



PERFORMANCE PRODUCTS

ALL STEEL CRANKSHAFT VIBRATION DAMPER

#64291.....Holden 6 cyl. Incl. XU1.

INSTALLATION INSTRUCTIONS

Important: Before attempting installation, please read these instructions.

Note: The PRO/RACE "All Steel" Crankshaft Vibration Damper has a precision machined inner bore which requires special attention prior to fitting. It is also important to note that your PRO/RACE Crankshaft Vibration Damper is supplied "IN BALANCE". Therefore, if any balancing operations are to be carried out on the engine, either remove or add weight to the crankshaft where necessary.

DO NOT drill any holes in your PRO/RACE Crankshaft Vibration Damper.

1. Engine must be completely cold.
2. Remove original Damper carefully, using Damper Puller or removal tool.
3. Holden have utilised 3 different TDC locations. Before fitting your PRO/RACE Crankshaft Vibration Damper, it is essential to identify which type of timing case is fitted to your engine from the factory, especially for rebuilt or reconditioned engines.
The casting numbers are:-

Type (a): #92010662 & #92023670
-fitted to VC-VK Commodore and WB commercial,
Paint a white line on the A° mark, this is the new TDC location
to suit your Crankshaft Vibration Damper.

Type (b): #92005336 & #2814131
-fitted to HQ-HZ, VB Commodore and all Toranas.
Utilises the standard Holden TDC Timing Mark location.

Type (c): #740002 -fitted to EH-HG Holden
Paint a white line on the R4° mark, this is the new TDC location
to suit your Crankshaft Vibration Damper.

In high performance and racing applications, we recommend using a degree wheel and a piston stop to accurately determine TDC on your engine, to ensure best results. This is achieved by firstly mounting the degree wheel to the crankshaft. Next, mount a pointer to a convenient hole on the engine block. When mounting the wheel, the engine should be rotated to place Number 1 Piston as close as possible to TDC and align the pointer with TDC on the degree wheel, and then securing the degree wheel.

Using a piston stop (usually screws into spark plug hole), rotate the engine until Piston is firmly against stop, and note reading on degree wheel (at pointer). Next, rotate engine in the opposite direction until Piston is against stop and note reading. If there are the same number of degrees on each side of TDC, the degree wheel is located perfectly.

Should the number of degrees differ, the wheel will have to be relocated until there are the same number of degrees on each side of TDC. Next, move the degree wheel and complete steps 4 to 11, then install your PRO/RACE Crankshaft Vibration Damper, being careful not to move crankshaft assembly. The TDC mark on the PRO/RACE Crankshaft Vibration Damper should align to either the "A8°", TDC or the "R4°" mark, depending on model of timing case. The timing mark which matches to TDC mark on the Damper now becomes the engines new timing pointer.

... turn over

To avoid confusion, we recommend removing the timing marks on the timing cover that do not correspond to the new TDC location.

4. Check the end of the crankshaft to ensure that the snout has been drilled and threaded 7/16" UNF. (some early model cranks require this modification) We recommend using Rocket or Mr Gasket part #945.
5. Inspect crankshaft snout and ensure there are no burrs or rust. If required, finish very lightly and wash clean.
6. Examine key, should it be damaged or loose in the keyway groove of the crankshaft, install a new key.
7. For high performance application, replace front timing cover oil seal with VK Commodore, GMH Part #VS 17501.
8. The PRO/RACE Crankshaft Vibration 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.
9. If you are NOT using a professional installation tool, it is **ESSENTIAL** that the Damper be pre-heated as outlined in step 8. above, to expand the hub. All subsequent steps will need to be followed carefully.
10. Smear crank snout and the timing case oil seal with clean oil.
11. 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.
12. Immediately locate Damper on to the crankshaft and rotate until the hub locates in the key-way.

IMPORTANT - DO NOT ALLOW DAMPER TO COOL.

13. If using a professional Damper installation tool, install the Damper following the instructions supplied with your installation tool and ignore step 14.
14. If you are not using an installation tool, quickly, utilizing a block of aluminium to protect the machined face, drive the Damper on the crankshaft.
15. Promptly re-fit the Damper retaining bolt and washer, and tension to 65 ft.lbs (88 Nm) torque. We recommend using Loctite to secure the crankshaft and pulley bolts.
14. Ensure there is a minimum of 1/8" clearance surrounding the Crankshaft Vibration Damper inertia ring. Also check that the pulley alignment is correct.
15. Re-check for adequate clearance of all components before re-starting engine. (Some radiator fans may require the use of a short fan spacer).

If you have any problems installing your PRO/RACE Damper, please call:

Australia: PRO/RACE Tech-line
www.pro-race..com

Tel: (03) 9584 3522 Fax: (03) 9584 5194
Email: tech@pro-race.com

..... or contact place of purchase.