

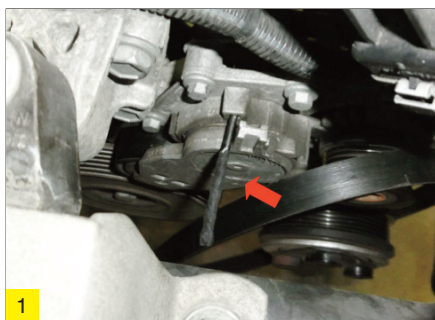
Timing belt installation

Ford C-Max 1.6TDCi

The 1.6-litre TDCi diesel engine used in the Ford C-MAX, as well as several Citroën, Mini, Peugeot and Volvo models, features a timing belt driven water pump. As replacing the belt also requires the auxiliary drive system to be removed, Dayco recommend that all the systems' components - timing drive and auxiliary drive - be replaced at the same time. Dayco has produced the following guidelines to help technicians follow the correct installation procedure.

As with all primary drive system jobs, the work should be undertaken when the engine is cold, so ideally the vehicle will not have been run for at least four hours.

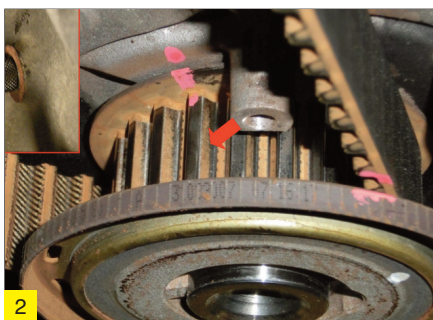
Remove the cowl from within the front wheel arch of the driver's side, to expose the auxiliary belt system. Slacken the auxiliary belt tensioner with a spanner and hold the tensioner in position with a 6mm pin (fig 1) in order to take off the belt, then remove the tensioner, followed by the crankshaft pulley. This will reveal the phonic sensor and the RPM sensor connector, which needs to be disconnected.



Remove the lower screws of the timing case and then move the coolant reservoir to one side to gain access to the engine mount, which once the engine has been suitably supported from below, needs to be removed, along with the engine mount flange. Then remove the upper half of the timing case, which allows the bottom half to be removed and exposes the timing drive system.

Using a suitable pin, such as drill bit, hold the camshaft pulley in its timing position. The crankshaft timing must be

carried out with a pin inserted in a hole in the engine block (fig 2). As this is difficult to reach, it is wise to paint a mark on the crankshaft pinion and engine case.



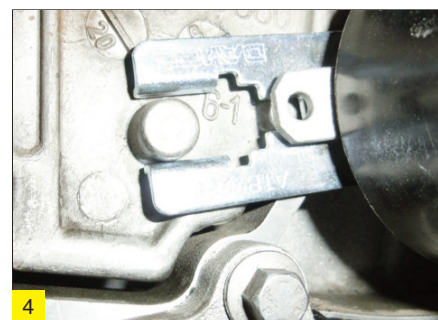
Loosen the bolt on the timing belt tensioner and remove both bolt and tensioner, followed by the timing belt. Replace the idler with the new one from the Dayco kit KTBWP4930 and tighten the nut to 35Nm. Using another suitable pin, hold the fuel injection pump pulley in the correct position and then remove the water pump.

Ensuring that the cooling system has been flushed thoroughly, with no debris present, install the new water pump, complete with its seal, followed by the



new tensioner, taking care to position it as shown (fig 3). While observing its direction of rotating arrows, install the new timing belt, with its slack section facing the tensioner.

With an Allen key, rotate the tensioner anticlockwise to tension the belt correctly and tighten the bolt to 25Nm, and then rotate the engine and check the timing. The correct belt tension has been achieved if the tensioner is positioned as indicated (fig 4). Naturally, repeat the process if necessary.



Refit all the components in their reverse order, but check, and if necessary, replace the crankshaft pulley, the fastener for which should be tightened to 30Nm + 180°, and the auxiliary belt tensioner. However, Dayco recommends the auxiliary belt should always be replaced.

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