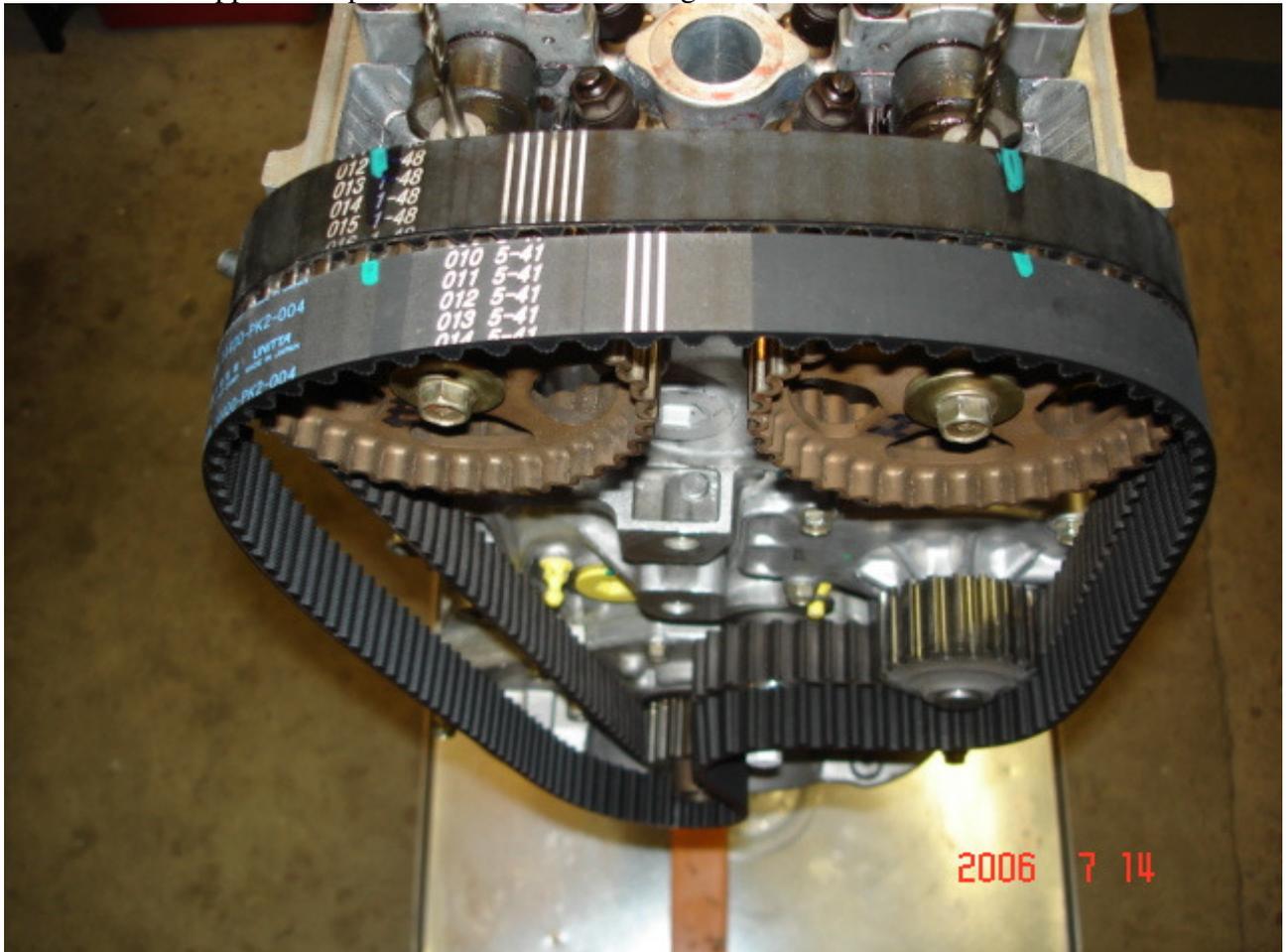


Timing Belt Installation

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This time around, as to learn from a previous mistake, before I removed the old belt from my current project I set the crank at TDC with #1 cylinder at firing position. Arrows on cams pointing straight up. I marked everything. I marked the belt to the cam gears and to the crank gear and saved the belt as a reference tool at re-assembly. This to be absolutely positive I got the new belt back on correctly. 😊

What you see below is the new belt lined up and marked to match the marks on the old belt. This showed me what tripped me up the first time. If you don't have a reference like this (because the old belt is broken) the following pics should help give a clear visual of what tripped me up and how to avoid making the same mistake I made.



First you will need a couple of rig pins to lock the cams into position. The instructions are in the service manual. I found that two #9 drill bits works best for me. I wanted a good fit without any play because it doesn't take much movement to be off a tooth. The #9s fit just about perfectly.



So here is what it looked like with the rigging set up. Whats is this? This doesn't quite look right to me. There is slack in the belt between the cam gears. I thought, this couldn't be right.

The first time I installed one, I thought there shouldn't be this slack. I thought I'd take that slack out of the belt and go to the next tooth. I was **WRONG**. What I failed to realize was, this was correct and was just the rigging phase. I hadn't actually adjusted the tension on the belt.





You can see below that you cannot actually move it to the next tooth with the rigging pins installed. You'd have to either move the crank or move one of the cams. Long story short, that slack will take care of itself when all is said and done.



Below is a wide angle with the rigging pins in, arrows on cams pointing straight up and the #1 cyl at TDC. White tensioner bolt is loose. You may notice the black plastic back plate for the timing belt cover has not been installed yet. Be sure to put that on before you install the belt the final time.



That's basically it. All that's left to do is adjust the tension on the belt. I have a better understanding now and have a good visual reference of what it should look like before the tension is set. It won't be absolutely necessary to have the old belt with marks on it to install a new one next time.

To set the tension follow the instructions in the manual. (Correction 08/14/07) Loosen then tighten tensioner bolt, then move crank a few teeth counter clockwise, loosen and re-tighten tensioner bolt again) If you turn the crank clockwise before you have the tension set, the belt will jump a tooth or several teeth on the crank gear. Keep an eye on that. Anyway turning it counter clockwise will tighten the belt and set the tensioner all in one step. Now tighten the tensioner bolt to the correct torque.

Correction

Tension Adjustment

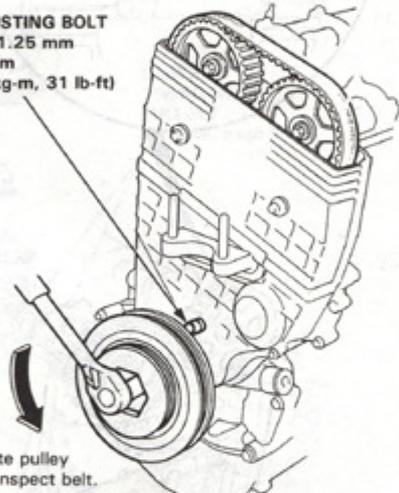
CAUTION: Always adjust timing belt tension with the engine cold.

NOTE:

- Tensioner is spring-loaded to apply proper tension to the belt automatically after making the following adjustment.
- Inspect the timing belt before adjusting the belt tension.

1. Set the No. 1 piston at TDC.
2. Loosen, but do not remove, the adjusting bolt, then tighten the adjusting bolt.

ADJUSTING BOLT
10 x 1.25 mm
43 N·m
(4.3 kg-m, 31 lb-ft)



Rotate pulley and inspect belt.

3. Rotate crankshaft counterclockwise 3-teeth on camshaft pulley, then loosen the adjusting bolt to create tension on timing belt.
4. Tighten adjusting bolt.
5. If pulley bolt broke loose while turning crank, retorque it to 150 N·m (15.0 kg-m, 108 lb-ft).

NOTE: Put transmission in gear and set parking brake before retorquing pulley bolt.

This pic shows the belt with the tension set.



Intake side with tension set.



Exhaust side with tension set

