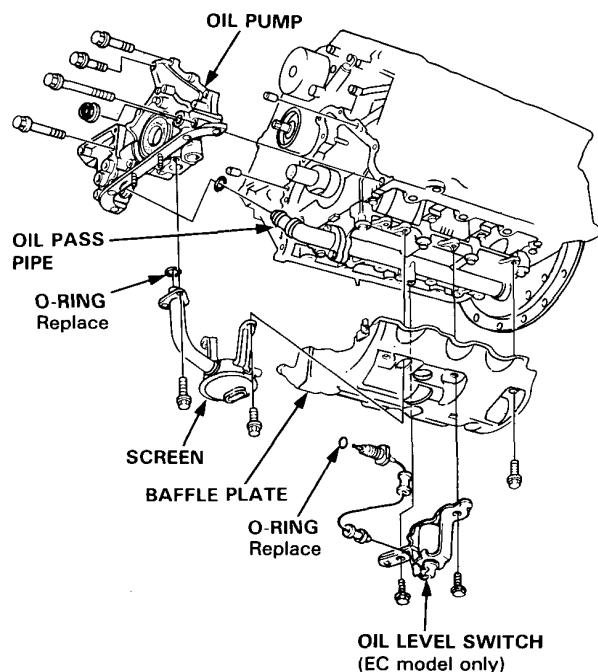


Oil Pump

Removal/Inspection

1. Drain the engine oil.
2. Turn the crankshaft and align the "TDC" mark on the crankshaft pulley with the index mark on the cover.
3. Remove the timing belt upper cover.
4. Remove the alternator belt, power steering belt and air conditioning compressor belt.
5. Remove the splash guard.
6. Remove the crankshaft pulley and remove the timing belt lower cover.
7. Release the belt tensioner, and remove the timing belt and driven pulley.
8. Remove the oil filter assembly.
9. Remove the oil pan.
10. Remove the oil screen and remove the oil level switch (EC model only).
11. Remove the baffle plate.
12. Remove the oil pass pipe and joint.
13. Remove the mounting bolts and the oil pump assembly.



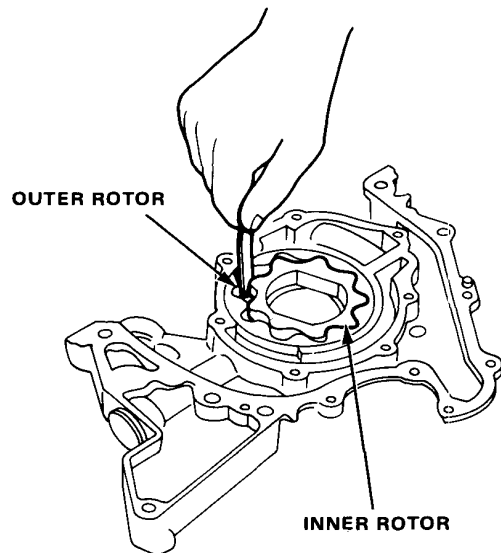
14. Remove the five screws from the pump housing, then separate the housing and cover.
15. Check the radial clearance on the pump rotor.

Rotor Radial Clearance

Standard (New): 0.04–0.18 mm

(0.002–0.007 in.)

Service Limit: 0.2 mm (0.008 in.)



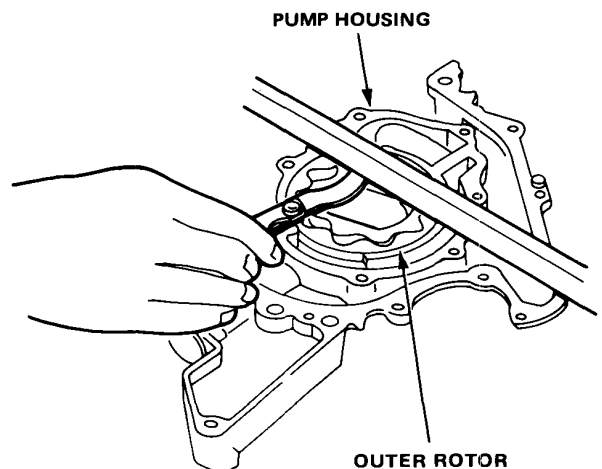
16. Check the axial clearance on the outer pump rotor.

Housing-to-Rotor Axial Clearance

Standard (New): 0.02–0.07 mm

(0.001–0.003 in.)

Service Limit: 0.12 mm (0.005 in.)



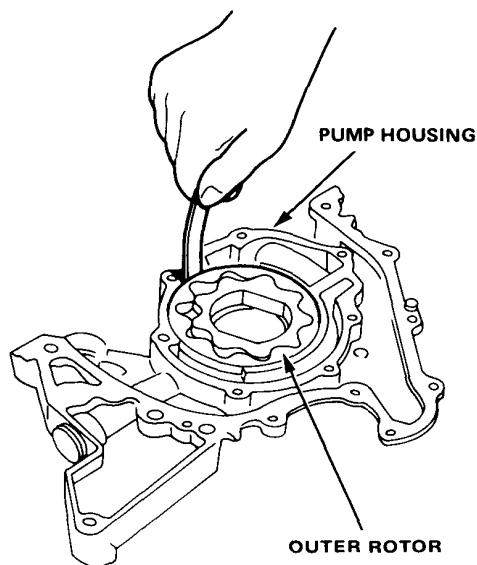


17. Check the radial clearance between the housing and the outer rotor.

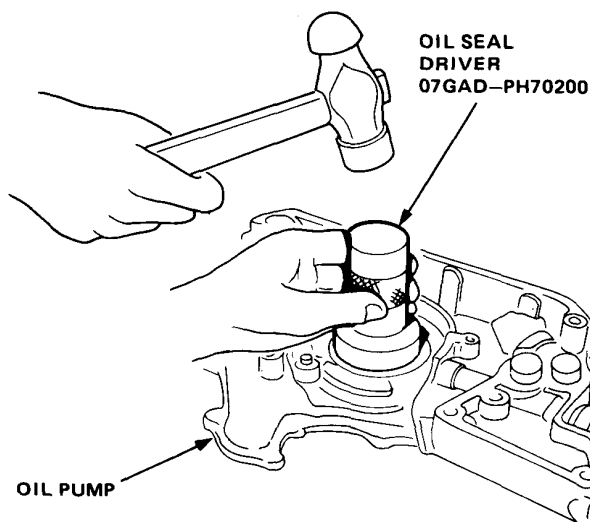
Housing-to-Rotor Radial Clearance

Standard (New): 0.1–0.18 mm
(0.004–0.007 in.)

Service Limit: 0.2 mm (0.008 in.)



18. Inspect both rotors and pump housing for scoring or other damage. Replace parts as necessary.
19. Remove the old oil seal from the oil pump.
20. Gently tap in the new oil seal until the tool bottoms on the pump.



21. Reassemble the oil pump, applying locking fluid to the pump housing screws.

22. Check that the oil pump turns freely.

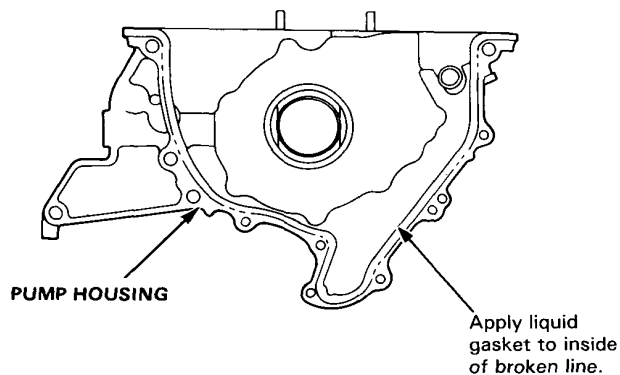
23. Apply a light coat of oil to the seal lip.

24. Install the two dowel pins and new O-ring on the cylinder block.

25. Apply liquid gasket to the cylinder block mating surface of the oil pump.

NOTE:

- Use PART NO. 08740–99986 for the liquid gasket.
- Check that the mating surfaces are clean and dry before applying liquid gasket.
- Apply liquid gasket evenly, in a narrow bead centered on the mating surface.
- To prevent leakage of oil, apply sealant to the inner threads of the bolt holes.



- Do not allow the sealant to dry before assembly.
- Wait at least 30 minutes after assembly before filling the engine with oil.

(cont'd)

Oil Pump

Removal/Inspection (cont'd)

26. Install the oil pump on the cylinder block.
 - Apply liquid gasket to threads of the 8 x 1.25 x 45 mm bolt.
27. Install the oil pass pipe and joint.
28. Install the baffle plate.
29. Install the oil level switch (EC model only).
30. Install the oil pan.

