LASER®

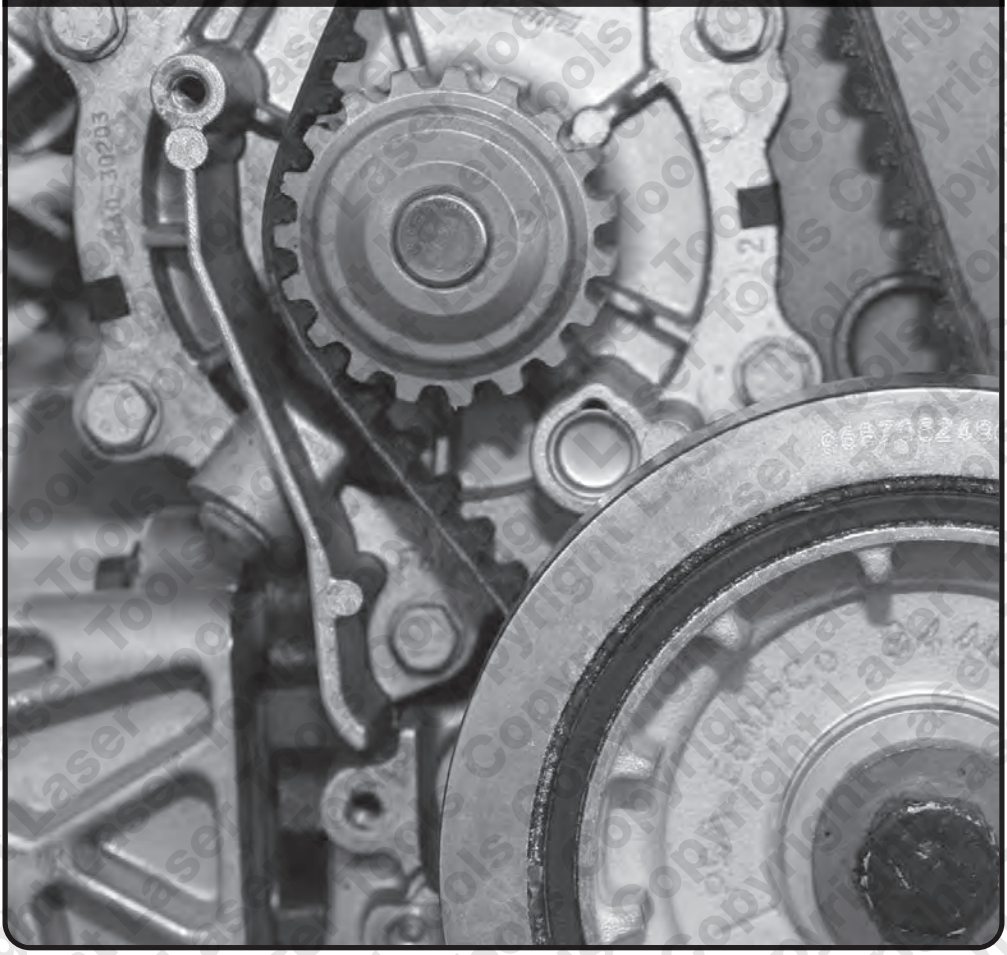
Part No. 6236

Instructions

Diesel Engine Timing Kit

Land Rover 3.6 TDV8

MADE IN SHEFFIELD



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

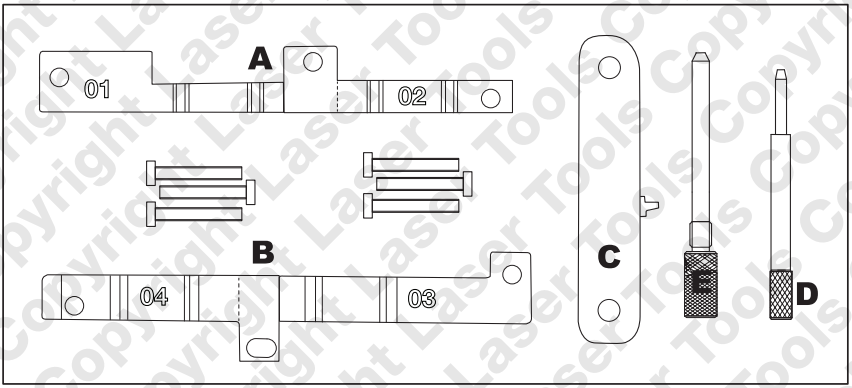
www.lasertools.co.uk

Introduction

Designed to lock the camshafts and crankshaft in their timed position for engine rebuilds and timing chain replacement on the Land Rover 3.6 TDV8 diesel engine.

N.B The information given below is for reference only. The Tool Connection Limited recommends the use of Manufacturer data or Autodata.

Components



Ref.	Code	OEM Ref	Description
A/B	C670	303-1236	Camshaft Alignment Blocks x2 Bolts x6
C	C672	303-1243	Flywheel Locking Plate
D	C674	303-1239	Camshaft Rotating Pin
E	C675	303-1238	Crankshaft Timing Pin

Applications

Make, Model, Range, Year				Engine Codes
Land Rover	Range Rover	L322	2006 - 2011	3,6 TDV8 368DT
	Range Rover Sport	L320	2006 - 2011	

Always refer to the website for most up to date applications: ***www.lasertools.co.uk/product/6236***

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 and Precautions

- Remove Engine
- Remove oil pan (engine sump)
- Remove the oil pump

Instructions

Component Descriptions

Components A & B

The four components that make up A and B are designed to be fitted just behind the cam shaft drive chains on the cylinder heads as shown in Fig. 2. Tighten the fixing bolts to 10Nm ensuring the block sit on the cylinder head top surface. If the blocks do not sit flat on the top surface of the head re-check camshaft timing.

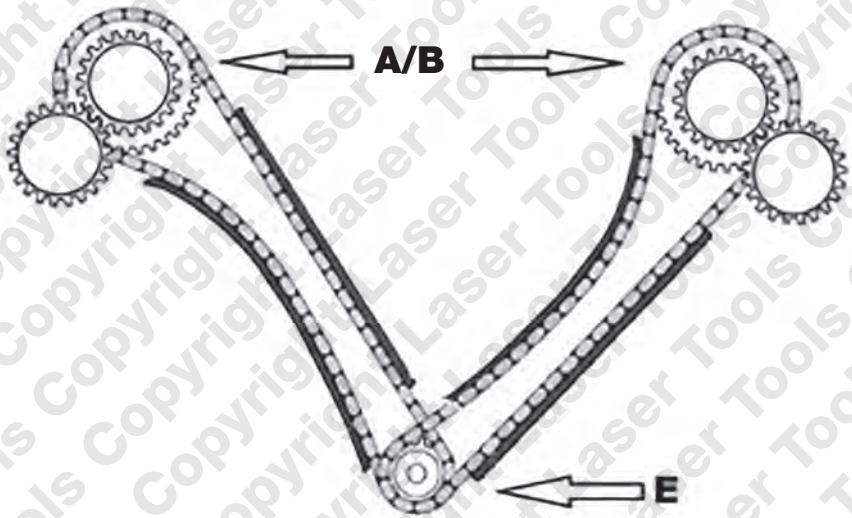


Fig. 1

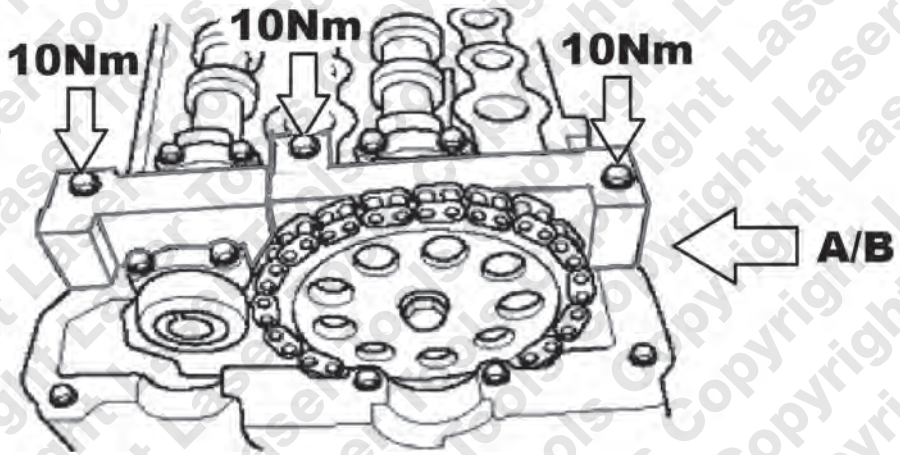


Fig. 2

Components C
Used to lock the flywheel to allow the front crankshaft pulley to be loosened and tightened as required.

Component D
A simple lever used to turn the individual camshafts in to their required position.

Component E
Used to lock the crankshaft in its timed position, the tool fits into the side of the engine block and the crankshaft is then turned. Timing position is found when the machined surface on the crankshaft rests against the timing pin as shown in Fig. 3.
Caution: Ensure the crankshaft alignment pin (Component E) locates on the machined surface of the crankshaft and not the unmachined crankshaft web. The Tool Connection Limited can not be held responsible for misalignment of the crankshaft due to incorrect fitment.

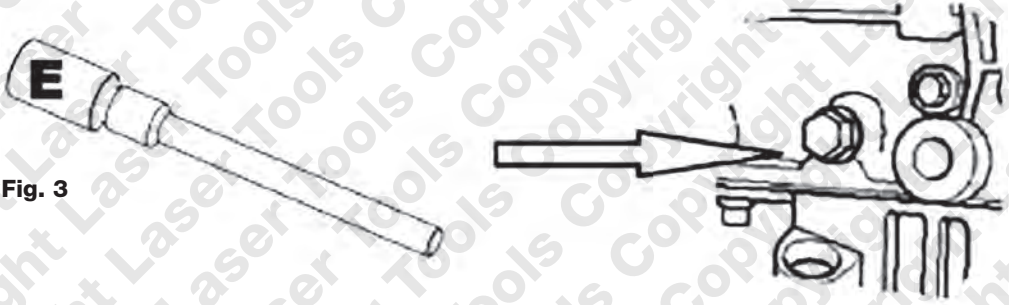


Fig. 3

N.B: Component E should not be used to hold the crankshaft when tightening or loosening the front pulley.

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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Guarantee

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