

2012 - Mazda6 - Engine

ENGINE REMOVAL/ INSTALLATION [MZR 2.5]

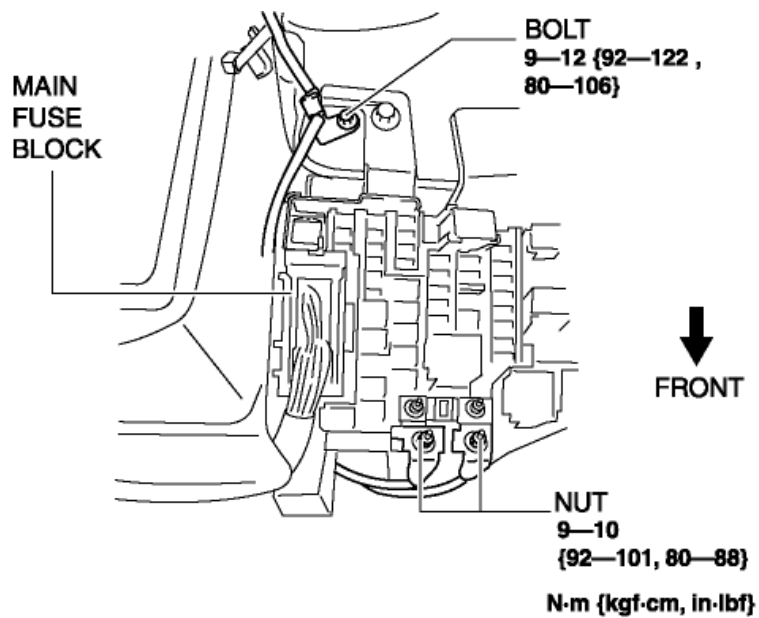
WARNING:

- Fuel vapor is hazardous. It can very easily ignite, causing serious injury and damage. Always keep sparks and flames away from fuel.
- Fuel line spills and leakage are dangerous. Fuel can ignite and cause serious injuries or death and damage. Fuel can also irritate skin and eyes. To prevent this, always complete the "Fuel Line Safety Procedure". (See [BEFORE SERVICE PRECAUTION \[MZR 2.5\]](#).)

NOTE:

- Perform the engine and transaxle component removal/installation from below the vehicle.

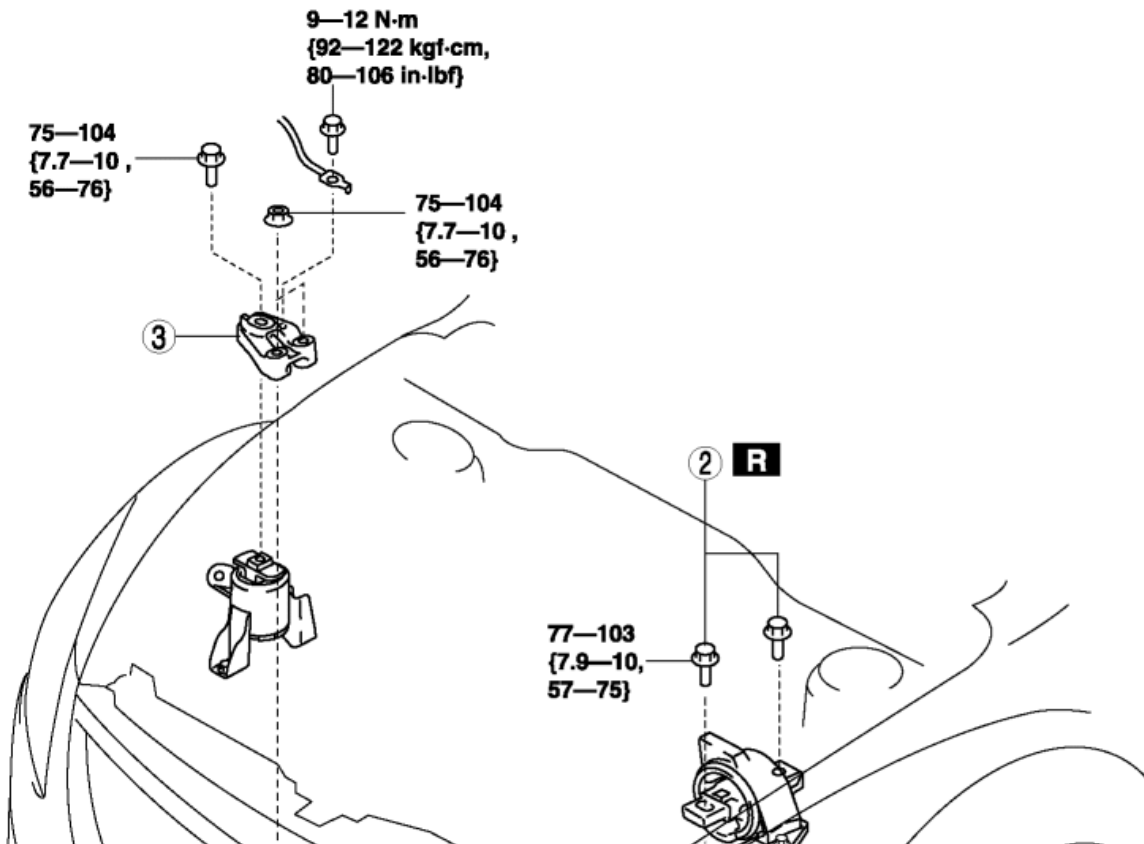
1. Remove the battery and battery tray. (See [BATTERY REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
2. Remove the plug hole plate. (See [PLUG HOLE PLATE REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
3. Remove the air hose and air cleaner component. (See [INTAKE-AIR SYSTEM REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
4. Set the cooler pipe and the cooler hose (LO) out of the way. (See [REFRIGERANT LINE REMOVAL/ INSTALLATION](#).)
5. Disconnect the brake vacuum hose. (See [VACUUM HOSE REMOVAL/ INSTALLATION](#).)
6. Remove the front wheels and tires. (See [GENERAL PROCEDURES \(SUSPENSION\)](#).)
7. Set the front mudguards out of the way. (See [FRONT MUDGUARD REMOVAL/ INSTALLATION](#).)
8. Remove the splash shields.
9. 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](#).)
10. Remove the drive belt. (See [DRIVE BELT REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
11. Remove the TWC. (See [EXHAUST SYSTEM REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
12. Drain the engine coolant. (See [ENGINE COOLANT REPLACEMENT \[MZR 2.5\]](#).)
13. Remove the coolant reserve tank. (See [COOLANT RESERVE TANK REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
14. Drain the ATF (ATX) or transaxle oil (MTX). (See [AUTOMATIC TRANSAXLE FLUID \(ATF\) REPLACEMENT \[FS5A-EL\]](#) (ATX).) (See [TRANSAXLE OIL REPLACEMENT \[G66M-R\]](#) (MTX).)
15. Disconnect the drive shafts from the engine side, set the drive shafts out of the way. (See [DRIVE SHAFT REMOVAL/ INSTALLATION](#).)
16. Disconnect the radiator hose. (See [RADIATOR REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
17. Disconnect the vacuum hose and the heater hose.
18. Disconnect the oil hose, selector cable, and wiring harness. (ATX) (See [AUTOMATIC TRANSAXLE REMOVAL/ INSTALLATION \[FS5A-EL\]](#).)
19. Disconnect the shift cable and wiring harness. (MTX) (See [MANUAL TRANSAXLE REMOVAL/ INSTALLATION \[G66M-R\]](#).)
20. Remove the clutch release cylinder with the pipe still connected. (MTX) (See [CLUTCH RELEASE CYLINDER REMOVAL/ INSTALLATION \[G66M-R\]](#).)
21. Disconnect the fuel hose. (See [QUICK RELEASE CONNECTOR REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
22. Remove the A/C compressor with the pipes still connected. (See [A/ C COMPRESSOR REMOVAL/ INSTALLATION](#).)
23. Remove the wiring harness installation bolt and nuts shown in the figure.

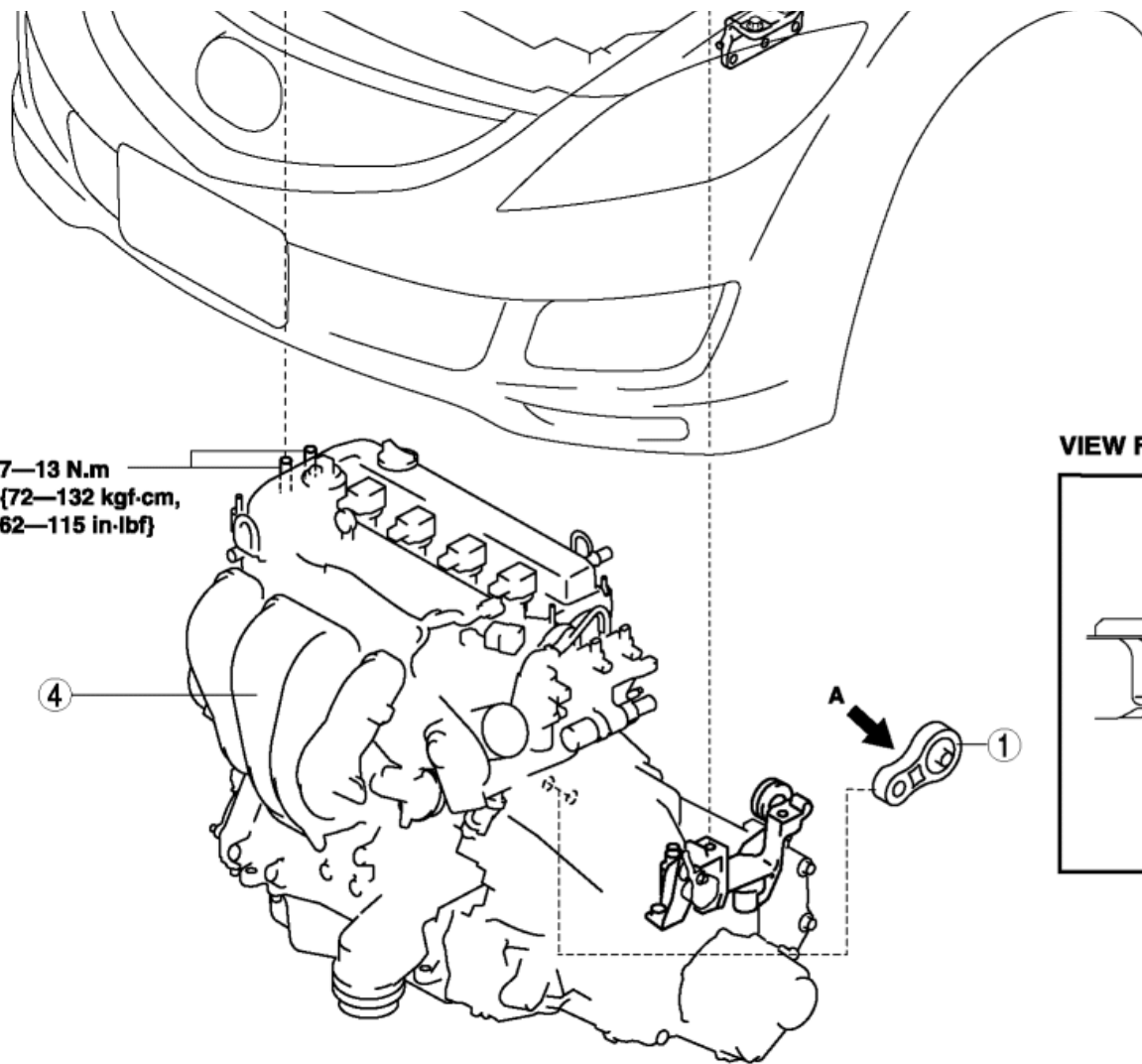


24. Disconnect the wiring harness from the engine side.
25. Remove in the order indicated in the table.
26. Install in the reverse order of removal.
27. Start the engine. And inspect and adjust the following:
 - Leakage of engine oil, engine coolant, ATF, transaxle oil, and fuel.
 - Runout and contact of pulley and belt.
 - Verify the ignition timing, idle speed and idle mixture. (See [ENGINE TUNE-UP \[MZR 2.5\]](#).)
 - Engine-driven accessories operation.

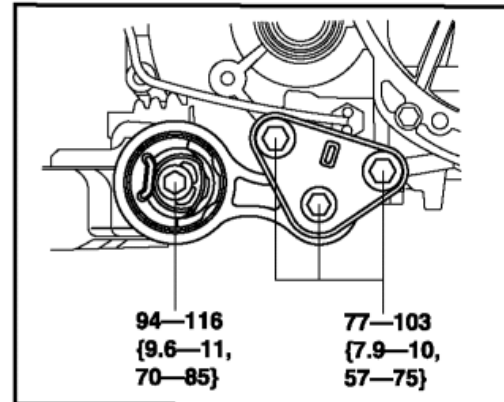
NOTE:

- If the engine is overhauled and installed to the vehicle, perform the road test and verify that there is no abnormality.





VIEW FROM A



N-m {kgf-m, ft-lbf}

1	No.1 engine mount (See No.1 Engine Mount Removal Note.) (See Engine Mount Installation Note.)
2	No.4 engine mount bolt (See No.3 Engine Mount Bracket, No.4 Engine Mount Bolt Removal Note.) (See Engine Mount Installation Note.)
3	No.3 engine mount bracket (See No.3 Engine Mount Bracket, No.4 Engine Mount Bolt Removal Note.) (See Engine Mount Installation Note.)
4	Engine, transaxle

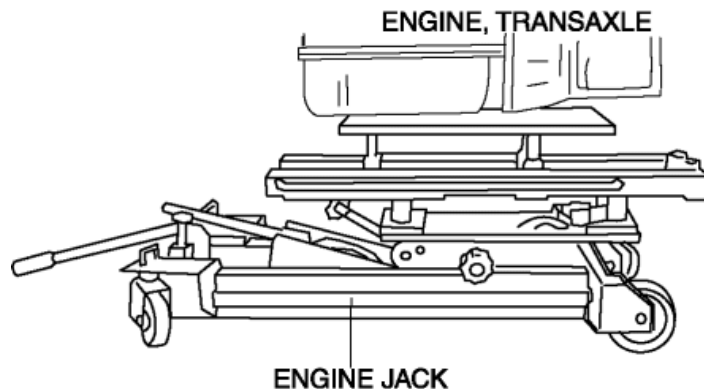
No.1 Engine Mount Removal Note

NOTE:

- Remove the No.1 engine mount rubber and the front crossmember as a single unit. (See [FRONT CROSSMEMBER REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)

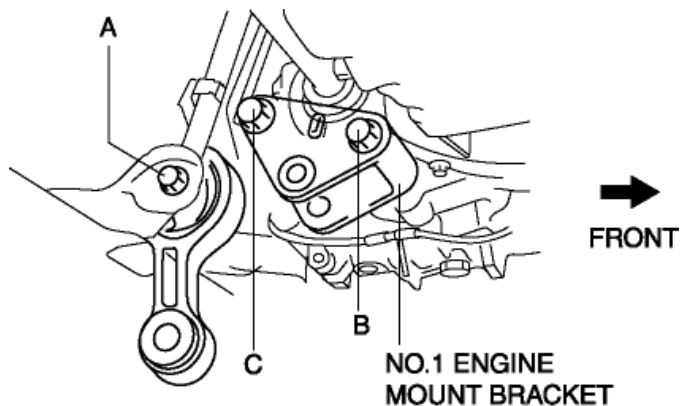
No.3 Engine Mount Bracket, No.4 Engine Mount Bolt Removal Note

1. Secure the engine and transaxle using an engine jack.



Engine Mount Installation Note

1. Install the through bolt A on the front crossmember side until approximately three pitches are showing.
2. Temporarily tighten bolts B and C.



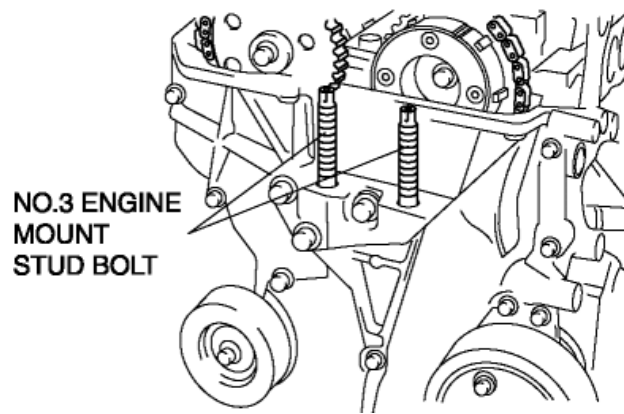
3. Tighten the bolts in the order of B and C.

Tightening torque

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

NOTE:

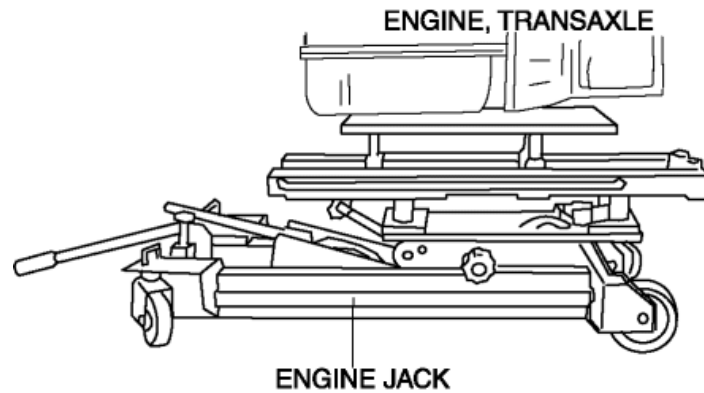
- If the No.3 engine mount bracket and the engine are removed, retighten the No.3 engine mount stud bolts.
4. Tighten the No. 3 engine mount stud bolts.



Tightening torque

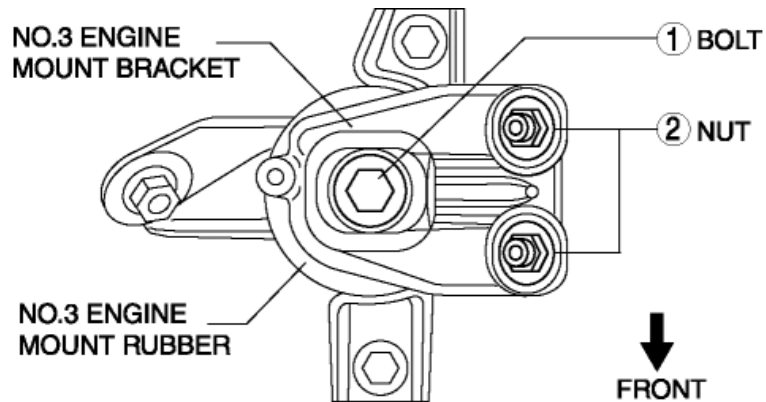
- 7—13 N·m {72—132 kgf·cm, 62—115 in·lbf}

5. Secure the engine and transaxle using an engine jack.



6. Temporarily tighten the No.3 engine mount bolt and nuts.

7. Tighten the No.3 engine mount bolt and nuts in the order shown in the figure.

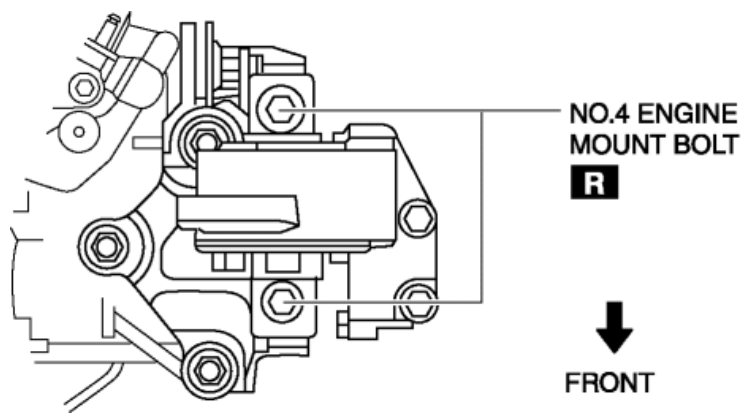


Tightening torque

- 75—104 N·m {7.7—10 kgf·m, 56—76 ft·lbf}

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

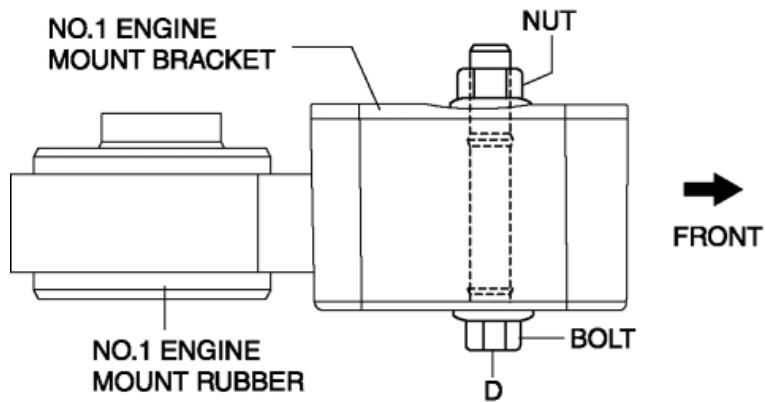
9. Tighten the No.4 engine mount bolts.



Tightening torque

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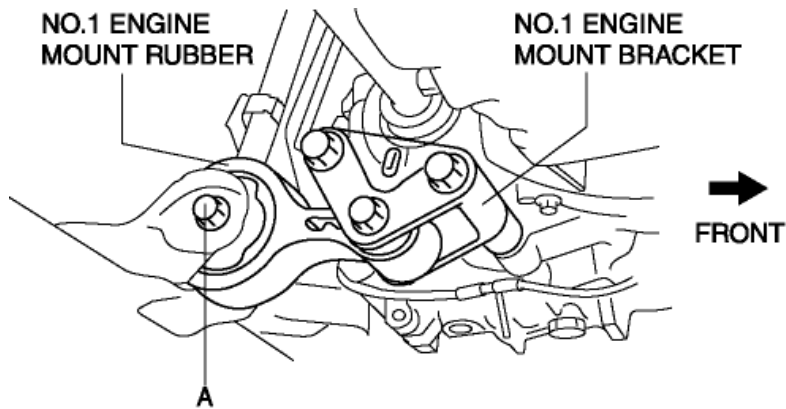
10. Tighten the bolt D.



Tightening torque

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

11. Tighten the bolt A.



Tightening torque

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

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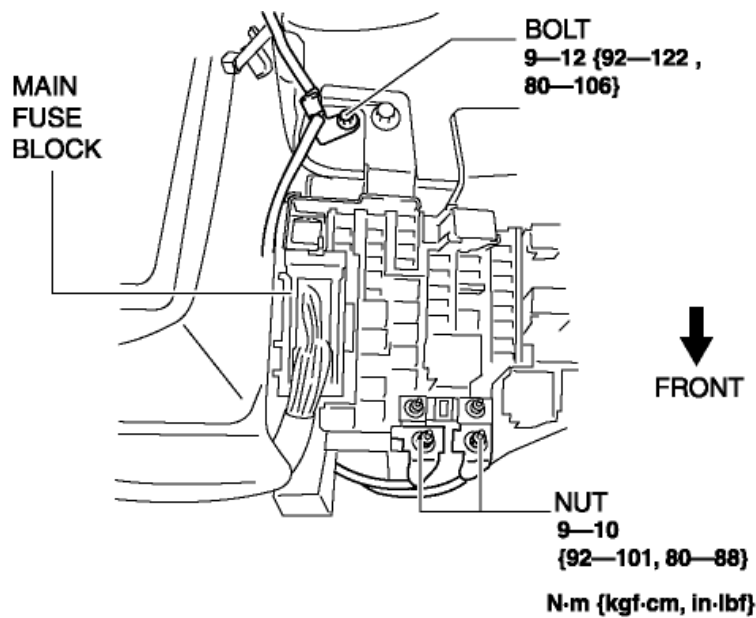
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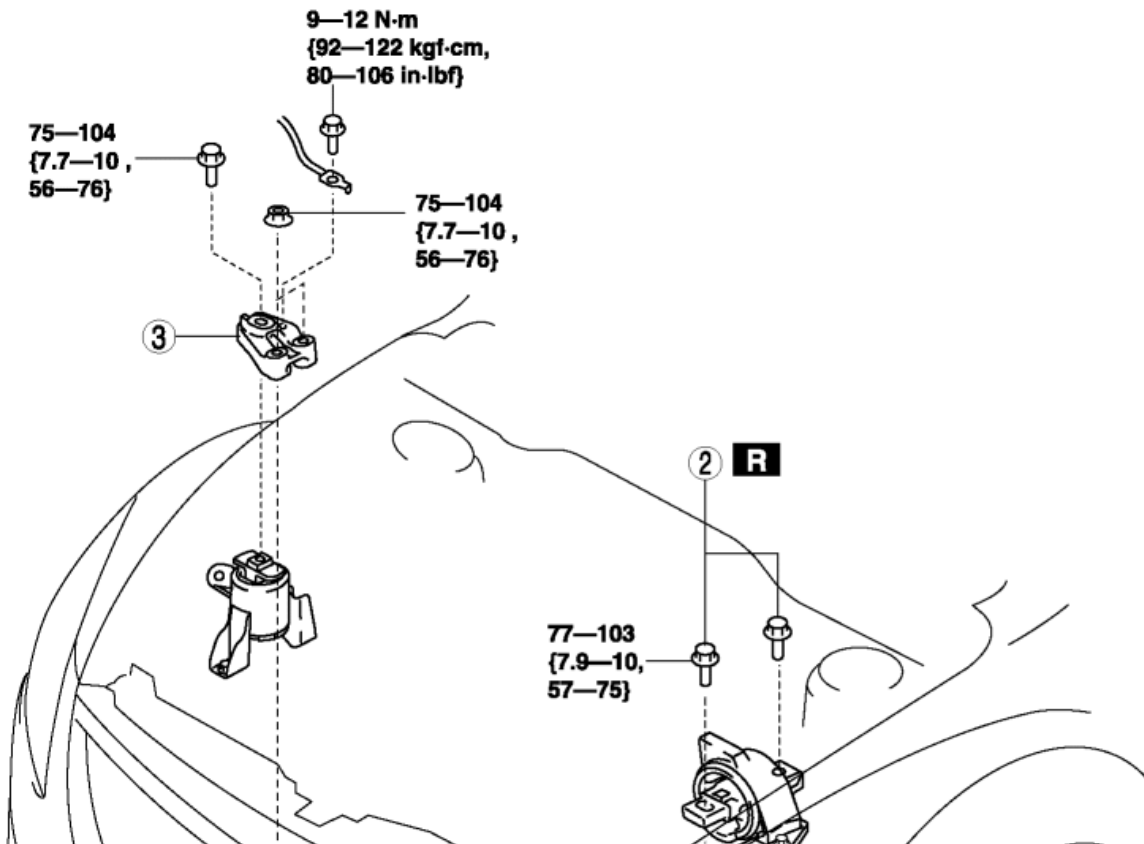
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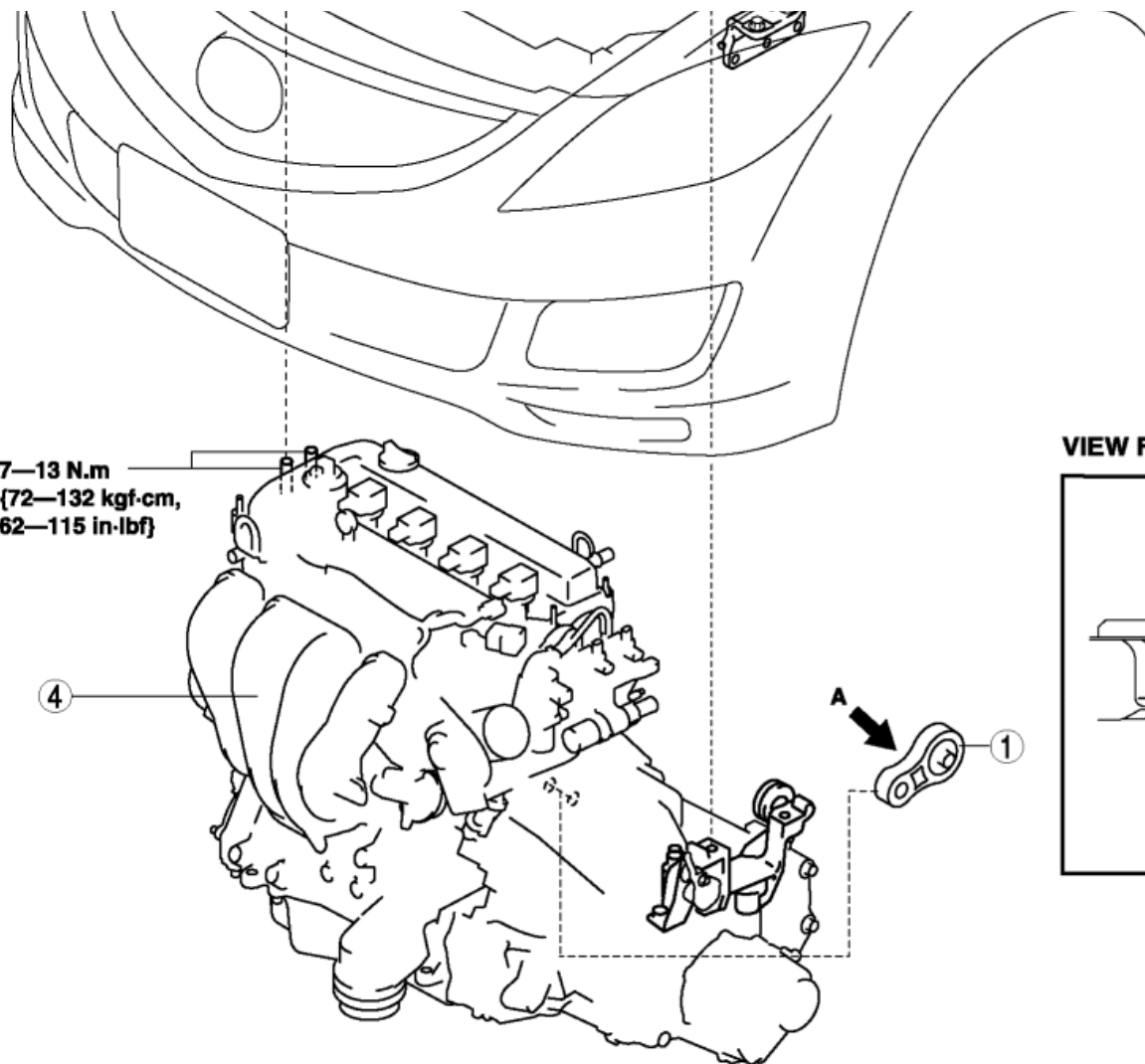


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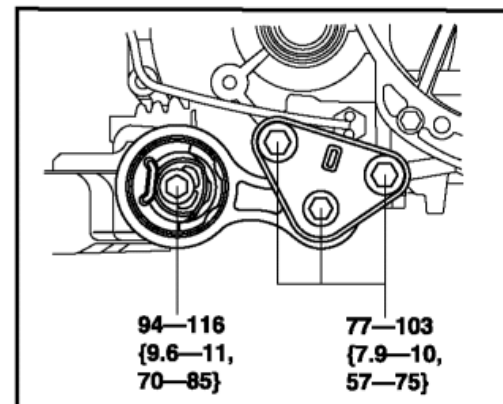
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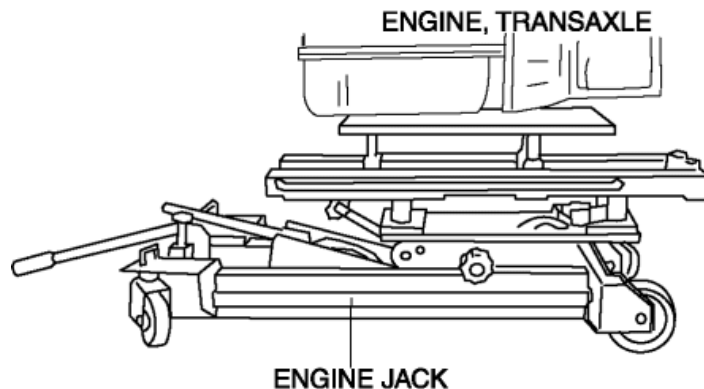
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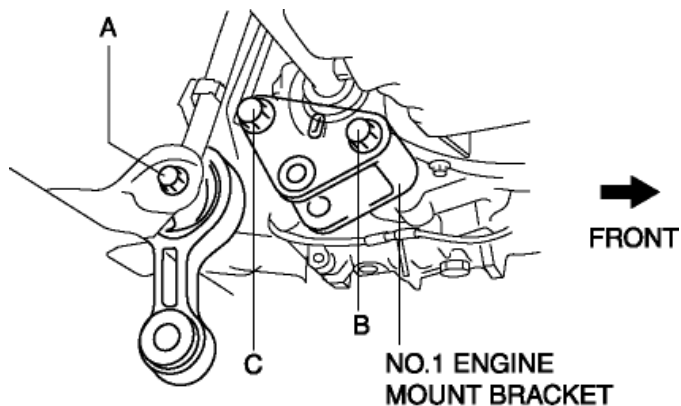
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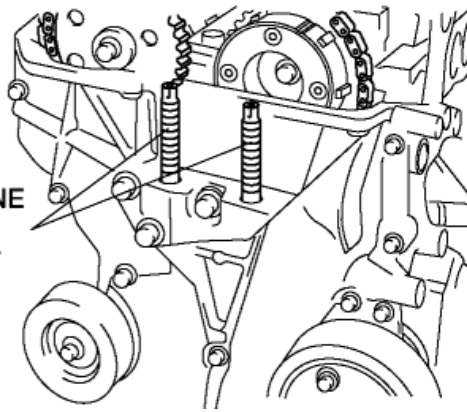
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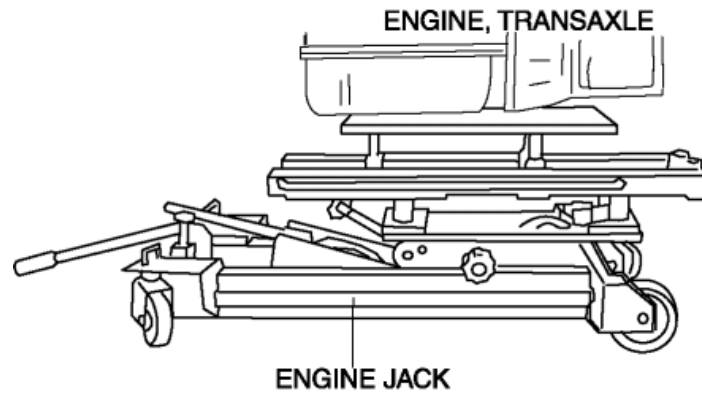
**NO.3 ENGINE
MOUNT
STUD BOLT**



Tightening torque

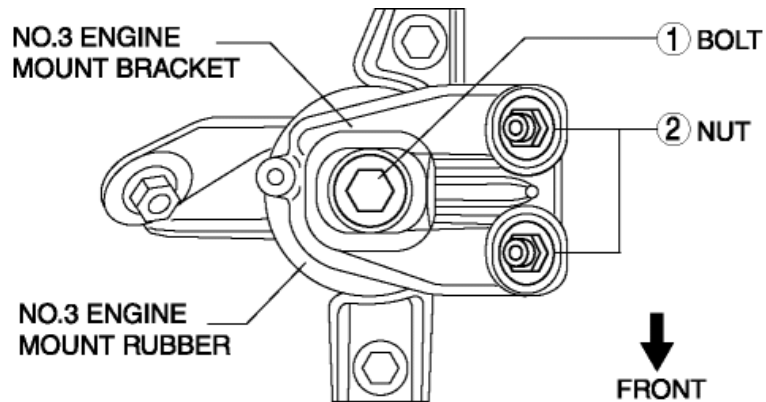
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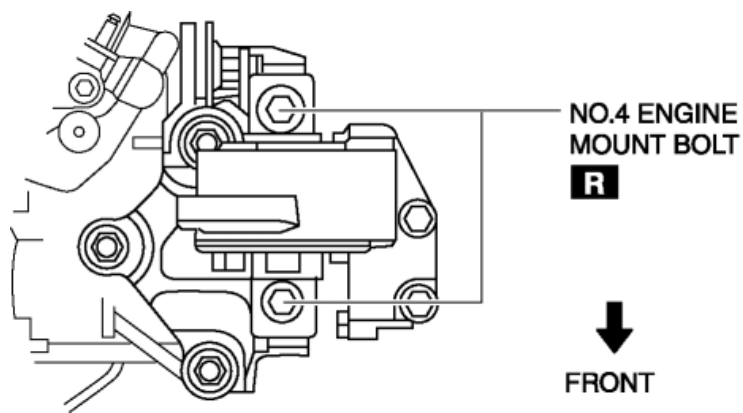


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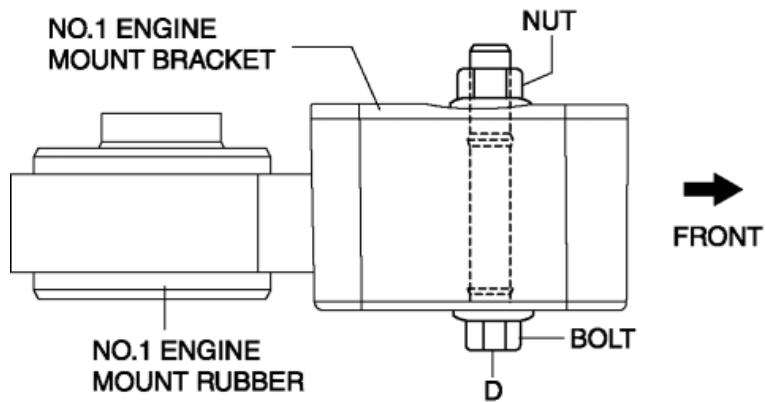
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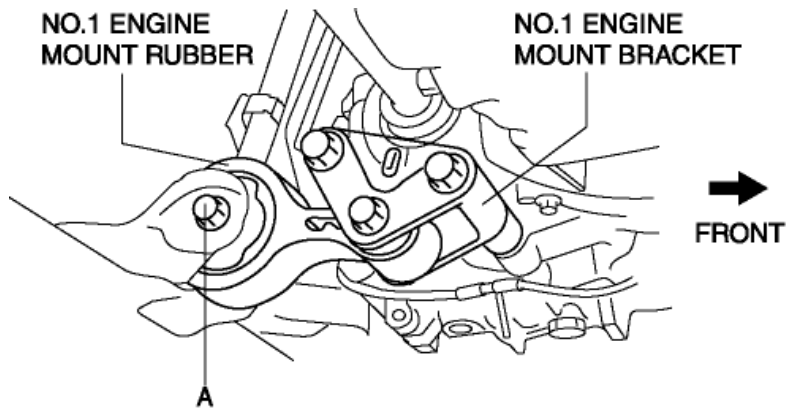
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11. Tighten the bolt A.



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