

2012 - Mazda6 - Suspension

FRONT CROSSMEMBER REMOVAL/ INSTALLATION [MZR 2.5]

CAUTION:

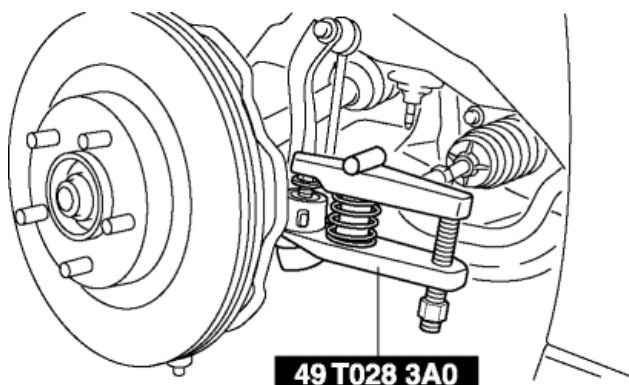
- Performing the following procedures without first removing the ABS wheel-speed sensor may possibly cause an open circuit in the harness if it is pulled by mistake. Before performing the following procedures, remove the ABS wheel-speed sensor (axle side) and fix it to an appropriate place where the sensor will not be pulled by mistake while servicing the vehicle.
- 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. Drain the power steering fluid.
2. 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 \[WITH ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM\]](#) .)
3. 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 \[WITH ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM\]](#) .)
4. Remove the steering 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 \[WITH ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM\]](#) .)
5. Remove the front mudguard. (See [FRONT MUDGUARD REMOVAL/ INSTALLATION.](#))
6. Remove the aerodynamic under cover No. 2. (See [AERODYNAMIC UNDER COVER NO.2 REMOVAL/ INSTALLATION.](#))
7. Remove the transverse member. (See [TRANSVERSE MEMBER REMOVAL/ INSTALLATION.](#))
8. Remove in the order indicated in the table.
9. Install in the reverse order of removal.
10. Add the power steering fluid. (See [AIR BLEEDING.](#))
11. Inspect the front wheel alignment. (See [FRONT WHEEL ALIGNMENT.](#))

	(See Front Lower Arm Outer Side Nut Removal Note.)
6	Front crossmember component (See Front Crossmember Component Removal Note.) (See Front Crossmember Component Installation Note.)
7	Steering gear and linkage (See STEERING GEAR AND LINKAGE REMOVAL/ INSTALLATION [MZR 2.5].)
8	Front stabilizer
9	Front lower arm
10	No. 1 engine mount (See No.1 Engine Mount Installation Note.)
11	Front crossmember

Tie-rod End Removal Note

1. Detach the tie-rod end from the steering knuckle using the **SST**.



Front Lower Arm Outer Side Nut Removal Note

WARNING:

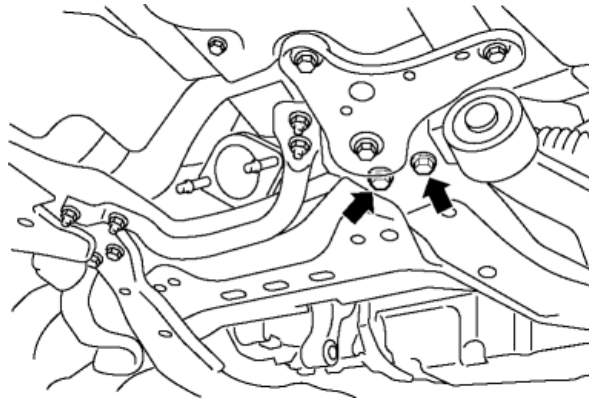
- If the stud bolt of the front knuckle is loosened when removing the front lower arm outer nut, replace the stud bolt with a new one. If the stud bolt is reused, it could fall off while driving, resulting in serious injury or death, and damage to the vehicle.

Front Crossmember Component Removal Note

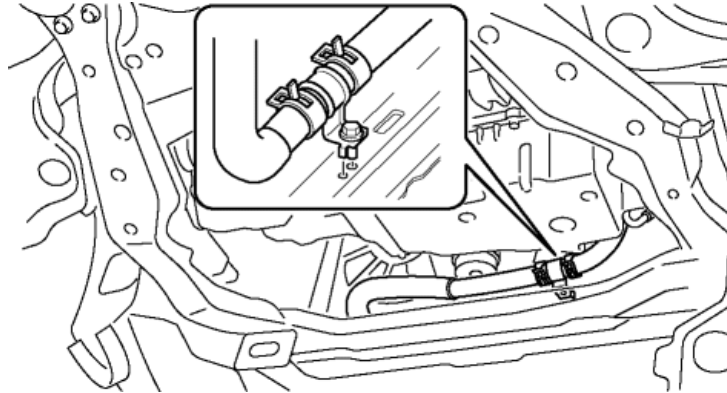
WARNING:

- Removing the crossmember is dangerous. The crossmember component could fall and cause serious injury or death. Verify that the jack securely supports the crossmember component before removing the crossmember bracket.

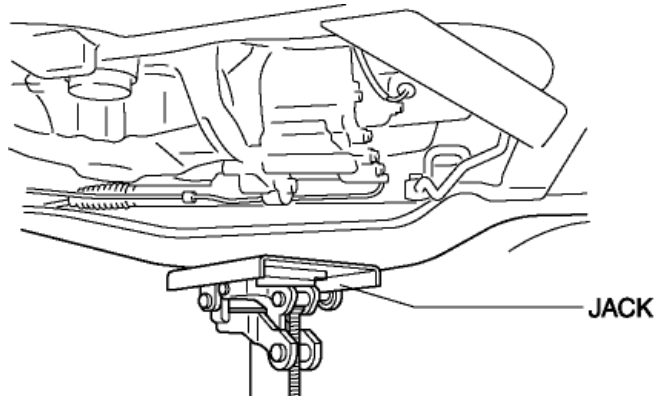
1. Remove the front lower arm bolts shown in the figure.



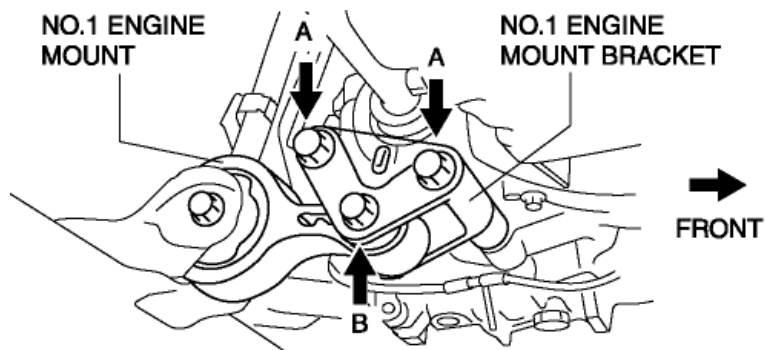
2. Remove the radiator hose bracket bolt.



3. Support the crossmember component with a jack.



4. Loosen the No.1 engine mount bolts A, and remove the No.1 engine mount bolt B.



5. Remove the crossmember bracket.

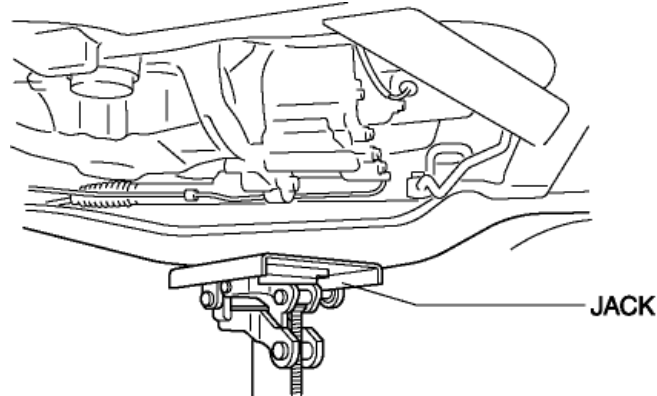
6. Remove the front crossmember component.

1. Install the No.1 engine mount to the front crossmember and temporarily tighten the bolt until approx. three pitches are visible.

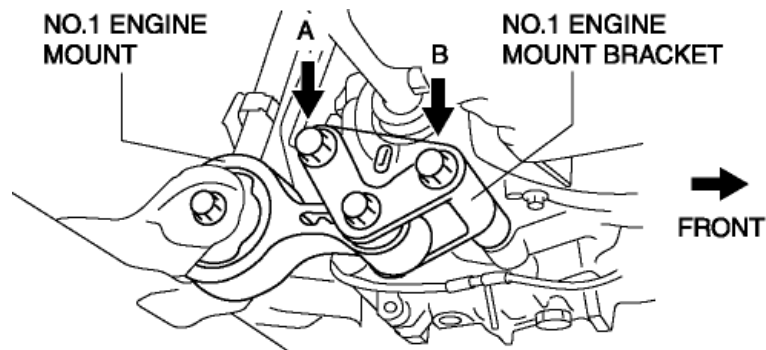
Front Crossmember Component Installation Note

WARNING:

- The crossmember component could fall and cause serious injury or death. Verify that the jack securely supports the crossmember component.
1. Jack up the front crossmember component slowly.



2. Install the front crossmember component, and tighten the nuts and bolts to the specified torque.
3. Temporarily tighten the No.1 engine mount bolts A and B.

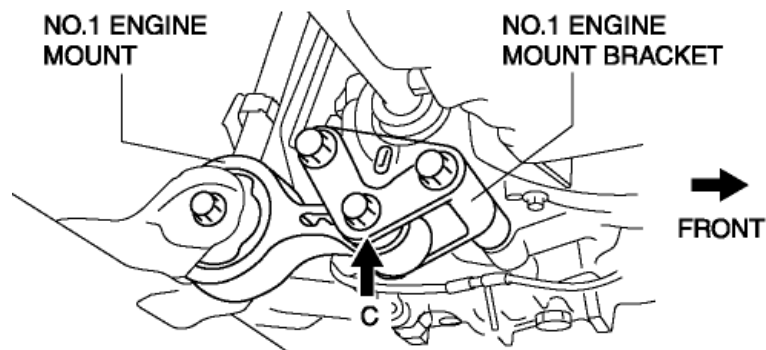


4. Tighten the No.1 engine mount bolts in the order of B and A.

Tightening torque

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

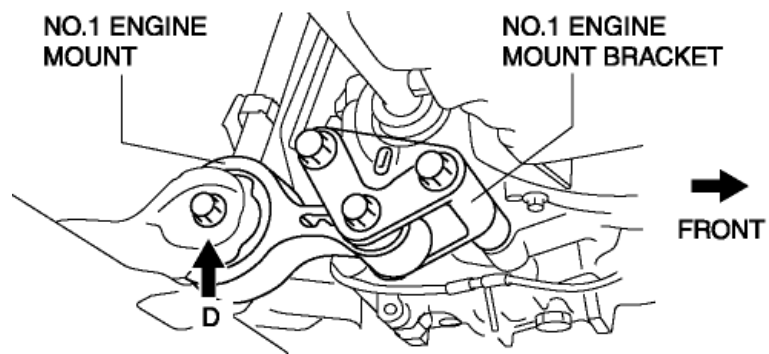
5. Tighten the No.1 engine mount bolt C.



Tightening torque

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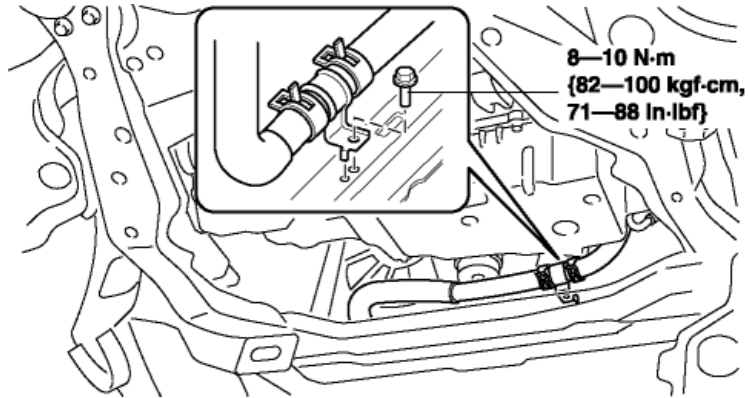
6. Tighten the No.1 engine mount bolt D.



Tightening torque

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

7. Install the radiator hose bracket to the front crossmember.



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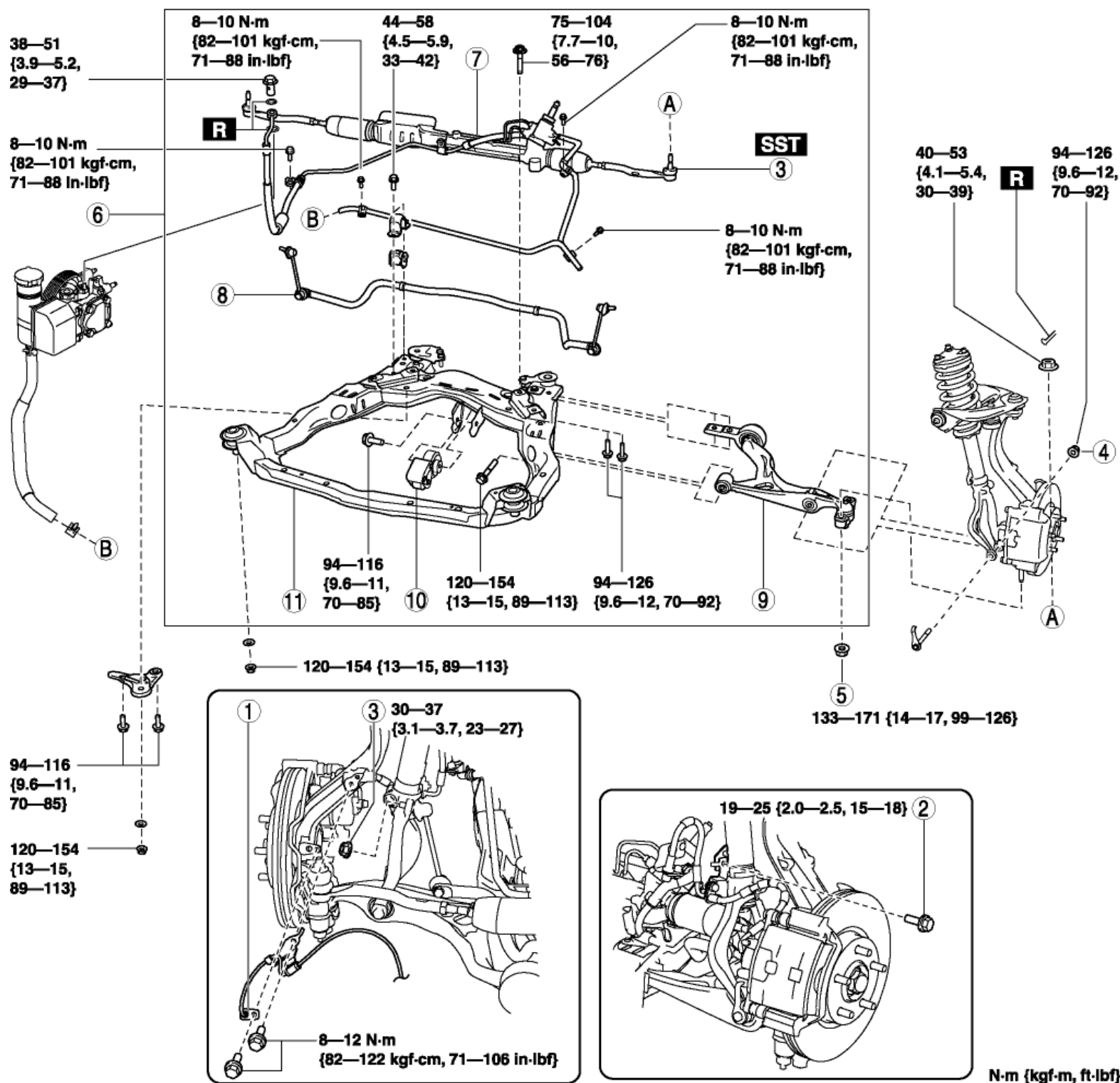
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1 Front ABS wheel-speed sensor

2 Brake hose bracket bolt

3 Tie-rod end

(See [Tie-rod End Removal Note](#).)

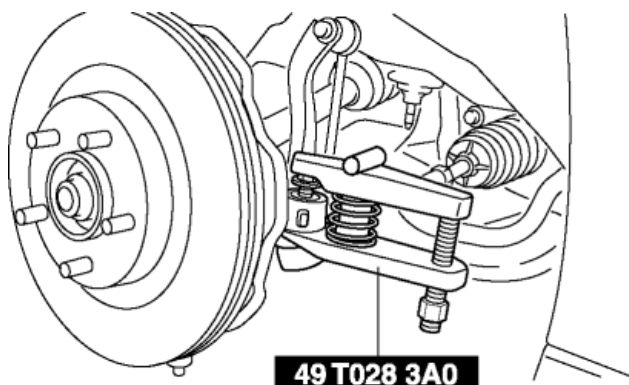
4 Front shock absorber lower side nut

5 Front lower arm outer side nut

	(See Front Lower Arm Outer Side Nut Removal Note.)
6	Front crossmember component (See Front Crossmember Component Removal Note.) (See Front Crossmember Component Installation Note.)
7	Steering gear and linkage (See STEERING GEAR AND LINKAGE REMOVAL/ INSTALLATION [MZR 2.5].)
8	Front stabilizer
9	Front lower arm
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Front Lower Arm Outer Side Nut Removal Note

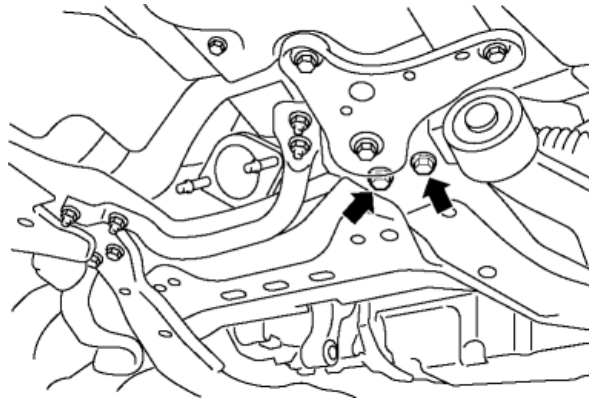
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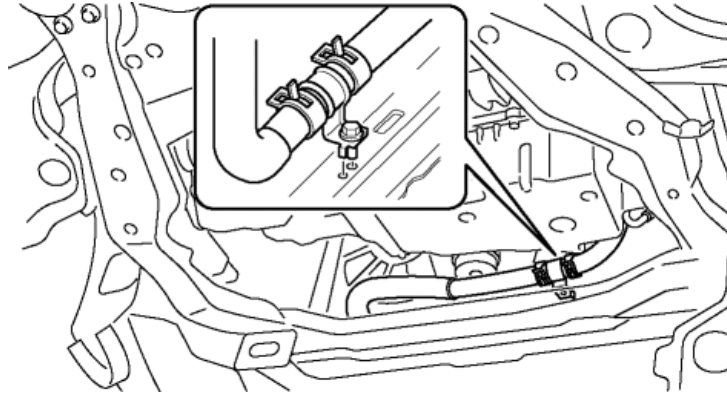
Front Crossmember Component Removal Note

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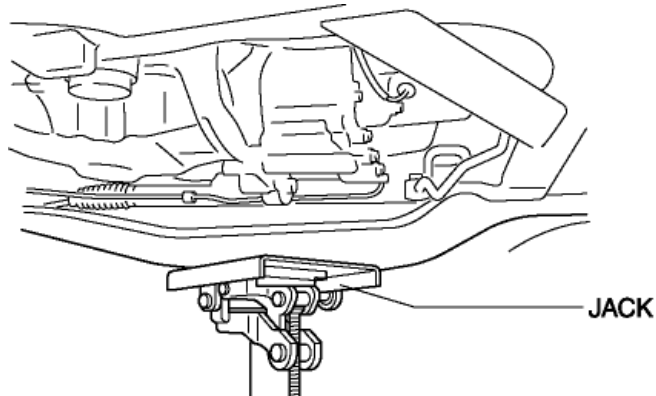
- Removing the crossmember is dangerous. The crossmember component could fall and cause serious injury or death. Verify that the jack securely supports the crossmember component before removing the crossmember bracket.
1. Remove the front lower arm bolts shown in the figure.



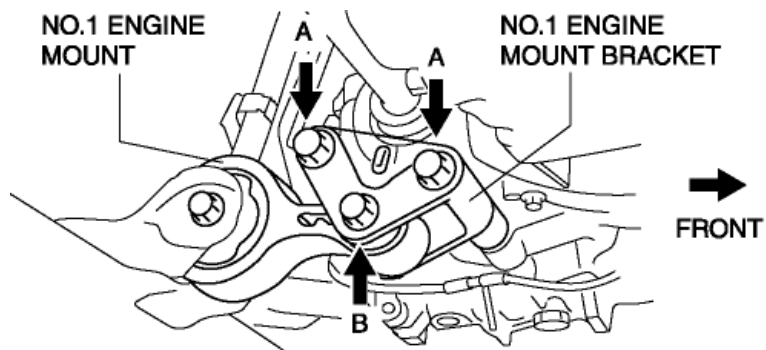
2. Remove the radiator hose bracket bolt.



3. Support the crossmember component with a jack.



4. Loosen the No.1 engine mount bolts A, and remove the No.1 engine mount bolt B.



5. Remove the crossmember bracket.

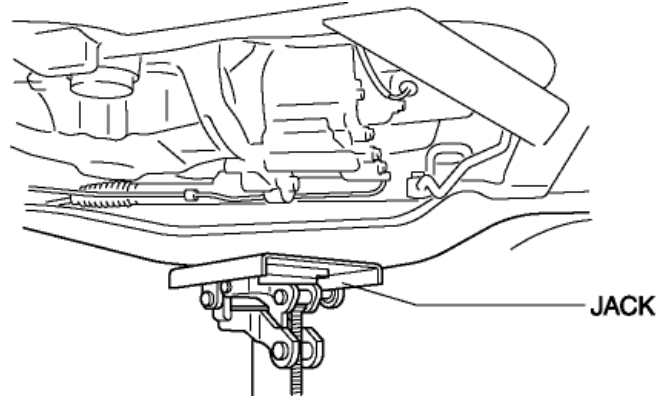
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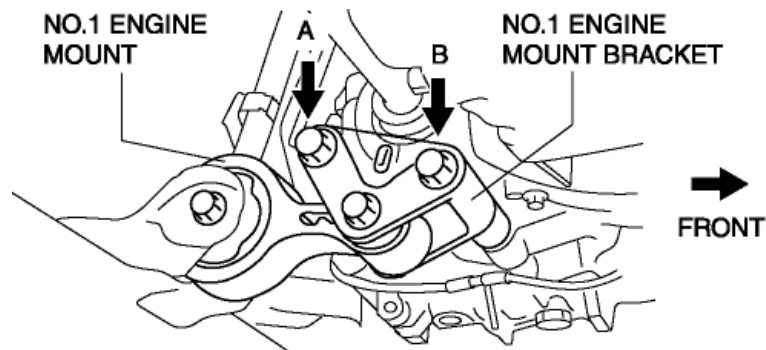
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2. Install the front crossmember component, and tighten the nuts and bolts to the specified torque.
3. Temporarily tighten the No.1 engine mount bolts A and B.

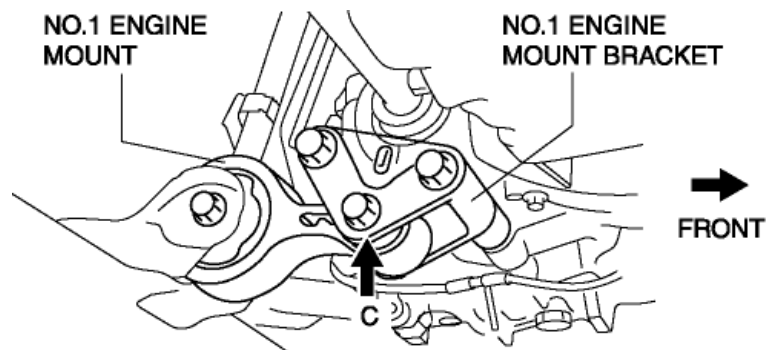


4. Tighten the No.1 engine mount bolts in the order of B and A.

Tightening torque

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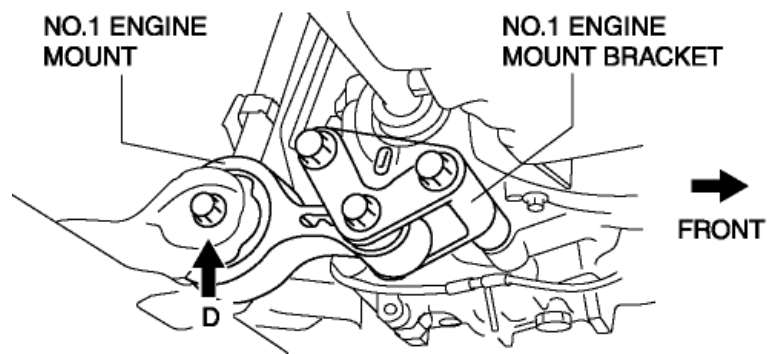
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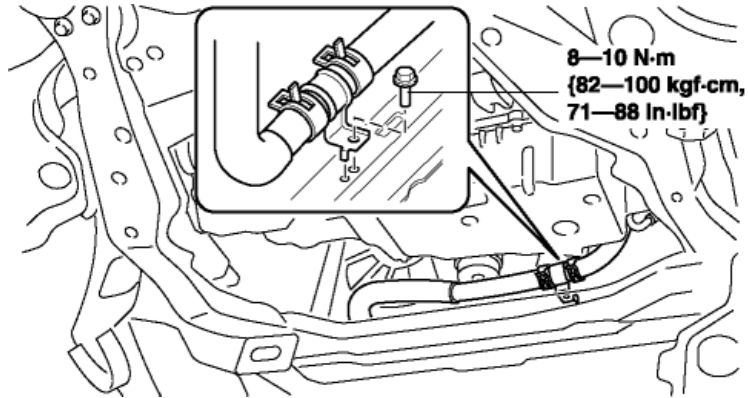
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