OVERVIEW:

The M-6009-B53 is a 5.3 liter displacement engine short block assembly. This assembly is designed to accept two, three, and four valve heads. **Piston to valve clearance needs to be checked.**

Short block components include:

- M-6010-BOSS50 block.
- Forged aluminum 94mm (3.700") Mahle pistons with a valve notch to accept three valve cylinder head applications, and full floating pins & pin locks.
- Forged H beam rods bushed for floating pins.
- Forged Steel 3.750" stroke crankshaft.
- Clevite/King rod and main bearings respectively.
- High volume oil pump.

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. The crank has been internally balanced to use neutral balance crankshaft dampers and flywheels.
3. 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 (½" +/- 1/16").
4. Due to the number of front cover applications check the following indicated bolt in the picture below. In some applications this bolt will have to be omitted.

SPECIFICATIONS FOR M-6009-B53

Bore x Stroke – 94 mm bore x 95.25 mm stroke (3.700" bore x 3.750" stroke)
Piston specs – 30.48 mm compression height (1.200") notch volume = 10.0 +/- .5 cc  
  22.00 mm (0.866") piston pin diameter  
  1.2, 1.2, 2.5 mm ring pack
Deck height – 227 mm (8.937")
Piston to deck - .012" nominal

Note: all dimensions are nominal
Clearances:

- Piston to bore: .0040 - .0055"
- Ring end gap: Top .018", 2nd .018" (+.001"/-000")
- Piston pin: .0008 - .0012"
- Crank end play: .004 - .008"
- Main bearing: .0020 - .0025"
- Rod bearing: .0020 - .0025"
- Rod side clear: .012 - .022"

Check bolt hole here