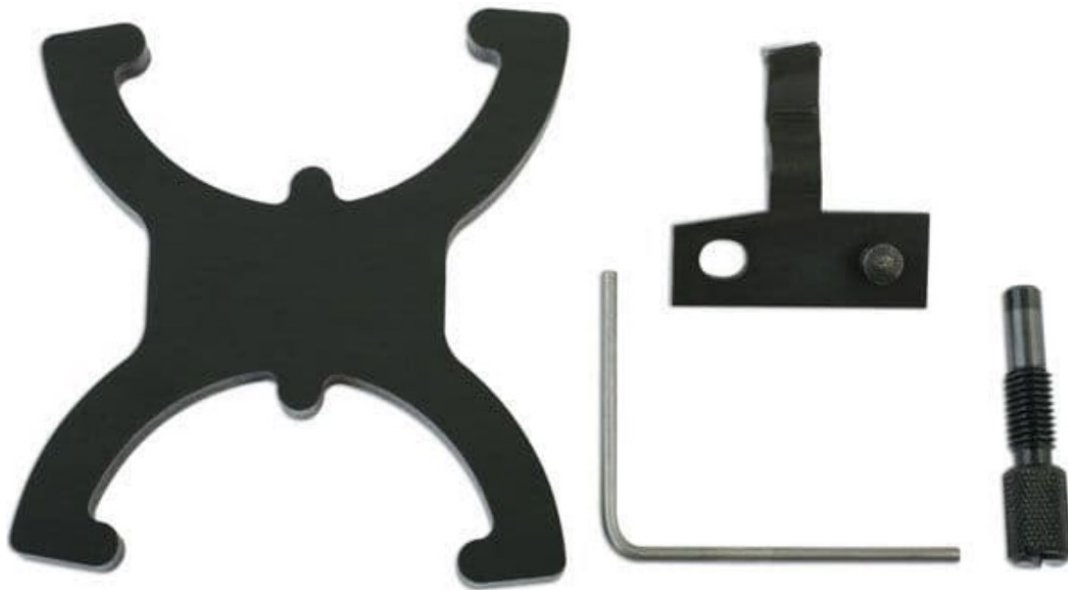


LASER 5903 Engine Timing Tool Kit Instructions

[Home](#) » [Laser](#) » LASER 5903 Engine Timing Tool Kit Instructions 

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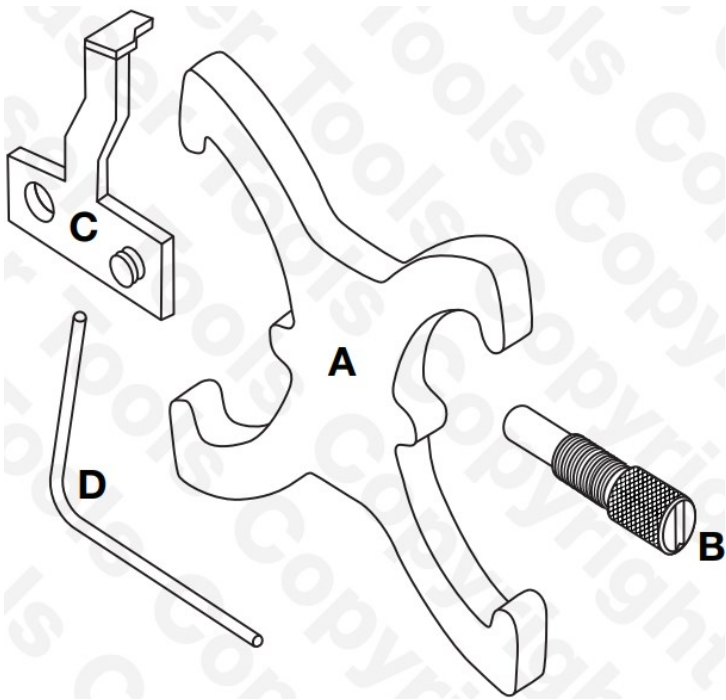
Contents

- [1 Introduction](#)
- [2 Components](#)
- [3 Applications](#)
- [4 Instructions](#)
- [5 Instructions Safety Warnings – please read](#)
- [6 Documents / Resources](#)
- [7 Related Posts](#)

Introduction

Developed specifically for the 1.6 direct injection petrol engines fitted with variable valve timing and found in both the Ford and Volvo ranges. N.B The information given below is for reference only.

Components



Ref.	A	Code	OEM Ref	Description
B		C311	999-7406, 303-748	Crankshaft Locking Pin

Applications

Make, Model, Year			Engine Codes		
Ford	B-MAX	2012 – 2018	1.5 EcoBoostBNMA BNMB BNMC M8DA M8DB M8DD M8DE M8DF M8MA M8MB M8MC M8MD M9DA M9DB M9DG M9DH M9MA	M9MB M9MC M9MD M9ME UNCA UNCB UNCC UNCD UNCE UNCF UNCI UNCJ UNCK UNCM UNCN UNCP1.6 EcoBoostI QJA	IQJC JQD A JQDB J QGA JQM A JQMB J TBA JTBB JTDA JTD B JTJA JTJ B JTJC JT MA JTWA JTWB
	C-MAX/				
	Grand	2010 – 2020			
	C-MAX				
	Fiesta	2013 – 2018			
	Focus III	2011 – 2018			
	Galaxy	2010 – 2020			
	Kuga	2013 – 2020			
	Mondeo	2010 – on			
	S-MAX	2010 – on			
	Tourneo	2013 – 2015			
	Connect				
	Transit	2013 – 2016			
	Connect				
Volvo	S60	2011 – 2015	1.6 GTDi B4164T B4164T2 B4164T3 B4164T4		
	S80	2010 – 2015			
	V40	2012 – 2015			
	V60	2011 – 2015			
	V70	2010 – 2015			

Always refer to the website for most up to date applications:

www.lasertools.co.uk/product/5903

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.



Preparations & Precautions:

- The Tool Connection Ltd recommends the use of Manufacturer data or Autodata. Raise the front of the vehicle

and remove the right hand front wheel and inner wheel arch

- Remove the engine undershield, top cover, air intake, auxiliary drive belt(s) and crankshaft position sensor
- Ensure the engine is at TDC No1 cyl
- Ensure the chain tensioner is fully retracted and held in the retracted position using the pin provided
- Remove water pump pulley, alternator and cam belt covers
- Remove the crankshaft pulley using an appropriate pulley holding tool or flywheel holding tool (Part No. 4275, available separately)

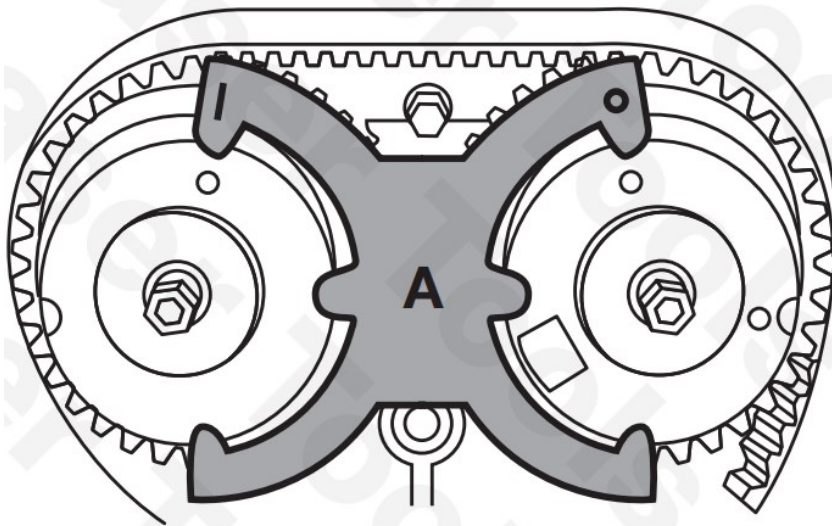
Component Descriptions:

Component A

Camshaft pulley locking tool, designed to be fitted as shown once the engine has been locked at TDC No1 cyl by fitting component (B).

Ensure the camshaft pulley marks are aligned as shown in **Fig. 1**.

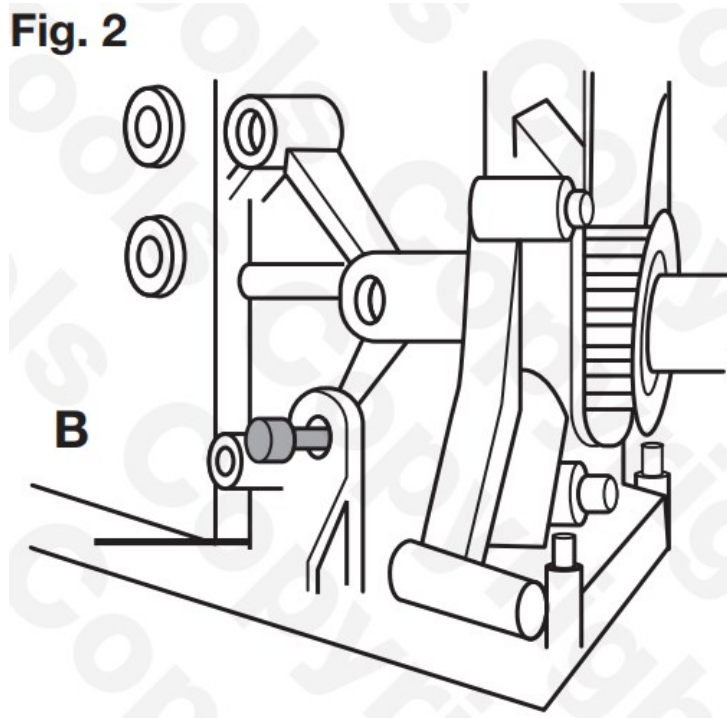
Fig. 1



Component B Fig. 2

Turn the crankshaft to just before TDC No1 cyl (indicated by the camshaft marks being at 11 o'clock) and insert (B) into the engine block as shown. Turn the crankshaft until it stops against the pin as shown in **Fig. 2**.

Fig. 2



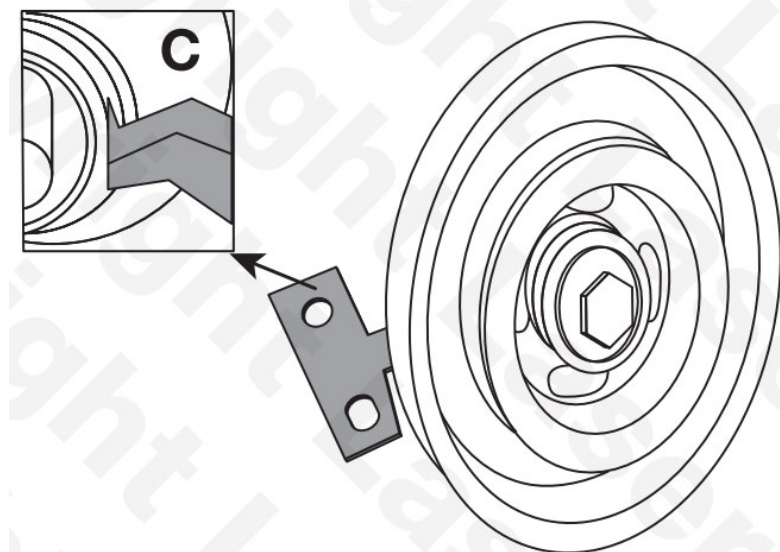
Component C

Crankshaft Pulley alignment tool is used to align the crank pulley when refitting.

Fit as shown in **Fig. 3** and hand tighten the pulley bolt.

Remove (C) before final tightening of the pulley

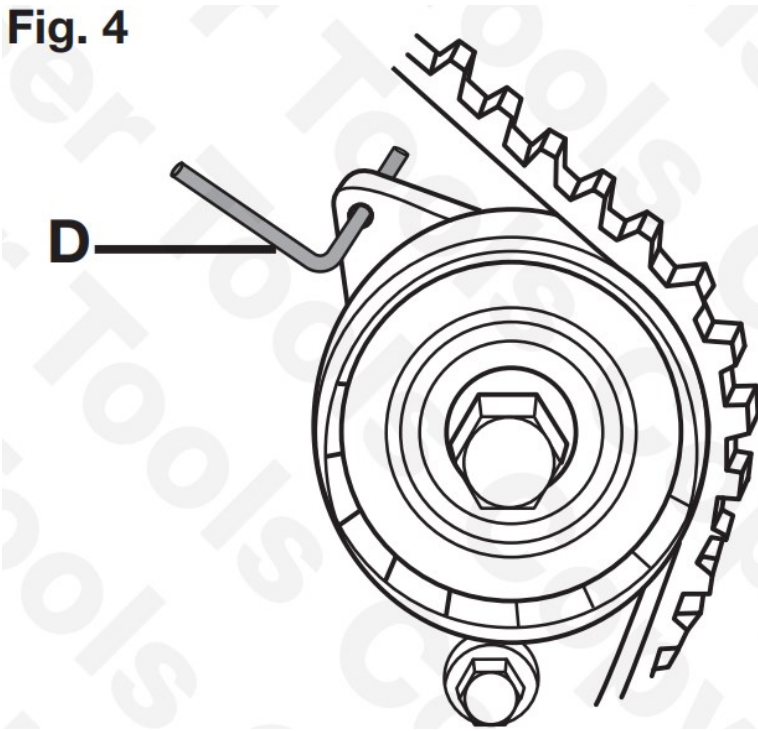
Fig. 3



Component D

Tensioner Pin is used to lock the camchain tensioner in its retracted position as shown in **Fig. 4**.

Fig. 4



Instructions 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.**



Safety First, Be Protected.

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.

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

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Documents / Resources

	<p>LASER 5903 Engine Timing Tool Kit [pdf] Instructions 5903, 5903 Engine Timing Tool Kit, Engine Timing Tool Kit, Timing Tool Kit, Tool Kit, Kit</p>
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