Cam Bearing Installation Caution On 2004-2017 Caterpillar C7 Diesel Engines

The AERA Technical Committee offers the following information regarding a cam bearing installation caution on 2004-2017 Caterpillar C7 diesel engines. There seems to be some confusion as to where to correctly position the oil hole in the cam bearings when installing into the cylinder block.

The wider front cam bearing should be installed with the oil hole in the bearing aligned with the oil hole located in the cylinder block (approximately 6:30 o'clock position). The cam bearing joint should also be positioned at approximately 8:30 o'clock position, as shown in Figure 1 as viewed from the block front. The front bearing should also be installed to a depth of .020" (.500 MM) bellow the front block face.

All other remaining camshaft bearings, positions 2-7, should be installed with the oil hole in the bearing located at the top of the cam bearing housing bore. The bearing joint should also be positioned at approximately 2:00 o'clock position as viewed from the rear of block and shown in Figure 2. Doing so will assure proper oiling of the engines roller lifters.

Figure 1. Wider Front Bearing Detail

Figure 2. Bearings 2-7 Detail

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