



FEL-PRO INSTALLATION TIPS

A REAR MAIN BEARING SEAL

NOTE: BOTH UPPER AND LOWER HALVES MUST BE INSTALLED AS A PAIR.

1. Clean all foreign material from cylinder block, bearing cap, and crankshaft.

NOTE: CHECK CRANKSHAFT SEALING SURFACE FOR NICKS AND SCRATCHES AND REMOVE WITH CROCUS CLOTH BEFORE INSTALLING SEAL.

2. Lubricate new seal lips and back seal bead with light engine oil. Do not lubricate seal mating ends.

NOTE: MAKE SURE LIP SIDE (side with groove) IS TOWARD FRONT OF ENGINE.

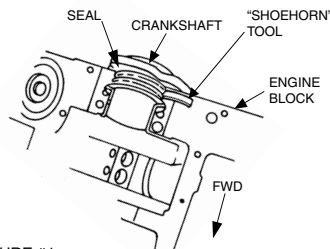


FIGURE #1

3. IF CRANKSHAFT IS OUT OF BLOCK, install one seal half in the cylinder block using the "shoehorn" installation aid provided to protect the back sealing bead from the sharp edge of the cylinder block locating flange. (See Figure 1). Press seal half into groove in block by thumb pressure. Seal ends must be flush with face of casting.

4. IF CRANKSHAFT IS IN BLOCK, remove old seals with needle nose pliers. Assist

by rotating shaft. To install new upper seal, position "shoehorn" installation aid as in Figure 1 and push the seal around the crankshaft utilizing finger pressure or a blunt instrument to prevent damage to the seal. The "shoehorn" installation aid must remain in position until the seal is properly positioned with both seal ends flush with the engine block.

5. Remove the "shoehorn" installation aid.

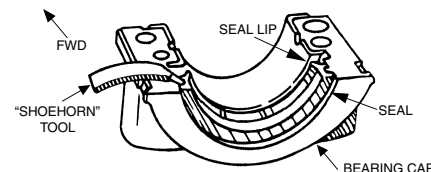


FIGURE #2

6. Install seal half in bearing cap again using the "shoehorn" installation aid to protect the back sealing bead as you feed the seal into the cap using light thumb and finger pressure. (See Figure 2).

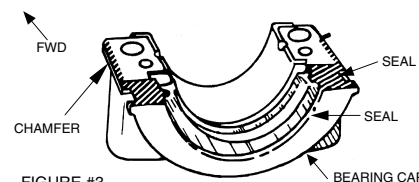


FIGURE #3

7. Apply a thin coat of seal on the bearing cap mating surface immediately adjacent to the seal, and to the chamfer as shown. (Figure 3).

CAUTION: KEEP SEALANT AWAY FROM SEAL MATING ENDS.

8. Place the rear main bearing cap in position and install the cap bolts finger tight.

NOTE: THE REAR MAIN BEARING CAP MUST BE POSITIONED BEFORE THE CAP IS TORQUED TO SPECS.

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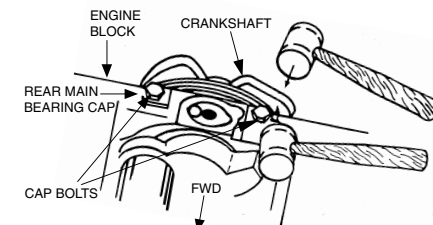


FIGURE #4

9. Initially torque the cap bolts to 10/12 ft. lbs. Tap the crankshaft first rearward and then forward with a lead hammer and leave in forward position (See Figure 4). Torque cap bolts to specs.
10. After seal is installed, rotate crankshaft slowly at least 15 to 20 turns to insure proper seating of seal lip against crankshaft.

B IMPORTANT PREPARATIONS FOR ROTATING SHAFT SEALS

Wipe a thin film of lubricant on sealing lip of the seal and shaft before installation.

NEVER INSTALL ANY SEAL WITHOUT BREAK-IN LUBRICANT PROTECTION.





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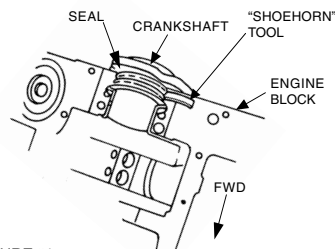


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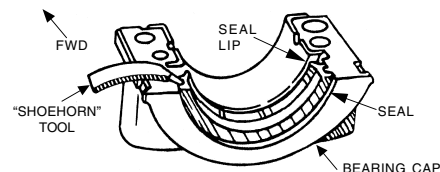


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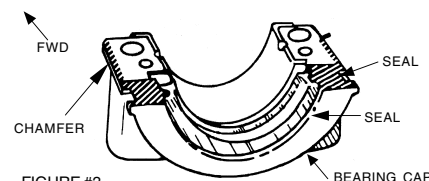


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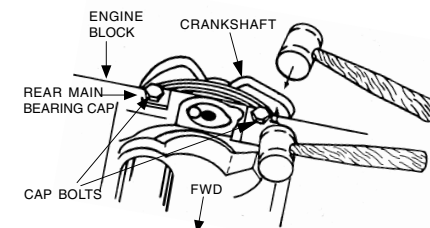


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