

## **IMPORTANT:** Before attempting installation please read these instructions fully.

**NOTE:** The PRO/RACE "All Steel" Crankshaft Vibration Damper has a precision machined inner bore which requires special attention prior to installing

- 1. Engine must be completely cold.
- 2. Remove original Damper carefully, using Damper Puller or removal tool.
- 3. Inspect crankshaft snout and ensure there are no burrs or rust. If required, polish with very fine emery paper or steel wool and wash clean.
- 4. Examine key, should the key be damaged or loose in the keyway groove of the crankshaft, install a new key.
- 5. Replace the front timing cover oil seal.
- 6. The PRO/RACE Damper can be installed just like any other Damper using a Damper installation tool. However, you can make installation much easier by immersing the Damper in boiling water for 15 minutes, or placing in a pre-heated oven at the lowest temperature (max. 250°F or 120°C) for 15 minutes. This process will expand the hub of the Damper.
- 7. If you are <u>NOT</u> using a professional installation tool, it is **ESSENTIAL** that the Damper be pre-heated as outlined in step 6. above, to expand the hub. All subsequent steps will need to be followed carefully.
- 8. Smear crank snout and the timing case oil seal with clean oil.
- 9. If you are not using a Damper installation tool, remove Damper from boiling water (or oven), using insulated, heat proof gloves. Smear bore of Damper with oil.
- 10. Immediately locate Damper on to the crankshaft and rotate until the hub locates in the key-way.

## **IMPORTANT-DO NOT ALLOW DAMPER TO COOL.**

- 11. If using a professional Damper installation tool, install the Damper following the instructions supplied with your installation tool and ignore step 12.
- 12. If you are not using an installation tool, quickly, utilising a block of aluminum to protect the machined face, drive the Damper on the crankshaft.
- 13. Promptly reinstall the Damper retaining bolt and washer and tension to 100 lb/ft torque.

**NOTE:** Use LOCTITE to secure the crankshaft and pulley bolts.

12. Check that the pulley alignment is correct and re-check for adequate clearance of all components before re-starting engine.

Should you have any difficulty installing your PRO/RACER Damper, please contact:

UK:	Real Steel:	Tel: 01 895 440 505
USA:	PRO/RACE Tech-line	Tel: 734 740 0922
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