FORD PERFORMANCE

M-6316-A521 Crankshaft Damper
Installation

Please visit www. performanceparts.ford.com for the most current instruction and warranty 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 PERFORMANCE TECHLINE AT 1-800-367-3788

IMPORTANT: PLEASE READ THESE INSTRUCTIONS FULLY BEFORE ATTEMPTING INSTALLATION. THIS DAMPER IS NEUTRAL BALANCED.

Step 1: Engine must be completely cold.

Step 2: Rotate engine by hand until timing pointer indicates 0° TDC.

Step 3: Remove original damper carefully using a puller or removal tool.

Step 4: The 429/460 engine family has used different timing pointer locations. Most applications will have a timing pointer at the 10 O'CLOCK position. The Ford Performance damper has two keyways, a 1/4" and a 3/16". The 1/4" keyway will correctly position the damper on a production crankshaft (or a custom crank with the crank snout machined to production specs) so that a 10 O'CLOCK pointer lines up with 0° TDC on the damper. The 3/16" keyway is used for locating the damper on some custom race crankshafts and the 10 O'CLOCK timing pointer should align with 0° TDC of the timing marks with this combination also.

NOTE: If the engine is to be used in competition, the accuracy of the 0° TDC timing mark must be verified by bringing #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 snout to ensure there are no burrs or rust. If required, polish with very fine emery cloth. Check the leading edge of the crank for appropriate chamfer. If required, chamfer as necessary using a file and emery cloth.

Step 6: Examine the key. If it is damaged or loose in the keyway groove of the crankshaft, install a new key.

Step 7: Measure the crank snout OD and the Damper ID (at the minimum section). Accurate measurements with both parts at the same temperature 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 8: Coat the crankshaft snout with oil.

Step 9: Immerse the damper in boiling water for 15 minutes. This will expand the hub of the damper to make installation easier.

Step 10: Remove the damper from the boiling water. Oil the hub ID and (using insulated, heat proof gloves) quickly slip the damper on the crank snout with the damper keyway aligned with the crank key.

Step 11: Use appropriate damper installation tool. 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 12: The M-6316-A521 damper has been machined with the standard Ford 4-bolt crank pulley pattern and the big block Chevy 3-bolt pattern. This allows the use of most popular crank trigger set-ups including MSD and Moroso units for competition applications or some applications of standard Ford stock front dress.
WARNING: some pulleys will contact outer inertia ring before being properly seated. This type of pulley cannot be used!

Pulley alignment must be checked!

Step 13: Ensure a minimum of 1/8” clearance exists between the damper inertia ring and any stationary components.

Step 14: Check clearance for all components before re-starting engine.

Step 15: If you have difficulty installing your Ford Performance damper, please call the Techline (800) 367 3788.

NOTE: The Ford Performance Damper is correctly balanced at the factory. Should your engine be dynamically balanced by a Balancing Shop, no material is to be added or removed from the Damper.