Camshaft End-Play on 1996-2004 Nissan 3.3L VG33E Engines

The AERA Technical Committee offers the following information regarding camshaft end-play for 1996-2004 Nissan 3.3L VG33E engines. This information should be considered any time the camshaft is removed from the cylinder head.

Camshaft end-play is controlled by what Nissan calls a locating plate, which is available in different four different thicknesses to allow for adjustment. The camshaft end-play specification should be .0012-.0024" (.030-.060 MM) as measured with a dial indicator as shown in Figure 1.

![Figure 1. Measuring Camshaft End-Play](image)

The end plates, as shown in Figure 2 are marked for identification and wrap around the camshaft and limit movement when the mounting bolt is torqued to 58-65 FT/LBS. If the camshaft end play is out of the specified range, select the thickness of the camshaft locate plate to obtain the standard specified end play as shown. Example: When the camshaft end play is .0031" (.080 MM) with the camshaft locate plate #1 installed, replace that camshaft locate plate with the plate #4. Doing so should set the camshaft end play at the specified .0016" (.040 MM).
Figure 2. Camshaft Locate Plates

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