

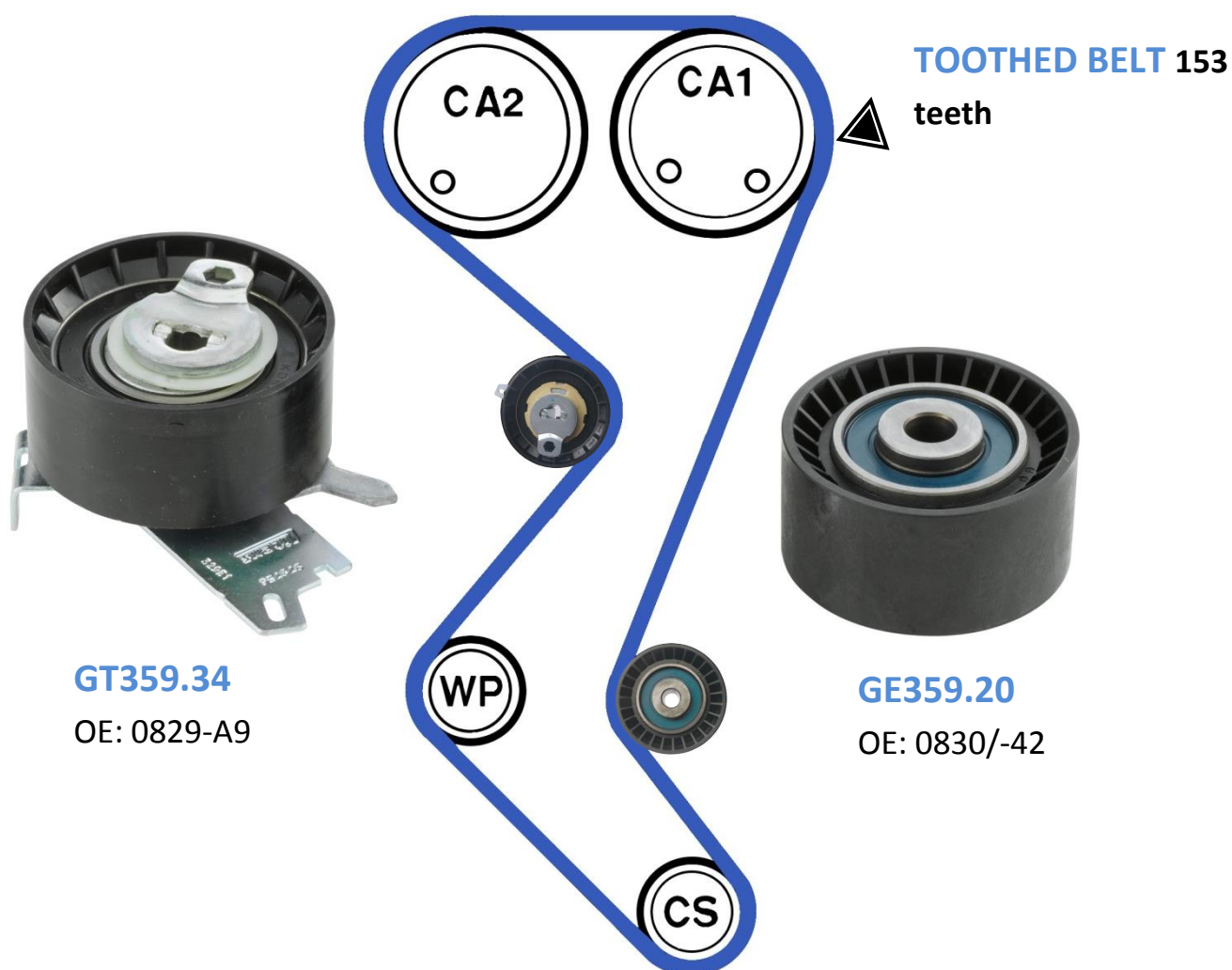


## KD459.56

### Disassembly/ Assembly recommendations

<b>CITROËN:</b> C4, C4 Picasso, C5 FL, C5 X7, C8, Jumpy II, Dispatch II	<b>ENGINES</b>	<b>OE reference</b>
<b>PEUGEOT:</b> 307, 307 Restyling, 407, 807, Expert II	1.8 i 2.0 i	0831-V6

### IDENTIFICATION OF TIMING KIT KD459.56



## COMMON PROBLEMS

### ENGINE FAILURES

#### Probable causes

##### Incorrect timing belt tension

- A loose timing belt causes premature wear of the roller and timing belt.
- Significant noise can be generated by the metal pointer hitting the stop, this causes burring on the lower adjustment stop. **(no.1)**



**(no.1)**

##### Timing belt misalignment

- A water pump with excessive play can cause the belt to become misaligned and rub against the plastic engine guards. This causes the belt to wear and reduce in width, thereby rendering it incapable of maintaining correct engine timing.  
Belt misalignment results in a reduction of its width as well as very rapid wear of the rollers.
- Abnormal black marks on the metal pointer indicate belt misalignment. **(no.2)**



**(no.2)**

##### Insufficient tightening torque

- Failure to tighten idler roller GE359.20 retaining bolt sufficiently can generate vibrations, and lead to radial forces being applied to the retaining bolt, radial forces cause the bolt to fracture and shear off, the resulting loss of belt tensioner normally causes complete engine failure.

## REPLACEMENT

### Special tools:

- Camshaft locking pin OE: 0189-A
- Crankshaft locking tool OE: 0189-R
- Mounting clip OE: 0189-K
- Special tool OE: 4069-T
- Ring OE: 0189-S1
- Tensioner roller locking tool OE: 0189-S2

### Tightening torques:

Bolt – crankshaft pulley: **21 Nm**

Bolt – tensioner roller: **21 Nm**

Bolt – idler roller: **37 ± 4 Nm**

## REMOVAL

- 1) Remove the upper toothed belt guard
- 2) Set the engine to TDC
- 3) Install the locking tool on to the crankshaft  
OE: 0189-R
- 4) Install the camshaft locking rods  
OE: 0189-A
- 5) Remove the crankshaft pulley fasteners
- 6) Inspect the crankshaft pulley for damage
- 7) Remove the lower toothed belt guard
- 8) Loosen the tensioner roller bolt (1)

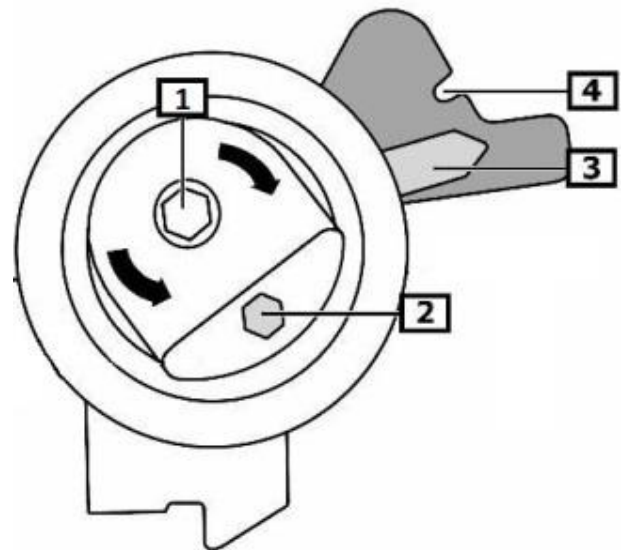
- 9) Use a suitable tool to loosen the tensioner roller clockwise
- 10) Unscrew and remove the tensioner roller
- 11) Remove the toothed belt



Do not rotate the crankshaft or the camshaft while the timing belt is removed.

## RE-INSTALLATION

- 1) Install the new tensioner rollers and idler rollers
- 2) Use a suitable tool to rotate the tensioner roller clockwise past the reference mark
- 3) Insert the locking tool  
OE: 0189-S1
- 4) Install the tensioner roller locking tool  
OE: 0189-S2
- 5) Remove the locking tool
- 6) Install the toothed belt over the crankshaft sprocket
- 7) Take care to maintain the correct timing position



## 8) Install the mounting clip (5)

OE: 0189-K

## 9) Install the timing belt in the following order:

**Idler roller** (GE359.20)

**Camshaft sprockets** (CA1 and CA2)

**Water pump** (WP)

**Tensioner roller** (GT359.34)

## 10) Remove the mounting clip (5)

## 11) Remove the exhaust camshaft locking tool

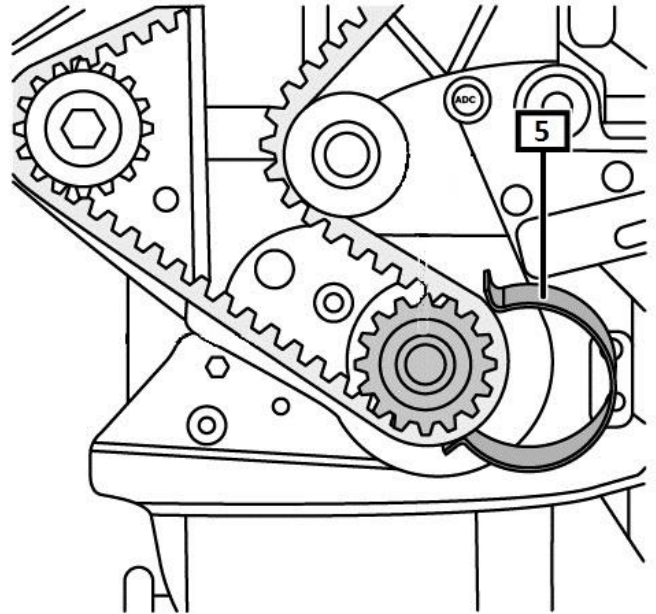
## 12) Remove the tensioner roller locking tool

## 13) Install the lower tooth belt guard

## 14) Install the crankshaft pulley

## 15) Install the crankshaft pulley fasteners

## 16) Use a suitable tool to rotate the tensioner roller anti-clockwise (2)



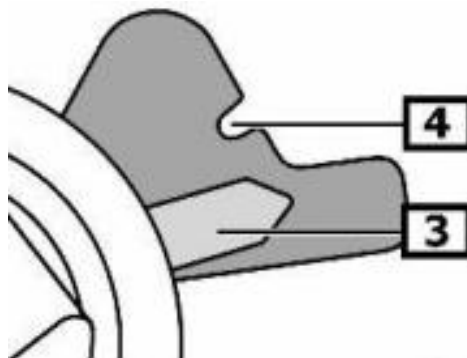
The arrow must be at least 10° beyond the reference mark. (3)  
(4)

**17) Tighten the tensioner roller bolt (1)**

Tightening torque: **21 ± 2 Nm**

**18) Use the crankshaft pulley to rotate the engine through 10 full rotations****19) Install the locking pins in the engine flywheel and the camshaft intake sprocket.****20) Loosen the tensioner roller bolt (1)****21) Use a suitable tool to rotate the tensioner roller clockwise (2)****22) Set the pointer to the reference mark (3) (4)**

Do not move the pointer beyond the reference mark.  
Otherwise, re-tighten the toothed belt.



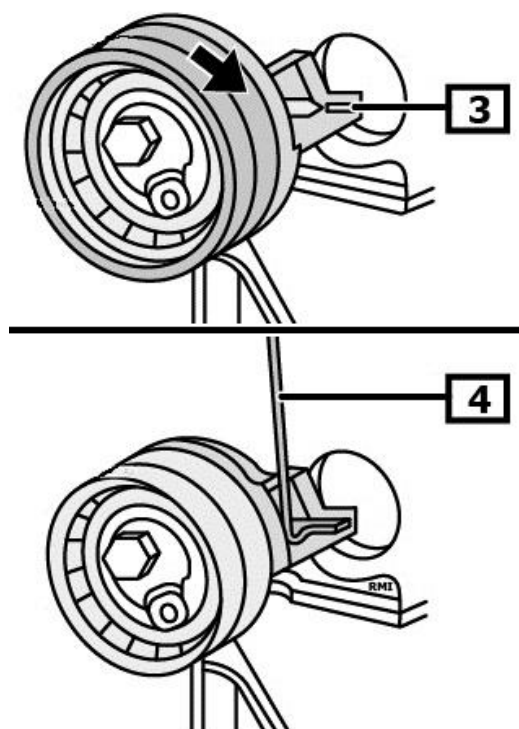


### 23) Tighten the tensioner roller bolt (1)

Tightening torque:  $21 \pm 2$  Nm



While tightening the bolt, the tensioner roller must not rotate. The Allen key must be at least  $15^\circ$  below the crankcase sealing surface.



24) Remove the intake camshaft locking tool

25) Remove the crankshaft locking tool

26) Rotate the engine through 2 full turns in its normal direction of rotation

27) Install the intake camshaft locking tool

## 28) Recheck the tension of the toothed belt.



The pointer must be opposite the reference mark.  
Otherwise, the belt must be re-tightened. (3) (4)

## 29) Remove the intake camshaft locking tool

## 30) Re-install the remaining components in the reverse order to that in which they were removed

## 31) Start the engine, check for correct operation and take a test drive

## 32) Document the toothed belt replacement



### Recommendations

Carefully follow the recommendations, use the correct means of installation and, above all, be sure to replace all of the parts supplied in the kit.

NTN-SNR offer a kit which includes the water pump: **KDP459.560**

Follow the vehicle manufacturer's installation procedures and apply the specified tightening torques.

Refer to the vehicle applications in our online catalogue: **eshop.ntn-snr.com**



Scan this QR code to access our online catalogue.

FOLLOW THE RECOMMENDATIONS  
OF THE VEHICLE MANUFACTURER.

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