



## M-6316-D461 Crankshaft Damper INSTALLATION INSTRUCTIONS

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR AGREEMENT AND WRITTEN PERMISSION OF FORD RACING PERFORMANCE PARTS.

Please visit [www.fordracingparts.com](http://www.fordracingparts.com) for the most current instruction information

**!!! PLEASE READ ALL OF THE FOLLOWING INSTRUCTIONS CAREFULLY PRIOR TO INSTALLATION. AT ANY TIME YOU DO NOT UNDERSTAND THE INSTRUCTIONS, PLEASE CALL THE FORD RACING TECHLINE AT 1-800-367-3788 !!!**

### NOTE:

Your Ford Racing damper is correctly balanced at the factory for a neutral balanced assembly. Should your engine be dynamically balanced by a balancing shop, no material is to be added or removed from the damper.

### INSTALLATION INSTRUCTIONS:

- Step 1:** Engine must be completely cold.
- Step 2:** Rotate engine by hand until timing pointer indicates 0° TDC.
- Step 3:** Remove poly-V belt.
- Step 4:** Remove original damper carefully using a puller or removal tool.

**NOTE: If the engine is to be used in competition, the accuracy of the 0° TDC timing mark must be verified by bring #1 piston to TDC using a dial indicator on the piston. In some cases the timing pointer may have to be shifted or modified to be dead on 0°.**

- Step 5:** Inspect the crankshaft post to ensure there are no burrs or rust. If required, polish with Scotchbrite or very fine emery paper.
- Step 6:** Measure the crank snout OD and the Damper ID (at the minimum section). Accurate measurements with both parts at the same temp are essential. Subtract the damper ID from the crank snout OD to determine the interference fit. Recommended fit is .0002" to .0012". If the interference is excessive (too tight) have the damper hub ID honed to bring the fit to spec. Most automotive machine shops are equipped to perform the honing operation. If the fit is too loose, call the Techline at (800) 367-3788.
- Step 7:** Examine the key. If it is damaged or loose in the keyway groove of the crankshaft, install a new key.
- Step 8:** Replace the front timing cover seal.
- Step 9:** Coat the crankshaft post and the timing cover oil seal lip with clean engine oil.
- Step 10:** Immerse the damper in boiling water for 15 minutes. This will expand the hub of the damper to make installation easier.
- Step 11:** Remove the damper from the boiling water. Oil the hub ID and (using insulated, heat-proof gloves) quickly slip the damper on the crank post with the damper keyway aligned with the crank key.

Factory Ford shop manuals are available from Helm Publications, 1-800-782-4356



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- Step 12:** Use of a damper installation tool is highly recommended. If a suitable installation tool is not available, use either a block of aluminum to protect the face of the damper hub while driving it on the crank post or a large rubber mallet hitting on the damper hub surface only (do NOT hit the outer ring). Quickly install the damper bolt and washer and torque to 90 ft./lbs. **DO NOT ALLOW THE DAMPER TO COOL BEFORE INSTALLATION IS COMPLETED.** Re-check torque after the damper has cooled completely.
- Step 13:** The M-6316-D461 damper has been machined with the standard Ford poly-V pulley sheave on the OD. The front of the damper has three machined holes to facilitate use of a damper puller for removal.
- Step 14:** If you have difficulty installing your Ford Racing damper, please call the Techline (800) 367-3788.

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