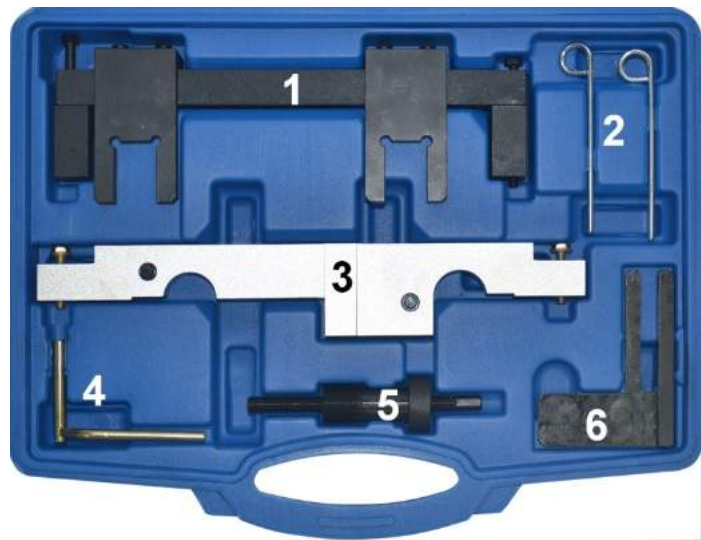


## Engine Timing Tool Set for BMW N43

### TOOLS

- 1 Camshaft Locking Tool  
to be used as OEM 11 8 690  
(11 8 691 / 11 8 692 / 11 8 693)
- 2 Chain Tensioner Locking Pins  
to be used as OEM 11 3 340
- 3 Vanos Adjusting Tool  
to be used as OEM 11 8 710  
(11 8 711 / 11 8 712)
- 4 Crankshaft Locking Pin  
to be used as OEM 11 5 120
- 5 Chain Tensioner Tool  
to be used as OEM 11 9 340  
(11 9 341 / 11 9 342)
- 6 Balancer Shaft Locking Tool  
to be used as OEM 11 8 700



### INTENDED USE

This timing tool kit is used to check and adjust the engine timing. The kit contains essential tools for positioning the VANOS, crankshaft, camshaft and balancer shaft. The tools in this set are suitable for e.g. following BMW models:

- 1 Series E81 / E82 / E87 / E88, 2006-2012
- 3 Series E90 / E91 / E92 / E93, 2006-2012
- 5 Series E60 / E61, 2007-2010

Engines: N43 (B16A/AA), N43 (B20A), N43 (B20AA), N43 (B20AY), N43 (B20KO), N43 (B20UO)

More information regarding this item and a list of suitable engines and models can be found on our website: [www.bgstechnic.com](http://www.bgstechnic.com)

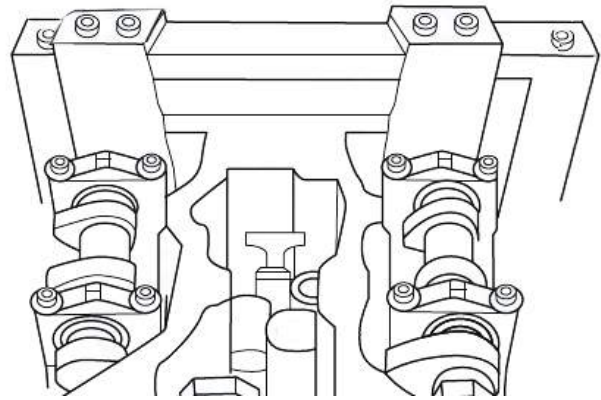
### SAFETY INFORMATIONS

- Do not use the tool if parts are missing or damaged.
- Use the tool for the intended purpose only.
- Never place the tool on the vehicle battery. There is a risk of a short circuit.
- Be careful when working with the engine running. Loose clothing, tools and other objects can be caught by rotating parts and cause serious injury.
- Keep children and other unauthorized persons away from the work area.
- Do not allow children to play with the tool or its packaging.
- Be careful when working on hot engines because of the risk of burn injuries.
- If you remove the ignition key before repairing, you can prevent the engine from being started accidentally and resulting in engine damage.
- This manual serves as a brief guide and does not replace a workshop manual. Always refer to the vehicle-specific service literature, particularly the technical data such as torque values and instructions for disassembly/assembly, etc.
- After repair or before starting the engine, turn a minimum of 2 turns by hand and check the timing again.
- Turn the engine only in the normal direction of rotation (clockwise unless otherwise specified)

## USE

### Chain Tensioner Tool

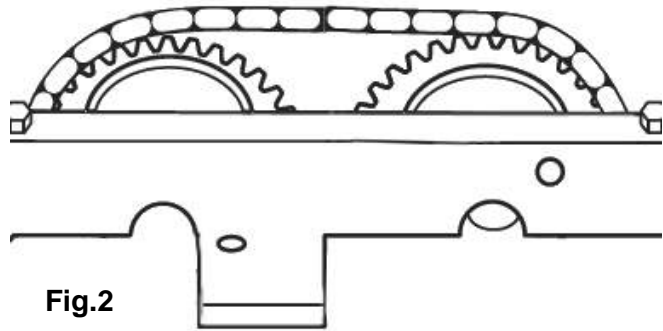
Used to fix the camshaft in timing position. The tool is mounted on the gear side end of the camshaft, when first cylinder is in TDC. **(Fig.1)**



**Fig.1**

### Adjusting Tool for Vanos

The tool is used to align the sensor of the vanos. **(Fig. 2)**



**Fig.2**

### Chain Tensioner Tool

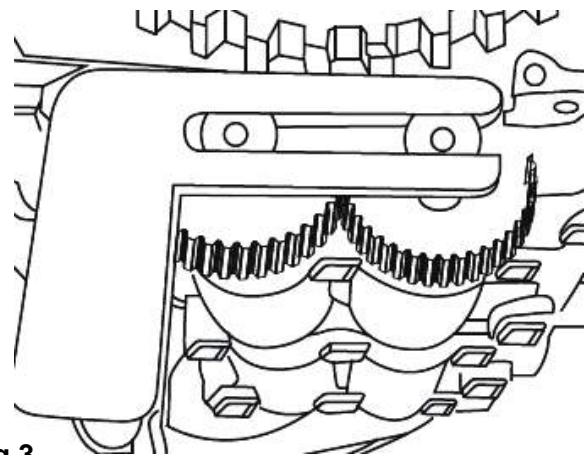
Is used for dissolving the chain tensioner and is required for all work if a removal of the chain is required.

### Chain Tensioner Locking Pins

Is needed in order to keep the chain tensioner in disassembly position.

### Balance Shaft Locking Tool

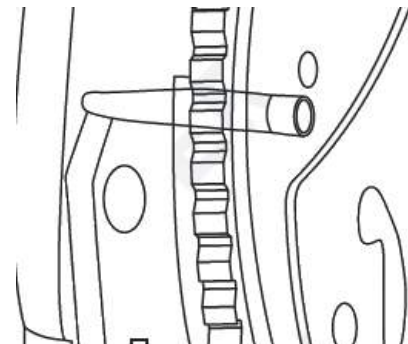
Is used to fixing of the balance shafts in assembly position. **(Fig. 3)**



**Fig.3**

### Crankshaft Locking Pin

The tool locks the crankshaft in the TDC position. A lock is held on the flywheel. **(Fig. 4)**



**Fig.4**