



M-6013-B392 Crank Kit INSTALLATION INSTRUCTIONS

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!!! PLEASE READ ALL OF THE FOLLOWING INSTRUCTIONS CAREFULLY PRIOR TO INSTALLATION. AT ANY TIME YOU DO NOT UNDERSTAND THE INSTRUCTIONS, PLEASE CALL THE FORD RACING TECHLINE AT 1-800-367-3788 !!!

INSTALLATION INSTRUCTIONS:

The M-6013-B392 crank kit is designed to be used with a production style 351W cylinder block with M-6049-N351 cylinder heads to build a 392 cubic inch engine. The pistons are flat top designs for maximum compression with N351 heads. If other heads are to be used, valve clearance notches must be machined in the pistons.

THIS KIT INCLUDES:

- (1) M-6303-A385 cast stroker crank
- (1) set H119CP + .030" 4.030" cast hypereutectic flat top aluminum pistons with piston pins and pin locks.
- (1) set M-6200-D351 high strength forged connecting rods with 3/8" ARP rod bolts. The rods are bushed for floating pins.
- (1) set Federal Mogul # 8-7155CH high performance rod bearings.
- (1) set Federal Mogul # 130M main bearings.
- (1) set Federal Mogul # E458K +.030" piston rings.
- (1) M-6701-B351 one piece rear main seal

INSPECTION:

Inspect each component for visual defects before preparation or modification.
Clean all parts especially areas where machining chips can hide like the crank oil holes, piston oil holes, etc.

PREPARATION:

- Check main and rod journal clearances using micrometers and a dial bore gage. Also check rod side clearance. If you need help with these procedures please call the Ford Racing Techline (800) 367-3788. Recommended clearances are shown below. Extra clearance main bearings are available from Federal Mogul if required. Extra rod journal clearance can be obtained by polishing the crank. Note: the main bearing top layer can sometimes "ball" up and look bad. We don't think this is harmful. However, some engine builders prefer to lightly sand this layer with very fine (600 grit) wet/dry sandpaper before installing the bearings.
- A one-piece rear main seal is supplied. Cylinder blocks produced before 1983 will require a two-piece rear main seal. Two-piece seals are available from most auto part retail stores and Ford dealers.
- The crankshaft must be balanced for your bobweight. External balancing using a M-6316-C351 damper and M-6375-A302 steel flywheel is recommended. Using these components, which have the stock 28.4 oz.-in. imbalance, will reduce or eliminate the need for adding Mallory to balance.
- Pistons and rods have been weight matched but, it won't hurt to double check. If you find significant variations call your dealer or the Techline (800) 367-3788.

Factory Ford shop manuals are available from Helm Publications, 1-800-782-4356



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- Two piston pin wire locks are required per piston, one in each side. They can be installed with needle nose pliers.
- Cams up to .600" lift will probably not require valve notches but clearance should be checked. Recommended clearance is .100" intake, .125" exhaust, .050" radial (to edge of notch).
- Mock up the pistons and rods in the block to check deck height and rod bolt clearance to the oil pan rail and bottom of the bore. Also check clearance between the rod shoulder and the cam lobes (minimum clearance is .050"). The squareness of the block can be checked by using one piston and rod assembly to check deck height in each end cylinder. Swap piston and rod assemblies between cylinders to minimize cylinder-to-cylinder variations in deck height. Minimum recommended deck height is 0.00" when using a .040" compressed thickness head gasket like the M-6051-A302.
- Also double check piston to crank counterweight clearance. Minimum .050".
- Thoroughly clean all parts before final assembly.
- Assemble the rods and pistons with the big chamfer on the crank journal end of the rod toward the intake notch side of the piston. On installation in the block, the chamfer will always be against the crank journal fillet. Use 30-weight engine oil to lubricate the parts before assembly. It is a good idea to stamp the cylinder number in the rod, rod cap and piston. Stamp the rod and cap so that the numbers are visible when viewed from the side of the block for that cylinder. A quick look before the oil pan is installed will verify that each cylinder has the right piston and rod assembly.
- Install the piston rings per the supplied instructions.
- A tapered sleeve ring compressor is recommended for installation of the piston and rod assemblies.
- **TORQUE THE ROD AND MAIN BOLTS!!** See specs below. Use generous amounts of lubricant on the bolt threads and underside of main bolt heads. Mains are 105 ft./lbs., rods are two-step, 30 ft./lbs. then 50 ft./lbs. Back off and re-torque rod bolts two times on initial use to "seat" the bolts. Main bolts use 30 wt. oil. Rods use Moly lube

RECOMMENDED CLEARANCES:

Mains	.0025" - .0030"
Rods	.0018" - .0023"
Rod side clear.	.010" - .015"
Crank end play	.004" - .008"
Piston	see piston instructions
Piston pin	.0008" - .0010"
Ring	see piston ring instructions
Piston to deck	.000"
Piston to valve	.100" intake .125" exhaust

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