

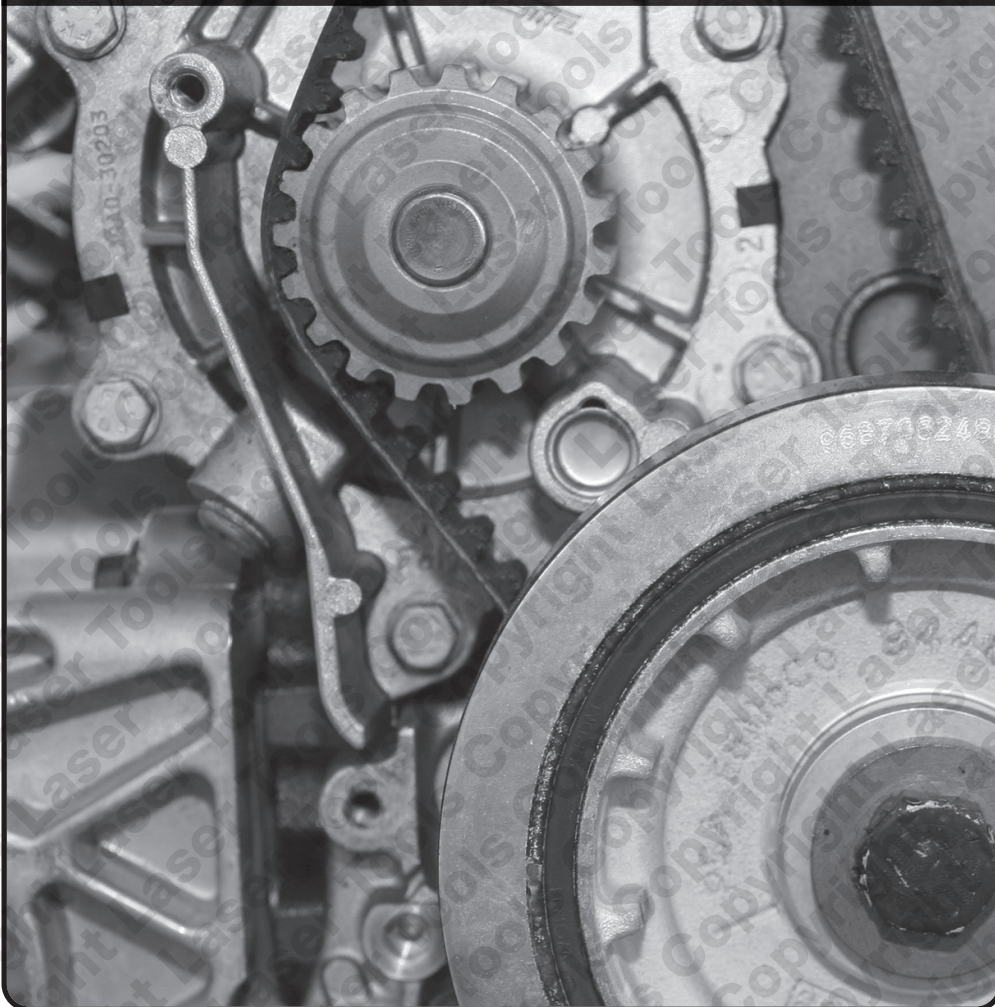
# LASER<sup>®</sup>

Part No. 6426

## Instructions

### Engine Timing Tool Kit

Vauxhall/Opel



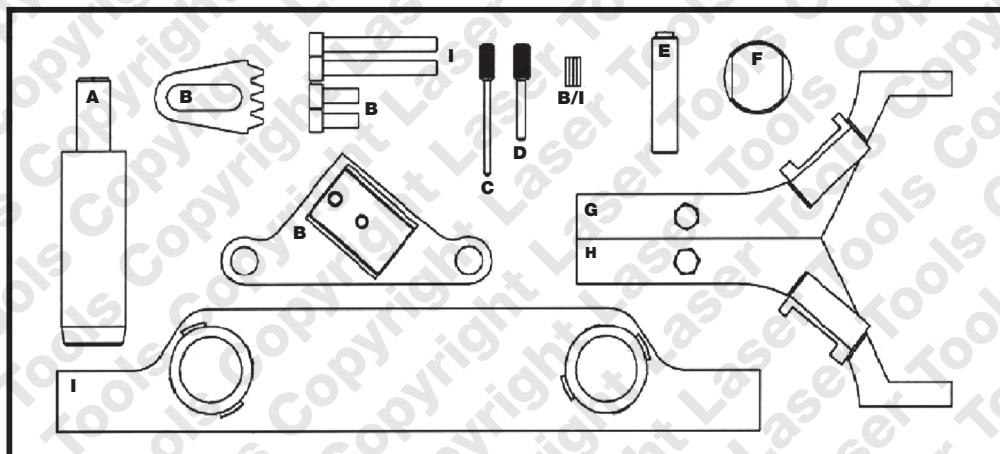
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## Introduction

Developed specifically for the high power output 2.0L and 2.4L twin cam turbo charged petrol engines found across the GM, Chevrolet and Saab ranges. This kit provides all the components required to set and hold the camshafts, crankshaft and chain tensioner components when performing major engine work or replacing the cam chain and associated components.

- A comprehensive timing tool kit for the 2.0L & 2.4L turbo charged twin cam petrol engines.
- Applications: Vauxhall, Opel, Saab and Chevrolet (2008 - 2019).
- Timing chain removal or replacement.
- Made in Sheffield.

## Components



Ref.	Code	OEM Ref	Description
A	C721	EN-48585	Crankshaft Pulley Alignment Tool
B	C726	EN-43653/J43653	Flywheel Holding Tool + Base (incl screws and washers)
C	C177	EN-955-10/KM 955	Tensioner Retaining Pin 2.5mm
D	C178	EN-955-20/KM 955-20	Tensioner Locating Pin 4.0mm
E	C722	EN-45027-1/J-45027-1	Tension Plunger Resetting Tool
F	C723	J45027-2 /EN45027-2/EN-45027	Tension Plunger Holder
G	C724	EN-49212/EN-49212-1	Camshaft Locking Tool Left Hand (incl screw and washer)
H	C725	EN-49212/EN-49212-2	Camshaft Locking Tool Right Hand (Incl screw and washer)
I	C727	EN-48953	Camshaft Adjuster Holding Tool (incl caps and screws)

## Applications

Make, Model, Year			Engine Codes
Chevrolet	Captiva	2011 - 2015	<b>2,4</b>
	HHR	2008 - 2009	LE5
	Malibu	2012 - 2015	LE9
Saab	9-3	2010 - 2012	<b>2,0</b>
	9-5	2010 - 2012	LDK/A20NHT LHU/A20NFT
Vauxhall/Opel	Antara	2011 - 2016	<b>2,0</b>
	Astra-J	2012 - 2017	LDK/A20NHT
	GTC	2015 - 2019	LHU/A20NET LHU/A20NFT
	Insignia-A	2008 - 2013	LHU/B20NFT <b>2,4</b> A24XE (LE5) A24XF (LE9)

Always refer to the website for most up to date applications: [www.lasertools.co.uk/product/6426](http://www.lasertools.co.uk/product/6426)

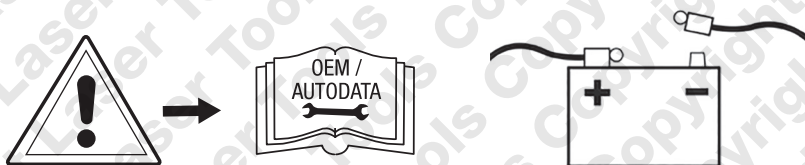
## Preparations and Precautions

- Ensure the engine is at TDC No.1 cyl.
- Ensure the crankshaft key way is in the 12 o'clock position.
- Ensure timing marks on the camshaft adjusters are in their timed positions.

# 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.



## Component A

### Crankshaft Pulley Alignment Tool.

Used to correctly align the crankshaft pulley on re-assembly.

## Component B

### Flywheel Holding Tool.

Used to hold the flywheel to prevent it from turning when undoing the crankshaft pulley bolt.

Assemble components marked **B** as shown below and mount the tool in place of the starter motor to lock the flywheel while undoing or tightening the crankshaft pulley main bolt. See **Fig. 1**.

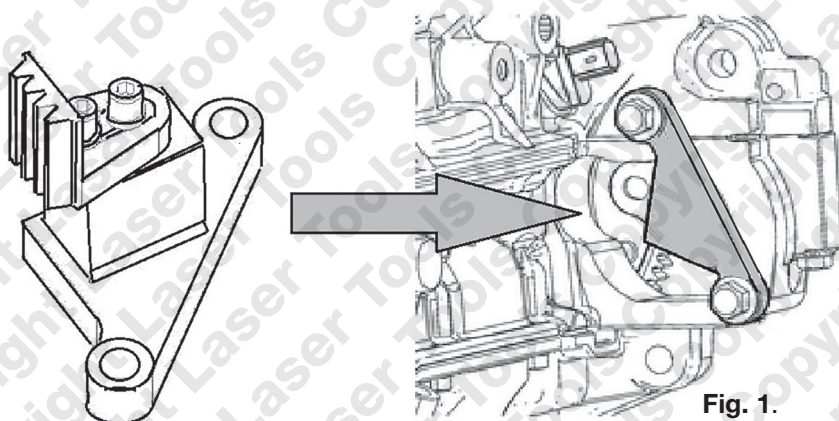


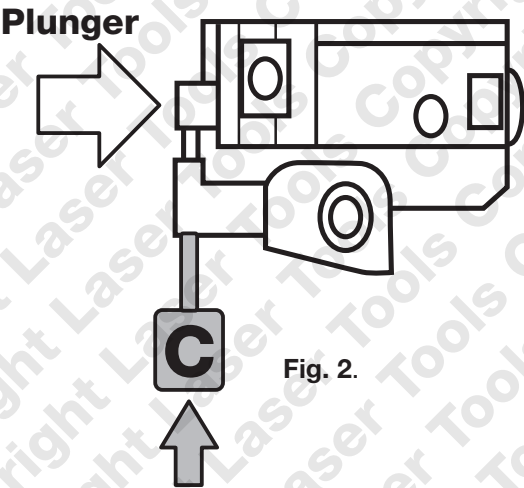
Fig. 1.



**Component C**

**Balance Shaft Chain Tensioner Retaining Pin (2.5mm).**

Used to lock the balance shaft chain tensioner in it fully retracted position. Push the tensioner plunger fully in and insert pin **C** as shown in **Fig 2.**

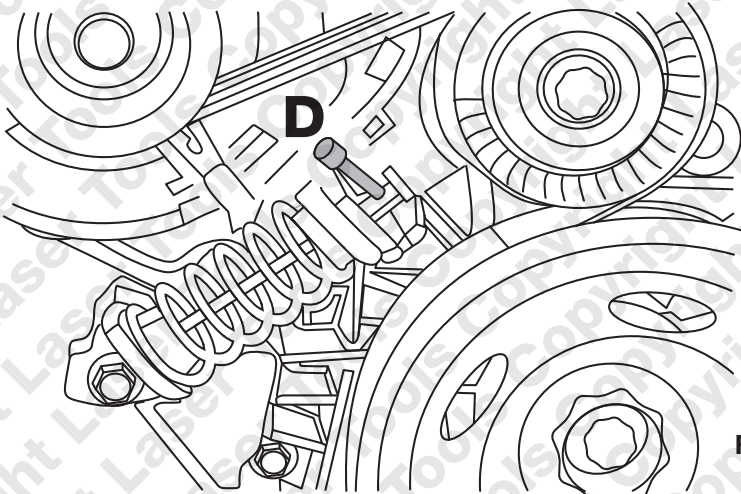


**Fig. 2.**

**Component D**

**Auxiliary Belt Tensioner Locking Pin (4.0mm).**

Used to lock the auxiliary drive belt tensioner in it fully retracted position as shown in **Fig 3.**

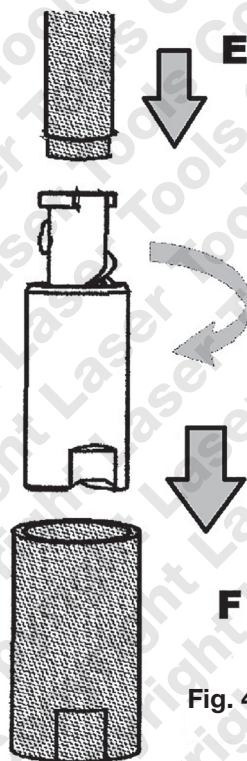


**Fig. 3.**

## Components E and F

### Camshaft Drive Chain Tensioner Plunger Resetting Tool and Holder.

Used to reset the cam chain tensioner in its retracted position prior to refitting. Using component **F** hold the tensioner in a suitable vice and use component **E** to push the tensioner plunger in and turn **E** to lock the plunger in its retracted position as shown in **Fig 4**.

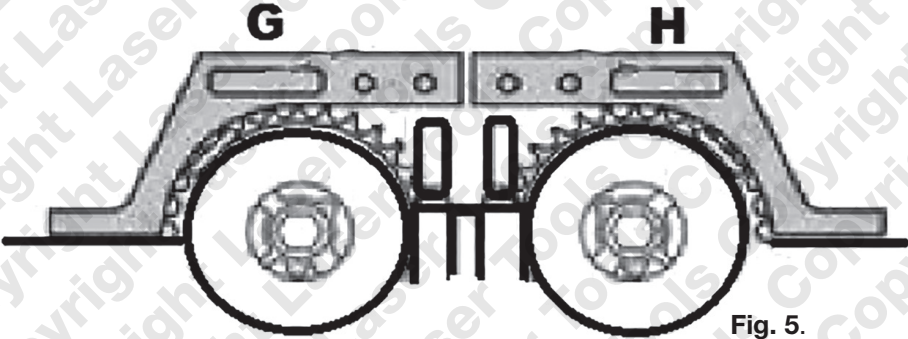


**Fig. 4.**

**Components G and H**

**Left & Right Hand Camshaft Locking Tools.**

Used to lock the camshafts in their timed position separate of the Variable Valve Timing adjusters. Fit as shown in **Fig 5.**

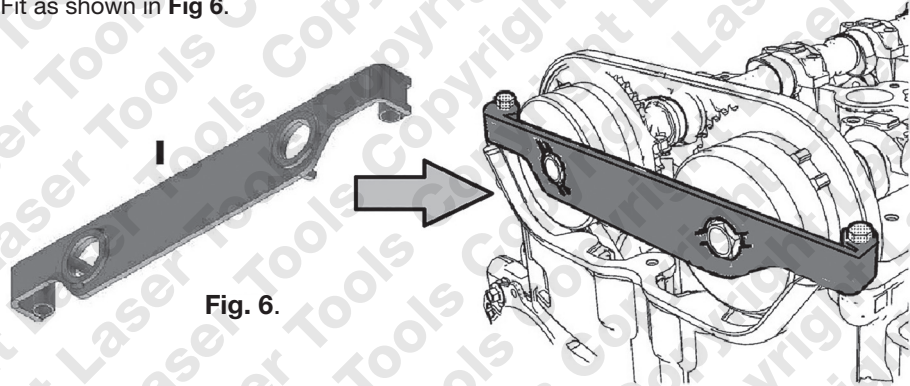


**Fig. 5.**

**Component I**

**Camshaft Adjuster Holding Tool.**

used to lock the VVT adjusters in their timed positions.  
Fit as shown in **Fig 6.**



**Fig. 6.**

## 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.

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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.

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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