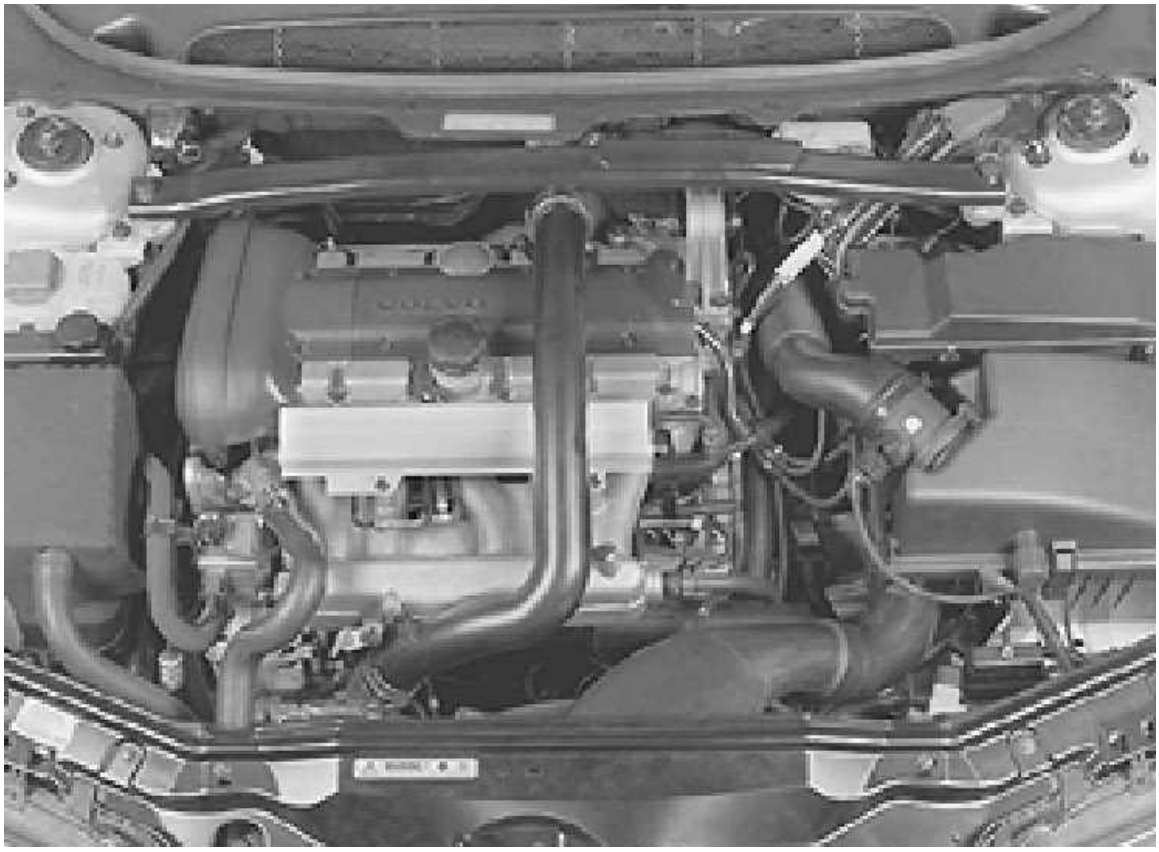
Replacing the Timing Belt
Timing belt, replacing

Special tools: 999 5433

Note: As the illustrations in this service information are used for different model years and / or models, some variation may occur. However, the essential information is always correct.

Remove components



Caution: Remove the ignition key.

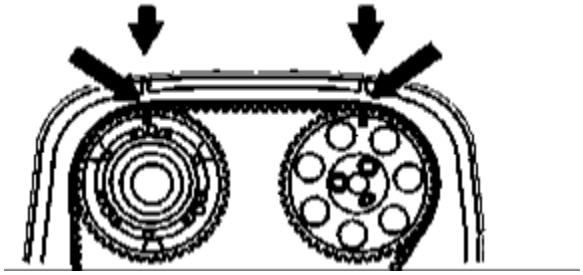
Remove:

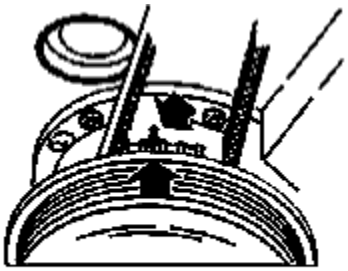
- the cross stay between the suspension turrets
- the upper timing belt cover
- the servo reservoir and the expansion tank. Lift up and place on top of the engine.

Warning: Ensure that no power steering fluid is spilled. Extremely flammable.

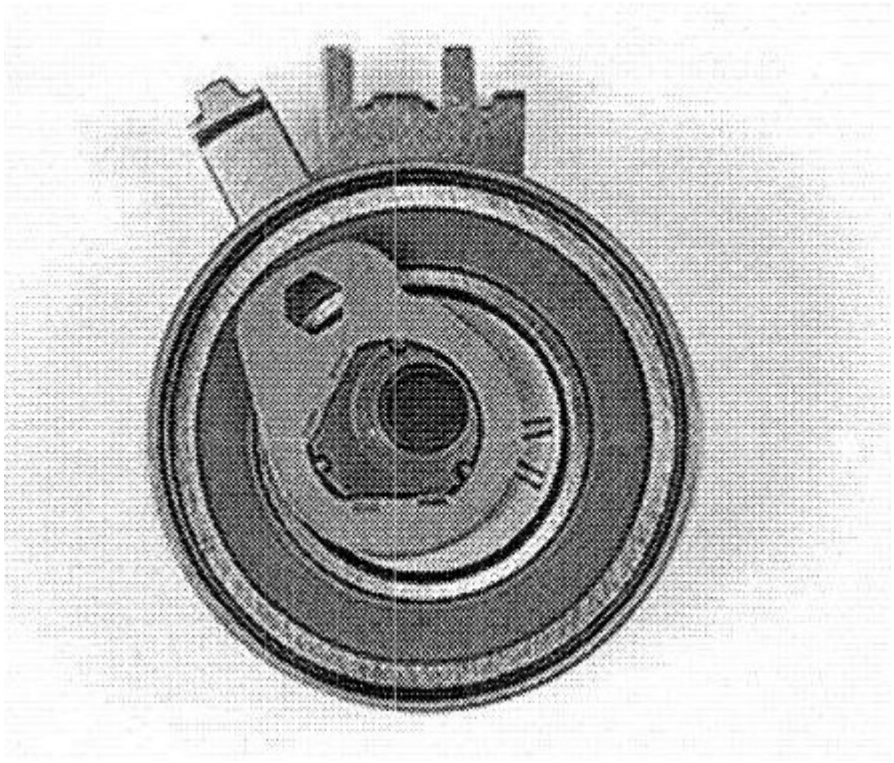
- the auxiliaries belt
- the front timing belt cover.

Position the engine according to the marking



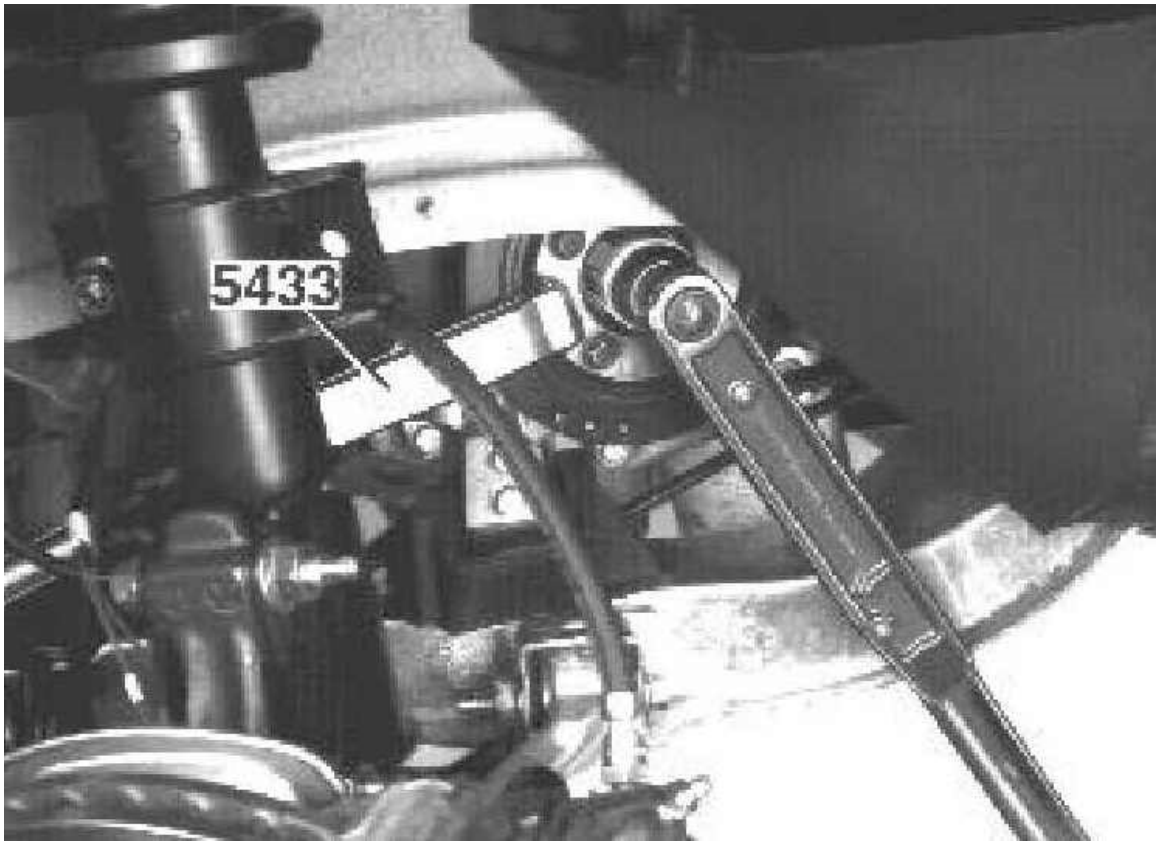


Removing the timing belt



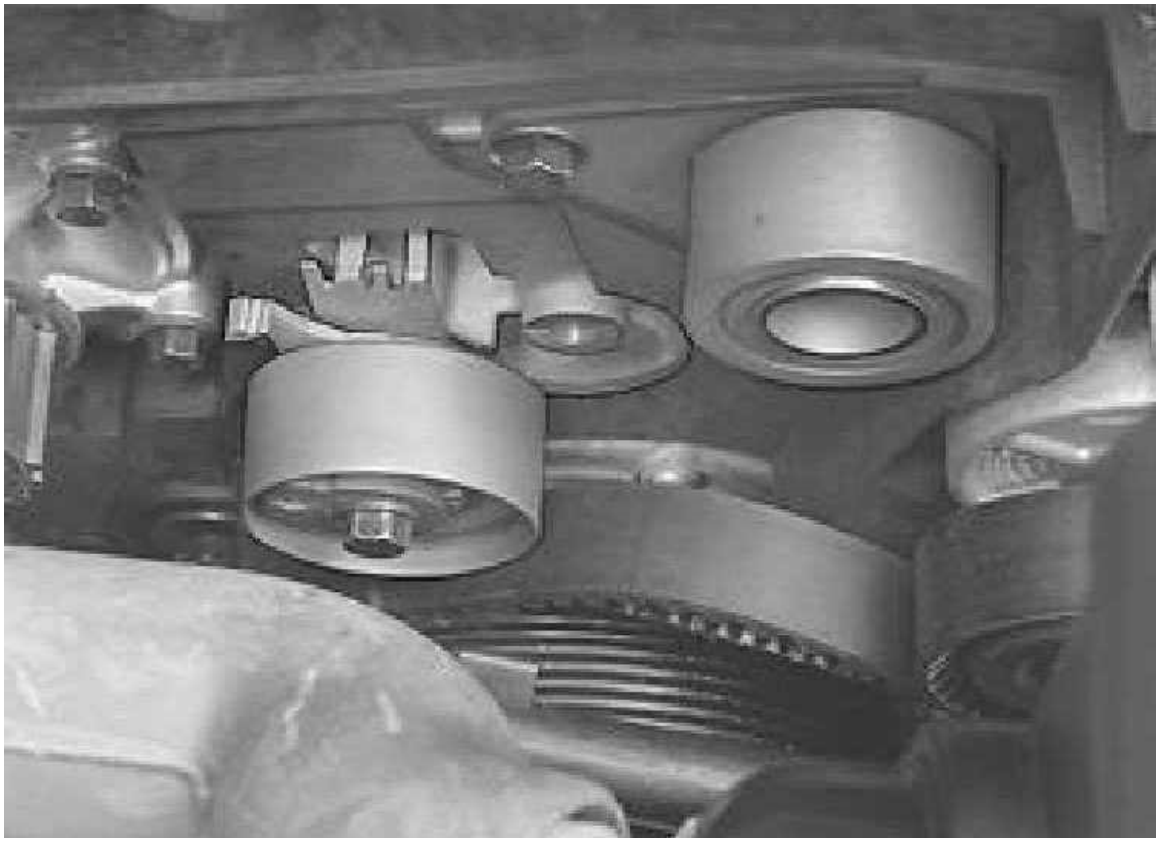
Slacken off the belt tensioner.
Slacken off the center screw for the belt tensioner slightly.

Hold the center screw still. Turn the tensioner eccentric clockwise using a 6 mm Allen key to 10 o'clock.
Remove the timing belt from the tension pulley, camshaft pulley and water pump.
Remove the vibration damper.
Remove the vibration damper. Use counterhold 999 5433. Work the vibration damper loose.



Remove the timing belt

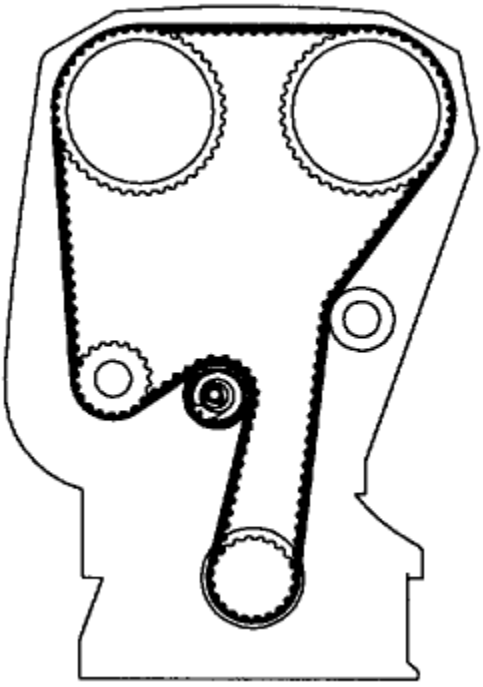
Checking the tensioner pulley and idler pulley
Check bearing wear:



- spin the idler pulley and listen for noise. If replacing with a new idler pulley, tighten to **24 Nm**
- spin the tension pulley and listen for noise. When replacing, screw the tension pulley into place using the center screw.

Screw in the center screw by hand.
Ensure that the tensioner fork is centered over the cylinder block rib.
Ensure that the Allen hole on the eccentric is at "10 o'clock".

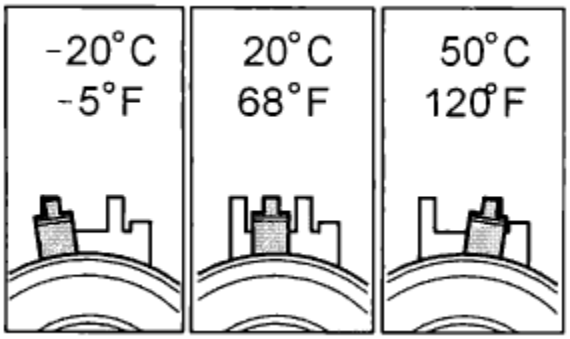
Installing the timing belt



Install the timing belt over the pulley on the crankshaft.
Install the vibration damper. Tighten the center nut. Tighten to **180 Nm** . Use counterhold 999 5433.
Remove the counterhold and install new screws.
Tighten the screws. Tighten to **25 Nm** and angle tighten 30°
Install the new belt in the following order:

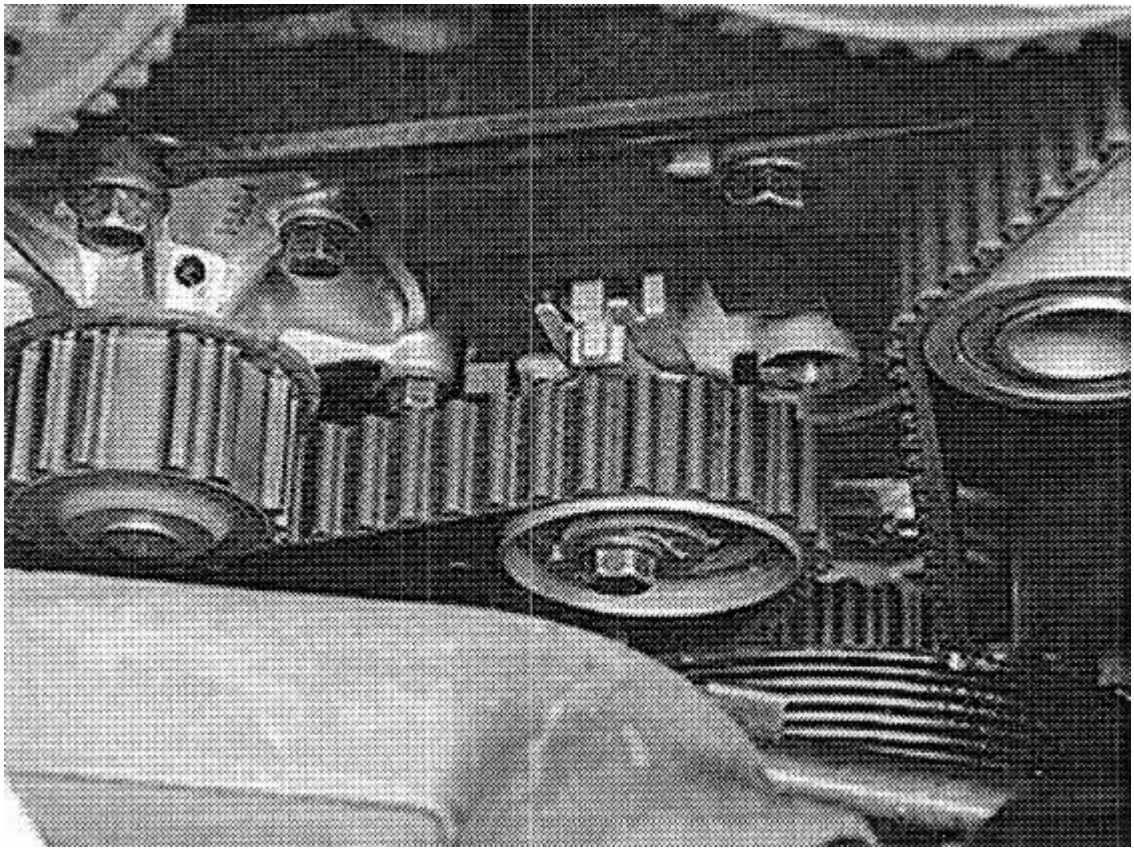
- crankshaft
- the idler pulley
- intake camshaft pulley
- exhaust camshaft pulley
- water pump
- belt tensioner.

Tighten the timing belt



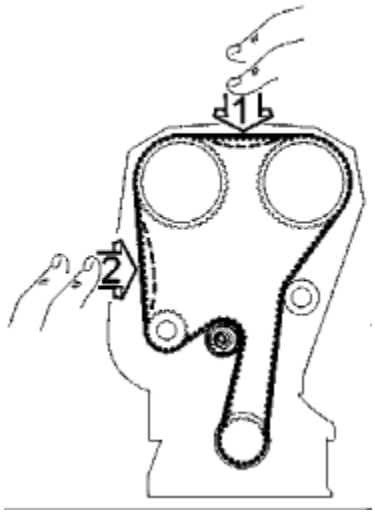
This adjustment is carried out on a cold engine. A suitable temperature is approximately **20°C/68°F** .
At higher temperatures, for example with the engine at operating temperature or at higher ambient temperature, the needle is further to the right.
The illustration shows the position of the indicator when aligning the timing belt tensioner at different temperatures.

Tension the timing belt as follows:



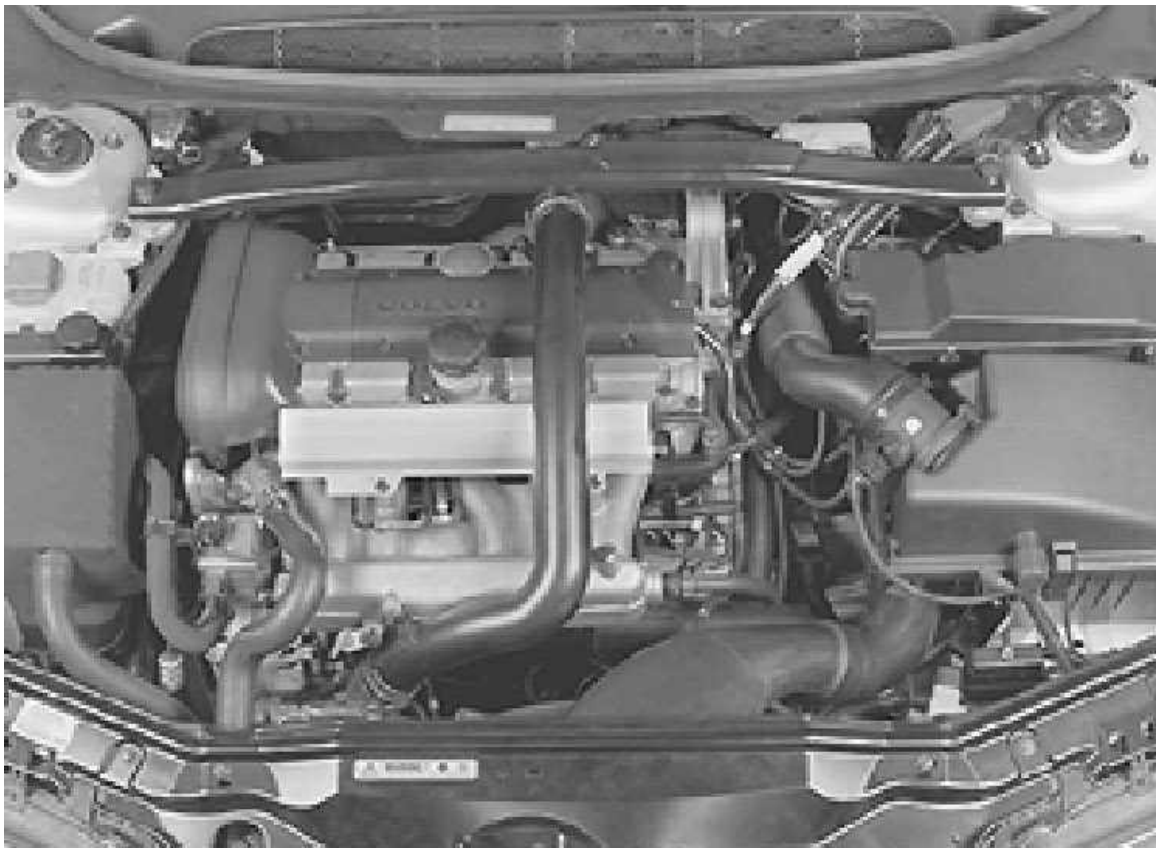
- turn the crankshaft clockwise carefully until the timing belt is tensioned. The belt must be tensioned between the intake camshaft pulley, the idler pulley and the crankshaft
- hold the center screw on the belt tensioner secure. Turn the belt tensioner eccentric counter-clockwise until the tensioner indicator passes the marked position. Then turn the eccentric back so that the indicator reaches the marked position in the center of the window
- Hold the eccentric secure and tighten the center screw. Tighten to **20 Nm** . Check that the indicator is in the correct position.

Check
Checking markings:



- press the belt to check that the indicator on the tensioner moves easily
- install the upper timing belt cover
- turn the crankshaft 2 turns. Check that the markings on the crankshaft and camshaft pulley correspond
- check that the indicator on the belt tensioner is within the marked area.

Reinstall
Reinstall the removed components:



- the front timing belt cover. Tighten to **12 Nm**
- the upper timing belt cover
- install the auxiliaries belt
- the servo reservoir
- the expansion tank.

Note: Ensure that the hoses are correctly positioned.

- the engine stabilizer brace. Tighten the screws at the suspension turrets. Tighten to **50 Nm** . Tighten the engine bracket screw. Tighten to **80 Nm** . Wipe clean and check the engine compartment
- the cover in the fender liner
- the front wheel.

Checking work
Function test:

- Test drive the engine.