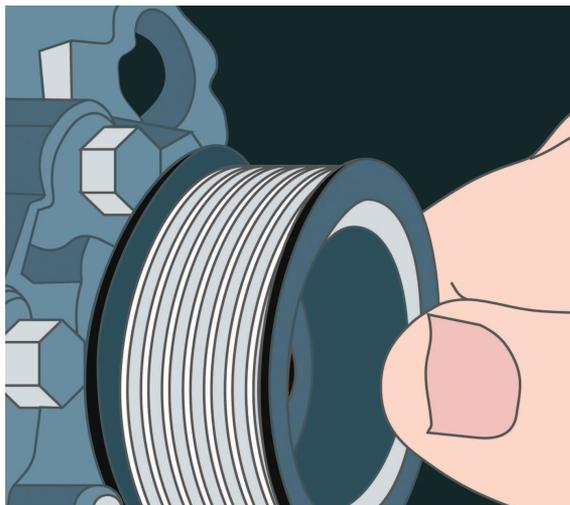


GROOVE

fine mist of water directed onto the belt in the ABDS can help to diagnose basic alignment or tension problems. If the noise occurs after misting, for example, there may be problems with tension or a misrouted belt. If the noise decreases for a few seconds, but returns even louder, the problem is likely to be misalignment. When the Gates inspector carried out the test on the Vauxhall Omega, the noise increased immediately after misting, but did not become louder afterwards. The results of the test indicated that incorrect tension was likely to be the source of the problem.

TENSION

The installation tension of a belt in a drive system — whether it is a timing belt or a belt for an ABDS — is critical, and correct belt tension has become even more so in today's high performance engines. Some workshops believe (erroneously) that they can still achieve the correct tension by twisting the belt. Many others use a variety of manual tension setting devices to do the job.



Although such a device had been used in this instance, the result was unsatisfactory.

Satisfied that the tension on the belt in the ABDS was incorrect, remedial action was required.

The situation provided the Gates inspector with an opportunity to highlight some recent advances in belt technology and the availability of more advanced specialist tools that could make the mechanic's job a little easier in the future.

A sonic tension tester (a tool which determines the precise installation tension for individual belts and applications, where a manual tensioner is used) is a tool designed for the aftermarket that employs technology similar to the assembly

line. Moreover, they can have a specific setting for 'used' ABDS belts. Laser alignment tools are a fast way to identify the most common types of belt misalignment — very critical in today's serpentine drives.

REPLACEMENT

However, rather than re-set the tension of the 'used' belt on this occasion, a replacement belt was installed. The new belt was fitted, the alignment checked and the correct tension for the Vauxhall Omega was set, using an STT-I sonic tension tester.

need to know more?

- Gates has produced a Troubleshooting Guide for multi-ribbed belts, including tips for belt examination. For more information on this, as well as Gates timing belts and tensioning equipment circle readerlink 455