



## Crankshaft & Cylinder Block Caution on 2006-2016 BMW 3.0L N54B30 Engines

The AERA Technical Committee offers the following information concerning a cylinder block and crankshaft caution for 2006-2016 BMW 3.0L N54B30 engines. The caution expressed should be considered anytime the block assembly is being serviced and an estimate for services is required.

The design of this engine has several features that are different from previous BMW engines. This in-line six-cylinder engine has seven main bearings with the rear journal diameter being significantly larger than the previous six. Consequently, the cylinder block main housing bore is also larger at the rear location. These changes will affect some shops rebuild procedures and any work estimates.

Refer to the chart below to qualify sizes for the N54B30 engine:

	<b>Rod Journal Diameter</b>	<b>Main Journal Diameter</b>
<b>Crankshaft</b>	1.9674-1.9682" (49.973-49.993MM)	#1-6 = 2.2040-2.2046" (55.981-55.998 MM) #7 = 2.5583-2.2.5590" (64.981-64.998 MM)
	<b>Main Housing Bore #1-6</b>	<b>Main Housing Bore #7</b>
<b>Cylinder Block</b>	2.4015" (60.998 MM)	2.7555" (69.990 MM)

These engines also use many one-time use fasteners throughout the engine and they should be replaced anytime they're removed, which will also affect an estimate. Some of these bolts are made from Aluminum so they do not chemically interact with the Magnesium cylinder block. As you may realize, obtaining such bolts may not be easy, making them a unique dealer item.