



Oil Pump

REMOVAL & INSTALLATION

Z24i and KA24E Engines

NOTE: The oil pump is mounted externally on the engine, eliminating the need to remove the oil pan in order to remove the oil pump.

1. Matchmark and remove the distributor, as detailed earlier in this section.
2. Drain the engine oil.

Fig. 1: Oil pump installation — 4-cylinder engines

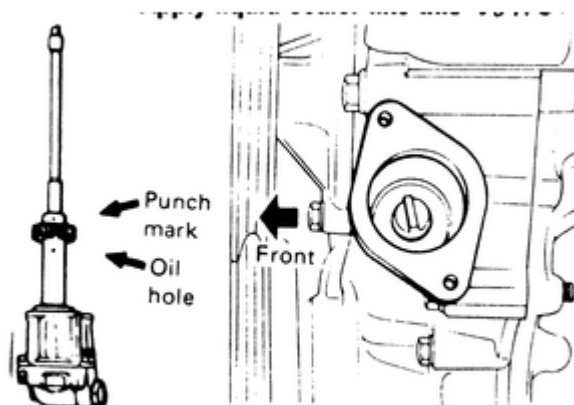
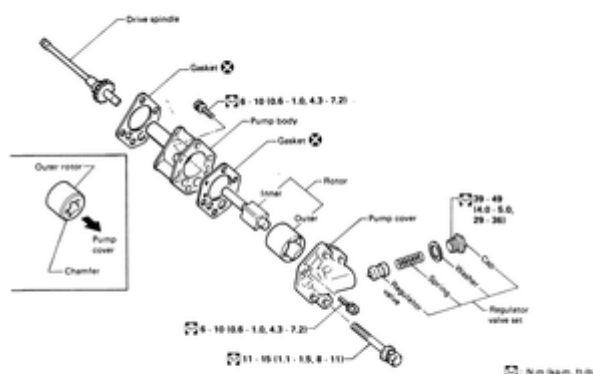


Fig. 2: Exploded view of the oil pump assembly — 4-cylinder engines



3. Remove the front stabilizer bar.

4. Remove the splash shield board.
5. Loosen the mounting bolts and remove the oil pump body with the drive spindle assembly.

To install:

6. Before installing the oil pump in the engine, turn the crankshaft so that the No. 1 piston is at TDC of the compression stroke.
7. Fill the pump housing with engine oil, then align the punch mark on the spindle with the hole in the oil pump.
8. With a new gasket placed over the drive spindle, install the oil pump and drive spindle assembly so that the projection on the top of the drive spindle is located at the 11 o'clock position.
9. Install the distributor with the metal tip of the rotor pointing toward the No. 1 spark plug tower of the distributor cap.
10. Install the splash shield and front stabilizer bar.
11. Refill the engine with oil, then start and run the engine to normal operating temperature.
12. Check ignition timing and adjust, as necessary, then check for oil leaks.

VG30i and VG30E Engines

1. Remove the timing belt. For details, please refer to the procedure in this section.
2. Remove the oil pan. For details, please refer to the procedure in this section.
3. Remove the crankshaft timing sprocket (it may be necessary to use a puller) and the timing belt plate.
4. Remove the oil pump strainer and pick-up tube.
5. Loosen the oil pump retaining bolts, then remove the oil pump.

To install:

NOTE: Before installing the oil pump, be sure to pack the pump's cavity with petroleum jelly (to assure a good prime), then make sure the O-ring is properly fitted.

6. Install the oil pump assembly using a new gasket and silicone sealant, along with a new oil seal. Tighten the 6mm bolts to 4–5 ft. lbs. (5.5–7 Nm) and the 8mm bolts to 9–12 ft. lbs. (12–16 Nm).
7. Connect the oil strainer and pick-up tube.

Fig. 3: Oil pump removal — 6-cylinder engines

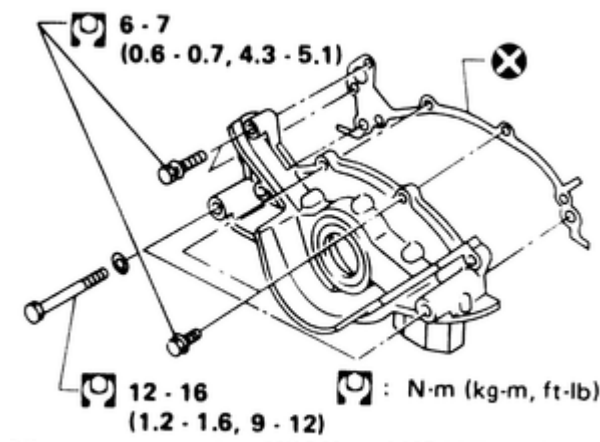


Fig. 4: Exploded view of the oil pump assembly — 6-cylinder engines

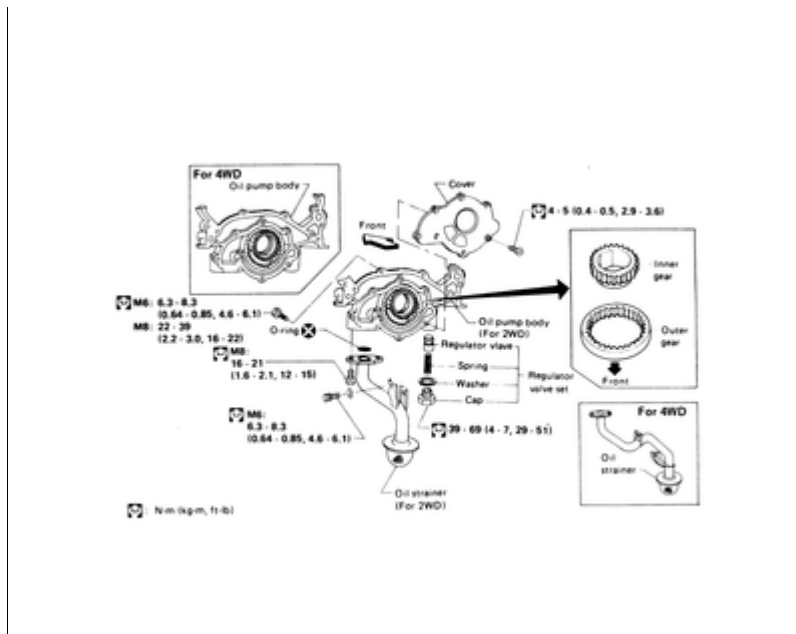


Fig. 5: Remove the crankshaft sprocket before removing the oil pump assembly — 6-cylinder engines



Fig. 6: Remove the oil pump cover to gain access to oil pump body — 6-cylinder engines



Fig. 7: Remove the oil pump pick-up tube assembly mounting bolts — 6-cylinder engines



Fig. 8: Always make sure the strainer for the oil pump pick-up tube assembly is cleaned before installation



8. Install the oil pan.
9. Install the timing belt plate and the crankshaft pulley.
10. Install the timing belt and front cover.
11. Refill the engine with oil.
12. Start the engine and check for any leaks.

