

Applications

Make	Model	Year	Type
Opel/Vauxhall	Astra	2008-	OPC OPC/VXR Turbo E85 VVT Turbo T BioPower
	Insignia		
	Antara		
Chevrolet	Captiva	2008-	OPC OPC/VXR Turbo E85 VVT Turbo T BioPower
	HHR		
	Malibu		
Saab	9-5	2008-	

Engine Code

2.0	LHU/A20NFT, LTG/A20NHT, LDK/A20NHT
2.4	A24XE, A24XF, LE5, LE9

Our products are designed to be used correctly and with care for the purpose for which they are intended. No liability is accepted by Sonic for incorrect use of any of our products, and Sonic 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.

SONIC

equipment

Instructions

Engine Timing kit Opel/Chevrolet/Saab Petrol (A20/A24) - 2.0, 2.4



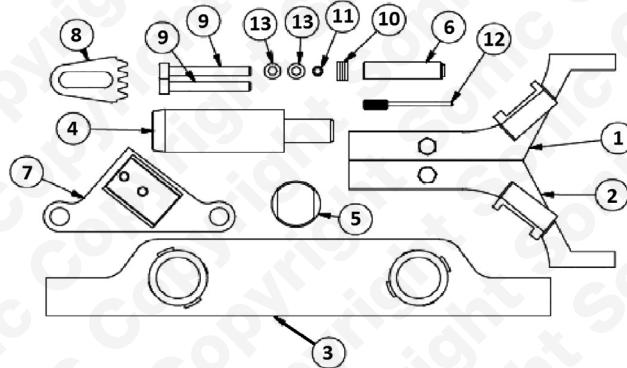
829064 - Engine Timing kit

Description:

Developed specifically for the high power output 2.0 litre and 2.4 litre 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.

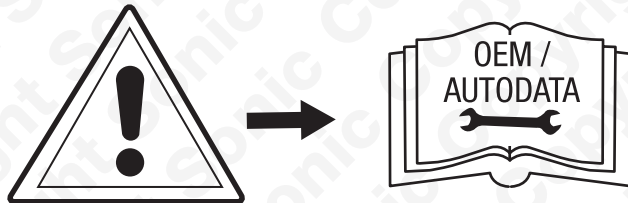
Components

Ref	Comp	OEM	Description
1	4880231	EN-49212, EN-49212-1	Camshaft Locking Tool (Left)
2	4880232	EN-49212, EN-49212-2	Camshaft Locking Tool (Right)
3	4880317	EN-48953	Camshaft Adjuster Holding Tool
4	4880318	EN-48585	Crankshaft Pulley Alignment Tool
5	4880320	J45027-2, EN45027-2, EN-45027	Tensioner Plunger Holder
6	4880321	EN-45027-1, J-45027-1	Tensioner Plunger Reset Tool
7	4880319	EN-43653, J43653	Flywheel Holding Tool
8	4880135	EN-43653, J43653	Flywheel Holding Tool
9	4880214		Screws For 3
10	4880010		Washer For 1, 2 & 3
11	4880173	EN-955-20, KM 955-20	Tensioner Locating Pin 4mm
12	4880172	EN-955-10, KM955	Tensioner Locating Pin 2.5mm
13	4880215		Screws For 7

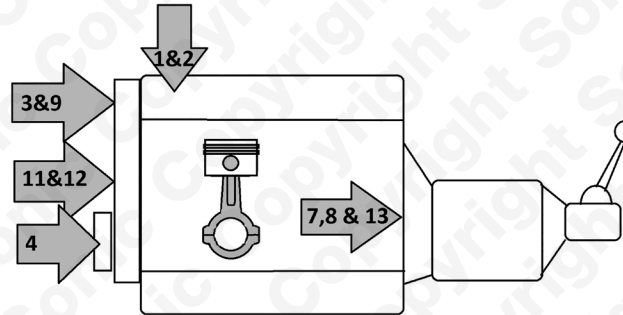


Instructions

The following instructions are for guidance only. Please refer to OEM derived data such as the vehicles manufactures own data or Autodata. The use of these engine timing tools is purely down to the user's discretion and Sonic cannot be held responsible for any damage caused what so ever.



Instructions

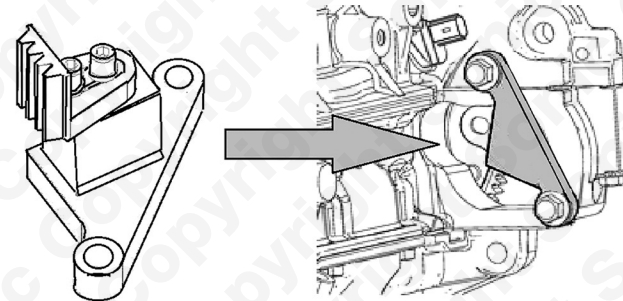


- Ensure the engine is at TDC No.1 cyl.
- Ensure the crankshaft key way is in the 12 o'clock position.
- Ensure timing marks on the camshaft adjusters are in their timed positions.

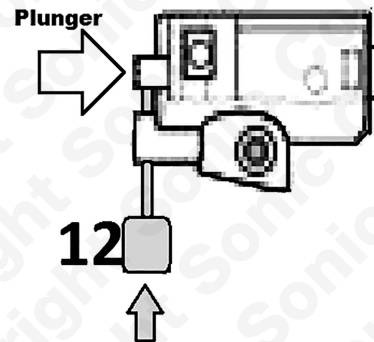
Crankshaft Pulley Alignment tool (4) – used to correctly align the crankshaft pulley on re-assembly.

Flywheel Holding Tool (7 & 8).

Used to hold the flywheel to prevent it from turning when undoing the crankshaft pulley bolt. Assemble components marked 7 & 8 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.

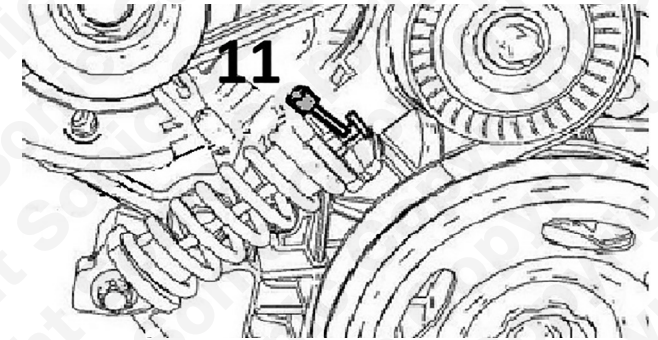


Balance Shaft Chain Tensioner Retaining Pin (2.5mm) (12). Used to lock the balance shaft chain tensioner in it fully retracted position. Push the tensioner plunger fully in and insert pin 12.

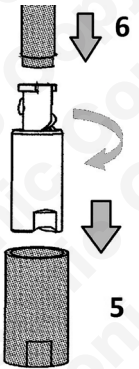


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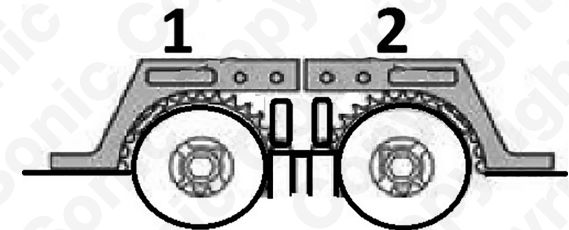
Auxiliary Belt Tensioner Locking Pin (4.0mm) (11). Used to lock the auxiliary drive belt tensioner in its fully retracted position.



Camshaft Drive Chain Tensioner Plunger Resetting Tool and Holder (5&6). Used to reset the cam chain tensioner in its retracted position prior to refitting. Using component 5 hold the tensioner in a suitable vice and use component 6 to push the tensioner plunger in and turn 6 to lock the plunger in its retracted position.



Left & Right Hand Camshaft Locking Tools (1&2). Used to lock the camshafts in their timed position separate of the Variable Valve Timing adjusters.



Camshaft Adjuster Holding Tool (3). Used to lock the VVT adjusters in their timed positions.

