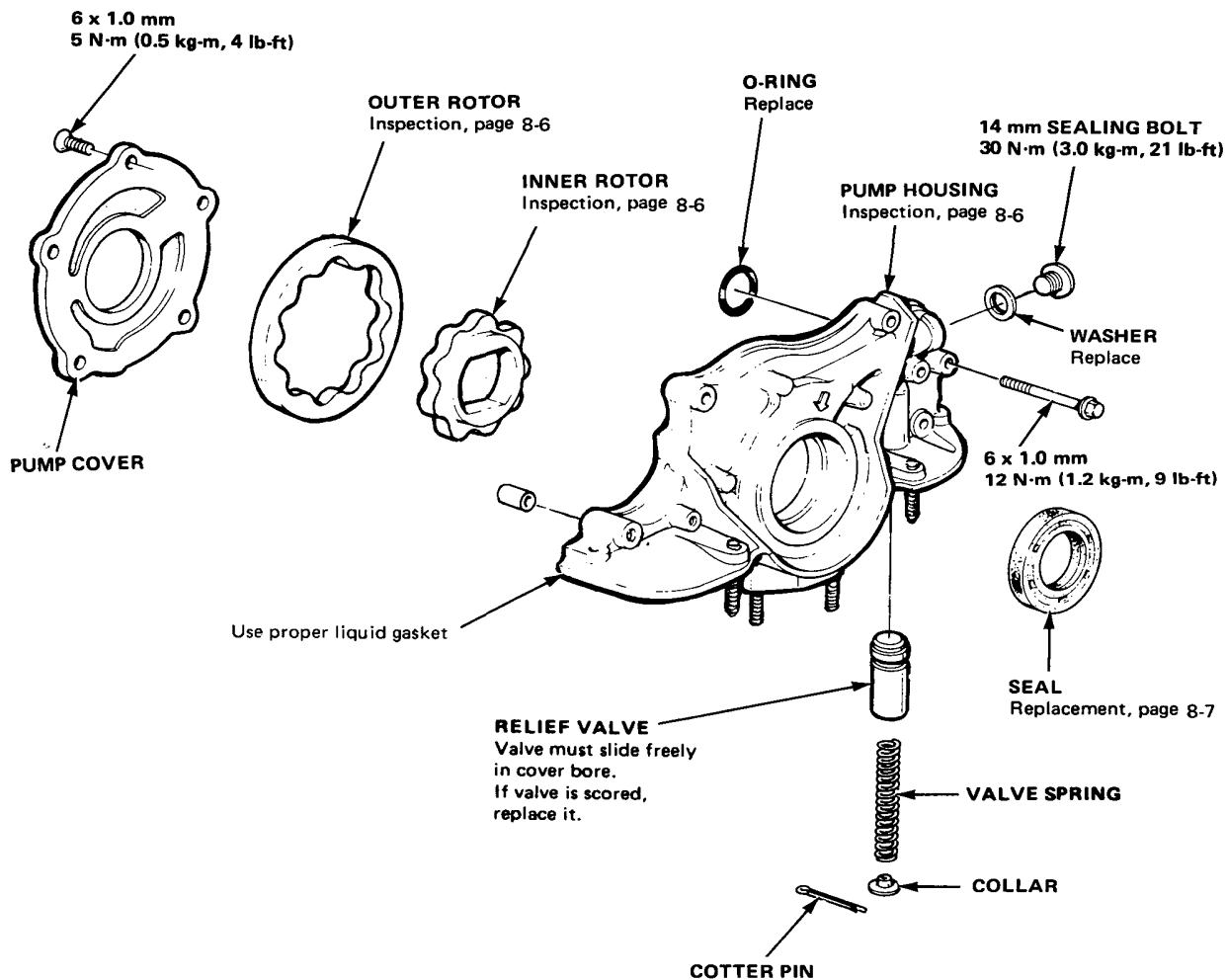




Oil Pump Illustrated Index

NOTE:

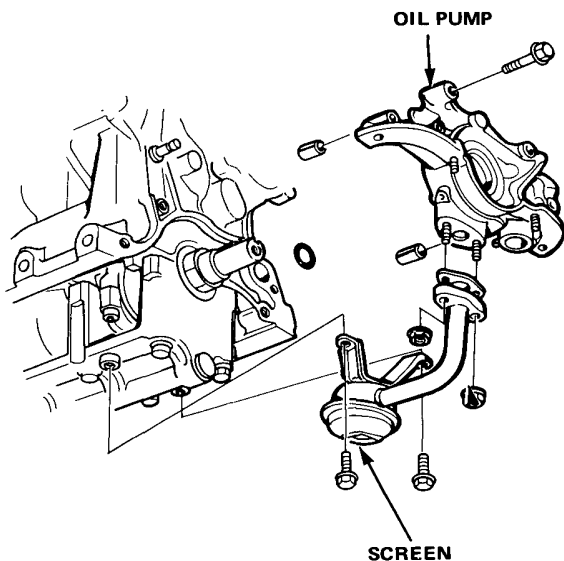
- Note the installation direction of the rotors.
- After assembling, check that the rotors turn smoothly.



Engine Lubrication

Oil Pump Removal/Inspection

1. Drain the engine oil.
2. Turn the crankshaft and align the "T" mark on the crankshaft pulley with the index mark on the cover.
3. Remove the cylinder head cover and timing belt upper cover.
4. Remove the alternator belt.
5. Remove the crankshaft pulley and remove the timing belt lower cover.
6. Release the belt tensioner, and remove the timing belt and driven pulley.
7. Remove the oil pan.
8. Remove the oil screen.
9. Remove the mounting bolts and the oil pump assembly.



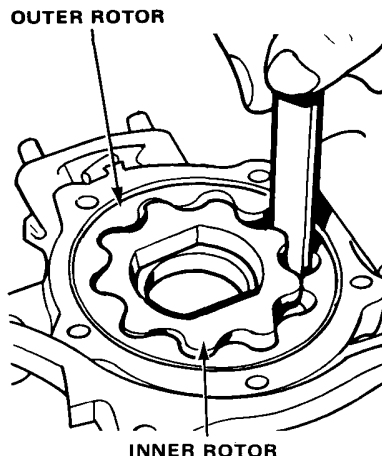
10. Remove the five screws from the pump housing, then separate the housing and cover.

11. Check the radial clearance on the pump rotor.

Rotor Radial Clearance

Standard (New): 0.14 mm (0.006 in.)

Service Limit: 0.2 mm (0.008 in.)

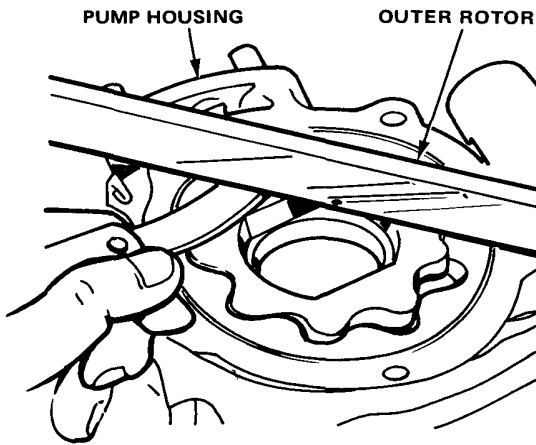


12. Check the axial clearance on the outer pump rotor.

Housing-to-Rotor Axial Clearance

Standard (New): 0.03–0.08 mm
(0.001–0.003 in.)

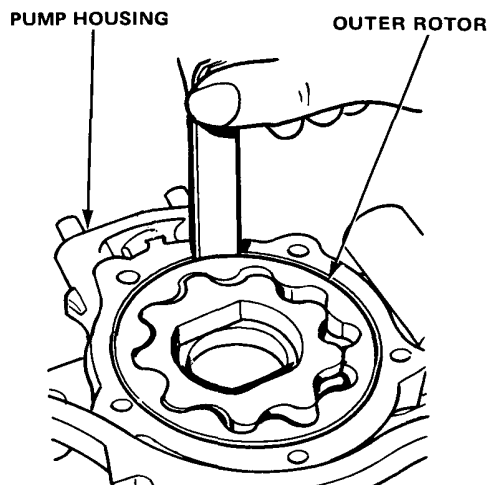
Service Limit: 0.15 mm (0.006 in.)



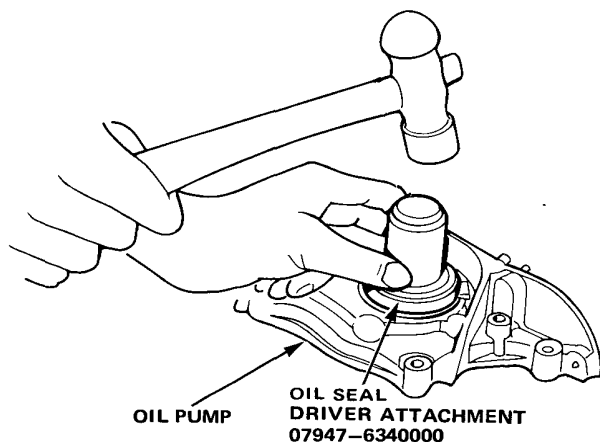


13. Check the radial clearance between the housing and the outer rotor.

Housing-to-Rotor Radial Clearance
Standard (New): 0.1–0.175 mm
(0.004–0.007 in.)
Service Limit: 0.2 mm (0.008 in.)



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



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

18. Check that the oil pump turns freely.

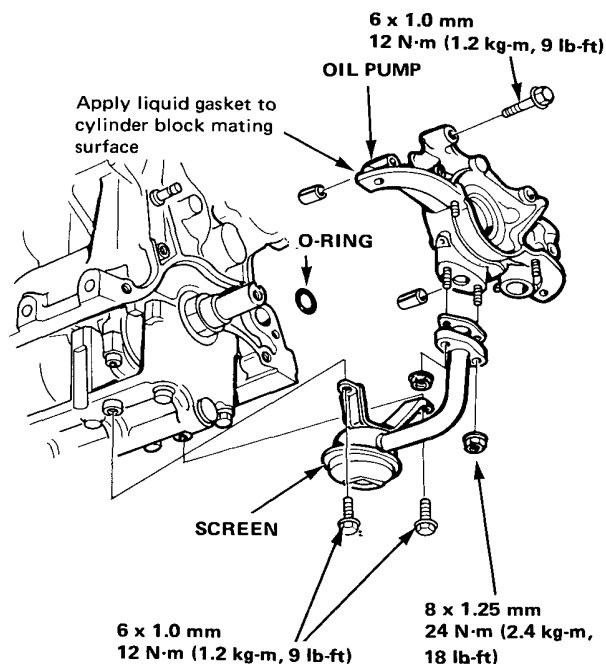
19. Apply a light coat of oil to the seal lip.

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

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

NOTE:

- Use HONDA PART NO. 08740-99986 as a 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 liquid gasket to the inner threads of the bolt holes.
- Do not allow the liquid gasket to dry before assembly.
- Fill the case with clean engine oil 30 minutes after assembly.



22. Install the oil pump on the cylinder block.

23. Install the oil screen.