

2008 Fusion

Applies to:

2.3L

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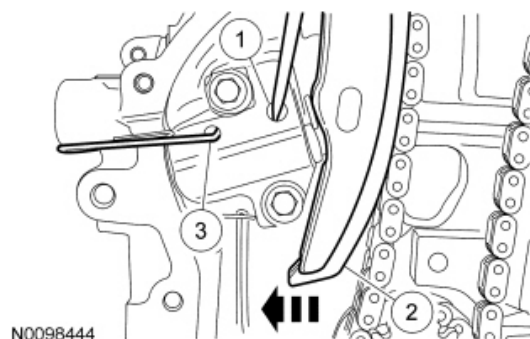
SECTION 303-01A: Engine — 2.3L	2008 Fusion/Milan/MKZ Workshop Manual
IN-VEHICLE REPAIR	Procedure revision date: 01/23/2009

Timing Drive Components**Removal**

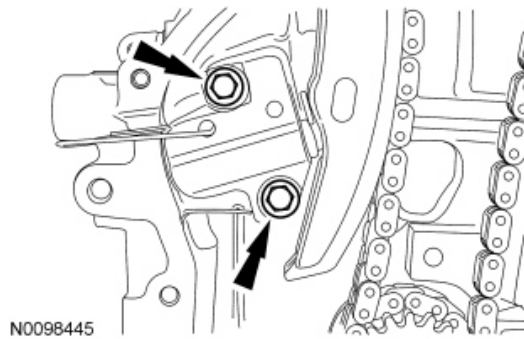
NOTICE: Do not loosen or remove the crankshaft pulley bolt without first installing the special tools as instructed in this procedure. The crankshaft pulley and the crankshaft timing sprocket are not keyed to the crankshaft. The crankshaft, the crankshaft sprocket and the pulley are fitted together by friction, using diamond washers between the flange faces on each part. For that reason, the crankshaft sprocket is also unfastened if the pulley bolt is loosened. Before any repair requiring loosening or removal of the crankshaft pulley bolt, the crankshaft and camshafts must be locked in place by the special service tools, otherwise severe engine damage can occur.

NOTICE: During engine repair procedures, cleanliness is extremely important. Any foreign material, including any material created while cleaning gasket surfaces, that enters the oil passages, coolant passages or the oil pan can cause engine failure.

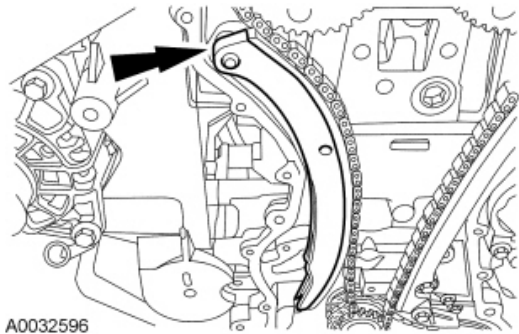
1. With the vehicle in NEUTRAL, position it on a hoist. For additional information, refer to [Section 100-02](#).
2. Remove the engine front cover. For additional information, refer to [Engine Front Cover](#) in this section.
3. Compress the timing chain tensioner in the following sequence.
 1. Using a small pick, release and hold the ratchet mechanism.
 2. While holding the ratchet mechanism in the released position, compress the tensioner by pushing the timing chain arm toward the tensioner.
 3. Insert a paper clip into the hole to retain the tensioner.



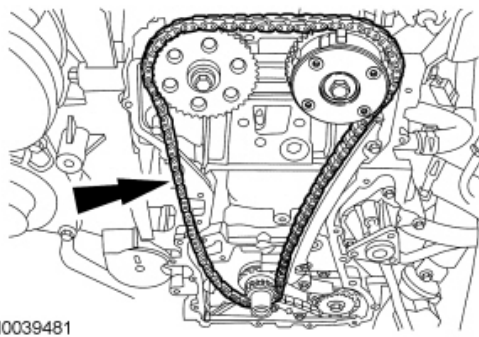
4. Remove the 2 bolts and timing chain tensioner.



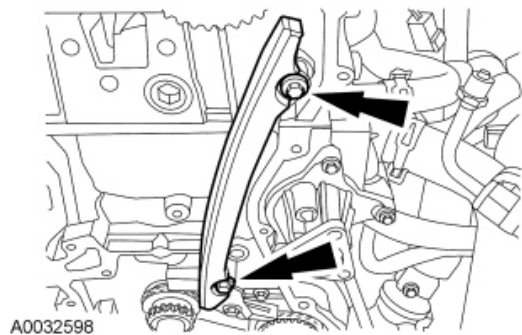
- Remove the timing chain tensioner arm.



- Remove the timing chain.

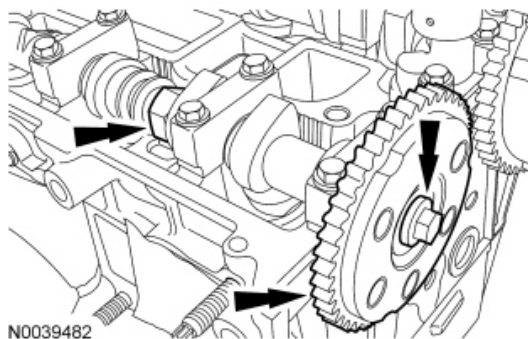


- Remove the 2 bolts and the timing chain guide.



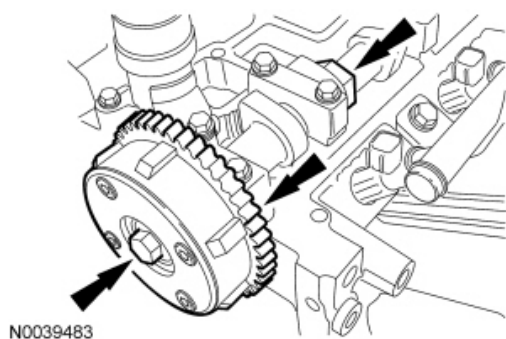
- NOTICE:** The Camshaft Alignment Plate is for camshaft alignment only. Using this tool to prevent engine rotation can result in engine damage.

Using the flats on the camshaft to prevent camshaft rotation, remove the bolt and the exhaust camshaft sprocket.



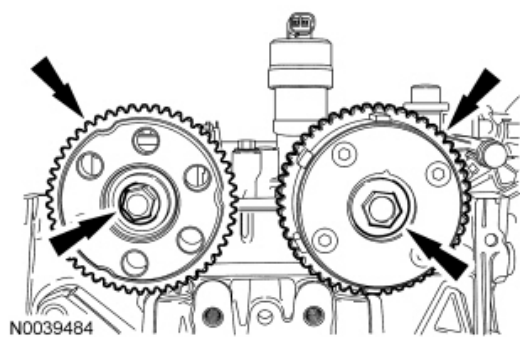
9. **NOTICE:** The Camshaft Alignment Plate is for camshaft alignment only. Using this tool to prevent engine rotation can result in engine damage.

Using the flats on the camshaft to prevent camshaft rotation, remove the bolt and the camshaft phaser and sprocket.

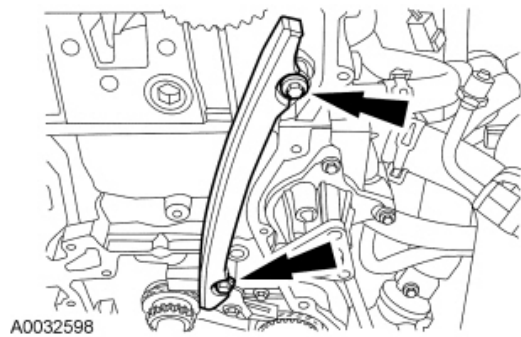


Installation

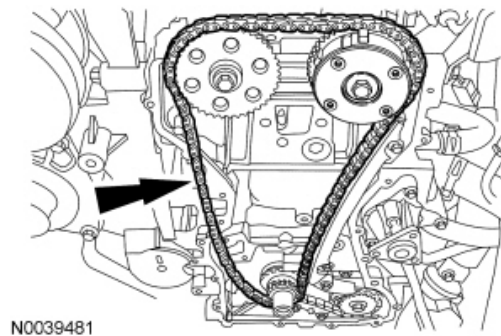
1. Install the camshaft sprockets and the bolts. Do not tighten the bolts at this time.



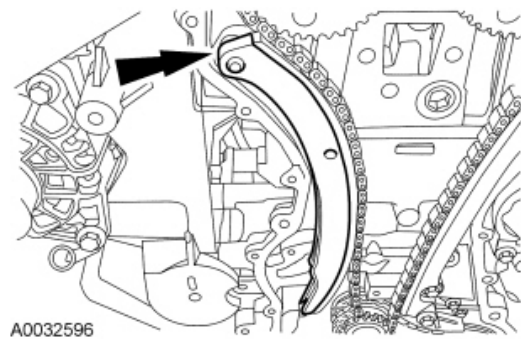
2. Install the timing chain guide and the 2 bolts.
 - To install, tighten to 10 Nm (89 lb-in).



3. Install the timing chain.



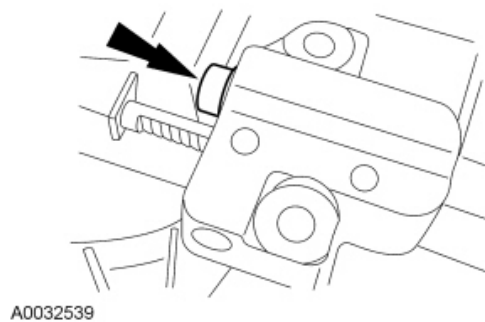
4. Install the timing chain tensioner arm.



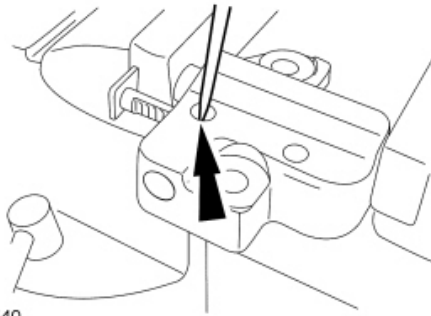
NOTE: If the timing chain tensioner plunger and ratchet assembly are not pinned in the compressed position, follow the next 4 steps.

5. **NOTICE:** Do not compress the ratchet assembly. This will damage the ratchet assembly.

Using the edge of a vise, compress the timing chain tensioner plunger.

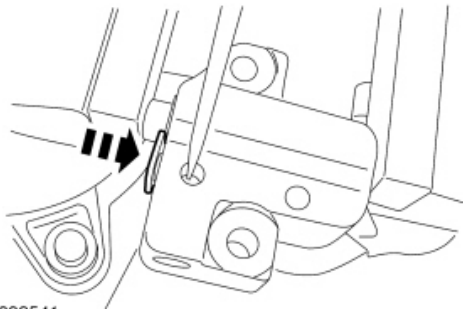


- Using a small pick, push back and hold the ratchet mechanism.



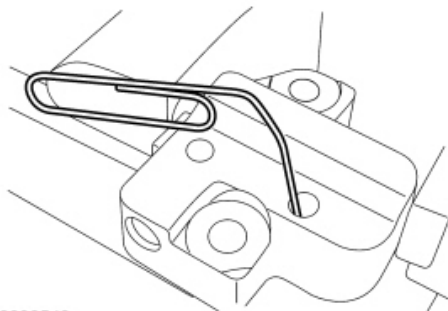
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- While holding the ratchet mechanism, push the ratchet arm back into the tensioner housing.



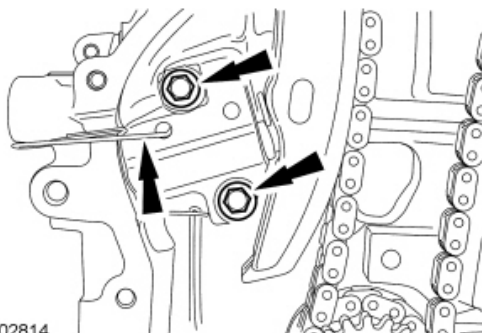
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- Install a paper clip into the hole in the tensioner housing to hold the ratchet assembly and the plunger in during installation.



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- Install the timing chain tensioner and the 2 bolts. Remove the paper clip to release the piston.
 - Tighten to 10 Nm (89 lb-in).

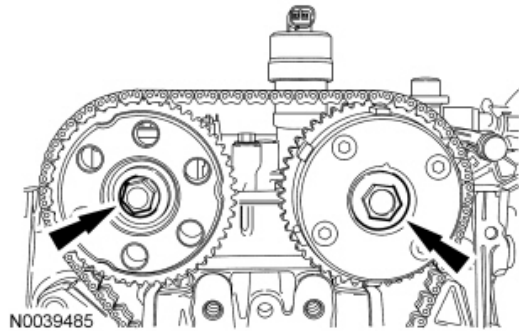


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10. **NOTICE:** The Camshaft Alignment Plate is for camshaft alignment only. Using this tool to prevent engine rotation can result in engine damage.

Using the flats on the camshafts to prevent camshaft rotation, tighten the bolts.

- Tighten to 72 Nm (53 lb-ft).



11. Install the engine front cover. For additional information, refer to [Engine Front Cover](#) in this section.
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