

CAUTION: Using power tools or applying excessive force to the phaser assembly, such as using it as leverage or a lifting point, can cause damage which may not be visible immediately. This is a very common cause of returns. Using the correct procedure can help prevent damage and repeat failures! (See figures 1 & 4).

Note: Before attempting to install the chain on the sprocket, install the phaser on the camshaft and properly torque it in place.

Disassembly:

1. Before disassembly, align the timing marks and scribe a mark on the original phaser and the adjacent chain link (See figure 2). You will need to transfer this mark to the new part and use it during installation.
2. Ford recommends using a locking tool (not supplied) to prevent chain movement and to avoid having to retime the engine. (See figure 3). Install the locking tool to secure the timing chain.
3. Remove the camshaft with the sprocket and phaser as an assembly. Refer to the vehicle's Service Information for the procedure on your specific Year/Model.

NOTE: Do not remove the Timing Chain Locking Tool at any time during the removal or assembly process. If the special tool is removed, the engine front cover must be removed and the engine must be retimed.

4. Remove the camshaft phaser and sprocket from the timing chain.

Installation:

- CAUTION:** Using power tools or applying excessive force to the phaser assembly, such as using it as leverage or a lifting point, can cause damage that may not be visible immediately. This is a very common cause of returns. Using the correct procedure can help prevent damage and repeat failures! (See figures 1 & 4).
5. Transfer the scribe mark from the original phaser to the new camshaft phaser and sprocket.
- CAUTION:** The timing chain must be installed in its original scribed position on the camshaft phaser and sprocket. If it isn't installed there, damage to the valves and pistons will result.
6. Align the scribe marks and position the camshaft phaser and sprocket into the timing chain.
 7. Reinstall the camshaft in the vehicle using the applicable Service Information for your specific Model/Year.

Fig. 1 OK

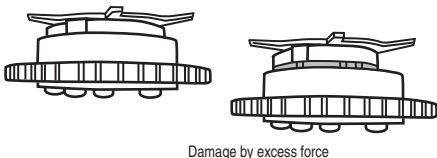


Fig. 2

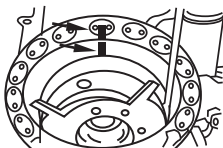
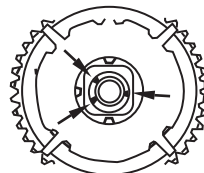


Fig. 3 Wedge, Timing Chain Q21002



Fig. 4



Beware of missing or damaged roll pins. Rear of the camshaft phaser and sprocket deformed or damaged location pin.

Fig. 5

