

Why are There No Timing Marks for Each Keyway?

- On the 2.3 OHC engines as you mill the head for compression the cam and assembly come closer to the bottom end, the problem that occurs is that the cam timing will retard depending on how much is milled off the bottom of the head (i.e. 0.050" Milled from the head would yield 1.3°) Since a head with 0.050" milled off will retard the cam less than a head with 0.150" milled off every engine will be different on where the top dead center would be. Therefore if we put 2° Advance mark on a particular key way slot it would need to be in a different slot for the engine with the head milled 0.050" then the engine with 0.150" milled off the bottom of the head.

How Do I Go About Timing My Engine?

- Easiest way to set the cam timing on the Ford 2.3 is as follows:
 - Remove the valve cover and manually rotate the engine so the engine is on true TDC. When the engine is on true TDC the #1 piston will be up top and both of the tips of the cam lobes will be off the rockers. For example on lobe tip will be heading somewhere in the 1 o'clock position with the other is in the 11 o'clock position. (I.E. both the intake and exhaust valves will be closed)
 - Now you need to put a level across the #1 Cam tower to level the motor. Simply put a jack under the side of the car that is too low and level the motor.
 - With the motor level and the timing belt disconnected place a plate across the number one intake and exhaust lobes (Plate can be either steel or aluminum around 2"x 8" or so. The critical thing is the plate is straight and will not flex when the angle finder is placed on it).
 - With the motor still level and the plate across the #1 intake and exhaust lobes put the level on the plate and rotate the cam (CAM ONLY, Leave the Bottom end at TDC) until the plate is perfectly level. Once the plate is level along with the motor your cam is set at TDC.
 - Install your cam pulley on the engine using the keyway slot that will line up closest without having to move the camshaft and allowing the belt to fit into the "teeth" of the timing gear.
 - Replace the timing tensioner and turn your engine over manually two revolutions so that it is back on TDC and verify the cam timing.

I Need More Bottom End Power What Do I Do?

- For more bottom end HP you can "advance" the cam timing. To do this simply follow the instructions above, however rather than leveling the cam to the motor simply rotate the camshaft towards the carburetor the amount you want advance just the cam the amount that you want to go. Normally 2° in either direction is a good amount to experiment with. Generally never exceed 6° in either direction