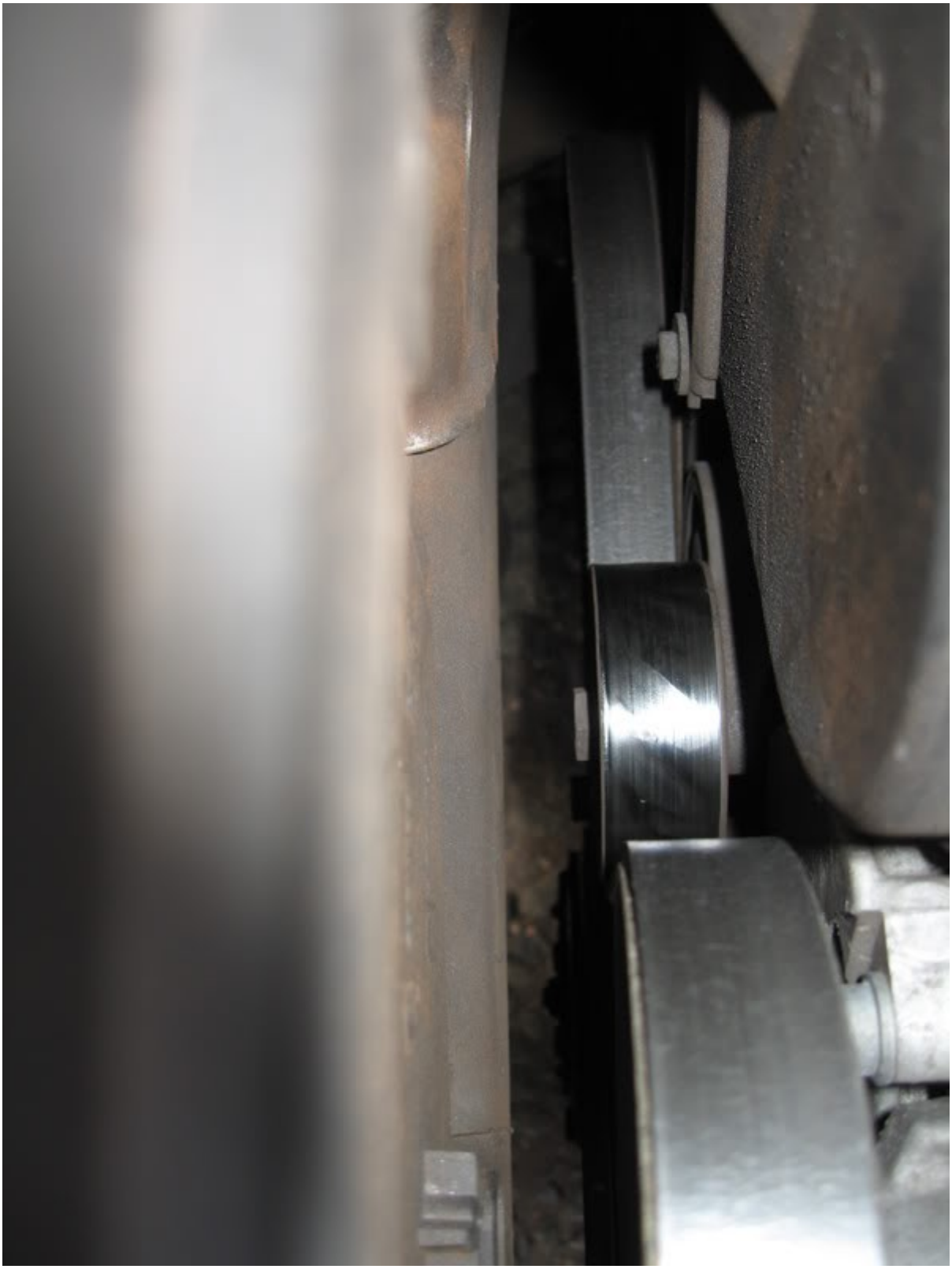
How To: Replace aux belt & pulley on a HDi

Thought I would share my recent experiences with the coupe and give you a little how to on replacing the auxiliary drive belt and crankshaft pulley on the Hdi.

Recently I have been hearing a ticking sound coming from the drivers side of the engine (and no its not meant to sound like that for you Hdi haters). I had a look down the side and did not see anything obvious but I did notice alot of metallic dust / debris down the side of the engine. On top of that the Aux drive belt tensioner pulley looked a little worn. I have read on some other forums that the crank pulley can be a source of this noise and debris and as the noise was getting progressively worse decided to have a go at replacing it myself. For info my coupe has done just shy of 130K miles at this point. Some pics to illustrate what I saw.



Worn tensioner + metallic dust

The procedure to replace the pulley requires removal of the aux drive belt so you can see how that is done at the same time.

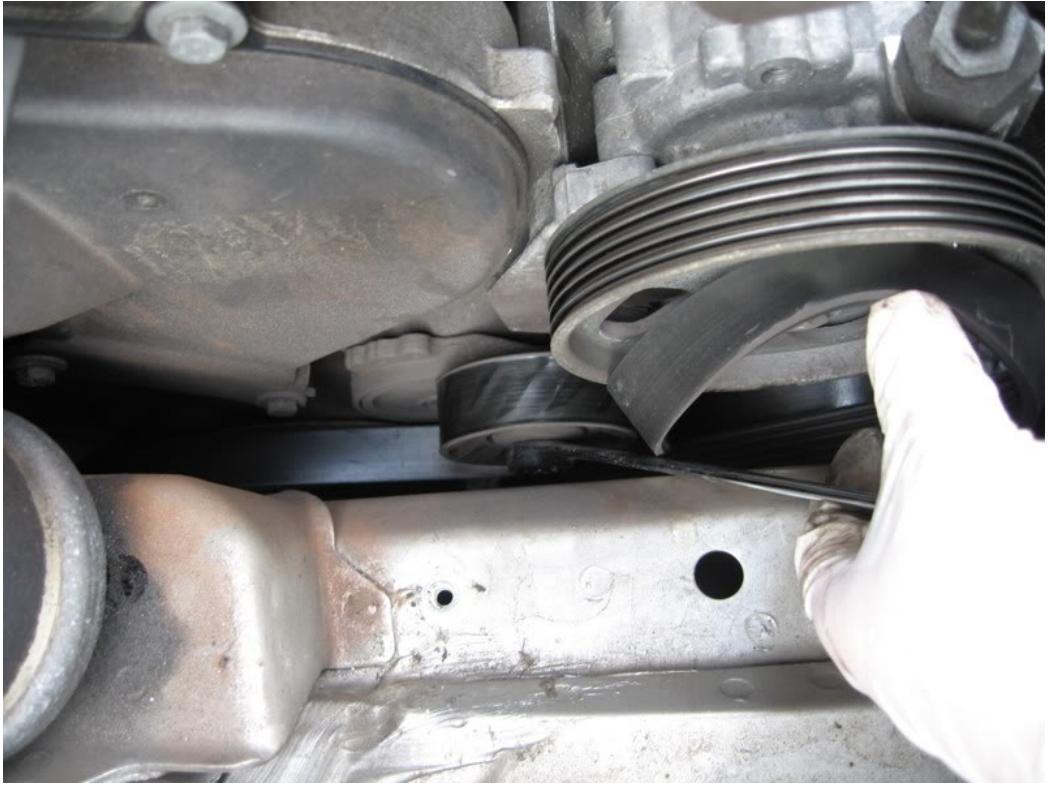
Start by popping the lid off the ECU housing and removing the ECU. Rest this on the engine out of the way. Take care not to damage any wiring.

Removed ECU + Lid

Next undo the 10mm bolt in the bottom of the ECU housing and remove housing. You are presented with this.

Removed ECU housing

From here you can clearly see the tensioner pulley. To remove the Aux drive belt use a 15mm spanner on the bolt in the centre of the tensioner and push the tensioner away from you. This will remove the tension from the belt and it can be slipped off.



Belt being removed

At this point if you are just replacing the Aux drivebelt you can slip the old belt off and the new one on. For those doing the pulley and tensioner proceed as follows.

Jack up the car and remove the drivers front wheel. Ensure you are using axle stands and do not rely on a jack to support the cars weight.

Car jacked up.

Remove the wheelarch liner. This is held on by 3 pop off clips. You will need to remove the bottom part of the liner that attaches to the bumper also. This is held on by three size 20 torx bits. These may be corroded so be carefull and use lots of WD40.

Wheelarch liner off.

You are presented by the crankshaft pulley. At this point you will need to lock the flywheel in place and use a 22mm socket on a long bar to remove the crankshaft socket. In my case I locked the flywheel by putting the car in gear and I used an impact wrench rather than the long bar. This probably is not best practice and you should use some sort of locking device to lock the flywheel. Still for me it came off no problems.

Crank pulley bolt removal

From here you can see the damage to the pulley and where the noise and metallic dust was coming from.

Knackered pulley

Apparently the pulley is made like this to dampen the vibrations etc that diesels suffer from. I understand that there is some rubber or something similar within the pulley that coupled with the inner pulley weights, dampens the vibrations.

Whilst you are in there it would be daft not to replace the tensioner pulley also. This is an easy job to remove requiring only a 8mm Allen key to release the centre tensioner bolt.

Removing the tensioner pulley bolt.

Now for the hard bit. The new parts. The crank pulley itself at the time of writing this is a dealer only part. I tried all the usual motor factors to get one to no avail. This unfortunately is expensive at £204. Pt no. is 515V6. My Stealer was nice and gave me it at trade which was £173. Still damn expensive. The new belt and tensioner however can be purchased from motor factors. GSF supplied me with a belt for £11.75 and a tensioner for £23.50. Interestingly enough the GSF part although half the price of the peugeot part was identical and indeed was manufactured by the same company as the peugeot one off the car.

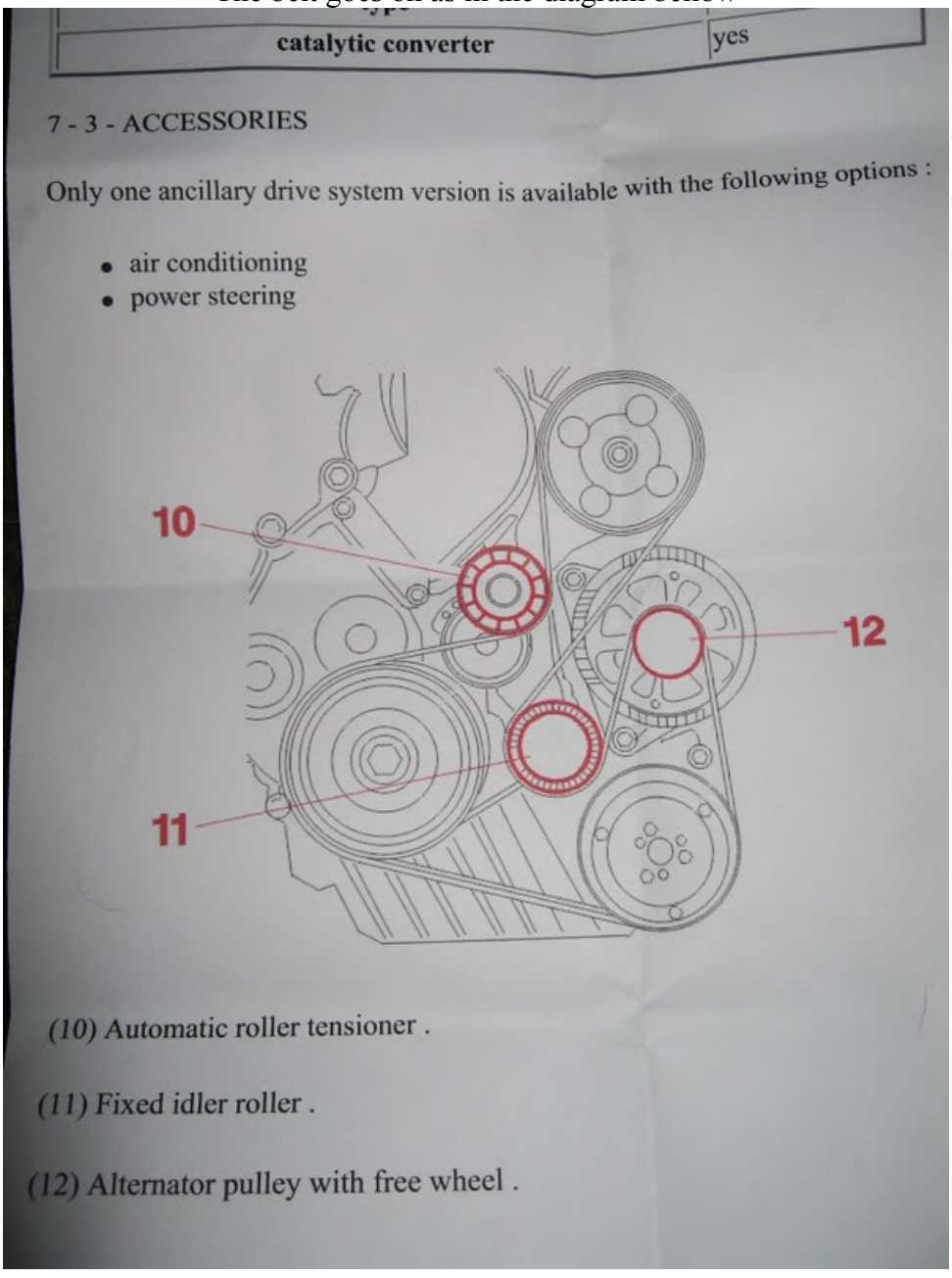
Old and new tensioners. Identical parts but new one not Pug supplied.

Old and new crank pulleys

Replacement of the parts is the reversal of removal. Ensure and use some loctite on the crankshaft pulley bolt as shown bellow and ensure this bolt is torqued.

Loctite is a must!

The belt goes on as in the diagram bellow



Position of new belt.

Once everything is back together start the engine and ensure noise has gone and there are no unusual indications (squealing belt, battery light etc).

Job complete!