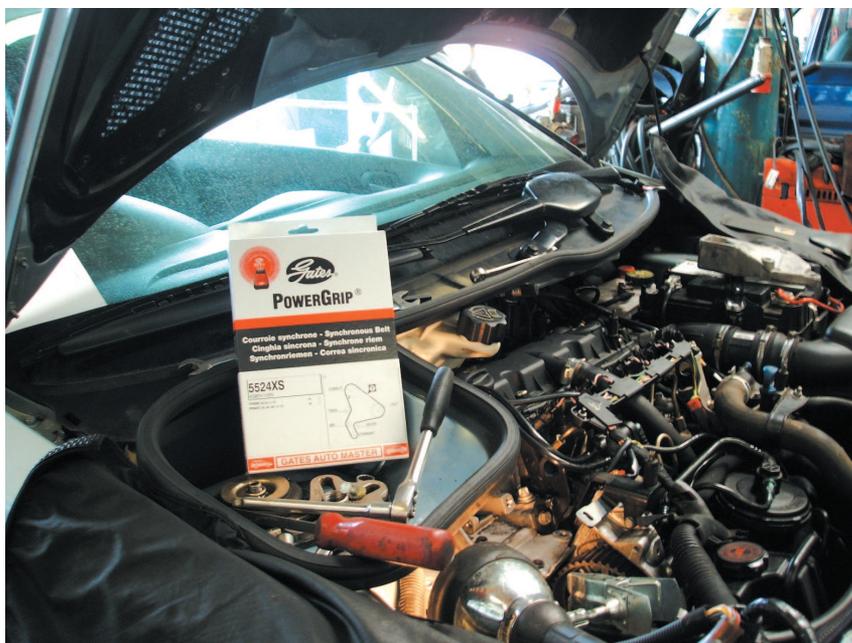


DIFFERENCE



CASE STUDY 2

Vehicle: Peugeot

Model: 206

Engine: 2L HDI

Sometimes, a basic final check can make all the difference between a job well done and a job doomed to failure.

As part of a scheduled timing belt change, the tensioner on the Peugeot 206 2L HDI was replaced at the same time as the belt. It is a procedure that's complicated by the fact that it is very difficult to see the mounting point for the tensioner (picture B).

The tensioner is secured by means of a rounded metal peg, which is threaded through its central core. Great care must be taken when the tensioner is placed over the metal peg. As the peg passes through the centre of the tensioner, it must fit flush with the outside of the tensioner. This is critical, for if the peg falls short of its correct seating,

the tensioner can be misaligned on its axis. If the peg does not line up correctly, misalignment will take place very quickly once the timing belt is in motion.

Picture C shows what happens underneath the cover quite clearly. The polished edge of the tensioner is clearly visible, while the timing belt can be seen to be tracking to one side. The belt will begin to track with almost immediate effect.

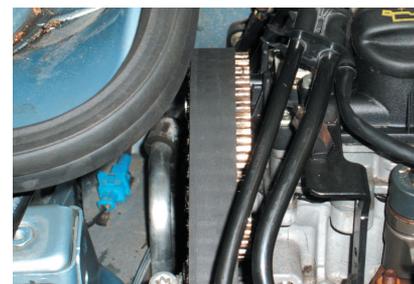
The lateral tracking of the belt is always consistent. It depends upon the angle of the misalignment. The belt always moves in an uphill direction. In other words, if the angle of misalignment is down towards the engine, the timing belt will track upwards towards the cover. If the angle is down, towards the cover, the belt will track up towards the engine block. Fraying on the edge of the belt will confirm the direction of travel. Scouring on either the drive system cover or the engine block itself will

provide evidence that confirms this in either case.

So, the technician has an opportunity for one final check. The belt should be observed for a minute or two, with the engine running before the drive system cover is replaced. If the technician replaces the drive system cover immediately after completing the timing belt replacement, the problem remains hidden and the customer will be back.

CONCLUSION

Sometimes it's much easier to diagnose timing belt misalignment than to identify its cause. If the belt has been tracking, inside the drive system, it's important to note the direction of travel. The belt will always track uphill, which should provide a strong clue about where to look for the true cause of the problem. Basic observation is one of the best sources of information when trying to determine the source of a timing belt problem. The message is, it's always worth a final look, with the engine running and the drive system cover off, wherever possible.



need to know more?

- For more information on Gates timing belts and tensioning equipment circle readerlink 359