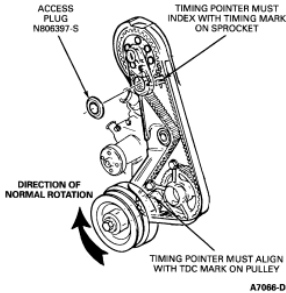


Camshaft Timing

Checking Timing

An access plug is provided in the cam drive belt cover so that camshaft timing can be checked without removal of the cover or any other parts.

1. Remove the access plug from the cam drive belt cover.
2. Rotate the crankshaft so that the No. 1 piston is rising on compression stroke.



3. Set the crankshaft to TDC by aligning the timing mark on the crank pulley with the TC mark on the belt cover. **Always turn the engine in the direction of normal rotation (clockwise, as viewed from the front). Backward rotation may cause the timing belt to jump time, due to the arrangement of the belt tensioner.**
4. Look through the access hole in the belt cover to make sure that the timing mark on the cam drive sprocket is lined up with the pointer on the inner belt cover.
5. Install the belt cover access plug.

Adjusting Timing Belt

SPECIAL SERVICE TOOL(S) REQUIRED

| Description | Tool Number |
|--|-------------|
| Crankshaft Belt Tension Adjusting Tool | T74P-6254-A |

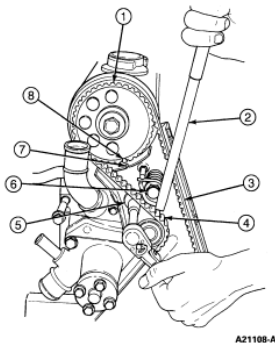
1. Remove the outer timing belt cover as outlined in this section.



CAUTION: Attempting to adjust timing belt tension without loosening spring pivot bolt will break Crankshaft Belt Tension Adjusting Tool T74P-6254-A when relieving tension on the belt.

2. If belt timing or tension is incorrect, loosen timing belt spring pivot bolt.
3. Hold tensioner with Camshaft Belt Tension Adjusting Tool T74P-6254-A.
4. While holding tensioner, loosen adjusting bolt and gradually release spring tension.

Loosening Timing Belt Tensioner, 2.3L

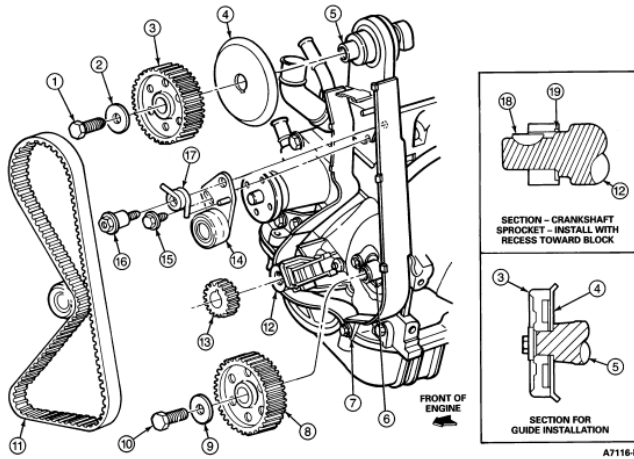


| Item | Part Number | Description |
|------|-------------|---|
| 1 | 6256 | Camshaft Sprocket |
| 2 | T74P-6254-A | Camshaft Belt Tension Adjusting Tool |
| 3 | 6268 | Timing Belt |
| 4 | 6H254 | Timing Belt Tensioner |
| 5 | N800112-S2 | Tensioner Adjusting Bolt (Under Wrench) M8-1.25 x 20. Tighten to 35-45 Nm (26-33 Ft-Lb). Refer to text. |
| 6 | 6H282 | Timing Belt Tensioner (Spring Pivot) Bolt. Tighten to 40-55 Nm (30-40 Ft-Lb) |

| | | |
|---|---|--|
| 7 | — | Timing Mark on Inner Timing Belt Cover |
| 8 | — | Timing Mark on Camshaft Sprocket |

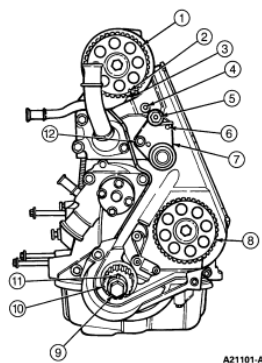
5. Using adjusting tool, pry tensioner away from belt. While holding, tighten adjusting bolt. There should be no tension on belt.

Camshaft Timing Belt, 2.3L I-4



| Item | Part Number | Description |
|------|-------------|---|
| 1 | N600414-S | Bolt M12-1.75 x 45. Tighten to 70-95 Nm (52-70 Ft-Lb) |
| 2 | 6278 | Camshaft Sprocket Washer |
| 3 | 6256 | Camshaft Sprocket |
| 4 | 6B260 | Camshaft Timing Belt Guide |
| 5 | 6250 | Camshaft |
| 6 | 6A739 | Auxiliary Shaft |
| 7 | 6019 | Inner Timing Belt Cover |
| 8 | 6278 | Auxiliary Shaft Sprocket |
| 9 | 385208-S | Washer M10 |
| 10 | N600313-S2 | Bolt M10-1.5 x 40. Tighten to 40-55 Nm (30-40 Ft-Lb) |
| 11 | 6268 | Timing Belt |
| 12 | 6303 | Crankshaft |
| 13 | 6306 | Crankshaft Sprocket |
| 14 | 6K254 | Timing Belt Tensioner |
| 15 | N800112-S2 | Tensioner Adjusting Bolt, M8-1.25 x 20. Tighten to 35-45 Nm (26-33 Ft-Lb). Refer to text. |
| 16 | 6K282 | Timing Belt Tensioner (Spring Pivot) Bolt. Tighten to 40-55 Nm (30-40 Ft-Lb) |
| 17 | 6L273 | Timing Belt Tensioner Spring |
| 18 | 6B316 | Key |
| 19 | — | Recess, Install Towards Cylinder Block (Part of 6256) |

6. Remove the bolts holding the crankshaft position sensor in place and pull the sensor assembly free of the dowel pin.
7. Remove the crankshaft pulley, crankshaft pulley hub and timing belt guide.
8. Remove the drive belt and inspect it for wear or damage. If the belt is damaged, replace it.
9. Remove one spark plug from each cylinder.
10. If not done:
 - a. Loosen tensioner adjusting bolt.
 - b. Using Camshaft Belt Tension Adjusting Tool T74P-6254-A, pry tensioner clockwise against spring tension as far as possible.
 - c. Tighten adjusting bolt to hold tensioner in released position.
11. Align crankshaft so number one piston is at TDC (top dead center) as indicated by timing mark.
12. Line up camshaft sprocket timing mark with inner timing belt cover timing mark and key is pointing down.



| Item | Part Number | Description |
|------|-------------|---|
| 1 | 6256 | Camshaft Sprocket |
| 2 | — | Pointer (Part of Camshaft Sprocket) |
| 3 | — | Timing Mark (On Inner Timing Belt Cover) |
| 4 | N801658-S | Stud M8 x 125. Tighten to 20-30 Nm (15-22 Ft-Lb) |
| 5 | 6K282 | Spring Pivot Bolt. Tighten to 40-55 Nm (30-40 Ft-Lb). See text. |
| 6 | — | Stud (Part of Tensioner) |
| 7 | 6K254 | Timing Belt Tensioner |
| 8 | 6256 | Auxiliary Shaft Sprocket |
| 9 | 6303 | Crankshaft |
| 10 | 6306 | Crankshaft Sprocket |
| 11 | N806700-S | Key |
| 12 | N800112-S2 | Adjusting Bolt M8-1.25 x 20. Tighten to 35-45 Nm (26-33 Ft-Lb). See text. |

NOTE: On 49-State, and all automatic transmission vehicles, it is not necessary to align auxiliary shaft sprocket.

13. If vehicle is California Emissions Certified with manual transmission:
 - a. Install Synchronizer Positioner T93P-12200-A into synchronizer.
 - b. Rotate auxiliary shaft sprocket until the synchronizer shutter is against the stop, and the notch of the tool engages the notch of the synchronizer bowl.
14. Install timing belt over crankshaft sprocket. Then, proceeding counter-clockwise, over auxiliary shaft sprocket and camshaft sprocket.
15. Loosen tensioner adjusting bolt allowing tensioner pulley to press against timing belt.
16. Remove synchronizer positioner T93P-12200-A from synchronizer.

NOTE: When performing the following step, do not rotate crankshaft counter-clockwise as timing belt may jump a cog, putting camshaft or auxiliary shaft out of time.

17. Rotate crankshaft two revolutions clockwise.
18. Bring crankshaft slowly, without stopping, to number one cylinder firing position (keyway directly up).
19. Recheck timing mark alignment. Repeat steps if timing marks are no longer properly aligned.
20. Rotate tensioner assembly against bolt with torque wrench up to 41-45 Nm (30-33 ft-lb) and tighten adjusting bolt.
21. Tighten adjusting bolt to 35-45 Nm (26-33 ft-lb).
22. Tighten spring pivot bolt to 40-55 Nm (30-40 ft-lb).
23. Install the crankshaft belt guide.
24. Install the crankshaft position sensor onto the dowel pin and tighten the two longer bolts to 8-12 Nm (6-9 ft-lb).
25. Adjust crankshaft position sensor air gap. Refer to [Section 03-07B](#) or [Section 03-07C](#).
26. Install outer timing belt cover as outlined in this section.
27. Install spark plugs.

