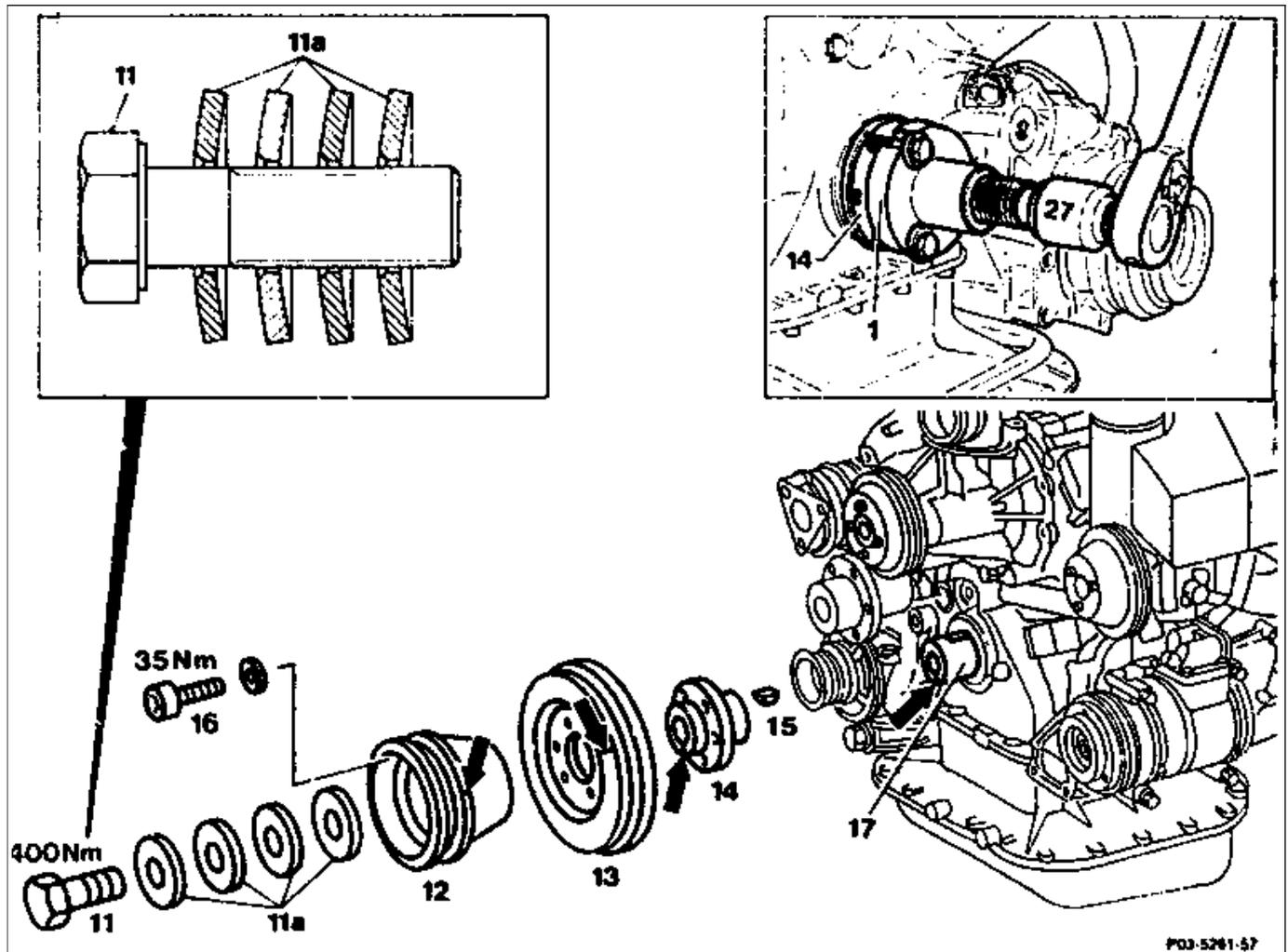


# 03-3420 Removing and installing belt pulley of vibration damper and hub

Preceding work:  
 Model 124: radiator removed (20-4200).  
 Viscous fan clutch removed (20-3120).  
 Tensioning device removed (13-3450).  
 Reservoir with coolant drain line removed (20-2120).  
 Retaining lock for crankshaft/ring gear installed (03-5000).

Operation no. of operation texts and work units or standard texts and flat rates  
 03-1320-1911

## A. Engine 119.960 119.97 up to 8/1994



P03-5261-57

P03-5261-57

If AC fitted: guard plate..... attach to condenser.  
 Belt pulley (12) ..... mark relative to vibration damper (13) with  
 coloured marking (arrows).

### Installation note

The belt pulley (12), the vibration damper (13) and the hub (14) must be bolted together in a particular position as one of the 6 holes is positioned off-center.

Central bolt (11) with 4 dished washers (11a)..... unscrew, screw on (400 Nm).

**Installation note**

Oil bolt thread and the 4 belleville spring washers (11a).

Fit on spring washers (11a) with curved side facing bolt head.

Bolts (16)..... unscrew, screw on (35 Nm).

Belt pulley (12) and vibration damper (13)..... remove, install.

Crankshaft and hub (14)..... mark relative to each other with chisel punch (arrow).

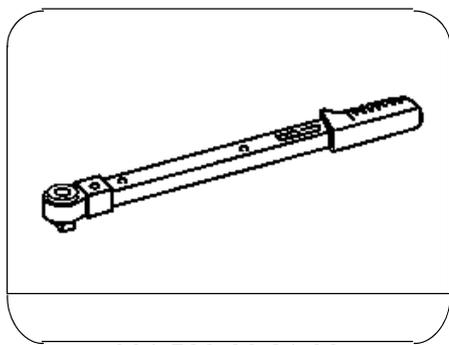
Hub (14)..... remove with puller, special tool 103 589 00 33 00.

**Installation note**

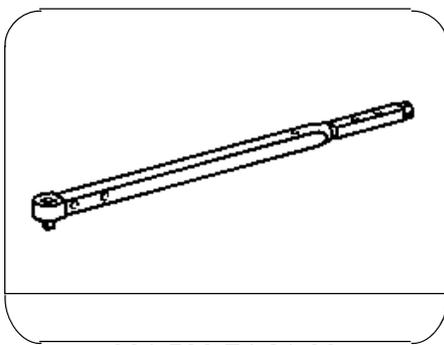
Heat hub (14) to approx. 50 °C so that it slips easily onto the crankshaft. Determine by turning whether the groove in the hub (14) is aligned with the woodruff key (15) in the crankshaft.

Belt pulley (12)..... examine.

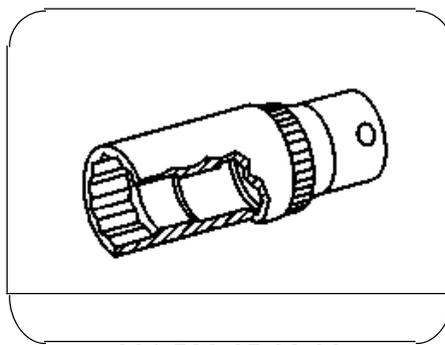
**Special tools**



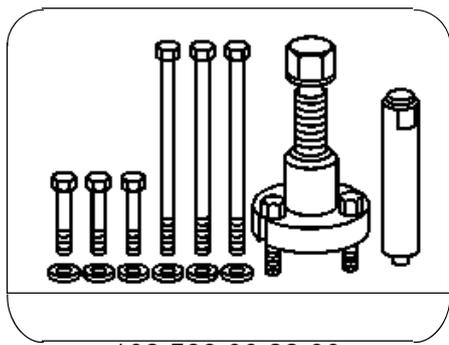
001 589 66 21 00



001 589 74 21 00



001 589 65 09 00



103 589 00 33 00

**Commercially available tool**

---

3/4" internal square to  
1/2" external square adaptor

e. g. Hazet  
D-42853 Remscheid  
Order no. 1058 RI

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### Shop-made tool

---

Guard plate for radiator at condenser

Dimensions approx. 680×400×1 mm

---

### Data in mm

---

Permissible deviation at vibration damper

from radial runout

0.3

---

from axial runout

0.5

---

### Tightening torques in Nm

---

M18 bolt of vibration damper

400

---

M8 bolts of belt pulley

35

---

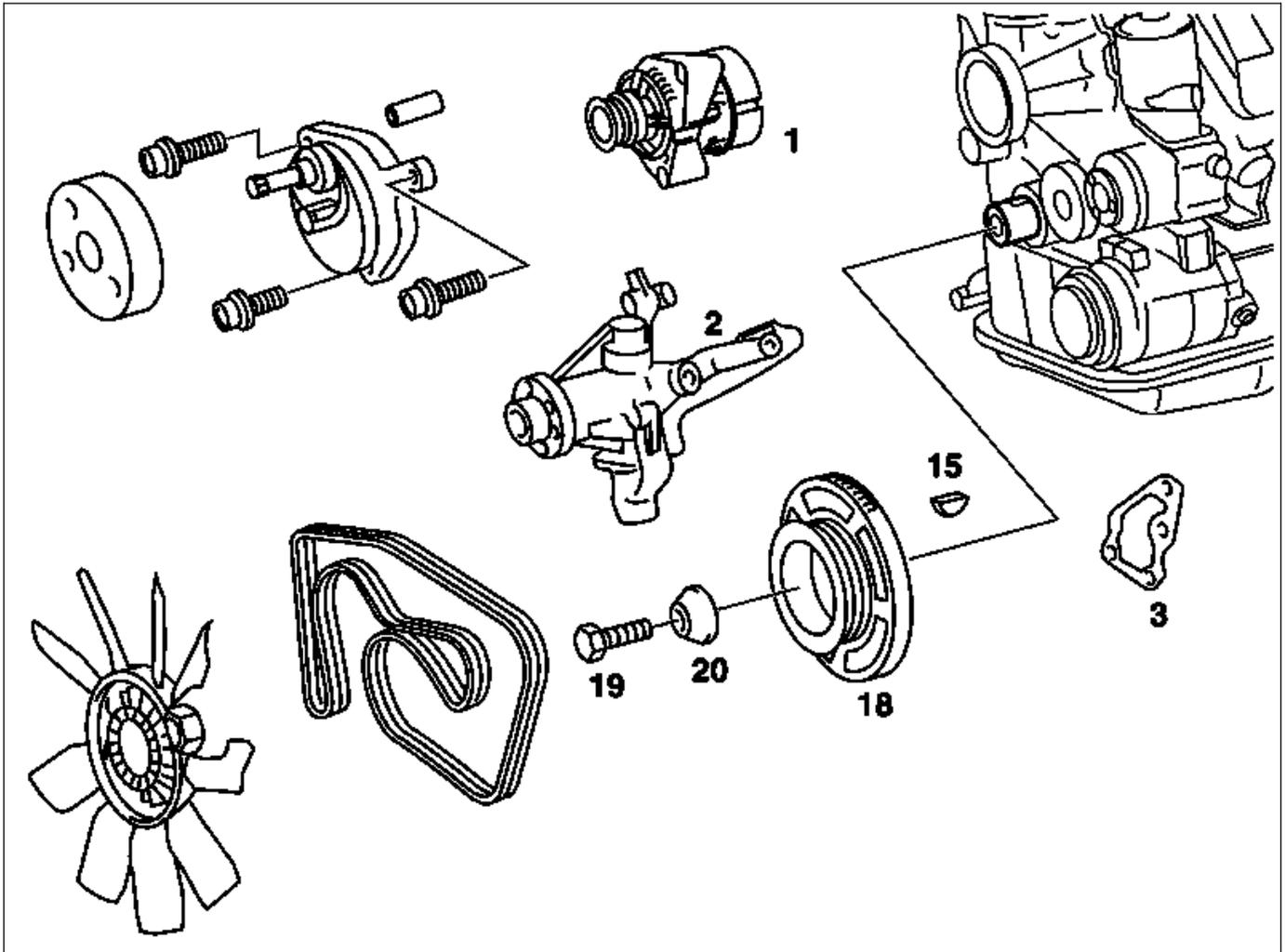
### Note

Engine 119.96/97: if the vibration damper is replaced, the TDC sensor should be set (03-3450).

## B. Engine 119.97/98 ab 8/1994

Preceding work:  
Viscous fan coupling removed (20-3120).  
Tensioning device removed (13-3450).

Operation no. of operation texts and work units or standard texts and flat rates  
03-1320-1911



P03.30-0254-57

- |   |  |
|---|--|
| Ground cable at battery.....                    | disconnect, connect (AR54.10-0003A).   |
| Generator (1).....                              | remove, install.   |
| Guard plate.....                                | attach at radiator, take off.  |
| Viscous fan coupling bearing bracket (2).....   | remove, install (20-3140).   |
| Bracket of A/C compressor carrier (3).....      | unbolt, bolt on.   |
| Piston of cylinder 1.....                       | turn to TDC so that Woodruff key (15) in crankshaft is facing vertically up. |
| Retaining lock for crankshaft/ring gear.....    | install, remove (03-5000).   |
| Central bolt (19) with tapered washer (20)..... | unscrew, screw on (200 Nm+ $\angle$ 90°).                                    |

**Note**

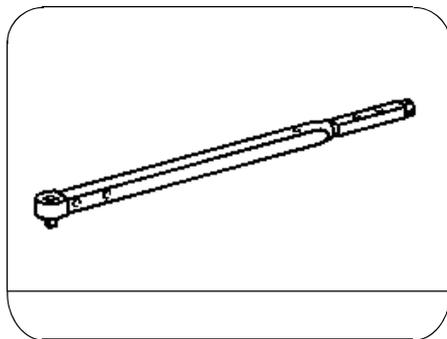
Conical washer (20) replaces dished washers; the different parts of the 2 versions must not be interchanged.

- |                            |                                  |
|----------------------------|----------------------------------|
| Vibration damper (18)..... | pull off, remove upward, fit on. |
|----------------------------|----------------------------------|

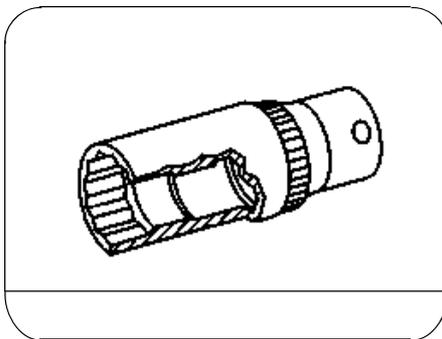
**Note**

Align Woodruff key (15), fit on vibration damper (18) and turn in order to determine whether the slot is aligned with the Woodruff key (15) in the crankshaft.

## Special tools



001 589 74 21 00



001 589 65 09 00

## Commercially available tool

3/4" female to 1/2" male  
4-point adapter

e. g. Firma Hazet  
D-42853 Remscheid  
Order no. 1058 RI

## Shop-made tool

Guard plate for radiator and condenser

Dimensions: approx. 680×400×1 mm

## Tightening torques in Nm

M18×1.5×44 bolt of vibration damper  
(with conical washer)

Initial torque Nm 200

Tightening angle  $\sphericalangle$  90°