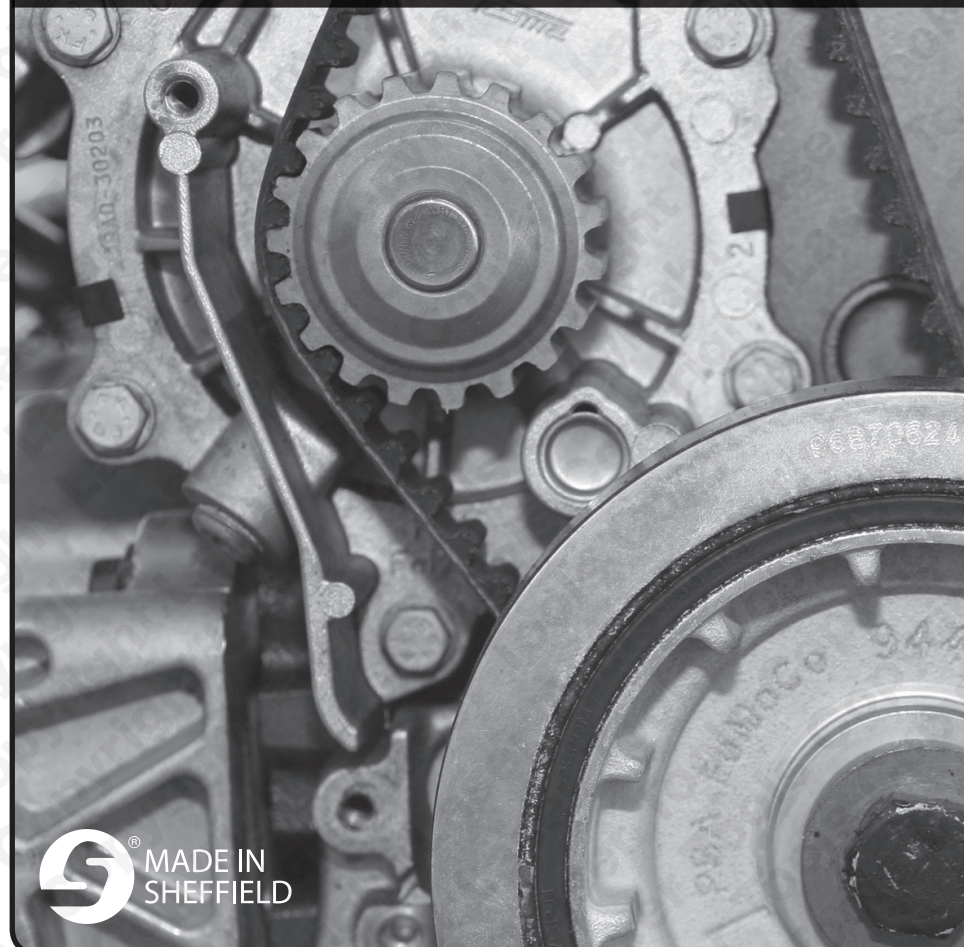


LASER®

Part No. 5742

Engine Timing Tools

Volkswagen Audi Group 1.2 FSI/TF SI | 1.4 | 1.6 FSI | 1.4 TSI



 **MADE IN
SHEFFIELD**



www.lasertools.co.uk



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Guarantee

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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Introduction



Part No. 5742
Engine Service Tool Kit
Volkswagen Audi Group 1.2 FSI/TFSI | 1.4 | 1.6 FSI | 1.4 TSI

Additional tools increase the application of this set to include:

1.2 litre with engine codes: CBZA, CBZB, CBZC

1.4/1.6 litre with engine codes: BAG, BLF, BLG, BLP, BMY, BWK CAXA (03-) in Golf Estate, Golf Plus, Jetta, Passat, Eos, Tiguan and Touran

Warning

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.

Safety Precautions – Please read

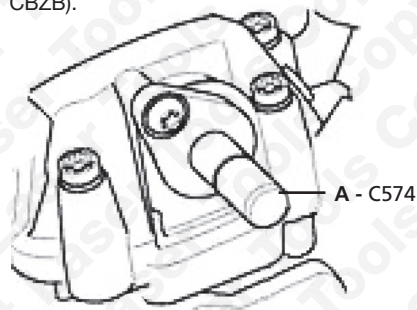
- Disconnect the battery earth leads (check radio code is available)
- Remove spark or glow plugs to make the engine turn easier
- Do not use cleaning fluids on belts, sprockets or rollers
- Always make a note of the route of the auxiliary drive belt before removal
- Turn the engine in the normal direction (clockwise unless stated otherwise)
- Do not turn the camshaft, crankshaft or diesel injection pump once the timing chain has been removed (unless specifically stated)
- Do not use the timing chain to lock the engine when slackening or tightening crankshaft pulley bolts
- Do not turn the crankshaft or camshaft when the timing belt/chain has been removed
- Mark the direction of the chain before removing
- It is always recommended to turn the engine slowly, by hand and to re-check the camshaft and crankshaft timing positions.
- Crankshafts and Camshafts may only be turned with the chain drive mechanism fully installed.
- Do not turn crankshaft via camshaft or other gears
- Check the diesel injection pump timing after replacing the chain
- Observe all tightening torques
- Always refer to the vehicle manufacturer's service manual or a suitable proprietary instruction book
- 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

Instruction

Follow all general precautionary preparation work, and then if removing the timing chain it is necessary to remove the timing chain cover and sump.

A Camshaft Locking Tool

Component **A** is the camshaft locking tool used on the 1.2 FSi engines (CBZA and CBZB).



To gain access to the grooved end of the camshaft remove the hose connecting block from the rear of the cylinder head (gearbox end).

Fit C574 as shown. Ensure fixing bolt can be fitted.

B Dial Test Indicator

Top Dead Centre (TDC) measurement must be checked, this set includes TDC Adaptor (used in conjunction with a Dial Test Indicator) which enables the accurate measurement of the piston position.

C TDC Indicator

The Indicator is fitted into the first cylinder spark plug hole. The extension makes contact with the piston face and as the engine is slowly rotated the DTI indicates the TDC, or the highest point required.

Many performance engines have an interference combustion area, which if the correct timing position is not achieved could result in serious damage to the valves and other parts of the engine.

D Camshaft Alignment Tool

If the Camshaft Timing Marks are not correctly aligned with the engine set at TDC, turn the Crankshaft 360° and check the Camshaft timing mark again. Fit the Camshaft Alignment Tool.

If the Camshaft Alignment tool can still not be fitted the valve timing is incorrect.

E Camshaft Tensioner Pin

Fit the tensioner locking pin to hold the chain tensioner back, allowing the removal of the camshaft sprockets and chain.

Set the camshaft positions and align using the Camshaft Alignment Tool.

F Crankshaft Locking Pin

Use the Crankshaft Locking tool when loosening and tightening the crank.

G Guide Pins (2)

The two guide pins hold the supercharger in the correct position during installation.

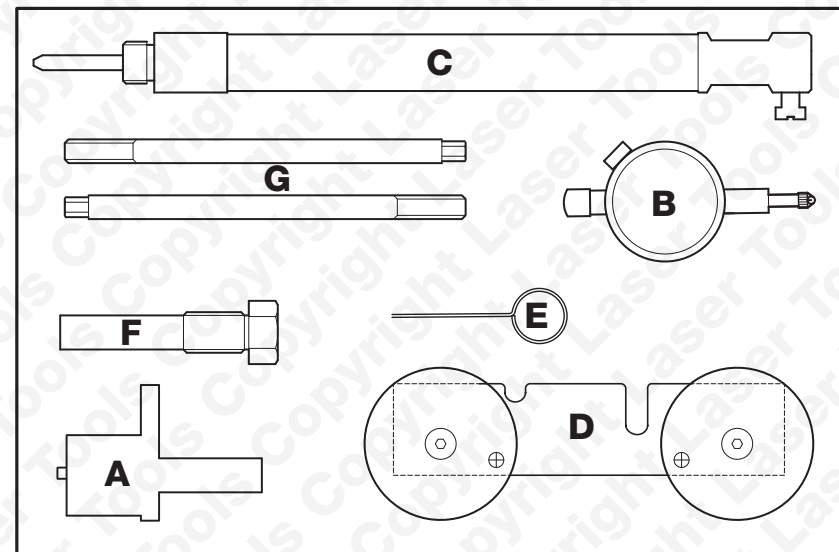
Re-install the sprockets and chain and correctly tighten the sprockets.

It is advised to use new crankshaft pulley and camshaft sprocket bolts.

Remove the Camshaft Alignment Tool and turn the Crankshaft twice in a clockwise direction.

Check the valve timing again.

Plan Layout



Code	Oem Code	Description
A C574	T10414	Camshaft Locking Tool
B C127	VAS 6079	Dial Test Indicator 41 x 8mm
C C226	T10170	TDC Indicator
D C345	T10171/T10171A	Camshaft Alignment Tool
E C284	T40011	Camshaft Tensioner Pin
F C439	T10340	Crankshaft Locking Pin
G C440	T10341	Guide Pins (2)

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.

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Autodata

Our applications data is supplied by Autodata and we are able to supply this data to you in a PDF format.

If this is a specific kit for a group of engine codes the application list has been supplied showing the main vehicles this kit is designed for and does not list every model each pin fits.

If this is a master kit then all vehicles are included.

The data is the copyright of The Tool Connection Ltd and should not be reproduced

If the application data is extensive we have included a CD with the application list in .pdf format.

Languages

We have also included where possible translations for the instructions in the following languages:

- French
- Spanish
- Italian
- Dutch
- German
- Portuguese

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

ALWAYS USE A REPUTABLE WORKSHOP MANUAL

For up to date information go to:

www.lasertools.co.uk/toolpoint