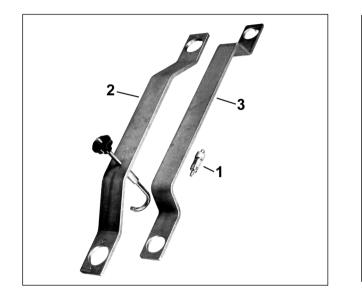


# VS1242 & VS1243

## PETROL ENGINE V6 CAMSHAFT & CRANKSHAFT SETTING/LOCKING TOOLS FOR AUDI/VW V6 ENGINES



Item		Description
1	VS1242/01	Crankshaft TDC Locking Pin
2	VS1242/02	Camshaft Setting Plate
3	VS1243/03	Camshaft Setting Plate

#### INTRODUCTION

Three essential timing tools covering the Audi/VW range of V6 petrol engines.

TDC Locking Pin VS1242/01 is required for crankshaft timing position retention on all the V6 engines, but the camshaft setting position is covered by either VS1242/02 or VS1243/03 Setting Plates, depending on the specific V6 engine. VS1242/02 for 2.6 and 2.8 (ABC/AAH) '91 onwards and VS1243/03 for 2.4, later 2.8 (ALG) and 2.8 30v (ACK) engines.

#### 1. APPLICATION DETAILS

1.1. VS1242 Crankshaft TDC Locking Pin & Camshaft Setting Plate

AUDI: 80,100, A4, A6, A8, Coupe/Cabrio 2.6/2.8 (91-) ABC/AAH.

#### 1.2. VS1243 Crankshaft TDC Locking Pin & Camshaft Setting Plate.

AUDI: A4, A6 2.4 (97-)/2.8 (97-) ALG S4 2.7 Turbo (97-) AGB, A4, A6, A8 2.8 30v (95-) ACK, Passat 2.8 30v (96-) ACK.

#### 1.3. ASSOCIATED TOOLS

#### 2. SAFETY INSTRUCTIONS

**WARNING!** Ensure all health and safety, local authority, and general workshop practice regulations are strictly adhered to when using tools. **x** DO NOT use tools if damaged.

- ✓ Maintain tools in good and clean condition for best and safest performance.
- ✓ If required, ensure the vehicle to be worked on is adequately supported with axle stands, ramps and chocks.
- ✓ Wear approved eye protection. A full range of personal safety equipment is available from your Sealey dealer.
- ✓ Wear suitable clothing to avoid snagging. Do not wear jewellery and tie back long hair.
- ✓ Account for all tools, locking bolts, pins and parts being used and do not leave them in or near the engine.
- WARNING! Incorrect or out of phase camshaft timing can result in contact between valve head and piston crown causing possible damage to the engine.
- WARNING! Always refer to the vehicle manufacturer's service instructions, or proprietary manual to establish the current procedure and data. These instructions for use are provided as a guide only.

#### 3.1. VS1242/01 Crankshaft TDC Locking Pin (fig 1)

#### Audi /VW V6 petrol engines

All Audi/VW V6 petrol engines use VS1242/01Crankshaft Locking Pin to retain crankshaft TDC position, entering via a threaded hole in the crankcase and into a TDC location hole in the crankshaft web.

- 1. Unscrew TDC sensor/blanking plug from crankcase.
- 2. Prior to fitting the VS1242/01 Pin, the TDC location hole in the crankshaft web **must** be seen, or felt, to be in line with the pin entry hole.
- 3. Screw in VS1242/01 Pin to lock crankshaft at TDC.

### WARNING! VS1242/01 Locking Pin must NOT be used to hold the crankshaft whilst releasing/tightening pulley bolts. It is for retention of crankshaft timing position only.

#### 3.2. VS1242/02 Camshaft Setting Plate (fig 3)

#### Audi 2.6 and 2.8 (ABC/AAH) engines

The camshafts are 'held' in their timed position by VS1242/02 Setting Plate which locates onto the camshaft fixing plates on the front of each camshaft. The larger holes of the camshaft sprocket fixing plates should be facing in towards each other (fig 2).

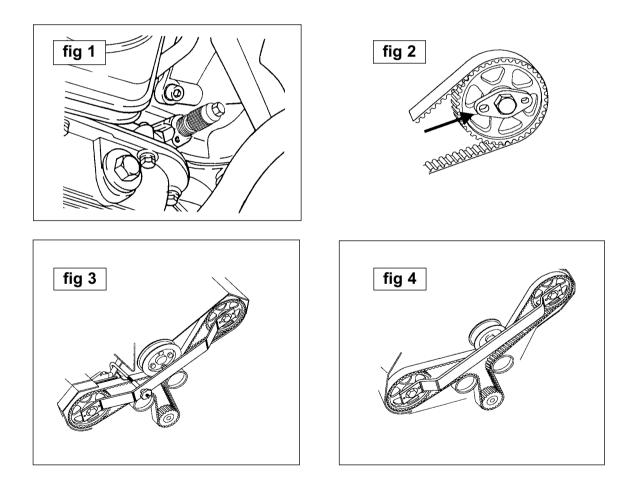
The timing belt renewal procedure requires the cam sprockets to be released on their tapers, but not removed, and allowed to turn freely, but not tilt. These engines have a belt tensioning roller which must be released and re-applied to specified torque of 4Nm. Manufacturer's belt tensioning procedure must be adhered to.

#### 3.3. VS1243/03 Camshaft Setting Plate (fig 4)

#### Audi/VW 2.4, 2.7 Turbo, 2.8 (97-) and 2.8 30v (95-)

#### AGA/AJG/ALF/AGB/ALG/ALW and ACK engines

Identical in use to the VS1242/02, the VS1243/03 Setting Plate retains camshaft timing position via location onto the cam sprocket fixing plates. The timing belt tension is released by compressing the oil-damped plunger and retaining with 2mm pin. When re-applying tension remove pin and, using torque wrench on hexagon of tensioner, pre-tension belt to 15Nm. Ensure manufacturer's belt tensioning procedure is adhered to.



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