

## REMOVAL AND INSTALLATION (Continued)

14. Inspect cylinder bore. If new piston rings are to be installed on the piston, a visible cross-hatch pattern should be obvious on cylinder bore wall.

If honing is required, remove glaze from cylinder wall using spring-loaded hone. Follow manufacturer's instructions when using this type of equipment.

After honing, thoroughly clean cylinder bore using a detergent and water solution.

### Installation

Lightly oil all retaining bolt and stud threads before installation except those specifying special sealant.

- Lubricate cylinder wall and piston with Engine Assembly Lubricant D9AZ-19579-D (ESR-M99C80-A) or equivalent.
- Install spark plug boots or equivalent protection on the connecting rod studs.

**CAUTION:** As piston is tapped into bore with a hammer handle, guide connecting rod into crankshaft journal to avoid damage to bearing surfaces.

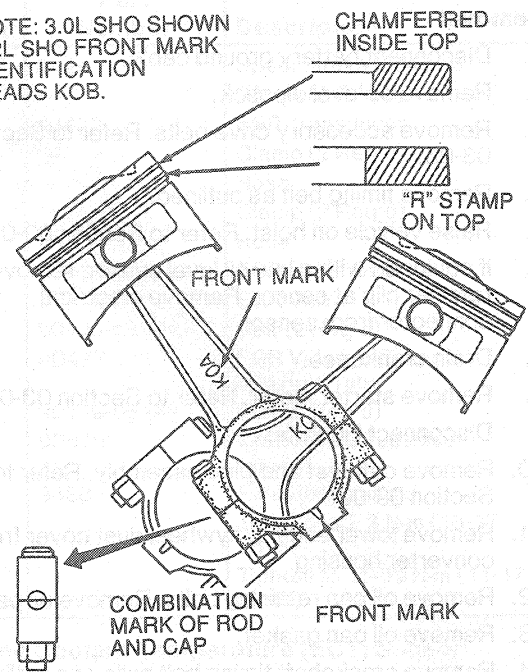
**CAUTION:** Install the pistons in the same cylinders from which they were removed or to which they were fitted. If a connecting rod is transposed from one block or cylinder to another, new bearings should be fitted.

**NOTE:** Connecting rod and cap are not identified to cylinder position.

- Install piston with connecting rod using Rotunda Piston Ring Compressor 014-00290 or equivalent.

Ensure notch in piston dome faces the front of engine and machine locating boss is facing RH side of engine.

**NOTE:** 3.0L SHO SHOWN  
3.2L SHO FRONT MARK  
IDENTIFICATION  
READS KOB.



A12883-B

- Check connecting rod bearing clearance. Refer to Section 03-00.
- Lubricate bearing surfaces with Engine Assembly Lubricant D9AZ-19579-D (ESR-M99C80-A) or equivalent.
- Ensure connecting rod is seated on crankshaft journal. Install connecting rod cap. Tighten the retaining nuts in two steps: 30-35 N·m (22-26 lb-ft) 45-50 N·m (33-37 lb-ft).
- If necessary, check connecting rod side clearance. Refer to Specifications.
- Install oil pump as outlined.
- Install upper oil baffle. Tighten bolts to 15-23 N·m (11-17 lb-ft).
- Install oil pan.
- Install exhaust manifolds.
- Install cylinder heads as outlined.
- Install intake manifold.
- Install cylinder head cover as outlined.
- Install coil bracket, plug wires and spark plugs.
- Fill crankcase with correct viscosity and amount of engine oil.
- Fill cooling system with specified coolant.
- Start engine and check for oil, exhaust and coolant leaks.
- Check, and if necessary, adjust transaxle throttle linkage and speed control.