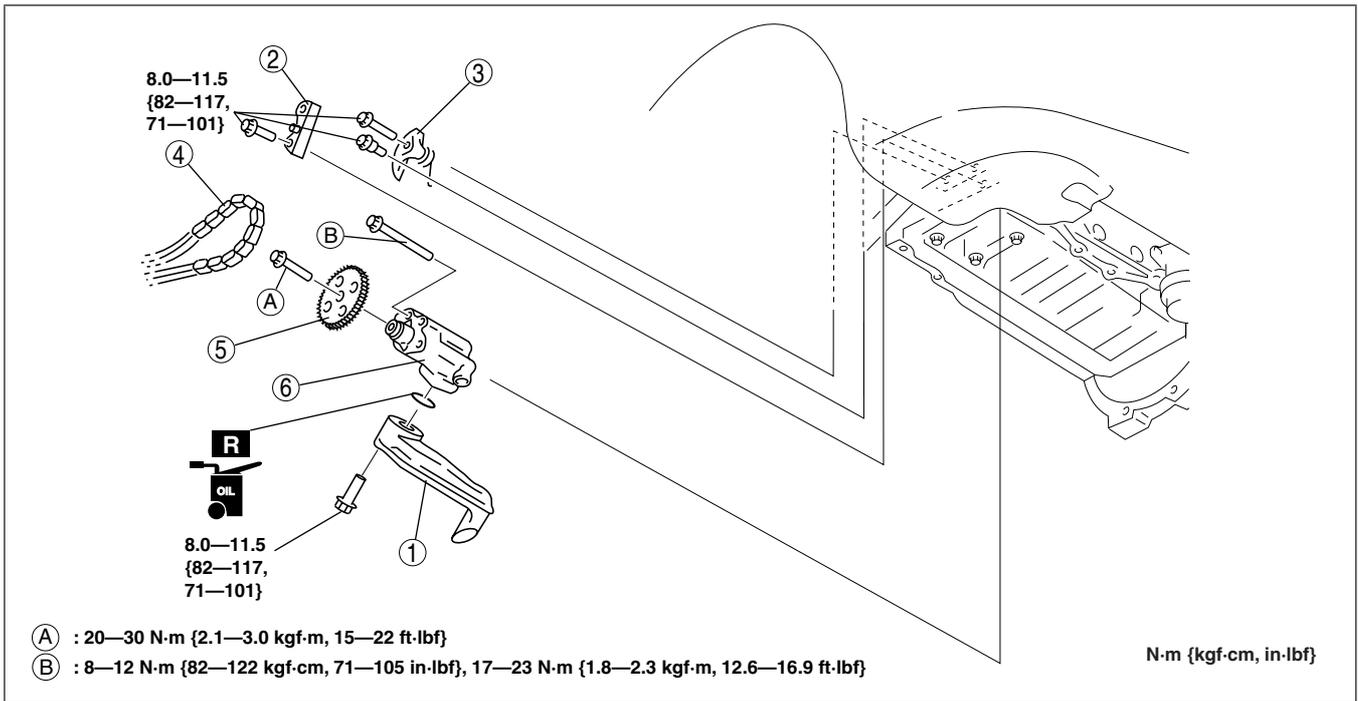


Warning

- **Hot engines and engine oil can cause severe burns. Turn off the engine and wait until it and the engine oil have cooled.**
- **A vehicle that is lifted but not securely supported on safety stands is dangerous. It can slip or fall, causing death or serious injury. Never work around or under a lifted vehicle if it is not securely supported on safety stands.**
- **Continuous exposure to USED engine oil has caused skin cancer in laboratory mice. Protect your skin by washing with soap and water immediately after working with engine oil.**

1. Complete the "BEFORE SERVICE PRECAUTION". (See BEFORE SERVICE PRECAUTION [L3 Turbo].)
2. Remove the battery, battery tray and PCM component. (See BATTERY REMOVAL/INSTALLATION [L3 Turbo].)
3. Remove the front tire (RH).
4. Remove the under cover and splash shield as a single unit.
5. Drain the engine oil. (See ENGINE OIL REPLACEMENT [L3 Turbo].)
6. Drain the engine coolant. (See ENGINE COOLANT REPLACEMENT [L3 Turbo].)
7. Remove the air cleaner, charge air cooler, and air hose. (See INTAKE AIR SYSTEM REMOVAL/INSTALLATION [L3 Turbo].)
8. Disconnect the quick release connector on the high pressure fuel pump. (See QUICK RELEASE CONNECTOR REMOVAL/INSTALLATION [L3 Turbo].)
9. Remove the high pressure fuel pump. (See HIGH PRESSURE FUEL PUMP REMOVAL/INSTALLATION [L3 Turbo].)
10. Remove the ignition coils. (See IGNITION COIL REMOVAL/INSTALLATION [L3 Turbo].)
11. Loosen the water pump pulley bolts before removing the drive belt.
12. Remove the drive belt. (See DRIVE BELT REMOVAL/INSTALLATION [L3 Turbo].)
13. Remove the P/S oil pump with hose and pipe still connected. Position the P/S oil pump out of the way. (See POWER STEERING OIL PUMP REMOVAL/INSTALLATION [L3 Turbo].)
14. Remove the crankshaft position (CKP) sensor. (See CRANKSHAFT POSITION (CKP) SENSOR REMOVAL/INSTALLATION [L3 Turbo].)
15. Remove the engine front cover. (See TIMING CHAIN REMOVAL/INSTALLATION [L3 Turbo].)
16. Remove the oil pan. (See OIL PAN REMOVAL/INSTALLATION [L3 Turbo].)
17. Remove in the order indicated in the table.
18. Install in the reverse order of removal.
19. Refill with the specified type and amount of the engine oil. (See ENGINE OIL REPLACEMENT [L3 Turbo].)
20. Refill the engine coolant. (See ENGINE COOLANT REPLACEMENT [L3 Turbo].)
21. Start the engine and confirm that there is no oil leakage.
 - If there is oil leakage, repair or replace the applicable part.
22. Inspect the oil level. (See ENGINE OIL LEVEL INSPECTION [L3 Turbo].)
23. Inspect for engine coolant leakage. (See ENGINE COOLANT LEAKAGE INSPECTION [L3 Turbo].)
24. Inspect for the ignition timing and idle speed. (See ENGINE TUNE-UP [L3 Turbo].)
25. Inspect the oil pressure. (See OIL PRESSURE INSPECTION [L3 Turbo].)



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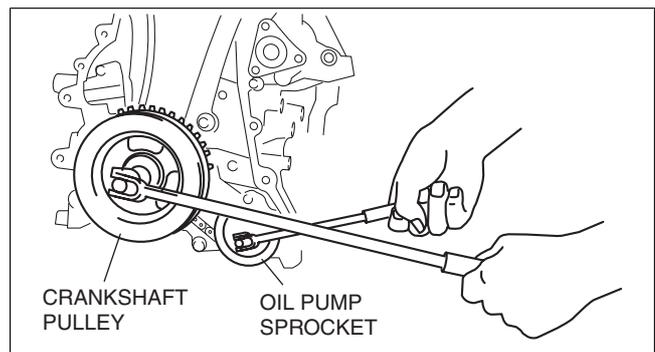
| | |
|---|--|
| 1 | Oil strainer |
| 2 | Oil pump chain guide |
| 3 | Oil pump chain tensioner |
| 4 | Oil pump chain |
| 5 | Oil pump sprocket (See Oil Pump Sprocket Removal/Installation Note .) |
| 6 | Oil pump (See Oil Pump Installation Note .) |

Oil Pump Sprocket Removal/Installation Note

- Temporarily install the crankshaft pulley and crankshaft pulley lock bolt to the crankshaft, and lock the oil pump against rotation as shown in figure.
- Remove/install the oil pump sprocket, and then remove the crankshaft pulley and crankshaft pulley lock bolt.

Tightening torque

20—30 N·m {2.1—3.0 kgf·m, 15—22 ft·lbf}



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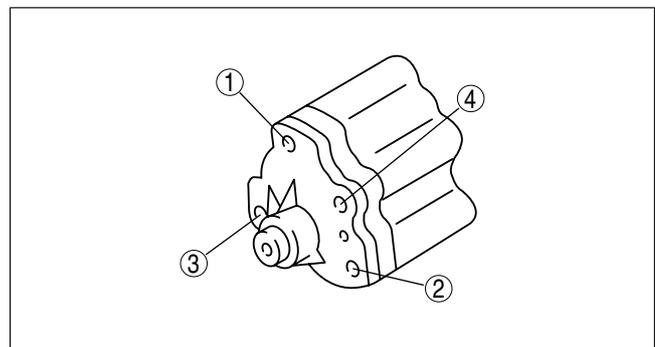
Oil Pump Installation Note

- Tighten the oil pump bolts in two steps in the order shown in the figure.

Tightening torque

Step 1: 8—12 N·m {82—122 kgf·cm, 71—105 in·lbf}

Step 2: 17—23 N·m {1.8—2.3 kgf·m, 12.6—16.9 ft·lbf}



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