



Steve Carolan, Dayco

Belt in Oil

technical update

Dayco is highlighting the importance of regular maintenance in line with the vehicle manufacturers' scheduled service intervals, to ensure the ongoing reliability of these engines. Dayco's Steve Carolan covers Belt in Oil (BIO) best practices and important things to know about this technology.

The Ford 1.0-litre EcoBoost 'Fox' engine is used in multiple Ford applications including the B-Max, C-Max, Ecosport, Fiesta, Focus and Mondeo. According to the manufacturer's service schedule, the timing belt must be replaced at 150,000 miles or every 10 years, whichever comes soonest. For the Tourneo Connect and Courier however, the replacement mileage is slightly lower, at 140,000 miles.

The Belt in Oil (BIO) innovation helps this small and efficient engine to deliver incredible levels of power, alongside lower emissions and improved fuel economy, depending on the quality of the fuel it uses and the type of journey it undertakes. This engine can sometimes be prone to oil contamination with the potential to affect the belt. It is therefore imperative that workshops highlight the importance of following the scheduled replacement intervals to their customers.

On a practical level, there are best practice guidelines that technicians can follow to help them assess the condition of the belt in between the specified replacement interval, the first of which is to assess the condition of the oil. This is easier than it might appear, as the presence of petrol in the oil is generally noticeable due to its strong odour. Rather than undoing the engine oil drain plug and walking away, whenever carrying out a scheduled oil and filter change, technicians should check for the smell of petrol fumes from the oil. If this is detected, further investigation must be

made as the failure of the belt will have catastrophic consequences to the engine.

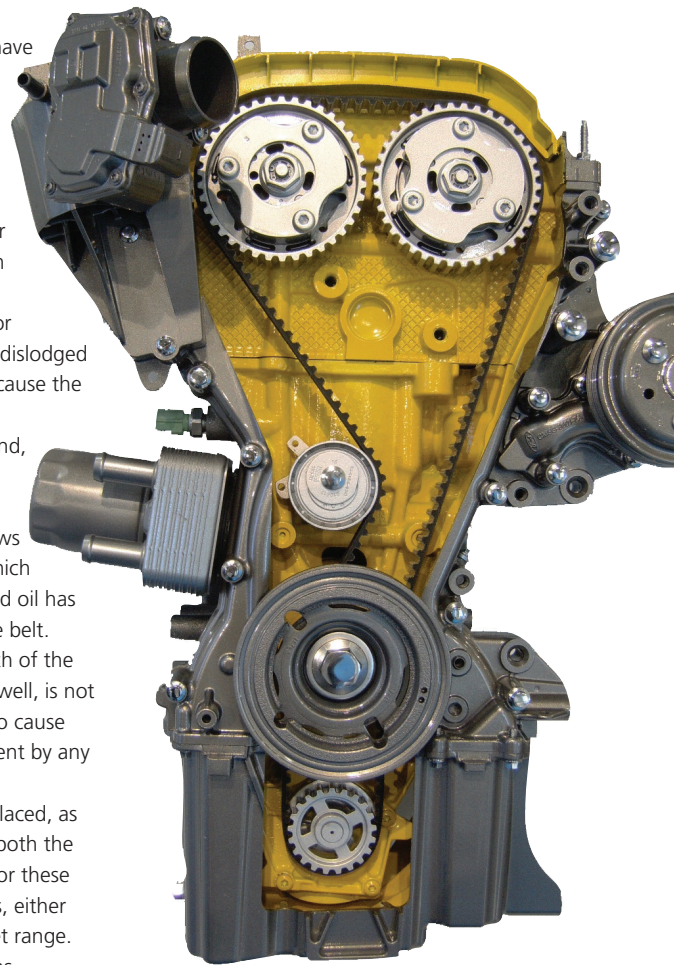
Unfortunately, checking the condition of the belt is not straightforward, but a sensible starting point is to check the strainer that the oil will have passed through when draining from the sump. It's possible that fragments of the belt or deposits of material that have been dislodged will be left behind. This happens because the fuel attacks the belt material,

If any evidence of debris is found, remove the camshaft cover. This is the only practical way to properly assess the belt's condition, as it allows technicians to examine the back, which will reveal whether the contaminated oil has begun to degrade the surface of the belt. Some moderate increase in the width of the belt, commonly referred to as belt swell, is not an issue, unless it's so excessive as to cause the belt to foul. Fouling will be evident by any damage to the belt's edges.

Should the belt need to be replaced, as the original equipment supplier for both the timing and oil pump drive systems for these engines, Dayco has replacement kits, either KBIO02 or KBIO03, in its aftermarket range.

In addition, to guide technicians through the installation procedure and help independent workshops fully understand the issues and replacement requirements, Dayco have produced a technical video, which can be viewed on YouTube that highlights the key points that must be noted. You can scan the QR code to the right to view this video.

Dayco encourages workshops to be proactive with their customers and, in



addition to highlighting the necessity of the belt checks and replacement interval, make them aware of the consequences in terms of the damage to the engine and the cost to repair it, should the belt fail.

For more information regarding OEM quality power transmission products in the Dayco range, please email: info.uk@dayco.com or visit daycoaftermarket.com.



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