

cam belt clinic

in association with



QUALITY

Investing in the right parts and equipment is not the only route to timing belt replacement quality. Garages must also insist on set procedures and policies too, says Gates.



Picture the scene. Five mechanics are working on five different vehicles, each requiring a new timing belt. The belts are sourced from the same manufacturer. All data is available from the same manual. Each vehicle is fitted with exactly the same drive system layout. There are differences — vehicle age, mileage run and wear on the components will vary. So will the level of experience behind each mechanic. So how much faith could you have that each belt could complete another full duty cycle?

CONSISTENCY OR RISK

According to Iain Mitchell, a technical adviser with Gates, it all depends on the level of consistency that the garage proprietor has introduced: "Unless the installer seeks to recreate the conditions that are applied when the belt was first installed, the life expectancy of each belt could vary significantly." Iain Mitchell is involved in frequent technical timing belt installation training sessions with installers, both

in association with motor factors and at technical colleges. "Without a recognisable degree of standardisation, each technician could be running an unnecessary and potentially expensive risk for the garage," he says.

IDEAL CONDITIONS

When the timing belt is first installed at the assembly line, the conditions are perfect. All of the drive system components are new. The engine is cold. The tensioners and pulleys are fitted using the correct torque settings. The tension is set with a 'sonic' testing tool that provides the precision to guarantee a duty cycle of 50,000 kilometres or more.

"Every worker on each shift carries out exactly the same installation procedure on each model. They use the same tools. Everyone has had the same training," says Iain Mitchell. "Installers can't reproduce those sort of conditions each time a timing belt replacement is due, but with careful thought and modest investment, they can get

pretty close to reproducing that assembly line quality."

Garage proprietors should:

- Highlight the belt handling 'must nots'.*
- Specify the tools that must be used.
- Itemise the parts that are always to be changed.
- Specify the brand and supplier of parts.
- Provide training in drive inspection and diagnostic techniques.
- Introduce and update written inspection procedures.

* A belt handling and installing troubleshooting guide is available from Gates (E2/70117).

UNIFORM PROCEDURE

Drive layouts may differ even between models in the same range. The pattern of wear may vary according to application and vehicle use. However, elements of standardisation can be introduced quite simply.

"The development of a written