

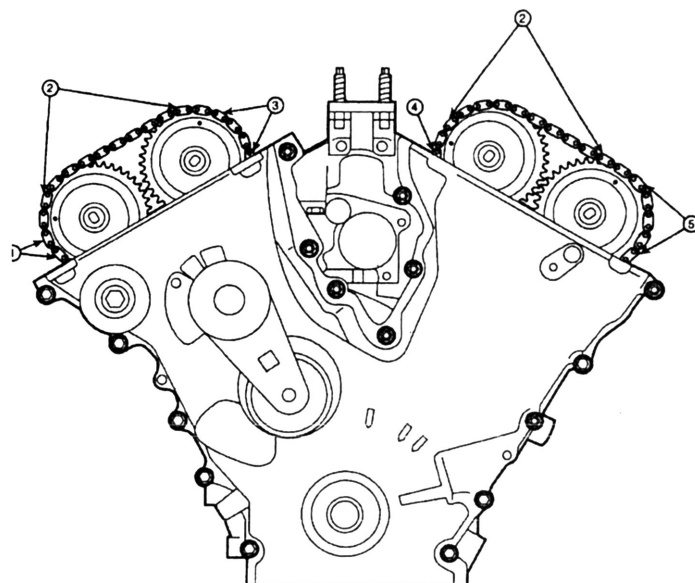
## Camshaft Timing Information For 1996-99 Ford 2.5L Duratec Engines

The AERA Technical Committee offers the following information regarding camshaft timing for 1996-99 Ford 2.5L VIN L Duratec engines. This information is being provided in addition to previously published information. The timing arrows/flags on the back of the camshaft sprocket(s) are mis-marked by as much as 30 degrees rotation. the arrows or flags should not be used for engine service procedures, including timing diagnostics. The original service/workshop manual timing procedures are inaccurate.

A timing check procedure has been developed, ignoring the arrows or flags on the rear side of the camshaft sprockets. Refer to the following service procedure for details.

To check for proper camshaft timing without engine front cover removal, use the following procedure: All checks are performed with the crankshaft at Top Dead Center (TDC) #1, compression stroke.

1. Rotate the crankshaft clockwise until the notch on the crankshaft damper aligns with the TDC pointer on the engine front cover. This places the crankshaft at top dead center, cylinder number one. Rotate crankshaft an additional full turn if the timing marks on of the camshafts 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, cylinder number one is on the compression stroke. Ignore the timing flags on the rear of the camshaft sprockets.
2. To check camshaft timing you must count the number of timing chain links between the camshaft front timing marks and the top edge of the engine front cover. Refer to Figure 1. Ignore the timing flags on the rear of the camshaft sprockets.

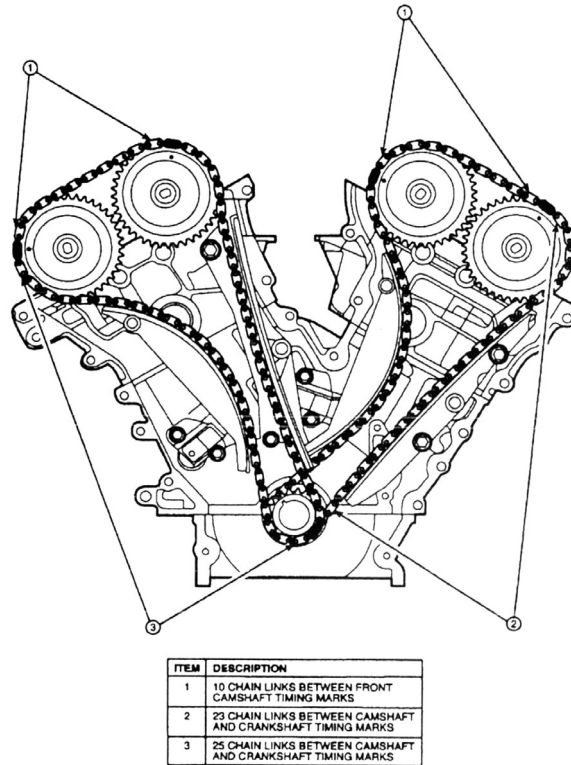


ITEM	DESCRIPTION
1	2 CHAIN LINKS BETWEEN FRONT COVER SURFACE AND FRONT CAMSHAFT TIMING MARK
2	10 CHAIN LINKS BETWEEN FRONT CAMSHAFT TIMING MARKS
3	3-1/2 CHAIN LINKS BETWEEN FRONT COVER SURFACE AND FRONT CAMSHAFT TIMING MARK
4	1/2 CHAIN LINK BETWEEN FRONT COVER SURFACE AND FRONT CAMSHAFT TIMING MARK
5	5 CHAIN LINKS BETWEEN FRONT COVER SURFACE AND FRONT CAMSHAFT TIMING MARK

Continued On Next Page

**Figure 1**  
Procedure with Timing Cover Installed

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.



**Figure 2**  
Procedure with Timing Cover Removed

### **Timing Check With Front Cover Removed:**

To check for proper camshaft timing during timing chain installation with the engine front cover removed, use the following procedure:

1. To place the crankshaft at TDC Cylinder #1, compression stroke, rotate the crankshaft clockwise and place the crankshaft keyway at the 11 o'clock position. Rotate the crankshaft an additional full turn if the front camshaft timing marks are not on the top side of the camshaft sprockets.
2. 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 camshaft sprockets. Refer to Figure 2 above. Ignore the timing flags on the rear of the camshaft sprockets.