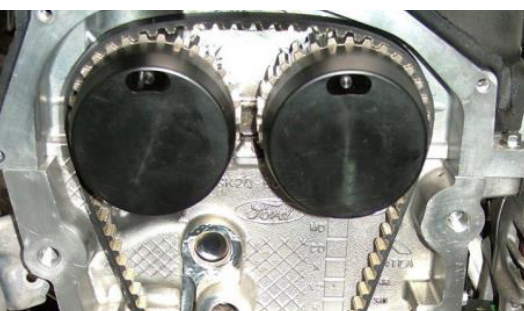




DIESEL ENGINE SETTING / LOCKING TOOL KIT

MANUAL

94313320

SAFETY NOTICE

To understand the functioning of the tools, it is necessary to read the manual first!

- > Read these instructions before assembling, during installation and throughout use and in the proper sequence
- > Always refer to the OEM manufacturer's instructions and service manuals for the latest data and to maintain the correct sequence
- > These work instructions and the recommended tools are meant to serve as aides only and are by no means a guarantee for certain results.
- > This tool kit is a special collection and it has been tested and used successfully on several occasions. It is of the utmost importance to maintain the correct procedure as per the instructions
- > The use of the tools should only be carried out by qualified personnel!



ATTENTION
Special caution



CORRECT



LIGHT BULB
Hint or recommendation



WRONG



SAFETY GOGGLES
Wearing safety goggles
necessary



Applications:

FORD 2.0TDCI ECOBLUE:

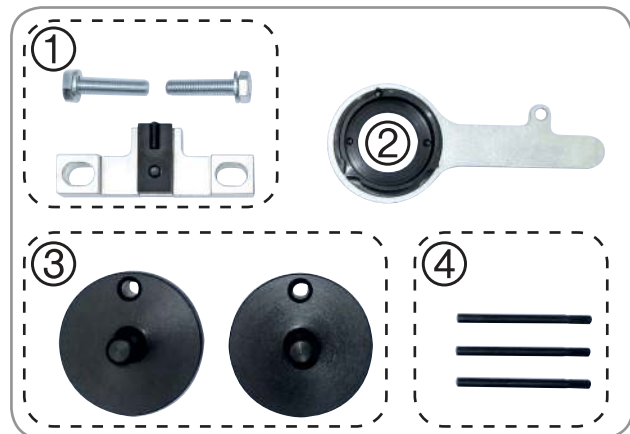
Focus ('19)	Transit ('14)
S-Max ('15)	Transit Custom
Edge	Tourneo Custom
Galaxy ('15)	Ranger

Engine codes:

BCCA	BKFA	BLFD	YLR6	YMR6
BCCB	BKFB	BLRA	YLRA	YMRA
BCCC	BKFC	BLRB	YMCA	YNF6
BJFA	BKFD	YLCA	YMCB	YNCA
BJFB	BKRA	YLDA	YMF6	YNFA
BJFC	BKRB	YLF6	YMFA	YNFB
BJFD	BLFA	YLFA	YMF6	YNFS
BJRA	BLFB	YLF6	YMFS	YNR6
BJRB	BLFC	YLFS	YMHA	YNRA



Kit Contents / Spares:



Associated tools:

Crankshaft Pulley
Remover



! IMPORTANT: Always refer to the vehicle manufacturer's service instructions, or proprietary manual, to establish the current procedures and data. Product Information Sets detail applications and use of the tools with any general instructions provided as a guide only.

Introduction

Engine setting / locking kit includes tools required for timing belt replacement procedures for 2.0TDCi EcoBlue Belt-in-Oil engine.

The 2.0 Ecoblue 'Panther' engine is the successor to the popular Chain driven TDCi/TDdi 'Puma' engines installed 2000-2018. The EcoBlue engine features a Belt-in-Oil arrangement from the camshafts to an intermediate gear, with a gear driven high pressure fuel pump on one side and the crankshaft gear on the other side. A shorter Belt-in-Oil runs from the Crankshaft to the Oil Pump.



Remove the Starter Motor, install **Flywheel Locking Tool** into the teeth of the Flywheel.

Remove the Crankshaft Pulley bolt and Crankshaft Pulley.



Crankshaft Pulley Removal Tool may be required to pull the crankshaft pulley from the shaft.

Remove the Toothed Belt cover.

Refit the Crankshaft Pulley Bolt into the Crankshaft, finger tight only.

Remove **Flywheel Locking Tool** from the Flywheel.



Rotate the Crankshaft in the normal direction of rotation until the mark on the Crankshaft Gear and the two marks on the Intermediate Gear are aligned.

A number of rotations of the Crankshaft may be required to achieve this position as the marks align every 14th full revolution.



Locate **Crankshaft Setting Tool** into the recessed profile of the Crankshaft Sprocket, ensuring that the 3 teeth are fully located in the profile of the sprocket and that the flat area of the tool is located against the guide sleeve that protrudes from the engine.



Insert two **Camshaft Setting Pins** through the holes located at the 12 o'clock position in the Camshaft Sprockets and into the apertures of the Cylinder Head.

If it is not possible to fully install the pins, the engine timing position may need to be adjusted.



Locate **Belt Installation Guide Tool** over the Camshaft Setting Pins and into the apertures of the Camshaft Sprockets.

Install a new Toothed Belt Tensioner and Toothed Belt starting at the Intermediate Gear, working in a clockwise direction.

Ensure that the Toothed Belt is located on the Intermediate Gear and the Camshaft Sprockets, remove the locking pin from the tensioner to tension the toothed belt.

Remove all tools from the engine, refit the old crankshaft pulley bolt.

Rotate crankshaft 4 full turns in the normal direction of rotation.

Refit **Crankshaft Setting Tool** and **Camshaft Setting Pins**.

If the Crankshaft and Camshaft Setting tools cannot be fitted, engine timing will require adjustment.



Using an 8mm Hex Key, rotate the belt tensioner in a clockwise direction to release the belt.

Retain the Tensioner in this position using the one remaining **Tensioner Locking Pin**.

Remove and discard the Toothed Belt and Toothed Belt Tensioner.



A new Toothed Belt, Belt Tensioner and Crankshaft Pulley Bolt must be fitted. Ensure that the new tensioner is located correctly, with the lug in the aperture of the engine block.

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