

Timing Chain Installation Caution On 1996-1999 Ford 2.5L Duratec Engines

The AERA Technical Committee offers the following information regarding a timing chain installation caution on 1996-1999 Ford 2.5L Duratec engines. This information only applies to the Duratec engine and if not followed properly, piston to valve contact will occur during startup.

On the back or rear of the camshaft sprockets there are timing arrows/flags that are **mis-marked** by as much as 30° rotation. The arrows/flags should not be used for engine service procedures, including timing diagnostic.

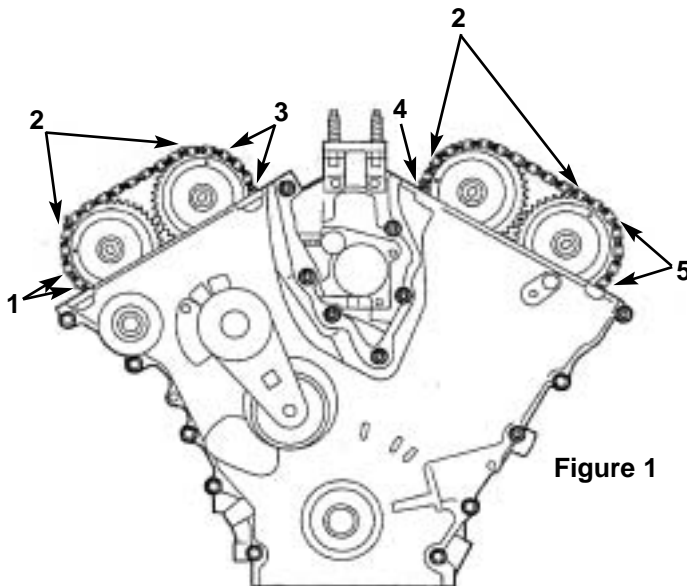


Figure 1

To make sure the timing chain is installed correctly, Ford offers the following information for correct installation. All checks made during this procedure are done with the crankshaft at TDC #1 compression stroke. To check for proper camshaft alignment without engine cover removal, use this information provided below.

Rotate the crankshaft clockwise until the notch on the crankshaft damper aligns with the TDC pointer on the engine front cover. This will place the #1 cylinder at TDC. Rotate the crankshaft an additional full turn if the timing marks on the camshaft are not above the top edge of the engine front cover. When the damper notch is aligned with the TDC pointer, and all of the camshaft front timing marks are above the top edge of the engine front cover, #1 cylinder is on the compression stroke. **Ignore the timing flags on the rear of the camshaft sprockets.**

ITEM	DESCRIPTION
1	2 chain links between front cover surface and front camshaft mark.
2	10 chain links between front camshaft timing marks.
3	3-1/2 chain links between front cover surface and front camshaft timing mark.
4	1/2 chain link between front cover surface and front camshaft timing mark.
5	5 chain links between front cover surface and front camshaft timing mark.

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Information is from best available sources and is accurate at the time of publication. However, Jasper Engines & Transmissions ASSUMES NO RESPONSIBILITY and cannot be held liable for any results or consequences regarding the use of this information.

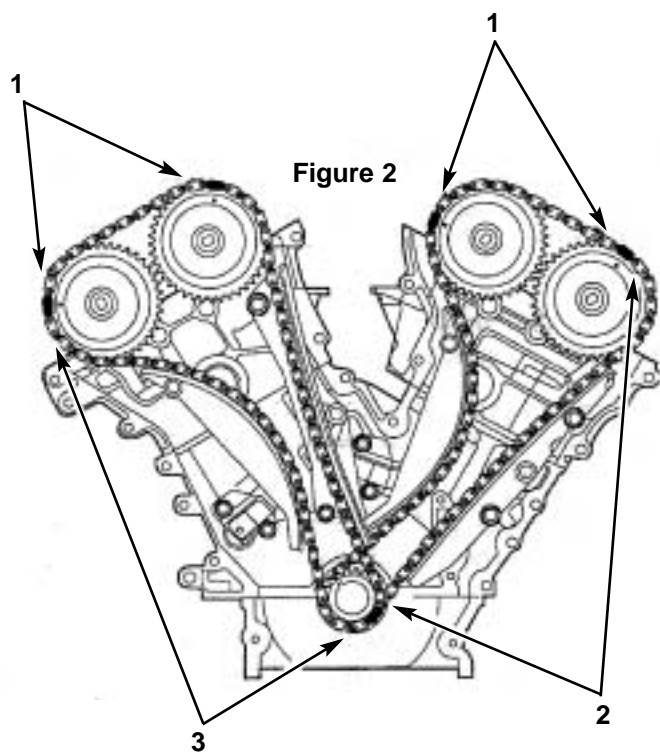
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You must count the number of timing chain links between the camshaft front timing marks and the top edge of the engine front cover as shown in Figure 1 to check the camshaft timing for correct position.

If the engine front cover is removed, you can check the timing using the following information.

Place the crankshaft at TDC on #1 cylinder compression stroke by rotating the crankshaft clockwise and placing the crankshaft keyway at the 11:00 position. Rotate the crankshaft an additional full turn if the front camshaft timing marks are not at the topside of the camshaft sprockets.

To check camshaft timing you must count the number of timing chain links between the camshaft front timing marks and the timing marks on the crankshaft sprocket as shown in Figure 2. **Ignore the timing flags on the rear of the camshaft sprockets.**



ITEM	DESCRIPTION
1	10 chain links between front camshaft timing marks.
2	23 chain links between camshaft and crankshaft timing marks.
3	25 chain links between camshaft and crankshaft timing marks.