

Product Information

9431180

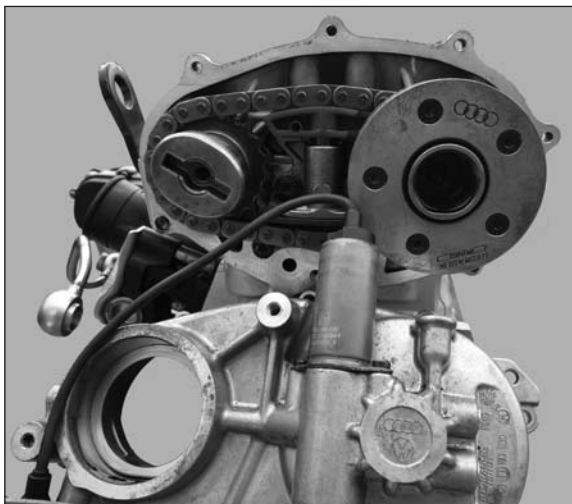
Petrol Engine Chain in Head Service Tool Kit

Associated Tool: 43012860
Camshaft Sprocket Holding Tool



Associated Tool
43012860

IMPORTANT: Always refer to the vehicle manufacturer's service instructions, or proprietary manual, to establish the current procedures and data. Product Information Sets detail applications and use of the tools with any general instructions provided as a guide only.



Applications:

V W GROUP 2.0 16v. FSi & TFSi engines in

AUDI

A3 TT A4
A6

SEAT

Leon Altea Exeo
Toledo

SKODA

Octavia II

VOLKSWAGEN

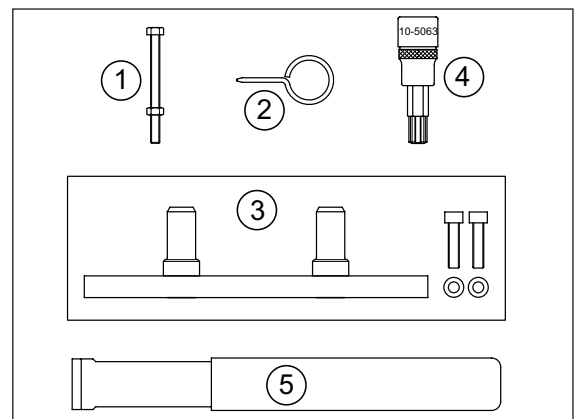
Golf Golf Plus Jetta
Passat Eos Touran

FSi engines: AWA, AXW, BHD, BLR, BLX, BLY, BMB, BVX, BVY, BVZ

TFSi engines: AXX, BGB, BHZ, BPG, BPJ, BPY, BUL, BWA, BWE, BWJ, BWT, BYD, BYK, BZC, CDLA, CDLB, CDLC, CDLD, CDMA

Additional Tools required:

4741 Front End Support Guides
43012860 Camshaft Sprocket Holding Tool
4848 Camshaft Sprocket Remover
4990 VAG Direct Ignition Coil Remover



Kit contents/spares

Item	Part Number	Description
1	5061	Tensioner Locking Bolt
2	4640T7	Tensioner Locking Pin
3	5062	Camshaft Positioning Plate
4	5063	VVT Sprocket Bolt Socket
5	5064	Inlet Camshaft Adjuster
6	5060-84	Case and Insert

9431180 Petrol Engine Chain in Head Service Tool Kit

Comprises: 5061 Tensioner Locking Bolt
4640T7 Tensioner Locking Pin
5062 Camshaft Positioning Plate
5063 VVT Sprocket Bolt Socket
5064 Inlet Camshaft Adjuster

These VAG 2.0 16v. twin cam petrol engines were introduced in 2002, with turbo charged variants added in 2005.

A timing belt connects the crankshaft to the exhaust camshaft, with a timing chain driving the inlet camshaft through a Variable Valve Timing unit (VVT) from the exhaust camshaft.

These FSi (Fuel Stratified Injection) direct injection engines use a high pressure fuel pump driven from the inlet camshaft. The operating pressure of this system can be up to 150 Bar.

Timing Belt Replacement

The correct engine timing position is achieved by aligning the timing marks on the camshaft sprocket and crankshaft pulley with positions marked on the timing belt covers.

The belt tensioner is adjusted using an Allen key, earlier variants of the belt tensioner may require a Tensioner Adjuster (4633) or a Tensioner Retaining Pin (4593-1E).

Chain in Head Service

Work on the cylinder head, camshafts etc. requires the special tools contained in 060 Kit to remove the camshafts, sprockets etc.. and reset the camshafts position, VVT timing and chain tension.

Variable Valve Timing Unit/Camshaft Chain Removal

NOTE: The following operations should only be carried out on a cold engine.

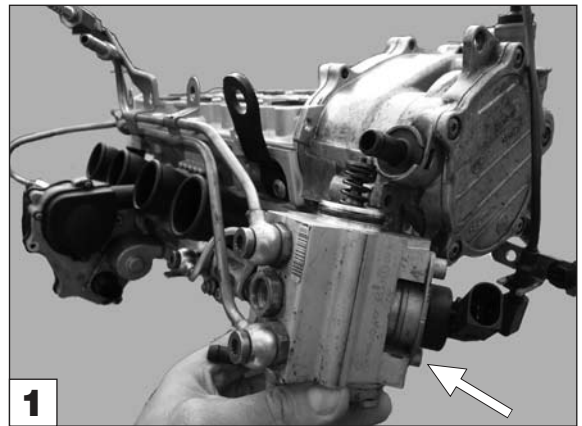
WARNING: Care must be taken when working on this high pressure fuel system. The high pressure fuel system may contain some residual pressure which must be relieved.

IMPORTANT: Ensure that no dirt is allowed to enter the fuel system during repair procedures.

Remove the fuse for the in tank fuel pump. The fuel pump operates whenever the drivers door is opened and therefore must be disabled by removing the fuse.

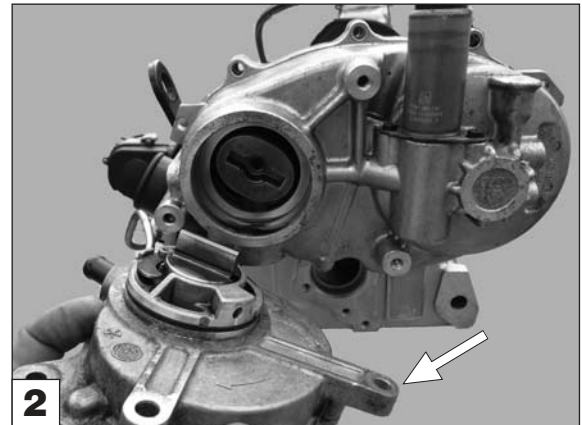
Remove the multiplug connectors for the fuel pressure sender and pressure regulating valve.

Disconnect the two fuel lines to the high pressure pump.

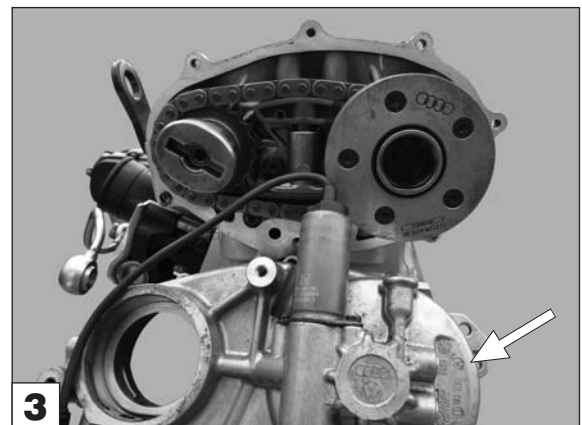


Remove the high pressure fuel pump and "plug" all fuel system openings to prevent the ingress of dirt.

Remove the cylinder head cover.

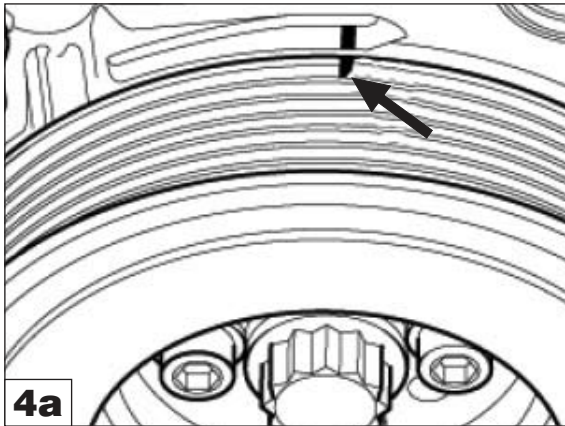
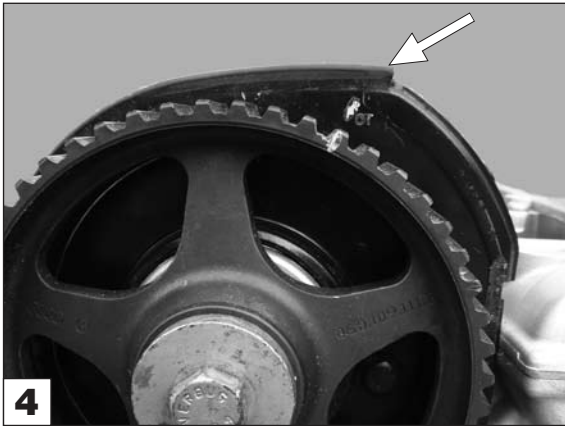


Remove the vacuum pump.

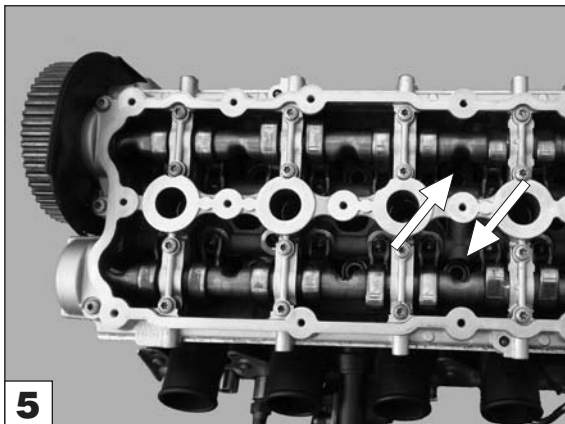


Remove the camshaft adjuster housing

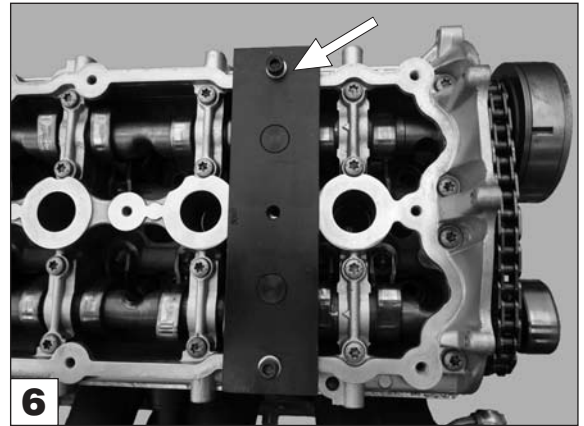
WARNING: The crankshaft must only be rotated in the direction of engine rotation. Failure to do so may cause the timing belt to slip.



Set the engine to TDC position on no. 1 cylinder by aligning "timing marks" on the camshaft sprocket and crankshaft pulley with timing positions marked on the timing belt covers.



Check the position of the camshafts, the indents should face each other.



5062 Camshaft Positioning Plate

Fit 5062 Camshaft Positioning Plate and secure to the cylinder head with the bolts provided.

IMPORTANT: Mark the Direction of rotation on the chain, to ensure correct reinstallation.

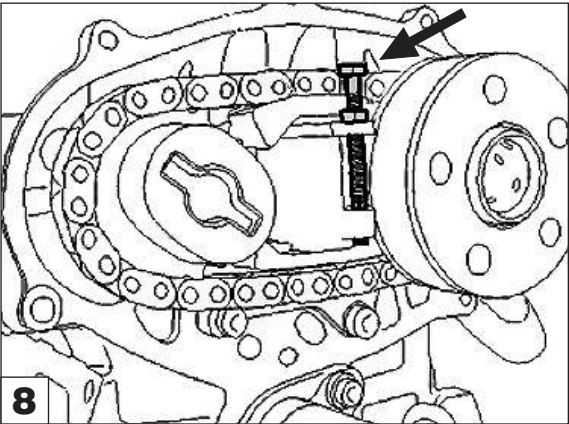


5063 VVT Sprocket Bolt Socket

Using 5063 VVT Sprocket Bolt Socket, release the VVT unit bolt by half a turn, whilst counter holding the camshaft sprocket using a suitable camshaft holding tool such as 4844.

NOTE: There are two different types of hydraulic chain tensioner used on these engines:

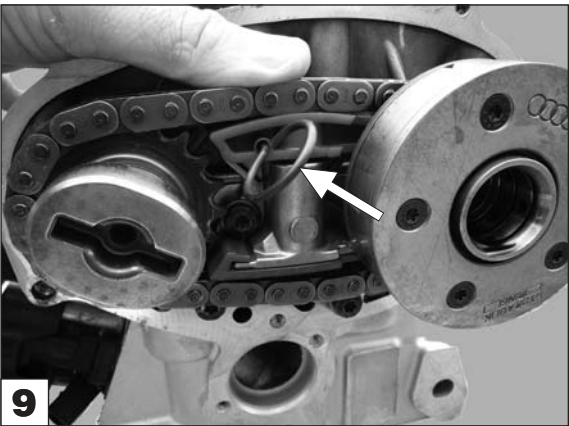
For Early type tensioners



5061 Tensioner Locking Bolt

Screw the bolt of 5061 Tensioner Locking Tool into the base of the chain tensioner. Manually depress the tensioner and retain in place using the nut.

For Later type tensioners



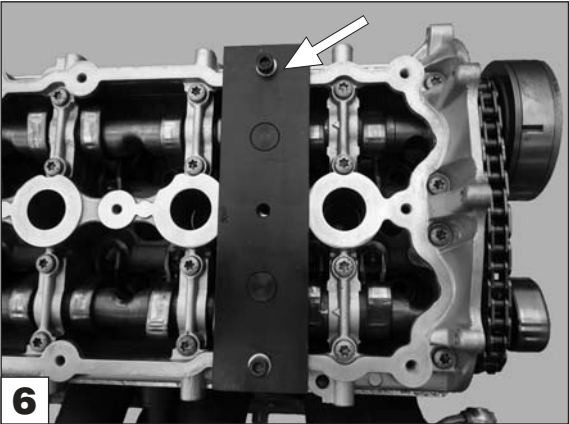
4640T7 Tensioner Locking Pin

Depress the chain tensioner and secure in place using 4640T7 Tensioner Locking Pin.

Remove the VVT unit and timing chain.

Variable Valve Timing Unit / Camshaft Chain Installation

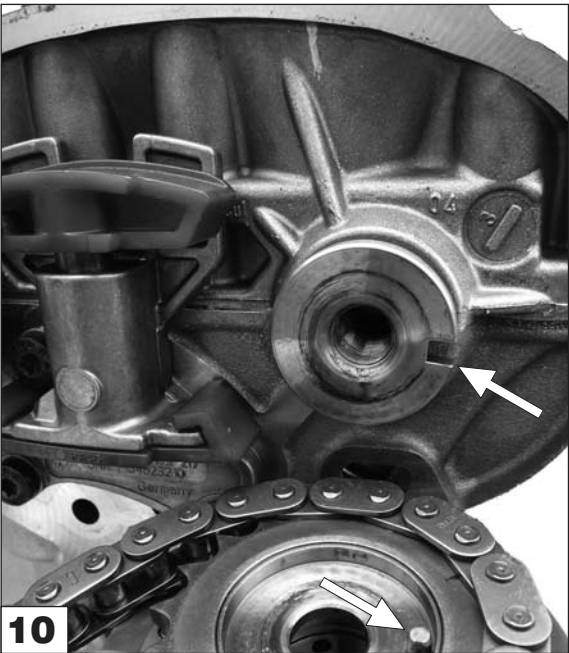
Check the position of the camshafts, the indents should face each other



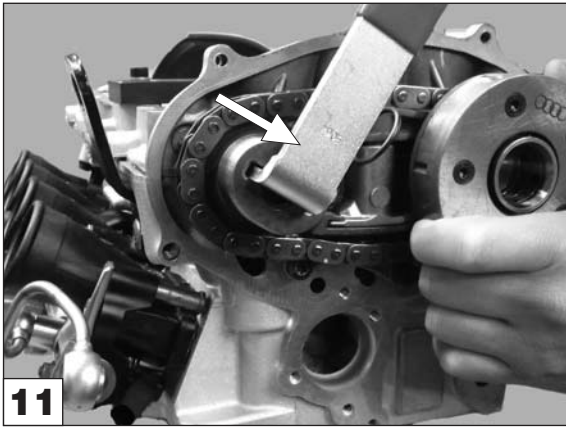
Fit 5062 Camshaft Positioning Plate and secure to the cylinder head with the bolts provided.

5062 Camshaft Holding Tool will allow the camshafts to rotate a small amount. This adjustment is required when refitting the chain.

NOTE: The inlet camshaft has a fixed chain sprocket. The VVT unit is positioned onto the exhaust camshaft using a keyway.



Fit the chain to the VVT unit, and then to the inlet camshaft sprocket. Ensure that the exhaust camshaft and VVT unit keyways align.



5064 Inlet Camshaft Adjuster

Use 5064 Camshaft Adjuster to rotate the inlet camshaft **clockwise**, allowing the fitment of the VVT unit.

Replace the VVT unit bolt and using 5063 Socket tighten the bolt to the specified torque, whilst counter holding the camshaft sprocket using a suitable holding tool such as 4844.

Remove 5062 Camshaft Positioning Tool and 5061 or 4640T7 Tensioner Locking Tool.

Refit the camshaft cover.

Refit the camshaft adjuster housing.

Replace the vacuum pump oil seal and refit the vacuum pump. Ensuring the drive lug locates correctly into the slot of the camshaft.

Fit a new 'O' ring to the high pressure fuel pump, and refit the pump. A new banjo bolt must be used when reinstalling the fuel lines..