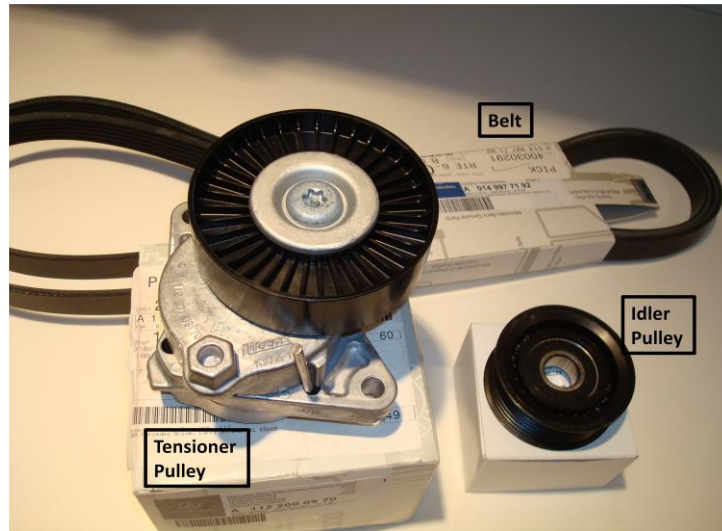


## Complete Serpentine (Poly-V Belt) Replacement DIY M112 & M113 Engines

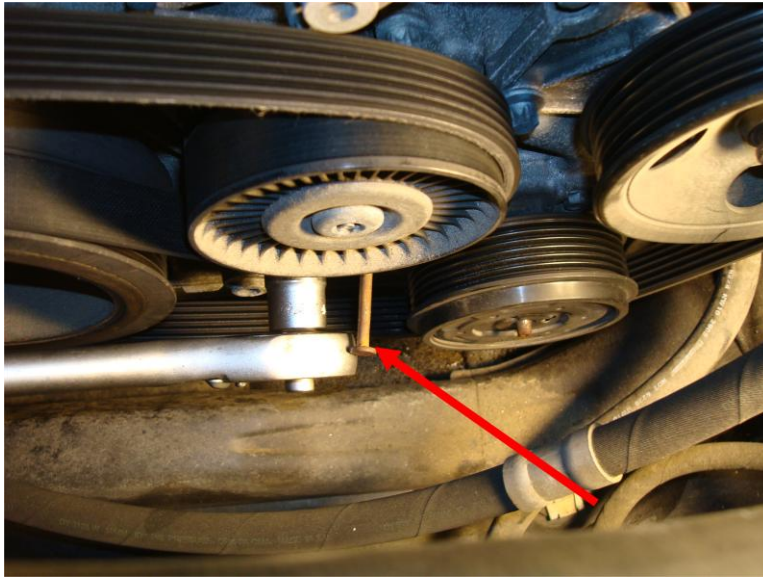
1) Here's a picture of the three parts that will be replaced. A diagram of the belt path is provided below. **Recommend that this job be performed on a cold engine!**



2) Do not remove the locking pin on the Tensioner Pulley – **this pin will be removed after the new belt is installed:**



3) Using a 17mm wrench, push downward and counterclockwise to move the tensioner to its furthest position (that doesn't apply tension to the belt) in order to insert a pin into the tensioner. This is required to lock the mechanism so you can remove the belt as well as the old tensioner. Feel around with the pin for the hole because it's difficult to see. I used a large nail for a pin:



4) After locking the tensioner and removing the belt, it's a good time to check the water pump pulley for play. Hold it at either 9:00 or 3:00 and try to wobble it. If there's no play, there's no bearing problem with it (of course, the bolts holding the pulley to the water pump should be tight):



5) Next, pry the dust cover off the idler pulley with a small, flat blade screwdriver to expose the mounting bolt:



6) Using a T-50 Torx, remove the bolt – this bolt is long but only threaded on the end:



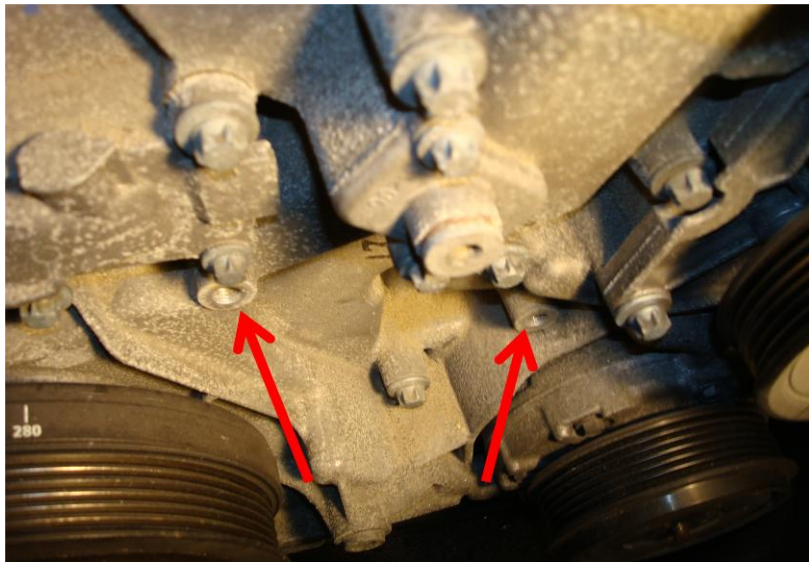
7) Clean the mounting area with a towel, and install the new idler pulley – there's no front or back but I like to have the part number visible. Torque to 20Nm (15 lbs ft).



8) Now it's time to remove the old tensioner pulley – this part is held in by 2 Torx bolts (size E-12, external Torx):



9) Once the old tensioner is removed, you may want to clean that area up and re-familiarize yourself where the mounting holes are. You may also want to clean up all the accessory pulleys (plain microfiber cloth or blow compressed air to remove any residual debris) as I found a good amount of sand/dirt in this area:



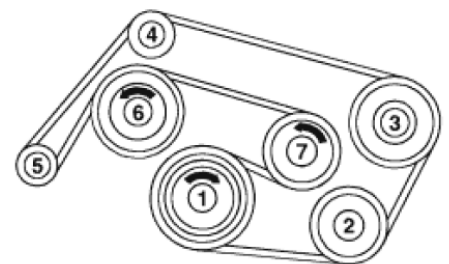
10) Install the new tensioner and torque the bolts to 25Nm (18 lbs ft) – **and don't remove that pin yet!!**



11) Install the new belt according to the belt path diagram – the tensioner pulley should be the last “loop” the belt passes around (or the water pump – you don't want to stretch the belt to get it over a pulley that has a lip on it) when you're installing the belt. Check the belt to make sure it is correctly seated on all the accessory pulleys.

**6-groove single-belt drive, with AC compressor**

- 1 Crankshaft
- 2 AC compressor
- 3 Power steering pump
- 4 Guide pulley 1
- 5 Generator
- 6 Coolant pump and fan
- 7 Tension pulley



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12) If everything looks good, use the 17mm wrench as before and push counterclockwise to move the tensioner to its furthest position (which won't be a lot this time) to be able to remove that pin – pull the pin out while you still have pressure on the tensioner, and slowly release the tensioner -- now the belt will be under tension.

13) Once again, check the belt to make sure it is correctly seated on all the accessory pulleys. If everything is OK, you can start the engine and check belt travel.

14) This DIY should only take you about an hour if you've never done it before.