

# Engine Disassembly

**Meets ASE Task:** (A1-C-3) P-1 Disassemble engine block; clean and prepare components for inspection and reassembly.

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Time on Task: \_\_\_\_\_

Make/Model/Year: \_\_\_\_\_ VIN: \_\_\_\_\_

Evaluation (Enter number from 4, 3, 2, 1) : \_\_\_\_\_

**This procedure is for overhead valve engines only. For overhead camshaft engines, consult the factory service information.**

- 1. Remove all coolant and engine oil from the engine.
- 2. Clean the engine with degreaser and/or a pressure washer.
- 3. Install the engine on an engine stand.
- 4. Remove the exhaust and the intake manifolds.
- 5. Remove the cylinder head(s) being certain to follow the torque table backwards starting with the highest number and working toward the lowest number to help prevent warping the cylinder head.
- 6. Remove the harmonic balancer and timing chain cover.
- 7. Remove the timing chain and camshaft.
- 8. Remove the oil pan (replace all pan bolts back into the block rails to prevent loss if possible).
- 9. Remove the oil pickup and pump (if in the oil pan).
- 10. Mark the connecting rods if not already marked from the factory or during a previous service.
- 11. Remove the ridge:
  - a. Install the tool into the cylinder and position the piston properly so that enough threads will be above the tool to cut the entire ridge.
  - b. Expand the tool to the proper bore size.
  - c. Locate the cutter blade slightly below the ridge and tighten the lock screw.
  - d. Apply the spring tension to the cutter blade.
  - e. Cut the ridge.
  - f. Stop cutting as soon as the ridge has been removed to avoid tapering the top of the bore.
  - g. Remove the chips from the cylinder.
- 12. Remove the pistons and the rods (keep the rod caps together).

