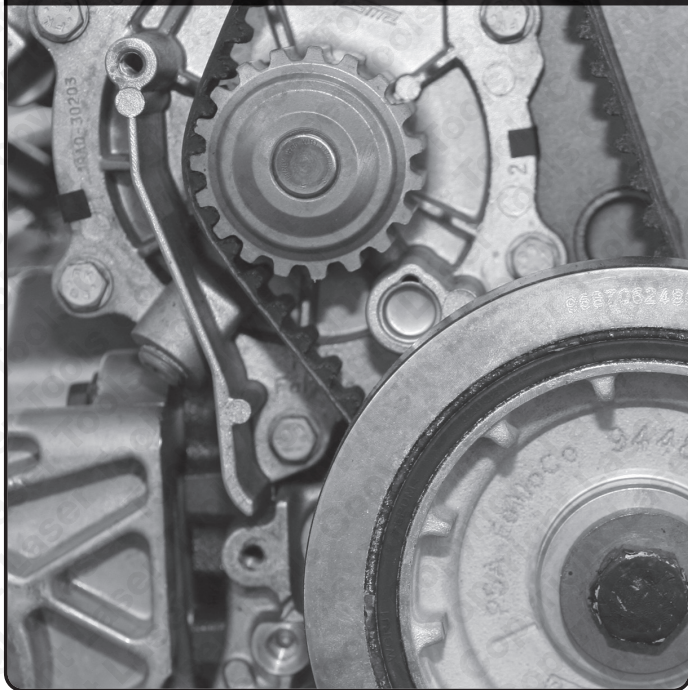


Part No. 4067

# LASER<sup>®</sup>

## Instructions

### Engine Timing Tool Kit Vauxhall, Saab



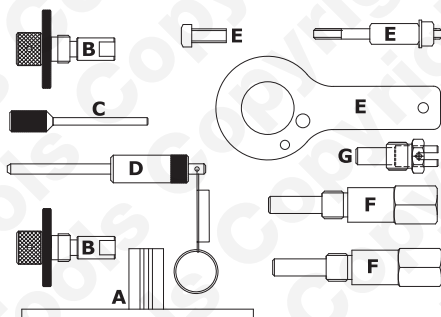
[www.lasertools.co.uk](http://www.lasertools.co.uk)

## Introduction

This timing tool kit is specifically designed for Fiat derived engines fitted to the Vauxhall/Opel and Saab 1.3 CDTi and 1.9 CDTi models.

- 1.9 CDTi belt driven engines fitted to Saab 9-3 (2004-2010) and 9-5 (2003-2010). Saab engine codes Z19DTH & Z19DTR.
- 1.9 CDTi belt driven engines fitted to Astra-H, Vectra-C, Signum, Zafira-B with Z19DT, Z19DTH, Z19DTJ & Z19DTL engines.
- 1.3 CDTi chain driven engines fitted to Agila, Corsa-C, Combo-C, Astra-H, Tigra-B, Meriva with Z13DT, Z13DTH, Z13DTJ engines.
- Supplied in foam tray to ensure all tools are removed from engine after use.

## Components



| Ref. | Code | Description   | OEM Ref.                |
|------|------|---|-------------------------|
| A    | C148 | Flywheel Locking Tool   | 1 860 898 000           |
| B    | C255 | Camshaft Alignment Tool (2)   | EN-46781                |
| C    | C275 | Auxiliary Drive Belt Tensioner Holding Pin                              | KM 6130, KM 6349        |
| D    | C276 | Crankshaft Alignment Pin c/w Retention Spring                           | EN-46785                |
| E    | C277 | Crankshaft Alignment Tool   | EN-46788, 1 860 905 000 |
| F    | C278 | Camshaft Alignment Tool (2)   | EN-46789                |
| G    | C279 | Camshaft Alignment Screw for use when high pressure pump remains fitted | EN-46789-100            |

## Applications

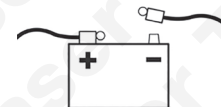
| Manufacturer | Model    | Year        | Engine Codes     |
|--------------|----------|-------------|------------------|
| Vauxhall     | Agila    | 2003 - 2010 | 1.3 CDTi (Chain) |
|              | Astra-H  | 2004 - 2012 | Z13DT            |
|              | Combo-C  | 2003 - 2012 | Z13DTH           |
|              | Corsa-C  | 2003 - 2007 | Z13DTJ           |
|              | Meriva   | 2004 - 2010 | 1.9 CDTi (Belt)  |
|              | Signum   | 2004 - 2008 | Z19DT            |
|              | Tigra-B  | 2004 - 2010 | Z19DTH           |
| Saab         | Vectra-C | 2004 - 2008 | Z19DTJ           |
|              | Zafira-B | 2005 - 2012 | Z19DTL           |
|              | 9-3      | 2004 - 2010 | 1.9 TiD (Belt)   |
|              | 9-5      | 2005 - 2010 | Z19DTH<br>Z19DTR |

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

[www.lasertools.co.uk/product/4067](http://www.lasertools.co.uk/product/4067)

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

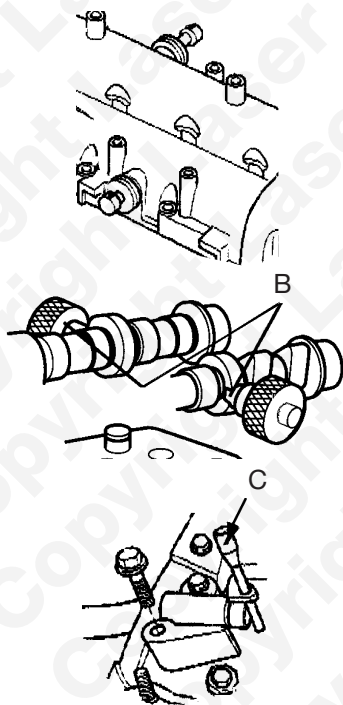
The use of this engine timing tool kit is purely down to the user's discretion and The Tool Connection Ltd. cannot be held responsible for any damage caused whatsoever.



**Warning** – Incorrect or out of phase engine timing can result in damage to the valves. It is always recommended to turn the engine slowly, by hand, and to re-check the camshaft and crankshaft timing positions.

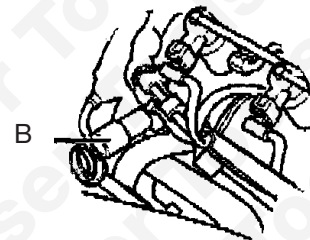
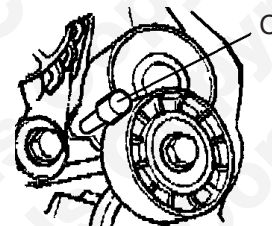
## Instructions - 1.3L Chain Driven Engine

- Remove the blanking plugs from the camshaft housing and install the alignment tools (B) with the parallel flats engaging into the camshaft grooves horizontally. Tighten the large Handle to secure in position.
- Install the crankshaft locking pin (D) in the bell housing hole.
- Install the tensioner locking pin (C) before carrying out engine repairs.



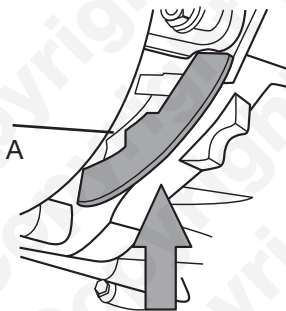
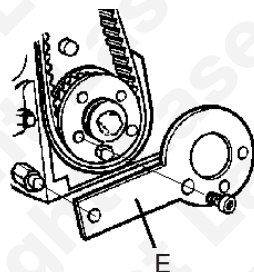
## Instructions - 1.9L Belt Driven Engines

- This engine is identified as an interference engine in which the possibility of valve-to-piston damage is likely to occur in the event of timing belt failure. It is advised to conduct a compression test before removing the cylinder head.
- Correctly support the engine.
- Turn auxiliary drive belt tensioner clockwise to release tension on belt. Use a suitable spanner.
- Check the tensioner sprocket for smooth rotation and lock the auxiliary drive belt tensioner with tensioner pin (C). Turn the crankshaft to TDC on No.1 cylinder.
- Fit the inlet and exhaust camshaft locking tools (B), when a high pressure fuel pump remains fitted the inlet camshaft locking tool (B) is obstructed and can be substituted with the compact tool (G).



## Instructions - 1.9L Belt Driven Engines

- Fit the crankshaft alignment tool (**E**) in position over the peg and use the stud to position and retain using the M8 bolt provided.
- Fit the new timing belt in a clockwise direction starting at the crankshaft sprocket.
- Lever the tensioner sprocket bracket until the pointer and mark are aligned, then tighten the tensioner sprocket.
- The flywheel should be held in position using flywheel locking tool (**A**) when tightening the crankshaft pulley bolts.
- Always remove all tools after use.



## 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.



4067\_Instructions\_V5



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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 are excluded as are consumable items and abuse.

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