

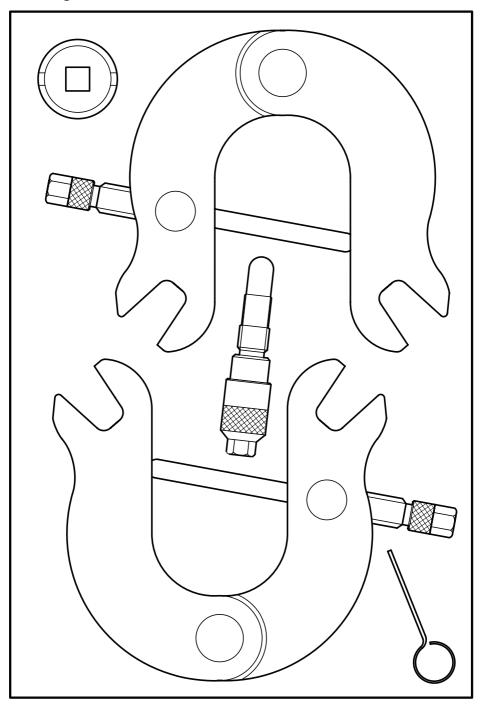
**PART NO.** K314

# **Engine Timing Tools**

Audi 3.0 V6

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## Plan Layout



### **Component Identification**

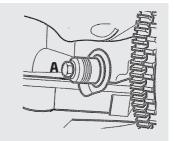
Part No	OEM Ref	Description	Identification
<b>A</b> 23162-71	T40026	Crankshaft aligning tool	
<b>B</b> 23162-72	T40030	Camshaft aligning tools (2)	
<b>c</b> 23162-73	T40028	Camshaft Sprocket Adjusting Tool	
<b>D</b> 23161-06	T40011	Tensioner Pin.	<u></u>

### **Applications**

Manufacturer	Model	Туре	Year	Component
Audi	A4, A6 3,0 V6	ASN, BBJ	01-08	ABCD
Audi	A8, Cabrio 3,0 V6	AVK	03-08	ABCD

#### **Component Application**

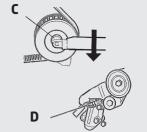
Rotate the crankshaft in a clockwise direction until the camshaft lobes at number 3 and 4 cylinders are angled upwards. Fit the camshaft Locking Tools B over the camshaft lobes on cylinder numbers 3 and 4. Gently rock the Crankshaft until the tools can be fitted snugly and tightened in position using the integral adjuster Remove the blanking plug from the cylinder block position rear left hand side and replace with the Crankshaft Locking Tool A



Remove the centre blanking cap and circlip from each camshaft sprocket and slightly slacken the centre bolt. Using an 8mm Hex Key turn the Tensioner Pulley anti-clockwise until the holes in both Tensioner Body and Pushrod are aligned and retain in this position with the Tensioning Pin D. Once the Tensioner Pulley Bolt has been slackened the Timing Belt can be removed. During the installation of the new timing belt it is necessary to turn the Camshaft Sprockets using tool C with a torque of 10 Nm. After tightening each Camshaft Sprocket Bolt the Blanking Caps can be refitted with the circlips to retain.

B B

The Camshaft and Crankshaft Locking Tools should be removed and the final installation procedure followed. Support Guides (Optional Set) can be used to slide the front panel forward to provide additional working space. Remove Timing Belt covers and rear engine cover and move the coolant expansion tank to one side, it is unnecessary to disconnect the hoses.



#### **Safety Precautions**

positions

- 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



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