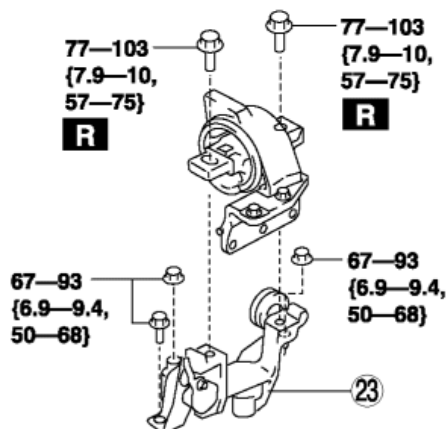
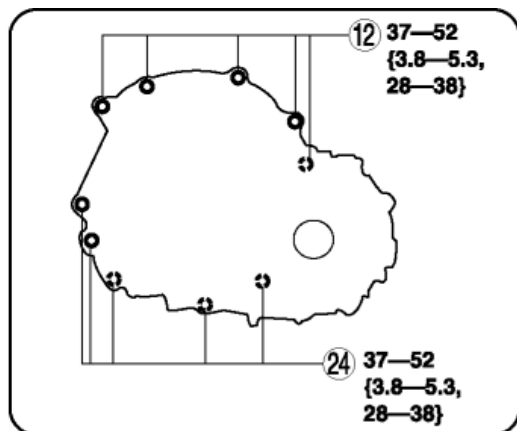
WARNING:

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

7. Remove in the order indicated in the table.
8. Install in the reverse order of removal.
9. Add the specified amount of specified transaxle oil. (See [TRANSAXLE OIL REPLACEMENT \[G66M-R\]](#).)

NOTE:

- If the transaxle is overhauled and installed to the vehicle, perform the 'INSPECTION AFTER TRANSAXLE INSTALLATION' and verify that there is no abnormality. (See [INSPECTION AFTER TRANSAXLE INSTALLATION \[G66M-R\]](#).)

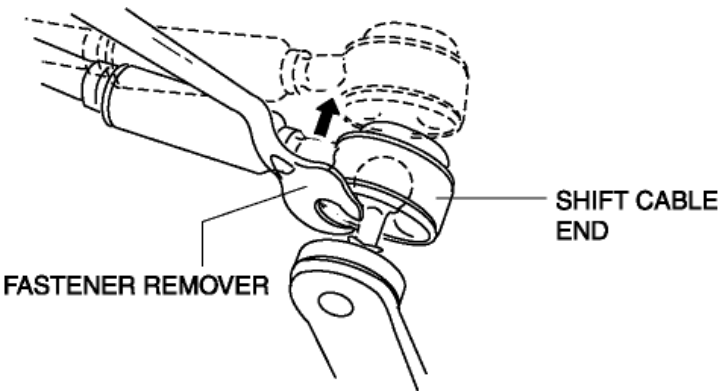


1	GND wiring harness
2	Back-up light switch connector
3	Neutral switch connector
4	Harness bracket
5	Select cable (See Shift Cable and Select Cable Removal Note.)
6	Shift cable (See Shift Cable and Select Cable Removal Note.)
7	Cable bracket
8	Clutch release cylinder bracket
9	Clutch release cylinder (See CLUTCH RELEASE CYLINDER REMOVAL/ INSTALLATION [G66M-R].)
10	Heater hose bracket
11	Starter (See STARTER REMOVAL/ INSTALLATION [MZR 2.5].)
12	Transaxle mounting bolt (upper side)
13	Damper fork
14	Stabilizer control link
15	Tie-rod end ball joint (See FRONT CROSSMEMBER REMOVAL/ INSTALLATION [MZR 2.5].)
16	Lower arm ball joint
17	No.1 engine mount (See No.1 Engine Mount and No.4 Engine Mount Installation Note.)
18	Crossmember bracket
19	Crossmember component (See FRONT CROSSMEMBER REMOVAL/ INSTALLATION [MZR 2.5].)
20	Drive shaft (LH) (See DRIVE SHAFT REMOVAL/ INSTALLATION.)
21	Drive shaft (RH) (See DRIVE SHAFT REMOVAL/ INSTALLATION.)
22	Joint shaft (See JOINT SHAFT REMOVAL/ INSTALLATION.)
	No.4 engine mount bracket

23	(See No.4 Engine Mount Removal Note.) (See No.1 Engine Mount and No.4 Engine Mount Installation Note.)
24	Transaxle mounting bolt (lower side) Manual transaxle
25	(See Manual Transaxle Removal Note.) (See Manual Transaxle Installation Note.)

Shift Cable and Select Cable Removal Note

1. Remove the both shift cable end and select cable end using a fastener remover.

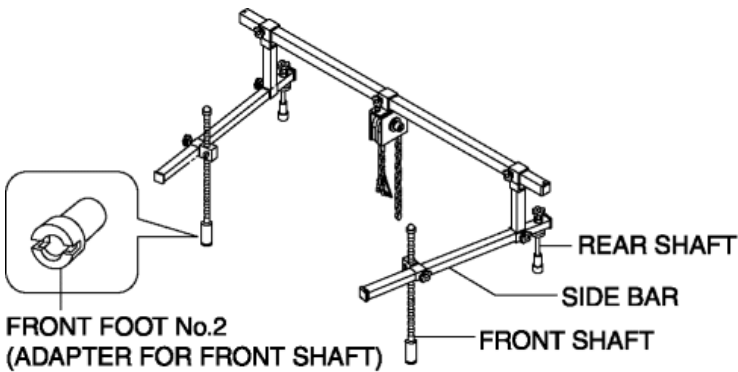


No.4 Engine Mount Removal Note

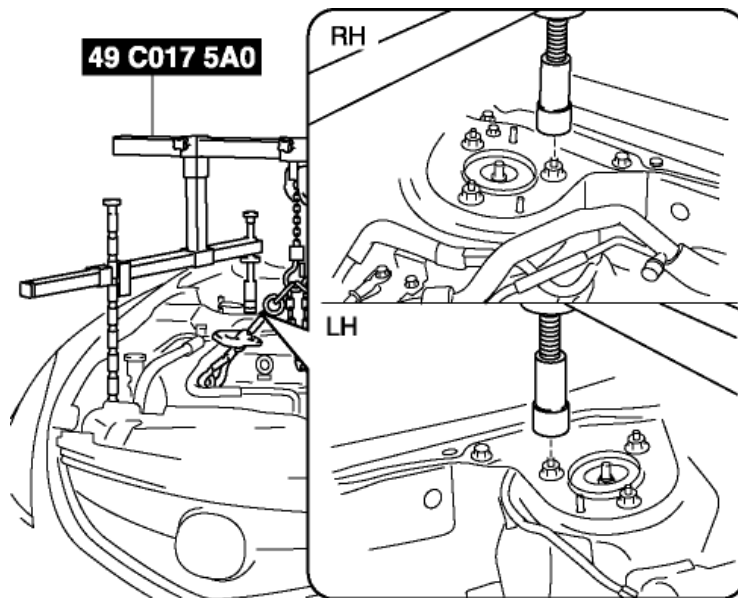
1. Install the **SST** using the following procedure.

CAUTION:

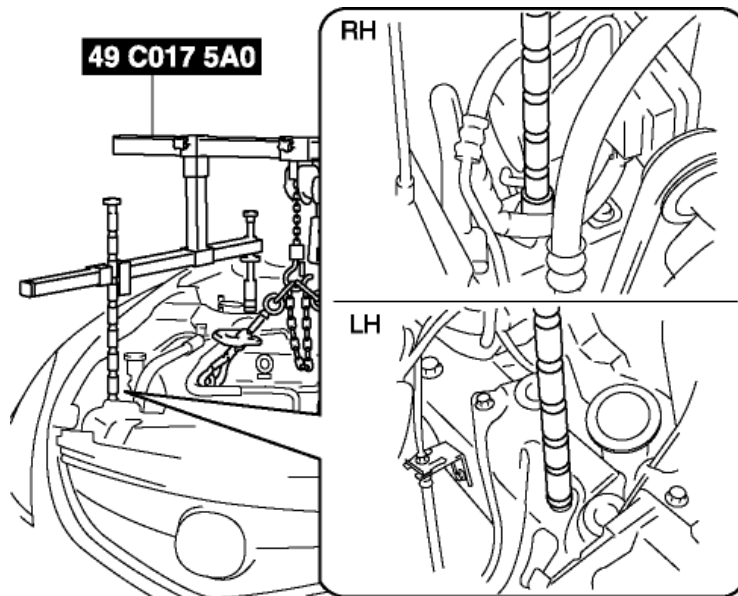
- Refer to the SST instruction manual for the basic handing procedure.



- a. As shown in the figure, set the rear shafts of the **SST** to the left and right shock absorber installation nut.



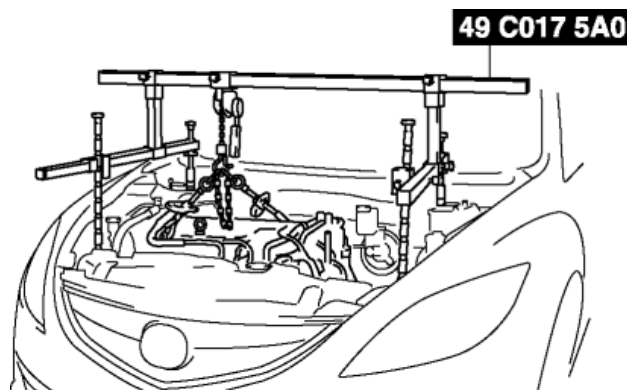
b. Install front foot No.2 to the left/right front shaft of the **SST**, then align the groove of the front shaft of the **SST** with the folded up part of the vehicle as shown in the figure.



c. Adjust the positions of the **SST** side bars so that they are the same height (left and right) and horizontal.

d. Make sure each joint is securely tightened.

2. Support the engine using the **SST**.



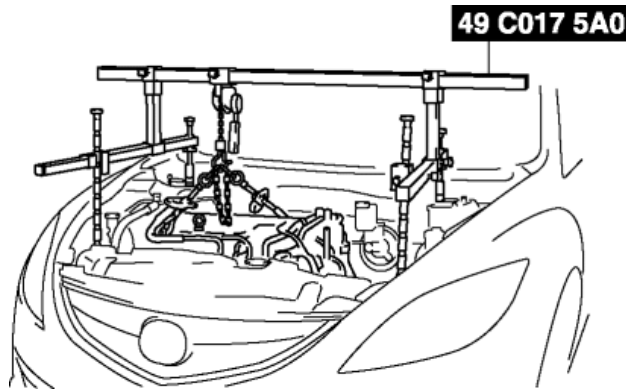
3. Remove the No.4 engine mount rubber and bracket.

Manual Transaxle Removal Note

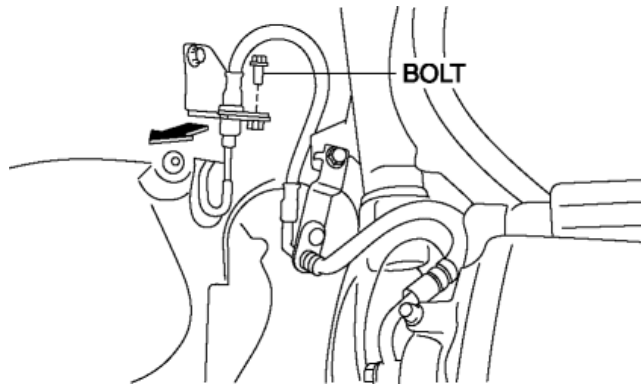
WARNING:

- Remove the transaxle carefully, holding it steady. If the transaxle falls it could be damaged or cause injury.

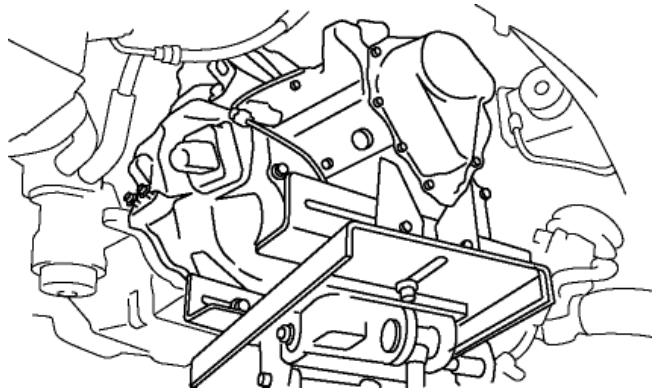
1. Adjust the **SST** and lean the engine toward the transaxle.



2. Remove the bolt securing the brake hose to the bracket as shown in the figure, and disconnect brake hose from the bracket.



3. Support the transaxle on a jack.



4. Remove the transaxle mounting bolts.

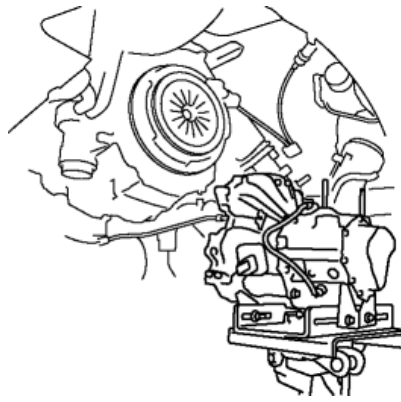
5. Remove the transaxle.

Manual Transaxle Installation Note

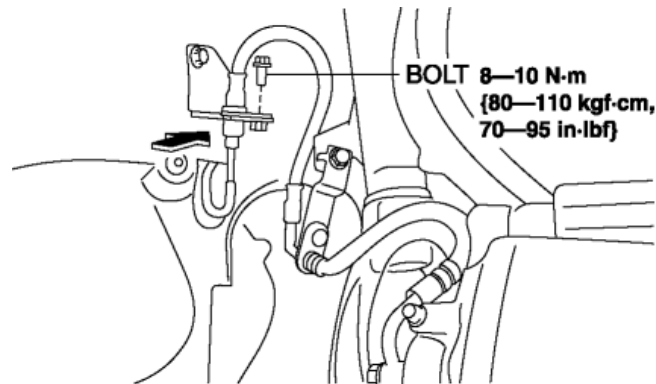
WARNING:

- Install the transaxle carefully, holding it steady. If the transaxle falls it could be damaged or cause injury.

1. Set the transaxle on a jack and lift into place.

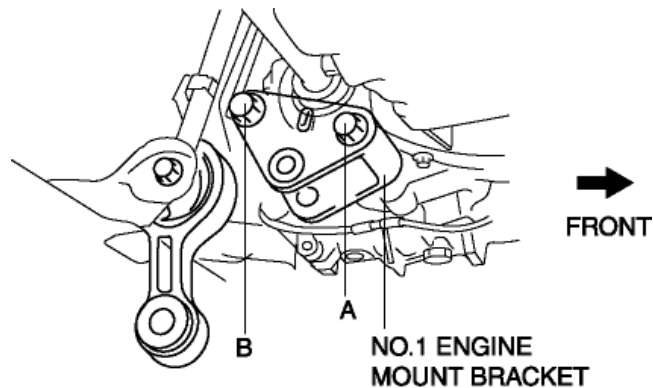


2. Install the transaxle mounting bolts.
3. Adjust the **SST** (49 C017 5A0) so that the engine is located at the specified position.
4. Install the brake hose to the bracket and tighten the bolt shown in the figure.



No.1 Engine Mount and No.4 Engine Mount Installation Note

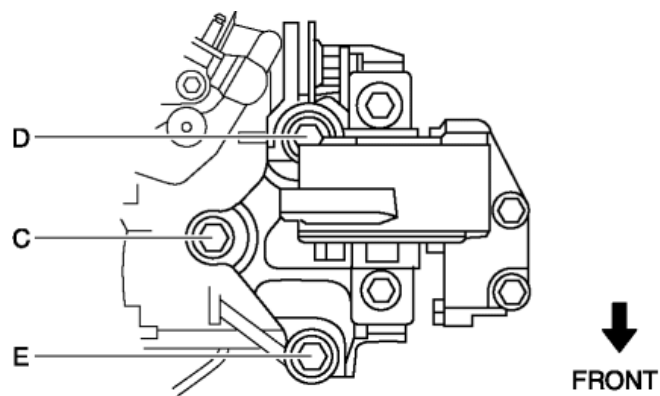
1. Tighten the bolts in the order of A and B.



Tightening torque

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

2. Temporarily tighten nuts C and D, and then the bolt in the order of E.



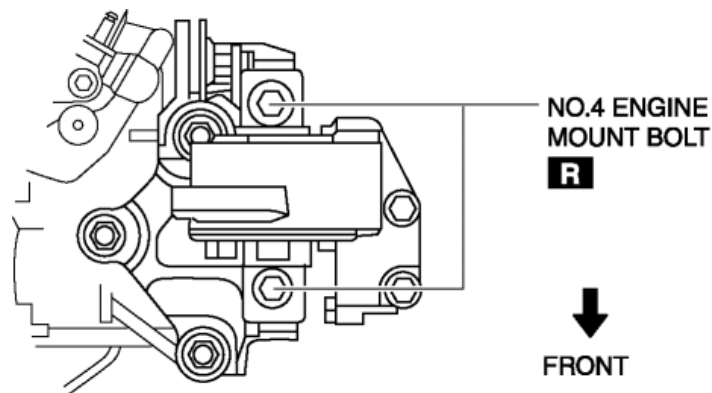
3. Tighten nuts C and D, and then the bolt in the order of E.

Tightening torque

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

4. Temporarily tighten the new No.4 engine mount bolts.

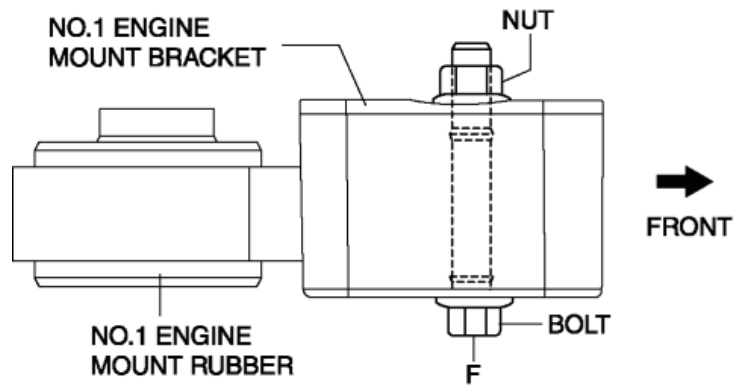
5. Tighten the new No.4 engine mount bolts.



Tightening torque

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

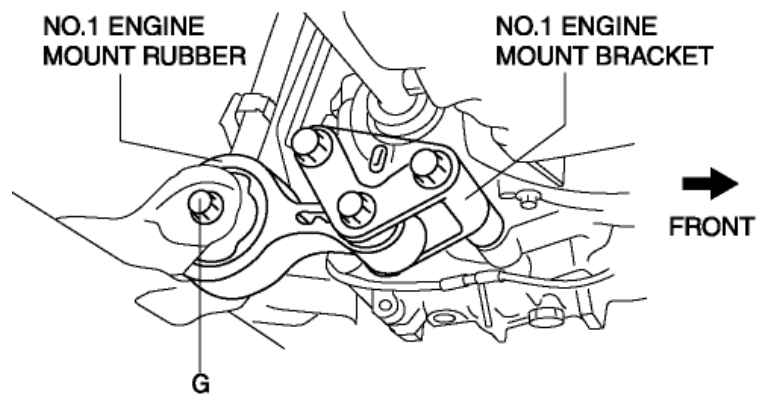
6. Tighten the bolt F.



Tightening torque

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

7. Tighten the bolt G.



Tightening torque

- 94—116 N·m {9.6—11 kgf·m, 70—85 ft·lbf}

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