LASER®

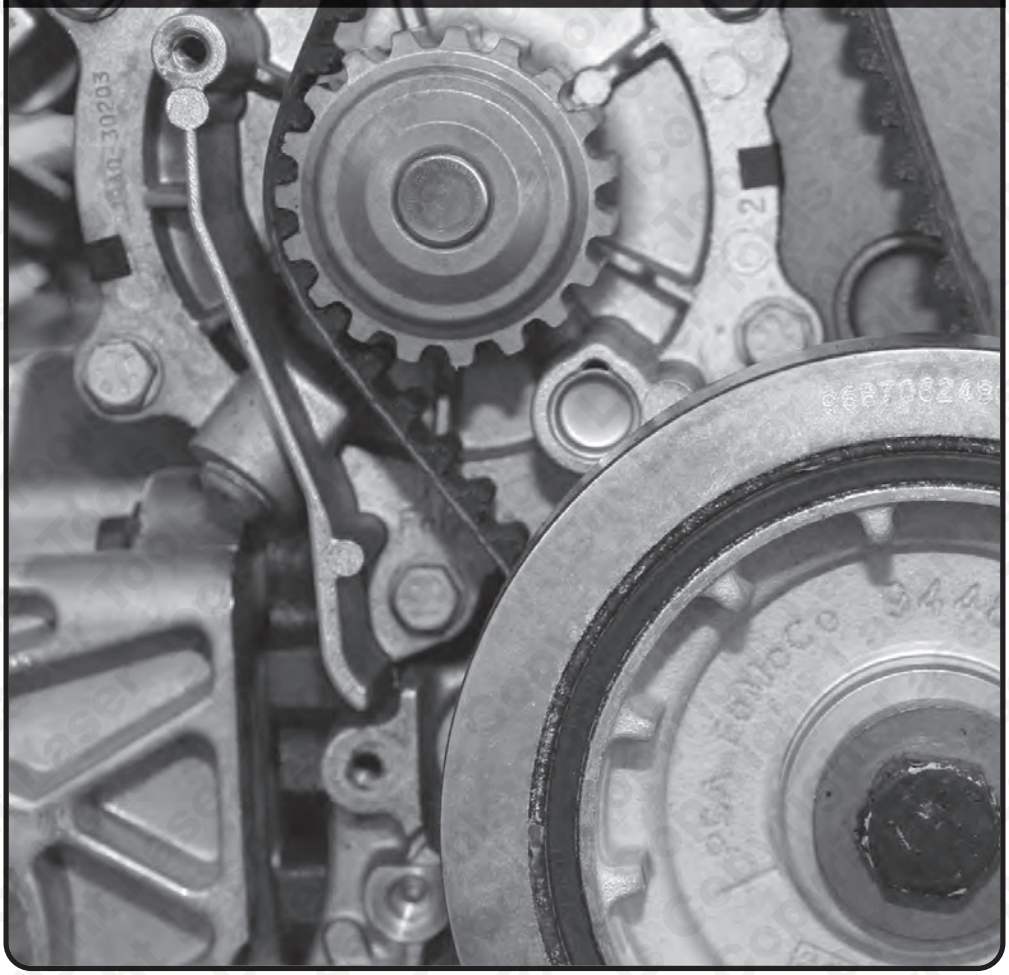
Part No. 8417

Instructions

Engine Timing Tool Kit

for Ford 1.5L 3 Cylinder
EcoBoost Petrol

MADE IN SHEFFIELD



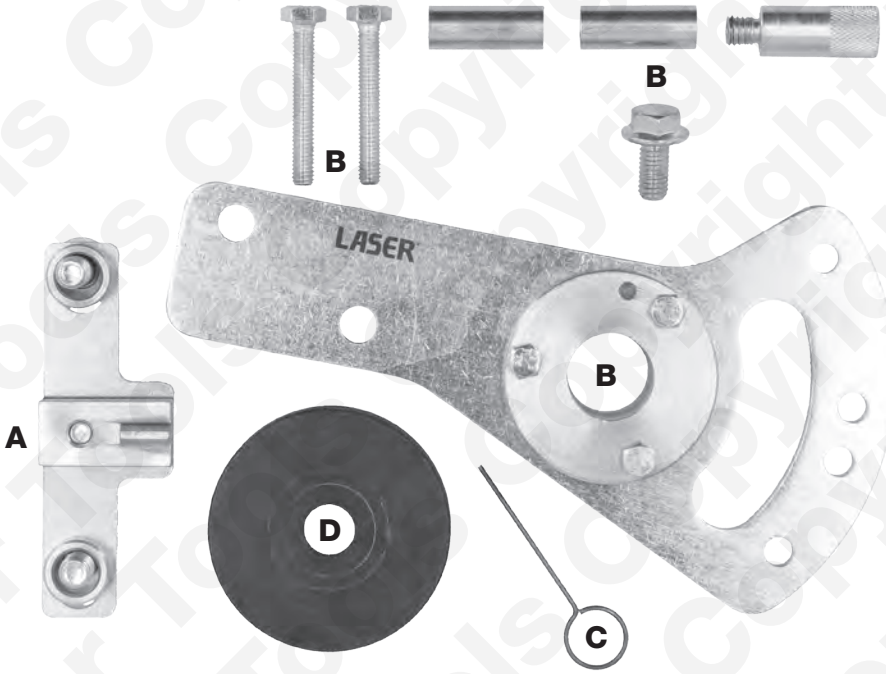
www.lasertools.co.uk

Introduction

The latest 1.5 Ford EcoBoost engine is a 3-cylinder engine with chain driven camshafts. Laser 8417 has been developed to allow the user to lock these engines in their “timed” position to safely remove and replace the cam chain and/or check the camshaft timing. Made in Sheffield.

- Applications include: Ford Fiesta (from 2018), Focus (from 2018), Focus Active (from 2019), Kuga (from 2019).
- Engine applications include: 1.5L EcoBoost Petrol YZJA, Y2DA, Y1DA, YZDA.
- Equivalent to OEM 303-1643, 303-1649 & 303-1645.
- Used for timing chain replacement and engine rebuilds.
- Use in accordance with OEM instructions.

Components



Ref.	Code	OEM Ref.	Description
A	C863	303-1643	Flywheel Locking & Holding Tool
B	C1002	303-1649	Camshaft Locking & Holding Tool
C	C026		2mm Tensioner Pin
D	C1003	303-1645	Crankshaft Oil Seal Installation Tool

Applications

Make, Model, Year			Engine Codes
Ford	Fiesta	From 2018	**1,5L** YZJA Y2DA Y1DA YZDA
	Focus	From 2018	
	Focus Active	From 2019	
	Kuga	From 2019	

Always refer to the website for most up to date applications:
www.lasertools.co.uk/product/8417

Instructions

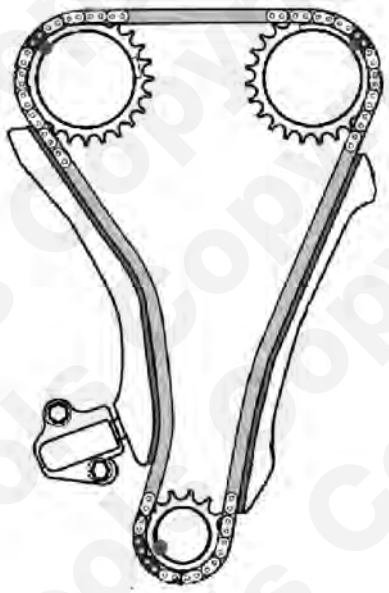
The following instructions are for guidance only. Please refer to OEM derived data such as the vehicle manufacturers’ own data or Autodata.

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.

NOTE:

- Access to the timing chains requires removal of the engine front cover and replacement of the front crankshaft oil seal.
- Ensure the engine timing marks on the chain and sprockets are aligned as per OEM instructions.
- With the timing chain in place, alignment of the timing marks on the camshaft, crankshaft and chain may take several turns of the crankshaft. The marks should be aligned as shown in figure 1.

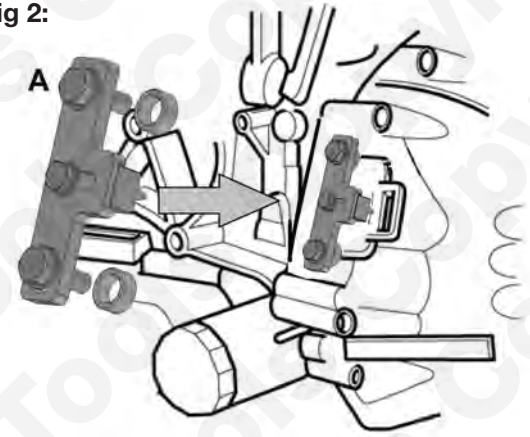
Fig 1:



Component (A): FLYWHEEL LOCKING & HOLDING TOOL

Component A is used to lock the crankshaft via the starter ring gear and requires the removal of the starter motor as shown in figure 2. With the flywheel locked the crankshaft pulley bolt can be undone to allow the front pulley to be removed.

Fig 2:



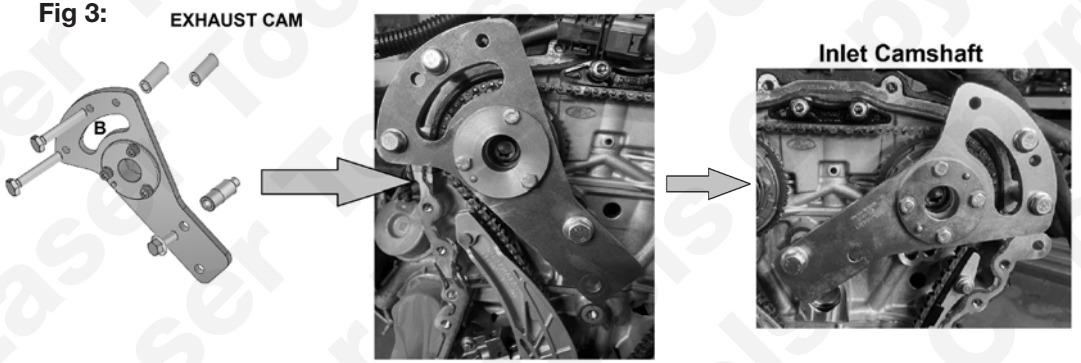
Component (B): CAMSHAFT LOCKING & HOLDING TOOL

The camshaft locking and holding tool (B) has 2 purposes:

1. Locking and holding the camshaft when removing and fitting the camshaft sprockets. (see figure 3).

NOTE: For tightening torques please refer to OEM instructions.

Fig 3:

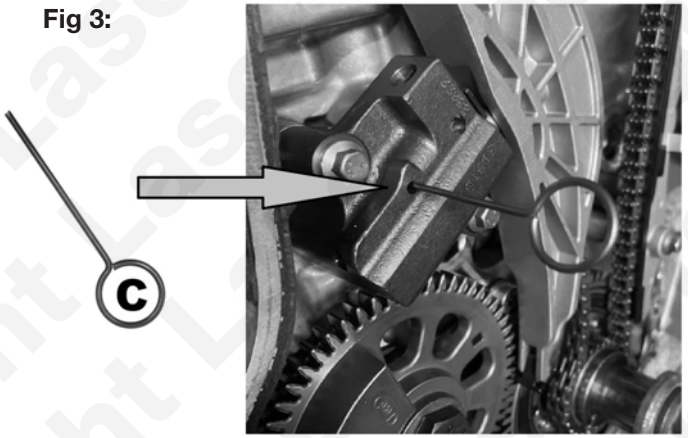


2. Locking and holding the inlet cam shaft when refitting the timing chain; with the camshaft sprockets fitted and tightened, align the crankshaft and camshaft sprockets in accordance with the manufacturer's instructions (see figure 1). Fit the camshaft locking tool (B) to the inlet camshaft as shown in figures 3 and proceed to fit the chain guides and tensioner as described by the OEM instructions.

Component (C): 2mm TENSIONER PIN

Timing chain tensioner locking pin (see figure 4).

Fig 3:



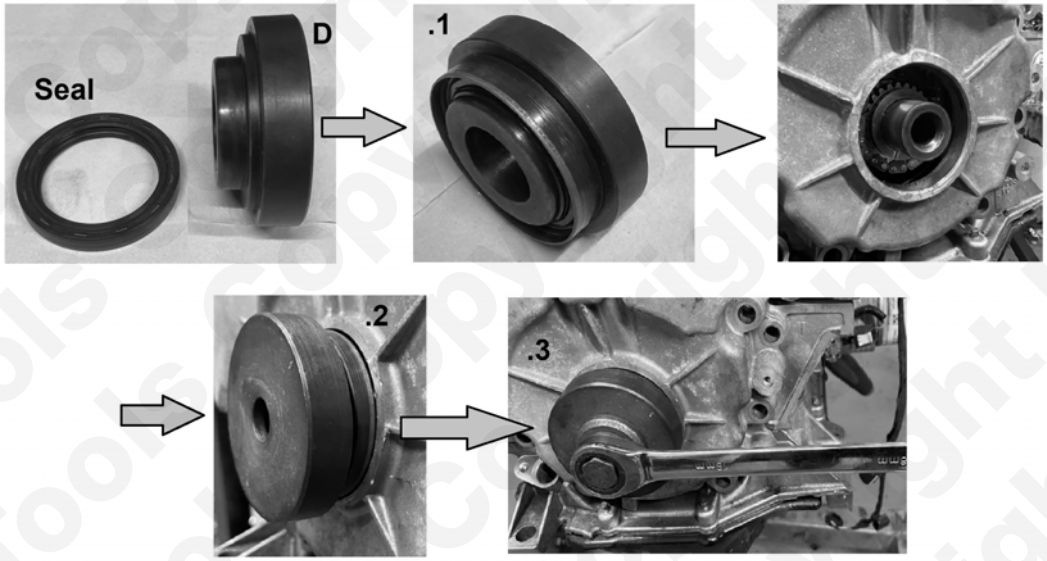
Instructions

Component (D): CRANKSHAFT OIL SEAL INSTALLATION TOOL

The crankshaft seal fitting tool is used to squarely fit the crankshaft seal in a controlled manner to ensure there is no damage to the seal (See figure 5).

1. Fit the seal to the tool.
2. Align the tool to the seal housing.
3. Press the seal into the housing using the old crankshaft pulley bolt.

Fig 5:



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.

8417_Instructions_V1

recycle
When you have finished with this leaflet please recycle it

www.lasertools.co.uk

TOOL CONNECTION
The Complete Connection

Distributed by The Tool Connection Ltd
Kineton Road, Southam, Warwickshire CV47 0DR
T +44 (0) 1926 815000 F +44 (0) 1926 815888
info@toolconnection.co.uk www.toolconnection.co.uk

Guarantee

If this product fails through faulty materials or workmanship, contact our service department direct on: **+44 (0) 1926 818186**. Normal wear and tear are excluded as are consumable items and abuse.