



Cylinder Heads

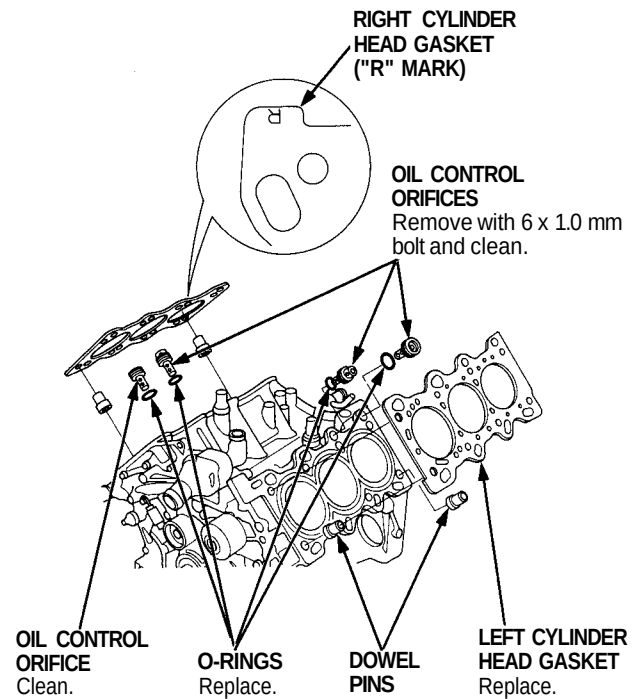
Installation

Install the cylinder heads in the reverse order of removal.

NOTE:

- Always use new cylinder head gaskets.
- Cylinder heads and cylinder block surface must be clean.
- Turn the camshafts so the pulley locating pin holes are at the top.
- Turn the crankshaft so the No. 1 piston is at TDC (see page 6-10).
- Clean the oil control orifices before installing.
- Do not use the upper and lower covers to store removed items.
- Clean the upper and lower covers before installation.

1. Install the cylinder head dowel pins.
2. Install the oil control orifices and cylinder head gaskets.



3. Apply clean engine oil to the threads of the cylinder head bolts.

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Cylinder Heads

Installation (cont'd)

4. Install the cylinder heads on the cylinder block.
5. Tighten the cylinder head bolts sequentially in 2 or 3 steps.

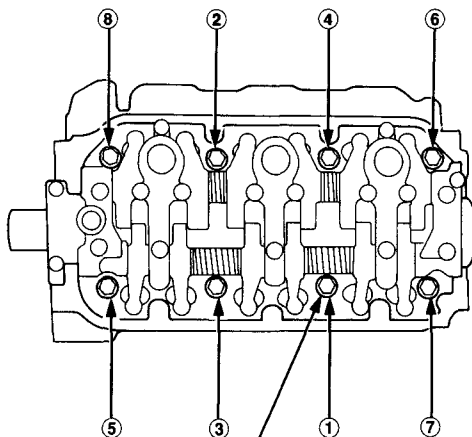
Specified Torque:

76 N-m (7.8 kgf-m, 56 lbf-ft)

NOTE:

- We recommend using a beam-type torque wrench. When using a preset-type torque wrench, be sure to tighten slowly and not to overtighten.
- If a bolt makes any noise while you are torquing it, loosen the bolt and retighten it.

CYLINDER HEAD BOLTS TORQUE SEQUENCE

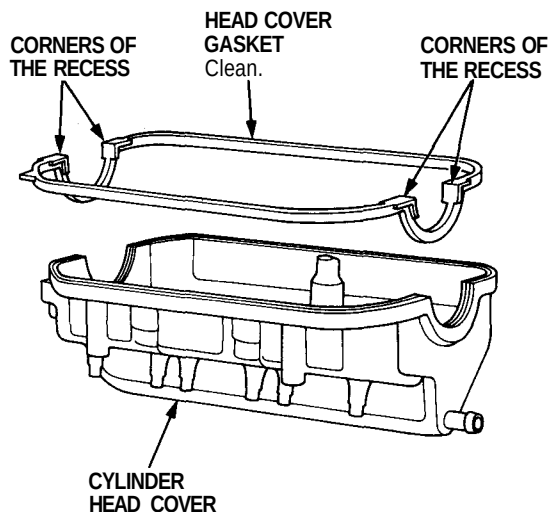


CYLINDER HEAD BOLTS
Apply engine oil to the bolt threads.

6. Install the head cover gasket in the groove of the cylinder head cover. Seat the recesses for the camshaft first, then work it into the groove around the outside edges.

NOTE:

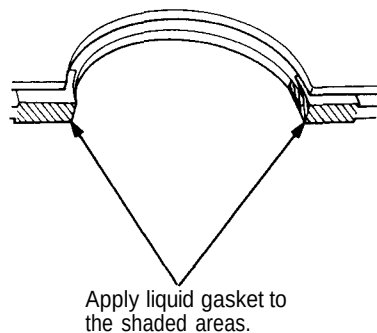
- Before installing the cylinder head cover gasket, thoroughly clean the seal and the groove.
- When installing, make sure the head cover gasket is seated securely in the corners of the recesses with no gap.



7. Apply liquid gasket to the head cover gasket at the four corners of the recesses.

NOTE:

- Use liquid gasket, Part No. 08718 - 0001 or 08718 - 0003.
- Check that the mating surfaces are clean and dry before applying liquid gasket.
- Do not install the parts if five minutes or more have elapsed since applying liquid gasket. Instead, reapply liquid gasket after removing old residue.
- After assembly, wait at least 30 minutes before filling the engine with oil.



Apply liquid gasket to the shaded areas.

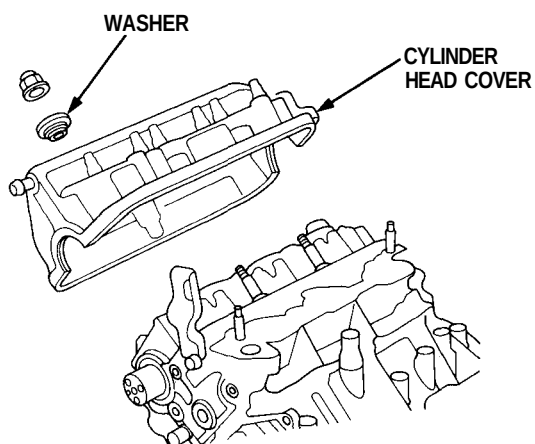


8. When installing the cylinder head cover, hold the head cover gasket in the groove by placing your fingers on the camshaft holder contacting surfaces (top of the semicircles).

Once the cylinder head cover is on the cylinder head, slide the cover slightly back and forth to seat the headcover gasket.

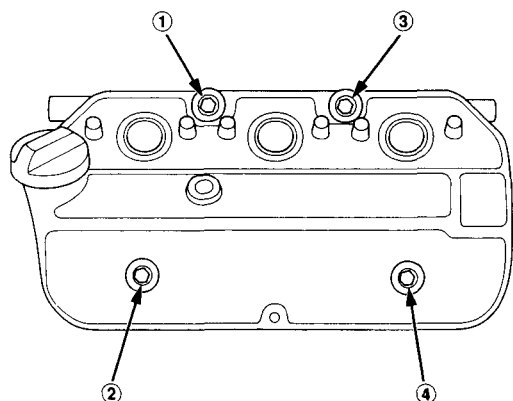
NOTE:

- Before installing the cylinder head cover, clean the cylinder head contacting surfaces with a shop towel.
- Do not touch the parts where liquid gasket was applied.
- Replace the washer when damaged or deteriorated.

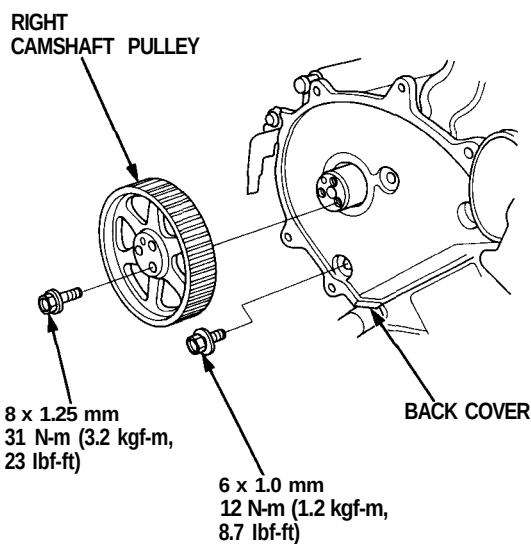
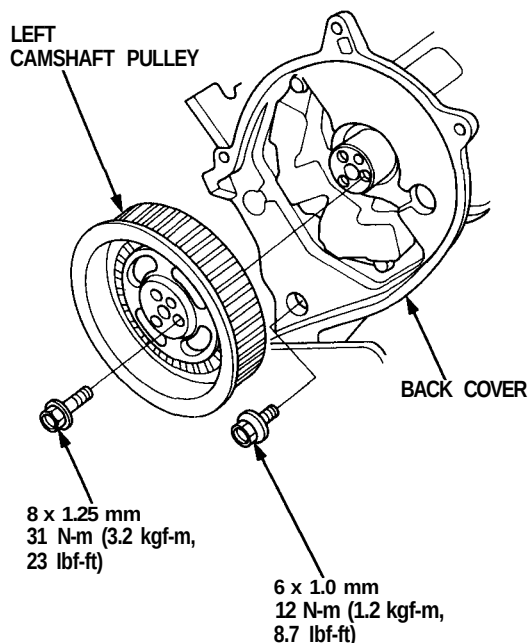


9. Tighten the nuts in 2 or 3 steps. In the final step, tighten all nuts, in sequence, to 12 N-m (1.2 kgf-m, 8.7 lbf-ft).

NOTE: After assembly, wait at least 30 minutes before filling the engine with oil.



10. Install the left and right back covers, then install the left and right camshaft pulleys.



11. Install the timing belt and balancer belt (see page 6-10).

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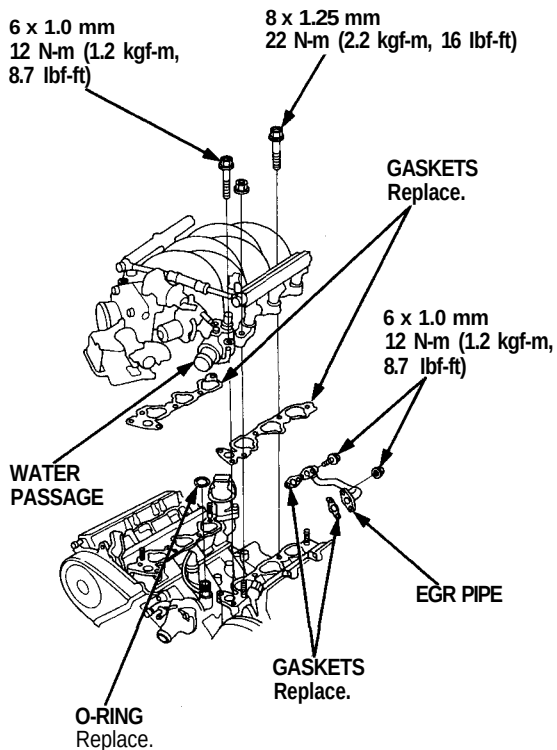
Cylinder Heads

Installation (cont'd)

12. Install the intake manifold and water passage, then tighten the intake manifold mounting bolts and nuts in a crisscross pattern in 2 or 3 steps, beginning with the inner bolts.

NOTE: Always use new intake manifold gaskets.

13. Install the EGR pipe.



14. Install the exhaust manifolds. Tighten the nuts in a crisscross pattern in 2 or 3 steps, beginning with the inner nut (see page 9-4).

NOTE: Always use new exhaust manifold gaskets.

15. After installation, check that all tubes, hoses and connectors are installed correctly.
16. Enter the anti-theft code for the radio, then enter the customer's radio station presets.