Please visit 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:

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


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).


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.
**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.