

Small Block Main Bearing Stud Girdle Kit

Method #2 Installation Instructions

HUG7384K All 318 & 340 Blocks

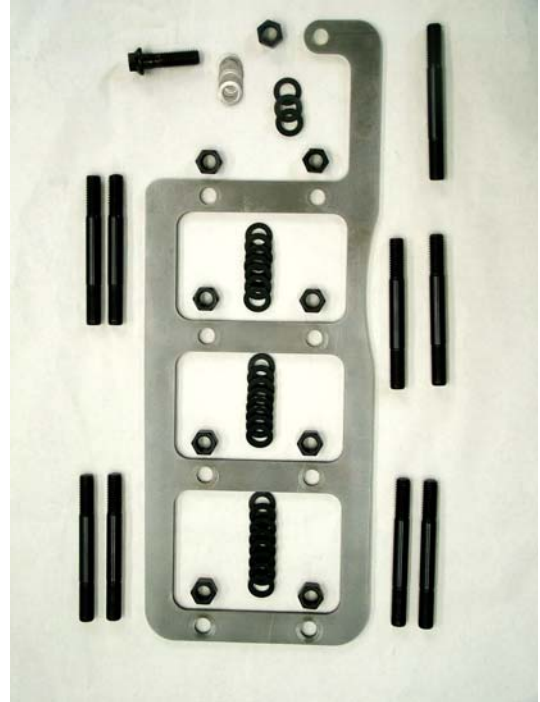
HUG7382K All 360 Blocks

These main bearing stud girdles are designed to fit small block MOPAR 318, 340 (small main journals) and 360 blocks (large main journals), both "LA" and Magnum.

Items included with this kit include:

- 1- Main stud girdle
- 1- Main Bolt
- 9- Main Studs 4.625"
- 9- 1/2-20 Hex nut
- 27- 1/2" ID washer/ no chamfer
- 1- ARP moly lube
- 90- Assorted shims
- 2- Hughes Racing decals
- 1- Illustrated instructions

Current girdle design may differ from photo. ►



This method of installing the kit requires milling the crown on the main caps.

Although all MOPAR small blocks appear similar there are a few differences that are important and will be pointed out in the following instructions.

These kits contain main cap studs and the block must be line honed with the girdle in place.

Ready? Here we go.

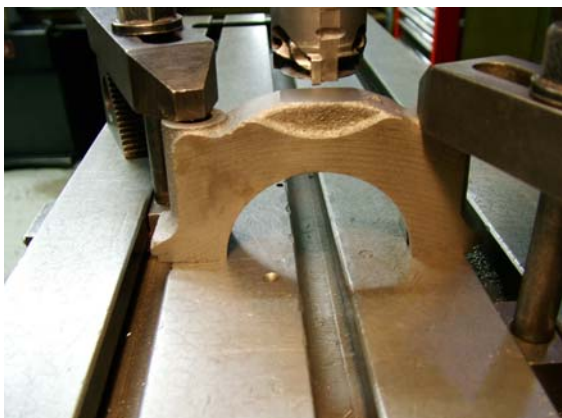
1. Start by cleaning and chasing the $\frac{1}{2}$ -13 threads in the block for the main studs. Be sure to use a bottoming tap.



2. The studs should thread in by hand and the shanks should bottom on the block. These studs should only be snug enough (finger tight) to prevent them from spinning out when the nuts are removed.

NOTE: We recommend that all main caps be drilled to $\frac{17}{32}$ " to allow proper cap alignment.

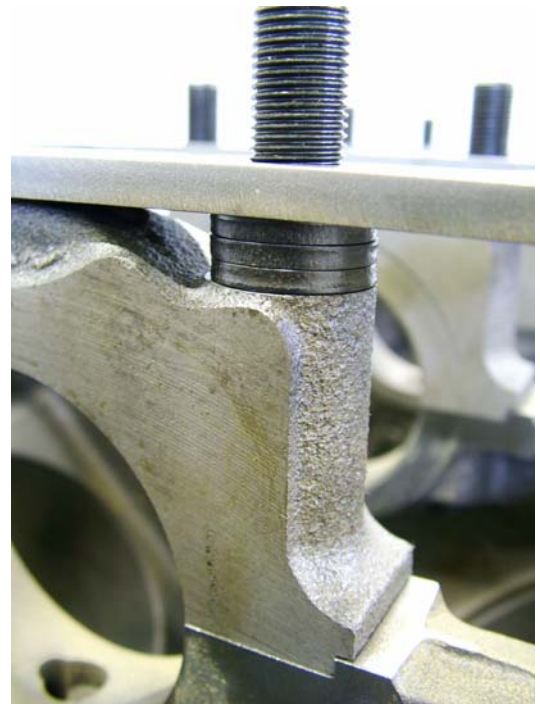
3. This method of installation requires the 4 front main caps to have .060" milled off of the crown. When installed and properly shimmed the girdle will clamp tightly against the center of the cap for increased support. We suggest clamping the cap to the milling machine table as shown to assure the cut is square with the mating surface of the cap.



4. Install the main caps in their proper position
And install spacers as listed below to start the
shimming process.

Install 1, 2 or 3 spacers as required to
allow minimum amount of shimming. ▶

The caps must be properly bottomed in their register. ▶



5. Shim each of the stud positions so that there is a gap of .004 / .006" between the girdle and the shim pack. Check as shown below. Start at the front cap and work back to the 4th cap. Do not install any nuts at this time. The photo below shows shimming the 4th cap.



6. The rear main cap will not be preloaded. The one rear main stud should be shimmed according to need, after all the other studs are shimmed and tightened up.

NOTE: When installing the girdle on Magnum engines the pan must be installed before proceeding beyond this point.

7. Some Magnum oil pans have more draw angle on their sides, than the "LA" oil pans do. This can cause them to contact the edge of the girdle before seating completely against the block. It may be necessary to slightly grind some material off of the upper outside corner of the girdle plate as shown here. This will not effect the operation of the girdle in any way.



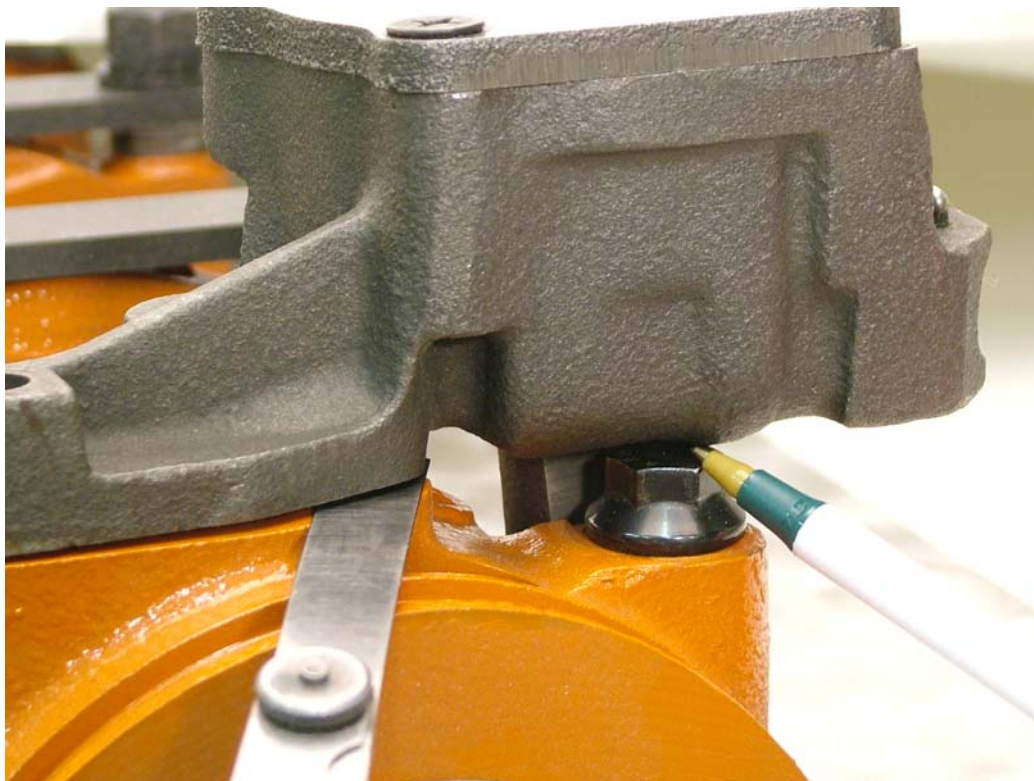
8. Each of the front 4 caps will be preloaded approximately .005" when the studs are all torques in place. With this method of installation the girdle must be properly shimmed and torqued in place during line honing.





9. The girdle must be torqued in place with the correct shim pack during line honing when using method #2

9A. The main bolt included with the girdle kit is installed on the rear cap without a washer. Also check that the bolt head is not contacting the oil pump body at the area indicated by the red arrow in the photo below. If there is contact grind off the head of the bolt slightly so the oil pump will bolt down flat against the main cap. The feeler gauge in the photo demonstrates a possible gap. Do not use a gasket at this point. Check both the cap and the pump for flatness.



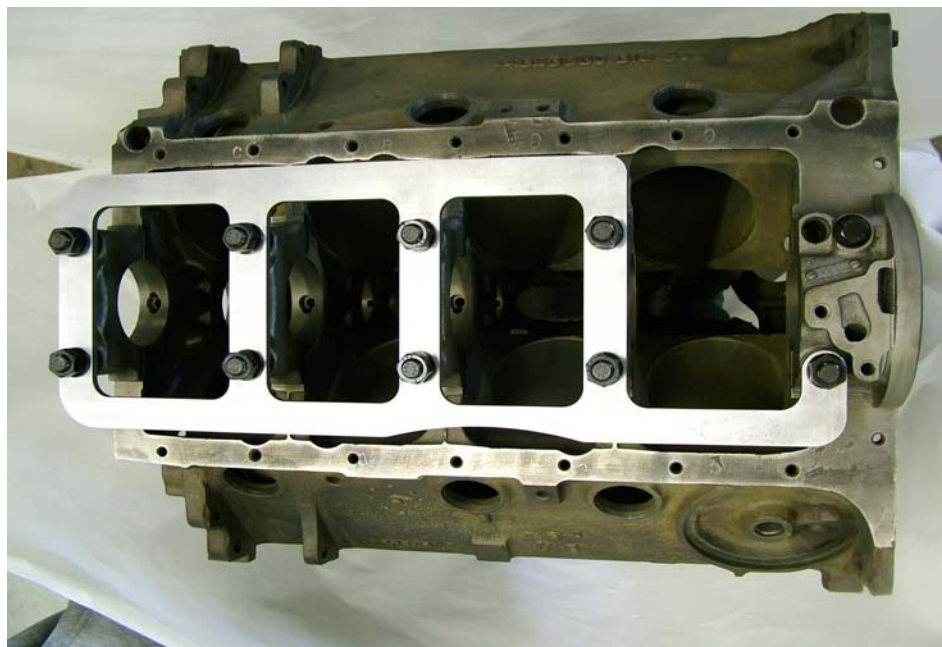
10. Line hone as required



11. Once the proper shim pack clearances and line honing have been completed, rotate the crank and rod assembly by hand and check for proper clearances. The girdles were designed around the 4.00" stroke crankshafts with "H" beam rods. **BUT**, you must check to be sure everything clears! If necessary you can grind off some of the edges (see step #7) for clearance, .040" is adequate.

After all the clearances and adjustments are correct, the girdle installation can now be completed. Install a flat washer between the girdle and the nut. Use the provided ARP moly lube on the stud threads and on both sides of the washers. Torque the assembly to 90 ft/lbs. The girdle fits tight enough around the crankshaft to act as a scraper, decreasing windage and increasing power. Wipe off any excessive moly lube before start up.

Here it is installed on a block, a thing of strength & beauty!



If you have any questions, contact us!

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