

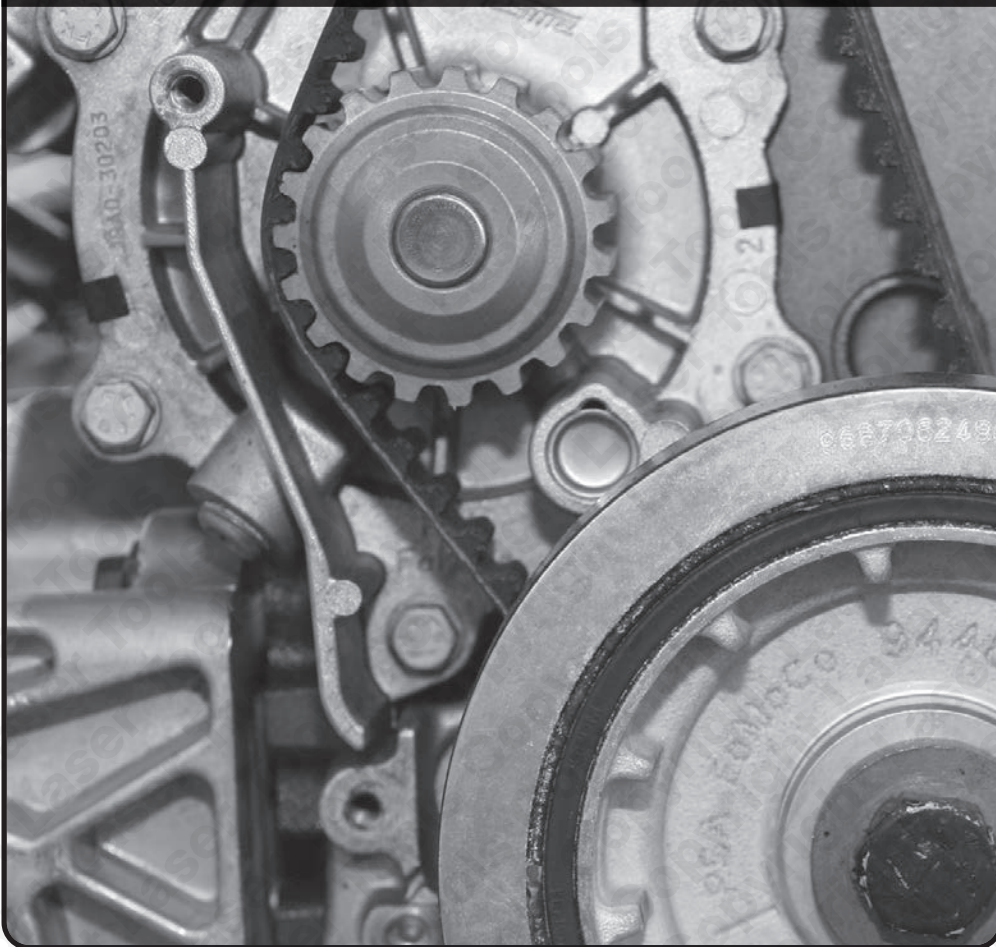
LASER[®]

Part No. 5549

Instructions

Engine Timing Tool Kit

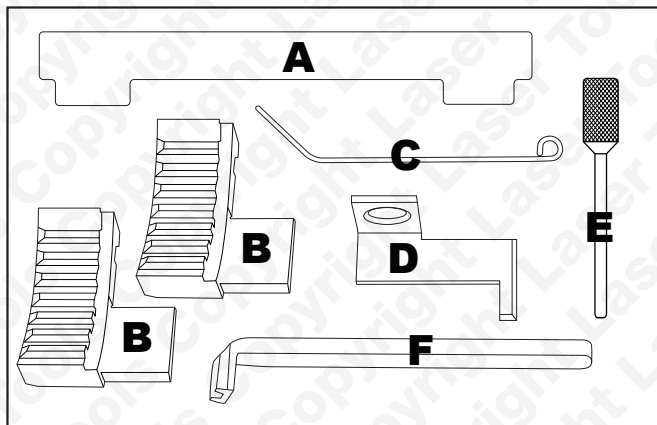
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*Please refer to www.lasertools.co.uk/toolpoint
to check the most up to date product applications.*

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Components



Ref	Code	OEM Ref.	Descriptions
A	C565	KM 6628A, 2 000 012 000	Camshaft Locking Bar
B	C333	KM 6340, 2 000 012 100	Camshaft Pulley Locking Tool x2
C	C334	KM 6333	Tensioner Locking Pin
D	C566	KM 6625, 2 000 012 800	Flywheel Holding Tool
E	C275	KM 6130	Locking Pin
F	C168	KM 911	Flywheel Holding Tool

Applications

Consult a suitable workshop manual before attempting to change the Cambelt or Chain.

ALWAYS USE A REPUTABLE WORKSHOP MANUAL

Marque	Model	Year	Engine Codes	
Alfa Romeo	159	2005 - 2010	1,4 G14D	1.8 MPI 2HO/A18XEL
Chevrolet	Aveo	2008 - 2015	1,6 A16LEL	2HO/A18XER
	Cruze	2009 - 2015	A16LER	2HO/Z18XER
	Orlando	2011 - 2015	A16LES	939A4.000
	Trax	2013 - 2015	A16XER	A18XER
Fiat	Croma	2006 - 2011	A16XNT	LUW
Saab	9-5	2010 - 2012	LDE/A16XER	Z18XER
Vauxhall/ Opel	Astra	2003 - 2018	LDE/B16XER	
	Corsa	2007 - 2018	LDE/F16D4	
	GTC	2015 - 2018	LGE/A16XNT	
	Insignia-A	2008 - 2017	LGE/B16XNT	
	Meriva-A	2006 - 2010	LLU/A16LET	
	Mokka/Mokka X	2012 - 2018	LLU/B16LER	
	Signum	2006 - 2008	LXV/F16D4	
	Vectra-C	2006 - 2008	Z16LEL	
	Zafira-B	2005 - 2014	Z16LER	
	Zafira-C Tourer	2011 - 2018	Z16LET	

Always refer to the website for most up to date applications: www.lasertools.co.uk/product/5549

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.



Instructions

This kit has been developed to change the Cam belt on the later Z and A coded General Motors petrol belt driven engines.

These engines are also found in Fiat and Alfa Romeo vehicles as listed below.

N.B The information given below is for reference only.

The Tool Connection Ltd recommend the use of Manufacturer data or Autodata.

Preparation:

- Remove the right hand front wheel
- Remove the inner wing
- Remove the engine top cover and cam cover
- Remove the auxiliary drive belt and where access requires it, the auxiliary drive belt tensioner unit
- Some applications require the removal of the right hand engine mount (engine support required)

Component Descriptions

Component A Camshaft Locking Bar

Used to lock the camshafts independently of the cam pulleys on engines fitted with variable valve timing. It fits into slots in the cam shafts accessed after the cam box is removed as shown in Fig. 1. Component (A) is fitted after component (B).

Component B Camshaft Pulley Locking Tool

This two piece tool is used to set-up and lock the camshaft pulleys in place.

Fit component (B) with the cam pulley timing marks aligned as shown in Fig. 2.

Ensure the inlet camshaft adjuster timing mark is positioned correctly.

Ensure component (A) can be fitted into place.

Fig. 1

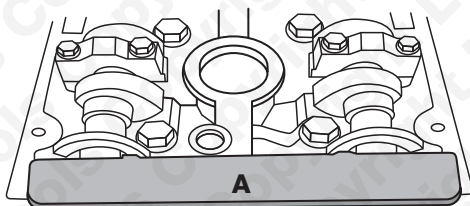
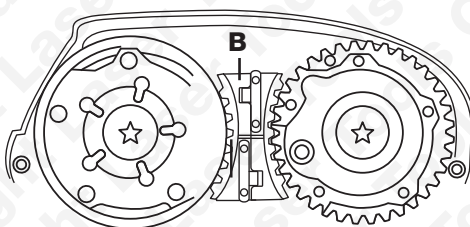


Fig. 2

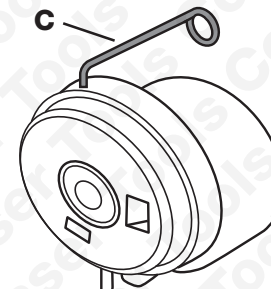


Instructions

Component C Tensioner Locking Pin

Component (C) is used to lock the cam belt tensioner in its retracted position as shown in Fig. 3.

Fig. 3

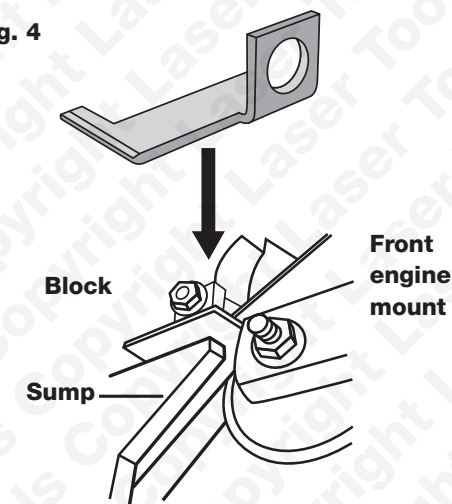


Component D Flywheel holding tool

Component (D) is a flywheel holding tool designed to slide between the engine block and sump faces, interlocking into the flywheel ring gear so holding the crankshaft whilst the technician loosens or tightens the front pulley mounting bolt.

Component (D) slides in place as shown in Fig. 4 and is held in place with the engine mounting bolt as shown.

Fig. 4



Component E Locking Pin

Component (E) is used to lock the Auxiliary drive belt tensioner in its retracted position.

Component F Flywheel Holding Tool

Component (F) is designed to jamb the flywheel ring gear so holding the crankshaft whilst the technician loosens or tightens the front pulley mounting bolt. It is used on earlier gearboxes where component (D) cannot be used (for example Z16LET used in Astra G and early Astra H)

Safety Warnings - please read

**Incorrect or out of phase engine timing can result in damage to the valves.
The Tool Connection cannot be held responsible for any damage caused by using these tools in anyway.**

- 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.



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Guarantee

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