

DISASSEMBLY AND ASSEMBLY (Continued)

To provide clearance for camshaft sprocket, oil gallery plugs on front of engine must be threaded below machined surface.

2. Install crankshaft as follows:
 - a. Install main bearing inserts in cylinder block. Note that third bearing from front is the thrust bearing.
 - b. Lubricate bearing inserts with Engine Assembly Lubricant D9AZ-19579-D (ESR-M99C80-A) or equivalent heavy engine oil, and carefully lower crankshaft into place. Use care to prevent damage to bearing surfaces.
 - c. Apply a 3mm (1/8 inch) bead of Silicone Rubber, D6AZ-19562-BA (ESB-M4G92-A and ESE-M4G195-A) or equivalent to cylinder block rear main bearing cap parting line.
 - d. Install bearing inserts in main caps and install caps. Note that caps are numbered with triangles. Number one is located at front of engine with triangle facing front of engine.
 - e. Install main bearing cap retaining bolts.
 - f. Before tightening bearing cap bolts, wedge a large screwdriver between cylinder block web and crankshaft cheek located in front of No. 3 main bearing.
Do not jam screwdriver into place. Tap into position only enough to hold crankshaft forward while cap bolts are tightened.
 - g. Tighten bearing cap retaining bolts to 88-110 N-m (65-81 lb-ft) and remove screwdriver.

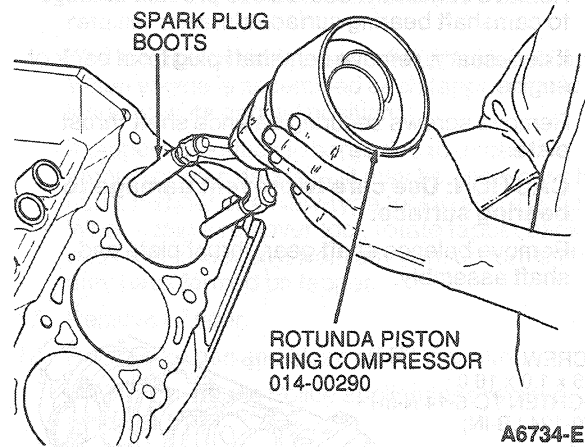
3. Check crankshaft end play as outlined.

4. Install pistons as follows:

- a. Install bearing inserts in connecting rods and connecting rod caps.
- b. Install pistons using Rotunda Piston Ring Compressor 014-00290 or equivalent. The notch in piston dome and button on connecting rod have to face front of engine. Oil squirt hole in rod faces RH side of engine.

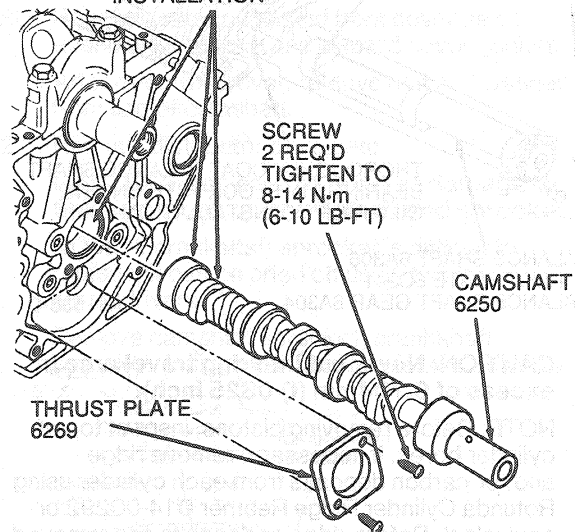
Lubricate piston and cylinder walls with Engine Assembly Lubricant D9AZ-19579-D (ESR-M99C80-A) or equivalent heavy engine oil before installation.

NOTE: Scratching of crankshaft journal can be prevented by covering connecting rod bolts with spark plug boots or flexible hose.



A6734-E

APPLY OIL CONDITIONER D9AZ-19579-D OR HEAVY ENGINE OIL TO THE CAM LOBES AND BEARING SURFACES BEFORE INSTALLATION



NOTE: THOROUGHLY COAT THRUST PLATE WITH ENGINE OIL PRIOR TO INSTALLATION OF THRUST PLATE

A6738-H

- c. Install connecting rod caps and retaining nuts. Tighten nuts to 41-49 N-m (31-36 lb-ft).
5. Check connecting rod side clearance as outlined.
 6. Coat sealing edge of plug with Perfect-Seal Sealing Compound B5A-19554-A (ESR-M18P2-A and ESE-M4G115-A) or equivalent before installation.
 7. Install bore plug using a suitable driver.
 8. Coat camshaft lobes with Engine Assembly Lubricant D9AZ-19579-D (ESR-M99C80-A) or equivalent. Lubricate camshaft bearings with heavy oil SF.
 9. Install camshaft as outlined.
 10. Install camshaft thrust plate.
 11. Install balance shaft gear.