



Engine Timing Tools & Bolt Warning for 2001-2008 Mazda 2.0 & 2.3L Engines

The AERA Technical Committee offers the following information on engine timing tools and a crankshaft nut warning for 2001-2008 Mazda 2.0 & 2.3L engines. These popular DOHC engines used in the models listed below are non-freewheeling design. Using the proper timing tools a new crankshaft pulley bolt is essential for a long term repair.

APPLICABLE MODEL(S)

- 2006-2008 Mazda MX-5
- 2004-2008 Mazda3 2.0L & 2.3L
- 2007-2008 Mazdaspeed3
- 2006-2008 Mazda5
- 2003-2008 Mazda6 2.3L
- 2006-2007 Mazdaspeed6
- 2007-2008 Mazda CX-7
- 2001-2004 Tribute 2.0L
- 2005-2006 Tribute 2.3L
- 2008 Tribute & Hybrid 2.3L
- 2001-2008 B-Series 2.3L

When removing or replacing the crankshaft pulley, always be sure to follow the steps printed in previously published AERA TB2417. The crankshaft pulley is not keyed to the crankshaft and when loosened, it may move out of position on the crankshaft. The engine **MUST** be re-timed whenever the crankshaft pulley bolt is loosened, removed, or replaced.





Model	Crankshaft Alignment Peg	Camshaft Alignment Timing Tool	Bolt
06-08 MX-5 04-08 Mazda3 2.0L/2.3L 06-08 Mazda5 03-08 Mazda6 2.3L 01-08 B-Series 2.3L 08 Tribute & Hybrid 2.3L 05-06 Tribute 2.3L	303-507 (small peg) 	303-465 	M6 x 1.0 x 25-35mm (0.99-1.37 in.)
01-04 Tribute 2.0L	303-574 (large peg) 	303-465 	M6 x 1.0 x 25-35mm (0.99-1.37 in.)

Chart 1. 2.0& 2.3L EFI Engines

The crankshaft pulley bolt should not be re-used, it must be replaced anytime it is removed. Before assembly, obtain a new bolt Part #LF01-11-406 and torque it to 71-76 FT/LBS. Re-using an old at time of reassembly may result in either loosening or breakage of the bolt at a later time.



Model	Crankshaft Alignment Peg	Camshaft Alignment Timing Tool	Bolt
07-08 Mazdaspeed3 06-07 Mazdaspeed6 07-08 CX-7	303-507 (small peg) 	303-1061 	M6 x 1.0 x 25-35mm (0.99-1.37 in.)

Chart 2. GDI (Gas Direct Injected) Engines

For GDI (Gas Direct Injected) engines follow the timing procedure shown in AERA technical bulletin TB2783.