IN THE G

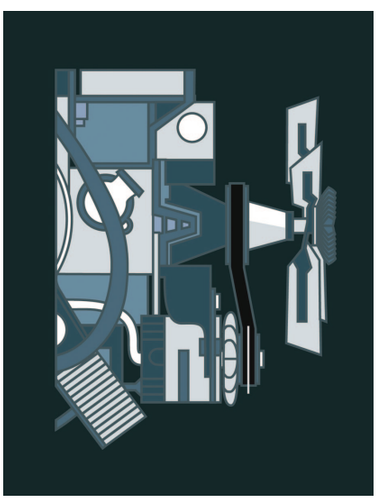
A reputation depends on satisfied customers. Gates explains how recent advances in ABDS belt technology and maintenance can be used to increase belt reliability, and help improve customer satisfaction levels for the garage.

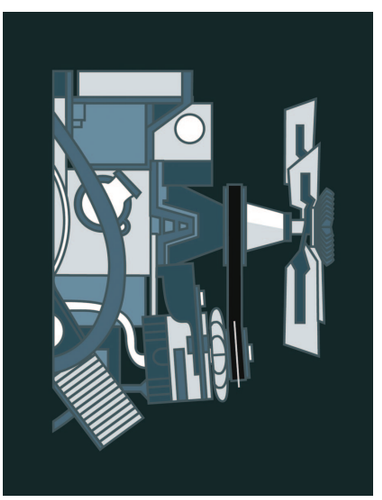
It was one of those niggling problems that mechanics may witness from time to time. A recently replaced multi-ribbed belt on the Accessory Belt Drive System (ABDS) of a Vauxhall Omega 2.5 TD was making slightly more noise than would normally be expected. Was the customer just being over-sensitive or was there a genuine problem? Such a question concerned one garage in Staffordshire, only last month.

Noise in an accessory drive may be caused by misalignment of the belt. It may be related to a worn tensioner. It could also be the result of improper tension setting when the replacement belt was installed. Each was a worry for the garage mechanic who had quite recently installed the now troublesome belt. The replacement had been carried out according to the recommended procedures. These are:

1. Disconnect the car battery and set the hand brake (safety).
2. Identify the correct route for the new belt.
3. Release tension, block tensioner(s) in the retracted position.
4. Examine tensioner(s) for wear.
5. Check for misalignment.
6. Remove belt and inspect it for wear.
7. Inspect pulleys for wear.
8. Replace worn parts (Gates recommends the use of a belt kit).
9. Fit belt according to recommended procedures and check alignment.
10. Apply correct tension (if manual adjustment).

The ABDS usually drives several onboard systems simultaneously; a drive that fails has the potential to compromise the performance of or damage any one or all of those systems. Having followed all of the above procedures, the garage mechanic in question was sufficiently concerned by the noise from the ABDS to call on additional technical support from the nearby motor factor. The technical enquiry was made at an opportune moment. The Gates inspector was on-site.





INSPECTION

It is essential that a thorough inspection and assessment of the condition of all associated components in the ABDS drive be made before a new belt is installed. An initial visual check of the way the belt tracks in the drive can give an early indication of misalignment. Examination of the pulleys can reveal obvious signs of wear, while a check of the belt itself for signs of cracks or chafing and glazing on the sidewalls could give an indication about the potential for early failure. Finally, assuming all components are working correctly, installing a belt kit ensures that the replacement belt can comfortably achieve a full duty cycle.

Initial inspection of the ABDS failed to identify any obvious problems with respect to any of the associated components. The Gates inspector carried out a simple water spray test: with the engine running, a