Kamasa-TOOLS®

Engine timing tools

VAG TFSi FSi 2.0

K 10548

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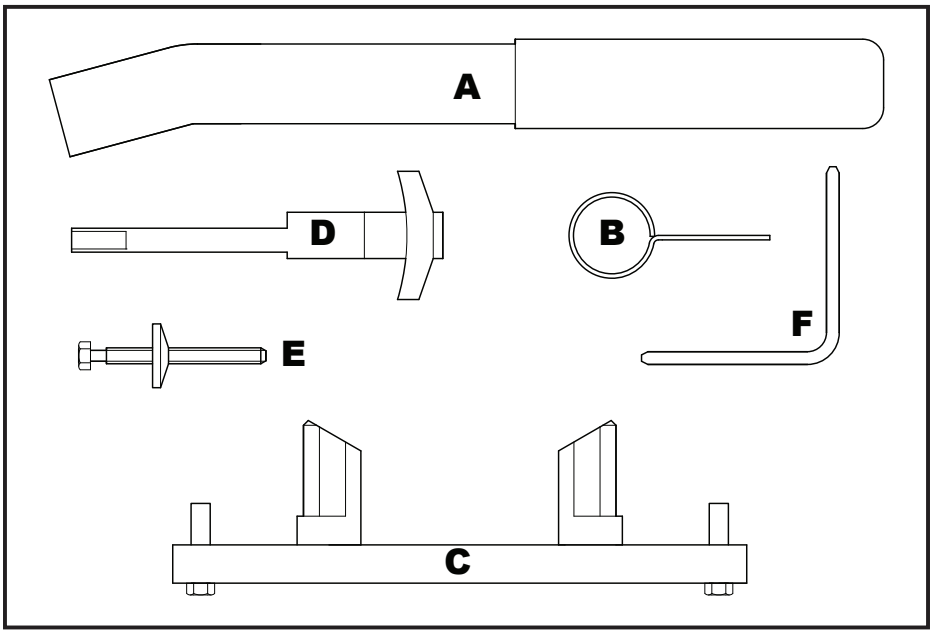
Plan Layout



Component Identification

Ref	Oem Ref.	Description
A	T10020	Tension Wrench
B	T40011	Tensioner Pin
C	T10252	Camshaft Aligning Tool
D	3366	Automatic Chain Tensioner Retainer
E	T10092	Chain Tensioner Retaining Screw and Nut
F	T10060/A	Auxiliary Drive Belt Tensioner Locking Pin

Applications

The application list for this product has been compiled cross referencing the OEM Tool Code with the Component Code.

In most cases the tools are specific to this type of engine and are necessary for Cam belt or chain maintenance.

If the engine has been identified as an interference engine valve to piston damage will occur if the engine is run with a broken Cam belt.

A compression check of all cylinders should be performed before removing the cylinder head.

Always consult a suitable work shop manual before attempting to change the Cam belt or Chain.

The use of these engine timing tools is purely down to the user's discretion and Tool Connection cannot be held responsible for any damage caused what so ever.

ALWAYS USE A REPUTABLE WORKSHOP MANUAL

Manufacturer	Model	Style	Engine Code	Year
Audi	A3	2.0 FSI SOHC	AXW I BHD I BMB	2003-
	A3	2.0 FSI	AWA I AXX I BPY I BWA	2004-
	A4	2.0 TFSI	BUL	2004-
	A6	2.0 TFSI	BJP I BGB	2006-
Volkswagen	Golf	2.0 FSI SOHC	AXW	2003-
	Passat	2.0 TFSI	BWA I BWE I BGB I BPJ	2005-
	Touran	2.0 FSI SOHC	AXW	2003-

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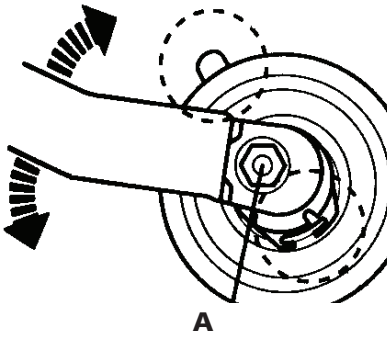
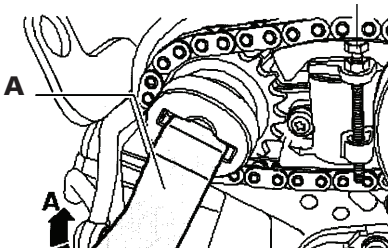
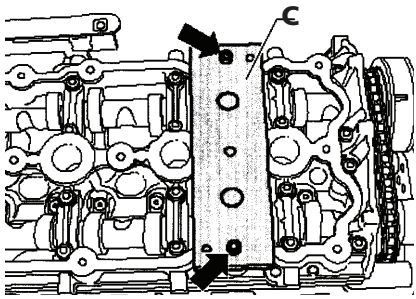
Instructions

1. This series of engines have both timing belt and chain to control the valve timing.
2. Known as an interference engine, this means that if the Cam belt or chain should break it is more than likely that damage may have occurred to the pistons or valves. It is recommended that a compression test should be taken on all cylinders before removing the cylinder head(s)
3. The Tension Wrench (A) is generally used when fitting timing belts where it is necessary to hold the positioning of the belt tensioner pulley in alignment whilst the centre nut is tightened.
4. On 2.0 litre FSI engines this tool can also be used to turn the inlet camshaft when fitting the Camshaft Alignment Tool (C) into the grooves located on the camshaft spindle.
5. The Camshaft Alignment Tool (C) is fitted at the back of the engine next to the camshaft link chain. The formed pegs are located between the camshaft lobes as illustrated.
6. It is advisable to fix this tool to the cylinder head using the 2 x washer-faced M6 fasteners provided as indicated.
7. If the tool cannot be fitted, the camshaft timing is incorrect and the camshaft adjuster must be removed using a T50 Torx® Bit.
8. The chain tensioner is pressed together using Chain Tensioner Retaining Nut and Screw (E) and is locked in position with Tensioner pin (B).
9. Use the Automatic Chain Tensioner Retainer tool (D) for engines with an automatic chain tensioner.
10. The camshaft adjuster can now be removed along with the chain.
11. Fit the Camshaft Alignment Tool (C) and retain with the fasteners.
12. Refit the camshaft adjuster on to the exhaust camshaft ensuring that the notch and pin align.
13. Maintain position and lay the chain over the top of the inlet camshaft sprocket.







Safety Precautions

- If the engine has been identified as an Interference engine, damage to the engine will occur if the timing belt has been damaged. A compresion 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 has been removed
- To make turning the engine easier, remove the spark plugs
- 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
- Check the ignition timing after the belt has been replaced.
- 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
  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

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