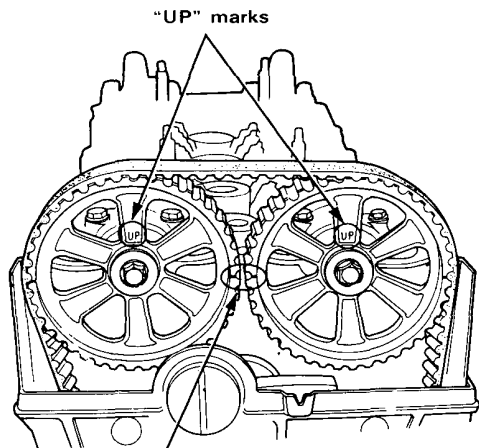


Camshaft Pulley

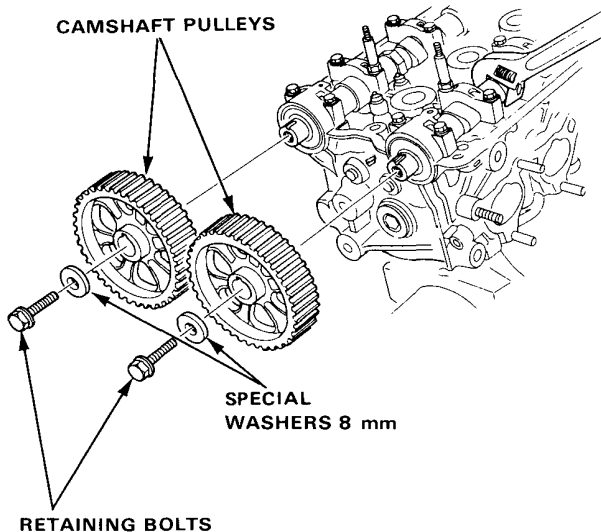
Removal

1. To ease reassembly, turn the pulley until the "UP" marks face up, and the front timing marks are aligned with the both marks on the pulley.



Align the marks on the pulleys

2. Remove the pulley retaining bolts and washers, then remove the pulleys.



NOTE: Before removing camshaft check camshaft end play.

Camshaft

Inspection

NOTE: Do not rotate camshaft during inspection.

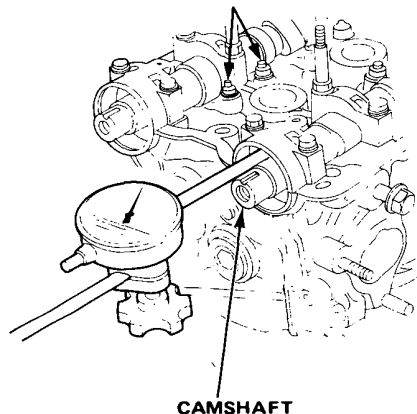
1. Loosen the adjusting screws.
2. Seat camshaft by prying it toward distributor end of head with screwdriver.
3. Zero dial indicator against the pulley end of the camshaft, then pry camshaft back toward it, and read end play.

Camshaft End Play:

Standard (New): 0.05—0.15 mm
(0.002—0.006 in.)

Service Limit: 0.5 mm (0.02 in.)

Unscrew the adjusting screws



4. Remove the bearing cap bolts from the cylinder head.

NOTE: Unscrew the bearing cap bolts, two turns at a time, in a criss-cross pattern, to prevent damaging valves or rocker arms.

- Lift camshaft out of cylinder head, wipe clean, then inspect lift ramps. Replace camshaft if lobes are pitted, scored, or excessively worn.
- Clean the camshaft bearing surfaces in the cylinder head, then set camshaft back in place.
- Insert plastigage strip across each journal.
- Install the bearing caps and torque bolts to values and in sequence shown on page 6-13.

(cont'd)

Camshaft

Inspection (cont'd)

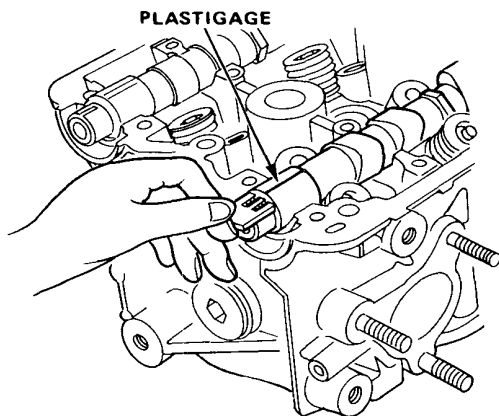
5. Measure widest portion of plastigage on each journal.

Camshaft Bearing Radial Clearance:

Standard (New): 0.050–0.089 mm

(0.002–0.004 in.)

Service Limit: 0.15 mm (0.006 in.)



6. If camshaft bearing radial clearance is out of tolerance:

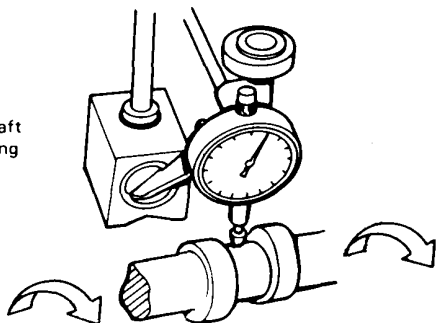
- And camshaft has already been replaced, you must replace the cylinder head.
- If camshaft has not been replaced, first check total runout with the camshaft supported on V-blocks.

Camshaft Total Runout:

Standard (New): 0.03 mm (0.001 in.)

Service Limit: 0.06 mm (0.002 in.)

Rotate camshaft while measuring



- If the total runout of the camshaft is within tolerance, replace the cylinder head.

- If the total runout is out of tolerance replace the camshaft and recheck. If the bearing clearance is still out of tolerance, replace the cylinder head.

7. Measure camshaft height.

Intake Standard: 32.982 mm (1.2985 in.)

Exhaust Standard: 32.342 mm (1.2733 in.)

