# LASER<sup>®</sup>

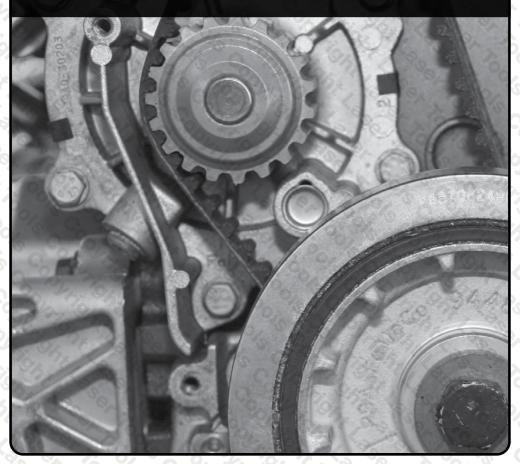
# Instructions

# **Engine Timing Tool Kit**

VCT Setting Kit

- Ford 1.0 GTDI VCT





Please refer to www.lasertools.co.uk/toolpoint to check the most up to date product applications.

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#### Introduction

#### Engine Timing Tool Kit Ford 1.0 litre 3 Cylinder EcoBoost with VCT.

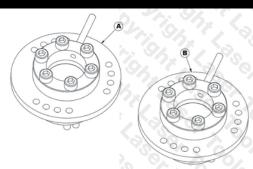
- Specifically designed for the new Ford 1.0lt 3 cylinder EcoBoost engines and used in conjunction with 6952 to assemble the VCT (Variable Camshaft Timing) units on the camshafts in their TDC position without play.
- Required to align the VCT units when they are assembled on the camshafts.

The information given below is for reference only.

The Tool Connection Ltd recommends the use of Manufacturer data or Autodata.

The Tool Connection cannot be held responsible for damage to engine or personnel whilst using this tool kit.

## Components



| Ref. | Code | OEM Ref    | Description                |
|------|------|------------|----------------------------|
| Α    | C706 | 303-1606/1 | VCT Locking Tool - Inlet   |
| В    | C707 | 303-1606/2 | VCT Locking Tool - Exhaust |

# **Applications**

|                   |                       |             |                      |                                                                                      | 2.0                                                                                  |                                                                                      |                                                                                      |  |
|-------------------|-----------------------|-------------|----------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--|
| Make, Model, Year |                       |             | Engine Codes         |                                                                                      |                                                                                      |                                                                                      |                                                                                      |  |
|                   | B-MAX                 | 2012 - 2018 | 1,0 EcoBoost         | 7. 0                                                                                 | 3.50                                                                                 | 6                                                                                    | 1,1                                                                                  |  |
|                   | C-MAX/ Grand C-MAX    | 2012 - on   | B3DA<br>B3GA<br>B7DA | M1JM<br>M1JP<br>M1JU<br>M2DA<br>M2DB<br>M2DC<br>M2GA<br>M2GB<br>P4JA<br>P4JB<br>P4JC | SFCB<br>SFCC<br>SFCD<br>SFDA<br>SFDB<br>SFJA<br>SFJB<br>SFJC<br>SFJD<br>SFJE<br>SFJH | SFJP<br>XMJA<br>XMJB<br>XMJC<br>XMJD<br>YYJA<br>YYJB<br>YYJC<br>YYJD<br>YYJE<br>YYJF | XMJA<br>XMJB<br>XMJC<br>XMJD<br>XPJA<br>XPJB<br>XPJC<br>XPJD<br>XYJA<br>XYJB<br>XYJC |  |
|                   | EcoSport              | 2013 - on   |                      |                                                                                      |                                                                                      |                                                                                      |                                                                                      |  |
|                   | Fiesta/ Fiesta Active | 2013 - on   | M1CA                 |                                                                                      |                                                                                      |                                                                                      |                                                                                      |  |
|                   | Focus/ Focus Active   | 2012 - on   | M1CB<br>M1DA<br>M1DC |                                                                                      |                                                                                      |                                                                                      |                                                                                      |  |
| Ford              | Mondeo                | 2015 - 2018 |                      |                                                                                      |                                                                                      |                                                                                      |                                                                                      |  |
|                   | Tourneo Connect       |             | M1DD                 |                                                                                      |                                                                                      |                                                                                      |                                                                                      |  |
|                   | Grand Tourneo Connect | 2013 - 2018 | M1DH<br>M1JA<br>M1JC |                                                                                      |                                                                                      |                                                                                      |                                                                                      |  |
|                   | Transit Connect       | 2014 - on   |                      |                                                                                      |                                                                                      |                                                                                      |                                                                                      |  |
|                   | Transit Courier       | 2014 - 2019 | M1JE                 | P4JD                                                                                 | SFJJ                                                                                 | YYJG                                                                                 | XYJD                                                                                 |  |
|                   |                       |             | M1JH                 | QOJA                                                                                 | SFJK                                                                                 | 0                                                                                    | XYJE                                                                                 |  |
|                   |                       |             | M1JJ                 | QOJC                                                                                 | SFJL                                                                                 |                                                                                      |                                                                                      |  |
|                   |                       |             | M1JL                 | SFCA                                                                                 | SFJN                                                                                 |                                                                                      |                                                                                      |  |

Always refer to the website for most up to date applications: www.lasertools.co.uk/product/6291

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.



#### **Preparation**

- Always refer to manufacturer specific data and instructions
- Turn engine to TDC No.1 cylinder before disassembly of engine
- Used with the front engine cover fitted.

#### **Component Descriptions:**

#### Components A:

Used to set up the Variable Camshaft Timing pulleys (VCT).

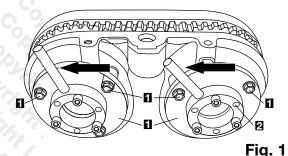
The special tool set 6291 is used in conjunction with 6952 engine timing kit to assemble the VCT (Variable Camshaft Timing) pulleys in to their camshafts at TDC.

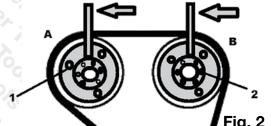
After assembly of the camshaft drive belt, belt tensioner, front cover, oil seal and crankshaft front pulley with the crankshaft and camshaft still locked at TDC fit components A & B as shown and tighten bolts (1) to 10Nm. Turn the inlet tool and the exhaust tool anti-clockwise to remove any play. Tighten the VCT fixings (2) to the correct torque as described by OEM instructions.

#### See Fig.1 and 2.

N.B: refer to OEM data and information for full instruction.

N.B. On engines equipped with VCT, if the VCT pulleys require removal or loosening ensure their initial position is marked with chalk or paint.





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### Safety Warnings - please read

- If the engine has been identified as an Interference engine, damage to the engine will occur if the timing belt has been damaged. A compression check of all the cylinders should be taken before the cylinder head (s) are removed.
- Do not turn crankshaft or camshaft when the timing belt/chain has been removed.
- To make turning the engine easier, remove the spark plugs/glow plugs or injectors.
- Observe all tightening torques.
- Do not turn the engine using the camshaft or any other sprocket.
- Disconnect the battery earth lead (check Radio code is available).

- Do not use cleaning fluids on belts, sprockets or rollers.
- Some toothed timing belts are not interchangeable. Check the replacement belt has the correct tooth profile.
- Always mark the belt with the direction of running before removal.
- Do not lever or force the belt onto its sprockets.
- Do not use timing pins to lock the engine when slackening or tightening the crankshaft pulley bolts.
- ALWAYS REFER TO A REPUTABLE MANUFACTURERS WORKSHOP MANUAL.

Our products are designed to be used correctly and with care for the purpose for which they are intended. No liability is accepted by the Tool Connection for incorrect use of any of our products, and the Tool Connection cannot be held responsible for any damage to personnel, property or equipment when using the tools. Incorrect use will also invalidate the warranty.

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.

It is our policy to continually improve our products and thus we reserve the right to alter specifications and components without prior notice. It is the responsibility of the user to ensure the suitability of the tools and information prior to their use.



6291\_Instructions\_V8



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