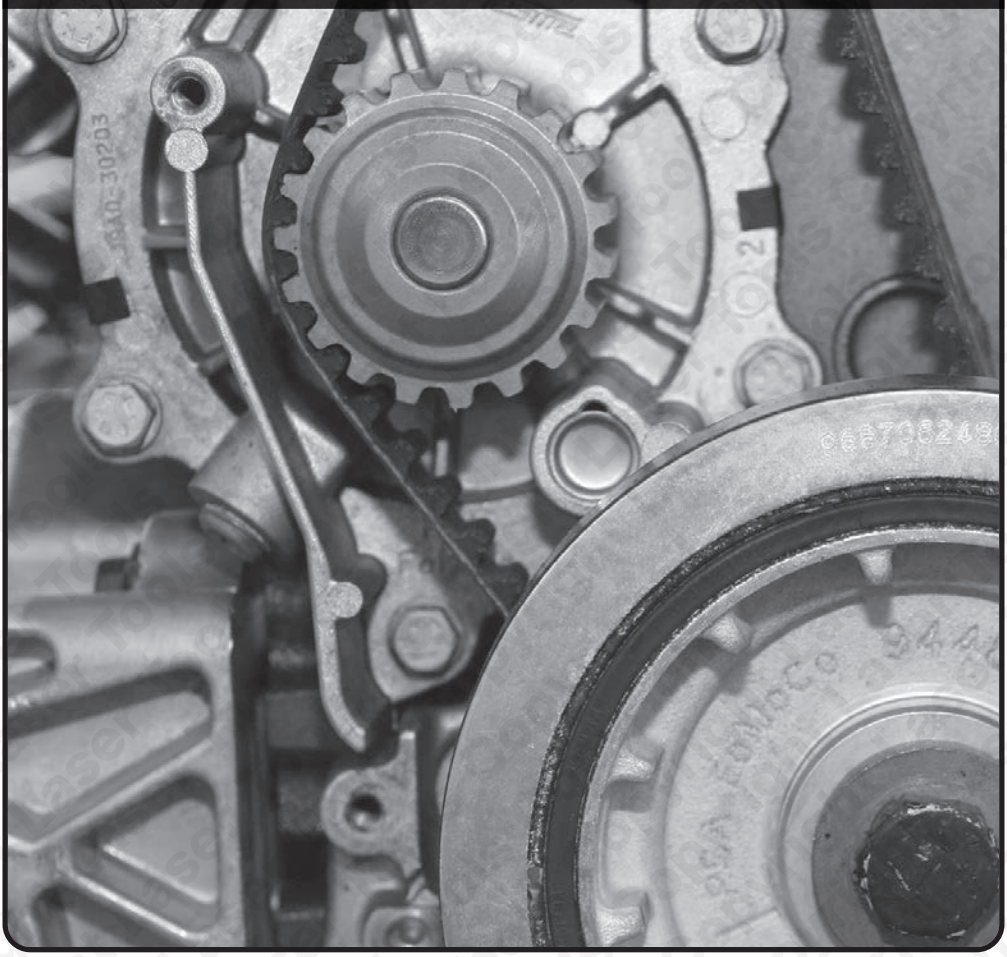
LASER®

Part No. 7323

**Instructions**

# Engine Timing Tool Kit
## Ford 2.0L EcoBlue TDCi

MADE IN SHEFFIELD



*Always refer to the website for most up to date applications:*
***www.lasertools.co.uk/product/7323***

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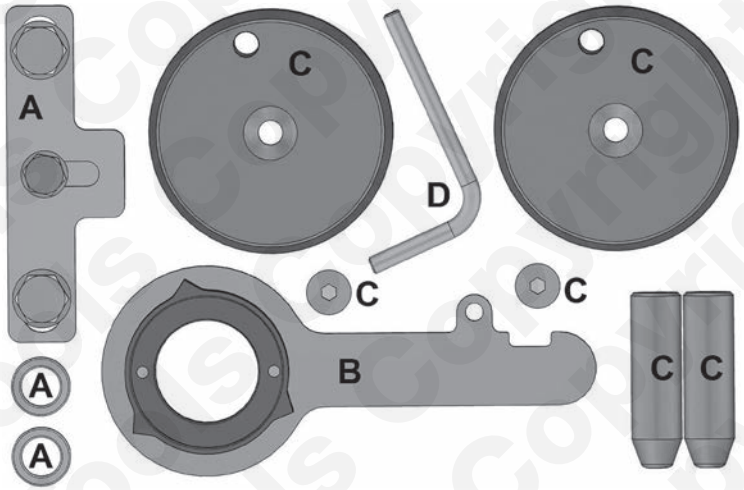
## Introduction

- Equivalent to OEM tools 303-1637, 303-1650, 303-1643.
- For high pressure fuel pump pulley removal, please see Laser Part No. 7324 & Vibration Damper Pulley Puller - Laser Part No. 7334.

## Components

This timing kit has been designed for the latest Ford 2.0L EcoBlue TDCi engine which features an innovative “belt in oil” design where the synchronous drive belt is sited inside the oiled area of the engine. The kit consists of the crankshaft alignment, flywheel locking and belt fitting tools required to remove and refit the timing belt without damage.




| Ref. | Comp. Code | OEM Ref. | Description |
|---|---|---|---|
| A | C863 | 303-1643 | Flywheel Holding Tool |
| B | C864 | 303-1637 | Crankshaft Alignment Tool |
| C | C865 | 303-1650 | Installation Cups |
| D | C271 | | 6mm Alignment Pins (3) |



## Applications

| Make, Model, Year | | | Engine Codes | | | | |
|---|---|---|---|---|---|---|---|
| Ford | Edge | 2018 - 21 | BC2X | BKFA | YL2X | YMCB | YNFA |
| | Focus | 2018 - on | BCCA | BKFB | YLCA | YMCC | YNFB |
| | Focus Active | 2019 - on | BCCB | BKFC* | YLCB | YMDA | YNFS |
| | Galaxy | 2018 - 21 | BCCC | BKFD* | YLCC | YMF6 | YNR6 |
| | Kuga | 2019 - on | BCDA | BKRA | YLDA | YMFA | YNRA |
| | Mondeo | 2019 - 21 | BCFB | BKRB* | YLDC | YMFB | |
| | Ranger | 2019 - on | BCRA | BLFA | YLF6 | YMFS | |
| | S-MAX | 2018 - 21 | BJFA | BLFB | YLFA | YMHA | |
| | Transit | 2016 - on | BJFB | BLFC* | YLFB | YMR6 | |
| | Transit Custom | 2016 - on | BJFC* | BLFD* | YLFS | YMRA | |
| | Tourneo Custom | 2016 - on | BJFD* | BLHA | YLR6 | YN2X | |
| | | | BJRA | BLRA | YLRA | YNCA | |
| | | | BJRB* | BLRB* | YMCA | YNF6 | |

(*2.0 EcoBlue TDCi mHEV)

*Always refer to the website for most up to date applications:*
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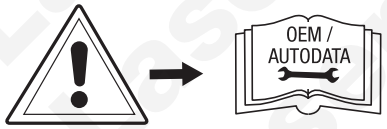
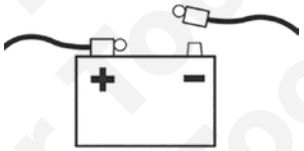
The following instructions are for guidance only. Please refer to OEM derived data such as the vehicle manufacturers’ own data or Autodata.

The use of this engine timing tool kit is purely down to the user’s discretion and The Tool Connection Ltd. cannot be held responsible for any damage caused whatsoever.



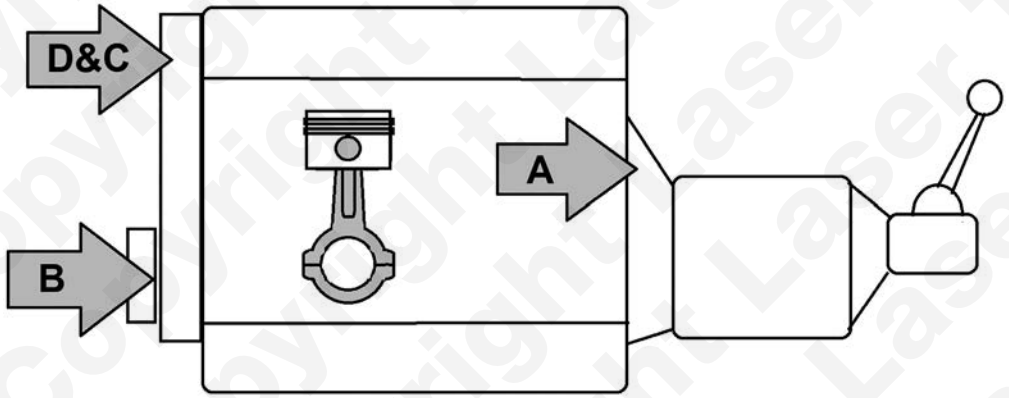




## Safety Warnings - Please Read

- Personal protection and safety equipment must be used at all times.
- Eye protection and protective gloves must be worn when using these tools.
- Misuse of tools is unsafe and can cause engine damage.
- Store in a dry place when not in use.

Do not use these tools to torque or loosen fixings against unless otherwise stated. Warning: Normal direction of rotation of the crankshaft is clockwise; however the direction of rotation of the camshafts is anti-clockwise.

## Where Used




## Preparation

- Remove starter motor and install flywheel locking tool.
- Remove auxiliary drive belt.
- Remove crankshaft pulley.
- Remove timing belt cover.
- Additional component may need to be removed according to vehicle model.

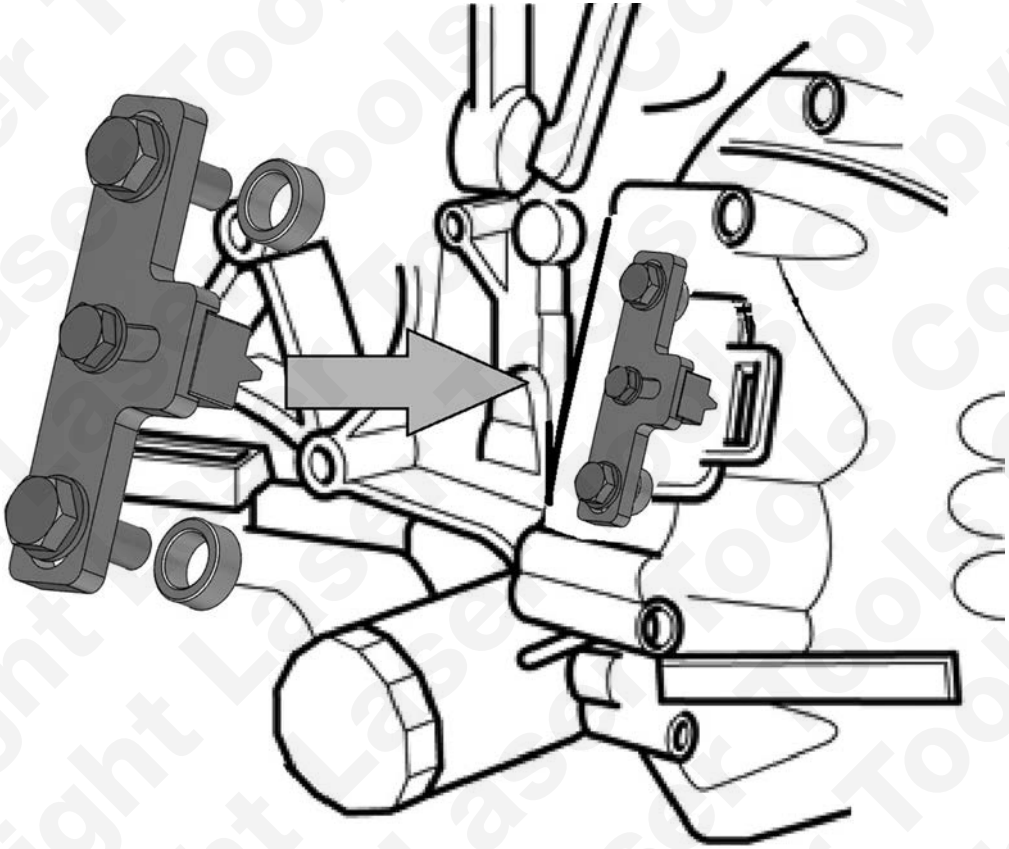
## Important Notes

- Water pump “stretchy” auxiliary drive belt once removed should not be re-used.
- Mark position of RH engine mounting before removal.
- Replacement of the timing belt also requires replacement of the tensioner and cover.
- Alignment of the crankshaft gear and the intermediate gear timing marks occurs every fourteenth turn of the crankshaft.

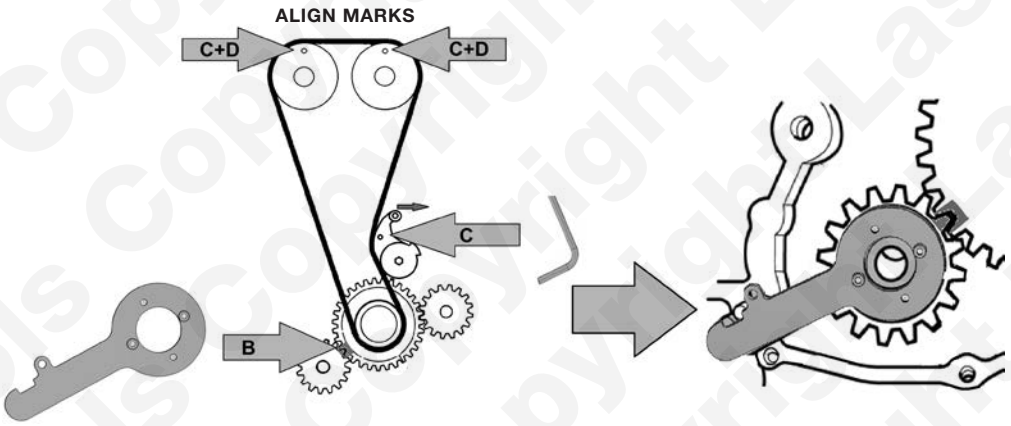


## Instructions

**Component A – Flywheel Holding Tool**
Used to lock and hold the flywheel while undoing the crankshaft pulley bolt.
With the starter motor removed bolt component **A** into the starter motor aperture to lock the flywheel. Remove the pulley bolt and pulley.
*Note: Spacers may not be required depending on application*



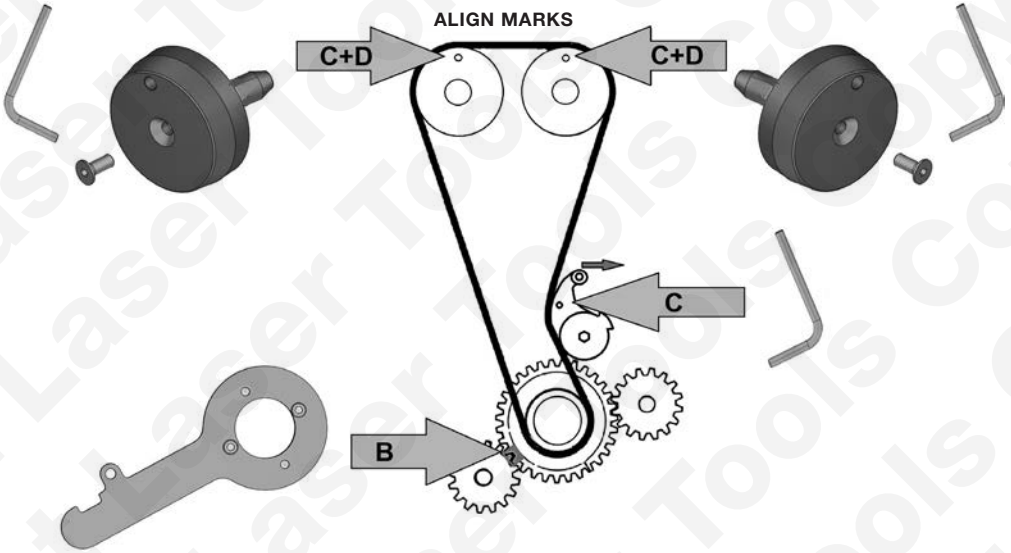
**Compomnent B – Crankshaft Alignment Tool**
Used to align the crankshaft in its timed position.
With the flywheel locking tool (**A**) removed, refit the crankshaft pulley bolt and rotate the engine in a clockwise direction until TDC on No.1 cylinder.
With the camshafts, crankshaft and intermediate shaft timing marks all aligned as shown remove the crankshaft bolt and install the crankshaft alignment tool (**B**) as shown and secure it to the cylinder block.








**Components C & D**
Assemble components **C** as shown and fit them onto the camshaft pulleys so 2 of the 6mm alignment pins (**D**) can be fitted through the cups and into the camshaft pulleys and into the cylinder head. Ensure the pins (**D**) are fully engaged with the cylinder head.
Using an 8mm Allen key release the tension on the belt tensioner and insert the 3rd 6mm alignment pin (**D**) into the tensioner to lock it in its retracted position.




The belt can now be removed and a new belt installed as required.

## Safety Warnings - please read

- Disconnect the battery earth leads (check radio code is available)
- Remove spark or glow plugs to make the engine turn easier
- Do not use cleaning fluids on belts, sprockets or rollers
- Always make a note of the route of the auxiliary drive belt before removal
- Turn the engine in the normal direction (clockwise unless stated otherwise)
- Do not turn the camshaft, crankshaft or diesel injection pump once the timing chain has been removed (unless specifically stated)
- Do not use the timing chain to lock the engine when slackening or tightening crankshaft pulley bolts
- Do not turn the crankshaft or camshaft when the timing belt/chain has been removed
- Mark the direction of the chain before removing
- It is always recommended to turn the engine slowly, by hand and to re-check the camshaft and crankshaft timing positions
- Crankshafts and camshafts may only be turned with the chain drive mechanism fully installed
- Do not turn crankshaft via camshaft or other gears
- Check the diesel injection pump timing after replacing the chain
- Observe all tightening torques
- Always refer to the vehicle manufacturers' service manual or a suitable proprietary instruction book
- Incorrect or out of phase engine timing can result in damage to the valves

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If applicable, the applications database and any instructional information provided has been designed to offer general guidance for a particular tool's use and while all attention is given to the accuracy of the data no project should be attempted without referring first to the manufacturer's technical documentation (workshop or instruction manual) or the use of a recognised authority such as Autodata.

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