



**FORD PERFORMANCE**

# M-6010-BOSS35192, M-6010-BOSS35195, M-6010-BOSS351BB Cylinder Blocks INSTRUCTION SHEET

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR AGREEMENT AND WRITTEN PERMISSION OF FORD PERFORMANCE PARTS.

Please visit [www.fordracingparts.com](http://www.fordracingparts.com) for the most current instruction information

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

### OVERVIEW:

This sheet contains important information regarding dimensions and specifications of the M-6010-BOSS351 blocks. These instructions should be reviewed by all engine builders, due to minor changes that could impact the engine assembly process.

### CONTENTS:

Be sure to check for the following parts included with M-6010-BOSS35192, M-6010-BOSS35195, and M-6010-BOSS351BB (all blocks shipped with the identical components).

- M-6026-A plug and dowel kit. **NOTE:** Early kits will have steel plugs. Torque specifications for both steel and aluminum are listed below.
- Plug kits supplied with blocks packaged after April 2013 include one -4 oil galley plug with .030" hole. Galley plug is silver in color. Galley plug is to be installed in oil galley behind distributor. Oil hole in plug provides distributor gear with additional lubrication for increased durability.
- Check for clearance from rear core plug to the starter index plate on the left bank. The starter index plate may require additional clearance.

### FEATURES AND SPECIFICATIONS:

Part Numbers	M-6010-BOSS35192, M-6010-BOSS35195, M-6010-BOSS351-BB
Material	Diesel grade cast iron
Bore Size	M-6010-BOSS35192 and M-6010-BOSS35195 bore size out of box 3.990" - 3.995" finish at 4.000" - 4.125", for M-6010-BOSSBB bore size out of box 4.115" - 4.120" finish at 4.125"
Minimum rec. bore thickness (@ dia.)	Designed for minimum bore wall thickness 0.180" @ 4.125"
Bore Spacing	Bore spacing 4.380
Block Deck Height (out of box)	M-6010-BOSS35192 block deck height 9.210" - 9.215" out of box, for M-6010-BOSS35195 and M-6010-BOSS351BB block deck height 9.510" - 9.515" out of box
Siamesed Bore (Cross-Drilled)	Siamesed bores with engineered cross drilling between bores, cross drilling holes omitted on M-6010-BOSS351BB
Maximum Stroke recommended	M-6010-BOSS35192 maximum stroke recommended 4.000", for M-6010-BOSS351 and M-6010-BOSS351BB 4.250" maximum stroke recommended
Deck Thickness	.500" - .560" Deck thickness
Head Bolt Size	1/2-13 UNC Head bolts
Main Bolt configuration	Splayed 4 bolt main caps on positions 2, 3, 4
Main Bearing Bore Size	Main bearing bore size 2.9415" - 2.9425"
Main Cap Material	Nodular cast iron main caps
Main Cap Fasteners	1/2-13 UNC (torque spec. 100 lb-ft) and 3/8-16 UNC (35 lb-ft) grade 8 HCS
Cam Bearing Bore Size	Cam bearing bore size 2.2032" - 2.2052" requires M-6261-J351 or M-6261-R351 cam bearings
Cam Plug Size	Requires M-6026-S351 cam plug
Lifter Bore Size	Lifter bore size .8753" - .8768"

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



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Lifter Style compatibility	Compatible with hydraulic roller lifters
Oiling System	Wet sump oiling system
Oil Filter Mounting	Block mount oil filter M-6731-FL1A
Oil Pan Configuration	Check oil pan fitment to insure clearance
Freeze Plugs/Threaded Core Plugs	Threaded/o-ringed core and oil galley plugs -4 AN (qty 9) Aluminum or Steel 8-10 lb-ft -16 AN (qty 8) Aluminum 24-26 lb-ft Steel 30 lb-ft -6 AN (qty 1) Aluminum or Steel 12-14 lb-ft
Rear Seal Type	1 piece rear seal M-6701-B351
Weight	M-6010-BOSS35192 weight 195 lbs, M-6010-BOSS351 and M-6010-BOSS-BB weight 205 lbs
Maximum Displacement	M-6010-BOSS35192 maximum displacement 427 cubic inches, for M-6010-BOSS351 and M-6010-BOSSBB maximum displacement 454 cubic inches

### Recommended Parts

Heads	Recommended cylinder heads M-6049-X306, M-6049-X307, M-6049-Z304DA, M-6049-SC1, M-6049-D3, <b>2008 or newer M-6049-N351 see web for identification</b>
Head Gaskets	Head gaskets M-6051-S331, M-6051-CP331, M-6051-R351, M-6051-B341
Cam Bearings	Cam bearings M-6261-J351 or M-6261-R351
Head Stud Kit	Head stud kit M-6014-BOSS
Head Bolt Kit	Head bolt kit M-6065-BOSS
Main Bearings	Main bearing bores same as 351 Cleveland
Oil Filter	Oil filter M-6731-FL1A
Rear Seal	Rear seal M-6701-B351
Timing Cover	Timing cover M-6059-D351 (includes fuel pump provision)
Timing Chain and Sprocket Set	Timing Chain and sprocket set M-6268-A302, M-6268-B302

### CAM BORES:

All cam bores are finished to a diameter of 2.204" nominally and require a common outside diameter cam bearing.

- Use M-6261-R351 cam bearings for a common journal camshaft.
- Use M-6261-J351 cam bearings for a stepped journal production type camshaft.

Maximum cam bore diameter for roller cam bearings (1-4) 2.480" (5) 2.280"

### ADDITIONAL FEATURES:

- The two lower timing cover bolts are 3/8-16 UNC.
- Front oil pressure sending unit hole is 1/2 NPT. Check fitting thread engagement prior to final wash.
- Check cylinder heads for proper steam-hole alignment. Steam holes are designed to reduce the possibility of steam pocket formation. Due to the large number of aftermarket heads that can be used on this block, you will have to check this and modify as necessary.
- Check main caps for adequate clearance to oil pan (.150" minimum).
- Designed for standard 1-piece 351 rear main seal.

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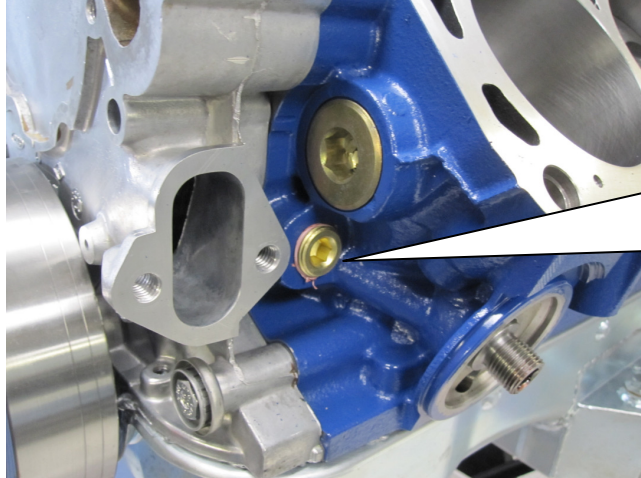


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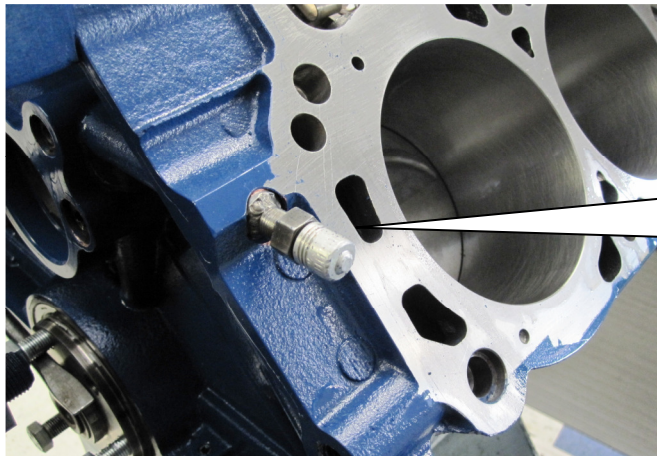
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## ADDITIONAL NOTES:



Use caution when tightening ½ NPT oil galley plug. **40 Ft. Lbs. MAX.** *Overtightening can cause cracking in this area.*



Oil pressure available at the right rear of block via -4 AN fitting with an O-ring seal.

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