

FOLEY ENGINES CRANKSHAFT INSTALLATION TIPS

Crankshaft Installation Tips:

- Mark before disassembly. All connecting rods, connecting rod caps, and main caps should be marked before disassembly, so that they may be reinstalled in their original positions.
- Inspect the bores. Rod and main bearing bores should be inspected with a dial bore gauge. Any housing bore which measures out of spec should be resized. Many machinists will recondition the connecting rods (see Foley Tech Tips #3 and #38 for information on using new rod bushings and rod bolts) and align hone the block as part of their regular engine rebuilding procedure.
- Inspect the journals. The crankshaft's journals must be within manufacturer's tolerances. They must be smooth and free of burrs. Everything must be spotlessly clean.
- No abrasives! Never use an abrasive on the bearing surface prior to installation. The bearing may be as thin as .0005" (12.7 microns). Any abrasive will reduce bearing life.
- Install lubed on dry surfaces. The bearings should be lubed and then positioned in the rod or main saddles dry before crankshaft installation. Bearing surface finish should be 60-90Ra.
- No nicks. Exercise extreme care when installing the rods. Use Foley rod bolt protectors on the rods to prevent nicks to the crankshaft.
- Clean threads. Bolt threads should be cleaned and lightly lubricated.
- Check bearing clearances with Plastigage.
- Properly torque all bolts. We supply free Workshop Manuals and free Foley coffee cups with our overhaul kits. Review the specs over a cup of coffee!
- Pre-lubricate the engine prior to starting. Many newer engine designs use a crankshaft driven oil pump that can't be driven by a drill motor. Using a commercially available pressure lubricator facilitates pre-lubrication of virtually any engine.