



FORD PERFORMANCE

# M-6009-347 347 CUBIC INCH BOSS SHORT BLOCK

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**PRIOR TO INSTALLATION READ THESE INSTRUCTION COMPETELY**  
**For questions, Call the FORD PERFORMANCE Techline 1-800-367-3788**

Please visit <https://www.performanceparts.ford.com> for warranty information

## OVERVIEW:

The M-6009-347 engine short block assembly is used to build all 347 cubic inch engines FPP offers. These engines are intended for high performance or street rod vehicles (not subject to emission restrictions). The pistons will accept [M-6049-X2](#), [M-6049-Z2](#), [M-6049-Z304PA](#) and [M-6049-Z304DA](#) cylinder head assemblies.

**Caution - Piston to valve clearance must be checked.**

## Short block components include:

- (1) M-6010-BOSS302 block.
- (8) Forged aluminum 4.030" Mahle pistons with a 6cc dish and full floating pins & pin locks.
- (8) Forged I beam rods bushed for floating pins (.927 diameter).
- (1) Forged Steel 3.400" stroke crankshaft.
- (Set) Clevite rod and main bearings.

## Notes:

1. PISTON TO VALVE CLEARANCE MUST BE CHECKED with any high lift camshaft. Recommended minimum clearance is .100" intake, .125" exhaust, .060" radial.
2. Rod shoulder to cam lobe clearance must also be checked. If required, .050" minimum clearance.
3. The crank has been internally balanced to use neutral balance crankshaft dampers and flywheels.
4. [M-6316-D302](#) "0" balance damper recommended.
5. [M-6375-D302AB](#) "0" balance manual transmission 157 tooth flywheel recommended.
6. A performance oil pan and pickup tube to suit the intended vehicle application should be used. (check pickup tube to crankshaft clearance), also check pick up tube to bottom of pan distance ( $\frac{1}{2}$ " +/-  $\frac{1}{16}$ " )
7. [M-6600-D2](#) Oil pump recommended.
8. Head gasket [M-6051-CP331](#) or [M-6051-S331](#) recommended for most applications.

## Specifications

Bore x Stroke	4.125" x 3.400"
Piston specs	1.090" compression height, notch volume 6.0 cc's 0.927" floating pin 1.0, 1.0, 2.0 mm ring pack
Deck height	8.200"
Piston to deck.	0.010" nominal

Note: all dimensions are nominal

Ford Factory Shop Manual purchase options [www.motorcraftservice.com](http://www.motorcraftservice.com)



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**Clearances:**

Piston to bore	0.0045 - .0060"
Ring end gap	Top .020", 2nd .018" (+.001"/-.000")
Piston pin	0.0008 - .0012"
Crank end play	0.004 - .008"
Main bearing clearance	.0020 - .0025"
Rod bearing clearance	.0020 - .0025"
Rod side clear	0.012 - .022"

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