

## 2008-PRESENT BMW S63/N63 B40/B44 4.0/4.4L V8 TURBO WITH M11X1.5 THREADS

## 21 M11x1.5 Modified inserts are supplied in this kit

## \*\*\* DO NOT RE-USE OLD HEAD BOLTS \*\*\*

The threads on the old head bolts are often stretched out of pitch from torquing, causing them to tighten prematurely in the new inserts.

**IMPORTANT!** Please read the "UNIVERSAL INSTALLATION GUIDE" provided in the kit in their entirety before proceeding. Details specific to repairing this engine regarding drilling & tapping depths along with insert installation depths are provided below.

- 1. When mounting the drill/tap jig, follow the instructions on pages 3&4 using the TALL spacer provided (1½in. diameter x 2.62in. Long). The recessed end of the tall spacer should be facing upward. If it is necessary to mount the jig to a hole that has just been repaired, make sure to use a <u>new</u> head bolt. Old head bolts may be stretched out of pitch causing them to tighten prematurely in the new insert.
- 2. Drill the holes the total depth of the original holes. The original holes are about 4-1/8" inches (105mm) deep.

**Caution!** One hole in each bank on the timing chain end of the block may have broken into an oil passage from factory. Steps should be taken to block off the bottom of these holes to prevent chips from entering the oil passage.

3. Install the inserts 2" (51mm) deep from the deck surface (see page 4, figure 4 of the Installation Guide). To accomplish this, you will need to thread the holes with 3<sup>3</sup>/<sub>4</sub>" (95mm) of full threads from the deck surface. A 6in extension tap is included in this kit. Always start by threading the hole with the standard length 3 flute Spiral Point tap, and thread the hole about 3 inches deep. Short taps are stronger than extension taps since they twist less. Then carefully thread to the final depth with the extension tap. The 4 flute bottom tap will not be used for application.

Note: This kit is universal for many other engines as well since the outside thread size of the insert does not change. Inserts are also available with internal threads of M10x1.25, M10x1.5, M11x1.25, M11x2.0, M12X1.25, M12x1.75 and 7/16-14