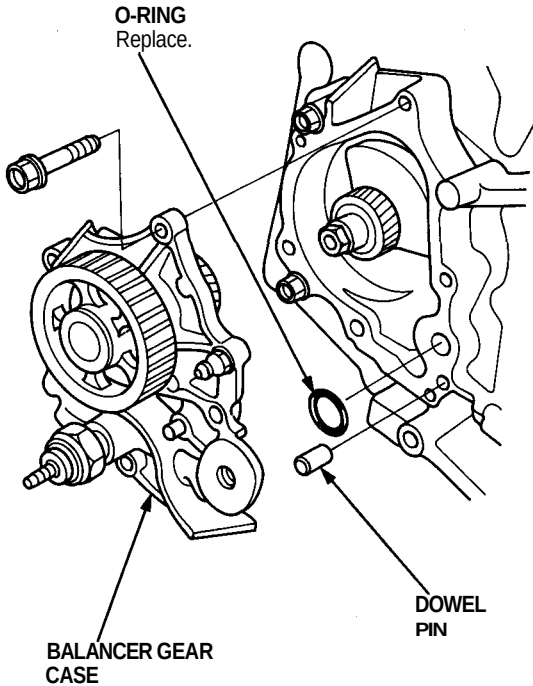


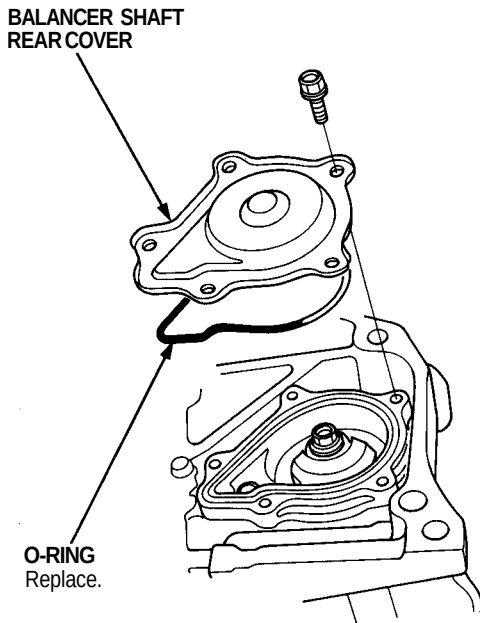
Pistons and Crankshaft

Removal

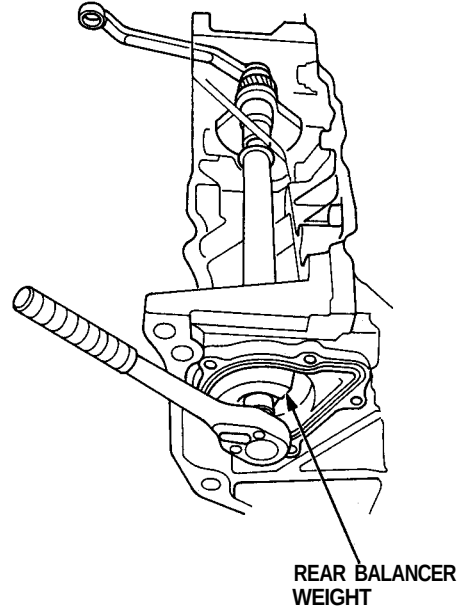
1. Remove the balancer gear case.



2. Remove the balancer shaft rear cover.

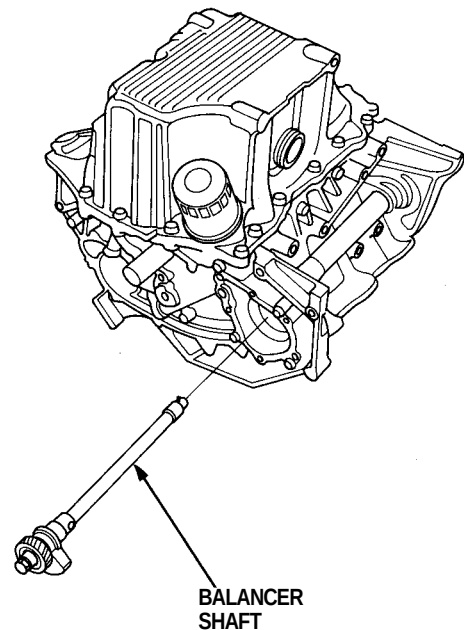


3. Hold the balancer shaft as shown below, then remove the rear balancer weight.



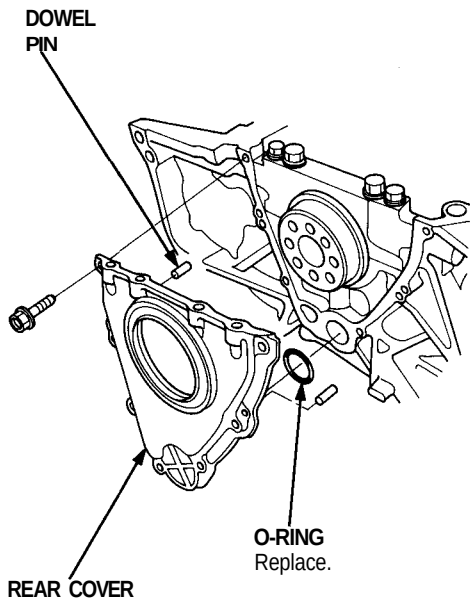
4. Pull out the balancer shaft.

NOTE: Take care not to damage the journals when removing the balancer shaft.

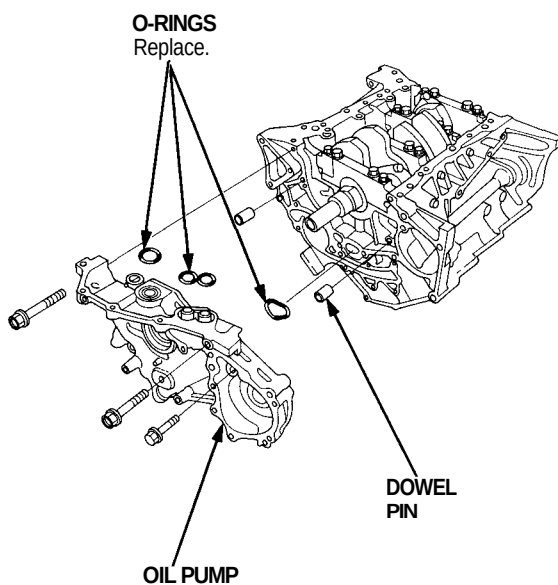




5. Remove the balancer shaft holder (see page 7-3).
6. Remove the oil pan assembly.
7. Remove the rear cover.

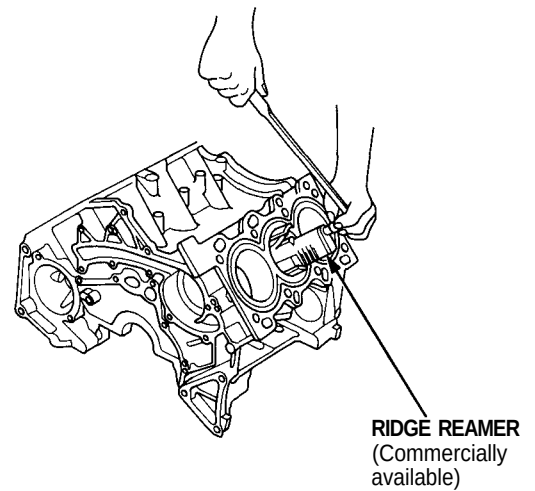


8. Remove the oil pump.



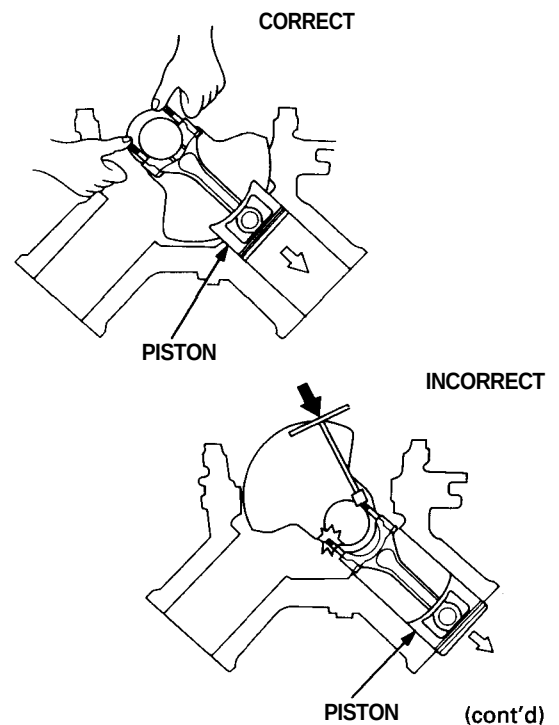
9. If you can feel a ridge of metal or hard carbon around the top of any cylinder, remove it with a ridge reamer. Follow the reamer manufacturer's instructions.

CAUTION: If the ridge is not removed, it may damage the pistons as they are pushed out.



10. Remove the connecting rod caps after setting the crank pin at BDC for each cylinder. Remove the piston assembly by pushing on the connecting rod.

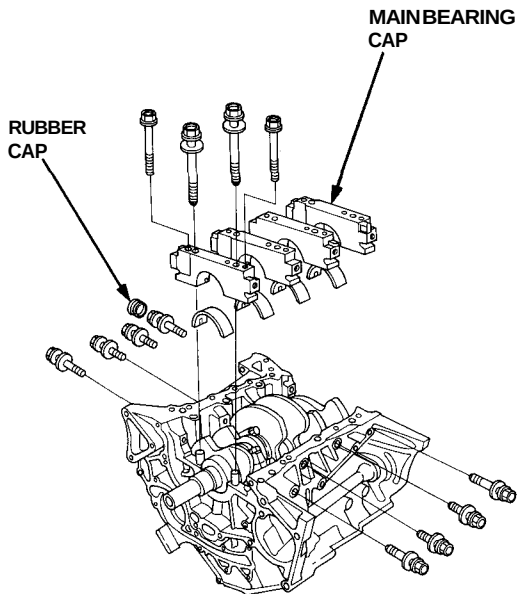
CAUTION: Take care not to damage the crank pin or cylinder with the connecting rod.



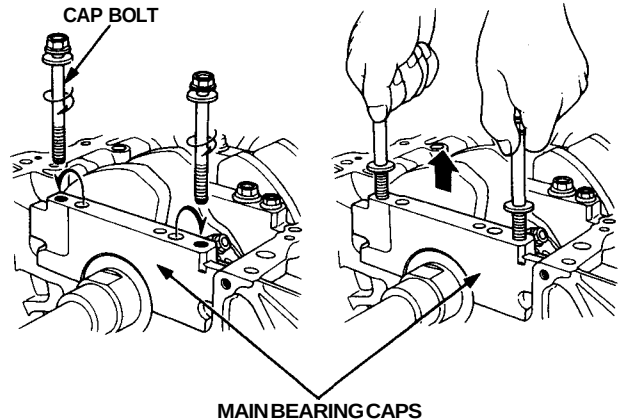
Pistons and Crankshaft

Removal (cont'd)

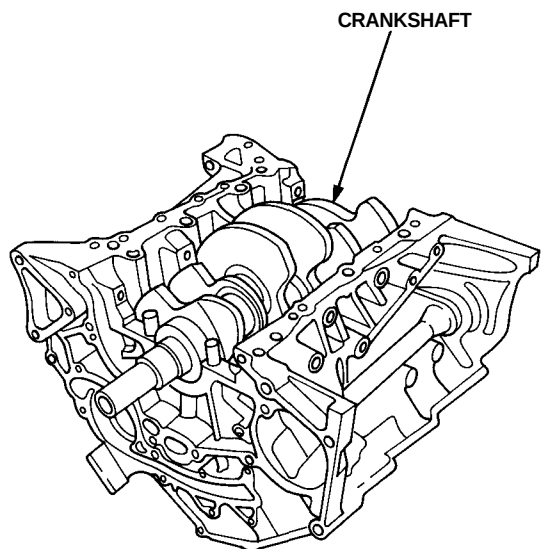
11. Remove the bearing from the cap. Keep all caps/bearings in order.
 12. Remove the upper bearing halves from the connecting rods, and set them aside with their respective caps.
 13. After removing each piston/connecting rod assembly, reinstall the cap on the rod.
 14. To avoid mixup during reassembly, mark each piston/connecting rod assembly with its cylinder number.
- NOTE: The existing number on the connecting rod does not indicate its position in the engine, it indicates the rod bore size.
15. Remove the bearing cap bolts and bearing cap side bolts, then remove the bearing cap.



To help with removal of the caps, install the cap bolts in the outside bolt holes.



16. Lift the crankshaft out of the cylinder block, being careful not to damage the journals.



17. Reinstall the main caps and bearings on the cylinder block in proper order.