

RECOMMENDED INSTALLATION PROCEDURE
TIMING BELT TENSIONER (979332) FOR AFTERMARKET
VW 2.5L I5, Gasoline, (EA 153)
Revision date: 06/28/1999

1. Allow the engine and tensioner to stabilize to the same relative ambient temperature before installing a tensioner for proper belt tension adjustment. Do not attempt to install a cool tensioner onto a hot engine or vice versa.
2. Rotate both the crankshaft and camshaft **CLOCKWISE** to TDC (Top Dead Center) position (i.e. #1 cylinder firing position) and remove the timing belt. This defined position is to be the position where there is no action (positive or negative) from the camshaft or other sprockets. One should find no sudden movement or abrupt action from either of the sprockets. Generally cam & crankshaft sprockets have to line up with equivalent markings on the engine block to indicate TDC.

Initial Setup of the TBT (Timing Belt Tensioner)

3. Place a new tensioner onto the engine. Tensioner's Anti-Rotation Slot should fit over the Location Pin on the engine (See Figure 1).
4. Rotate the Installation Shaft until the tensioner has moved to extreme "away-from-belt" position then hand tightens the M8 Mounting Bolt (Also See Figure 1).

Installation of the TBT

5. Install the timing belt being careful to engage the appropriate teeth of all the corresponding sprockets as per drive layout (See Figure 2).
(**Caution:** Do not disturb the position of the crankshaft or camshaft sprockets during this procedure.)
6. Rotate the Installation Shaft **CLOCKWISE** with a 32mm Wrench. Make sure to hold the mounting bolt with a 13mm Wrench in order to prevent it from turning when rotating the Installation Shaft. The Tensioner assembly will move against the belt and the Arm Pointer will eventually start to move **CLOCKWISE** (See Figure 3).
7. Continue rotating the Installation Shaft until the Arm Pointer and the Nominal Position Tab are closely aligned at their lower edges, then lock the tensioner in this position by tightening the Mounting Bolt with **19±3 Nm** of torque (See Figure 4).

Verification of the Nominal Position

8. Remove both wrenches. Rotate the crankshaft two (2) complete revolutions manually for proper seating of the belt until the crankshaft is repositioned at the TDC position.
Note: Repositioning the crankshaft to the TDC position must be done only during the clockwise rotation.
9. Check the position of the Arm Pointer.
 - If the Arm Pointer still aligns with the Nominal Position Notch at their lower edges, the installation is complete (See Figure 5).
 - If not, go to step #10. The installation needs to be repeated until the proper position is achieved.

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Readjustment

10. Engage the 32mm Wrench and retain its position while loosening the Mounting Bolt with the 13mm Wrench. The Mounting Bolt and the Tensioner do not need to be removed. Rotate the Installation Shaft COUNTERCLOCKWISE with the 32mm Wrench until the Arm Pointer returns to the Free-Arm Position (See Figure 1). Follow step #5~9.

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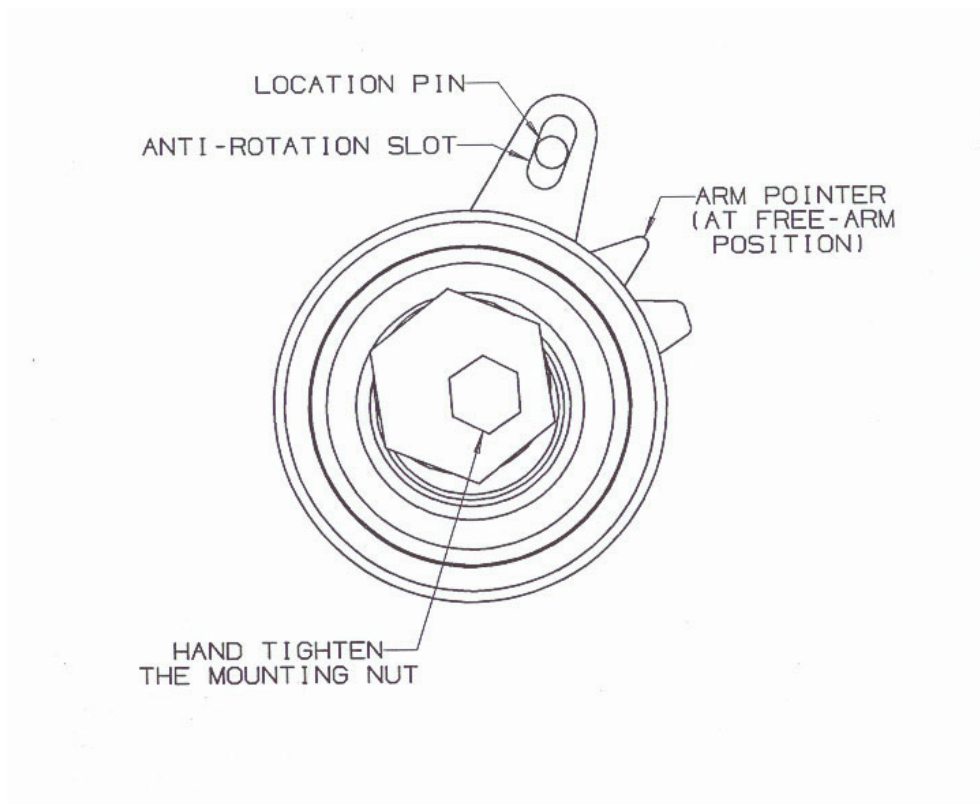


Figure 1: Tensioner shown at Free-Arm position placed on the mounting surface

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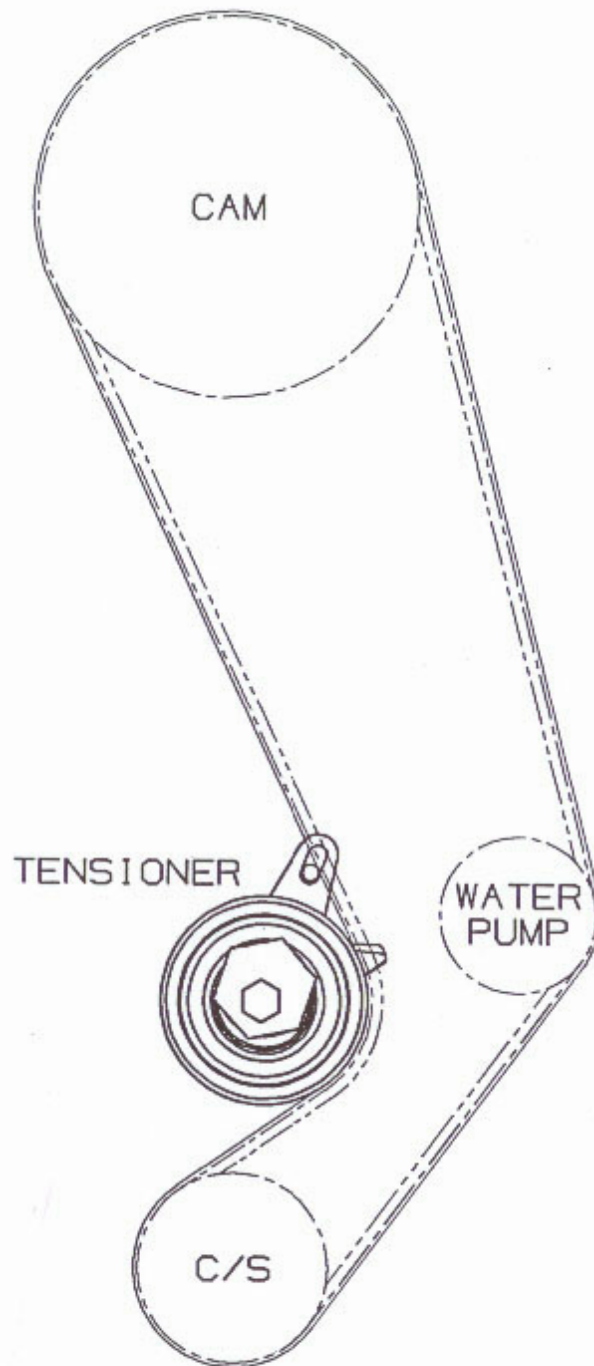


Figure 2: Belt layout for 979332 (VW 2.5L I5.)

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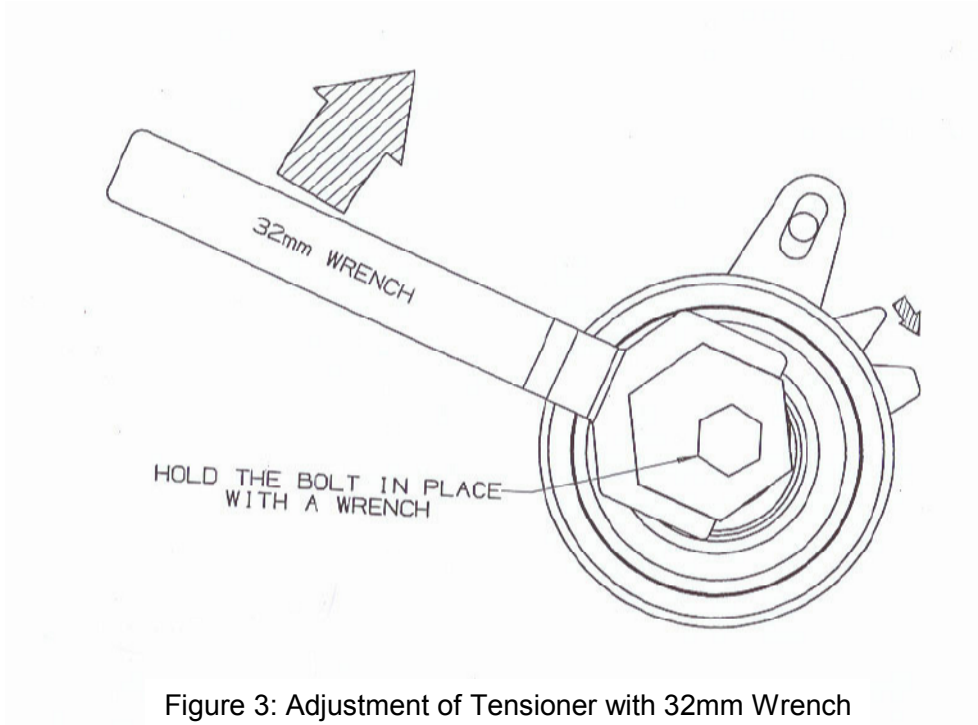


Figure 3: Adjustment of Tensioner with 32mm Wrench

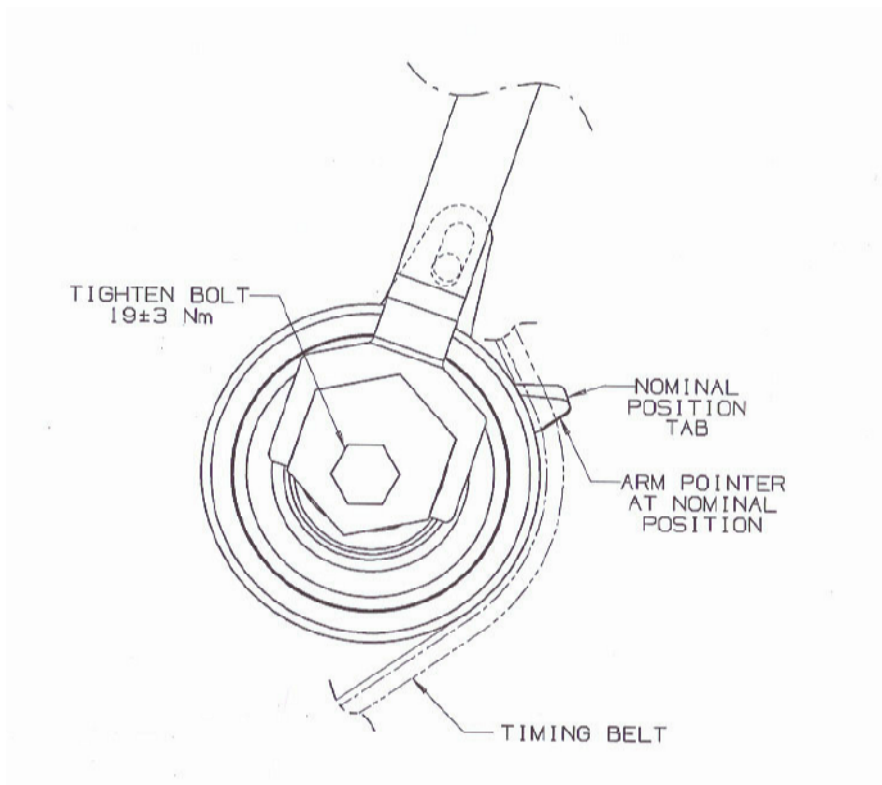


Figure 4: Proper Installation of tensioner at room temperature (20°C)

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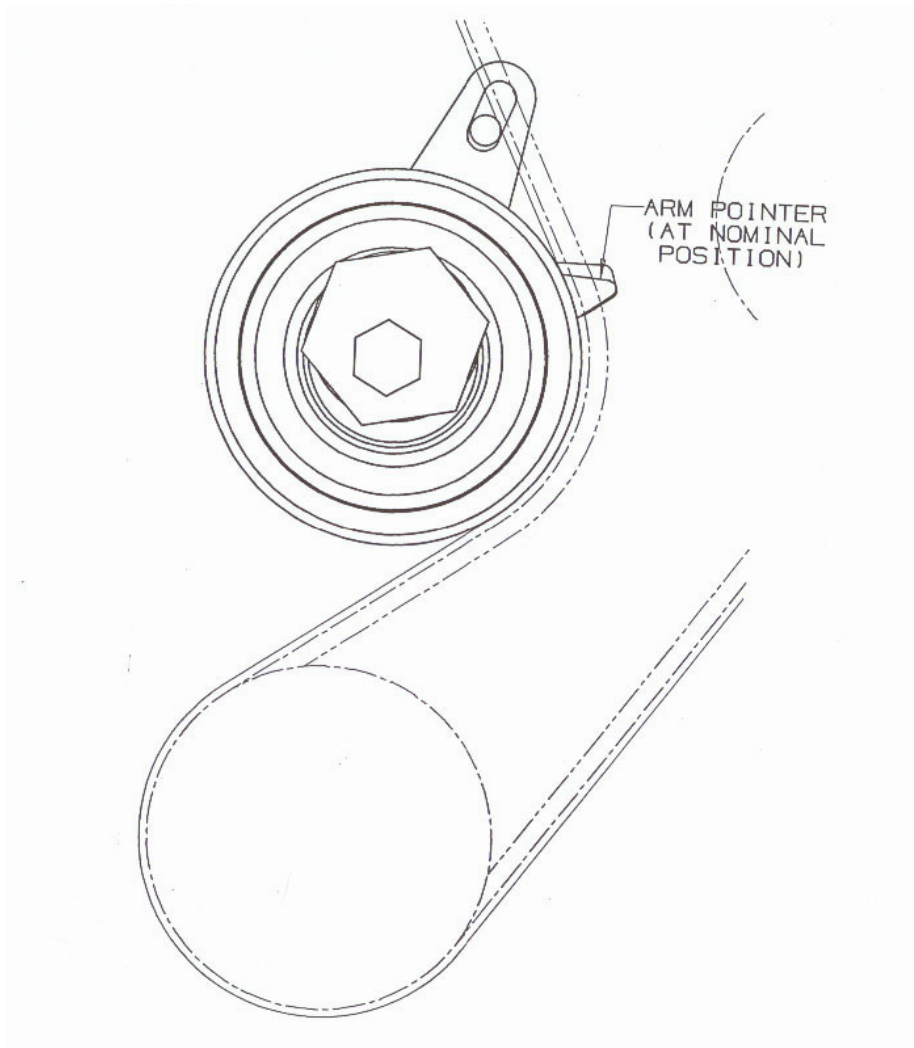


Figure 5: Verification of Tensioner Installation
Arm pointer aligns with the nominal position tab at their lower edges.