

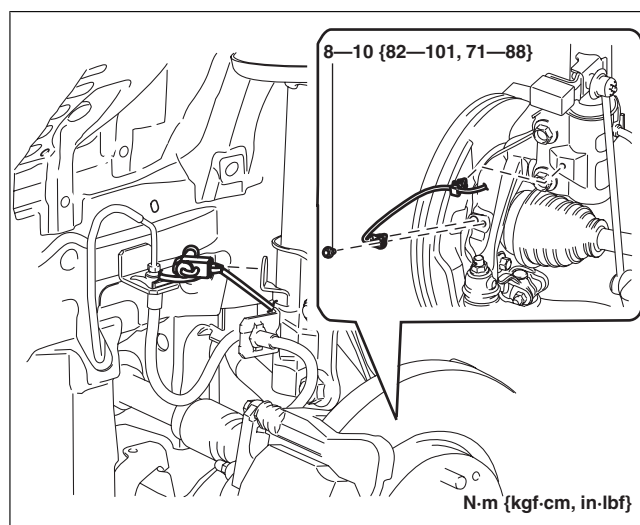
## FRONT CROSSMEMBER REMOVAL/INSTALLATION

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### Caution

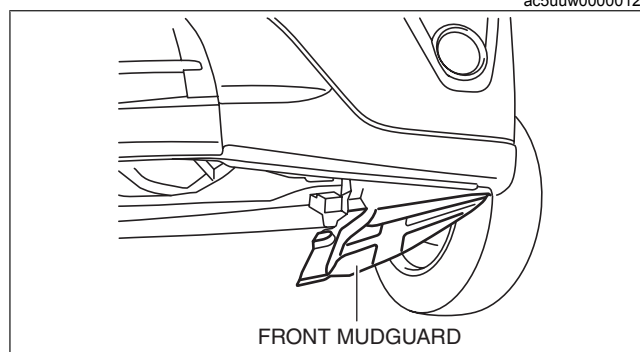
- Performing the following procedures without first removing the front ABS wheel-speed sensor may possibly cause an open circuit in the harness if it is pulled by mistake. Before performing the following procedures, disconnect the front ABS wheel-speed sensor (axle side) and fix it to an appropriate 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. Remove the joint cover. (See STEERING WHEEL AND COLUMN REMOVAL/INSTALLATION.)
2. Disconnect the intermediate shaft from the steering gear and linkage. (See STEERING WHEEL AND COLUMN REMOVAL/INSTALLATION.)
3. Disconnect the front ABS wheel-speed sensor wiring harness installed to the steering knuckle and set it aside. (See FRONT ABS WHEEL-SPEED SENSOR REMOVAL/INSTALLATION.)
4. Remove the front under cover No.2. (See FRONT UNDER COVER No.2 REMOVAL/INSTALLATION.)
5. Remove the front under cover No.1. (See FRONT UNDER COVER No.1 REMOVAL/INSTALLATION.)
6. Remove the splash shield. (See SPLASH SHIELD REMOVAL/INSTALLATION.)



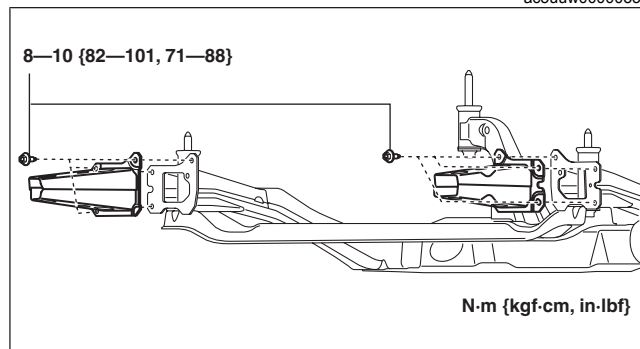
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7. Set the front mudguard away from the front crossmember and front bumper. (See MUDGUARD REMOVAL/INSTALLATION.)



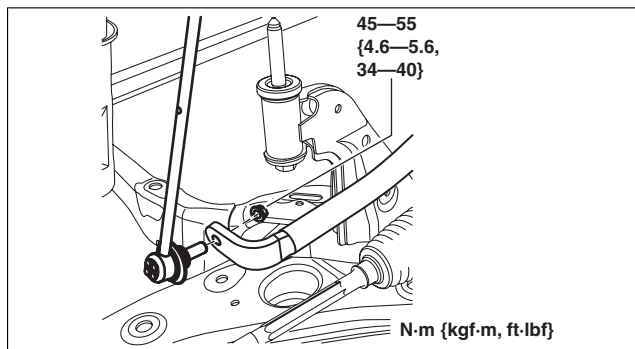
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8. Disconnect the front crossmember extension.



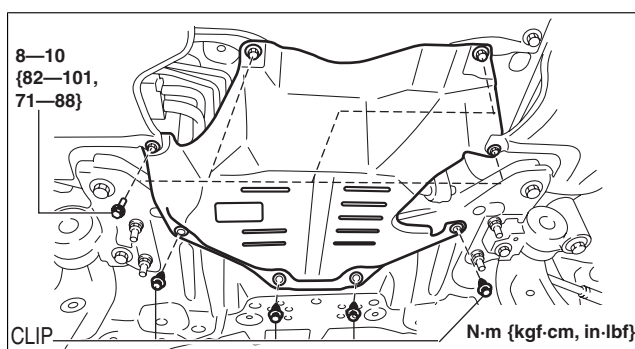
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9. Disconnect the front stabilizer control link (front stabilizer side). (See FRONT STABILIZER REMOVAL/INSTALLATION.)



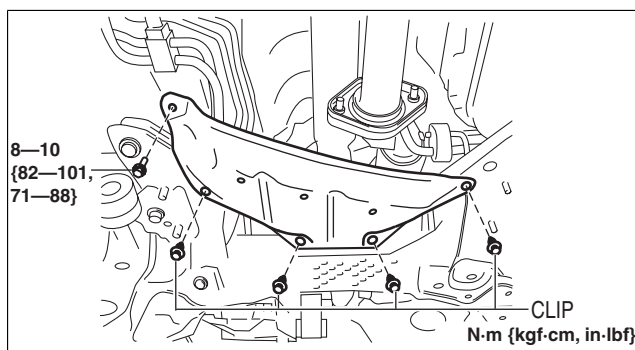
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10. Remove the front crossmember insulator.  
**2WD**



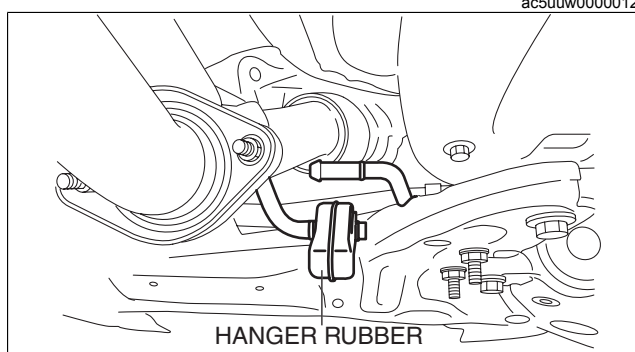
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**4WD**



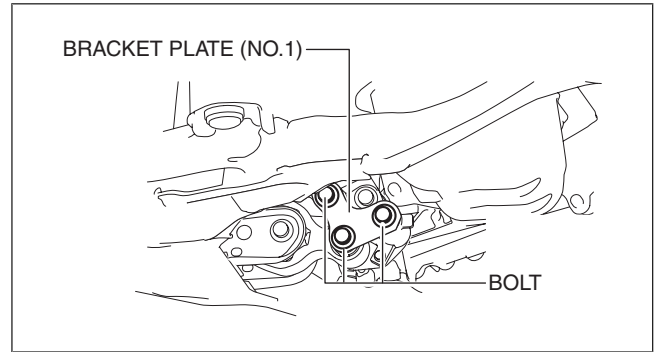
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11. Disconnect the hanger rubber from the front crossmember and set it aside.



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12. Remove the bracket plate (No.1). (2WD)

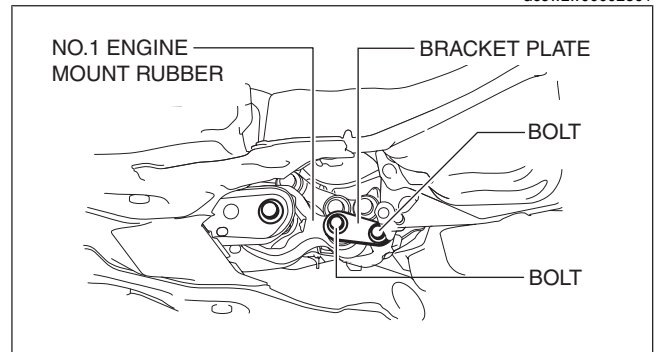


13. Remove the bracket plate. (4WD)

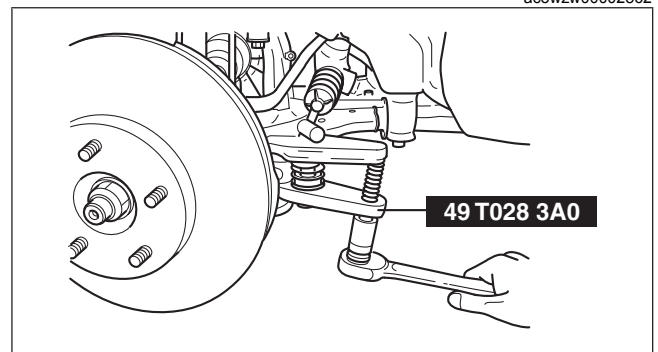
14. Remove the tie-rod end locknut.

**Tightening torque**

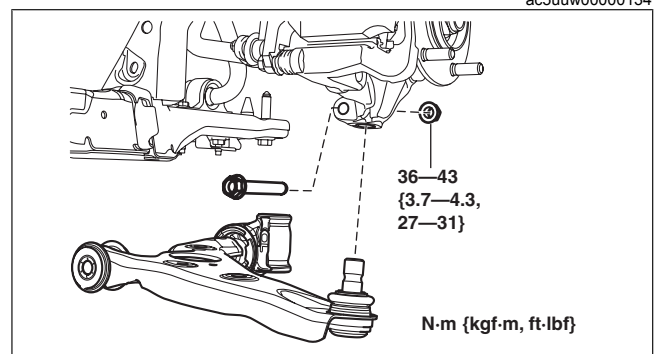
**47—59 N·m {4.8—6.0 kgf·m, 35—43 ft·lbf}**

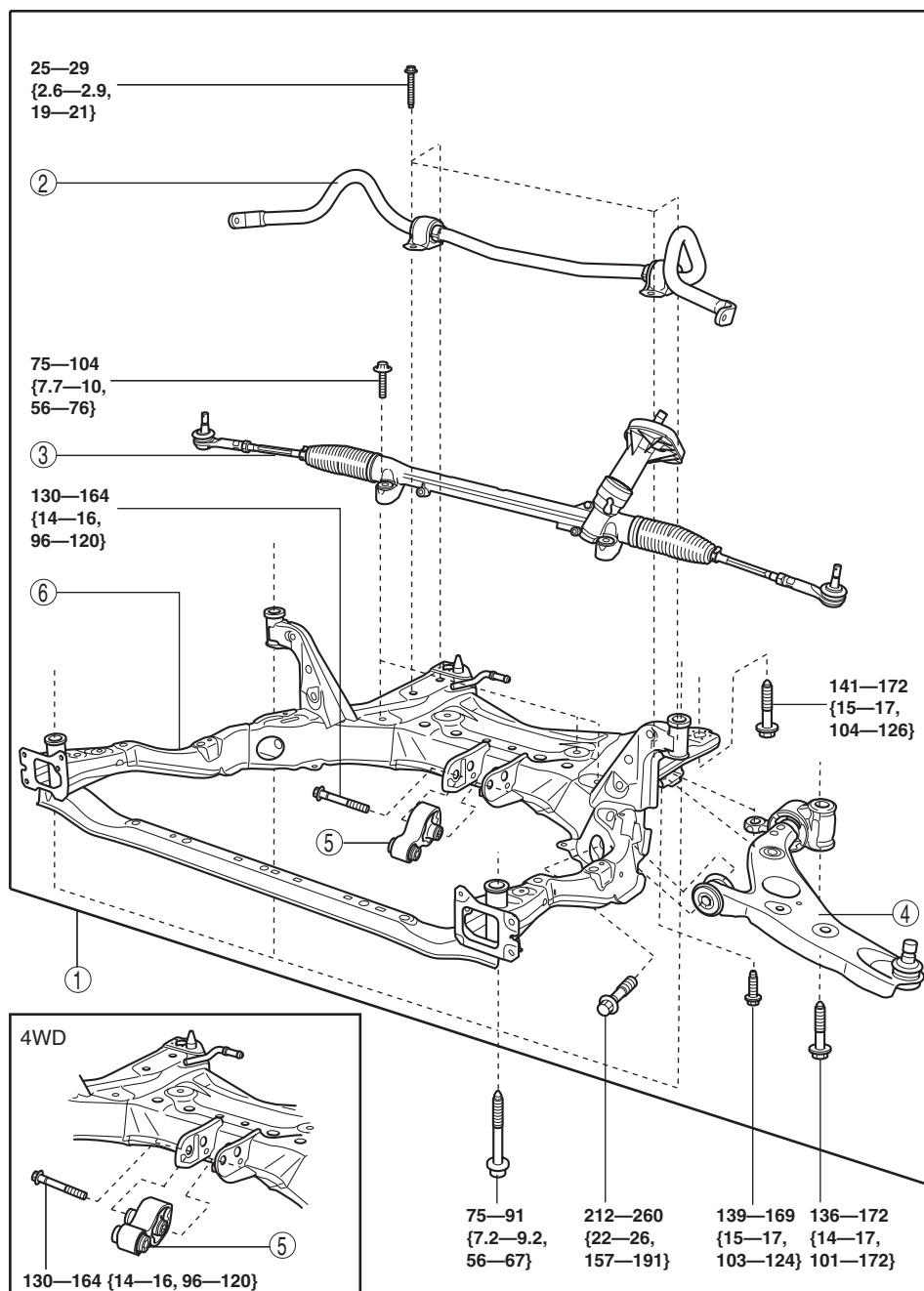


15. Detach the tie-rod end from the steering knuckle using the **SST**.



- 16. Disconnect the front lower arm ball joint.
- 17. Remove in the order indicated in the table.
- 18. Install in the reverse order of removal.
- 19. Inspect the wheel alignment and adjust it if necessary. (See FRONT WHEEL ALIGNMENT.)





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1	Front crossmember component (See Front Crossmember Component Removal Note.) (See No.1 Engine Mount Rubber and Front Crossmember Component Installation Note.)
2	Front stabilizer (See FRONT STABILIZER REMOVAL/ INSTALLATION.)
3	Steering gear and linkage (See STEERING GEAR AND LINKAGE REMOVAL/ INSTALLATION.)
4	Front lower arm (See FRONT LOWER ARM REMOVAL/ INSTALLATION.)

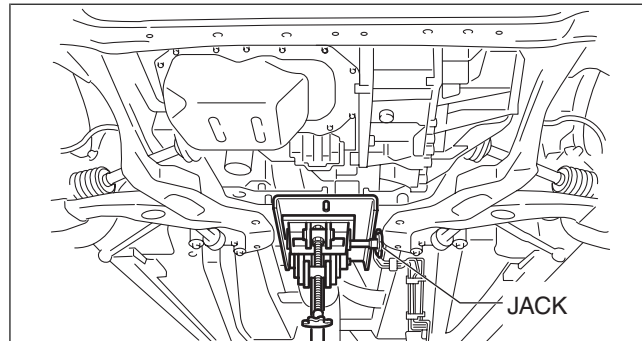
5	No.1 engine mount rubber (See ENGINE MOUNT DISASSEMBLY/ASSEMBLY [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See ENGINE MOUNT DISASSEMBLY/ASSEMBLY [SKYACTIV-D 2.2].) (See No.1 Engine Mount Rubber and Front Crossmember Component Installation Note.)
6	Front crossmember

## 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.

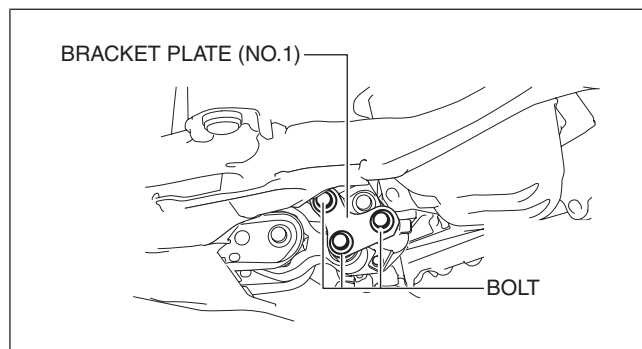
- Support the front crossmember component using a jack.
- Remove the front crossmember installation bolts.
- Remove the front crossmember, front stabilizer, front lower arm, and steering gear and linkage as a single unit.



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## No.1 Engine Mount Rubber and Front Crossmember Component Installation Note 2WD

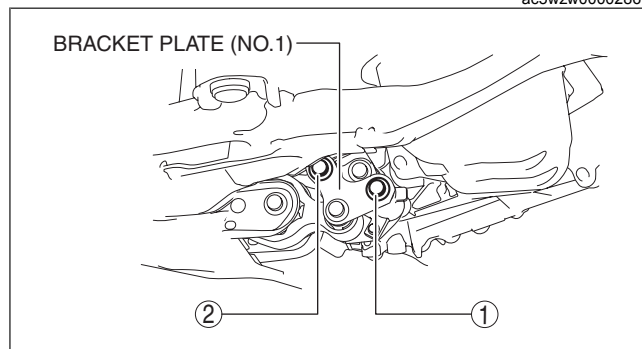
- Temporarily install the bracket plate (No.1) and No. 1 engine mount rubber.



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- Tighten the bracket plate (No.1) installation bolts in the order shown in the figure.

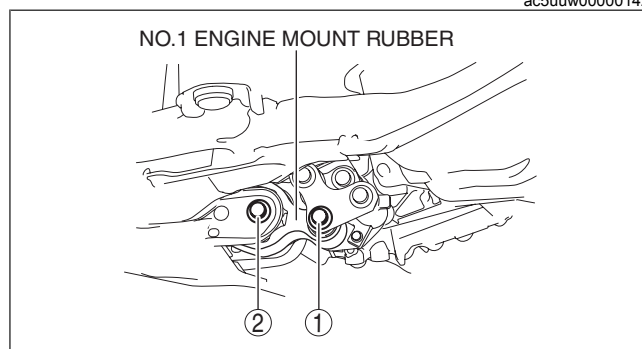
No.	Tightening torque
1	84—98 N·m {8.6—9.9 kgf·m, 62—72 ft·lbf}
2	84—98 N·m {8.6—9.9 kgf·m, 62—72 ft·lbf}



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- Tighten the No.1 engine mount rubber installation bolts in the order shown in the figure.

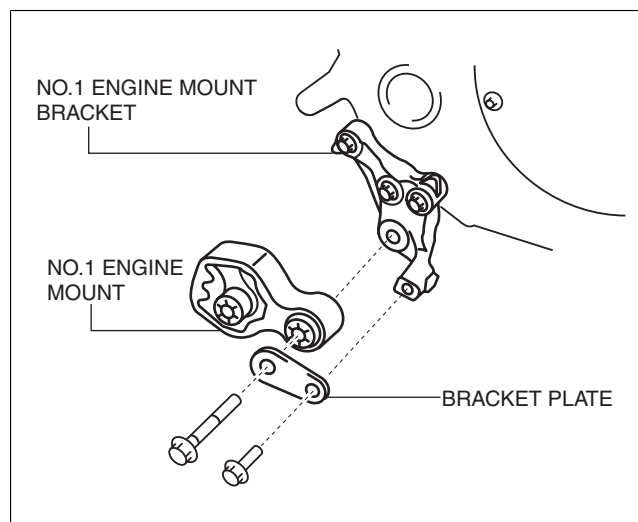
No.	Tightening torque
1	140—163 N·m {15—16 kgf·m, 104—120 ft·lbf}
2	130—164 N·m {14—16 kgf·m, 96—120 ft·lbf}



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#### 4WD

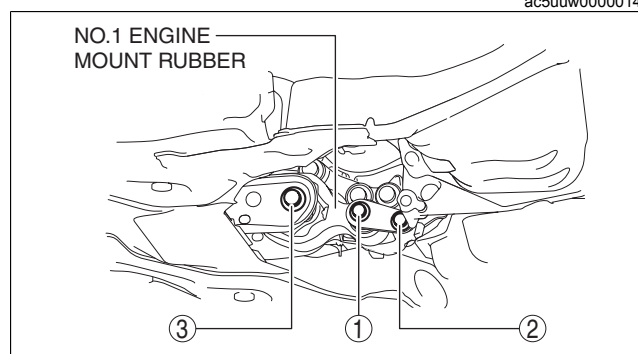
1. Temporarily install the No.1 engine mount rubber and bracket plate.



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2. Tighten the No.1 engine mount rubber and bracket plate installation bolts.

No.	Tightening torque
1	140—163 N·m {15—16 kgf·m, 104—120 ft·lbf}
2	55—69 N·m {5.7—7.0 kgf·m, 41—50 ft·lbf}
3	130—164 N·m {14—16 kgf·m, 96—120 ft·lbf}



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