
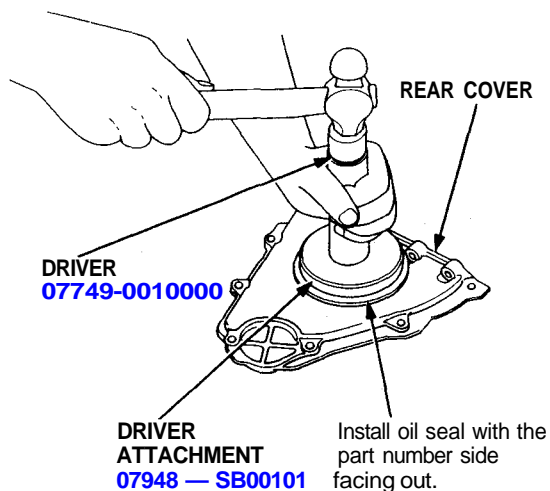


Crankshaft Oil Seal

Installation

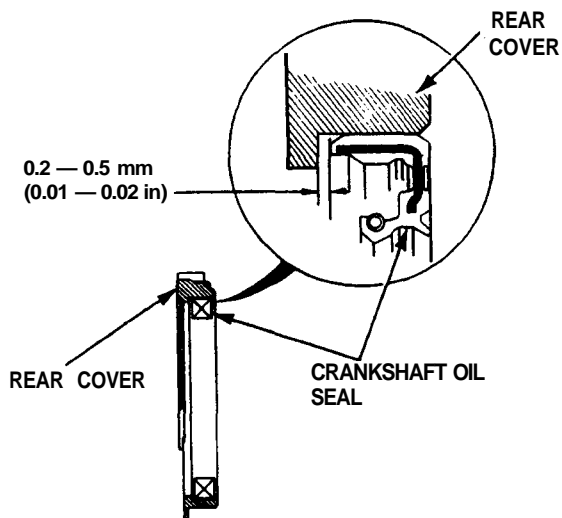
-  The seal surface on the block should be dry.
Apply a light coat of oil to the crankshaft and to the lip of oil seal.

1. Drive crankshaft oil seal into the rear cover.



2. Confirm clearance is equal all the way around with a feeler gauge.


Clearance: 0.2 — 0.5 mm (0.01 — 0.02 in)



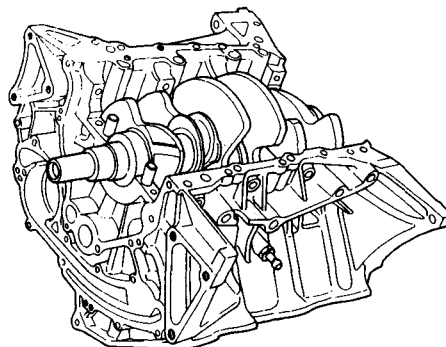
NOTE: Refer to page 8-13 for installation of the oil pump side oil seal.

Crankshaft

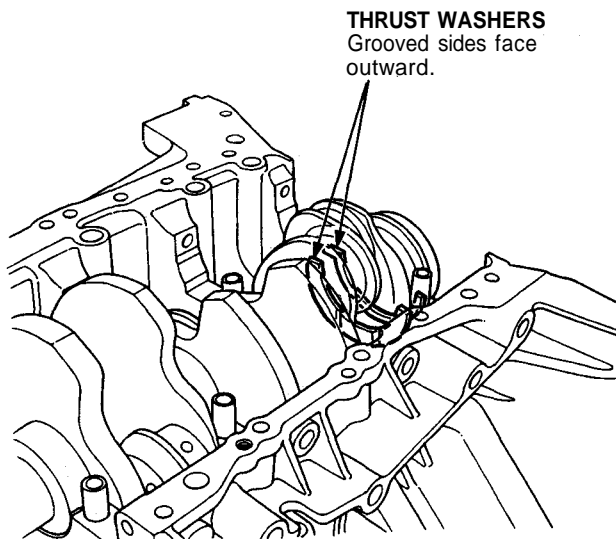
Installation

-  Before installing the crankshaft, apply a coat of engine oil to the main bearings and rod bearings.

1. Insert bearing halves in the cylinder block and connecting rods.
2. Lower the crankshaft into the block.

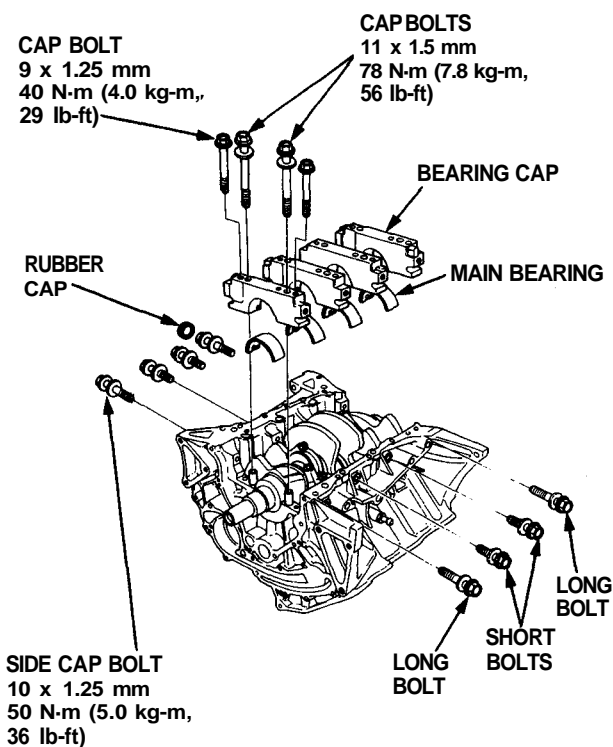
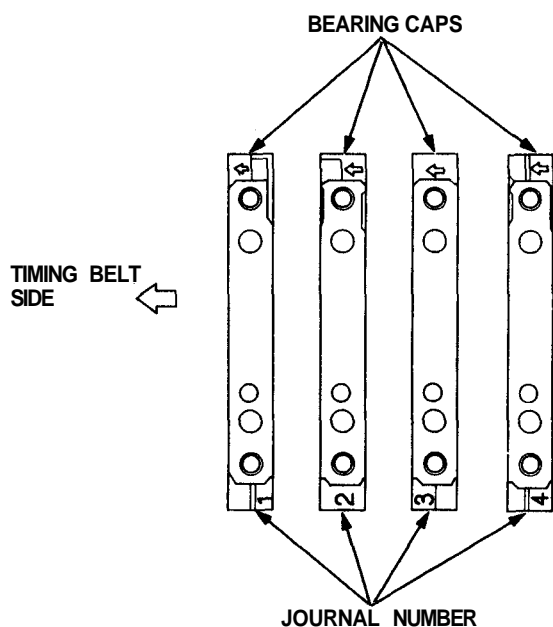


3. Install the thrust washers on the No. 4 journal. Oil thrust washer surfaces.



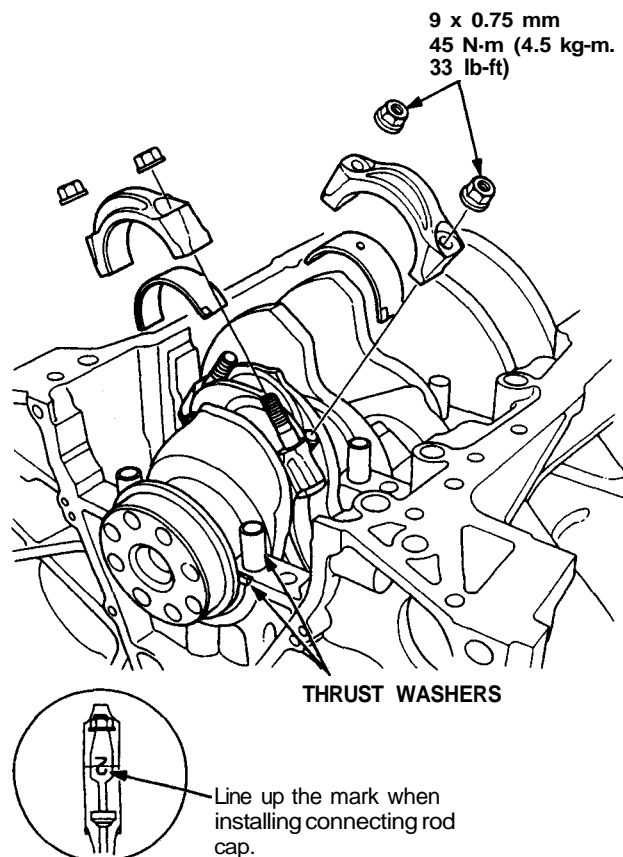


4. Install the bearings and caps. Torque the cap bolts.



5. Check the connecting rod bearing clearance with plastigage (see page 7-7), then torque the connecting rod cap nuts.

NOTE: Reference numbers on connecting rods are for big-end bore tolerance and do NOT indicate the position of piston in engine.



(cont'd)

Crankshaft

Installation (cont'd)

6. Tighten 9 x 1.25 mm cap bolts to specified torque.

Torque: 40 N-m (4.0 kg-m, 29 lb-ft)

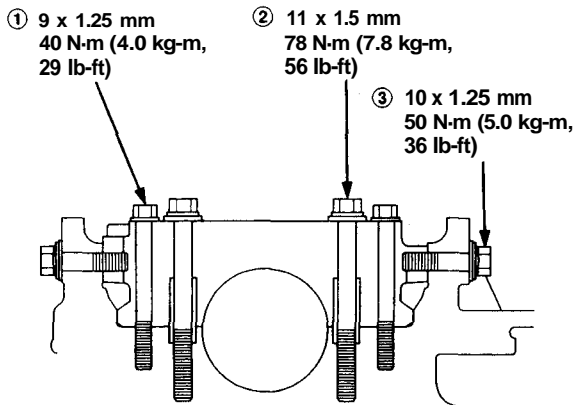
7. Tighten 11 x 1.5 mm cap bolts to specified torque.

Torque: 78 N-m (7.8 kg-m, 56 lb-ft)

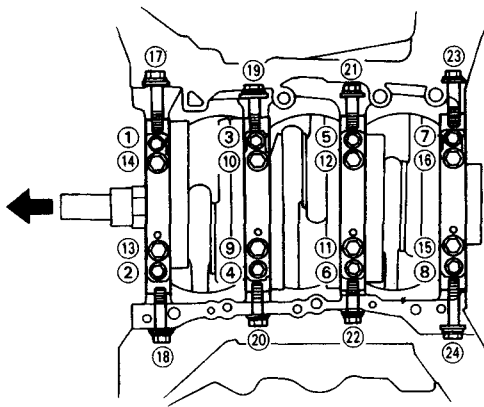
8. Tighten 10 x 1.25 mm cap side bolts to specified torque.

Torque: 50 N-m (5.0 kg-m, 36 lb-ft)

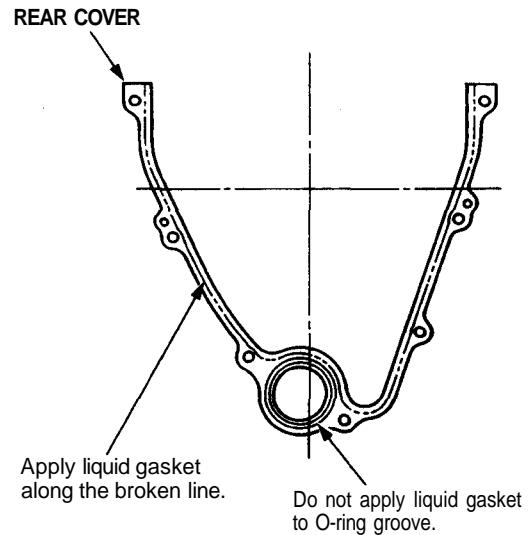
- Coat the bolt thread and seat surfaces with engine oil.



BEARING CAP BOLTS TORQUE SEQUENCE



9. Apply liquid gasket to the block mating surface of the rear cover, then install it on the cylinder block.



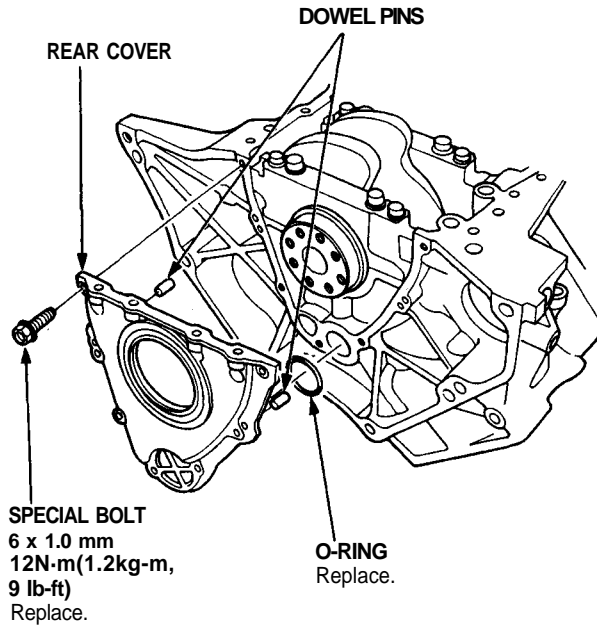
NOTE:

- Use liquid gasket, Part No. 08718 — 0001.
- Check that the mating surfaces are clean and dry before applying liquid gasket.
- Apply liquid gasket as an even band, centered between edges of the mating surface.
- To prevent leakage of oil, apply liquid gasket to the inner threads of the bolt holes.
- Do not apply liquid gasket to O-ring grooves.
- Do not install the parts if 20 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.



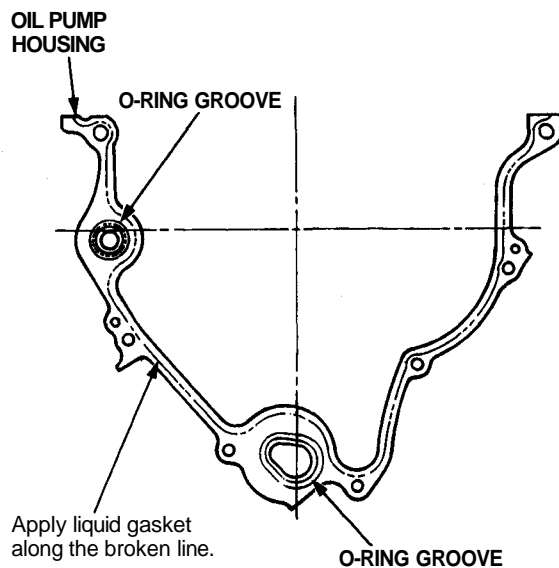
NOTE:

- Apply a light coat of oil to the crankshaft and to the lip of oil seal.
- Use a new O-ring and apply oil when installing it.
- Use new special bolts when installing the rear cover.



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

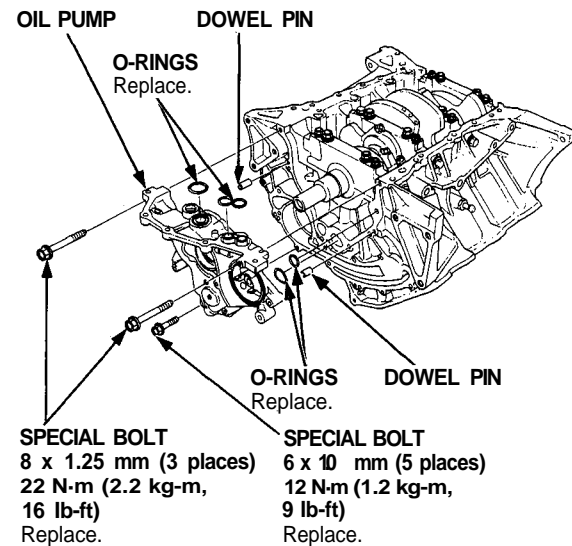
NOTE: Do not apply liquid gasket to O-ring grooves.



NOTE:

- Apply a light coat of oil to the crankshaft and to the lip of seal.
- Use new O-rings and apply oil when installing them.
- Use new special bolts when installing the oil pump housing.

11. Install new O-ring and oil pump.

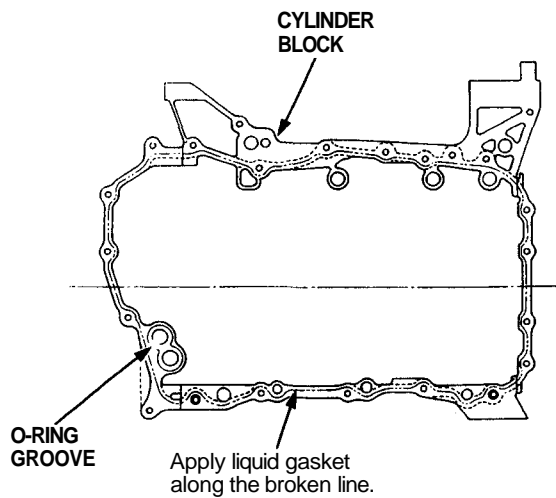


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Crankshaft

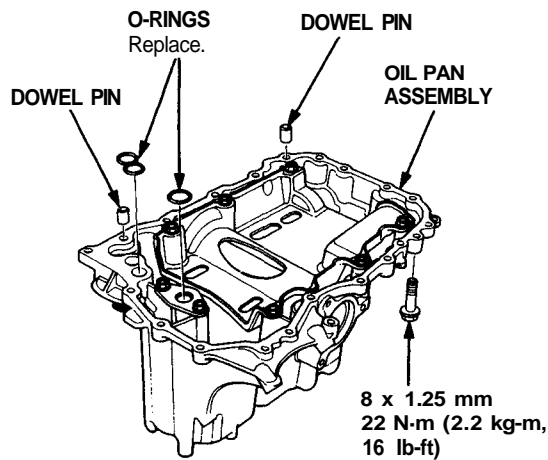
Installation (cont'd)

12. Apply liquid gasket to the cylinder block, then install the oil pan.



NOTE:

- Do not apply liquid gasket to O-ring grooves.
- Use new O-rings and apply oil when installing them.



13. Tighten the oil pan bolts as shown.

