

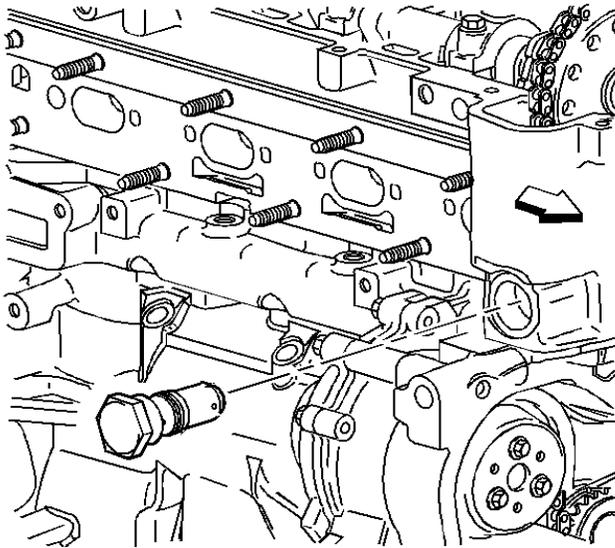
Timing Chain Tensioner Replacement

Tools Required

[J 45027](#) Tensioner Tool

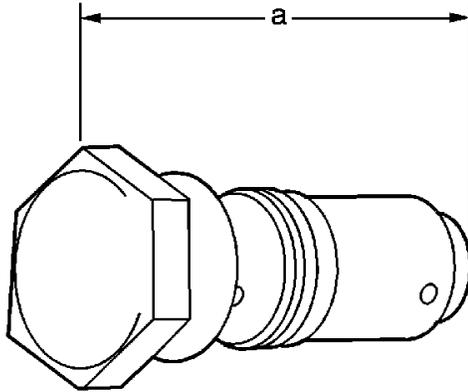
Removal Procedure

1. Disconnect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .
2. Remove the camshaft cover. Refer to [Camshaft Cover Replacement](#) .

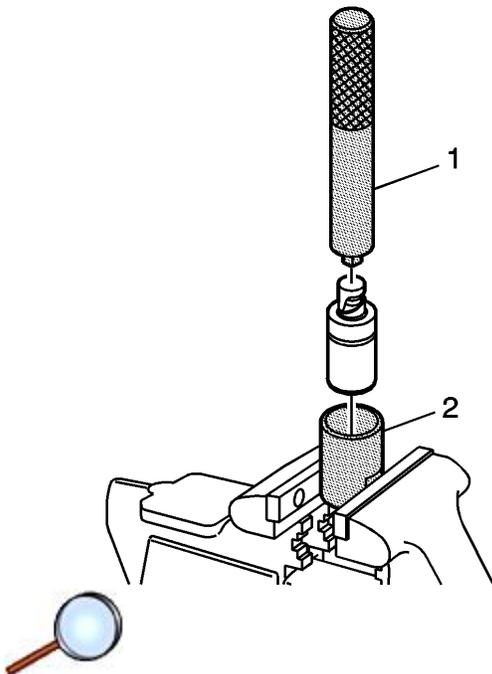


3. Remove the timing chain tensioner.
4. Remove the seal from the tensioner.

Installation Procedure

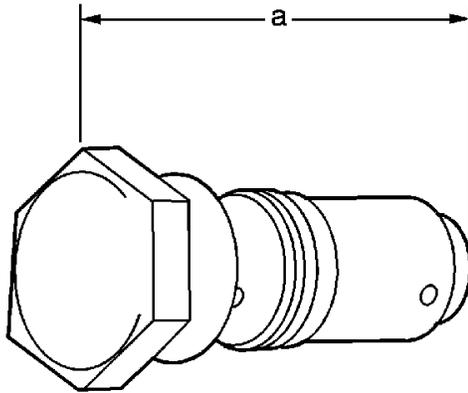


1. Inspect the timing chain tensioner. If the timing chain tensioner, O-ring seal, or washer is damaged, replace the timing chain tensioner or O-ring seal as applicable.
2. Measure the timing chain tensioner assembly from end to end. If the timing chain tensioner is to be replaced, a new tensioner should be supplied in the fully compressed non-active state. A tensioner in the compressed state will measure 72 mm (2.83 in) (a) from end to end. A tensioner in the active state will measure 85 mm (3.35 in) (a) from end to end.

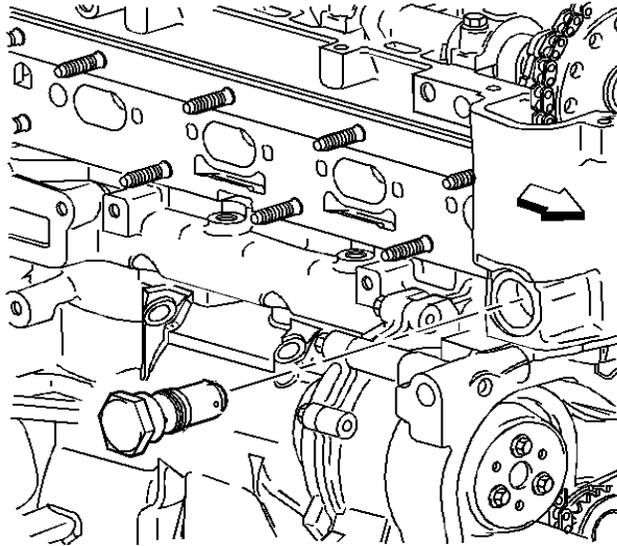


1. If the timing chain tensioner is not in the compressed state, perform the following steps:

- 3.1 Remove the piston assembly from the body of the timing chain tensioner by pulling it out.
- 3.2 Install the J45027-2 (2) into a vise.
- 3.3 Install the notch end of the piston assembly into the J45027-2 (2).
- 3.4 Using the J45027-1 (1), turn the ratchet cylinder into the piston.



1. Inspect the bore of the tensioner body for dirt, debris, and damage. If any damage appears, replace the tensioner. Clean dirt or debris out with a lint-free cloth.
2. Install the compressed piston assembly back into the timing chain tensioner body until it stops at the bottom of the bore. Do not compress the piston assembly against the bottom of the bore. If the piston assembly is compressed against the bottom of the bore, it will activate the tensioner, which will then need to be reset again.
3. At this point the tensioner should measure approximately 72 mm (2.83 in) (a) from end to end. If the tensioner does not read 72 mm (2.83 in) (a) from end to end, repeat steps 3-5.



1. Inspect to ensure all dirt and debris is removed from the timing chain tensioner threaded hole in the cylinder head.

Notice: Refer to [Fastener Notice](#) .

Important: Ensure the timing chain tensioner seal is centered throughout the torque procedure to eliminate the possibility of an oil leak.

2. Install the timing chain tensioner assembly.

Tighten

Tighten the timing chain tensioner to 75N·m (55lbft).

3. The timing chain tensioner is released by compressing the tensioner 2 mm (0.079in) which will release the locking mechanism in the ratchet. To release the timing chain tensioner, use a suitable tool with a rubber tip on the end. Feed the tool down through the cam drive chest to rest on the cam chain. Then give a sharp jolt diagonally downwards to release the tensioner.
4. Install the camshaft cover. Refer to [Camshaft Cover Replacement](#) .
5. Connect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .